PROCESSO ADMINISTRATIVO
0877
ASSINADO ELETRONICAMENTE

CRONOGRAMA FÍSICO FINANCEIRO

PREFEITURA MUNICIPAL DE ITAPIPOCA - CE

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

ENDEREÇO: RUA PRESIDENTE ROOSEVELT, SN - ITAPIPOCA/CE

BDI: 26,74%

TABELAS REFERÊNCIA: SEINFRA 028.1 // SINAPI 04/26 // SICOR-MG JAN/2026 // ORSE MARÇO-2026

PREFEITURA DE Itapipoca
Pra frente, pra gente

ITEM	ETAPAS	VALOR (R$)	30 DIAS MÊS 01	60 DIAS MÊS 02	90 DIAS MÊS 03	120 DIAS MÊS 04	150 DIAS MÊS 05	180 DIAS MÊS 06	210 DIAS MÊS 07	240 DIAS MÊS 08	270 DIAS MÊS 09	300 DIAS MÊS 10	330 DIAS MÊS 11	360 DIAS MÊS 12
1.0	**ADMINISTRAÇÃO DE OBRA**	**R$ 865.950,00**												
1.1	ADMINISTRAÇÃO DE OBRA	R$ 865.950,00	R$ 72.133,64 8,33%	R$ 72.133,64 8,33%	R$ 72.133,64 8,33%	R$ 72.133,64 8,33%	R$ 72.133,64 8,33%	R$ 72.133,64 8,33%	R$ 72.133,64 8,33%	R$ 72.133,64 8,33%	R$ 72.220,23 8,34%	R$ 72.220,23 8,34%	R$ 72.220,23 8,34%	R$ 72.220,23 8,34%
2.0	**EDIFICAÇÃO**	**R$ 16.357.330,03**												
2.1	SERVIÇOS PRELIMINARES E DEMOLIÇÕES	R$ 287.621,52	R$ 287.621,52 100,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%
2.2	CARGAS E TRANSPORTES	R$ 110.222,50	R$ 77.155,75 70,00%	R$ 33.066,75 30,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%
2.3	CANTEIRO DE OBRA	R$ 114.138,05	R$ 57.069,03 50,00%	R$ 57.069,03 50,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%
2.4	MOVIMENTAÇÃO DE TERRA	R$ 448.055,55	R$ 112.013,89 25,00%	R$ 336.041,66 75,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%	R$ - 0,00%
2.5	PROJETO ESTRUTURAL (ESCOLA)	R$ 3.074.931,33	R$ - 	R$ - 	R$ 614.986,27 20,00%	R$ 614.986,27 20,00%	R$ 614.986,27 20,00%	R$ 614.986,27 20,00%	R$ 614.986,27 20,00%	R$ - 	R$ - 	R$ - 	R$ - 	R$ -
2.6	PISOS E PASSEIOS	R$ 2.055.259,77	R$ - 	R$ - 	R$ - 	R$ - 	R$ 616.577,93 30,00%	R$ 616.577,93 30,00%	R$ 616.577,93 30,00%	R$ - 	R$ - 	R$ - 	R$ 205.525,98 10,00%	R$ -
2.7	ALVENARIAS E DIVISÓRIAS	R$ 1.055.468,04	R$ - 	R$ - 	R$ - 	R$ - 	R$ 263.867,01 25,00%	R$ 263.867,01 25,00%	R$ 263.867,01 25,00%	R$ 158.320,21 15,00%	R$ - 	R$ - 	R$ 105.546,80 10,00%	R$ -
2.8	PAINEIS E REVESTIMENTOS	R$ 547.468,36	R$ - 	R$ - 	R$ - 	R$ - 	R$ - 	R$ 136.867,09 25,00%	R$ 136.867,09 25,00%	R$ 136.867,09 25,00%	R$ 136.867,09 25,00%	R$ - 	R$ - 	R$ -
2.9	COBERTURA	R$ 3.335.271,33	R$ - 	R$ - 	R$ - 	R$ - 	R$ 1.000.581,40 30,00%	R$ 1.334.108,53 40,00%	R$ 1.000.581,40 30,00%	R$ - 0,00%	R$ - 	R$ - 	R$ - 	R$ -
2.10	AUDITÓRIO	R$ 312.458,73	R$ - 	R$ - 	R$ - 	R$ 78.114,68 25,00%	R$ 78.114,68 25,00%	R$ 78.114,68 25,00%	R$ 78.114,68 25,00%	R$ - 	R$ - 	R$ - 	R$ - 	R$ -

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PROCESSO ADMINISTRATIVO
0878
ASSINADO ELETRONICAMENTE

CRONOGRAMA FÍSICO FINANCEIRO

PREFEITURA MUNICIPAL DE ITAPIPOCA - CE

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

ENDEREÇO: RUA PRESIDENTE ROOSEVELT, SN - ITAPIPOCA/CE

BDI: 26,74%

TABELAS REFERÊNCIA: SEINFRA 028.1 // SINAPI 04/26 // SICOR-MG JAN/2026 // ORSE MARÇO-2026

PREFEITURA DE Itapipoca
Pra frente, pra gente

ITEM	ETAPAS	VALOR (R$)	30 DIAS MÊS 01	60 DIAS MÊS 02	90 DIAS MÊS 03	120 DIAS MÊS 04	150 DIAS MÊS 05	180 DIAS MÊS 06	210 DIAS MÊS 07	240 DIAS MÊS 08	270 DIAS MÊS 09	300 DIAS MÊS 10	330 DIAS MÊS 11	360 DIAS MÊS 12
2.11	FACHADAS, PASSEIOS E ÁREA LIVRE	R$ 369.997,13	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ 147.998,85	R$ 147.998,85	R$ -	R$ 73.999,43
											40,00%	40,00%		20,00%
2.12	PROJETO ESTRUTURAL (REFEITÓRIO E MURO)	R$ 1.407.161,02	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ 492.506,36	R$ 914.654,66	R$ -	R$ -	R$ -	R$ -
									35,00%	65,00%	0,00%			
2.13	ESCADAS E RAMPA	R$ 167.205,59	R$ -	R$ -	R$ 41.801,40	R$ 41.801,40	R$ 41.801,40	R$ 41.801,40	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -
					25,00%	25,00%	25,00%	25,00%						
2.14	RESERVATÓRIO DE ÁGUA ELEVADO - CASTELO D'ÁGUA	R$ 79.169,24	R$ -	R$ -	R$ -	R$ 26.125,85	R$ 26.125,85	R$ 26.917,54	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -
						33,00%	33,00%	34,00%						
2.15	PINTURA	R$ 819.434,72	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ 245.830,42	R$ 245.830,42	R$ 245.830,42	R$ 81.943,47
											30,00%	30,00%	30,00%	10,00%
2.16	ESQUADRIAS	R$ 547.816,78	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ 164.345,03	R$ 164.345,03	R$ 164.345,03	R$ 54.781,68	R$ -
										30,00%	30,00%	30,00%	10,00%	
2.17	INSTALAÇÕES ELÉTRICAS	R$ 745.631,43	R$ -	R$ 74.563,14	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ 223.689,43	R$ 223.689,43	R$ 223.689,43	R$ -
				10,00%							30,00%	30,00%	30,00%	
2.18	INSTALAÇÕES HIDROSSANITÁRIAS	R$ 459.855,29	R$ -	R$ 45.985,53	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ 137.956,59	R$ 137.956,59	R$ 137.956,59	R$ -
				10,00%							30,00%	30,00%	30,00%	
2.19	INSTALAÇÕES DE COMBATE A INCÊNDIO	R$ 420.163,65	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ 210.081,83	R$ 210.081,83	R$ -	R$ -
											50,00%	50,00%		
3.0	**QUADRA POLIESPORTIVA**	**R$ 889.813,63**												
3.1	SERVIÇOS PRELIMINARES E DEMOLIÇÕES	R$ 111.129,64	R$ 111.129,64	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -
			100,00%	0,00%										
3.2	PISOS	R$ 274.100,51	R$ -	R$ -	R$ -	R$ 274.100,51	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -
						100,00%								
3.3	RECUPERAÇÃO DE ESTRUTURA METÁLICA	R$ 303.820,98	R$ -	R$ 151.910,49	R$ 151.910,49	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -
				50,00%	50,00%									
3.4	INSTALAÇÕES INTERNAS	R$ 93.625,04	R$ -	R$ -	R$ -	R$ -	R$ 79.581,28	R$ -	R$ -	R$ -	R$ -	R$ -	R$ 14.043,76	R$ -
							85,00%						15,00%	0,00%
3.5	PINTURA	R$ 107.137,46	R$ -	R$ -	R$ -	R$ -	R$ 53.568,73	R$ 53.568,73	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -
							50,00%	50,00%						

PROCESSO ADMINISTRATIVO
0879
ASSINADO ELETRONICAMENTE

CRONOGRAMA FÍSICO FINANCEIRO

PREFEITURA MUNICIPAL DE ITAPIPOCA - CE

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

ENDEREÇO: RUA PRESIDENTE ROOSEVELT, SN - ITAPIPOCA/CE

BDI: 26,74%

TABELAS REFERÊNCIA: SEINFRA 028.1 // SINAPI 04/26 // SICOR-MG JAN/2026 // ORSE MARÇO-2026

ITEM	ETAPAS	VALOR (R$)	30 DIAS MÊS 01	60 DIAS MÊS 02	90 DIAS MÊS 03	120 DIAS MÊS 04	150 DIAS MÊS 05	180 DIAS MÊS 06	210 DIAS MÊS 07	240 DIAS MÊS 08	270 DIAS MÊS 09	300 DIAS MÊS 10	330 DIAS MÊS 11	360 DIAS MÊS 12
4.0	**SERVIÇOS FINAIS**	**R$ 153.017,66**												
4.1	ENTREGA DA OBRA	R$ 153.017,66	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ -	R$ 153.017,66
					0,00%	0,00%								100,00%
TOTAL GERAL:		**R$ 18.266.111,32**												
	Total Simples:		**R$ 717.123,46**	**R$ 770.770,23**	**R$ 880.831,79**	**R$ 1.107.262,34**	**R$ 2.847.338,18**	**R$ 3.238.942,82**	**R$ 3.275.634,37**	**R$ 1.446.320,63**	**R$ 1.338.989,46**	**R$ 1.202.122,37**	**R$ 1.059.594,88**	**R$ 381.180,79**
	Percentual Simples:		**3,93%**	**4,22%**	**4,82%**	**6,06%**	**15,59%**	**17,73%**	**17,93%**	**7,92%**	**7,33%**	**6,58%**	**5,80%**	**2,09%**
	Total Acumulado:		**R$ 717.123,46**	**R$ 1.487.893,69**	**R$ 2.368.725,48**	**R$ 3.475.987,82**	**R$ 6.323.326,00**	**R$ 9.562.268,82**	**R$ 12.837.903,19**	**R$ 14.284.223,82**	**R$ 15.623.213,28**	**R$ 16.825.335,66**	**R$ 17.884.930,53**	**R$ 18.266.111,32**
	Percentual Acumulado:		**3,93%**	**8,15%**	**12,97%**	**19,03%**	**34,62%**	**52,35%**	**70,28%**	**78,20%**	**85,53%**	**92,11%**	**97,91%**	**100,00%**

PROCESSO ADMINISTRATIVO
0880
ASSINADO ELETRONICAMENTE

COMPOSIÇÃO DE BDI

PREFEITURA MUNICIPAL DE ITAPIPOCA - CE

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

ENDEREÇO: RUA PRESIDENTE ROOSEVELT, SN - ITAPIPOCA/CE

BDI: 26,74%

TABELAS REFERÊNCIA: SEINFRA 028.1 // SINAPI 04/26 // SICOR-MG JAN/2026 // ORSE MARÇO-2026

PREFEITURA DE Itapipoca Pra frente, pra gente

COMPOSIÇÃO DE BDI POR TIPO DE OBRA

(Conforme Acórdão 2622/13 - TCU - Plenário)

BDI para: CONSTRUÇÃO DE EDIFÍCIOS

(aplicável a: construção e reforma de edifícios, unidades habitacionais, escolas, hospitais, hotéis, restaurantes, armazéns e depósitos, estádios esportivos e quadras cobertas etc.)

ITEM	Mínimo	Médio	Máximo	INFORMAR PERCENTUAL DE CADA ITEM COMPONENTE DO BDI	VERIFICAÇÃO DE ATENDIMENTO AO ACÓRDÃO DO TCU
Administração Central (AC)	3,00%	4,00%	5,50%	**4,00%**	*OK*
Seguro (S) e Garantia (G)	0,80%	0,80%	1,00%	**0,80%**	*OK*
Risco (R)	0,97%	1,27%	1,27%	**1,27%**	*OK*
Despesas Financeiras (DF)	0,59%	1,23%	1,39%	**1,23%**	*OK*
Lucro (L)	6,16%	7,40%	8,96%	**7,00%**	*OK*
Impostos (I)	PIS (0,65%)			0,65%	*OK*
	COFINS (3,00%)			3,00%	*OK*
	ISS (alíquota x base de cálculo)			3,00%	*conferir base de cálculo e alíquota informada*
	TOTAL IMPOSTOS			**6,65%**	*conferir adequação do PIS, COFINS e ISS*

INTERVALO BDI ADMISSÍVEL		
Mínimo	**Médio**	**Máximo**
20,34%	22,12%	25,00%

Fórmula indicada pelo TCU:	
BDI = [(1+AC+S+G+R) * (1+DF) * (1+L) / (1-I)] -1	
BDI CALCULADO SEM CPRB	**VERIFICAÇÃO DE ATENDIMENTO AO ACÓRDÃO DO TCU**
23,08%	***OK***

INFORMAR ABAIXO O PERCENTUAL DE CPRB	BDI CALCULADO COM CPRB
2,7%	**26,74%**

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PROCESSO ADMINISTRATIVO 0881 ASSINADO ELETRONICAMENTE

RRT 16965021

1. RESPONSÁVEL TÉCNICO

Nome Civil/Social: KARLA JÉSSICA ARAÚJO PIRES
CPF: 071.XXX.XXX-13
Título Profissional: Arquiteto(a) e Urbanista
Nº do Registro: 00A2790998

2. DETALHES DO RRT

Nº do RRT: SI16965021I00CT001
Modalidade: RRT SIMPLES
Data de Cadastro: 08/06/2026
Forma de Registro: INICIAL
Data de Registro: 11/06/2026
Forma de Participação: INDIVIDUAL

2.1 Valor do RRT

Valor do RRT: R$130,64
Boleto nº 24695149
Pago em: 11/06/2026

3. DADOS DO SERVIÇO/CONTRATANTE

3.1 Serviço 001

Contratante: SECRETARIA DE EDUCACAO BASICA
CPF/CNPJ: 30.XXX.XXX/0001-39
Tipo: Órgão Público
Data de Início: 08/06/2026
Valor do Serviço/Honorários: R$0,00
Data de Previsão de Término: 08/06/2027

3.1.1 Endereço da Obra/Serviço

País: Brasil
CEP: 62500007
Tipo Logradouro: RUA
Nº: 301
Logradouro: RUA INOCENCIO BRAGA
Complemento: AO LADO DA PRAÇA DA MATRIZ
Bairro: CENTRO
Cidade/UF: ITAPIPOCA/CE

3.1.2 Atividade(s) Técnica(s)

Grupo: PROJETO
Quantidade: 1,00
Atividade: 1.1.2 - Projeto arquitetônico
Unidade: unidade

3.1.3 Tipologia

Tipologia: Educacional

3.1.4 Descrição da Obra/Serviço

RRT REFERENTE A ELABORAÇÃO DE PROJETO ARQUITETÔNICO DE **CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO**, LOCALIZADO NA SEDE DO MUNICÍPIO DE ITAPIPOCA/CE.

3.1.5 Declaração de Acessibilidade

Declaro o atendimento às regras de acessibilidade previstas em legislação e em normas técnicas pertinentes para as edificações abertas ao público, de uso público ou privativas de uso coletivo, conforme § 1º do art. 56 da Lei nº 13146, de 06 de julho de 2015.

PROCESSO ADMINISTRATIVO 0882 ASSINADO ELETRONICAMENTE

4. RRT VINCULADO POR FORMA DE REGISTRO

Nº do RRT	Contratante	Forma de Registro	Data de Registro
SI16965021I00CT001	**SECRETARIA DE EDUCACAO BASICA**	**INICIAL**	**08/06/2026**

5. DECLARAÇÃO DE VERACIDADE

Declaro para os devidos fins de direitos e obrigações, sob as penas previstas na legislação vigente, que as informações cadastradas neste RRT são verdadeiras e de minha responsabilidade técnica e civil.

6. ASSINATURA ELETRÔNICA

Documento assinado eletronicamente por meio do SICCAU do arquiteto(a) e urbanista KARLA JÉSSICA ARAÚJO PIRES, registro CAU nº 00A2790998, na data e hora: 2026-06-08 15:21:16, com o uso de login e de senha. O **CPF/CNPJ** está oculto visando proteger os direitos fundamentais de liberdade, privacidade e o livre desenvolvimento da personalidade da pessoa natural **(LGPD)**.

Anotação de Responsabilidade Técnica - ART
Lei nº 6.496, de 7 de dezembro de 1977

CREA-CE

ART OBRA / SER
Nº CE20261895

PROCESSO ADMINISTRATIVO 0883 ASSINADO ELETRONICAMENTE

Conselho Regional de Engenharia e Agronomia do Ceará

INICIAL

1. Responsável Técnico

MOISES GIANLUCA DOS SANTOS MARINHO

Título profissional: **ENGENHEIRO CIVIL**

RNP: **0621534757**
Registro: **366889CE**

2. Dados do Contrato

Contratante: **SECRETARIA DE EDUCAÇÃO BÁSICA** CPF/CNPJ: **30.023.590/0001-39**
RUA INOCÊNCIO BRAGA Nº: **301**
Complemento: Bairro: **CENTRO**
Cidade: **ITAPIPOCA** UF: **CE** CEP: **62500007**

Contrato: **Não especificado** Celebrado em:
Valor: **R$ 18.266.111,32** Tipo de contratante: **Pessoa Juridica de Direito Público**
Ação Institucional: **NENHUMA - NÃO OPTANTE**

3. Dados da Obra/Serviço

RUA INOCÊNCIO BRAGA Nº: **301**
Complemento: Bairro: **CENTRO**
Cidade: **ITAPIPOCA** UF: **CE** CEP: **62500007**
Data de Início: **08/06/2026** Previsão de término: **08/06/2027** Coordenadas Geográficas: **14.235004, 5.192528**
Finalidade: **Escolar** Código: **Não Especificado**
Proprietário: **SECRETARIA DE EDUCAÇÃO BÁSICA** CPF/CNPJ: **30.023.590/0001-39**

4. Atividade Técnica

14 - Elaboração	Quantidade	Unidade
35 - Elaboração de orçamento > CONSTRUÇÃO CIVIL > EDIFICAÇÕES > DE EDIFICAÇÃO > #1.1.1.1 - DE ALVENARIA	1,00	un
35 - Elaboração de orçamento > CONSTRUÇÃO CIVIL > EDIFICAÇÕES > #1.1.14 - DE PISO INDUSTRIAL	1,00	un
35 - Elaboração de orçamento > CONSTRUÇÃO CIVIL > EDIFICAÇÕES > DE ACESSIBILIDADE DE EDIFICAÇÃO > #1.1.3.2 - PARA FINS COMERCIAIS	1,00	un
35 - Elaboração de orçamento > CONSTRUÇÃO CIVIL > INSTALAÇÕES HIDROSSANITÁRIAS > #1.4.2 - DE SISTEMA DE REDES DE ÁGUAS PLUVIAIS	1,00	un
35 - Elaboração de orçamento > CONSTRUÇÃO CIVIL > INSTALAÇÕES HIDROSSANITÁRIAS > #1.4.3 - DE INSTALAÇÃO DE SISTEMA DE ESGOTO SANITÁRIO	1,00	un
35 - Elaboração de orçamento > CONSTRUÇÃO CIVIL > INSTALAÇÕES HIDROSSANITÁRIAS > #1.4.5 - DE LIGAÇÃO INDIVIDUAL DE REDE DE ESGOTO	1,00	un
35 - Elaboração de orçamento > CONSTRUÇÃO CIVIL > INSTALAÇÕES HIDROSSANITÁRIAS > #1.4.4 - DE LIGAÇÃO INDIVIDUAL DE REDE DE ÁGUA	1,00	un
35 - Elaboração de orçamento > ESTRUTURAS > ESTRUTURAS DE CONCRETO E ARGAMASSA ARMADA > #2.1.1 - DE ESTRUTURA DE CONCRETO ARMADO	1,00	un
35 - Elaboração de orçamento > ESTRUTURAS > ESTRUTURAS METÁLICAS > DE ESTRUTURA METÁLICA > #2.2.1.1 - PARA EDIFICAÇÃO	1,00	un
35 - Elaboração de orçamento > CONSTRUÇÃO CIVIL > INSTALAÇÕES DE PREVENÇÃO E COMBATE A INCÊNDIO > #1.6.6 - DE PREVENÇÃO E COMBATE A INCÊNDIO E PÂNICO	1,00	un
35 - Elaboração de orçamento > CONSTRUÇÃO CIVIL > INSTALAÇÕES HIDROSSANITÁRIAS > #1.4.1 - DE SISTEMA DE ÁGUA POTÁVEL	1,00	un
35 - Elaboração de orçamento > GEOTECNIA E GEOLOGIA DA ENGENHARIA > OBRAS DE TERRA > DE OBRAS DE TERRA > #3.3.1.3 - ATERRO	1,00	un
80 - Projeto > CONSTRUÇÃO CIVIL > INSTALAÇÕES HIDROSSANITÁRIAS > #1.4.5 - DE LIGAÇÃO INDIVIDUAL DE REDE DE ESGOTO	1,00	un
80 - Projeto > CONSTRUÇÃO CIVIL > INSTALAÇÕES HIDROSSANITÁRIAS > #1.4.1 - DE SISTEMA DE ÁGUA POTÁVEL	1,00	un
80 - Projeto > CONSTRUÇÃO CIVIL > INSTALAÇÕES HIDROSSANITÁRIAS > #1.4.3 - DE INSTALAÇÃO DE SISTEMA DE ESGOTO SANITÁRIO	1,00	un

A autenticidade desta ART pode ser verificada em: https://crea-ce.sitac.com.br/publico/, com a chave: 62B48
Impresso em: 12/06/2026 às 09:25:19 por: , ip: 45.161.186.109

Anotação de Responsabilidade Técnica - ART
Lei nº 6.496, de 7 de dezembro de 1977

CREA-CE

ART OBRA / SER
Nº CE20261895

PROCESSO ADMINISTRATIVO 0884 ASSINADO ELETRONICAMENTE

Conselho Regional de Engenharia e Agronomia do Ceará

INICIAL

80 - Projeto > CONSTRUÇÃO CIVIL > INSTALAÇÕES HIDROSSANITÁRIAS > #1.4.6 - DE POÇO DE INFILTRAÇÃO	1,00	un
80 - Projeto > CONSTRUÇÃO CIVIL > INSTALAÇÕES DE PREVENÇÃO E COMBATE A INCÊNDIO > #1.6.6 - DE PREVENÇÃO E COMBATE A INCÊNDIO E PÂNICO	1,00	un
80 - Projeto > ESTRUTURAS > ESTRUTURAS DE CONCRETO E ARGAMASSA ARMADA > #2.1.1 - DE ESTRUTURA DE CONCRETO ARMADO	1,00	un
80 - Projeto > ESTRUTURAS > ESTRUTURAS DE CONCRETO E ARGAMASSA ARMADA > #2.1.6 - DE REFORÇO DE ESTRUTURAS EM CONCRETO	1,00	un
80 - Projeto > ESTRUTURAS > ESTRUTURAS DE CONCRETO E ARGAMASSA ARMADA > #2.1.7 - DE REPARO DE ESTRUTURAS EM CONCRETO	1,00	un

Após a conclusão das atividades técnicas o profissional deve proceder a baixa desta ART

5. Observações

ELABORAÇÃO DE ORÇAMENTO E PROJETO HIDROSSANITÁRIO, PROJETO ESTRUTURAL CONSTRUÇÃO DA ESCOLA DE ENSINO INTEGRAL - GERALDO GOMES DE AZEVEDO, LOCALIZADO NA SEDE DO MUNÍCIPIO DE ITAPIPOCA/CE

6. Declarações

- Declaro que estou cumprindo as regras de acessibilidade previstas nas normas técnicas da ABNT, na legislação específica e no decreto n. 5296/2004.

7. Entidade de Classe

NENHUMA - NÃO OPTANTE

8. Assinaturas

Declaro serem verdadeiras as informações acima

_____, _____ de _____ de _____

Local data

Documento assinado eletronicamente
com credenciais de login e senha
MOISES GIANLUCA DOS SANTOS MARINHO
RNP: 0621534757
Data: 12/06/2026 09:25:19

MOISES GIANLUCA DOS SANTOS MARINHO - CPF: 079.175.493-64

SECRETARIA DE EDUCAÇÃO BÁSICA - CNPJ: 30.023.590/0001-39

9. Informações

* A ART é válida somente quando quitada, mediante apresentação do comprovante do pagamento ou conferência no site do Crea.

10. Valor

Valor da ART: **R$ 285,59** Registrada em: **11/06/2026** Valor pago: **R$ 285,59** Nosso Número: **8218906601**

Anotação de Responsabilidade Técnica - ART
Lei nº 6.496, de 7 de dezembro de 1977

CREA-CE

ART OBRA / SER
Nº CE20261896

PROCESSO ADMINISTRATIVO 0885 ASSINADO ELETRONICAMENTE

Conselho Regional de Engenharia e Agronomia do Ceará

INICIAL

1. Responsável Técnico

ÂNGELO MARCÍLIO MARQUES DOS SANTOS

Título profissional: **ENGENHEIRO ELETRICISTA - ELETROTECNICA, ESPEC. EM ENGENHARIA ELÉTRICA - SISTEMAS DE POTÊNCIA, ENGENHEIRO DE SEGURANCA DO TRABALHO, MESTRE EM ENGENHARIA ELÉTRICA, ESPECIALIZAÇÃO EM ENERGIA RENOVÁVEIS, ESPECIALIZAÇÃO EM FORMAÇÃO PARA ENERGIAS RENOVÁVEIS**

RNP: **0618254153**
Registro: **340467CE**

2. Dados do Contrato

Contratante: **PREFEITURA MUNICIPAL DE ITAPIPOCA** CPF/CNPJ: **07.623.077/0001-67**
RUA ANTÔNIO OLIVEIRA MENEZES Nº: **45**
Complemento: Bairro: **SENHARÃO**
Cidade: **ITAPIPOCA** UF: **CE** CEP: **62508545**

Contrato: **Não especificado** Celebrado em:
Valor: **R$ 1.000,00** Tipo de contratante: **Pessoa Juridica de Direito Público**
Ação Institucional: **NENHUMA - NÃO OPTANTE**

3. Dados da Obra/Serviço

RUA MARECHAL HERMES Nº: **S/N**
Complemento: Bairro: **BOA VISTA**
Cidade: **ITAPIPOCA** UF: **CE** CEP: **62500000**
Data de Início: **08/06/2026** Previsão de término: **08/06/2027** Coordenadas Geográficas: **-3.507055, -39.578822**
Finalidade: **SEM DEFINIÇÃO** Código: **Não Especificado**
Proprietário: **PREFEITURA MUNICIPAL DE ITAPIPOCA** CPF/CNPJ: **07.623.077/0001-67**

4. Atividade Técnica

14 - Elaboração	Quantidade	Unidade
80 - Projeto > ELETROTÉCNICA > SISTEMAS DE ENERGIA ELÉTRICA > DE INSTALAÇÕES ELÉTRICAS > #11.9.20.1 - ESPECIAIS	123,98	kw
80 - Projeto > ELETROTÉCNICA > SISTEMAS DE ENERGIA ELÉTRICA > DE INSTALAÇÕES ELÉTRICAS > #11.9.20.1 - ESPECIAIS	1,00	un
80 - Projeto > ELETROTÉCNICA > SISTEMAS DE PROTEÇÃO CONTRA DESCARGAS ATMOSFÉRICAS - SPDA > #11.12.1 - DE SISTEMAS DE PROTEÇÃO CONTRA DESCARGAS ATMOSFÉRICAS - SPDA	1,00	un
80 - Projeto > ELETROTÉCNICA > SISTEMAS DE ENERGIA ELÉTRICA > DE SUBESTAÇÃO > #11.9.17.1 - AÉREA DE ENERGIA ELÉTRICA	1,00	un
80 - Projeto > ELETROTÉCNICA > SISTEMAS DE ENERGIA ELÉTRICA > DE SUBESTAÇÃO > #11.9.17.1 - AÉREA DE ENERGIA ELÉTRICA	150,00	kva

Após a conclusão das atividades técnicas o profissional deve proceder a baixa desta ART

5. Observações

ELABORAÇÃO DE PROJETOS DE INSTALAÇÕES ELÉTRICAS EM BAIXA TENSÃO, SPDA E SUBESTAÇÃO DE ENERGIA ELÉTRICA DE 150 KVA PARA ESCOLA DE ENSINO EM TEMPO INTEGRAL GERALDO GOMES DE AZEVEDO , EM ITAPIPOCA-CE.

6. Declarações

- Declaro que estou cumprindo as regras de acessibilidade previstas nas normas técnicas da ABNT, na legislação específica e no decreto n. 5296/2004.

7. Entidade de Classe

NENHUMA - NÃO OPTANTE

8. Assinaturas

Declaro serem verdadeiras as informações acima

_____, _____ de _____ de _____
Local data

Documento assinado eletronicamente com credenciais de login e senha
ÂNGELO MARCÍLIO MARQUES DOS SANTOS
RNP: 0618254153
Data: 11/06/2026 17:05:04

ÂNGELO MARCÍLIO MARQUES DOS SANTOS - CPF: 052.095.893-40

PREFEITURA MUNICIPAL DE ITAPIPOCA - CNPJ: 07.623.077/0001-67

A autenticidade desta ART pode ser verificada em: https://crea-ce.sitac.com.br/publico/, com a chave: C2yZy
Impresso em: 11/06/2026 às 17:05:04 por: , ip: 45.161.186.109

9. Informações

* A ART é válida somente quando quitada, mediante apresentação do comprovante do pagamento ou conferência no site do Crea.

10. Valor

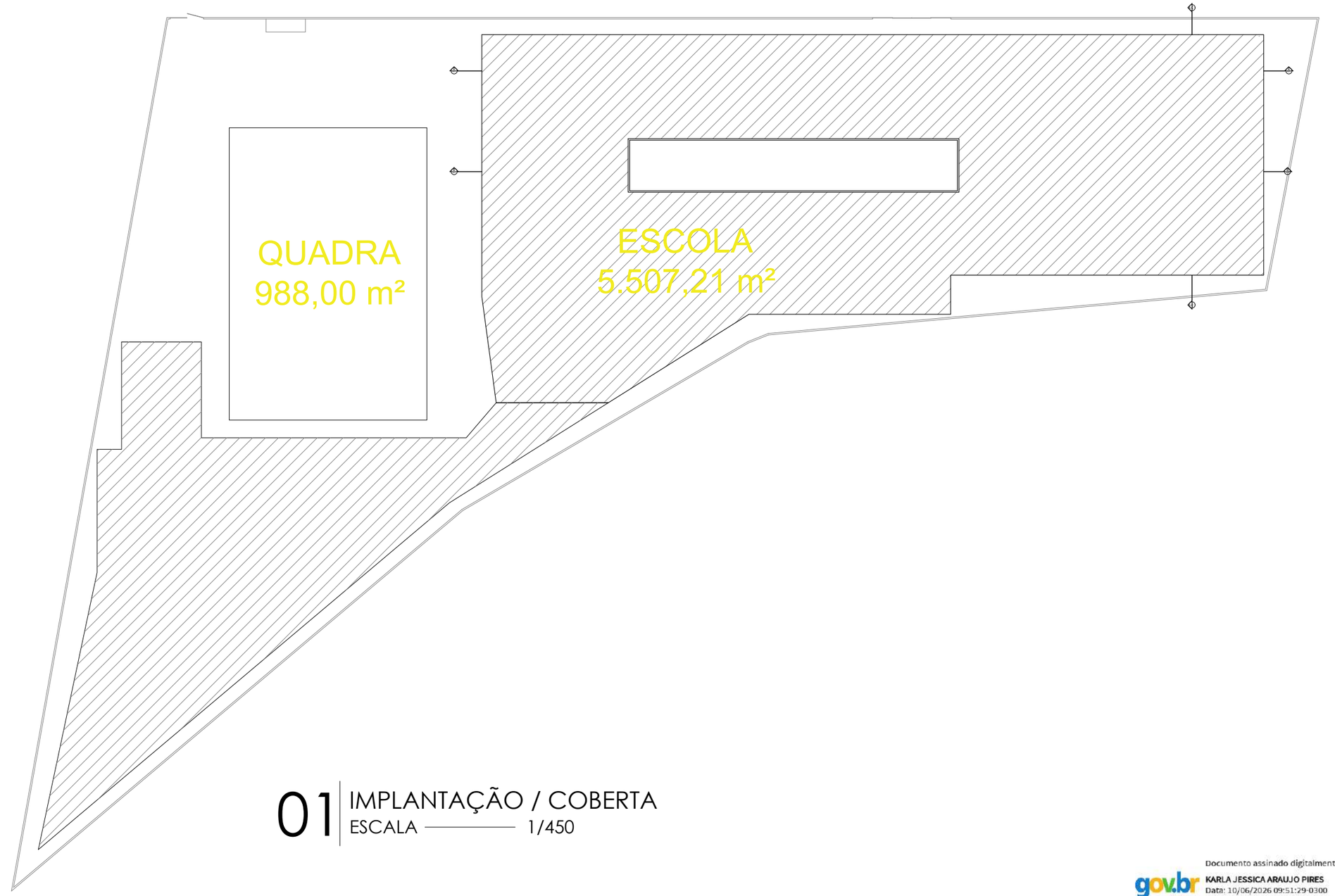
Valor da ART: **R$ 108,39** Registrada em: **11/06/2026** Valor pago: **R$ 108,40** Nosso Número: **8218907217**

PROCESSO ADMINISTRATIVO
0887
ASSINADO ELETRONICAMENTE

N

QUADRO DE ÁREAS

ÁREA DO TERRENO:	5.628,43 m²
ÁREA CONSTRUÍDA:	5.507,21 m²
TAXA DE OCUPAÇÃO:	75,75%
COEFICIENTE DE APROVEITAMENTO:	0,97
GEOLOCALIZAÇÃO:	P1: -3.507270, -39.577815





01 IMPLANTAÇÃO / COBERTA
ESCALA ——— 1/450

gov.br
Documento assinado digitalmente
KARLA JESSICA ARAUJO PIRES
Data: 10/06/2026 09:51:29-0300
Verifique em https://validar.iti.gov.br

OBSERVAÇÕES:
OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;
OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

PREFEITURA DE Itapipoca
Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

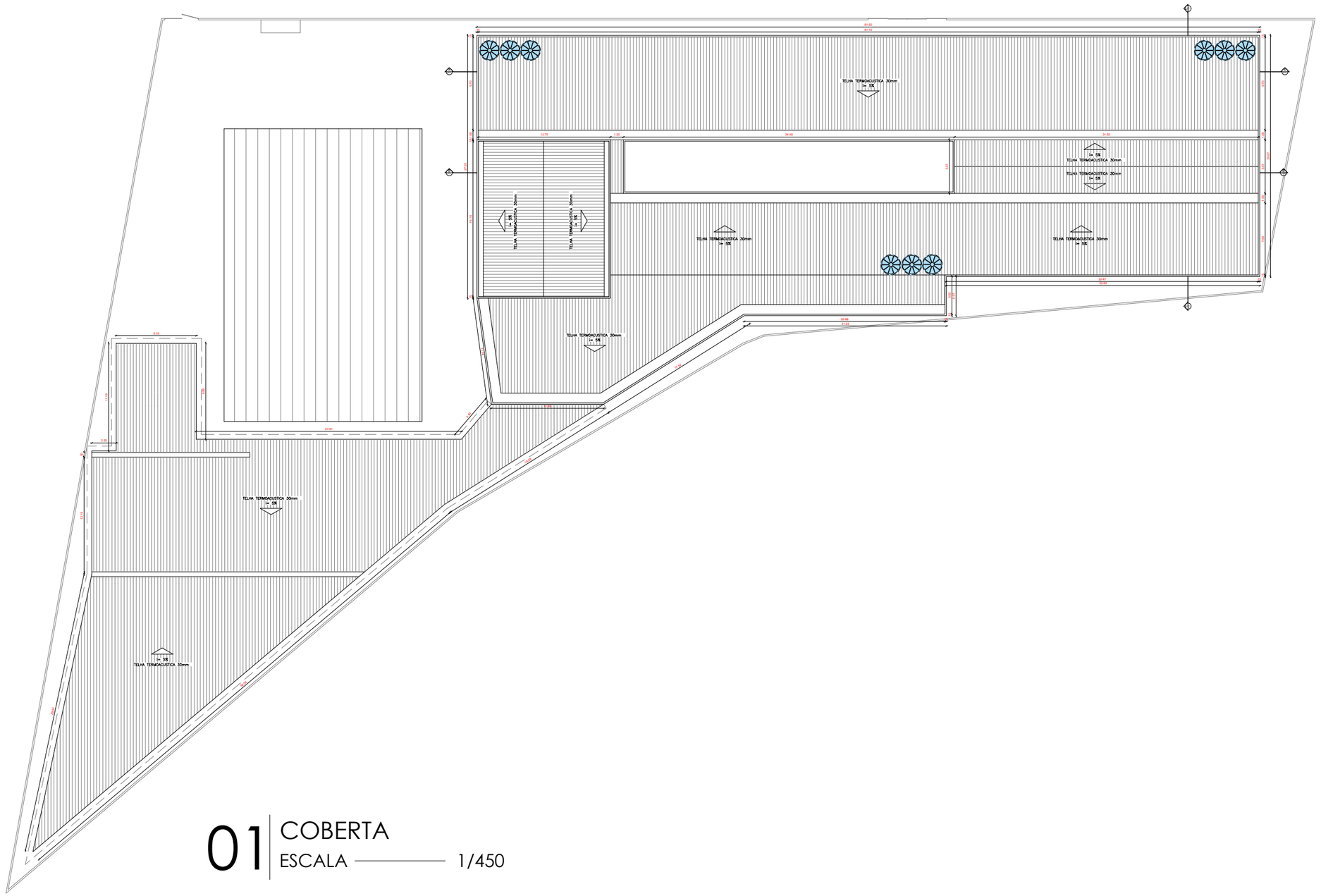
PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:
IMPLANTAÇÃO

AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
00	
ESCALA: INDICADA	
FOLHA: A3	PRANCHA: 01/18

PROCESSO ADMINISTRATIVO
0888
ASSINADO ELETRONICAMENTE



01 COBERTA
ESCALA ——— 1/450

OBSERVAÇÕES:
OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;
OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

PREFEITURA DE Itapipoca
Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:
COBERTA

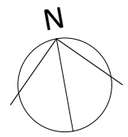
AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

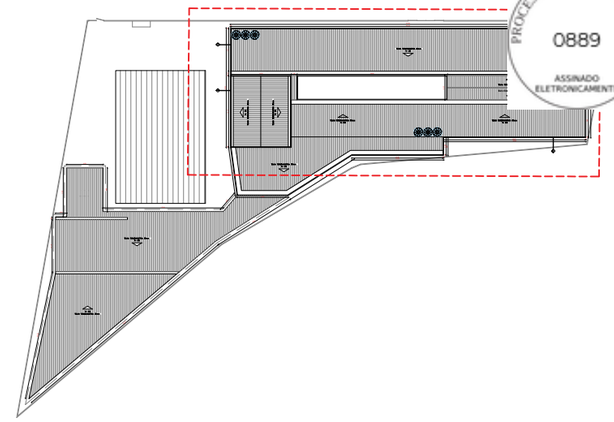
REVISÃO	DATA DA REVISÃO
00	

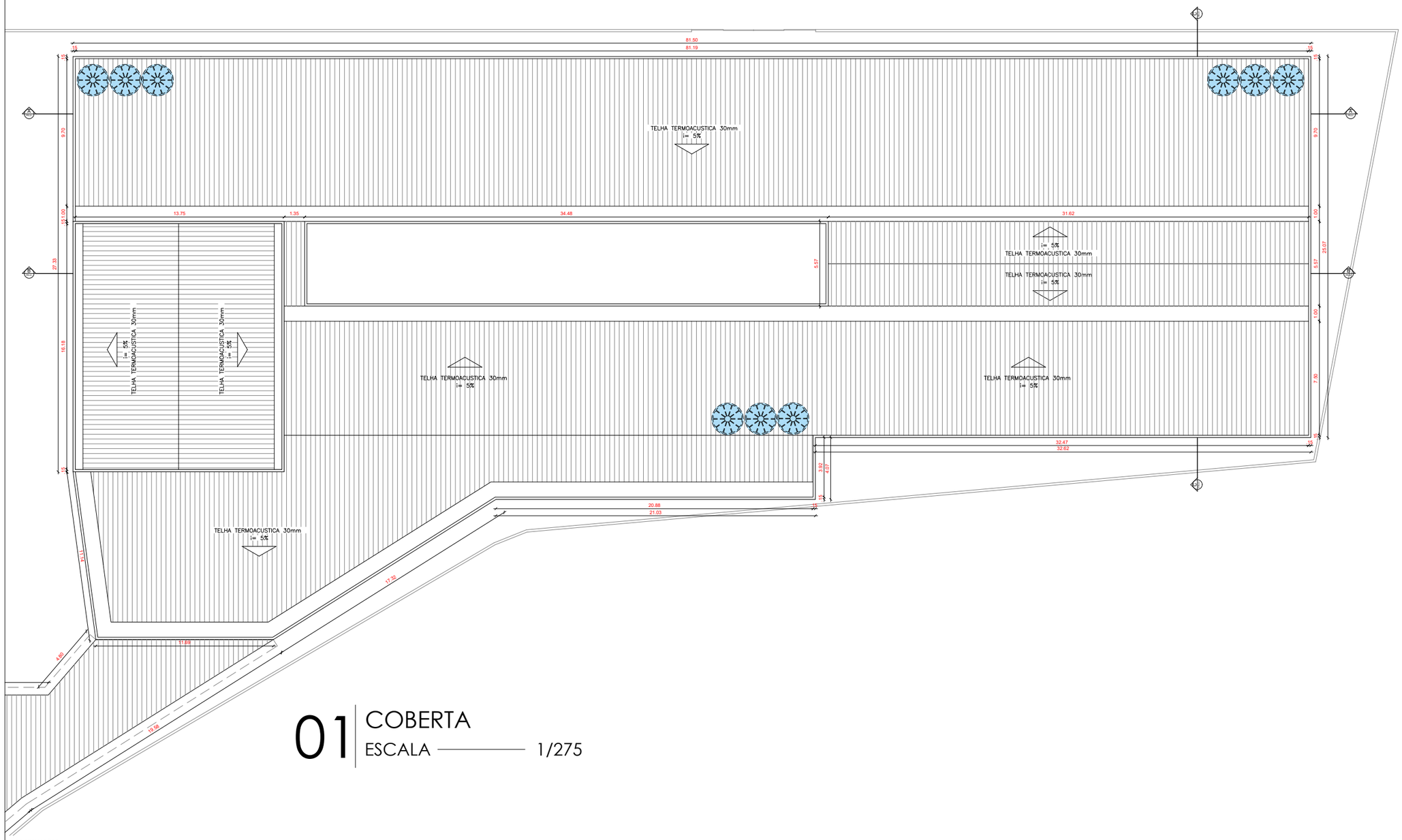
ESCALA
INDICADA

FOLHA	PRANCHA
A3	02/18

PROCESSO ADMINISTRATIVO
0889
ASSINADO ELETRONICAMENTE







01 COBERTA

ESCALA ——— 1/275

OBSERVAÇÕES:
OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;
OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

PREFEITURA DE Itapipoca
Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:
COBERTA

AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
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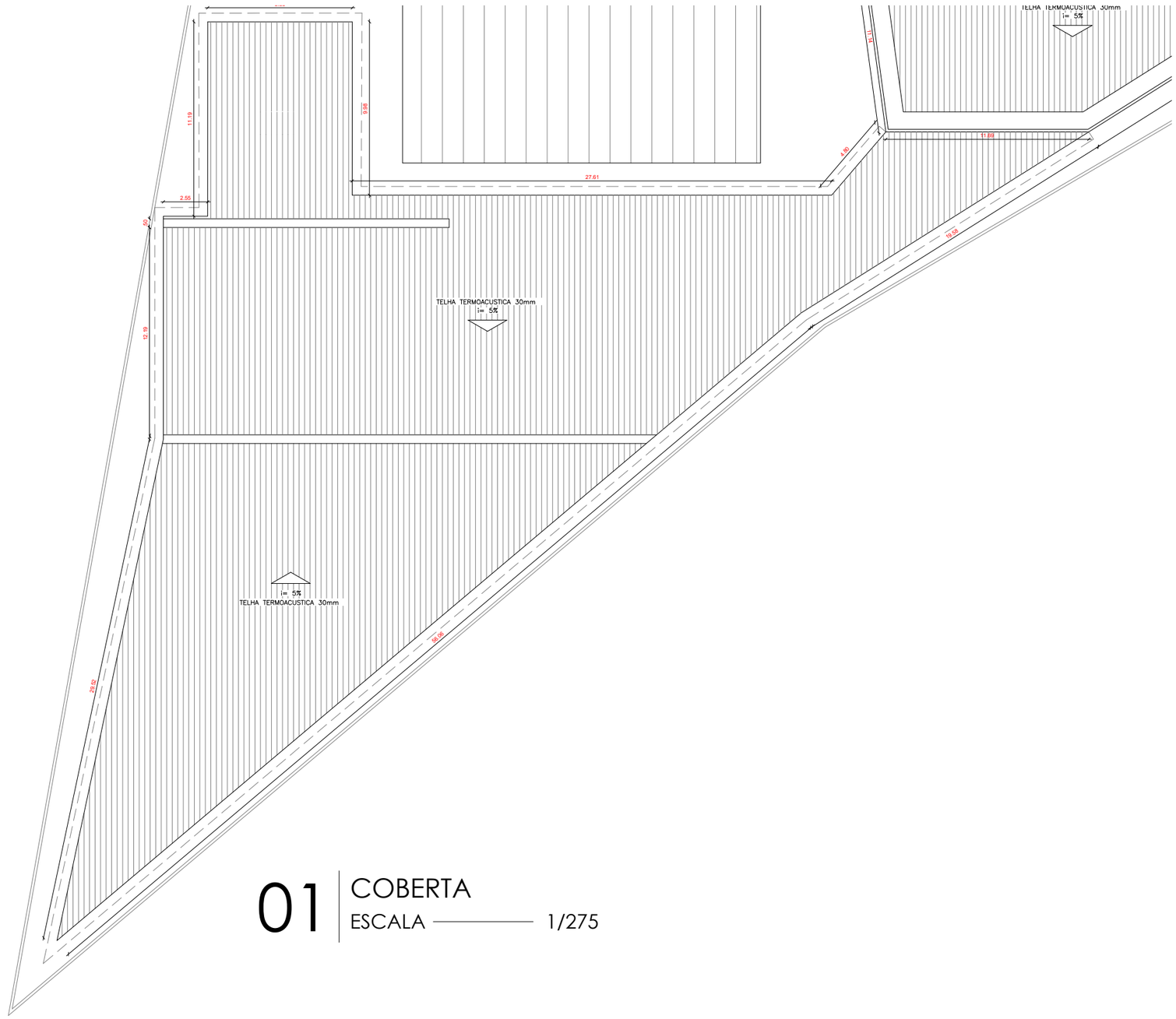
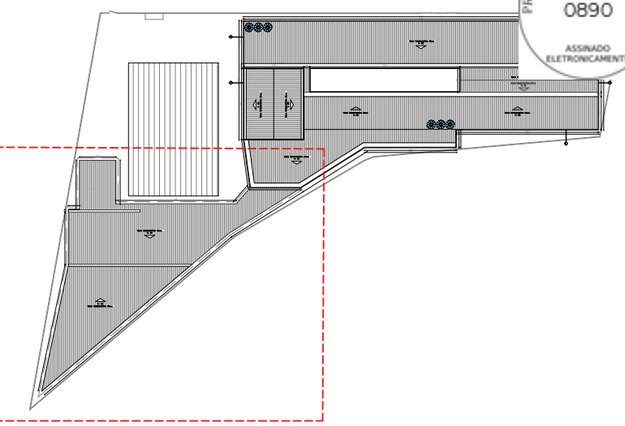
ESCALA: INDICADA	
FOLHA: A3	PRANCHA: 03/18

PROCESSO ADMINISTRATIVO
0890
ASSINADO ELETRONICAMENTE





01 COBERTA

ESCALA ——— 1/275

OBSERVAÇÕES:
OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;
OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

PREFEITURA DE Itapipoca
Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:
COBERTA

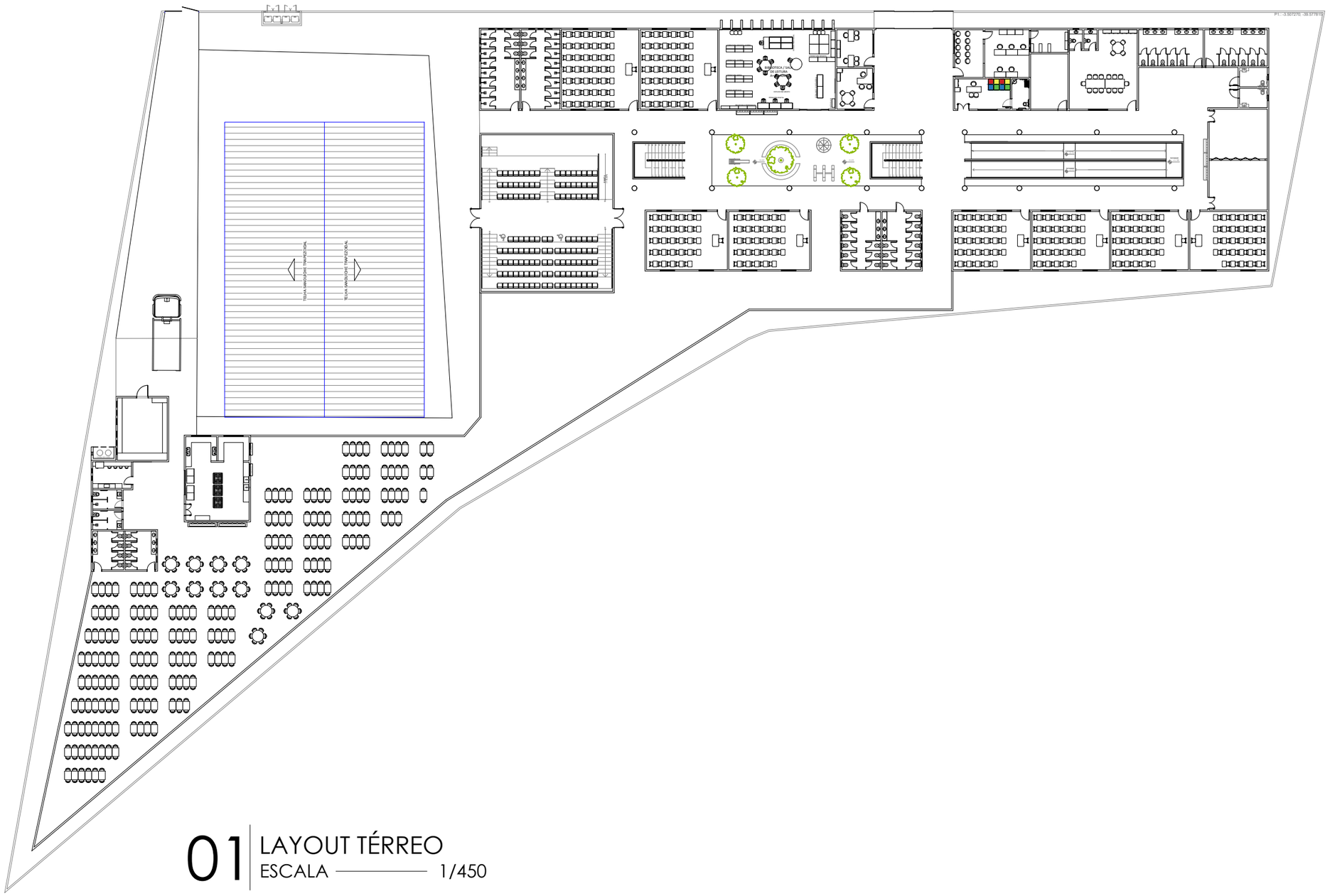
AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
00	

ESCALA: INDICADA

FOLHA	PRANCHA
A3	04/18

PROCESSO ADMINISTRATIVO
0891
ASSINADO ELETRONICAMENTE



01 LAYOUT TÉRREO
ESCALA ——— 1/450

OBSERVAÇÕES:
OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;
OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

PREFEITURA DE Itapipoca
Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:
LAYOUT

AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
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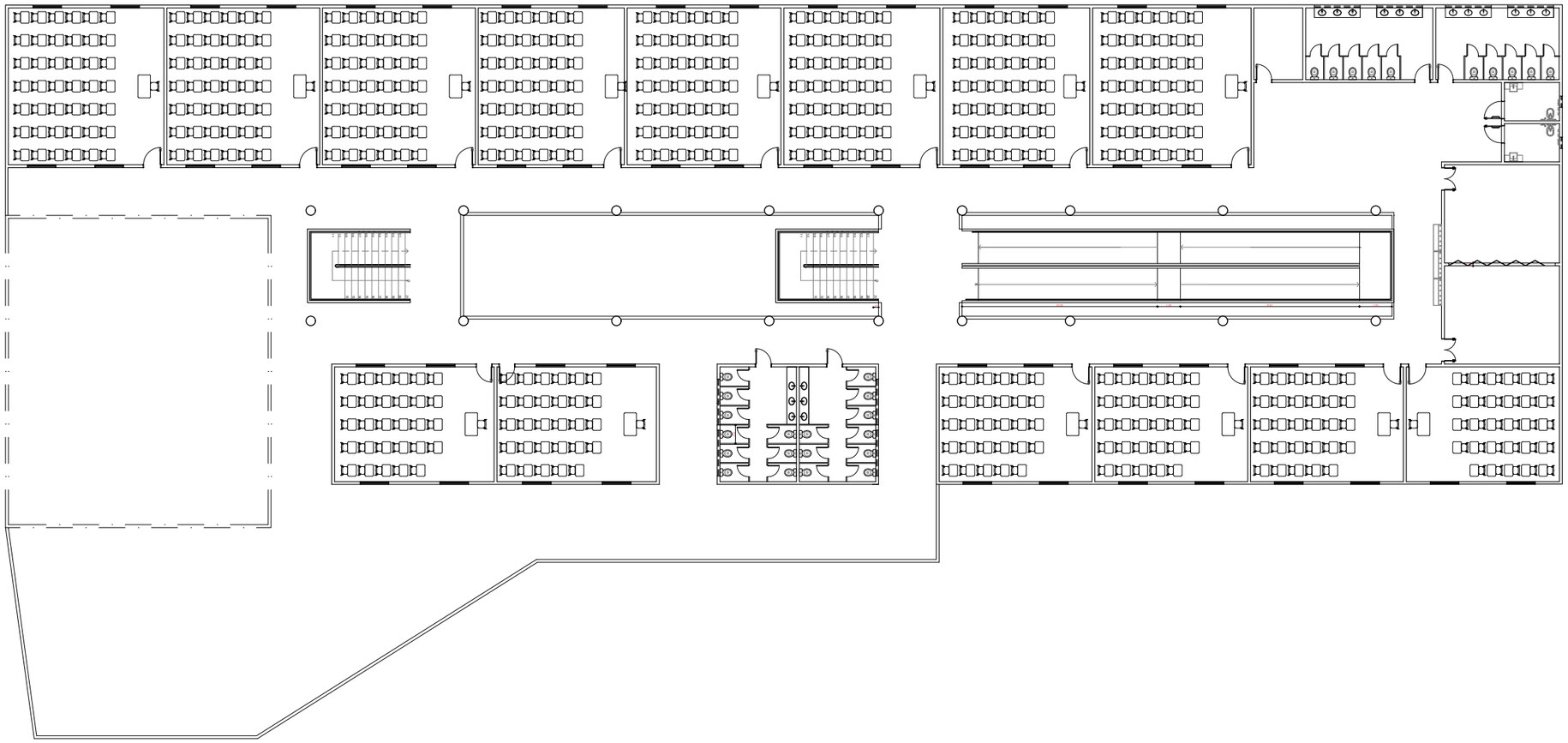
ESCALA
INDICADA

FOLHA	PRANCHA
A3	05/18

PROCESSO ADMINISTRATIVO
0892
ASSINADO ELETRONICAMENTE

N



01 LAYOUT PAV. SUPERIOR

ESCALA ——— 1/275

OBSERVAÇÕES:
OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;
OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

PREFEITURA DE Itapipoca
Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:
LAYOUT

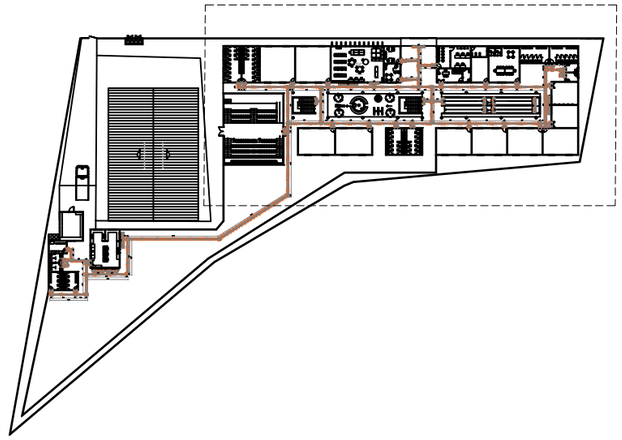
AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

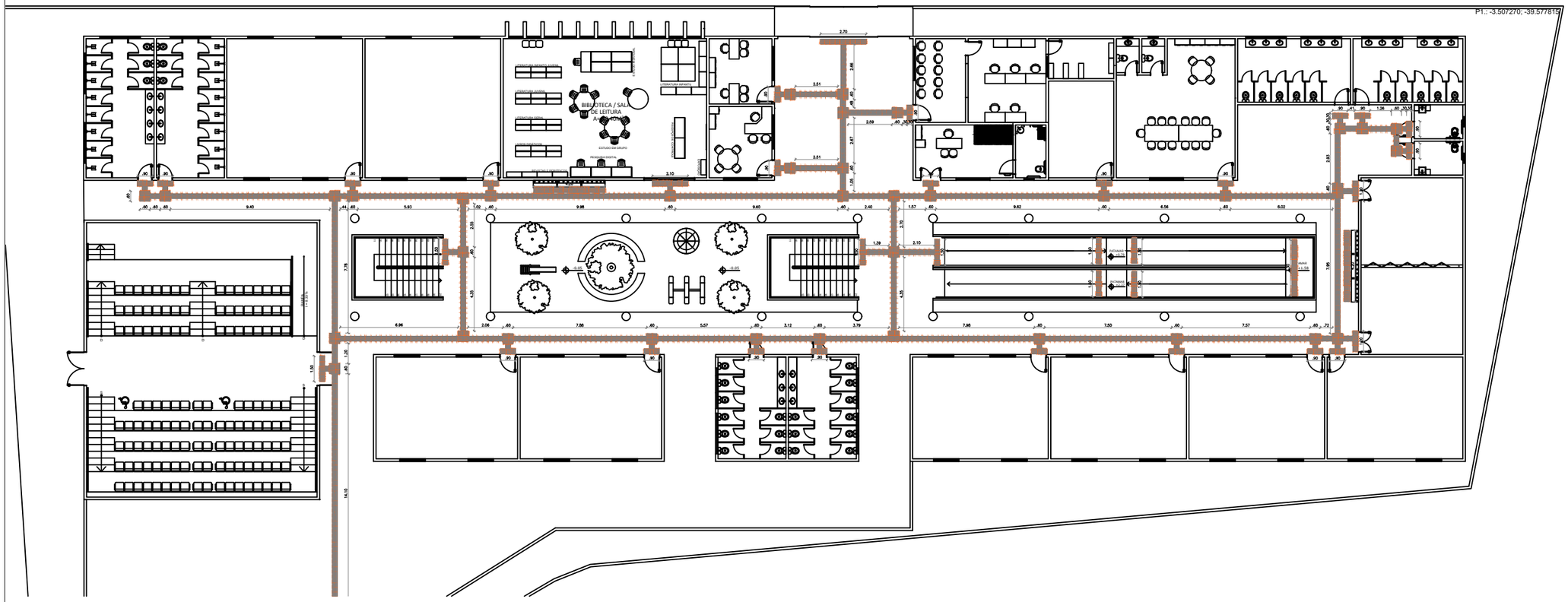
REVISÃO	DATA DA REVISÃO
00	

ESCALA
INDICADA

FOLHA	PRANCHA
A3	06/18

PROCESSO ADMINISTRATIVO
0893
ASSINADO ELETRONICAMENTE





01 PISO PODOTÁTIL - TÉRREO

ESCALA ——— 1/275



ALERTA DIRECIONAL

QUANTITATIVO DE PISO TÁTIL		
PISO TÁTIL	QTD(UND)	QTD(m²)
DIRECIONAL	1.500	135, 00 m²
ALERTA	699	62,91 m²
TOTAL:	2.199	197,91 m²

OBSERVAÇÕES:

OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;

OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

PREFEITURA DE Itapipoca Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:
PISO TÁTIL: DIRECIONAL E ALERTA

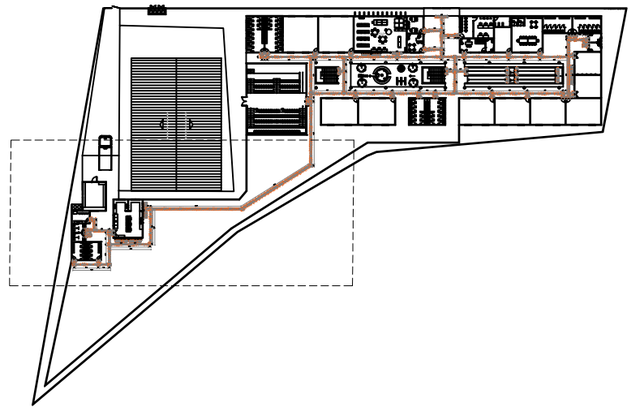
AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

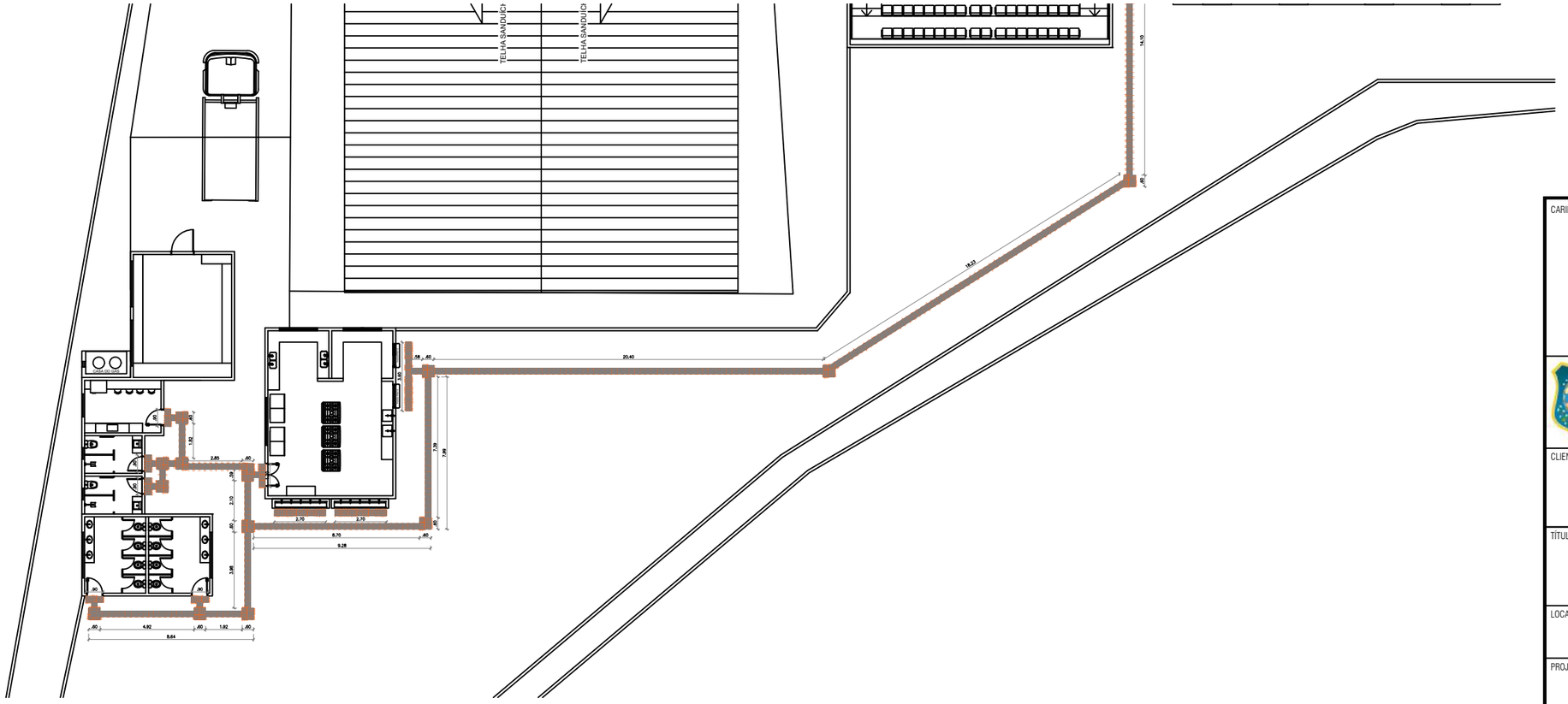
REVISÃO	DATA DA REVISÃO
00	

ESCALA
INDICADA

FOLHA	PRANCHA
A3	07/18

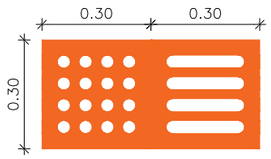
PROCESSO ADMINISTRATIVO
0894
ASSINADO ELETRONICAMENTE





01 PISO PODOTÁTIL - TÉRREO

ESCALA ——— 1/275



ALERTA DIRECIONAL

QUANTITATIVO DE PISO TÁTIL		
PISO TÁTIL	QTD(UND)	QTD(m²)
DIRECIONAL	1.500	135, 00 m²
ALERTA	699	62,91 m²
TOTAL:	2.199	197,91 m²

OBSERVAÇÕES:
OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;
OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

PREFEITURA DE Itapipoca
Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:
PISO TÁTIL: DIRECIONAL E ALERTA

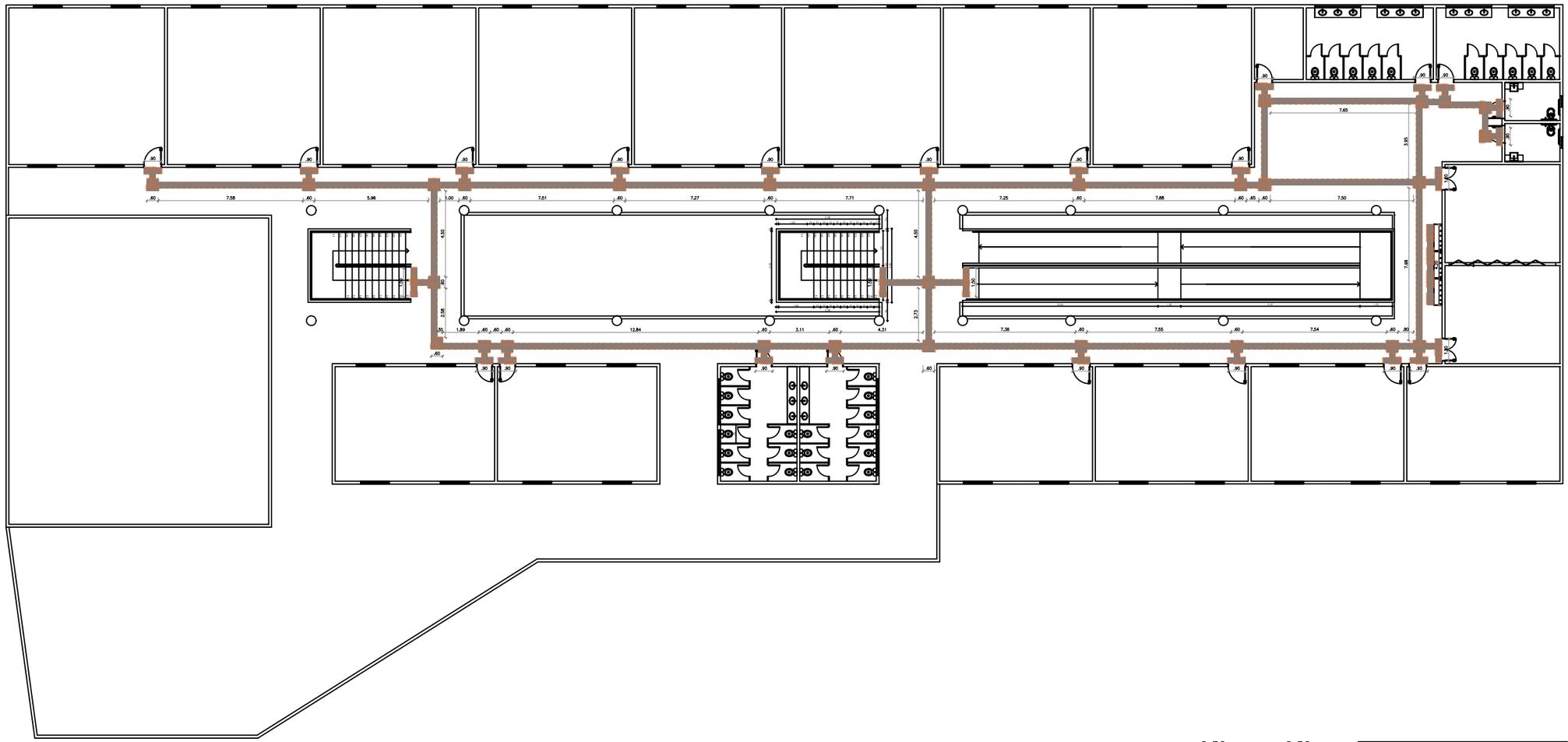
AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
00	

ESCALA
INDICADA

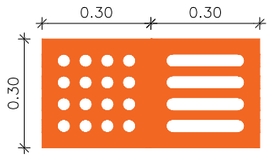
FOLHA	PRANCHA
A3	08/18

PROCESSO ADMINISTRATIVO
0895
ASSINADO ELETRONICAMENTE



01 PISO PODOTÁTIL - PAVIMENTO SUPERIOR

ESCALA ——— 1/250



ALERTA DIRECIONAL

QUANTITATIVO DE PISO TÁTIL		
PISO TÁTIL	QTD(UND)	QTD(m²)
DIRECIONAL	1.500	135, 00 m²
ALERTA	699	62,91 m²
TOTAL:	2.199	197,91 m²

OBSERVAÇÕES:

OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;

OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

PREFEITURA DE Itapipoca
Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:
PISO TÁTIL: DIRECIONAL E ALERTA

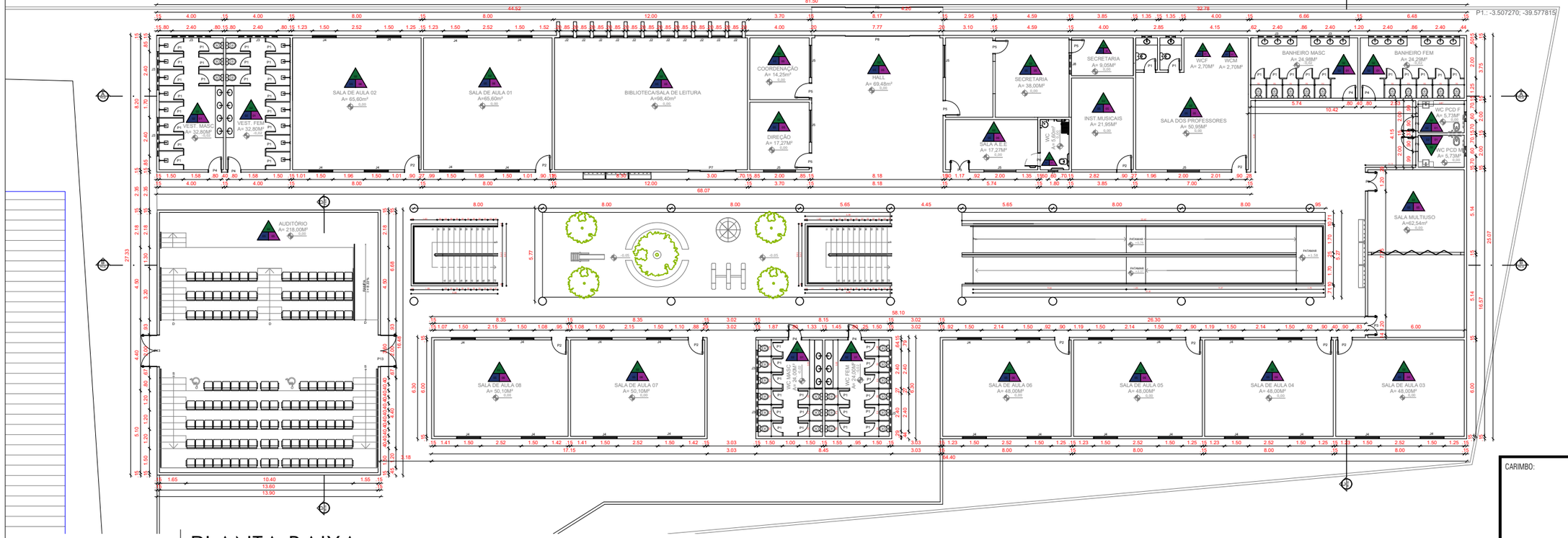
AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
00	

ESCALA
INDICADA

FOLHA	PRANCHA
A3	08/18

PROCESSO ADMINISTRATIVO
0896
ASSINADO ELETRONICAMENTE



01 PLANTA BAIXA

ESCALA ——— 1/275

- QUADRO DE PISOS E REVESTIMENTOS -

CÓD.	ESPECIFICAÇÃO - PISO
01	PISO INDUSTRIAL
02	PISO CERÂMICO CERBRAS 46 x 46 AURORA BRANCO C/ REJUNTE CINZA PLATINA OU SIMILAR
03	PISO CIMENTADO EM BOM ACABAMENTO MAS SEM SER POLIDO
04	PISO INTERTRAVADO DE CONCRETO - APLICAÇÃO TIPO ESPINHA DE PEIXE, INTER-RET, P100.RETG.
05	PISO INDUSTRIAL COM POLIMENTO
	ESPECIFICAÇÃO - PAREDE
01	REVESTIMENTO CERÂMICO CERBRAS 46 x 46 AURORA BRANCO C/ REJUNTE CINZA PLATINA OU SIMILAR
02	CERÂMICA ELIZABETH 10 x 10 NA COR LARANJA C/ REJUNTE CINZA PLATINA H=1.00m OU SIMILAR
03	CERÂMICA ELIZABETH 10 x 10 NA COR AZUL C/ REJUNTE CINZA PLATINA H=1.00m OU SIMILAR
04	CERÂMICA ELIZABETH 10 x 10 NA COR AMARELA C/ REJUNTE CINZA PLATINA H=1.00m OU SIMILAR
05	TINTA EM LATEX ACRÍLICO ACETINADO COR BRANCO GELO
06	CERÂMICA ELIZABETH 10 x 10 NA COR BRANCA C/ REJUNTE CINZA PLATINA ATÉ A h=0.90m OU SIMILAR FILETE DE CERÂMICA ELIZABETH 10 x 10 NA COR AZUL C/ REJUNTE CINZA PLATINA h=0.10m OU SIMILAR
07	PINTURA DA CÊRAMICA JÁ EXISTENTE 10 x 10 COM TINTA EPÓXI AZUL
08	PINTURA ARTISTICA
	ESPECIFICAÇÃO - TETO
01	SEM REVESTIMENTO
02	LAJE EMASSADA E PINTADA DE LATEX ACRÍLICO FOSCO NA COR BRANCO NEVE
03	FORRO DE GESSO
04	FORRO DE PVC
05	PINTURA DE ESTRUTURA METÁLICA



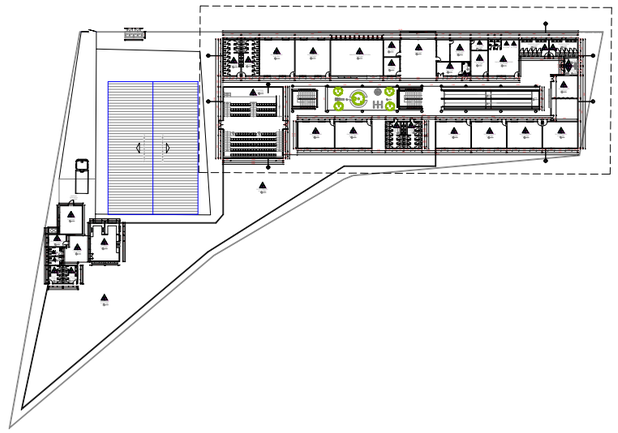
OBSERVAÇÕES

- O PISO TÁTIL EXTERNO SERÁ EM PRÉ-MOLDADO PIGMENTADO NA COR AMARELO;
- O PISO TÁTIL INTERNO SERÁ EM EMBORRACHADO NA COR AMARELO;
- O PISO DE CONTORNO DA EDIFICAÇÃO DEVERÁ TER UMA INCLINAÇÃO DE 2% DE CAIMENTO PARA PROTEÇÃO DAS PAREDES.
- MURO DEVE RECEBER ACABAMENTO COM CHAPIM PRE MOLDADO DE CONCRETO.
- INSTALAR CANTONEIRA DE ALUMÍNIO EM TODOS OS CANTOS VIVOS QUE EXISTIREM CERÂMICA.
- REFORÇAR OS PILARES DA ESTRUTURA METÁLICA ONDE NECESSÁRIO CONFORME O ORÇAMENTO
- AS PAREDES INTERNAS DA AMPLIAÇÃO DEVERÃO SER EMASSADAS E PINTADAS DE ACORDO COM O PROJETO
- O ACABAMENTO DO PAVIMENTO INTERTRAVADO SERÁ FEITO COM MEIO-FIO

- QUADRO DE ESQUADRIAS COMPLETO -

ESQUADRIAS - PORTAS / JANELAS

CÓD.	ESPECIFICAÇÃO	DIMENSÕES	QUANT.	TIPO
J1	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	0.60 x 0.50/1.90	09	MAXIM-AR
J2	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	0.85 x 1.70/0.60	11	FOLHA FIXA
J3	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	2.40 x 0.50/1.90	24	MAXIM-AR
J4	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	1.50 x 1.60/1.10	84	VENEZIANA
J5	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	2.00 x 1.00/1.10	06	FOLHA FIXA
J6	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	2.00 x 1.00/1.10	02	VENEZIANA
J7	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	2.50 x 1.00/1.10	01	FOLHA FIXA
J8	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	1.20 x 0.50/1.80	02	MAXIM-AR
P1	TIPO ALUMINIO BRANCO PARA BOX	0.60 x 1.70	88	DE ABRIR
P2	TIPO MADEIRA DE LEI COM VISOR 40CM	0.90 x 2.10	22	DE ABRIR
P3	TIPO MADEIRA DE LEI 2 FOLHAS COM VISOR 40CM	1.20 x 2.10	06	DE ABRIR
P4	TIPO MADEIRA DE LEI	0.80 x 2.10	05	DE ABRIR
P5	TIPO MADEIRA DE LEI	0.90 x 2.10	05	DE ABRIR
P6	TIPO MADEIRA DE LEI PARA PNE	0.90 x 2.10	05	DE ABRIR
P7	PORTA DE VIDRO 4 FOLHAS E ALUMINIO BRANCO	3.00 x 2.30	01	DE CORRER
P8	PORTÃO METALON AZUL 4 FOLHAS	7.77 x 2.30	01	DE CORRER
P9	PORTÃO NYLONFOR AZUL 4 FOLHAS	8.17 x 2.30	01	DE CORRER
P10	PORTÃO ALUMINIO BRANCO 2 FOLHAS	1.20 x 2.30	02	DE ABRIR
P11	PORTÃO FERRO BRANCO 2 FOLHAS	3.50 x 2.55	01	DE ABRIR
P12	PORTA CHAPA METÁLICA	1.20 x 2.10	01	DE ABRIR
P13	PORTA DUPLA CHAPA METÁLICA CORTA FOGO	2.00 x 2.10	02	DE ABRIR
P14	PORTÃO DE METALON (PADRÃO FARIAS BRITO) BRANCO	2.15 x 1.78	02	DE ABRIR



OBSERVAÇÕES:

OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;

OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

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Pra frente, pra gente

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CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
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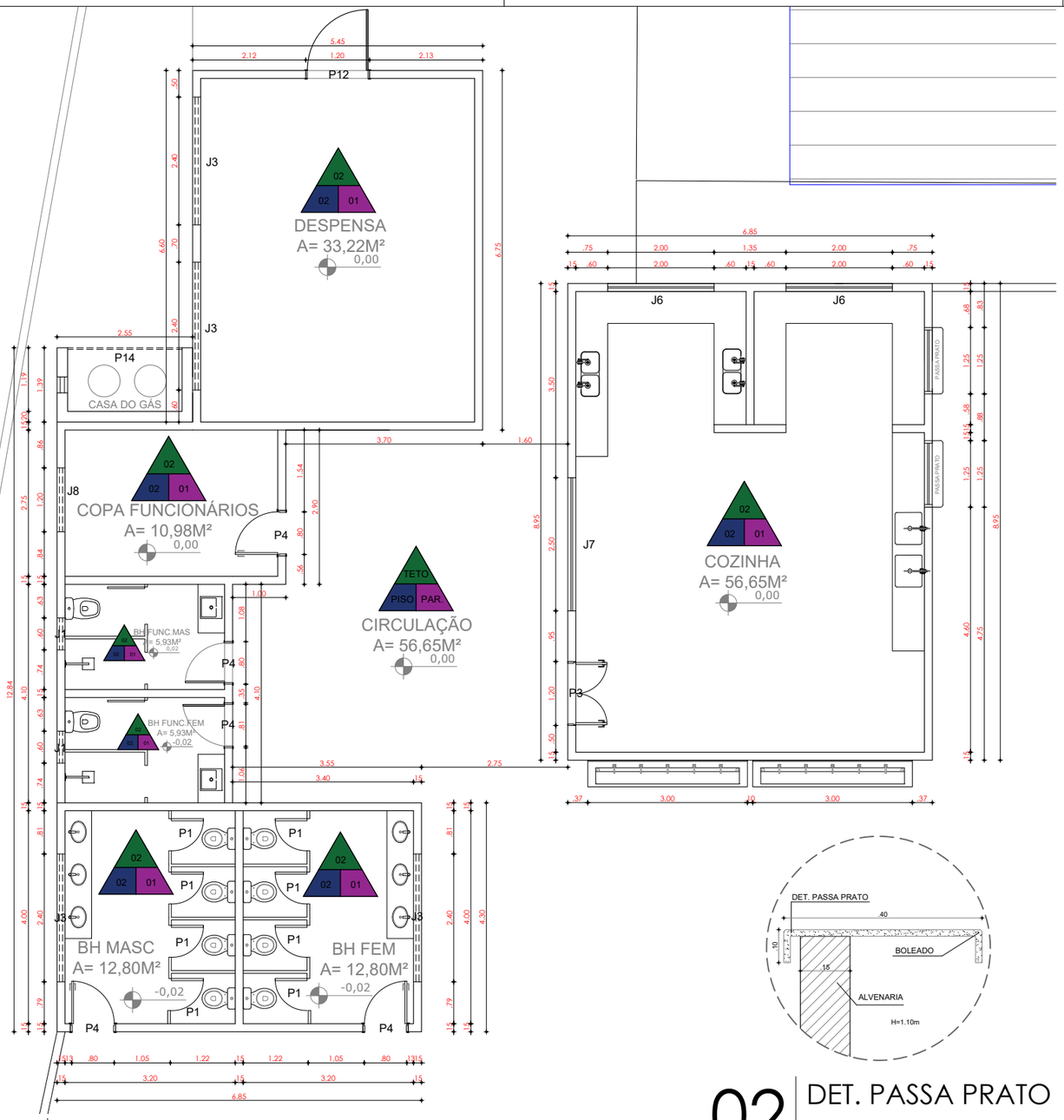
PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:
COBERTA

AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
00	
ESCALA: INDICADA	
FOLHA: A3	PRANCHA: 10/18

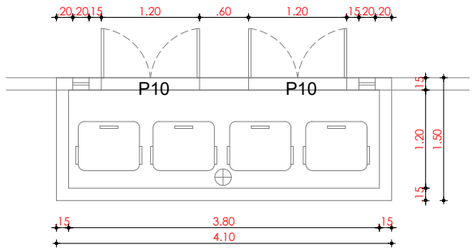


01 PLANTA BAIXA

ESCALA ——— 1/100

02 DET. PASSA PRATO

ESCALA ——— SE



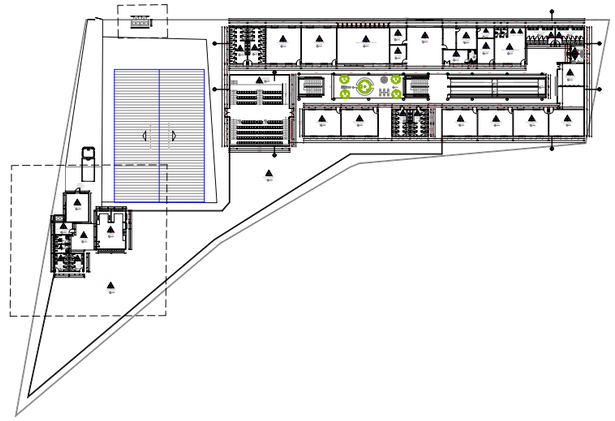
03 CASA DO LIXO

ESCALA ——— 1/75

OBSERVAÇÕES:

OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;

OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.



- QUADRO DE ESQUADRIAS COMPLETO -

ESQUADRIAS - PORTAS / JANELAS

CÓD.	ESPECIFICAÇÃO	DIMENSÕES	QUANT.	TIPO
J1	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	0.60 x 0.50/1.90	09	MAXIM-AR
J2	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	0.85 x 1.70/0.60	11	FOLHA FIXA
J3	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	2.40 x 0.50/1.90	24	MAXIM-AR
J4	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	1.50 x 1.60/1.10	84	VENEZIANA
J5	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	2.00 x 1.00/1.10	06	FOLHA FIXA
J6	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	2.00 x 1.00/1.10	02	VENEZIANA
J7	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	2.50 x 1.00/1.10	01	FOLHA FIXA
J8	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	1.20 x 0.50/1.80	02	MAXIM-AR
P1	TIPO ALUMINIO BRANCO PARA BOX	0.60 x 1.70	88	DE ABRIR
P2	TIPO MADEIRA DE LEI COM VISOR 40CM	0.90 x 2.10	22	DE ABRIR
P3	TIPO MADEIRA DE LEI 2 FOLHAS COM VISOR 40CM	1.20 x 2.10	06	DE ABRIR
P4	TIPO MADEIRA DE LEI	0.80 x 2.10	05	DE ABRIR
P5	TIPO MADEIRA DE LEI	0.90 x 2.10	05	DE ABRIR
P6	TIPO MADEIRA DE LEI PARA PNE	0.90 x 2.10	05	DE ABRIR
P7	PORTA DE VIDRO 4 FOLHAS E ALUMINIO BRANCO	3.00 x 2.30	01	DE CORRER
P8	PORTÃO METALON AZUL 4 FOLHAS	7.77 x 2.30	01	DE CORRER
P9	PORTÃO NYLONFOR AZUL 4 FOLHAS	8.17 x 2.30	01	DE CORRER
P10	PORTÃO ALUMINIO BRANCO 2 FOLHAS	1.20 x 2.30	02	DE ABRIR
P11	PORTÃO FERRO BRANCO 2 FOLHAS	3.50 x 2.55	01	DE ABRIR
P12	PORTA CHAPA METÁLICA	1.20 x 2.10	01	DE ABRIR
P13	PORTA DUPLA CHAPA METÁLICA CORTA FOGO	2.00 x 2.10	02	DE ABRIR
P14	PORTÃO DE METALON (PADRÃO FARIAS BRITO) BRANCO	2.15 x 1.78	02	DE ABRIR

- QUADRO DE PISOS E REVESTIMENTOS -

CÓD.	ESPECIFICAÇÃO - PISO
01	PISO INDUSTRIAL
02	PISO CERÂMICO CERBRAS 46 x 46 AURORA BRANCO C/ REJUNTE CINZA PLATINA OU SIMILAR
03	PISO CIMENTADO EM BOM ACABAMENTO MAS SEM SER POLIDO
04	PISO INTERTRAVADO DE CONCRETO - APLICAÇÃO TIPO ESPINHA DE PEIXE, INTER-RET, P100.RETG.
05	PISO INDUSTRIAL COM POLIMENTO
	ESPECIFICAÇÃO - PAREDE
01	REVESTIMENTO CERÂMICO CERBRAS 46 x 46 AURORA BRANCO C/ REJUNTE CINZA PLATINA OU SIMILAR
02	CERÂMICA ELIZABETH 10 x 10 NA COR LARANJA C/ REJUNTE CINZA PLATINA H=1.00m OU SIMILAR
03	CERÂMICA ELIZABETH 10 x 10 NA COR AZUL C/ REJUNTE CINZA PLATINA H=1.00m OU SIMILAR
04	CERÂMICA ELIZABETH 10 x 10 NA COR AMARELA C/ REJUNTE CINZA PLATINA H=1.00m OU SIMILAR
05	TINTA EM LATEX ACRÍLICO ACETINADO COR BRANCO GELO
06	CERÂMICA ELIZABETH 10 x 10 NA COR BRANCA C/ REJUNTE CINZA PLATINA ATÉ A h=0.90m OU SIMILAR FILETE DE CERÂMICA ELIZABETH 10 x 10 NA COR AZUL C/ REJUNTE CINZA PLATINA h=0.10m OU SIMILAR
07	PINTURA DA CÊRAMICA JÁ EXISTENTE 10 x 10 COM TINTA EPÓXI AZUL
08	PINTURA ARTISTICA
	ESPECIFICAÇÃO - TETO
01	SEM REVESTIMENTO
02	LAJE EMASSADA E PINTADA DE LATEX ACRÍLICO FOSCO NA COR BRANCO NEVE
03	FORRO DE GESSO
04	FORRO DE PVC
05	PINTURA DE ESTRUTURA METÁLICA

TETO / PISO / PAR.

OBSERVAÇÕES

- O PISO TÁTIL EXTERNO SERÁ EM PRÉ-MOLDADO PIGMENTADO NA COR AMARELO;
- O PISO TÁTIL INTERNO SERÁ EM EMBORRACHADO NA COR AMARELO;
- O PISO DE CONTORNO DA EDIFICAÇÃO DEVERÁ TER UMA INCLINAÇÃO DE 2% DE CAIMENTO PARA PROTEÇÃO DAS PAREDES.
- MURO DEVE RECEBER ACABAMENTO COM CHAPIM PRE MOLDADO DE CONCRETO.
- INSTALAR CANTONEIRA DE ALUMÍNIO EM TODOS OS CANTOS VIVOS QUE EXISTIREM CERÂMICA.
- REFORÇAR OS PILARES DA ESTRUTURA METÁLICA ONDE NECESSÁRIO CONFORME O ORÇAMENTO
- AS PAREDES INTERNAS DA AMPLIAÇÃO DEVERÃO SER EMASSADAS E PINTADAS DE ACORDO COM O PROJETO
- O ACABAMENTO DO PAVIMENTO INTERTRAVADO SERÁ FEITO COM MEIO-FIO

PROCESSO ADMINISTRATIVO 0897 ASSINADO ELETRONICAMENTE

CARIMBO:

PREFEITURA DE Itapipoca Pra frente, pra gente

CLIENTE: PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL: SEDE ITAPIPOCA - CE

PROJETO: PROJETO ARQUITETÔNICO

ASSUNTO: COBERTA

AUTOR: KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
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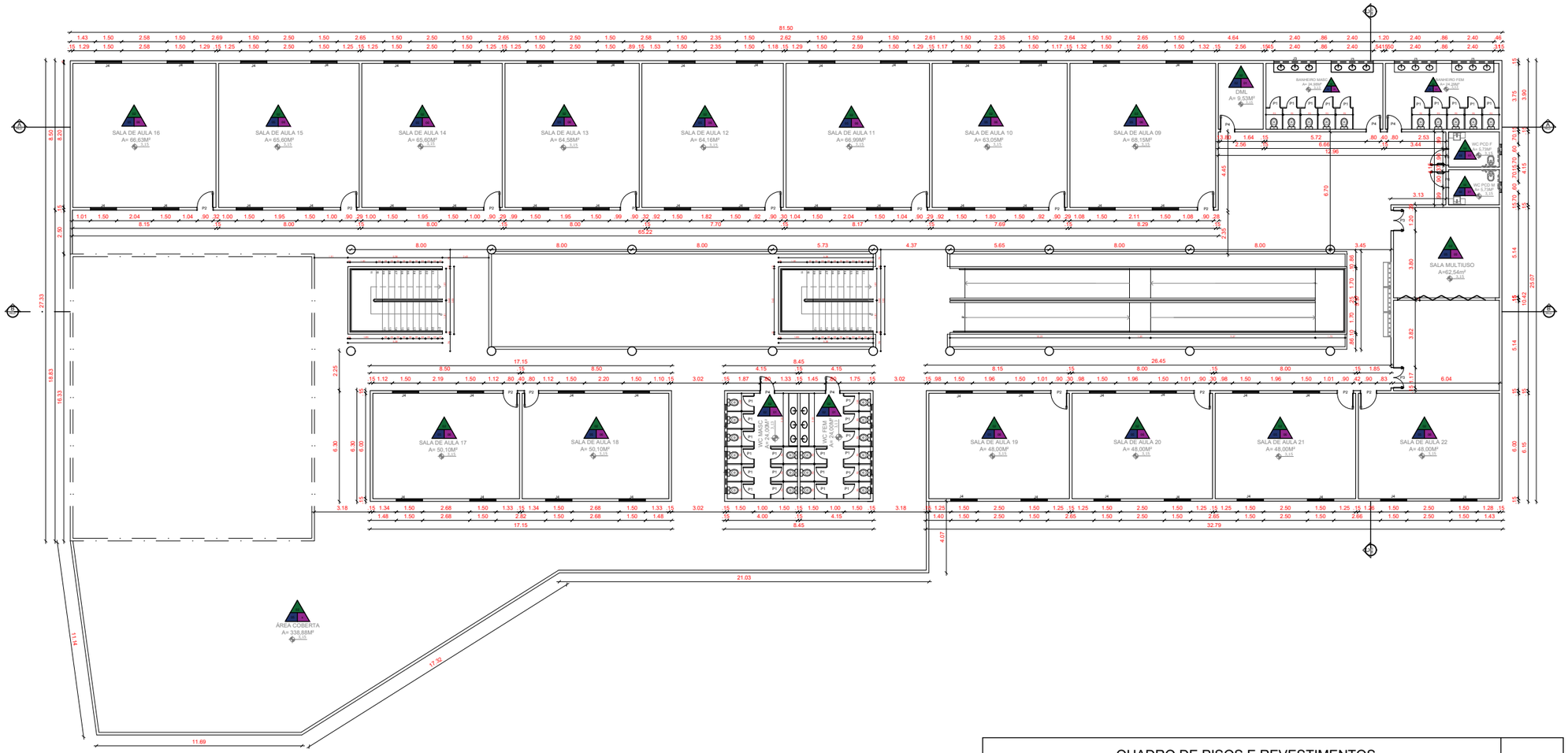
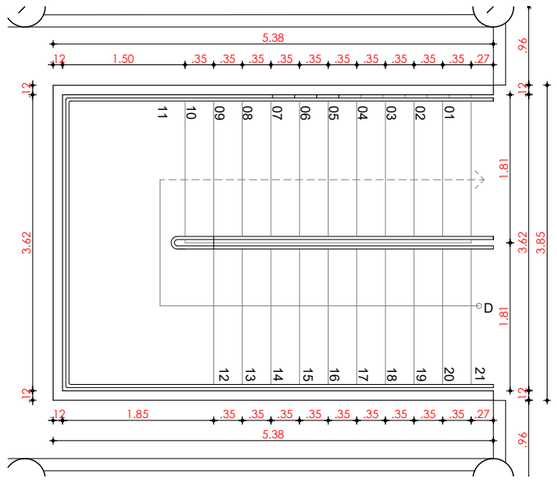
ESCALA: INDICADA

FOLHA: A3

PRANCHA: 11/18



01 PLANTA BAIXA PAV. SUPERIOR
ESCALA ——— 1/275



02 ESCADA
ESCALA ——— 1/100

- QUADRO DE ESQUADRIAS COMPLETO -

ESQUADRIAS - PORTAS / JANELAS

CÓD.	ESPECIFICAÇÃO	DIMENSÕES	QUANT.	TIPO
J1	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	0.60 x 0.50/1.90	09	MAXIM-AR
J2	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	0.85 x 1.70/0.60	11	FOLHA FIXA
J3	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	2.40 x 0.50/1.90	24	MAXIM-AR
J4	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	1.50 x 1.60/1.10	84	VENEZIANA
J5	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	2.00 x 1.00/1.10	06	FOLHA FIXA
J6	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	2.00 x 1.00/1.10	02	VENEZIANA
J7	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	2.50 x 1.00/1.10	01	FOLHA FIXA
J8	JANELA C/ ALUMÍNIO BRANCO E VIDRO DE 4mm INCOLOR	1.20 x 0.50/1.80	02	MAXIM-AR
P1	TIPO ALUMINIO BRANCO PARA BOX	0.60 x 1.70	88	DE ABRIR
P2	TIPO MADEIRA DE LEI COM VISOR 40CM	0.90 x 2.10	22	DE ABRIR
P3	TIPO MADEIRA DE LEI 2 FOLHAS COM VISOR 40CM	1.20 x 2.10	06	DE ABRIR
P4	TIPO MADEIRA DE LEI	0.80 x 2.10	05	DE ABRIR
P5	TIPO MADEIRA DE LEI	0.90 x 2.10	05	DE ABRIR
P6	TIPO MADEIRA DE LEI PARA PNE	0.90 x 2.10	05	DE ABRIR
P7	PORTA DE VIDRO 4 FOLHAS E ALUMINIO BRANCO	3.00 x 2.30	01	DE CORRER
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P9	PORTÃO NYLONFOR AZUL 4 FOLHAS	8.17 x 2.30	01	DE CORRER
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P11	PORTÃO FERRO BRANCO 2 FOLHAS	3.50 x 2.55	01	DE ABRIR
P12	PORTA CHAPA METÁLICA	1.20 x 2.10	01	DE ABRIR
P13	PORTA DUPLA CHAPA METÁLICA CORTA FOGO	2.00 x 2.10	02	DE ABRIR
P14	PORTÃO DE METALON (PADRÃO FARIAS BRITO) BRANCO	2.15 x 1.78	02	DE ABRIR

- QUADRO DE PISOS E REVESTIMENTOS -

CÓD.	ESPECIFICAÇÃO - PISO
01	PISO INDUSTRIAL
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07	PINTURA DA CERAMICA JÁ EXISTENTE 10 x 10 COM TINTA EPÓXI AZUL
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	ESPECIFICAÇÃO - TETO
01	SEM REVESTIMENTO
02	LAJE EMASSADA E PINTADA DE LATEX ACRÍLICO FOSCO NA COR BRANCO NEVE
03	FORRO DE GESSO
04	FORRO DE PVC
05	PINTURA DE ESTRUTURA METÁLICA



OBSERVAÇÕES

- O PISO TÁTIL EXTERNO SERÁ EM PRÉ-MOLDADO PIGMENTADO NA COR AMARELO;
- O PISO TÁTIL INTERNO SERÁ EM EMBORRACHADO NA COR AMARELO;
- O PISO DE CONTORNO DA EDIFICAÇÃO DEVERÁ TER UMA INCLINAÇÃO DE 2% DE CAIMENTO PARA PROTEÇÃO DAS PAREDES.
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- INSTALAR CANTONEIRA DE ALUMÍNIO EM TODOS OS CANTOS VIVOS QUE EXISTIREM CERÂMICA.
- REFORÇAR OS PILARES DA ESTRUTURA METÁLICA ONDE NECESSÁRIO CONFORME O ORÇAMENTO
- AS PAREDES INTERNAS DA AMPLIAÇÃO DEVERÃO SER EMASSADAS E PINTADAS DE ACORDO COM O PROJETO
- O ACABAMENTO DO PAVIMENTO INTERTRAVADO SERÁ FEITO COM MEIO-FIO

OBSERVAÇÕES:
OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;
OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

PROCESSO ADMINISTRATIVO 0898 ASSINADO ELETRONICAMENTE

CARIMBO:

PREFEITURA DE Itapipoca Pra frente, pra gente

CLIENTE: PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL: SEDE ITAPIPOCA - CE

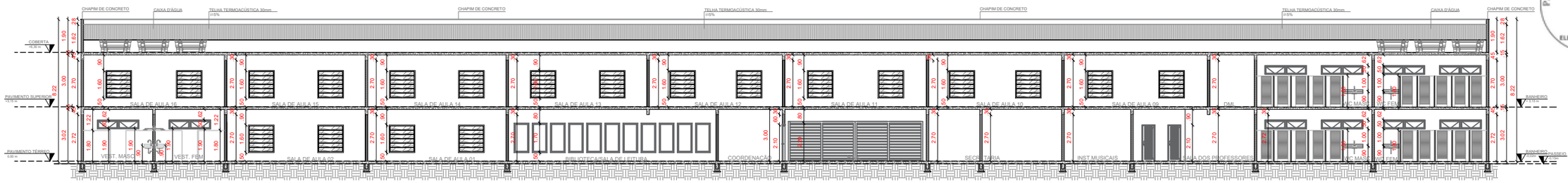
PROJETO: PROJETO ARQUITETÔNICO

ASSUNTO:

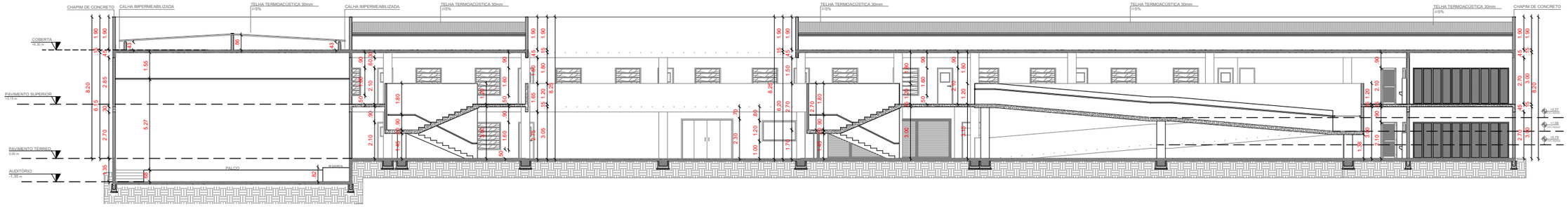
AUTOR: KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
00	
ESCALA: INDICADA	
FOLHA: A3	PRANCHA: 12/18

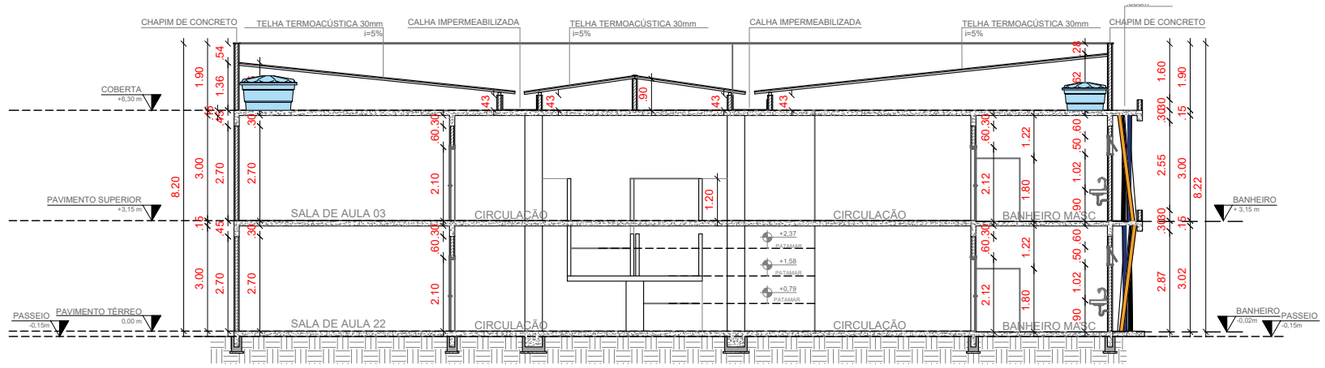
PROCESSO ADMINISTRATIVO
0899
ASSINADO ELETRONICAMENTE



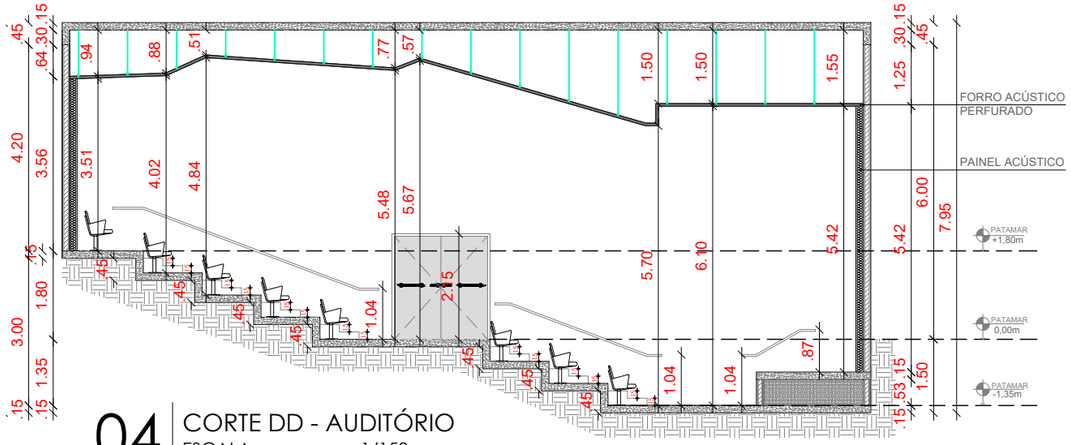
01 CORTE AA
ESCALA ——— 1/250



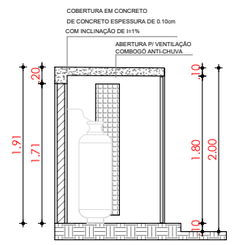
02 CORTE BB
ESCALA ——— 1/250



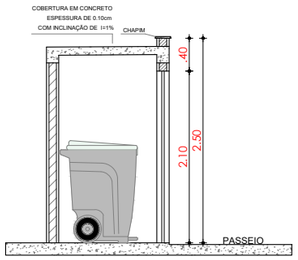
03 CORTE CC
ESCALA ——— 1/175



04 CORTE DD - AUDITÓRIO
ESCALA ——— 1/150



05 CASA DO GÁS
ESCALA ——— 1/75



06 CASA DO LIXO
ESCALA ——— 1/75

OBSERVAÇÕES:
OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;
OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

PREFEITURA DE Itapipoca
Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:

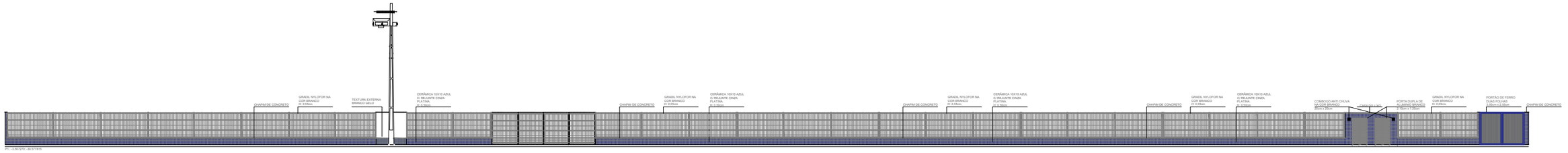
AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
00	

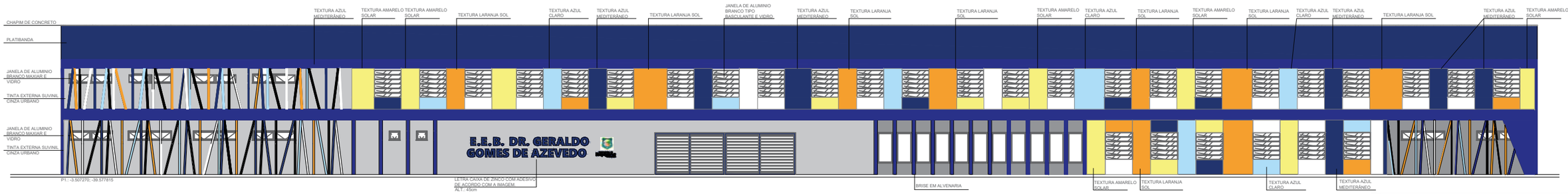
ESCALA	PRANCHA
INDICADA	

FOLHA	PRANCHA
A3	13/18

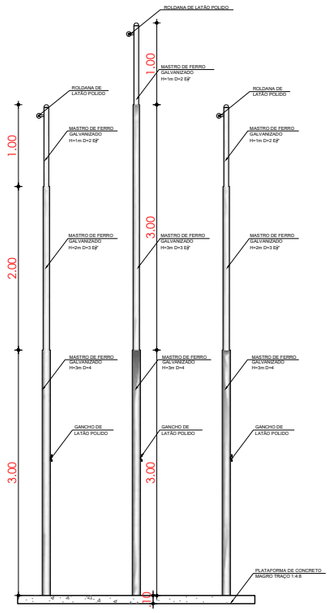
PROCESSO ADMINISTRATIVO
0900
ASSINADO ELETRONICAMENTE



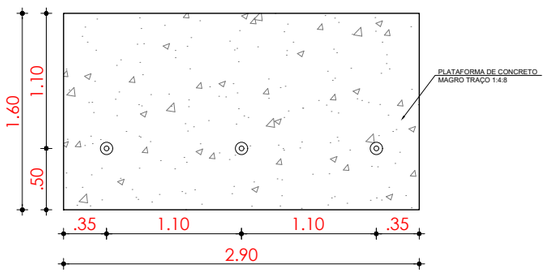
01 FACHADA - RUA
ESCALA ——— 1/325



02 FACHADA ESCOLA
ESCALA————1/275



03 HASTES DAS BANDEIRAS
ESCALA————1/75



04 BASE DAS HASTES
ESCALA————1/50

OBSERVAÇÕES:
OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;
OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

PREFEITURA DE Itapipoca
Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:

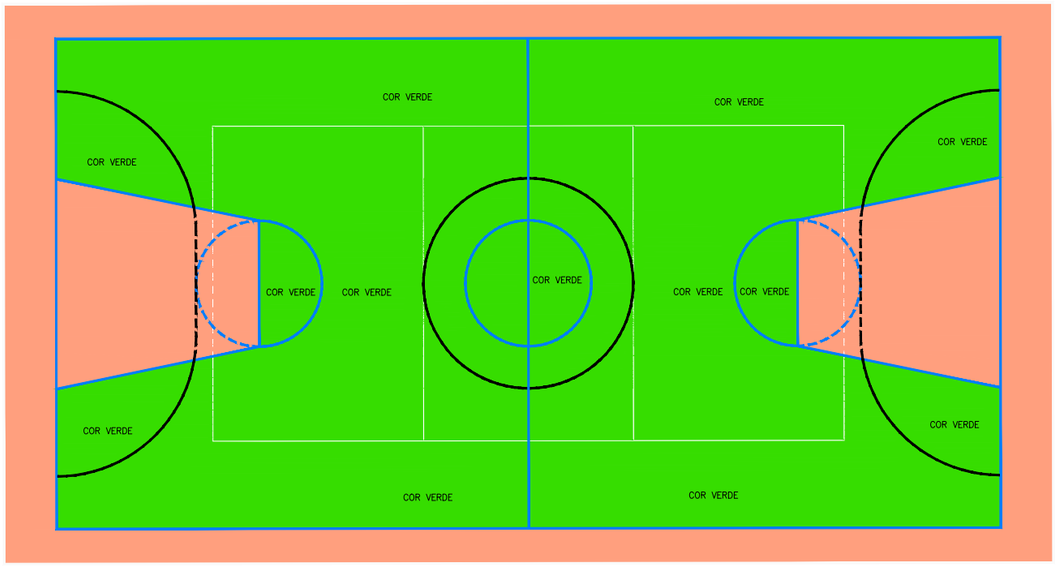
AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
00	

ESCALA
INDICADA

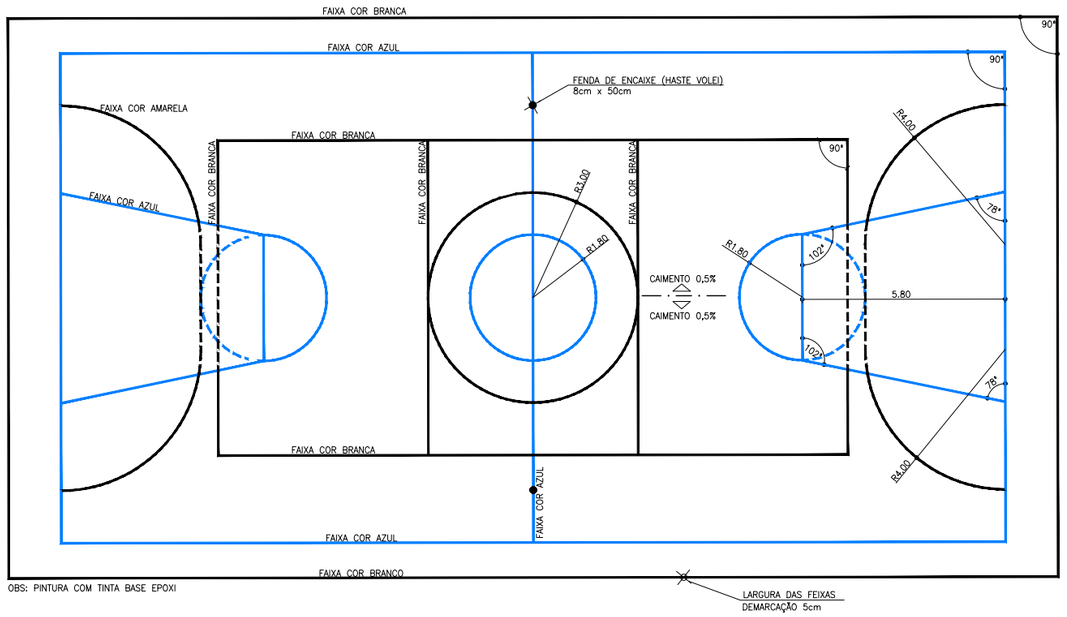
FOLHA	PRANCHA
A3	14/18

PROCESSO ADMINISTRATIVO
0901
ASSINADO ELETRONICAMENTE



COR: PINTURA COM BASE TINTA EPOXI

01 DET. QUADRA
ESCALA 1/175



OBS: PINTURA COM TINTA BASE EPOXI

02 DET. QUADRA
ESCALA 1/175

OBSERVAÇÕES:
OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;
OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

OBSERVAÇÕES:
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CARIMBO:

PREFEITURA DE Itapipoca
Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

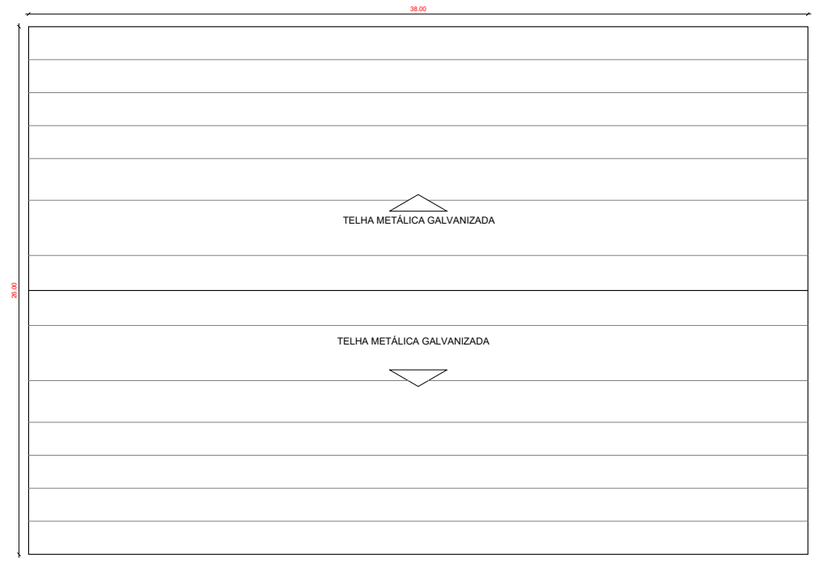
PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:

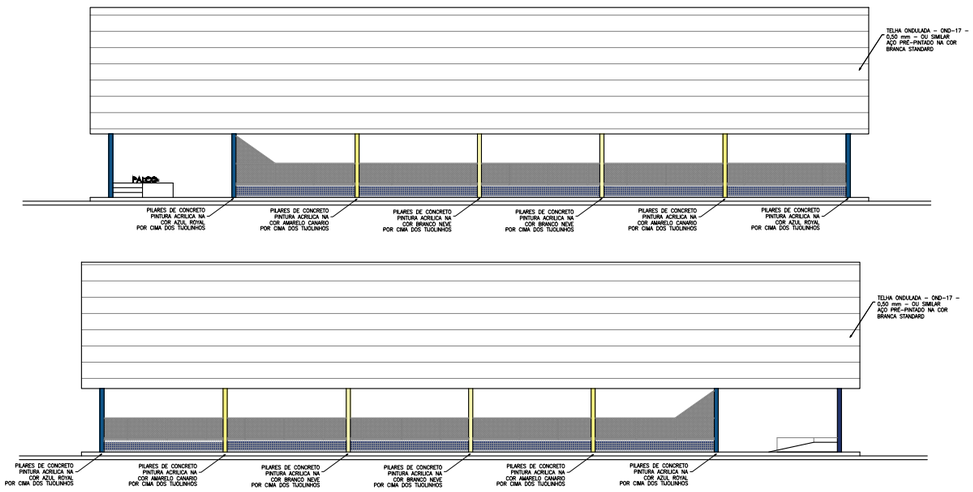
AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
00	
ESCALA: INDICADA	
FOLHA: A3	PRANCHA: 15/18

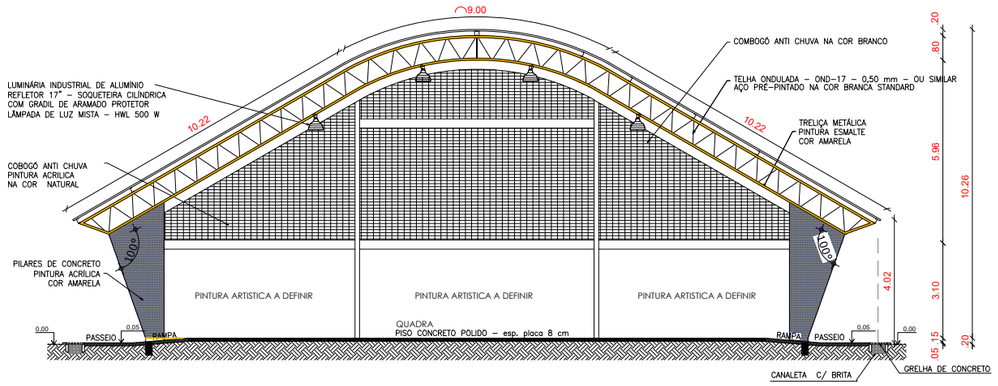
PROCESSO ADMINISTRATIVO
0902
ASSINADO ELETRONICAMENTE



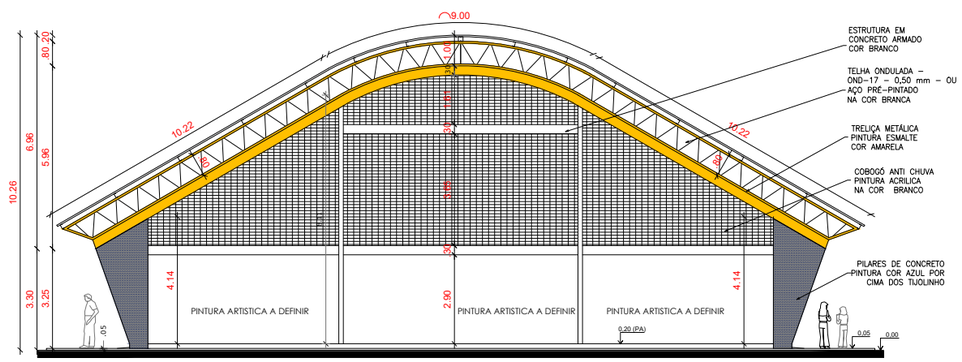
01 COBERTA QUADRA
ESCALA ——— 1/300



02 VISTA QUADRA
ESCALA ——— 1/300



03 VISTA QUADRA
ESCALA ——— 1/200



04 VISTA QUADRA
ESCALA ——— 1/200

OBSERVAÇÕES:
OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;
OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

PREFEITURA DE Itapipoca
Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

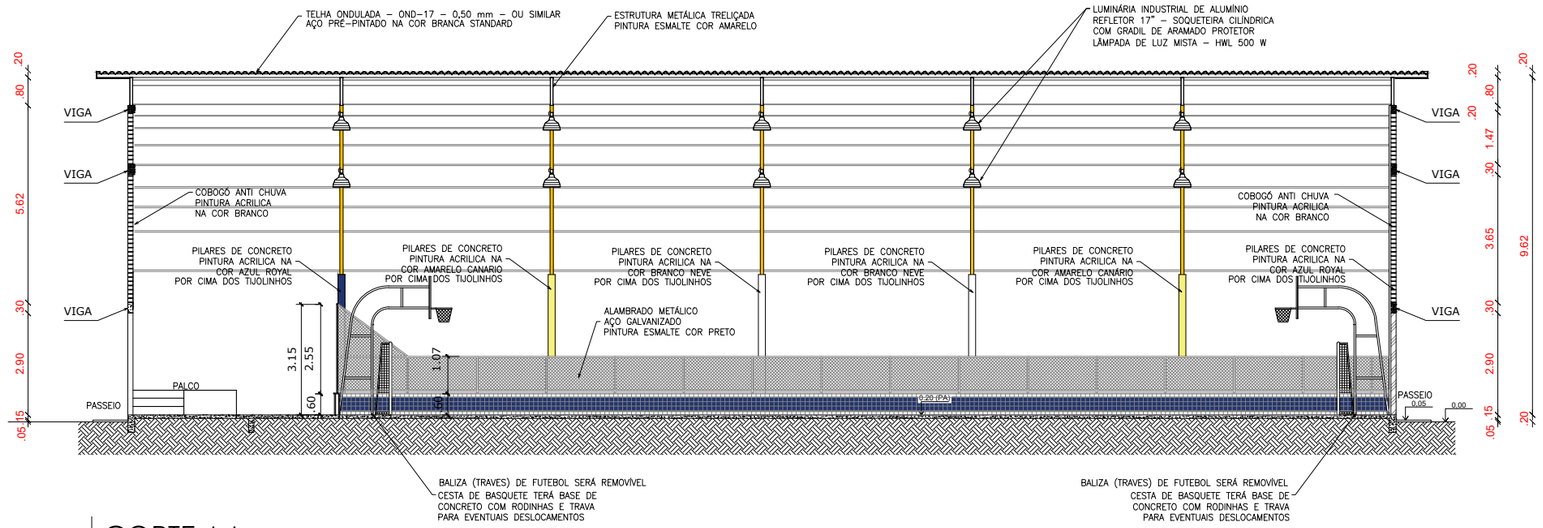
PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:

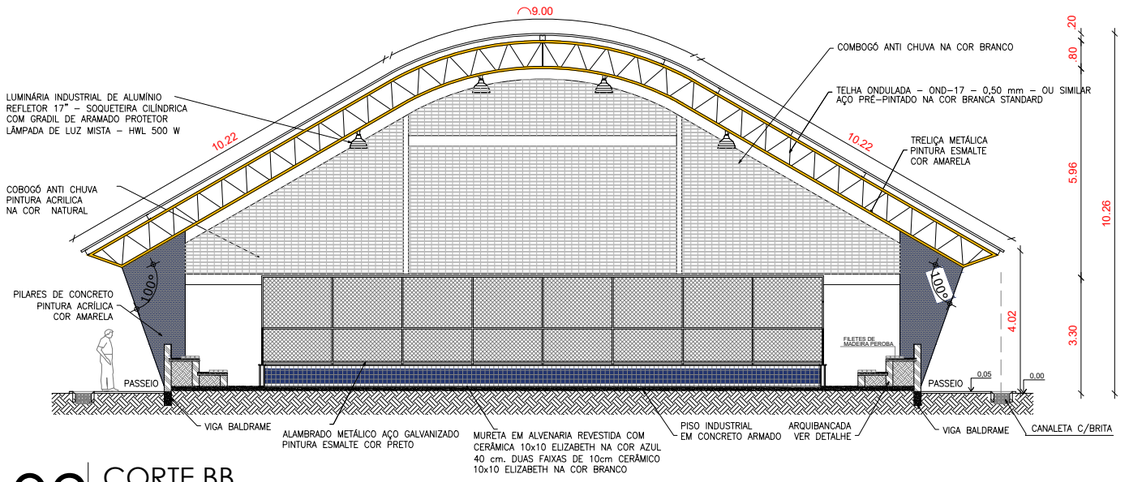
AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
00	
ESCALA: INDICADA	
FOLHA: A3	PRANCHA: 16/18

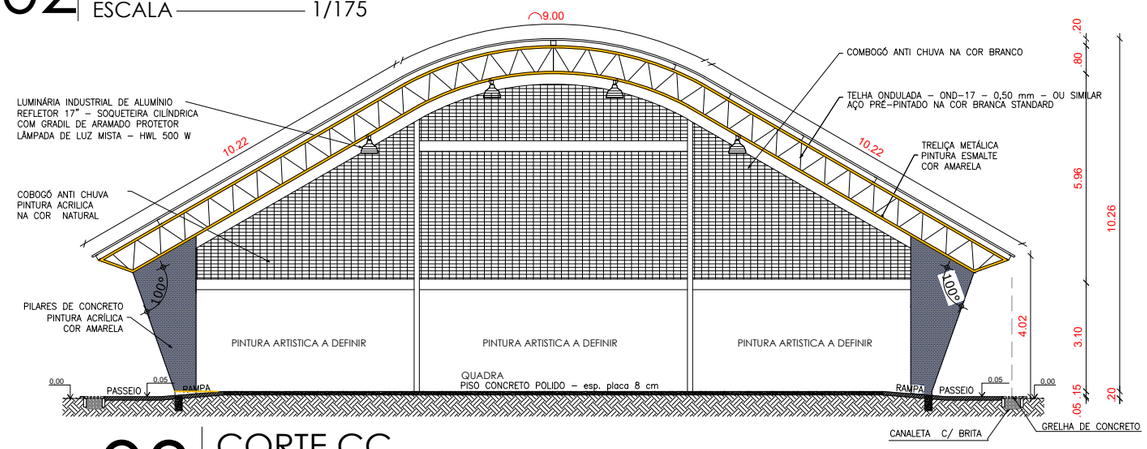
PROCESSO ADMINISTRATIVO
0903
ASSINADO ELETRONICAMENTE



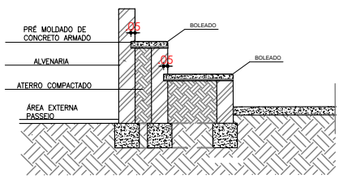
01 CORTE AA
ESCALA 1/175



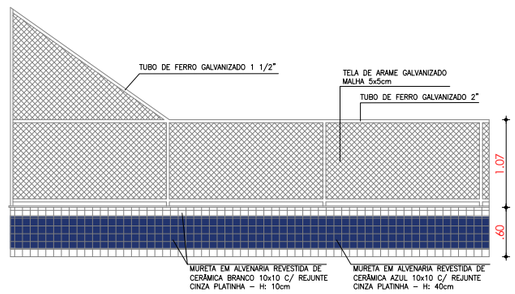
02 CORTE BB
ESCALA 1/175



03 CORTE CC
ESCALA 1/175



04 CORTE ARQUIBANCADA
ESCALA SE



05 DET. ALAMBRADO
ESCALA S/E

OBSERVAÇÕES:
OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;
OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

PREFEITURA DE Itapipoca
Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

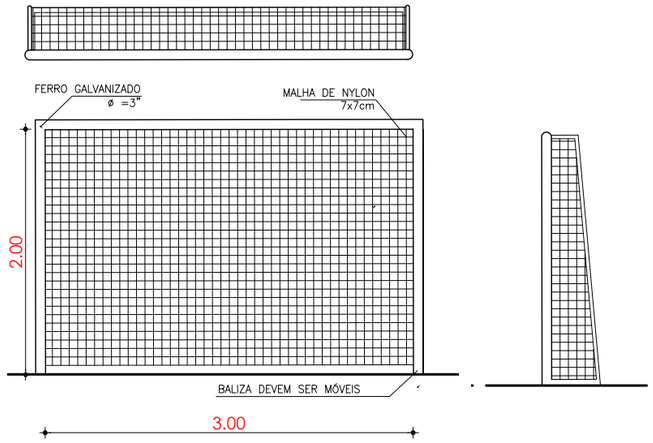
PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:

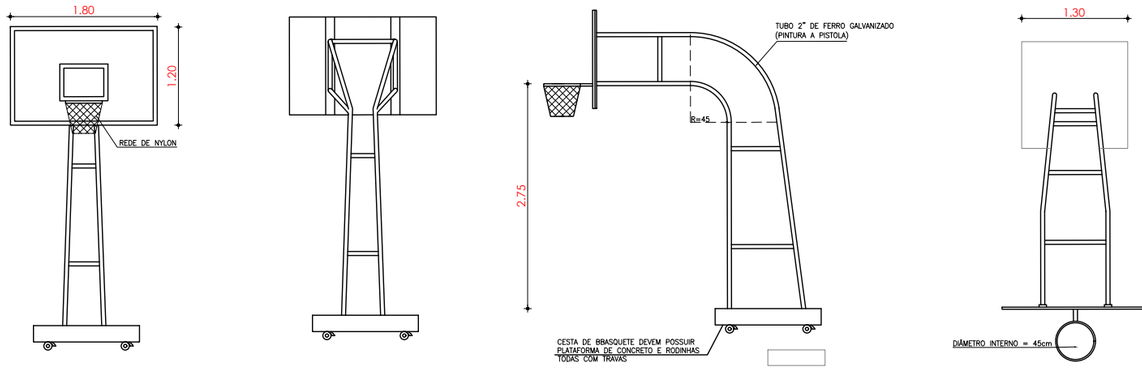
AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
00	
ESCALA: INDICADA	
FOLHA: A3	PRANCHA: 17/18

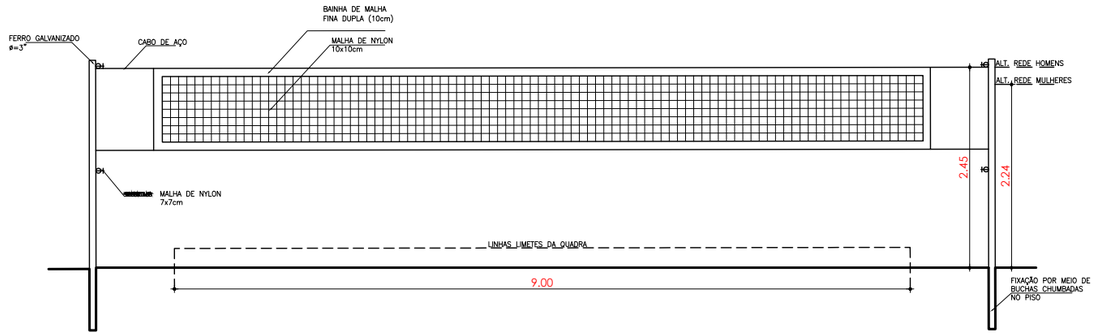
PROCESSO ADMINISTRATIVO
0904
ASSINADO ELETRONICAMENTE



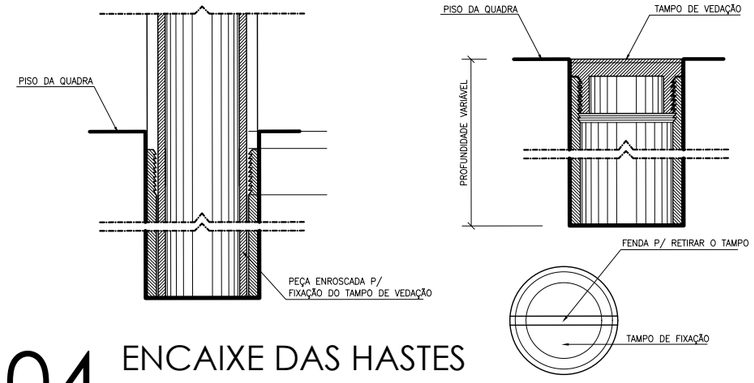
01 BALIZA
ESCALA ——— 1/50



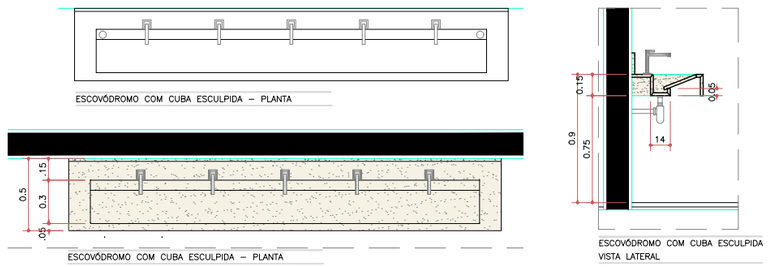
02 CESTA DE BASQUETE
ESCALA ——— 1/100



03 REDE DE VOLEI
ESCALA ——— 1/75



04 ENCAIXE DAS HASTES
ESCALA ——— S/E



05 DET. ESCOVODROMO
ESCALA ——— S/E

OBSERVAÇÕES:
OBS.1: TODAS AS MEDIDAS DEVEM OBRIGATORIAMENTE SER CONFERIDAS NO LOCAL;
OBS.2: QUALQUER ALTERAÇÃO NO PROJETO DEVERÁ SER COMUNICADO AOS ARQUITETOS E ENGENHEIROS.

CARIMBO:

PREFEITURA DE Itapipoca
Pra frente, pra gente

CLIENTE:
PREFEITURA MUNICIPAL DE ITAPIPOCA

TÍTULO:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO GOMES DE AZEVEDO

LOCAL:
SEDE ITAPIPOCA - CE

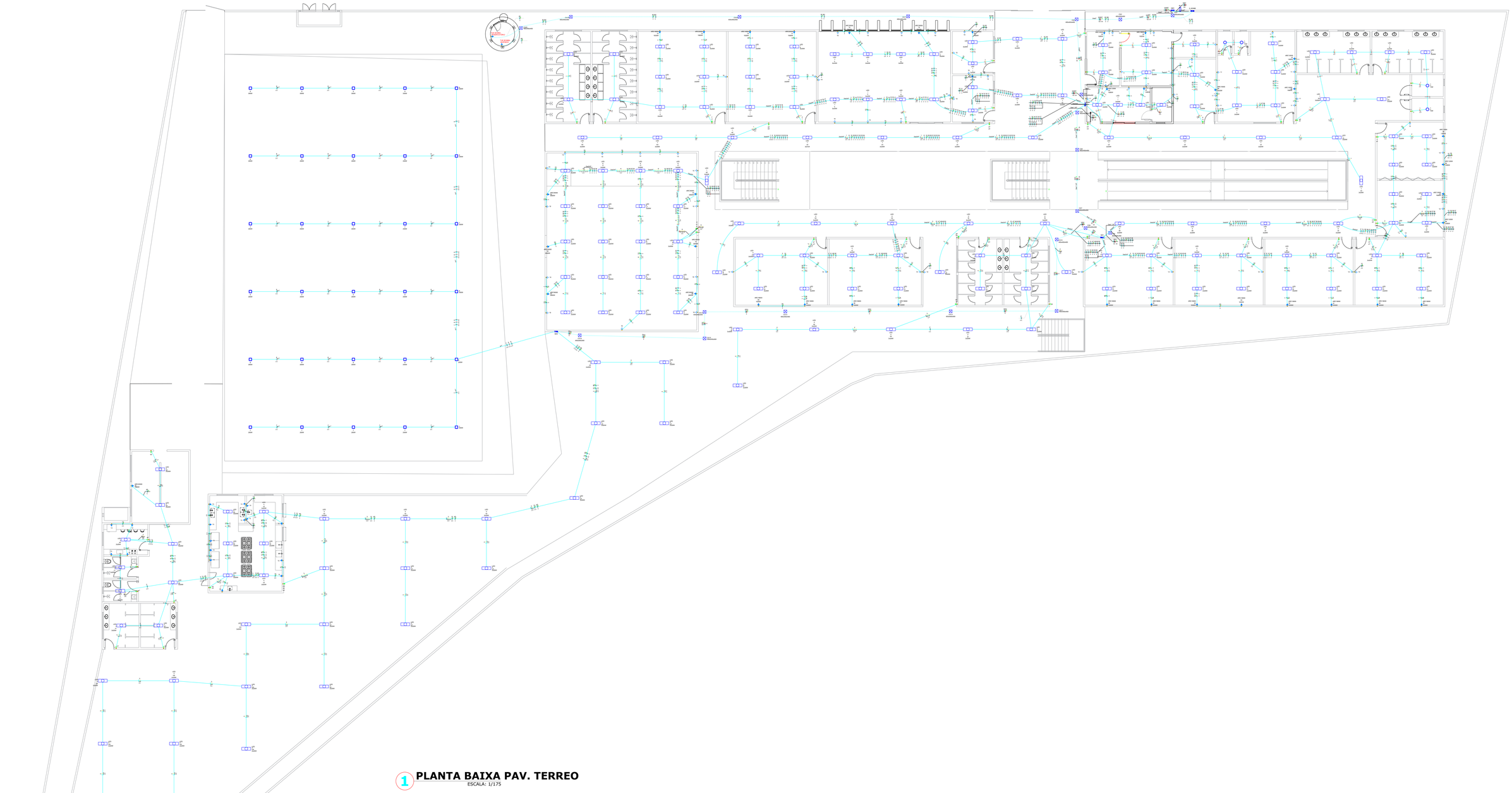
PROJETO:
PROJETO ARQUITETÔNICO

ASSUNTO:

AUTOR
KARLA JÉSSICA ARAÚJO PIRES
ARQUITETA E URBANISTA

REVISÃO	DATA DA REVISÃO
00	
ESCALA: INDICADA	
FOLHA: A3	PRANCHA: 18/18

PROTOCOLO ADMINISTRATIVO
0905
ASSINADO ELETRONICAMENTE



1 PLANTA BAIXA PAV. TERREO
ESCALA: 1/175

Legenda	
	Caixa de passagem
	Entrada de serviço
	Interruptor simples 1 tecla - 1,10m do piso
	Interruptor simples 2 teclas - 1,10m do piso
	Interruptor simples 3 teclas - 1,10m do piso
	Lâmpada LED
	Lâmpada Led 13W
	Quadro de distribuição
	Quadro de medição
	Refletor de LED
	Tomada alta a 2,20m do piso
	Tomada baixa a 0,30m do piso
	Tomada média a 1,10m do piso

2 LEGENDA
SEM/ ESCALA

ANGELO MARCILIO MARQUES DOS SANTOS:05209589340
Assinado de forma digital por ANGELO MARCILIO MARQUES DOS SANTOS:05209589340
Dados: 2026.06.08 18:16:05 -03'00'

Ângelo Marcílio Marques dos Santos
Engenheiro Eletricista
CREA-CE Nº061825415-3

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DE ESCOLA GERALDO GOMES

ASSUNTO: GERALDO GOMES

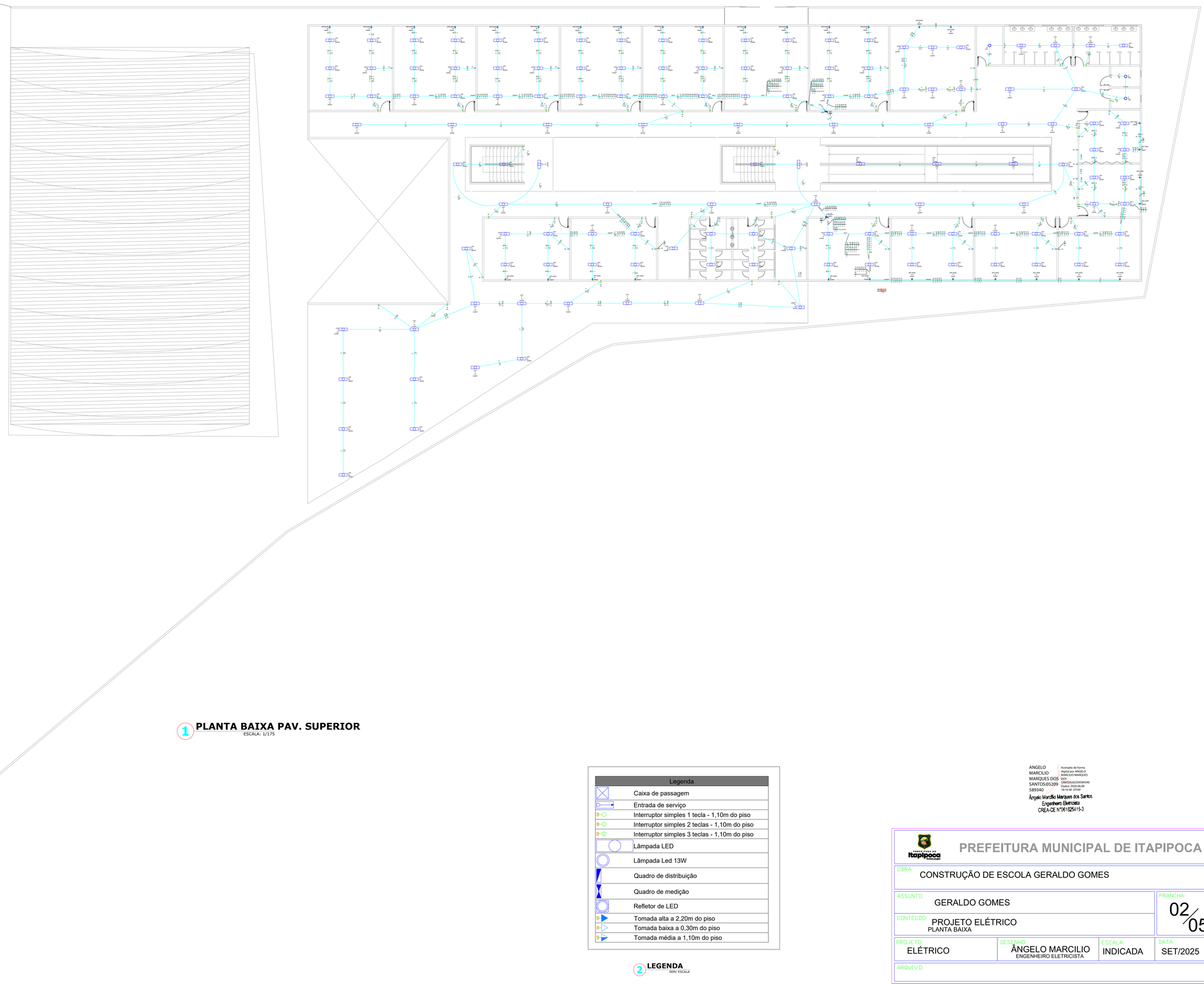
CONTEÚDO: PROJETO ELÉTRICO
PLANTA BAIXA

PRANCHA: 01/05

PROJETO:	DESENHO:	ESCALA:	DATA:
ELÉTRICO	ÂNGELO MARCILIO ENGENHEIRO ELETRICISTA	INDICADA	SET/2025

ARQUIVO:

PROTOCOLO ADMINISTRATIVO
0906
ASSINADO ELETRONICAMENTE



1 PLANTA BAIXA PAV. SUPERIOR
ESCALA: 1/175

Legenda	
	Caixa de passagem
	Entrada de serviço
	Interruptor simples 1 tecla - 1,10m do piso
	Interruptor simples 2 teclas - 1,10m do piso
	Interruptor simples 3 teclas - 1,10m do piso
	Lâmpada LED
	Lâmpada Led 13W
	Quadro de distribuição
	Quadro de medição
	Refletor de LED
	Tomada alta a 2,20m do piso
	Tomada baixa a 0,30m do piso
	Tomada média a 1,10m do piso

2 LEGENDA
SEM ESCALA

ANGELO MARCILIO MARQUES DOS SANTOS:05209589340
Assinado de forma digital por ANGELO MARCILIO MARQUES DOS SANTOS:05209589340
Dados: 2026.06.08 18:16:58 -03'00'

Ângelo Marcílio Marques dos Santos
Engenheiro Eletricista
CREA-CE Nº061825415-3

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DE ESCOLA GERALDO GOMES

ASSUNTO: GERALDO GOMES

CONTEÚDO: PROJETO ELÉTRICO
PLANTA BAIXA

PRANCHA: 02/05

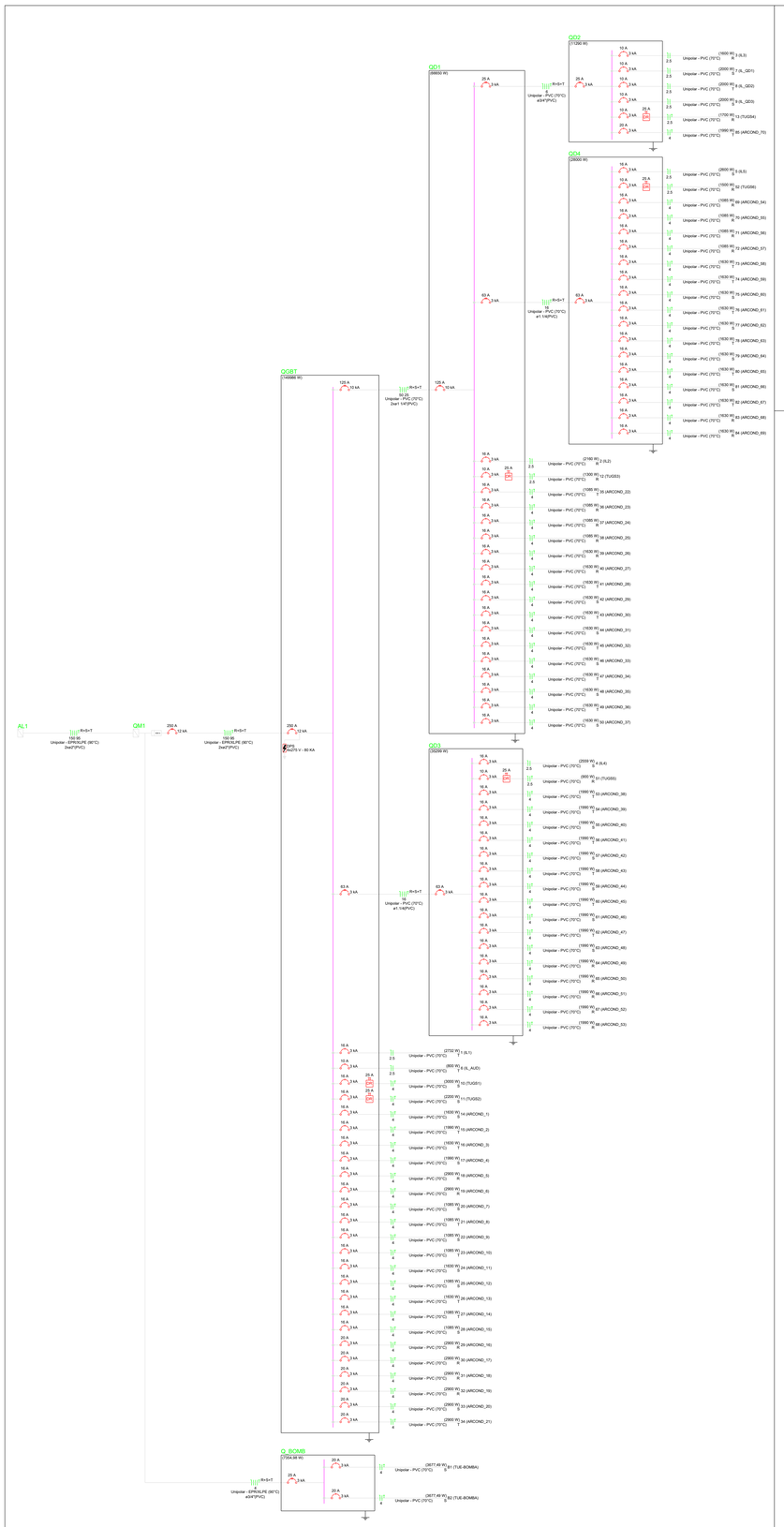
PROJETO:	DESENHO:	ESCALA:	DATA:
ELÉTRICO	ÂNGELO MARCILIO ENGENHEIRO ELETRICISTA	INDICADA	SET/2025

ARQUIVO:

PROTOCOLO ADMINISTRATIVO
0907
ASSINADO ELETRONICAMENTE

1 DIAGRAMA UNIFILAR

ESCALA: S/E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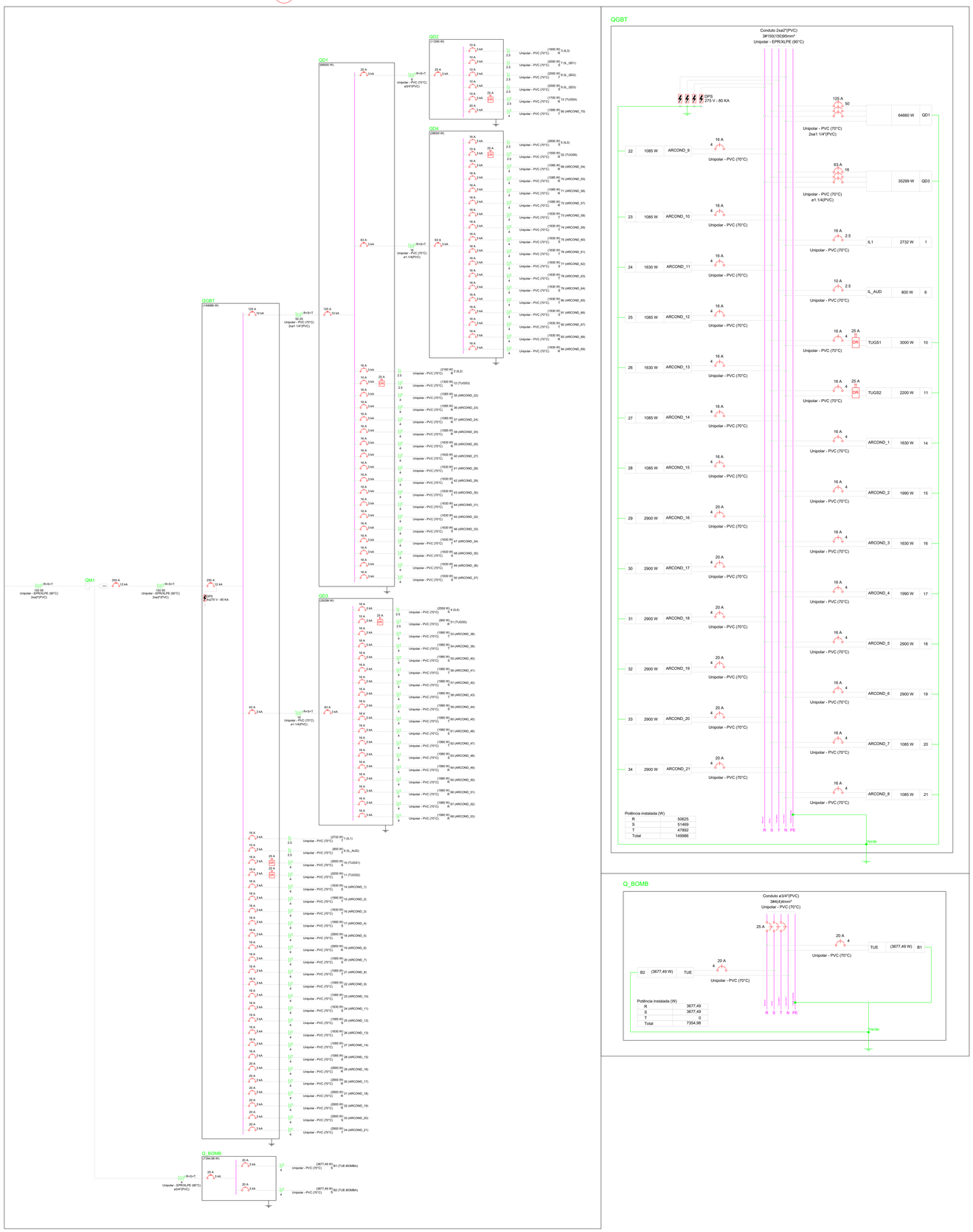
(149986 W)
QD1
(66800 W)
QD2
(71360 W)
QD4
(28000 W)
QD3
(35299 W)
AL1
QM1
Q. BOMB
(1764,98 W)
Unipolar - EPR/XLPE (90°C) 2x4(F)PVC
Unipolar - EPR/XLPE (90°C) 4x4(F)PVC
Unipolar - PVC (70°C) 3x2(F)PVC
Unipolar - PVC (70°C) 2x4(F)PVC
Unipolar - PVC (70°C) 3x4+1x6(F)PVC
Unipolar - PVC (70°C) 2x6(F)PVC
Unipolar - PVC (70°C) 3x6+1x10(F)PVC
Unipolar - PVC (70°C) 2x2,5(F)PVC
Unipolar - PVC (70°C) 3x2,5+1x4(F)PVC
Unipolar - PVC (70°C) 2x1,5(F)PVC
Unipolar - PVC (70°C) 3x1,5+1x2,5(F)PVC
Unipolar - PVC (70°C) 2x10(F)PVC
Unipolar - PVC (70°C) 3x10+1x16(F)PVC
Unipolar - PVC (70°C) 2x16(F)PVC
Unipolar - PVC (70°C) 3x16+1x25(F)PVC
Unipolar - PVC (70°C) 2x25(F)PVC
Unipolar - PVC (70°C) 3x25+1x35(F)PVC
Unipolar - PVC (70°C) 2x35(F)PVC
Unipolar - PVC (70°C) 3x35+1x50(F)PVC
Unipolar - PVC (70°C) 2x50(F)PVC
Unipolar - PVC (70°C) 3x50+1x70(F)PVC
Unipolar - PVC (70°C) 2x70(F)PVC
Unipolar - PVC (70°C) 3x70+1x95(F)PVC
Unipolar - PVC (70°C) 2x95(F)PVC
Unipolar - PVC (70°C) 3x95+1x120(F)PVC
Unipolar - PVC (70°C) 2x120(F)PVC
Unipolar - PVC (70°C) 3x120+1x150(F)PVC
Unipolar - PVC (70°C) 2x150(F)PVC
Unipolar - PVC (70°C) 3x150+1x185(F)PVC
Unipolar - PVC (70°C) 2x185(F)PVC
Unipolar - PVC (70°C) 3x185+1x240(F)PVC
Unipolar - PVC (70°C) 2x240(F)PVC
Unipolar - PVC (70°C) 3x240+1x300(F)PVC
Unipolar - PVC (70°C) 2x300(F)PVC
Unipolar - PVC (70°C) 3x300+1x400(F)PVC
Unipolar - PVC (70°C) 2x400(F)PVC
Unipolar - PVC (70°C) 3x400+1x500(F)PVC
Unipolar - PVC (70°C) 2x500(F)PVC
Unipolar - PVC (70°C) 3x500+1x630(F)PVC
Unipolar - PVC (70°C) 2x630(F)PVC
Unipolar - PVC (70°C) 3x630+1x800(F)PVC
Unipolar - PVC (70°C) 2x800(F)PVC
Unipolar - PVC (70°C) 3x800+1x1000(F)PVC
Unipolar - PVC (70°C) 2x1000(F)PVC
Unipolar - PVC (70°C) 3x1000+1x1250(F)PVC
Unipolar - PVC (70°C) 2x1250(F)PVC
Unipolar - PVC (70°C) 3x1250+1x1500(F)PVC
Unipolar - PVC (70°C) 2x1500(F)PVC
Unipolar - PVC (70°C) 3x1500+1x1600(F)PVC
Unipolar - PVC (70°C) 2x1600(F)PVC
Unipolar - PVC (70°C) 3x1600+1x2000(F)PVC
Unipolar - PVC (70°C) 2x2000(F)PVC
Unipolar - PVC (70°C) 3x2000+1x2500(F)PVC
Unipolar - PVC (70°C) 2x2500(F)PVC
Unipolar - PVC (70°C) 3x2500+1x3000(F)PVC
Unipolar - PVC (70°C) 2x3000(F)PVC
Unipolar - PVC (70°C) 3x3000+1x3500(F)PVC
Unipolar - PVC (70°C) 2x3500(F)PVC
Unipolar - PVC (70°C) 3x3500+1x4000(F)PVC
Unipolar - PVC (70°C) 2x4000(F)PVC
Unipolar - PVC (70°C) 3x4000+1x4500(F)PVC
Unipolar - PVC (70°C) 2x4500(F)PVC
Unipolar - PVC (70°C) 3x4500+1x5000(F)PVC
Unipolar - PVC (70°C) 2x5000(F)PVC
Unipolar - PVC (70°C) 3x5000+1x6000(F)PVC
Unipolar - PVC (70°C) 2x6000(F)PVC
Unipolar - PVC (70°C) 3x6000+1x7000(F)PVC
Unipolar - PVC (70°C) 2x7000(F)PVC
Unipolar - PVC (70°C) 3x7000+1x8000(F)PVC
Unipolar - PVC (70°C) 2x8000(F)PVC
Unipolar - PVC (70°C) 3x8000+1x9000(F)PVC
Unipolar - PVC (70°C)

PROTOCOLO ADMINISTRATIVO
0908
ASSINADO ELETRONICAMENTE

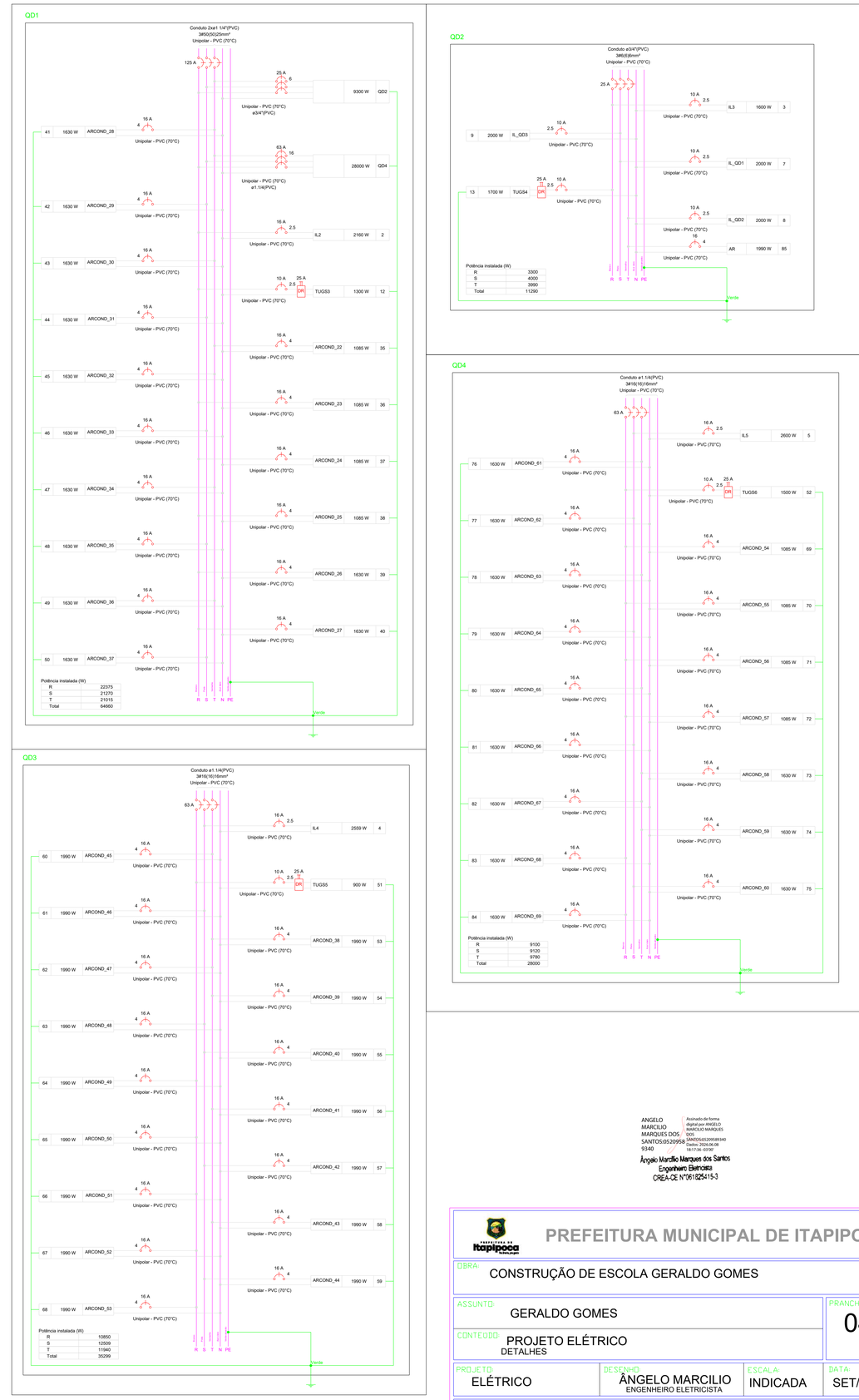
1 DIAGRAMA UNIFILAR

ESCALA: S/E



2 DIAGRAMA MULTIFILAR

ESCALA: S/E



ANGELO MARCILIO MARQUES DOS SANTOS:05209589340
9340

Assinado de forma digital por ANGELO MARCILIO MARQUES DOS SANTOS:05209589340
Dados: 2026.06.08 18:17:34 -03'00'

Ângelo Marcílio Marques dos Santos
Engenheiro Eletricista
CREA-CE Nº061825415-3

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DE ESCOLA GERALDO GOMES

ASSUNTO: GERALDO GOMES

CONTEÚDO: PROJETO ELÉTRICO
DETALHES

PRANCHA: 04/05

PROJETO: ELÉTRICO

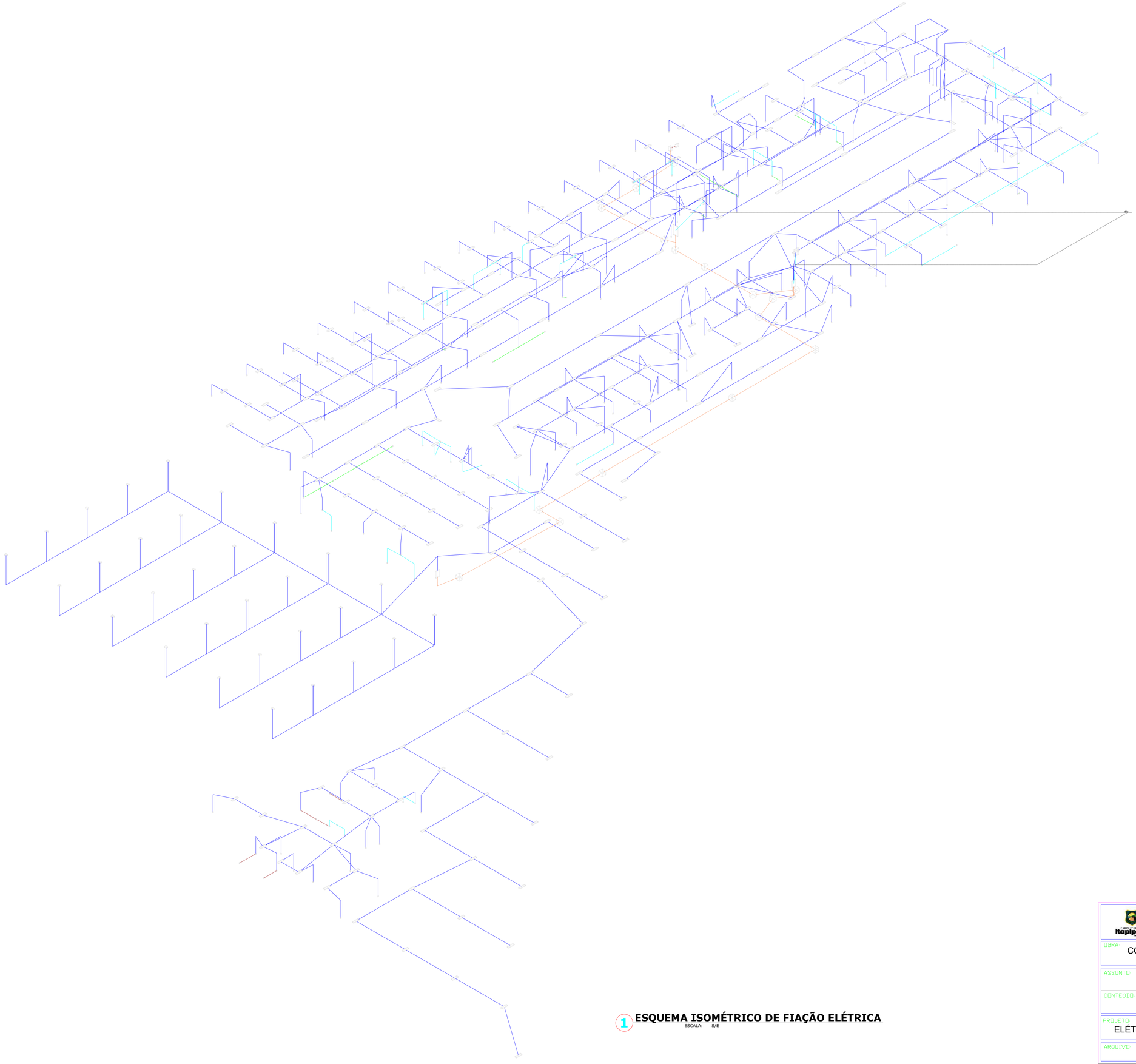
DESENHO: ÂNGELO MARCILIO
ENGENHEIRO ELETRICISTA

ESCALA: INDICADA

DATA: SET/2025

ARQUIVO:

PROTOCOLO ADMINISTRATIVO
0909
ASSINADO ELETRONICAMENTE



1 ESQUEMA ISOMÉTRICO DE FIAÇÃO ELÉTRICA
ESCALA: S/E

ANGELO MARCILIO MARQUES DOS SANTOS:05209589340
Assinado de forma digital por ANGELO MARCILIO MARQUES DOS SANTOS:05209589340
Dados: 2026.06.08 18:18:04 -03'00'

Ângelo Marcílio Marques dos Santos
Engenheiro Eletricista
CREA-CE Nº061825415-3

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DE ESCOLA GERALDO GOMES

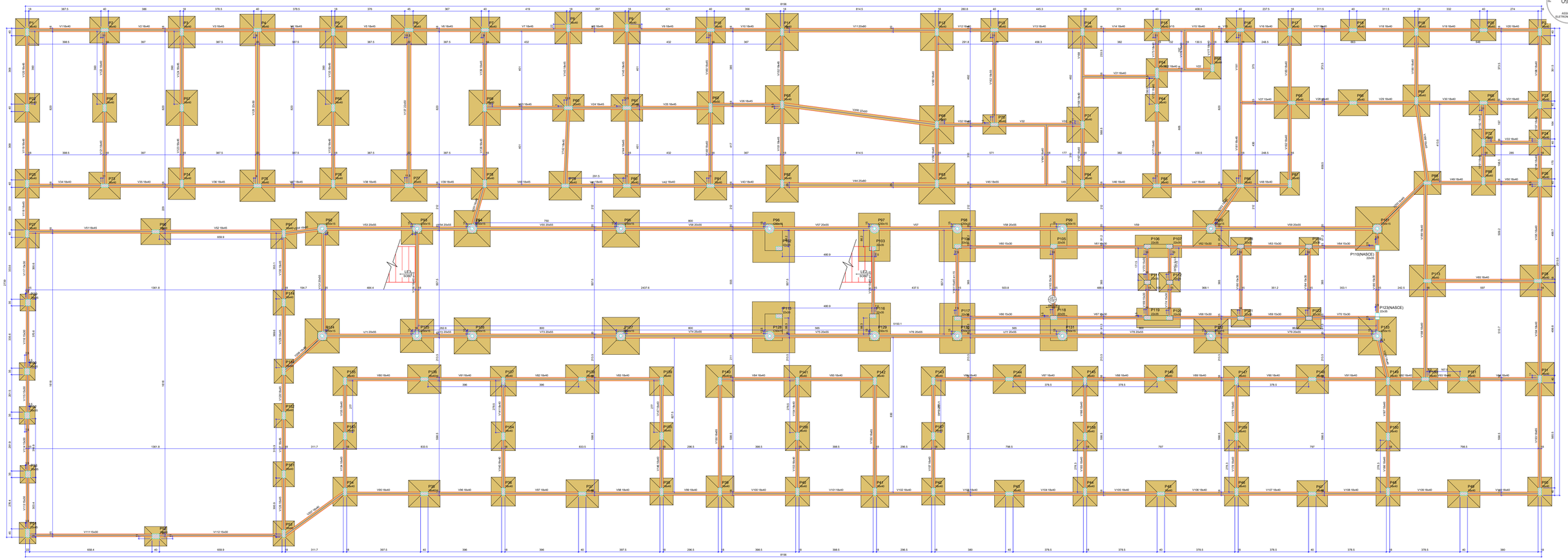
ASSUNTO: GERALDO GOMES

PRANCHA: 05/05

CONTEÚDO: PROJETO ELÉTRICO
ISOMÉTRICO

PROJETO:	DESENHO:	ESCALA:	DATA:
ELÉTRICO	ÂNGELO MARCILIO ENGENHEIRO ELETRICISTA	INDICADA	SET/2025

ARQUIVO:



1 PLANTA FORMA PAVIMENTO FUNDAÇÃO

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V1	18x40	0	0
V2	18x40	0	0
V3	18x45	0	0
V4	18x45	0	0
V5	18x45	0	0
V6	18x45	0	0
V7	18x45	0	0
V8	18x45	0	0
V9	18x45	0	0
V10	18x45	0	0
V11	20x80	0	0
V12	18x40	0	0
V13	18x40	0	0
V14	18x40	0	0
V15	18x40	0	0
V16	18x40	0	0
V17	18x40	0	0
V18	18x40	0	0
V19	18x40	0	0
V20	18x40	0	0
V21	18x40	0	0
V22	18x40	0	0
V23	18x45	0	0
V24	18x45	0	0
V25	18x45	0	0
V26	18x45	0	0
V27	15x40	0	0
V28	18x40	0	0
V29	18x40	0	0
V30	18x40	0	0
V31	18x40	0	0
V32	18x40	0	0
V33	18x40	0	0
V34	18x40	0	0
V35	18x40	0	0
V36	18x45	0	0
V37	18x45	0	0
V38	18x45	0	0
V39	18x45	0	0
V40	18x45	0	0
V41	18x45	0	0
V42	18x40	0	0
V43	18x40	0	0
V44	25x80	0	0
V45	18x55	0	0
V46	18x40	0	0
V47	18x40	0	0
V48	18x40	0	0
V49	18x40	0	0
V50	18x40	0	0
V51	18x45	0	0
V52	18x45	0	0

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V105	18x40	0	0
V106	18x40	0	0
V107	18x40	0	0
V108	18x40	0	0
V109	18x40	0	0
V110	18x40	0	0
V111	15x30	0	0
V112	15x30	0	0
V113	15x30	0	0
V114	15x30	0	0
V115	15x30	0	0
V116	15x30	0	0
V117	15x30	0	0
V118	18x45	0	0
V119	18x45	0	0
V120	18x45	0	0
V121	18x40	0	0
V122	18x40	0	0
V123	18x45	0	0
V124	18x45	0	0
V125	22x50	0	0
V126	18x45	0	0
V127	18x45	0	0
V128	18x45	0	0
V129	18x45	0	0
V130	18x45	0	0
V131	20x55	0	0
V132	18x45	0	0
V133	18x45	0	0
V134	18x40	0	0
V135	18x40	0	0
V136	18x40	-5	-5
V137	22x50	0	0
V138	18x45	0	0
V139	18x45	0	0
V140	18x40	0	0
V141	18x40	0	0
V142	18x45	0	0
V143	18x45	0	0
V144	18x45	0	0
V145	18x45	0	0
V146	18x40	0	0
V147	18x40	0	0
V148	18x40	0	0
V149	18x45	0	0
V150	18x65	0	0
V151	18x45	0	0
V152	18x45	0	0
V153	18x40	0	0
V154	18x40	0	0
V155	18x65	0	0
V156	15x40	-20	-20

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V157	18x40	0	0
V158	18x40	0	0
V159	18x40	0	0
V160	18x40	0	0
V161	15x45	-15	-15
V162	18x55	0	0
V163	15x30	0	0
V164	18x40	0	0
V165	18x40	0	0
V166	18x40	0	0
V167	18x40	0	0
V168	18x40	0	0
V169	15x30	0	0
V170	15x30	0	0
V171	18x40	0	0
V172	18x40	0	0
V173	18x40	0	0
V174	15x30	0	0
V175	15x30	0	0
V176	18x40	0	0
V177	18x40	0	0
V178	18x40	0	0
V179	18x40	0	0
V180	15x35	0	0
V181	18x45	0	0
V182	18x40	0	0
V183	18x40	0	0
V184	15x35	0	0
V185	15x30	0	0
V186	18x40	0	0
V187	18x40	0	0
V188	18x40	0	0
V189	18x40	0	0
V190	18x40	0	0
V191	18x40	0	0
V192	18x40	0	0
V193	18x65	0	0
V194	18x40	0	0
V195	18x40	0	0
V196	18x40	0	0
V197	18x40	0	0
V198	18x40	0	0
V199	18x45	0	0
V200	22x50	0	0
V201	18x40	0	0
V202	18x40	0	0
V203	18x45	0	0
V204	18x40	0	0
V205	18x40	0	0
V206	18x40	0	0
V207	18x40	0	0

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P1	18x40	0	0
P2	18x40	0	0
P3	18x40	0	0
P4	18x40	0	0
P5	18x40	0	0
P6	18x45	0	0
P7	18x40	0	0
P8	18x40	0	0
P9	18x40	0	0
P10	18x40	0	0
P11	18x40	0	0
P12	18x40	0	0
P13	18x40	0	0
P14	18x40	0	0
P15	18x40	0	0
P16	18x40	0	0
P17	18x40	0	0
P18	18x40	0	0
P19	18x40	0	0
P20	18x40	0	0
P21	18x40	0	0
P22	18x40	0	0
P23	18x40	0	0
P24	18x40	0	0
P25	18x40	0	0
P26	18x40	0	0
P27	18x40	0	0
P28	18x40	0	0
P29	26x35	0	0
P30	26x35	0	0
P31	18x40	0	0
P32	26x35	0	0
P33	26x35	0	0
P34	18x40	0	0
P35	18x40	0	0
P36	18x40	0	0
P37	18x40	0	0
P38	18x40	0	0
P39	18x40	0	0
P40	18x40	0	0

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P41	18x40	0	0
P42	18x40	0	0
P43	18x40	0	0
P44	18x40	0	0
P45	18x40	0	0
P46	18x40	0	0
P47	18x40	0	0
P48	18x40	0	0
P49	18x40	0	0
P50	18x40	0	0
P51	22x45	0	0
P52	26x40	0	0
P53	18x40	0	0
P54	18x55	0	0
P55	18x40	0	0
P56	18x40	0	0
P57	18x40	0	0
P58	18x40	0	0
P59	18x40	0	0
P60	20x45	0	0
P61	20x45	0	0
P62	18x50	0	0
P63	18x40	0	0
P64	18x40	0	0
P65	18x40	0	0
P66	18x40	0	0
P67	18x40	0	0
P68	18x40	0	0
P69	18x40	0	0
P70	18x40	0	0
P71	18x40	0	0
P72	18x40	0	0
P73	18x40	0	0
P74	18x40	0	0
P75	18x40	0	0
P76	18x40	0	0
P77	20x45	0	0
P78	18x40	0	0
P79	18x40	0	0
P80	18x40	0	0

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P81	18x40	0	0
P82	18x40	0	0
P83	18x40	0	0
P84	18x40	0	0
P85	18x40	0	0
P86	18x40	0	0
P87	18x40	0	0
P88	18x40	0	0
P89	18x40	0	0
P90	18x40	0	0
P91	18x40	0	0
P92	Circ 50x15	0	0
P93	Circ 50x15	0	0
P94	Circ 50x15	0	0
P95	Circ 50x15	0	0
P96	Circ 50x15	0	0
P97	Circ 50x15	0	0
P98	Circ 50x15	0	0
P99	Circ 50x15	0	0
P100	Circ 50x15	0	0
P101	Circ 50x15	0	0
P102	22x35	0	0
P103	22x35	0	0
P104	22x35	0	0
P105	22x35	0	0
P106	22x35	0	0
P107	22x35	0	0
P108	22x35	0	0
P109	22x35	0	0
P110	22x35	0	0
P111	22x35	0	0
P112	22x35	0	0
P113	18x40	0	0
P114	18x40	0	0
P115	22x35	0	0
P116	22x35	0	0
P117	22x35	0	0
P118	22x35	0	0
P119	22x35	0	0
P120	22x35	0	0

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P121	22x35	0	0
P122	22x35	0	0
P123	22x35	0	0
P124	Circ 50x15	0	0
P125	Circ 50x15	0	0
P126	Circ 50x15	0	0
P127	Circ 50x15	0	0
P128	Circ 50x15	0	0
P129	Circ 50x15	0	0
P130	Circ 50x15	0	0
P131	Circ 50x15	0	0
P132	Circ 50x15	0	0
P133	Circ 50x15	0	0
P134	18x40	0	0
P135	18x40	0	0
P136	18x40	0	0
P137	18x40	0	0
P138	18x40	0	0
P139	18x40	0	0
P140	18x40	0	0
P141	18x40	0	0
P142	18x40	0	0
P143	18x40	0	0
P144	18x40	0	0
P145	18x40	0	0
P146	18x40	0	0
P147	18x40	0	0
P148	18x40	0	0
P149	18x40	0	0
P150	18x40	0	0
P151	18x40	0	0
P152	18x40	0	0
P153	18x40	0	0
P154	18x40	0	0
P155	18x40	0	0
P156	18x40	0	0
P157	18x40	0	0
P158	18x40	0	0
P159	18x40	0	0
P160	18x40	0	0
P161	18x40	0	0

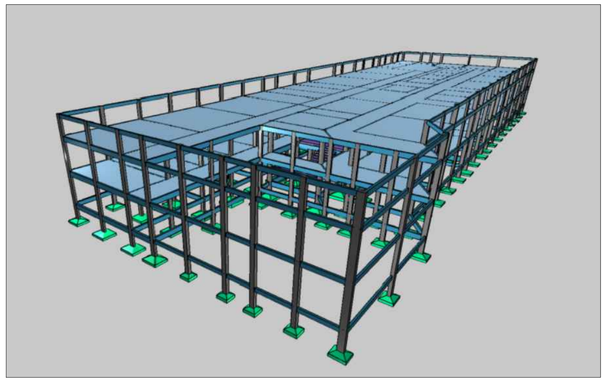
Características dos materiais	
fck (kgf/cm²)	Ecs (kgf/cm²)
250	241500

Dimensão máxima do agregado = 19 mm

Legenda dos pilares
Pilar que passa
Pilar que nasce

Legenda das vigas e paredes
Viga

2 PROJEÇÃO ESTRUTURAL 3D



PROCESSO ADMINISTRATIVO 0910 ASSINADO ELETRONICAMENTE

gov.br Documento assinado digitalmente MOISES GIANLUCA DOS SANTOS MARINHO Data: 09/06/2026 17:21:20-0300 Verifique em https://validar.iti.gov.br

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

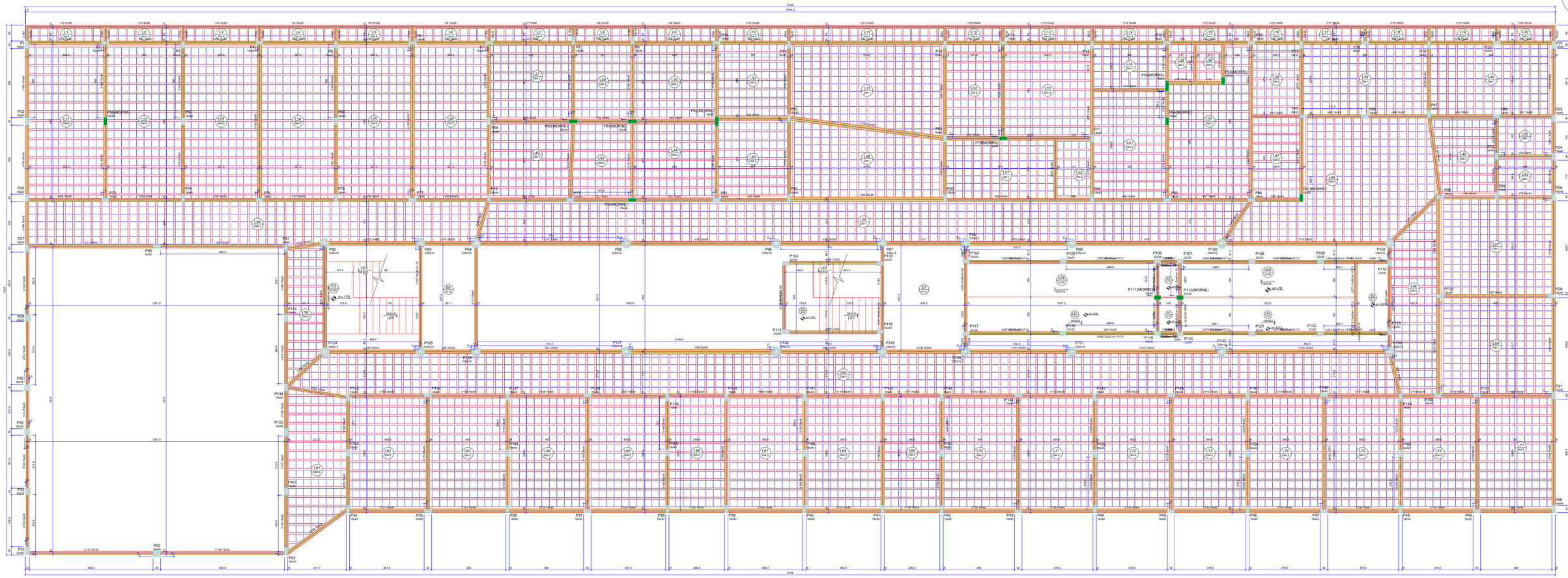
PRANCHA: 01/50

CONTEÚDO: PLANTA FORMA PAVIMENTO DE FUNDAÇÃO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0911
ASSINADO ELETRONICAMENTE


8156
8154.5
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P46 18x40
P47 18x40
P48 18x40
P49 18x40
P50 18x40
P51 20x40
P52 20x30
P53 18x40
P54(MORRE) 18x40
P55(MORRE) 20x40
P56(MORRE) 18x40
P57(MORRE) 18x40
P58(MORRE) 18x40
P59 18x40
P60(MORRE) 20x40
P61 20x45
P62 18x50
P63 18x40
P64 18x40
P65 18x40
P66 18x40
P67 18x40
P68 18x40
P69 18x40
P70 18x40
P71 18x40
P72 18x40
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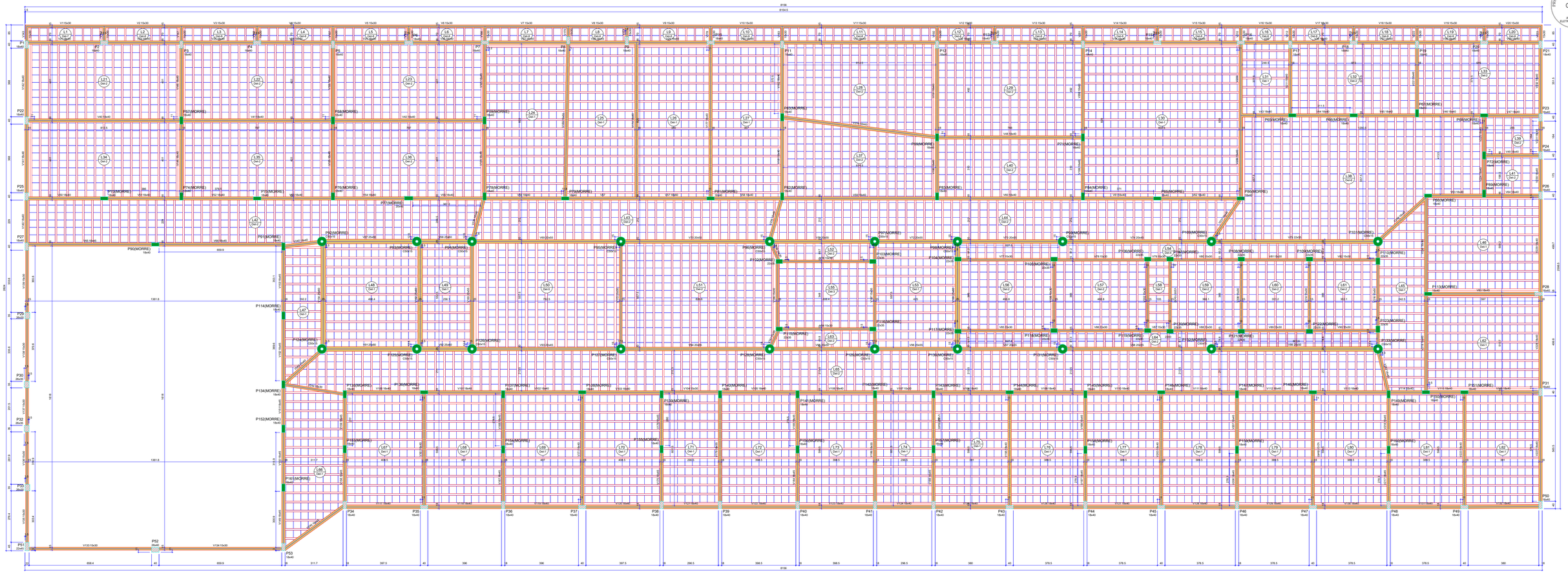
P90 18x40
P91 18x40
P92 C60x15
P93 C60x15
P94 C60x15
P95 C60x15
P96 C60x15
P97 C60x15
P98 C60x15
P99 20x35 C60x15
P100 20x35 C60x15
P101 C60x15
P102 22x35
P103 22x35
P104 22x35
P105 20x35 C60x15
P106 22x35
P107 22x35
P108 20x35
P109 22x35
P110 20x35
P111(MORRE) 22x35
P112(MORRE) 22x35
P113 18x40
P114 18x40
P115 22x35
P116 22x35
P117 22x35
P118 22x35
P119 22x35
P120 22x35
P121 22x35
P122 22x35
P123 22x35
P124 Circ 50x15
P125 Circ 50x15
P126 Circ 50x15
P127 Circ 50x15
P128 Circ 50x15
P129 Circ 50x15
P130 Circ 50x15
P131 Circ 50x15
P132 Circ 50x15
P133 Circ 50x15
P134 18x40
P135 18x40
P136 18x40
P137 18x40
P138 18x40
P139 18x40
P140 18x40
P141 18x40
P142 18x40
P143 18x40
P144 18x40
P145 18x40
P146 18x40
P147 18x40
P148 18x40
P149 18x40
P150 18x40
P151 18x40
P152 18x40
P153 18x40
P154 18x40
P155 18x40
P156 18x40
P157 18x40
P158 18x40
P159 18x40
P160 18x40
P161 18x40
L1 Cen1 V1(15x30)
L2 Cen1 V2(15x30)
L3 Cen1 V3(15x30)
L4 Cen1 V4(15x30)
L5 Cen1 V5(15x30)
L6 Cen1 V6(15x30)
L7 Cen1 V7(15x30)
L8 Cen1 V8(15x30)
L9 Cen1 V9(15x30)
L10 Cen1 V10(15x30)
L11 Cen1 V11(15x30)
L12 Cen1 V12(15x30)
L13 Cen1 V13(15x30)
L14 Cen1 V14(15x30)
L15 Cen1 V15(15x30)
L16 Cen1 V16(15x30)
L17 Cen1 V17(15x30)
L18 Cen1 V18(15x30)
L19 Cen1 V19(15x30)
L20 Cen1 V20(15x30)
L21 Cen2 V56(15x45)
L22 Cen2 V57(15x45)
L23 Cen2 V58(15x45)
L24 Cen2 V59(15x45)
L25 Cen2 V60(15x45)
L26 Cen2 V61(15x45)
L27 Cen2 V141(15x30)
L28 Cen2 V142(15x30)
L29 Cen2 V143(15x30)
L30 Cen2 V144(18x45)
L31 Cen1 V145(18x45)
L32 Cen2 V146(18x45)
L33 Cen2 V147(15x30)
L34 Cen1 V148(18x40)
L35 Cen2 V149(18x40)
L36 Cen2 V150(15x30)
L37 Cen2 V151(18x45)
L38 Cen2 V152(18x45)
L39 Cen2 V153(15x30)
L40 Cen2 V154(15x30)
L41 Cen2 V155(15x30)
L42 Cen2 V156(18x45)
L43 Cen2 V157(18x45)
L44 Cen2 V158(18x45)
L45 Cen2 V159(18x45)
L46 Cen2 V160(18x45)
L47 Cen2 V161(20x55)
L48 Cen2 V162(18x45)
L49 Cen2 V163(18x45)
L50 Cen1 V164(15x30)
L51 Cen1 V165(18x40)
L52 Cen2 V166(18x40)
L53 Cen1 V167(18x45)
L54 Cen1 V168(22x50)
L55 Cen1 V169(15x30)
L56 Cen1 V170(18x40)
L57 Cen1 V171(15x45)
L58 Cen1 V172(18x45)
L59 Cen1 V173(18x45)
L60 Cen1 V174(15x30)
L61 Cen1 V175(18x40)
L62 Cen1 V176(18x40)
L63 Cen1 V177(18x45)
L64 Cen1 V178(18x45)
L65 Cen1 V179(18x45)
L66 Cen1 V180(18x40)
L67 Cen1 V181(18x45)
L68 Cen1 V182(18x45)
L69 Cen1 V183(15x30)
L70 Cen2 V184(18x40)
L71 Cen2 V185(18x40)
L72 Cen2 V186(18x40)
L73 Cen2 V187(18x45)
L74 Cen2 V188(15x30)
L75 Cen2 V189(18x65)
L76 Cen2 V190(15x30)
L77 Cen2 V191(18x45)
LE1 V192(18x40)
LE2 V193(18x40)
LE3 V194(18x40)
LE4 V195(18x40)
LE5 V196(18x65)
LE6 V197(18x40)
LE7 V198(18x40)
LE8 V199(18x40)
E1 V200
E2 V201
E3 V202
E4 V203
E5 V204
E6 V205
E7 V206
E8 V207
DESCE
DESCE LE8
DESCE LE7
-170
-78
-236
-158
-27
-20
-15
-30
-45
-60
-75
-90
-105
-120
-135
-150
-165
-180
-195
-210
-225
-240
-255
-270
-285
-300
-315
-330
-345
-360
-375
-390
-405
-420
-435
-450
-465
-480
-495
-510
-525
-540
-555
-570
-585
-600



1 **PLANTA FORMA PAVIMENTO SUPERIOR**

PROCESSO ADMINISTRATIVO 0912 ASSINADO ELETRONICAMENTE

Vigas

Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V1	15x30	0	630
V2	15x30	0	630
V3	15x30	0	630
V4	15x30	0	630
V5	15x30	0	630
V6	15x30	0	630
V7	15x30	0	630
V8	15x30	0	630
V9	15x30	0	630
V10	15x30	0	630
V11	15x30	0	630
V12	15x30	0	630
V13	15x30	0	630
V14	15x30	0	630
V15	15x30	0	630
V16	15x30	0	630
V17	15x30	0	630
V18	15x30	0	630
V19	15x30	0	630
V20	15x30	0	630
V21	18x40	0	630
V22	18x40	0	630
V23	18x40	0	630
V24	18x40	0	630
V25	18x40	0	630
V26	18x40	0	630
V27	18x40	0	630
V28	18x45	0	630
V29	18x40	0	630
V30	18x45	0	630
V31	18x40	0	630
V32	18x40	0	630
V33	18x40	0	630
V34	18x40	0	630
V35	18x55	0	630
V36	18x40	0	630
V37	18x40	0	630
V38	18x40	0	630
V39	18x40	0	630
V40	18x40	0	630
V41	18x40	0	630
V42	18x40	0	630
V43	18x40	0	630
V44	18x40	0	630
V45	18x40	0	630
V46	18x40	0	630
V47	18x40	0	630
V48	18x40	0	630
V49	18x40	0	630
V50	18x40	0	630
V51	18x40	0	630
V52	18x40	0	630
V53	18x40	0	630
V54	18x40	0	630
V55	18x40	0	630
V56	18x40	0	630
V57	18x60	0	630
V58	18x40	0	630
V59	18x40	0	630
V60	18x40	0	630
V61	18x40	0	630
V62	18x40	0	630
V63	18x40	0	630
V64	18x40	0	630
V65	18x45	0	630
V66	18x45	0	630
V67	25x60	0	630
V68	25x60	0	630
V69	20x55	0	630
V70	20x55	0	630
V71	20x55	0	630
V72	20x55	0	630
V73	20x55	0	630
V74	20x45	0	630
V75	22x55	0	630
V76	15x30	0	630
V77	15x30	0	630
V78	15x30	0	630
V79	15x30	0	630
V80	15x30	0	630
V81	15x30	0	630
V82	15x30	0	630

Vigas

Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V83	18x45	0	630
V84	15x30	0	630
V85	15x30	0	630
V86	15x30	0	630
V87	15x30	0	630
V88	15x30	0	630
V89	15x30	0	630
V90	15x30	0	630
V91	25x60	0	630
V92	25x60	0	630
V93	20x45	0	630
V94	20x55	0	630
V95	20x55	0	630
V96	20x55	0	630
V97	20x55	0	630
V98	20x55	0	630
V99	25x50	0	630
V100	18x40	0	630
V101	18x40	0	630
V102	18x40	0	630
V103	18x40	0	630
V104	15x30	0	630
V105	18x40	0	630
V106	18x40	0	630
V107	15x30	0	630
V108	18x40	0	630
V109	18x40	0	630
V110	18x40	0	630
V111	18x40	0	630
V112	18x40	0	630
V113	18x40	0	630
V114	18x40	0	630
V115	18x40	0	630
V116	18x40	0	630
V117	18x40	0	630
V118	18x40	0	630
V119	18x40	0	630
V120	18x40	0	630
V121	18x40	0	630
V122	18x40	0	630
V123	18x40	0	630
V124	18x40	0	630
V125	18x40	0	630
V126	18x40	0	630
V127	18x40	0	630
V128	18x40	0	630
V129	18x40	0	630
V130	18x40	0	630
V131	18x40	0	630
V132	18x40	0	630
V133	15x30	0	630
V134	15x30	0	630
V135	15x30	0	630
V136	15x30	0	630
V137	15x30	0	630
V138	15x30	0	630
V139	15x30	0	630
V140	18x40	0	630
V141	18x40	0	630
V142	18x40	0	630
V143	15x30	0	630
V144	15x30	0	630
V145	18x40	0	630
V146	18x40	0	630
V147	15x30	0	630
V148	15x30	0	630
V149	18x45	0	630
V150	18x45	0	630
V151	18x45	0	630
V152	18x45	0	630
V153	18x45	0	630
V154	25x60	0	630
V155	18x40	0	630
V156	18x40	0	630
V157	15x30	0	630
V158	18x45	0	630
V159	18x45	0	630
V160	15x30	0	630
V161	18x40	0	630
V162	25x60	0	630
V163	20x55	0	630
V164	18x40	0	630

Vigas

Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V165	18x40	0	630
V166	15x30	0	630
V167	18x45	0	630
V168	18x45	0	630
V169	18x55	0	630
V170	15x30	0	630
V171	18x40	0	630
V172	18x40	0	630
V173	15x30	0	630
V174	18x40	0	630
V175	18x45	0	630
V176	18x45	0	630
V177	18x40	0	630
V178	15x30	0	630
V179	18x55	0	630
V180	15x30	0	630
V181	18x40	0	630
V182	18x40	0	630
V183	15x30	0	630
V184	18x45	0	630
V185	18x45	0	630
V186	18x55	0	630
V187	15x30	0	630
V188	18x45	0	630
V189	18x45	0	630
V190	18x40	0	630
V191	18x40	0	630
V192	15x30	0	630
V193	25x60	0	630
V194	15x30	0	630
V195	18x40	0	630
V196	15x30	0	630
V197	18x45	0	630
V198	18x45	0	630
V199	18x40	0	630
V200	18x40	0	630
V201	15x30	0	630
V202	15x30	0	630
V203	18x40	0	630
V204	15x30	0	630
V205	15x30	0	630
V206	18x45	0	630
V207	18x45	0	630
V208	15x30	0	630
V209	18x40	0	630
V210	15x30	0	630
V211	18x40	0	630
V212	15x30	0	630
V213	18x40	0	630
V214	15x30	0	630
V215	15x30	0	630
V216	15x50	0	630
V217	18x45	0	630
V218	18x45	0	630
V219	18x40	0	630
V220	18x40	0	630
V221	18x40	0	630
V222	15x30	0	630
V223	18x40	0	630
V224	18x40	0	630
V225	18x40	0	630
V226	15x30	0	630
V227	18x40	0	630
V228	18x40	0	630
V229	18x40	0	630
V230	18x40	0	630
V231	18x40	0	630
V232	18x40	0	630
V233	15x30	0	630
V234	18x40	0	630
V235	18x40	0	630
V236	18x40	0	630
V237	18x40	0	630
V238	18x40	0	630
V239	15x30	0	630
V240	18x40	0	630
V241	15x30	0	630
V242	18x40	0	630
V243	18x40	0	630
V244	15x30	0	630
V245	18x45	0	630

Pilares

Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P1	18x40	0	630
P2	18x40	0	630
P3	18x40	0	630
P4	18x40	0	630
P5	18x40	0	630
P6	18x45	0	630
P7	18x40	0	630
P8	18x40	0	630
P9	18x40	0	630
P10	18x40	0	630
P11	18x40	0	630
P12	18x40	0	630
P13	18x40	0	630
P14	18x40	0	630
P15	18x40	0	630
P16	18x40	0	630
P17	18x40	0	630
P18	18x40	0	630
P19	18x40	0	630
P20	18x40	0	630
P21	18x40	0	630
P22	18x40	0	630
P23	18x40	0	630
P24	18x40	0	630
P25	18x40	0	630
P26	18x40	0	630
P27	18x40	0	630
P28	18x40	0	630
P29	26x35	0	630
P30	26x35	0	630
P31	18x40	0	630
P32	26x35	0	630
P33	26x35	0	630
P34	18x40	0	630
P35	18x40	0	630
P36	18x40	0	630
P37	18x40	0	630
P38	18x40	0	630
P39	18x40	0	630
P40	18x40	0	630
P41	18x40	0	630
P42	18x40	0	630
P43	18x40	0	630
P44	18x40	0	630
P45	18x40	0	630
P46	18x40	0	630
P47	18x40	0	630
P48	18x40	0	630

Pilares

Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P49	18x40	0	630
P50	18x40	0	630
P51	22x45	0	630
P52	26x40	0	630
P53	18x40	0	630
P57	18x40	0	630
P58	18x40	0	630
P59	18x40	0	630
P63	18x40	0	630
P65	18x40	0	630
P66	18x40	0	630
P67	18x40	0	630
P68	18x40	0	630
P69	18x40	0	630
P71	18x40	0	630
P72	18x40	0	630
P73	18x40	0	630
P74	18x40	0	630
P75	18x40	0	630
P76	18x40	0	630
P77	20x45	0	630
P78	18x40	0	630
P79	18x40	0	630
P81	18x40	0	630
P82	18x40	0	630
P83	18x40	0	630
P84	18x40	0	630
P85	18x40	0	630
P86	18x40	0	630
P88	18x40	0	630
P89	18x40	0	630
P90	18x40	0	630
P91	18x40	0	630
P92	Circ 50x15	0	630
P93	Circ 50x15	0	630
P94	Circ 50x15	0	630
P95	Circ 50x15	0	630
P96	Circ 50x15	0	630
P97	Circ 50x15	0	630
P98	Circ 50x15	0	630
P99	Circ 50x15	0	630
P100	Circ 50x15	0	630
P101	Circ 50x15	0	630
P103	22x35	0	630
P104	22x35	0	630
P105	22x35	0	630
P106	22x35	0	630

Pilares

Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P107	22x35	0	630
P108	22x35	0	630
P109	22x35	0	630
P110	22x35	0	630
P113	18x40	0	630
P114	18x40	0	630
P115	22x35	0	630
P116	22x35	0	630
P117	22x35	0	630
P118	22x35	0	630
P119	22x35	0	630
P120	22x35	0	630
P121	22x35	0	630
P122	22x35	0	630
P123	22x35	0	630
P124	Circ 50x15	0	630
P125	Circ 50x15	0	630
P126	Circ 50x15	0	630
P127	Circ 50x15	0	630
P128	Circ 50x15	0	630
P129	Circ 50x15	0	630
P130	Circ 50x15	0	630
P131	Circ 50x15	0	630
P132	Circ 50x15	0	630
P133	Circ 50x15	0	630
P134	18x40	0	630
P135	18x40	0	630
P136	18x40	0	630
P137	18x40	0	630
P138	18x40	0	630
P139	18x40	0	630
P140	18x40	0	630
P141	18x40	0	630
P142	18x40	0	630
P143	18x40	0	630
P144	18x40	0	630
P145	18x40	0	630
P146	18x40	0	630
P147	18x40	0	630
P148	18x40	0	630
P149	18x40	0	630
P150	18x40	0	630
P151	18x40	0	630
P152	18x40	0	630
P153	18x40	0	630
P154	18x40	0	630
P155	18x40	0	630
P156	18x40	0	630
P157	18x40	0	630
P158	18x40	0	630
P159	18x40	0	630
P160	18x40	0	630
P161	18x40	0	630

Blocos de enchimento

Detalhe	Tipo	Nome	Dimensões(cm).			Quantidade
			hb	bx	by	
1/2/3/5/6	EPS Unidirecional	B10/40/40/7.5	10	40	40	8838
4	EPS Unidirecional	B10/40/40/9	10	40	40	92
7/8	EPS Unidirecional	B10/40/40/4.5	10	40	40	340

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

Dimensão máxima do agregado = 19 mm

Legenda dos pilares

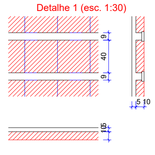
Pilar que morre

Pilar que passa

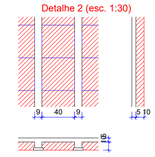
Legenda das vigas e paredes

Viga

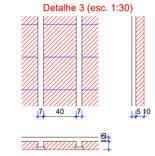
Detalhe 1 (esc. 1:30)



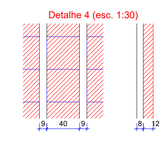
Detalhe 2 (esc. 1:30)



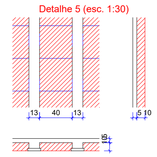
Detalhe 3 (esc. 1:30)



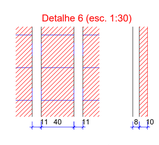
Detalhe 4 (esc. 1:30)



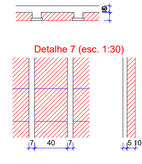
Detalhe 5 (esc. 1:30)



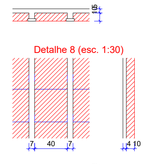
Detalhe 6 (esc. 1:30)



Detalhe 7 (esc. 1:30)



Detalhe 8 (esc. 1:30)



Lajes

Nome	Tipo	Dados Altura (cm)	Elevação (cm)	Nível (cm)	Peso próprio (kgf/m²)	Sobrecarga (kgf/m²) Adicional	Acidental	Localizada
L1	Treliçada 1D	15	0	630	164	0	0	-
L2	Treliçada 1D	14	0	630	139	0	0	-
L3	Treliçada 1D	14	0	630	139	0	0	-
L4	Treliçada 1D	14	0	630	139	0	0	-
L5	Treliçada 1D	14	0	630	139	0	0	-
L6	Treliçada 1D	14	0	630	139	0	0	-
L7	Treliçada 1D	14	0	630	139	0	0	-
L8	Treliçada 1D	14	0	630	139	0	0	-
L9	Treliçada 1D	14	0	630	139	0	0	-
L10	Treliçada 1D	14	0	630	139	0	0	-
L11	Treliçada 1D	14	0	630	139	0	0	-
L12	Treliçada 1D	14	0	630	139	0	0	-
L13	Treliçada 1D	14	0	630	139	0	0	-
L14	Treliçada 1D	14	0	630	139	0	0	-
L15	Treliçada 1D	14	0	630	139	0	0	-
L16	Treliçada 1D	14	0	630	139	0	0	-
L17	Treliçada 1D	14	0	630	139	0	0	-
L18	Treliçada 1D	14	0	630	139	0	0	-
L19	Treliçada 1D	14	0	630	139	0	0	-
L20	Treliçada 1D	14	0	630	139	0	0	-
L21	Treliçada 1D	15	0	630	173	100	0	-
L22	Treliçada 1D	15	0	630	173	100	0	-
L23	Treliçada 1D	15	0	630	173	100	0	-
L24	Treliçada 1D	15	0	630	173	100	0	-
L25	Treliçada 1D	15	0	630	173	0	0	-
L26	Treliçada 1D	15	0	630	173	100	0	-
L27	Treliçada 1D	15	0	630	173	100	0	-
L28	Treliçada 1D	15	0	630	173	100	0	-
L29	Treliçada 1D	15	0	630	173	100	0	-
L30	Treliçada 1D	15	0	630	173	100	0	-
L31	Treliçada 1D	15	0	630	173	100	0	-
L32	Treliçada 1D	15	0	630	173	100	0	-
L33	Treliçada 1D	15	0	630	173	100	0	-
L34	Treliçada 1D	15	0	630	173	100	0	-
L35	Treliçada 1D	15	0	630	173	100	0	-
L36	Treliçada 1D	15	0	630	173	100	0	-
L37	Treliçada 1D	15	0	630	173	100	0	-
L38	Treliçada 1D	18	0	630	255	0	0	-
L39	Treliçada 1D	15	0	630	173	100	0	-
L40	Treliçada 1D	15	0	630	173	100	0	-
L41	Treliçada 1D	15	0	630	173	100	0	-

Lajes

Nome	Tipo	Dados Altura (cm)	Elevação (cm)	Nível (cm)	Peso próprio (kgf/m²)	Sobrecarga (kgf/m²) Adicional	Acidental	Localizada
L42	Treliçada 1D	15	0	630	173	100	0	-
L43	Treliçada 1D	15	0	630	173	100	0	-
L44	Treliçada 1D	15	0	630	173	100	0	-
L45	Treliçada 1D	15	0	630	173	100	0	-
L46	Treliçada 1D	15	0	630	173	100	0	-
L47	Treliçada 1D	15	0	630	173	100	0	-
L48	Treliçada 1D	15	0	630	173	100	0	-
L49	Treliçada 1D	15	0	630	173	100	0	-
L50	Treliçada 1D	15	0	630	188	154	300	-
L51	Treliçada 1D	15	0	630	173	100	0	-
L52	Treliçada 1D	15	0	630	173	100	0	-
L53	Treliçada 1D	15	0	630	173	154	300	-
L54	Treliçada 1D	20	0	630	257	154	300	-
L55	Treliçada 1D	15	0	630	164	0	0	-
L56	Treliçada 1D	15	0	630	173	154	300	-
L57	Treliçada 1D	15	0	630	173	154	300	-
L58	Treliçada 1D	15	0	630	173	154	300	-
L59	Treliçada 1D	15	0	630	173	154	300	-
L60	Treliçada 1D	15	0	630	173	154	300	-
L61	Treliçada 1D	15	0	630	173	154	300	-
L62	Treliçada 1D	15	0	630	173	100	0	-
L63	Treliçada 1D	15	0	630	173	100	0	-
L64	Treliçada 1D	15	0	630	173	154	300	-
L65	Treliçada 1D	15	0	630	173	100	0	-
L66	Treliçada 1D	15	0	630	173	100	0	-
L67	Treliçada 1D	15	0	630	173	100	0	-
L68	Treliçada 1D	15	0	630	173	100	0	-
L69	Treliçada 1D	15	0	630	173	100	0	-
L70	Treliçada 1D	15	0	630	173	100	0	-
L71	Treliçada 1D	15	0	630	173	100	0	-
L72	Treliçada 1D	15	0	630	173	100	0	-
L73	Treliçada 1D	15	0	630	173	100	0	-
L74	Treliçada 1D	15	0	630	173	100	0	-
L75	Treliçada 1D	15	0	630	173	100	0	-
L76	Treliçada 1D	15	0	630	173	100	0	-
L77	Treliçada 1D	15	0	630	173	100	0	-
L78	Treliçada 1D	15	0	630	173	100	0	-
L79	Treliçada 1D	15	0	630	173	100	0	-
L80	Treliçada 1D	15	0	630	173	100	0	-
L81	Treliçada 1D	15	0	630	173	100	0	-
L82	Treliçada 1D	15	0	630	173	100	0	-

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 03/50

CONTEÚDO: PLANTA FORMA PAVIMENTO SUPERIOR

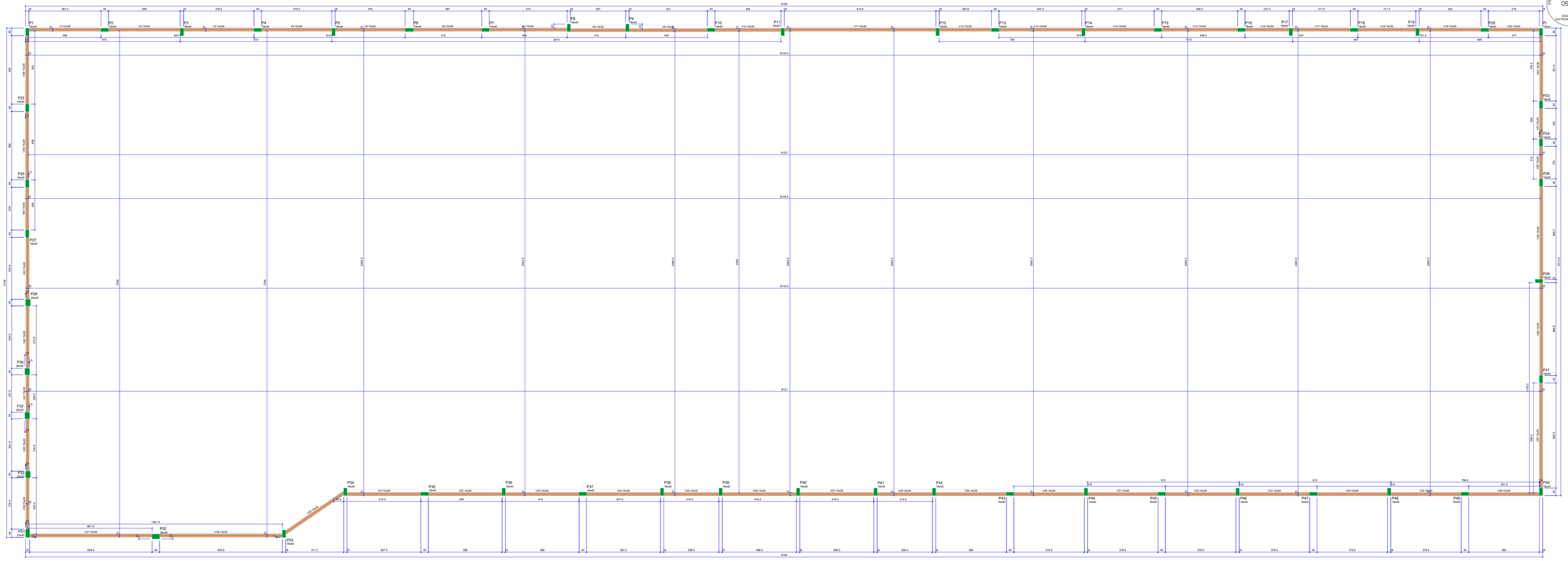
PROJETO: ESTRUTURAL

DESENHO:

ESCALA:

DATA: MAIO/2026

FOLHA: A1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V1 15x30
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V2 15x30
P3 15x40
V3 15x30
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V4 15x30
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P6 15x45
V6 15x30
P7 15x40
V7 15x30
P8 15x40
V8 15x30
P9 15x40
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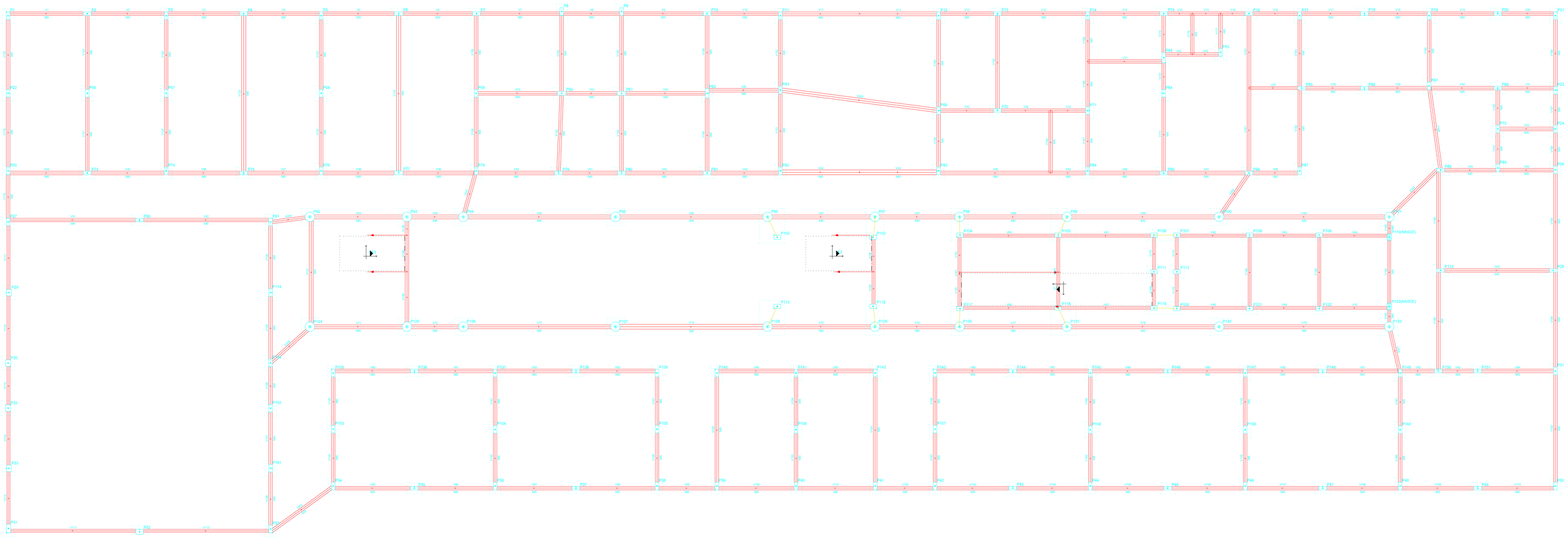
V36 15x30
P50 18x40
P51 22x45
V37 15x30
P52 26x40
V38 15x30
P53 18x40
V39 15x30
8156
8124.5
8123
8122.5
8121
2779
2455.5
2482
2455.5
2455.5
2455.5

PROCESSO ADMINISTRATIVO
0914
ASSINADO ELETRONICAMENTE



1 CRÓQUI DA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

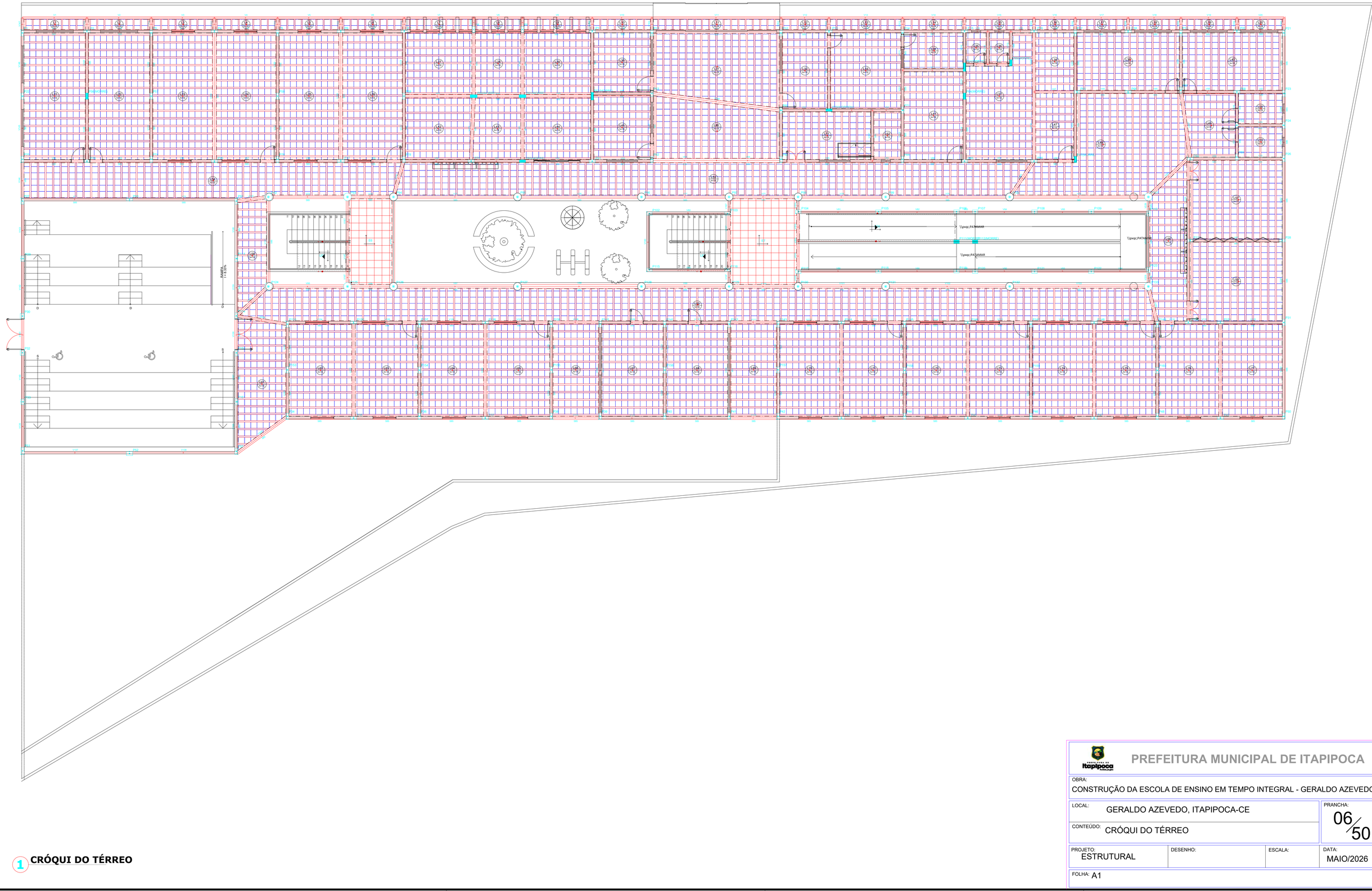
PRANCHA: 05/50

CONTEÚDO: CRÓQUI DA FUNDAÇÃO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0915
ASSINADO ELETRONICAMENTE



1 **CRÓQUI DO TÉRREO**

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

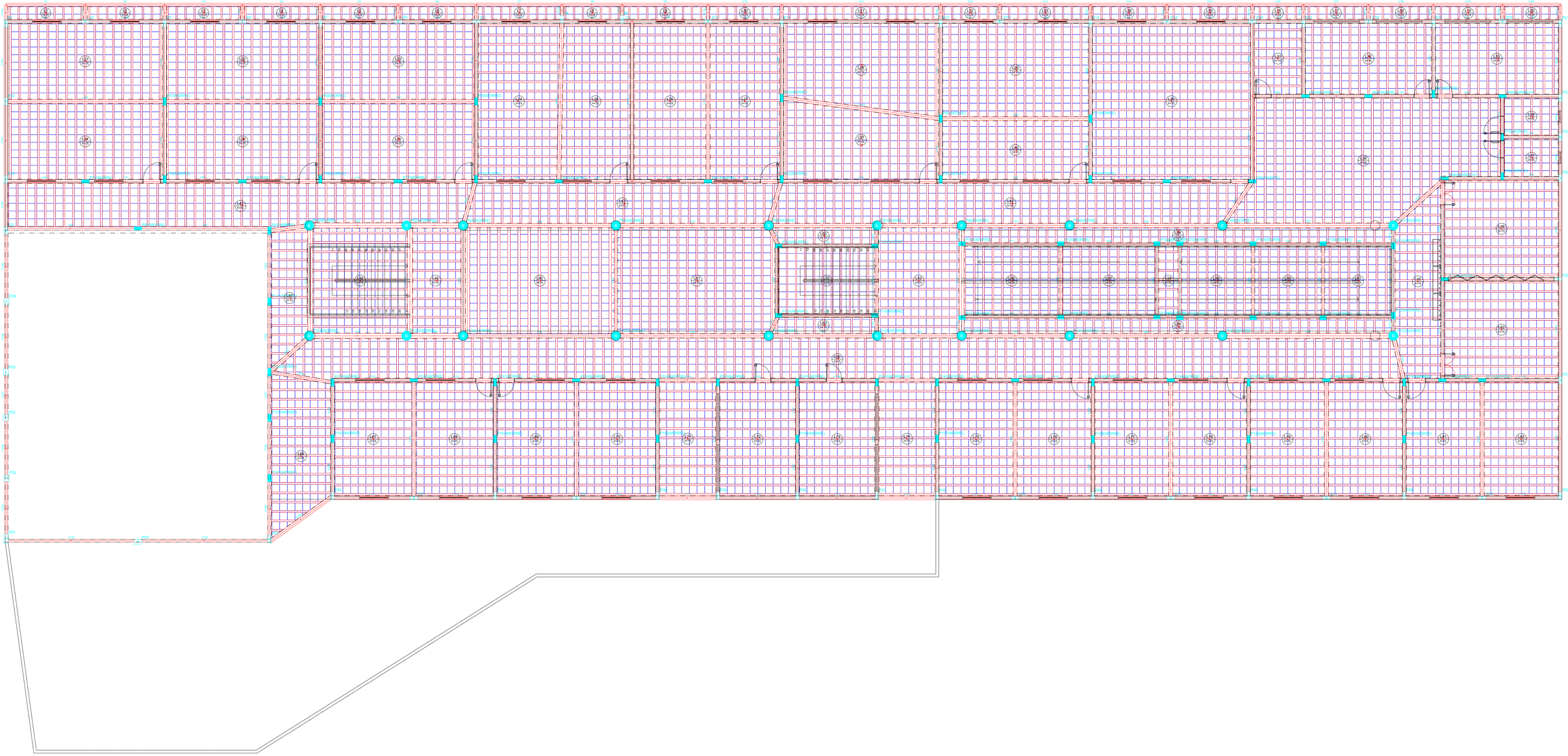
CONTEÚDO: CRÓQUI DO TÉRREO

PRANCHA: 06/50

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

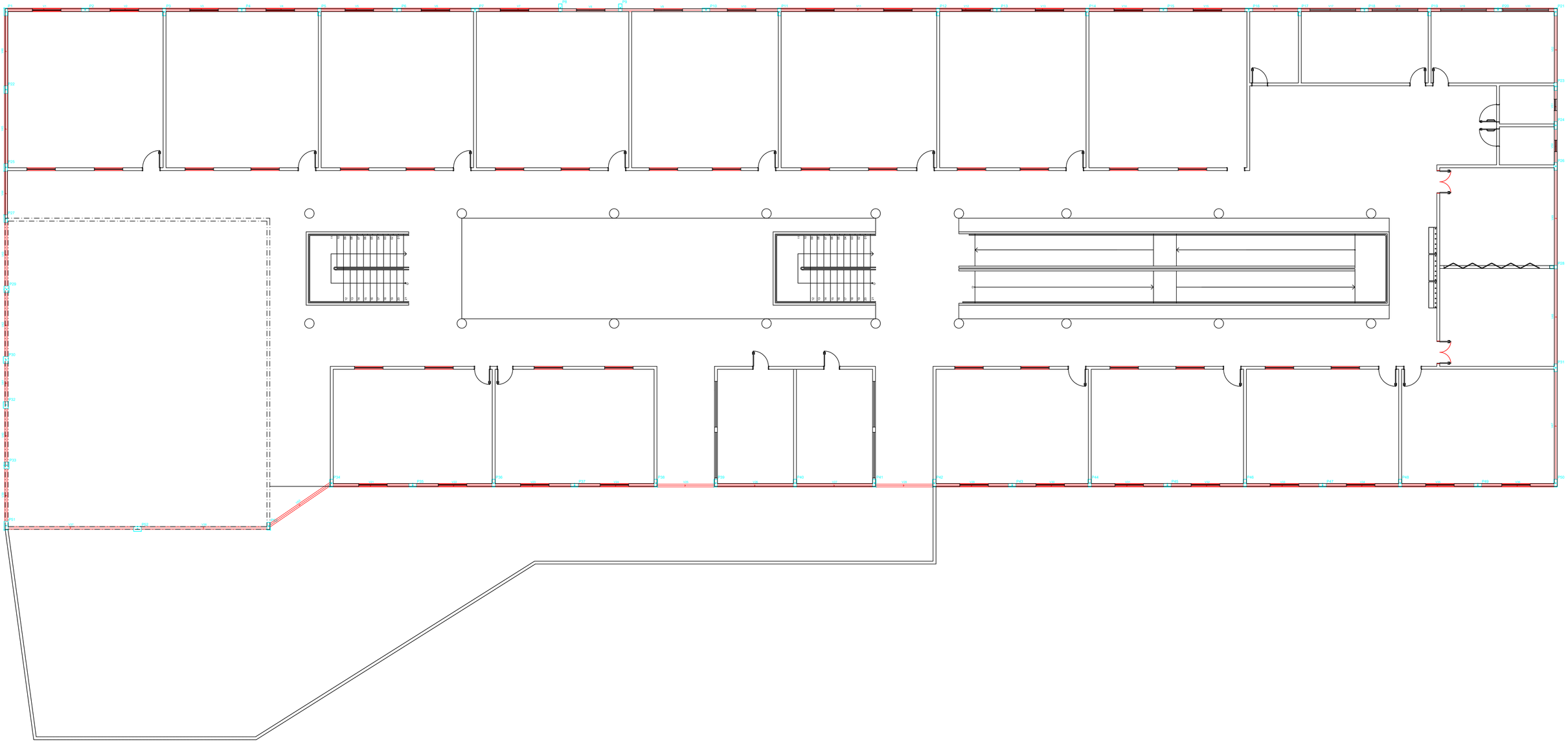
PROCESSO ADMINISTRATIVO
0916
ASSINADO ELETRONICAMENTE



1 CRÓQUI PAVIMENTO SUPERIOR

PREFEITURA MUNICIPAL DE ITAPIPOCA			
OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO			
LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE			PRANCHA: 07/50
CONTEÚDO: CRÓQUI PAVIMENTO SUPERIOR			
PROJETO: ESTRUTURAL	DESENHO:	ESCALA:	DATA: MAIO/2026
FOLHA: A1			

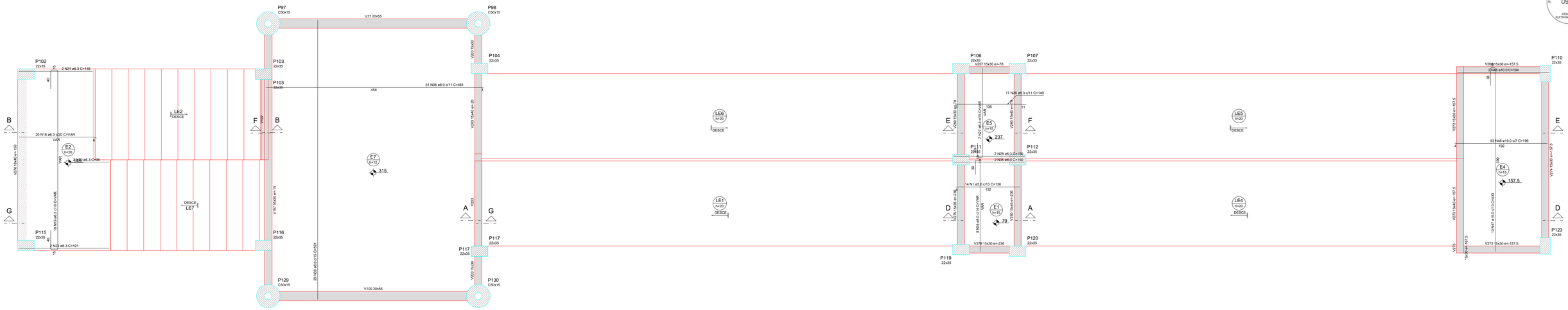
PROCESSO ADMINISTRATIVO
0917
ASSINADO ELETRONICAMENTE



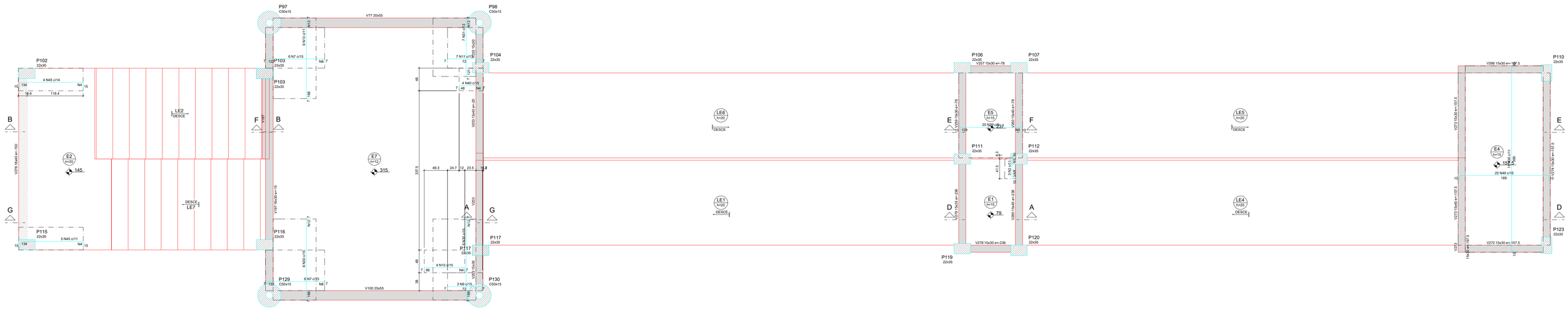
1 CRÓQUI PLATIBANDA

PREFEITURA MUNICIPAL DE ITAPIPOCA			
OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO			
LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE			PRANCHA: 08/50
CONTEÚDO: CRÓQUI PLATIBANDA			
PROJETO: ESTRUTURAL	DESENHO:	ESCALA:	DATA: MAIO/2026
FOLHA: A1			

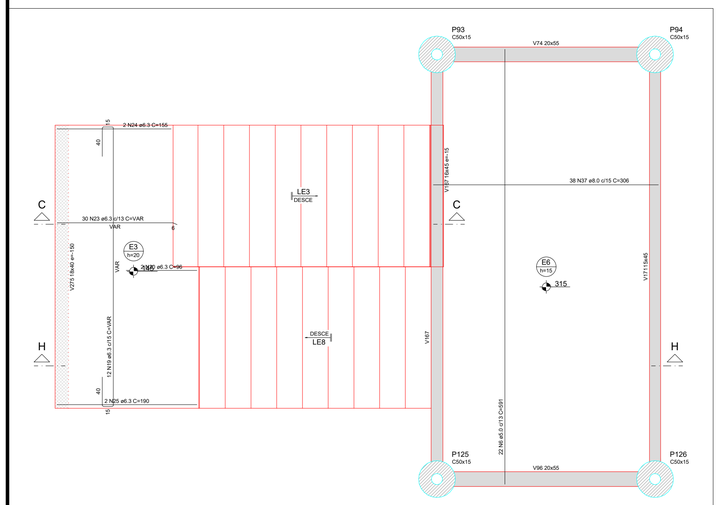
PROCESSO ADMINISTRATIVO
0918
ASSINADO ELETRONICAMENTE



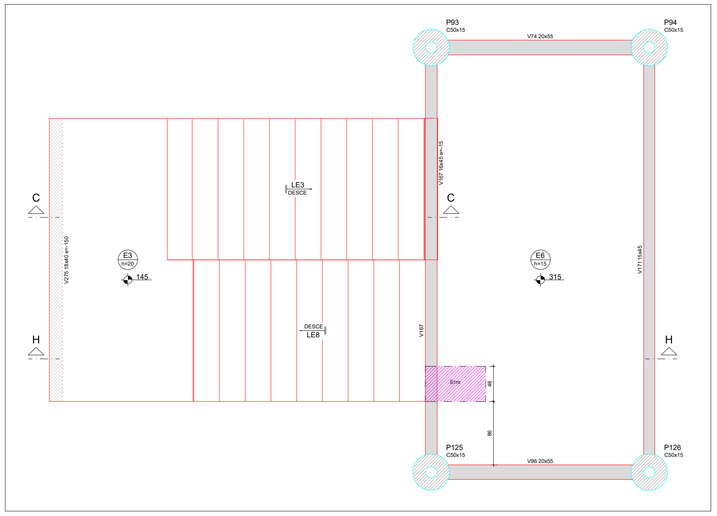
1 ARMAÇÃO POSITIVA DA ESCADA E1



2 ARMAÇÃO NEGATIVA DA ESCADA E1



3 DETALHE POSITIVA DA ESCADA E1



4 DETALHE NEGATIVA DA ESCADA E1

RELAÇÃO DO AÇO

E1 E2 E3
E4 E5 E6
E7 LE1 LE2
LE3 LE4 LE5
LE6 LE7 LE8

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	14	136	1904
	2	5.0	3	VAR	VAR
	3	5.0	3	VAR	VAR
	4	5.0	32	48	1536
	5	5.0	9	180	1620
	6	5.0	22	591	13002
	7	5.0	12	133	1596
	8	5.0	18	86	1548
	9	5.0	3	83	249
	10	5.0	4	97	388
	11	5.0	7	83	581
	12	5.0	44	91	4004
	13	5.0	9	179	1611
	14	5.0	18	523	9414
	15	5.0	40	192	7680
	16	5.0	58	192	11136
	17	5.0	26	196	5096
CA50	18	6.3	20	VAR	VAR
	19	6.3	30	VAR	VAR
	20	6.3	4	96	384
	21	6.3	2	156	312
	22	6.3	2	191	382
	23	6.3	30	VAR	VAR
	24	6.3	2	155	310
	25	6.3	2	190	380
	26	6.3	17	149	2533
	27	6.3	7	VAR	VAR
	28	6.3	2	150	300
	29	6.3	20	146	2920
	30	6.3	12	180	2160
	31	6.3	7	132	924
	32	6.3	36	192	6912
	33	6.3	22	190	4180
	34	8.0	8	VAR	VAR
	35	8.0	2	150	300
	36	8.0	15	406	6090
	37	8.0	38	306	11628
	38	8.0	51	461	23511
	39	8.0	29	591	17139
	40	8.0	4	58	232
	41	8.0	64	198	12672
	42	8.0	14	512	7168
	43	8.0	14	476	6664
	44	8.0	17	448	7616
	45	10.0	9	159	1431
	46	10.0	53	196	10388
	47	10.0	13	433	5629
	48	10.0	2	194	388
	49	10.0	25	204	5100
	50	10.0	36	1064	38304
	51	10.0	14	480	6720
	52	10.0	13	971	12623
	53	10.0	150	195	29250
	54	10.0	13	505	6565
	55	12.5	30	986	29580
	56	12.5	30	904	27120
	57	12.5	30	956	28680
	58	12.5	14	526	7364

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	459.8	123.8
	8.0	948.6	411.7
	10.0	1164	789.4
	12.5	927.4	982.8
CA60	5.0	616.2	104.5

PESO TOTAL (kg)	
CA50	2307.7
CA60	104.5

Volume de concreto (C-25) = 28.03 m³
Área de forma = 198.23 m²

Armaduras de distribuição	
Armadura	Armadura de distribuição
N2	3 N3 ø5.0 c/15 C=VAR
N45	11 N4 ø5.0 c/13 C=48
N45	11 N4 ø5.0 c/13 C=48
N29	9 N5 ø5.0 c/15 C=180
N7	9 N8 ø5.0 c/15 C=86
N10	6 N4 ø5.0 c/15 C=48
N40	4 N4 ø5.0 c/15 C=48
N7	9 N8 ø5.0 c/15 C=86
N30	12 N12 ø5.0 c/15 C=91
N31	8 N12 ø5.0 c/15 C=91
N30	12 N12 ø5.0 c/15 C=91
N13	12 N12 ø5.0 c/15 C=91

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

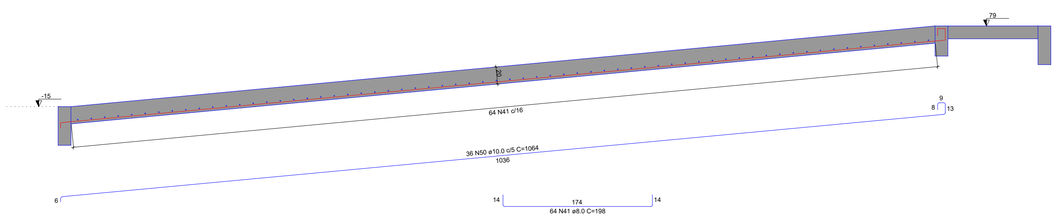
PRANCHA: 09/50

CONTEÚDO: DETALHAMENTO DAS ESCADAS

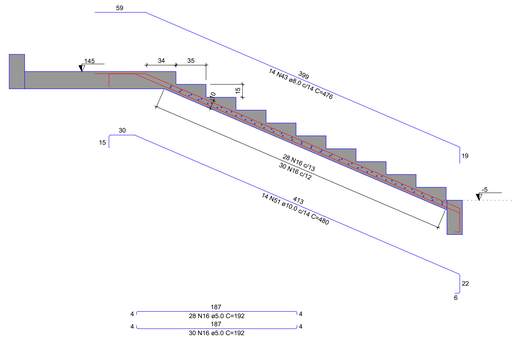
PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1

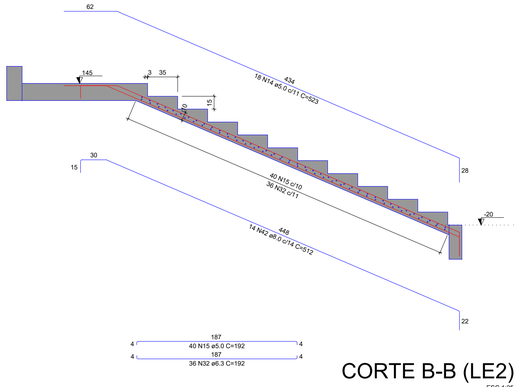
PROCESSO ADMINISTRATIVO
0919
ASSINADO ELETRONICAMENTE



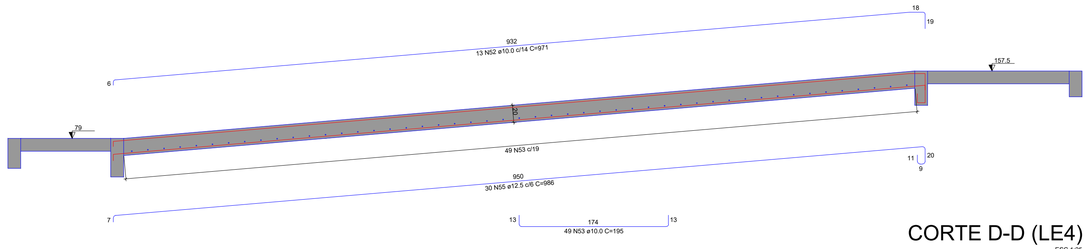
CORTE A-A (LE1)
ESC 1:25



CORTE C-C (LE3)
ESC 1:25



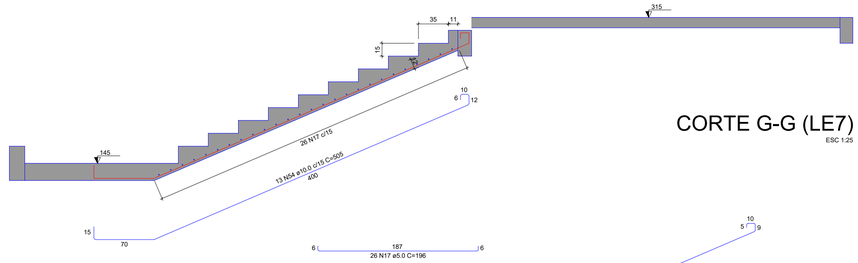
CORTE B-B (LE2)
ESC 1:25



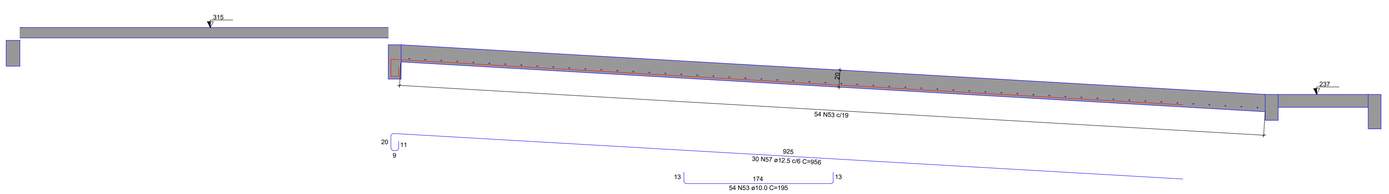
CORTE D-D (LE4)
ESC 1:25

1 DETALHAMENTO ESTRUTURAL DAS ESCADAS

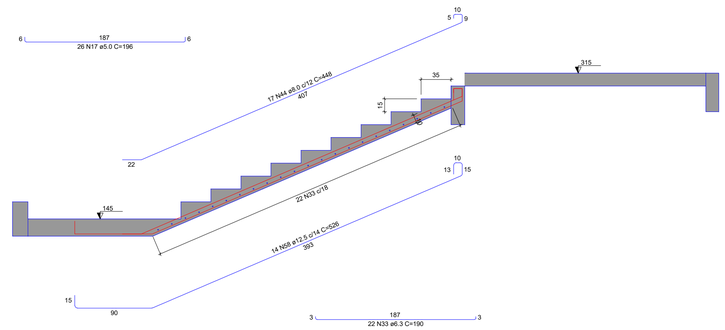
CORTE E-E (LE5)
ESC 1:25



CORTE G-G (LE7)
ESC 1:25



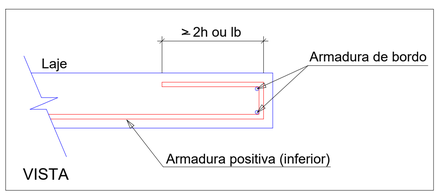
CORTE F-F (LE6)
ESC 1:25



CORTE H-H (LE8)
ESC 1:25

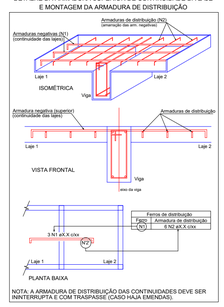
2 DETALHAMENTO ESTRUTURAL DAS ESCADAS

DETALHE DA ARMADURA
DE BORDO LIVRE DA LAJE



3 DETALHE DA ARMADURA DE BORDO LIVRE DA LAJE

DETALHE DA ARMADURA SUPERIOR DE CONTINUIDADE DA LAJE
E MONTAGEM DA ARMADURA DE DISTRIBUIÇÃO



NOTA: A ARMADURA DE DISTRIBUIÇÃO DAS CONTINUIDADES DEVE SER ININTERRUPTA E COM TRASPASSE (CASO HAJA EMENDAS).

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

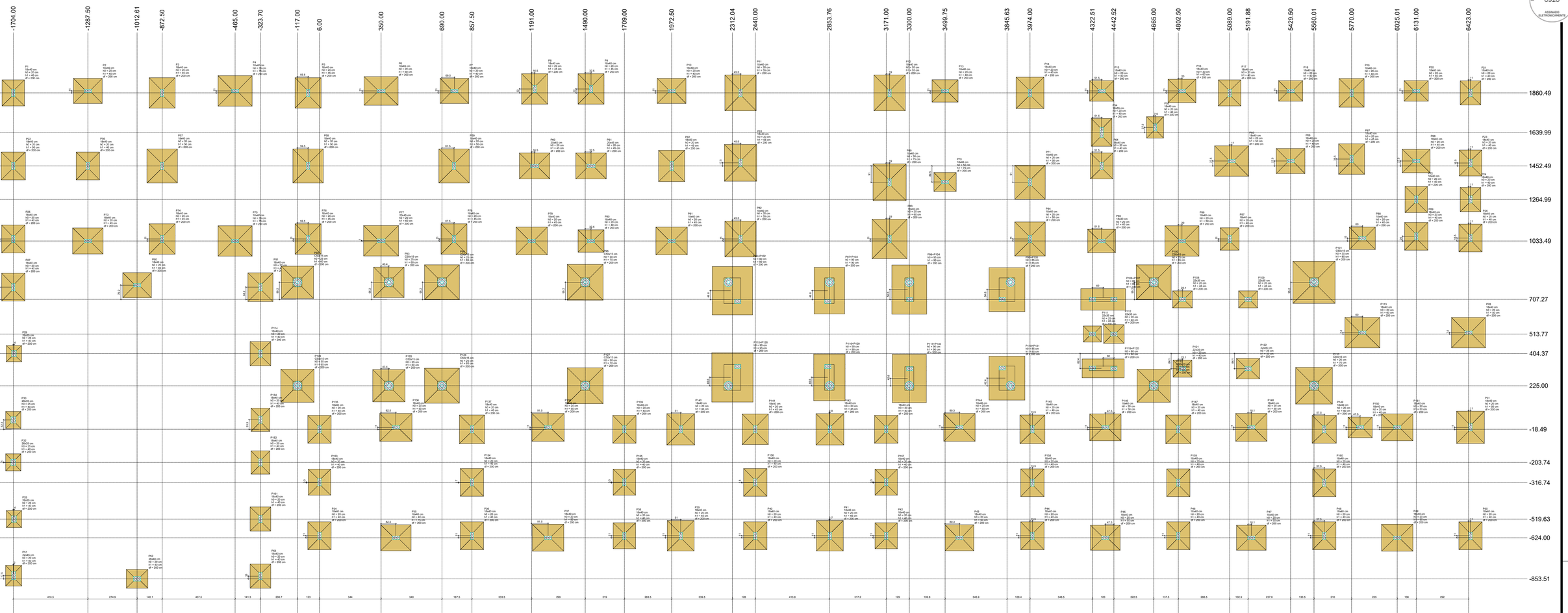
PRANCHA: 10/50

CONTEÚDO: DETALHAMENTO DAS ESCADAS

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROTOCOLO ADMINISTRATIVO
0920
ASSINADO ELETRONICAMENTE



1 PLANTA DE LOCAÇÃO

Nome	Seção (cm)	X (cm)	Y (cm)	Carga Máx. (tf)	Pilar Carga Mín. (tf)	Pilar Mx Máximo (kgf.m) Positivo	Pilar Mx Máximo (kgf.m) Negativo	Pilar My Máximo (kgf.m) Positivo	Pilar My Máximo (kgf.m) Negativo	Pilar Fx Máximo (tf) Positivo	Pilar Fx Máximo (tf) Negativo	Pilar Fy Máximo (tf) Positivo	Pilar Fy Máximo (tf) Negativo	Fundação Lado B (cm)	Fundação Lado H (cm)	Fundação h0 / ha (cm)	Fundação h1 / hb (cm)	Fundação df (cm)
P1	18x40	-1704.00	1860.49	14.5	12.4	600	-900	0	-200	0.0	-0.4	0.7	-0.3	125	145	20	40	200
P2	18x40	-1287.50	1871.49	22.5	19.9	200	-300	300	-300	0.2	-0.1	0.4	0.0	140	160	20	40	200
P3	18x40	-872.50	1860.49	23.2	20.0	800	-800	100	-200	0.1	-0.2	0.5	-0.5	145	170	20	45	200
P4	18x40	-465.00	1871.49	32.2	26.8	0	-600	300	-200	0.2	-0.1	1.0	-0.5	170	190	20	55	200
P5	18x40	-57.50	1860.49	23.1	19.9	800	-800	100	-200	0.1	-0.2	0.5	-0.4	145	170	20	45	200
P6	18x45	350.00	1871.49	32.0	26.6	100	-500	300	-400	0.2	-0.3	0.9	0.0	160	190	20	60	200
P7	18x40	759.50	1871.49	23.3	20.4	200	-300	200	-400	0.1	-0.2	0.4	0.0	140	160	20	40	200
P8	18x40	1207.50	1882.49	24.3	21.6	600	-1000	200	0	0.2	0.0	0.9	0.0	145	170	20	45	200
P9	18x40	1523.50	1882.49	23.6	21.0	700	-1000	0	-100	0.3	-0.3	0.8	-0.2	145	170	20	45	200
P10	18x40	1972.50	1871.49	23.1	20.9	200	-400	400	0	0.4	0.0	0.5	0.0	140	160	20	40	200
P11	18x40	2357.50	1860.49	35.9	31.0	800	-900	0	-400	0.4	-0.7	0.6	-0.4	170	200	20	55	200
P12	18x40	3190.00	1860.49	36.9	31.9	600	-900	500	0	0.7	0.0	0.6	0.0	175	200	20	55	200
P13	18x40	3499.75	1871.49	18.9	16.0	400	-200	0	-400	0.2	-0.4	0.4	-0.2	125	145	20	40	200
P14	18x40	3974.00	1860.49	27.9	24.4	600	-1100	200	0	0.2	0.0	0.6	-0.2	155	175	20	45	200
P15	18x40	4374.00	1871.49	14.9	11.9	300	-300	300	-300	0.2	-0.1	0.3	-0.2	115	135	20	40	200
P16	18x40	4822.49	1871.48	21.3	17.6	200	-400	200	-400	0.4	0.0	0.2	-0.2	130	155	20	40	200
P17	18x40	5089.00	1860.49	15.9	13.9	900	-900	100	-100	0.1	-0.5	0.3	-0.3	125	145	20	40	200
P18	18x40	5429.50	1871.49	16.4	14.2	300	-100	300	-300	0.2	-0.2	0.1	-0.2	115	135	20	40	200
P19	18x40	5770.00	1860.49	19.3	16.7	600	-1200	100	-200	0.1	-0.2	0.9	0.0	140	160	20	40	200
P20	18x40	6131.00	1871.49	16.5	14.2	300	-100	300	-100	0.3	-0.2	0.2	-0.2	115	135	20	40	200
P21	18x40	6434.00	1860.49	11.6	9.7	600	-1200	200	0	0.2	0.0	0.8	-0.2	115	135	20	40	200
P22	18x40	-1704.00	1452.49	19.8	17.1	900	-900	400	0	0.2	0.0	0.7	-0.7	135	155	20	50	200
P23	18x40	6434.00	1468.99	14.6	10.5	1300	-900	0	-200	0.2	0.0	0.6	-1.1	125	145	20	45	200
P24	18x40	6434.00	1264.99	10.6	9.4	1200	-1300	200	0	0.2	0.0	0.9	-1.0	115	135	20	40	200
P25	18x40	-1704.00	1044.49	18.0	15.1	1000	-900	0	-200	0.2	-0.4	0.7	-0.7	130	155	20	50	200
P26	18x40	6434.00	1049.99	19.0	13.9	700	-1300	200	0	0.2	0.0	1.2	-0.3	130	155	20	45	200
P27	18x40	-1704.00	775.49	15.1	11.9	1000	-1200	0	-500	0.2	-0.4	0.9	-0.5	130	155	20	50	200
P28	18x60	6423.00	521.26	31.2	26.1	300	-400	200	-300	0.2	-0.4	0.3	-0.2	170	190	20	50	200
P29	26x35	-1700.01	405.37	4.0	4.0	700	-600	300	-400	0.1	-0.1	0.2	-0.4	130	155	20	45	200
P30	26x35	-1704.01	33.76	4.3	3.0	800	-800	500	-400	0.1	-0.2	0.4	-0.5	85	95	25	40	200
P31	18x40	6434.00	-7.49	27.9	23.8	1100	-1100	200	0	0.3	0.0	0.9	-0.8	155	180	20	50	200
P32	26x35	-1700.01	-202.74	4.0	3.0	800	-700	200	-400	0.1	-0.1	0.2	-0.4	130	155	20	45	200
P33	26x35	-1700.01	-519.63	3.8	3.7	800	-800	300	-400	0.1	-0.2	0.4	-0.5	85	95	25	40	200
P34	18x40	6434.00	-624.00	19.1	16.1	700	-900	200	-200	0.2	-0.2	0.7	-0.5	130	155	20	45	200
P35	18x40	432.50	-624.00	22.3	18.2	1100	0	300	-300	0.2	-0.2	0.0	-0.5	145	170	40	75	200
P36	18x40	857.50	-613.00	18.7	15.6	800	-800	100	-200	0.1	-0.2	0.5	-0.4	140	160	20	40	200
P37	18x40	1282.49	-624.00	22.3	18.3	1100	0	200	-200	0.1	-0.1	0.0	-0.5	150	175	20	50	200
P38	18x40	1709.00	-613.00	17.1	14.1	900	-900	0	-200	0.1	-0.2	0.5	-0.4	140	160	20	40	200
P39	18x40	2023.50	-613.00	24.8	20.7	1300	-800	0	-100	0.6	-0.1	0.3	-1.0	160	175	20	45	200
P40	18x40	2440.00	-612.99	18.9	15.7	800	-800	100	-200	0.1	-0.1	0.5	-0.4	130	155	20	45	200
P41	18x40	2856.51	-612.99	24.9	20.7	1300	-800	0	-200	0.1	-0.2	0.4	-0.5	145	170	20	45	200
P42	18x40	3171.01	-612.99	16.8	13.7	900	-800	100	-100	0.1	-0.1	0.5	-0.4	125	145	20	40	200
P43	18x40	3580.00	-623.99	21.5	17.7	1100	0	300	-400	0.1	-0.2	0.0	-0.5	145	170	20	45	200
P44	18x40	3987.50	-612.99	18.1	15.0	800	-1000	100	-200	0.1	-0.2	0.5	-0.5	130	155	20	40	200
P45	18x40	4395.00	-623.99	21.4	17.5	1100	0	200	-200	0.2	-0.2	0.0	-0.5	140	165	20	45	200
P46	18x40	4802.50	-612.99	18.2	14.9	900	-1000	100	-200	0.1	-0.2	0.6	-0.5	130	155	20	40	200
P47	18x40	5210.01	-623.99	21.4	17.5	1000	0	200	-200	0.2	-0.1	0.0	-0.5	140	165	20	50	200
P48	18x40	5617.50	-612.99	18.2	14.9	1100	-1000	100	-200	0.1	-0.2	0.6	-0.5	130	155	20	40	200
P49	18x40	6025.01	-623.99	21.7	17.9	1100	0	200	-200	0.1	-0.3	0.0	-0.5	150	175	20	50	200
P50	18x40	6434.00	-612.99	17.5	14.8	1400	-800	0	-200	0.2	-0.2	0.3	-0.7	130	155	20	45	200
P51	22x45	-1702.01	-836.01	5.4	4.0	1200	-1200	0	-300	0.0	-0.3	0.4	-0.5	90	115	20	40	200
P52	26x40	-1012.61	-853.51	5.8	5.8	1500	-1400	300	-200	0.2	-0.2	0.3	-0.3	100	125	20	40	200
P53	18x40	-323.70	-838.51	12.8	9.0	1000	-800	0	-100	0.0	-0.1	0.3	-0.9	115	135	20	40	200
P54	18x40	4374.00	1639.99	10.1	6.6	2300	-1400	200	0	0.2	0.0	0.9	-1.4	145	165	20	45	200
P55	18x40	4672.50	1667.49	6.2	5.0	1300	-600	200	0	0.2	0.0	0.1	-0.9	95	120	20	40	200
P56	18x40	-1287.50	1452.49	20.2	14.3	1000	-800	100	0	0.1	0.0	0.5	-0.7	130	155	20	40	200
P57	18x40	-872.50	1452.49	30.6	25.4	1000	-1100	0	-100	0.2	0.0	0.6	-0.6	170	190	20	50	200
P58	18x40	-57.50	1452.49	30.4	25.2	900	-1000	100	0	0.1	0.0	0.8	-0.6	170	190	20	50	200
P59	18x40	757.50	1452.49	31.3	25.4	1000	-1000	100	-200	0.2	0.0	0.8	-0.6	170	190	20	50	200
P60	20x45	1207.50	1452.49	25.7	20.3	500	-300	300	-600	0.2	-0.2	0.3	-0.5	145	170	20	45	200
P61	20x45	1522.50	1452.49	25.7	20.0	500	-300	300	-600	0.2	-0.2	0.3	-0.5	145	170	20	45	200
P62	18x50	1972.50	1452.49	24.5	19.4	1700	-1700	100	-300	0.1	-0.3	0.8	-1.0	145	175	20	45	200
P63	18x40	2357.50	1469.99	39.3	30.5	1300	-1000	100	-100	0.1	-0.3	0.7	-0.8	175	205	20	55	200
P64	18x40	4374.00	1452.49	16.2	9.8	1000	-1400	100	0	0.1	0.0	1.0	-0.8	125	145	20	40	200
P65	18x40	5100.00	1479.99	33.3	27.1	400	-400	300	-100	0.3	0.0	0.3	-0.4	170	190	20	50	200
P66	18x40	5429.50	1479.99	22.7	17.3	200	-300	300	-100	0.3	-0.2	0.2	-0.1	0.0	-0.5	130	155	20
P67	18x40	5770.00	1490.99	25.1	20.3	1100	-1000	100	-200	0.1	-0.2	0.6	-0.9	145	170	20	45	200
P68	18x40	6131.00	1490.99	20.0	15.6	300	-300	300	-200	0.2	-0.2	0.2	-0.2	125	145	20	40	200
P69	18x40	3190.00	1361.49	40.4	31.8	1100	-1000	100	-100	0.2	-0.2	0.5	-0.7	185	205	30	75	200
P70	18x40	3499.75	1382.99	17.8	8.7	300	-400	100	-400	0.1	-0.3	0.3	-0.2	105	125	50	75	200
P71	18x40	3974.00	1361.49	32.1	26.2	1000	-900	200	0	0.3	0.0	0.6	-0.7	170	190	20	50	200
P72	18x40	6131.00	1264.99	14.3	11.2	1100	-1100	0	-100	0.2	-0.2	0.9	-0.8	125	145	20	40	200
P73	18x40	-1287.50	1033.49	24.0	19.9	400	-100	300	-300	0.2	-0.2	0.1	-0.3	145	170	20	45	200
P74	18x40	-872.50	1044.49	24.6	20.0	800	-900	100	-200	0.1	-0.2	0.5	-0.4	145	170	20	45	200
P75	18x40	-465.00	1033.49	33.0	26.4	800	0	300	-300	0.2	-0.1	0.0	-1.0	170	190	20	50	200
P76	18x40	-57.50	1044.49	24.4	19.8	800	-800	100	-200	0.1	-0.2	0.5	-0.4	145	170	20	45	200
P77	20x45	350.00	1034.49	33.6	27.0	1100	0	0	-400	0.2	-0.1	0.0	-1.3	170	195	20	60	200
P78	18x40	757.50	1044.49	25.4	20.3	1100	-900	100	-200	0.1	-0.2	0.7	-0.9	145	170	20	45	200
P79	18x40	1191.00	1033.49	27.9	24.2	400	-200	300	-300	0.2	-0.2	0.0	-0.5	155	175	20	50	200
P80	18x40	1522.50	1033.49	17.0	13.3	400	-100	200	-400	0.1	-0.2	0.1	-0.3	125	145	20	40	200

Nome	Seção (cm)	X (cm)	Y (cm)	Carga Máx. (tf)	Pilar Carga Mín. (tf)	Pilar Mx Máximo (kgf.m) Positivo	Pilar Mx Máximo (kgf.m) Negativo	Pilar My Máximo (kgf.m) Positivo	Pilar My Máximo (kgf.m) Negativo	Pilar Fx Máximo (tf) Positivo	Pilar Fx Máximo (tf) Negativo	Pilar Fy Máximo (tf) Positivo	Pilar Fy Máximo (tf) Negativo	Fundação Lado B (cm)	Fundação Lado H (cm)	Fundação h0 / ha (cm)	Fundação h1 / hb (cm)	Fundação df (cm)
P81	18x40	1972.50	1033.49	27.5	23.7	400	-100	400	0	0.4	0.0	0.0	-0.5	155	175	20	45	200
P82	18x40	2357.50	1044.49	36.0	30.2	1000	-800	0	-500	0.0	-0.5	0.3	-0.6	175	200	20	55	200
P83	18x40	3190.00	1044.49	46.4	37.7	900	-800	300	0	0.3	0.0	0.4	-0.6	195	220	20	60	200
P84	18x40	3974.00	1044.49	33.3	27.4	900	-1000	500	0	0.5	0.0	0.5	-0.4	170	190	20	50	200
P85	18x40	4374.00	1033.49	19.6	17.2	400	-300	300	-200	0.1	-0.4	0.1	-0.4	130	155	20	40	200
P86	18x40	4822.49	1033.49	31.2	24.3	300	-400	400	0	0.4	0.0	0.3	-0.2	170	190	20	50	200
P87	18x40	5089.00	1044.49	9.1	7.5	1200	-900	400	-200	0.3	-0.3	0.3	-0.7	105	125	20	40	200
P88	18x40	5830.01	1048.50	18.4	14.3	300	-500	200	-200	0.2	-0.4	0.4	-0.2	125	145	20	40	200
P89	18x40	6131.00	1059.50	18.8	13.0	900	-1100	100	-200	0.1	-0.2	0.8	-0.5	130	155	20	40	200
P90	18x40	-1012.60	786.49	22.8	20.0	200	-100	200	-200	0.1	-0.1	0.1	0.0	140	160	20	40	200
P91	18x40	-323.70	775.49	20.7	17.6	700	-1000	400	0	0.5	0.0	0.6	-0.3	140	160	20	40	200
P92	C50x15	-117.00	802.49	23.3	19.1	1900	-3100	0	-1200	0.0	-1.3	2.0	-0.4	180	180	25	60	200
P93	C50x15	393.43	802.49	24.1	22.2	1800	-2200	900	-600	0.9	-0.2	1.4	0.0	170	170	25	60	200
P94	C50x15	690.00	802.49	34.7	27.4	2300	-2100	0	-1100	0.0	-0.6	1.7	-1.0	195	195	25	65	200
P95	C50x15	1490.00	802.49	38.6	32.3	2000	-1900	600	-700	0.4	-0.3	0.5	-0.6	200	200	30	70	200
P96	C50x15	2312.04	802.49	32.4	27.6	2100	-2500	600	-600	0.2	-0.4	0.3	-0.8	195	195	25	65	200
P97	C50x15	3300.00	802.49	49.9	40.5	2300	-3800	1900	0	2.0	0.0	2.2	-0.6	235	235	30	80	200
P98	22x35	4625.64	707.27	10.0	7.1	300	-300	400	-200	0.3	-0.3	0.3	-0.2	110	95	20	40	200
P99	22x35	5191.88	707.27	9.7	6.8	400	-200	400	-300	0.2	-0.2	0.3	-0.2	105	95	20	40	200
P100	22x35	4322.51	513.77	7.5	7.2	400	-500	200	-100	0.2	-0.1	0.4	-0.3	100	90	25	40	200
P101	22x35	4442.52	513.77	11.0	10.6	500	-400	200	-100	0.1	0.0	0.4	-0.5	115	105	20	40	200
P102	18x40	5830.01	521.25	34.0	27.2	100	-500	400	-300	0.5	-0.3	0.6	0.0	170	195	20	60	200
P103	18x40	6131.00	513.77	11.7	10.4	1000	-900	0	-200	0.2	-0.2	0.7	-0.8	115	135	20	40	200
P104	22x35	4825.64	320.27	9.5	6.6	300	-200	200	-300	0.1	-0.2	0.1	-0.3	105	95	20	40	200
P105	22x35	5191.88	320.27	14.1	11.3	500	-200	200	-100	0.1	-0.1	0.2	-0.4	105	95	20	40	200
P106	C50x15	-117.00	225.00	26.4	23.4	3000	-2100	100	-1200	0.0	-0.9	0.5	-2.1	185	185	30	65	200
P107	C50x15	393.43	225.00	25.5	23.7	2700	-1300	1000	-400	0.0	-0.4	1.1	-1.8	180	180	25	60	200
P108	C50x15	690.00	225.00	33.8	26.7	2200	-1800	0	-1700	0.0	-1.7	0.4	-0.6	195	195	25	65	200
P109	C50x15	1490.00	225.00	39.0	32.6	1900	-2000	500	-600	0.3	-0.3	0.6	-0.4	200	200	30	70	200
P110	C50x15	4665.00	225.00	31.9	27.7	2100	-2100	400	-800	0.0	-0.6	0.6	-0.6	185	185	30	65	200
P111	C50x15	5560.01	225.00	36.5	30.9	3600	-2700	1900	0	2.1	0.0	0.9	-2.1	205	205	25	70	200
P112	18x40	5830.01	214.76	10.7	8.3	1200	-900	0	-200	0.2	-0.2	0.7	-0.9	105	95	20	40	200
P113	18x40	6131.00	225.00	31.9	27.7	1200	-1000	0	-200	0.0	-0.3	0.5	-0.5	130	155	20	40	200
P114	18x40	432.50	-18.49	26.5	20.9	0	-1200	300	-300	0.2	-0.2	0.0	-0.6	160	180	20	50	200
P115	18x40	857.50	-18.49	22.4	17.8	900	-900	100	-200	0.1	-0.2	0.4	-0.5	140	160	20	40	200
P116	18x40	1282.49	-18.49	26.6	21.1	0	-1200	200	-200	0.1	-0.1	0.0	-0.6	160	180	20	50	200
P117	18x40	1709.00	-18.49	17.6	13.5	800	-800	300	0	0.3	0.0	0.5	-0.4	130	155	20	40	200
P118	18x40	2023.50	-18.49	25.7	23.7	700	-1000	0	-200	0.0	-0.5	1.1	-0.2	155	175	20	45	200
P119	18x40	2440.00	-18.49	23.1	18.3	900	-900	100	-200	0.1	-0.2	0.5	-0.6	145	170	20	45	200
P120	18x40	2856.51	-18.49	25.7	20.2	700	-1400	300	0	0.3	0.0	1.1	-0.2	155	175	20	45	200
P121	18x40	3171.01	-18.49	17.3	13.2	800	-1000	0	-400	0.0	-0.5	0.4	-0.4	130	155	20	40	200
P122	18x40	3580.00	-7.49	25.6	20.2	0	-1000	300	-300	0.2	-0.2	0.6	0.0	155	175	20	50	200
P123	18x40	3987.50	-18.49	21.8	17.3	900	-1000	100	-200	0.1	-0.2	0.6	-0.6	140	160	20	40	200
P124	18x40	4395.00	-7.49	25.2	19.8	0	-1200	200	-200	0.1	-0.1	0.5	0.0	150	175	20	50	200
P125	18x40	4802.50	-18.49	21.4	17.3	900	-900	100	-200	0.1	-0.2	0.6	-0.6	140	160	20	40	200
P126	18x40	5210.00	-7.49	25.4	20.1	0	-1000	200	-200	0.1	-0.1	0.6	0.0	155	175	20	50	200
P127	18x40	5617.50	-18.49	19.0	15.1	1400	-1200	200	0	0.2	0.0	1.0	-1.0	135	155	20	40	200
P128	18x40	6025.01	-7.49	14.7	11.5	800	-600	200	-400	0.2	-0.2	0.5	-0.6	115	135	20	40	200
P129	18x40	6434.00	-18.49	25.4	20.1	0	-1000	200	-200	0.1	-0.1	0.6	0.0	155	175	20	50	200
P130	18x40	5617.50	-313.49	19.0	15.1	1400	-1200	200	0	0.2	0.0	1.0	-1.0	135	155	20	40	200
P131	18x40	6025.01	-313.49	14.7	11.5	800	-600	200	-400	0.2	-0.2	0.5	-0.6	115	135	20	40	200
P132	18x40	-323.70	-313.49	16.9	13.5	1000	-900	100	0	0.1	0.0	0.7	-0.8	125	145	20	40	200
P133	18x40	857.50	-313.49	16.6	13.4	1000	-1100	100	-200	0.1	0.0	0.7	-0.7	125	145	20	40	200
P134	18x40	1709.00	-313.49	16.6	13.4	1000	-1100	100	-200	0.1	0.0	0.7	-0.7	125	145	20	40	200
P135	18x40	2440.00	-313.49	17.9	14.2	1100	-1100	100	-200	0.1	0.0	0.8	-0.7	130	155	20	40	200
P136	18x40	3171.01	-313.49	16.4	13.2	1100	-1100	100	-200	0.1	0.0	0.7	-0.7	125	145	20	40	200
P137	18x40	3987.50	-316.74	17.7	14.2	1100	-1000	100	0	0.1	0.0	0.8	-0.7	130	155	20	40	200
P138	18x40	4802.50	-316.74	17.7	14.2	1100	-1100	100	0	0.1	0.0	0.8	-0.7	130	155	20	40	200
P139	18x40	5617.50	-316.74	17.8	14.1	1400	-1100	100	0	0.1	0.0	0.8	-1.0	130	155	20	40	200
P140	18x40	-323.70	-519.63	11.9	10.3	1000	-1100	100	-200	0.1	-0.2	0.5	-0.6	115	135	20	40	200
P96=P102		2312.04	755.88	34.0	31.4	0	-11800	0	-4400	0.9	0.0	0.8	-0.7	295	270	90	90	200
P97=P103		2853.76	755.88	33.8	28.5	5000	-6700	3000	-1600	0.7	-0.2	1.0	-0.8	170	260	90	90	200
P98=P104		3300.00	761.88	42.9	34.5	8300	-3900	1100	-1100	0.0	-0.9	1.1	-0.6	295	275	95	95	200
P99=P105		3845.63	761.88	38.9	31.3	0	-8700	2300	0	0.0	-1.1	0.7	-0.5	200	245	85	85	200
P106=P107		4382.51	707.27	24.3	18.9	900	-1300	1800	-2300	0.4	-0.1	0.7	-0.4	250	220	85	85	200
P115=P128		2312.04	271.63	34.6	32.0	12200	0	0	-4500	1.0	0.0	0.7	-0.7	230	275	95	95	200
P116=P129		2853.76	271.63	35.4	29.4	5500	-6000	100	-2000	0.6	-0.1	0.8	-0.8	175	260	90	90	200
P117=P130		3300.00	265.63	41.1	32.9	4500	-7600	1000	-1300	0.0	-0.9	0.5	-1.1	190	270	90	90	200
P118=P131		3845.63	267.38	38.2	30.9	6900	0	2200	0	0.0	-1.0	0.6	-0.7	200	245	85	85	200
P119=P120		4382.52	322.02	21.0	15.7	800	-1300	1300	-2700	0.2	-0.2	0.7	-0.4	235	105	80	80	200

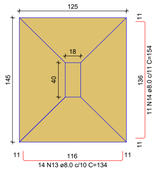
Os esforços indicados nesta tabela são os valores máximos obtidos pela envoltória de todas as combinações definidas para as fundações. Para análises complementares, deve-se consultar o relatório de esforços na fundação, que apresenta os valores calculados para cada combinação.

Locação no eixo X	
Coorden

PROCESSO ADMINISTRATIVO
0921
ASSINADO ELETRONICAMENTE

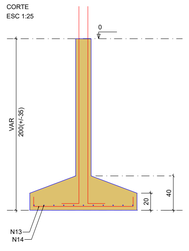
S1=S13=S17=S23=S38=S42=S64=S72=S80=S88 =S153=S155=S157

PLANTA
ESC 1:25



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25



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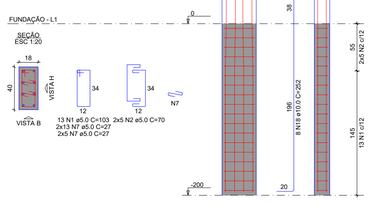

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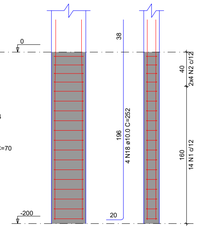

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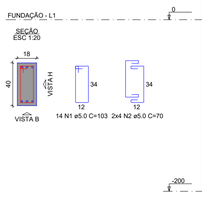

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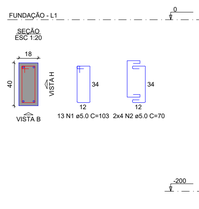

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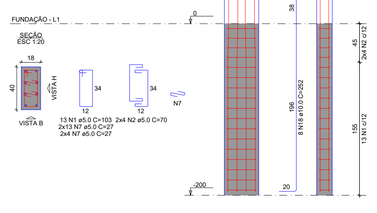


RELAÇÃO DO AÇO

2xP1	5xP2	8xP3
P4	P6	3xP7
2xP11	P12	P13
P16	8xP17	P53
2xP60	P64	P66
2xP73	P75	P80
P90	S6	10xS10
3xS12	13xS13	S16
S55	12xS60	2xS75

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	517	103	53251
	2	5.0	334	70	23380
	3	5.0	60	26	1560
	4	5.0	60	27	1620
	5	5.0	9	113	1017
	6	5.0	6	75	450
	7	5.0	122	27	3294
	8	5.0	34	29	986
	9	5.0	26	117	3042
	10	5.0	16	79	1264
CA50	11	8.0	160	149	23840
	12	8.0	120	169	20280
	13	8.0	182	134	24388
	14	8.0	359	154	55286
	15	8.0	12	104	1248
	16	8.0	8	129	1032
	17	8.0	168	179	30072
	18	10.0	172	252	43344
	19	10.0	4	210	840
	20	10.0	16	168	2688
	21	10.0	12	198	2376
	22	10.0	45	183	8235
	23	10.0	36	208	7488
	24	10.0	14	158	2212
	25	10.0	11	183	2013
	26	12.5	26	207	5382
	27	12.5	22	227	4994
	28	16.0	26	272	7072
	29	20.0	30	285	8550

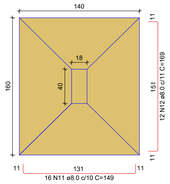
RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	1561.5	677.7
	10.0	692	469.3
	12.5	103.8	110
	16.0	70.7	122.8
	20.0	85.5	231.9
CA60	5.0	898.6	152.4
PESO TOTAL (kg)			
CA50	1611.7		
CA60	152.4		

Volume de concreto (C-25) = 35.82 m³
Área de forma = 132.56 m²

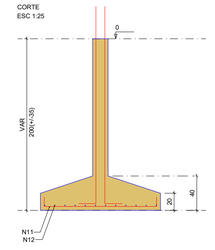
S2=S7=S10=S19=S66=S90=S91=S137=S145=S147

PLANTA
ESC 1:25



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25



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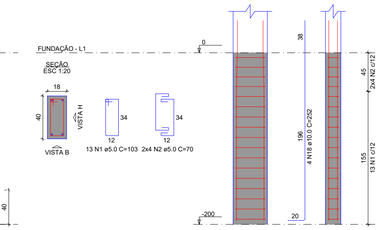
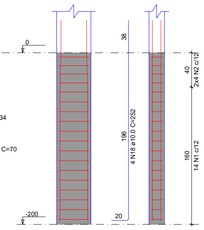


P2=P19=P137=P145=P147



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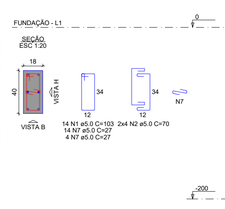

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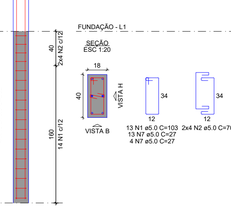

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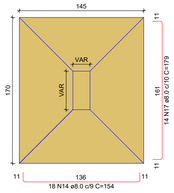
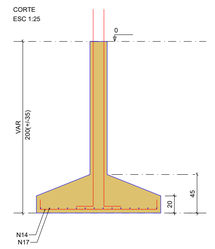
PLANTA
ESC 1:25



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25



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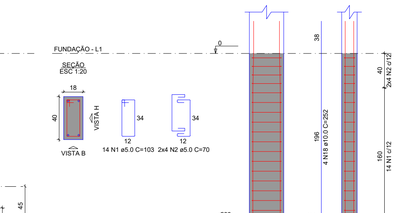

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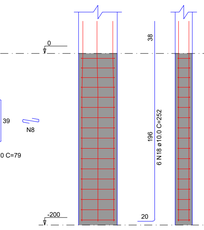

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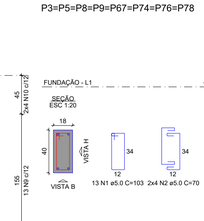
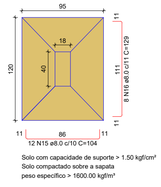


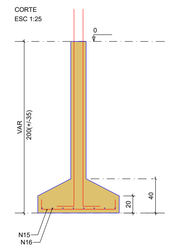
S55

PLANTA
ESC 1:25

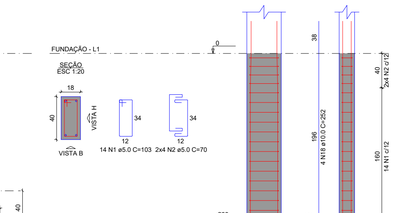


Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25



P55



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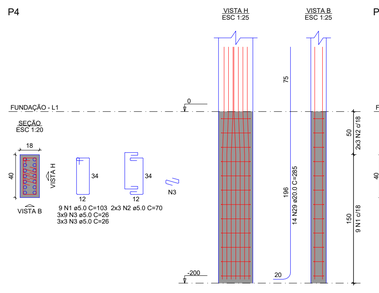

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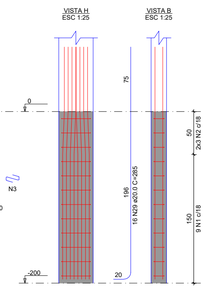
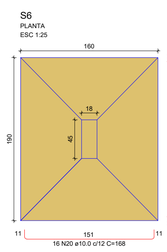


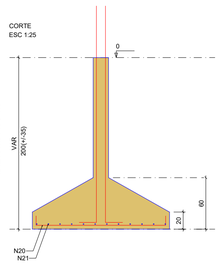
S6

PLANTA
ESC 1:25



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25



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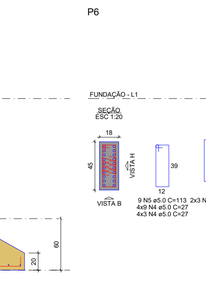
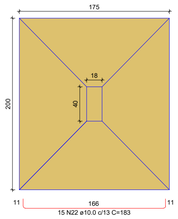


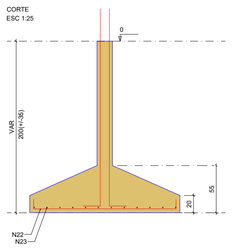
S11=S12=S82

PLANTA
ESC 1:25

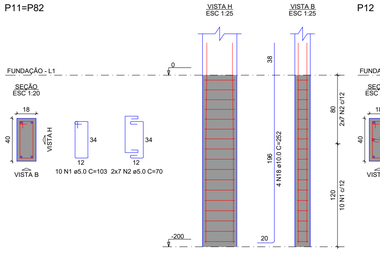


Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

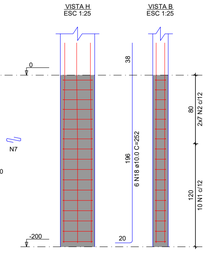
CORTE
ESC 1:25



P11=P82

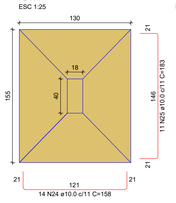


P12



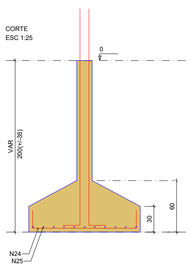
S16

PLANTA
ESC 1:25

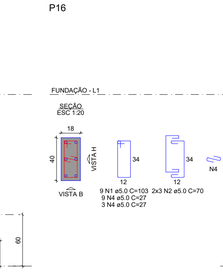


Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25



P16



1 DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 12/50

CONTEÚDO:
PLANTA DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

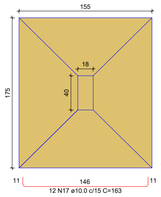
PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

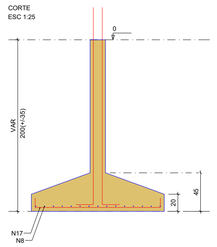
PROCESSO ADMINISTRATIVO
0922
ASSINADO ELETRONICAMENTE

S14=S79=S81=S140=S142

PLANTA
ESC 1:25

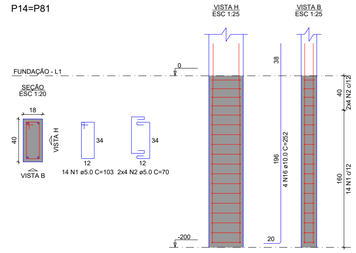


CORTE
ESC 1:25

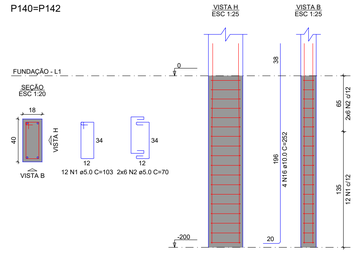


Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

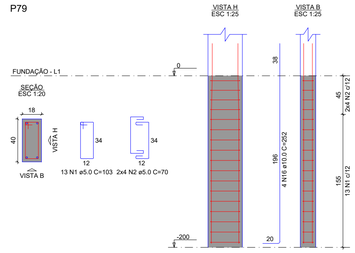
P14=P81



P140=P142

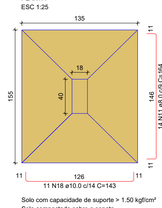


P79

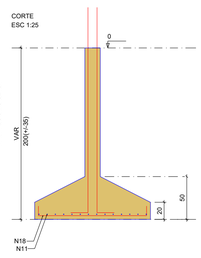


S22

PLANTA
ESC 1:25

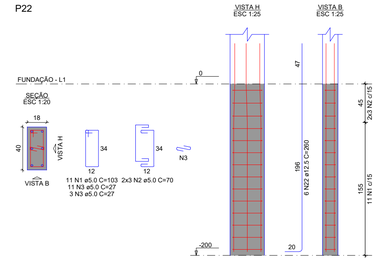


CORTE
ESC 1:25



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P22



RELAÇÃO DO AÇO

2xP14	6xP15	P22	
P25	18xP26	P27	
P28	P29	3xP30	
P31	P50	3xP53	
3xP57	P65	2xP66	
P79	P84	P85	
2xP136	2xP140	5xS14	
9xS15	S22	S29	
3xS30	22xS48	8xS84	
3xS136			

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	644	103	66332
	2	5.0	396	70	27720
	3	5.0	98	27	2646
	4	5.0	173	27	4671
	5	5.0	72	35	2520
	6	5.0	60	109	6540
	7	5.0	24	81	1944
CA50	8	8.0	75	184	13800
	9	8.0	117	124	14508
	10	8.0	90	144	12960
	11	8.0	256	164	41984
	12	8.0	36	104	3744
	13	8.0	8	109	872
	14	8.0	24	114	2736
	15	10.0	344	252	86688
	16	10.0	244	252	61488
	17	10.0	99	163	16137
	18	10.0	11	143	1573
	19	10.0	104	178	18512
	20	10.0	88	198	17424
	21	10.0	30	188	5640
	22	12.5	42	260	10920

RESUMO DO AÇO

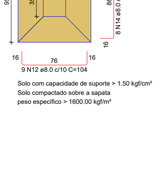
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	1364.7	592.4
	10.0	1207.7	819.1
	12.5	109.2	115.7
CA60	5.0	1123.7	190.5

PESO TOTAL (kg)	
CA50	1527.2
CA60	190.5

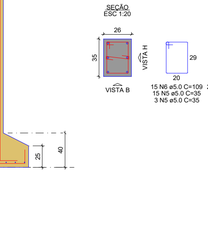
Volume de concreto (C-25) = 39.08 m³
Área de forma = 156.17 m²

S15=S18=S20=S21=S24=S53=S114=S150=S161

PLANTA
ESC 1:25

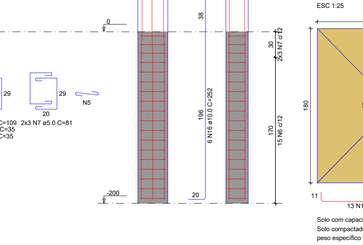


CORTE
ESC 1:25

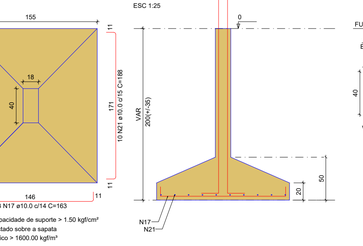


Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P15=P18=P20=P21=P24=P150

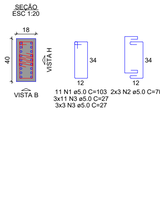


P53=P114=P161

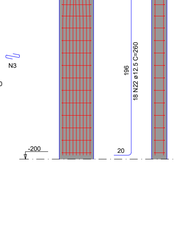


S29

PLANTA
ESC 1:25

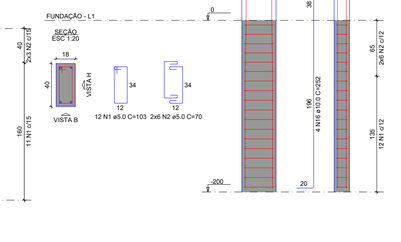


CORTE
ESC 1:25



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P29



S25=S26=S27=S34=S36=S40=S44=S46=S48=S50 =S56=S68=S85=S89=S135=S139=S143=S154 =S156=S158=S159=S160

PLANTA
ESC 1:25

CORTE
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P25

P26=P34=P36=P40=P44=P46=P48=P56=P68= =P89=P135=P139=P143=P154=P156=P158= =P159=P160

P27

P50

P85

P28

P57=P58=P86

P59

P65=P71

P84

S28=S57=S58=S59=S65=S71=S84=S86

PLANTA
ESC 1:25

CORTE
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P30=P32=P33

S30=S32=S33

PLANTA
ESC 1:25

CORTE
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

S31=S136=S138

PLANTA
ESC 1:25

CORTE
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P136=P138

P31

1 DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 13/50

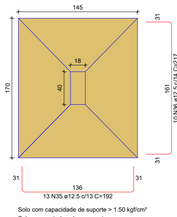
CONTEÚDO:
PLANTA DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

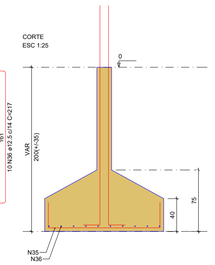
FOLHA: A1

PROCESSO ADMINISTRATIVO
0923
ASSINADO ELETRONICAMENTE

S35
PLANTA
ESC 1:25

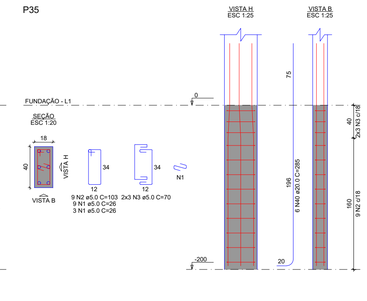


CORTE
ESC 1:25

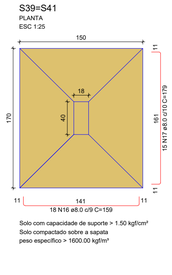


Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso especifico > 1600.00 kgf/m³

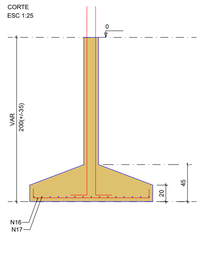
P35



S39=S41
PLANTA
ESC 1:25

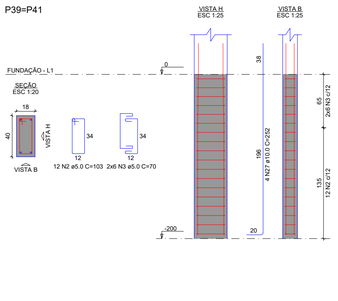


CORTE
ESC 1:25

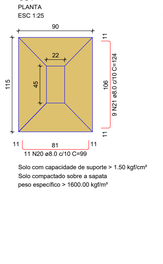


Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso especifico > 1600.00 kgf/m³

P39=P41

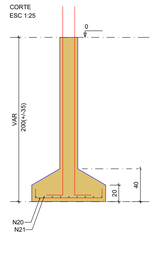


S51
PLANTA
ESC 1:25

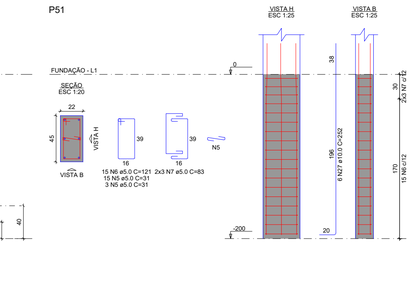


Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso especifico > 1600.00 kgf/m³

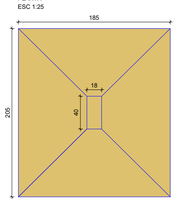
CORTE
ESC 1:25



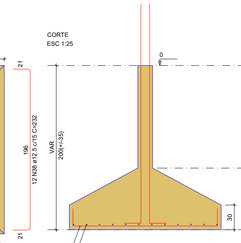
P51



S37=S49=S146=S151
PLANTA
ESC 1:25

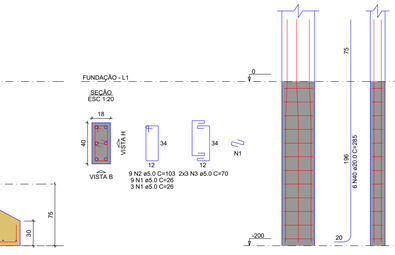


CORTE
ESC 1:25

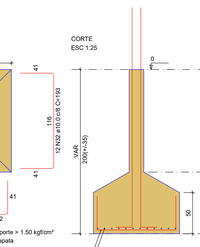


Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso especifico > 1600.00 kgf/m³

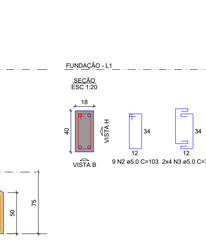
P37=P146



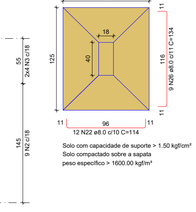
P151



P49

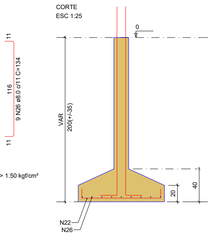


S52
PLANTA
ESC 1:25

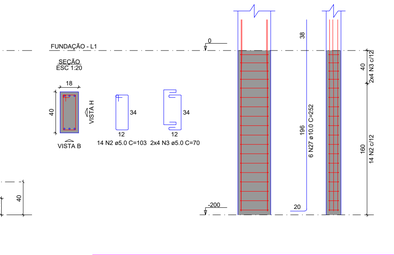


Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso especifico > 1600.00 kgf/m³

CORTE
ESC 1:25



P52



S43
PLANTA
ESC 1:25

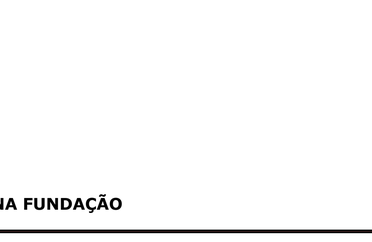


CORTE
ESC 1:25



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso especifico > 1600.00 kgf/m³

P43



S45=S47
PLANTA
ESC 1:25



CORTE
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso especifico > 1600.00 kgf/m³

P45=P47

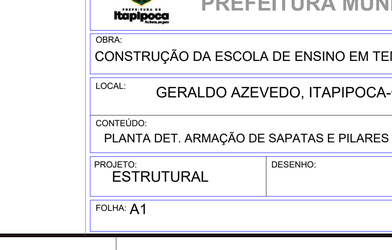


S54
PLANTA
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso especifico > 1600.00 kgf/m³

CORTE
ESC 1:25

P54



RELAÇÃO DO AÇO

P35	2xP37	2xP39	
P43	2xP45	P49	
P51	P52	P54	
P62	P63	P69	
P70	P87	P151	
2xS35	S39	S43	
2xS45	S45	S52	
S54	S62	S63	
S69	S70	S87	
4xS146			

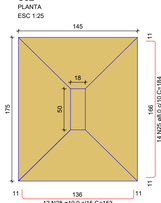
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	24	26	624
	2	5.0	155	103	15965
	3	5.0	104	70	7280
	4	5.0	266	27	7182
	5	5.0	18	31	558
	6	5.0	15	121	1815
	7	5.0	6	83	498
	8	5.0	18	35	630
	9	5.0	15	119	1785
	10	5.0	6	86	516
	11	5.0	89	27	2403
	12	5.0	14	133	1862
	13	5.0	8	85	680
	14	5.0	13	123	1599
	15	5.0	8	80	640
CA50	16	8.0	36	159	5724
	17	8.0	30	179	5370
	18	8.0	16	169	2704
	19	8.0	30	174	5220
	20	8.0	11	99	1089
	21	8.0	24	124	2976
	22	8.0	24	114	2736
	23	8.0	10	129	1290
	24	8.0	10	100	1000
	25	8.0	76	184	14062
	26	8.0	9	134	1206
	27	10.0	52	252	13104
	28	10.0	23	153	3519
	29	10.0	24	148	3552
	30	10.0	16	188	3008
	31	10.0	13	213	2769
	32	10.0	12	193	2316
	33	10.0	48	158	7584
	34	12.5	106	260	27560
	35	12.5	13	192	2496
	36	12.5	10	217	2170
	37	12.5	14	212	2968
	38	12.5	12	172	2064
	39	12.5	10	172	1720
	40	20.0	16	285	4560

RESUMO DO AÇO

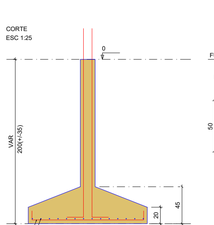
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	443.1	192.3
	10.0	358.5	243.1
	12.5	397	420.7
	20.0	45.6	123.7
CA60	5.0	440.4	74.7
PESO TOTAL (kg)			
CA50	979.8		
CA60	74.7		

Volume de concreto (C-25) = 16.68 m³
Área de forma = 57.48 m²

S62
PLANTA
ESC 1:25

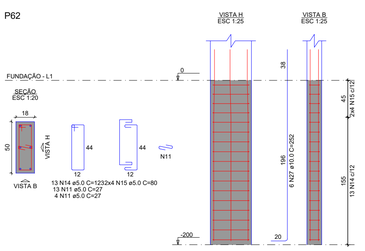


CORTE
ESC 1:25

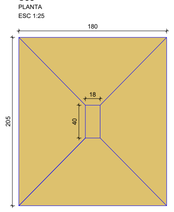


Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso especifico > 1600.00 kgf/m³

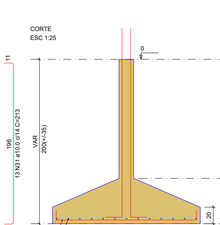
P62



S63
PLANTA
ESC 1:25

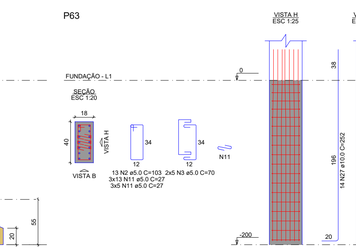


CORTE
ESC 1:25



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso especifico > 1600.00 kgf/m³

P63



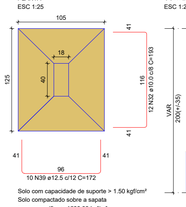
S69
PLANTA
ESC 1:25

CORTE
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso especifico > 1600.00 kgf/m³

P69

S70
PLANTA
ESC 1:25



CORTE
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso especifico > 1600.00 kgf/m³

P70

S87
PLANTA
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso especifico > 1600.00 kgf/m³

CORTE
ESC 1:25

P87

1 DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 14/50

CONTEÚDO:
PLANTA DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

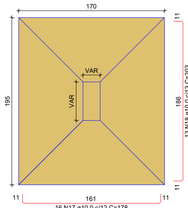
PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

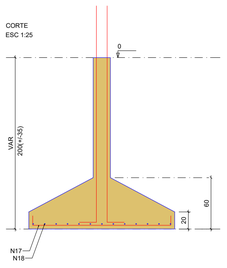
PROCESSO ADMINISTRATIVO
0924
ASSINADO ELETRONICAMENTE

S77=S113

PLANTA
ESC 1:25



CORTE
ESC 1:25

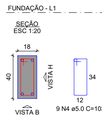


Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P113

FUNDAÇÃO - L1

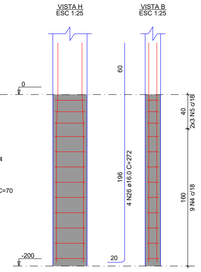
SEÇÃO
ESC 1:20



9 N4 ø5.0 C=103 2x3 N5 ø5.0 C=70

VISTA H
ESC 1:25

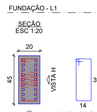
VISTA B
ESC 1:25



P77

FUNDAÇÃO - L1

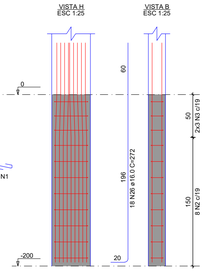
SEÇÃO
ESC 1:20



8 N2 ø5.0 C=117 2x3 N3 ø5.0 C=79
3x3 N1 ø5.0 C=29

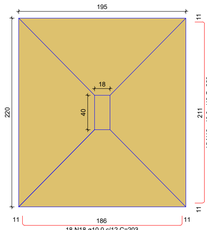
VISTA H
ESC 1:25

VISTA B
ESC 1:25

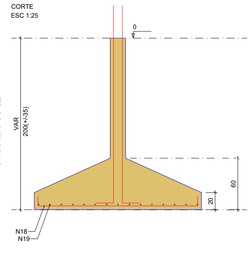


S83

PLANTA
ESC 1:25



CORTE
ESC 1:25

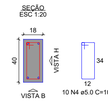


Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P83

FUNDAÇÃO - L1

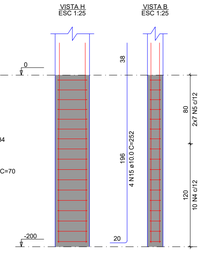
SEÇÃO
ESC 1:20



10 N4 ø5.0 C=103 2x7 N5 ø5.0 C=70

VISTA H
ESC 1:25

VISTA B
ESC 1:25



RELAÇÃO DO AÇO

P77	P83	2xP92	
P93	2xP94	2xP95	
P100	P101	P108	
2xP109	P111	P113	
2xS77	S83	S93	
3xS94	S101	S108	
2xS109	S111	2xS125	
2xS127			

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	33	29	957
	2	5.0	8	117	936
	3	5.0	6	79	474
	4	5.0	19	103	1957
	5	5.0	20	70	1400
	6	5.0	156	156	24336
	7	5.0	57	101	5757
	8	5.0	24	73	1752
	9	5.0	34	31	1054
CA50	10	8.0	9	119	1071
	11	8.0	31	104	3224
	12	8.0	18	114	2052
	13	8.0	9	119	1071
	14	8.0	10	109	1090
	15	10.0	20	252	5040
	16	10.0	8	210	1680
	17	10.0	32	178	5696
	18	10.0	44	203	8932
	19	10.0	15	228	3420
	20	10.0	30	188	5640
	21	10.0	114	213	24282
	22	10.0	64	198	12672
	23	12.5	54	VAR	VAR
	24	12.5	34	262	8908
	25	12.5	52	227	11804
	26	16.0	22	272	5984

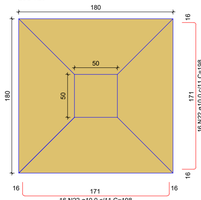
RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	85.1	36.9
	10.0	673.6	456.8
	12.5	347.5	368.3
	16.0	49.8	103.9
CA60	5.0	389.2	65.5
PESO TOTAL (kg)			
CA50	965.9		
CA60	65.5		

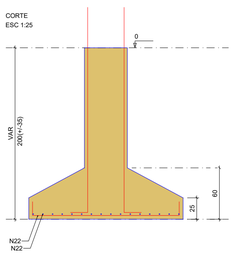
Volume de concreto (C-25) = 23.32 m³
Área de forma = 63.41 m²

S92=S125

PLANTA
ESC 1:25



CORTE
ESC 1:25

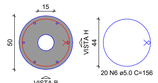


Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P92=P125

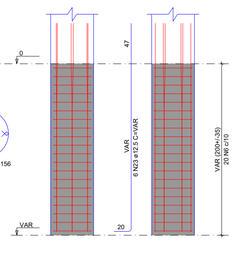
FUNDAÇÃO - L1

SEÇÃO
ESC 1:20



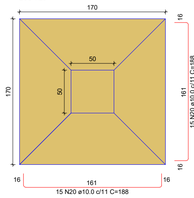
VISTA H
ESC 1:25

VISTA B
ESC 1:25



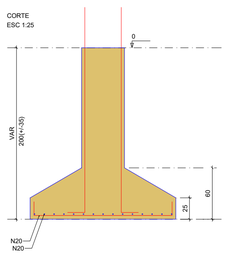
S93

PLANTA
ESC 1:25



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

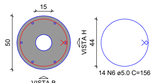
CORTE
ESC 1:25



P93

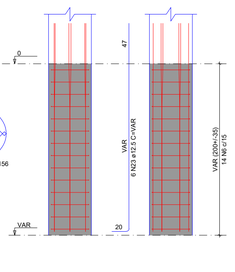
FUNDAÇÃO - L1

SEÇÃO
ESC 1:20



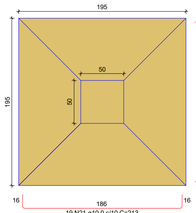
VISTA H
ESC 1:25

VISTA B
ESC 1:25



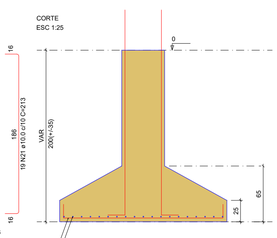
S94=S100=S126

PLANTA
ESC 1:25



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

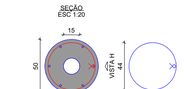
CORTE
ESC 1:25



P100

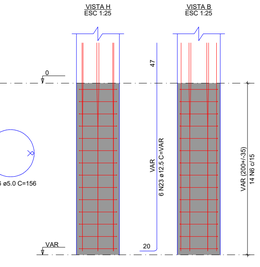
FUNDAÇÃO - L1

SEÇÃO
ESC 1:20



VISTA H
ESC 1:25

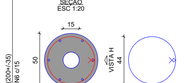
VISTA B
ESC 1:25



P94=P126

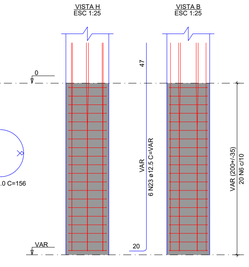
FUNDAÇÃO - L1

SEÇÃO
ESC 1:20



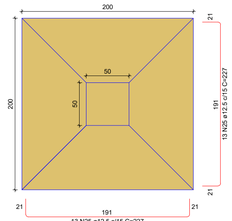
VISTA H
ESC 1:25

VISTA B
ESC 1:25



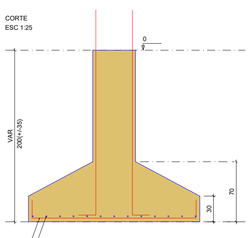
S95=S127

PLANTA
ESC 1:25



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

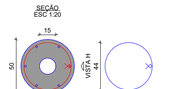
CORTE
ESC 1:25



P95=P127

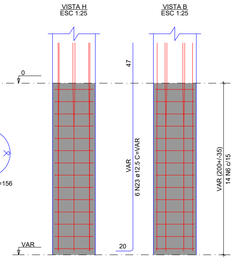
FUNDAÇÃO - L1

SEÇÃO
ESC 1:20



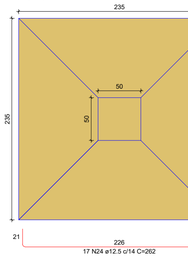
VISTA H
ESC 1:25

VISTA B
ESC 1:25



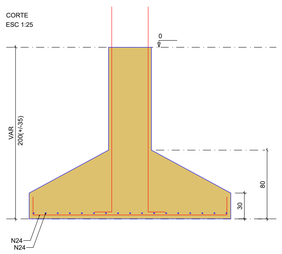
S101

PLANTA
ESC 1:25



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

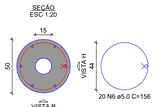
CORTE
ESC 1:25



P101

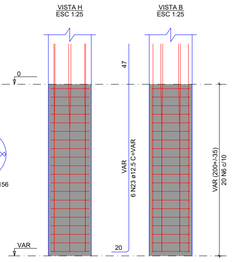
FUNDAÇÃO - L1

SEÇÃO
ESC 1:20



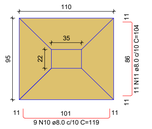
VISTA H
ESC 1:25

VISTA B
ESC 1:25



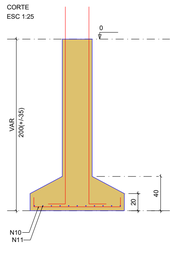
S108

PLANTA
ESC 1:25



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

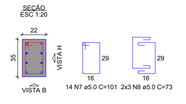
CORTE
ESC 1:25



P108

FUNDAÇÃO - L1

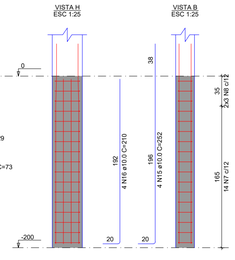
SEÇÃO
ESC 1:20



14 N7 ø5.0 C=101 2x3 N8 ø5.0 C=73

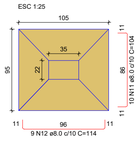
VISTA H
ESC 1:25

VISTA B
ESC 1:25



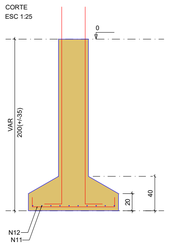
S109=S121

PLANTA
ESC 1:25



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

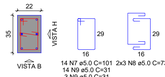
CORTE
ESC 1:25



P109=P121

FUNDAÇÃO - L1

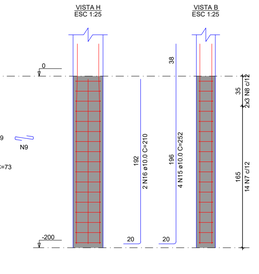
SEÇÃO
ESC 1:20



14 N7 ø5.0 C=101 2x3 N8 ø5.0 C=73
14 N9 ø5.0 C=31
3 N9 ø5.0 C=31

VISTA H
ESC 1:25

VISTA B
ESC 1:25



S111

PLANTA
ESC 1:25

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25

P111

FUNDAÇÃO - L1

SEÇÃO
ESC 1:20

15 N7 ø5.0 C=101 2x3 N8 ø5.0 C=73

VISTA H
ESC 1:25

VISTA B
ESC 1:25

1 DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 15/50

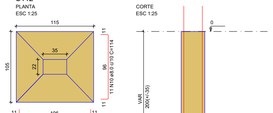
CONTEÚDO:
PLANTA DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0925
ASSINADO ELETRONICAMENTE

S112
PLANTA
ESC 1:25



CORTE
ESC 1:25

P112

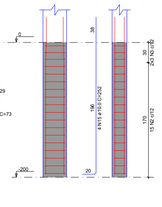
FUNDAÇÃO - L1

SEÇÃO
ESC 1:20

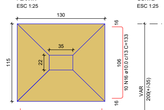


VISTA H
ESC 1:25

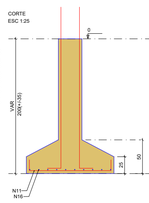
VISTA B
ESC 1:25



S122
PLANTA
ESC 1:25



CORTE
ESC 1:25



P122

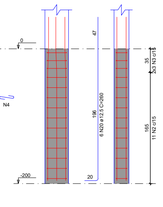
FUNDAÇÃO - L1

SEÇÃO
ESC 1:20

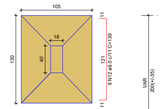


VISTA H
ESC 1:25

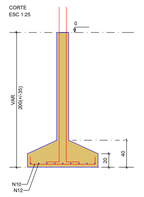
VISTA B
ESC 1:25



S134=S152
PLANTA
ESC 1:25



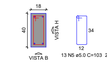
CORTE
ESC 1:25



P134=P152

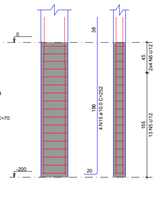
FUNDAÇÃO - L1

SEÇÃO
ESC 1:20



VISTA H
ESC 1:25

VISTA B
ESC 1:25



RELAÇÃO DO AÇO

P96 P102 P104 P122 P124 P132 P134=P152 S112 S122 S124=S132 S133 S134=S152 S144=S148 S149 S96-102 S97-103 S98-104

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	68	156	10608
	2	5.0	43	101	4343
	3	5.0	12	73	876
	4	5.0	12	61	732
	5	5.0	9	915	8235
	6	5.0	62	103	6386
	7	5.0	36	70	2520
	8	5.0	56	27	1512
CA50	9	8.0	10	1040	10400
	10	8.0	10	126	1260
	11	8.0	37	114	4218
	12	8.0	14	149	2086
	13	8.0	18	139	2502
	14	8.0	18	156	2808
	15	8.0	12	164	1968
	16	10.0	20	VAR	VAR
	17	10.0	10	315	3150
	18	10.0	24	413	9912
	19	10.0	20	183	3660
	20	12.5	82	VAR	VAR
	21	12.5	82	370	30340
	22	16.0	18	370	6660
	23	16.0	15	415	6225
	24	16.0	18	244	4392
	25	16.0	15	289	4335

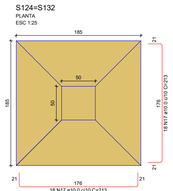
RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	141.7	61.5
	10.0	292.8	196.6
	12.5	153.2	160.4
	16.0	218.1	373.2
CA60	5.0	353.6	60

PESO TOTAL (kg)	
CA50	867.3
CA60	60

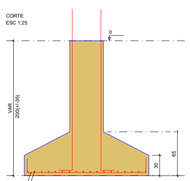
Volume de concreto (C-25) = 16.23 m³
Área de forma = 47.32 m²

S124=S132
PLANTA
ESC 1:25



Solo com capacidade de suporte = 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico = 1600.00 kgf/m³

CORTE
ESC 1:25



P124

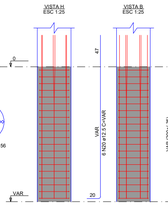
FUNDAÇÃO - L1

SEÇÃO
ESC 1:20



VISTA H
ESC 1:25

VISTA B
ESC 1:25



P132

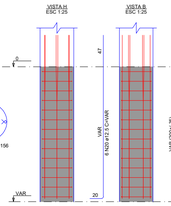
FUNDAÇÃO - L1

SEÇÃO
ESC 1:20

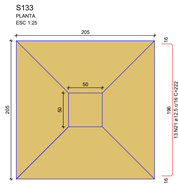


VISTA H
ESC 1:25

VISTA B
ESC 1:25

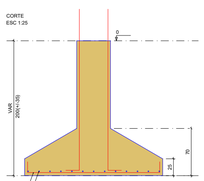


S133
PLANTA
ESC 1:25



Solo com capacidade de suporte = 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico = 1600.00 kgf/m³

CORTE
ESC 1:25



P133

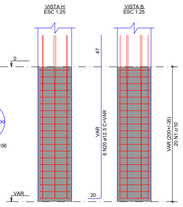
FUNDAÇÃO - L1

SEÇÃO
ESC 1:20



VISTA H
ESC 1:25

VISTA B
ESC 1:25



S144=S148
PLANTA
ESC 1:25

Solo com capacidade de suporte = 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico = 1600.00 kgf/m³

CORTE
ESC 1:25

P144=P148

FUNDAÇÃO - L1

SEÇÃO
ESC 1:20

VISTA H
ESC 1:25

VISTA B
ESC 1:25

S149
PLANTA
ESC 1:25

Solo com capacidade de suporte = 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico = 1600.00 kgf/m³

CORTE
ESC 1:25

P149

FUNDAÇÃO - L1

SEÇÃO
ESC 1:20

VISTA H
ESC 1:25

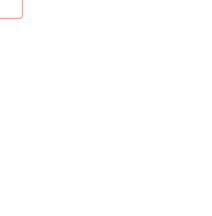
VISTA B
ESC 1:25

S97-103
PLANTA
ESC 1:25



Solo com capacidade de suporte = 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico = 1600.00 kgf/m³

CORTE
ESC 1:25



P103

FUNDAÇÃO - L1

SEÇÃO
ESC 1:20

VISTA H
ESC 1:25

VISTA B
ESC 1:25



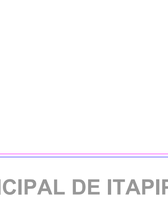
P97

FUNDAÇÃO - L1

SEÇÃO
ESC 1:20

VISTA H
ESC 1:25

VISTA B
ESC 1:25



S96-102
PLANTA
ESC 1:25

Solo com capacidade de suporte = 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico = 1600.00 kgf/m³

CORTE
ESC 1:25

P102

VISTA H
ESC 1:25

VISTA B
ESC 1:25

FUNDAÇÃO - L1

SEÇÃO
ESC 1:20

P96

VISTA H
ESC 1:25

VISTA B
ESC 1:25

FUNDAÇÃO - L1

SEÇÃO
ESC 1:20

S98-104
PLANTA
ESC 1:25

Solo com capacidade de suporte = 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico = 1600.00 kgf/m³

CORTE
ESC 1:25

P104

VISTA H
ESC 1:25

VISTA B
ESC 1:25

FUNDAÇÃO - L1

SEÇÃO
ESC 1:20



P98

VISTA H
ESC 1:25

VISTA B
ESC 1:25

FUNDAÇÃO - L1

SEÇÃO
ESC 1:20



RELAÇÃO DO AÇO

P97 P104 P98 S97-103 P103 S98-104

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	40	156	6240
	2	5.0	24	101	2424
	3	5.0	20	73	1460
	4	5.0	9	835	7515
	5	5.0	9	915	8235
	6	5.0	62	103	6386
	7	5.0	36	70	2520
	8	5.0	56	27	1512
CA50	9	8.0	10	1040	10400
	10	8.0	10	126	1260
	11	8.0	37	114	4218
	12	8.0	14	149	2086
	13	8.0	18	139	2502
	14	8.0	18	156	2808
	15	8.0	12	164	1968
	16	10.0	20	VAR	VAR
	17	10.0	10	315	3150
	18	10.0	24	413	9912
	19	10.0	20	183	3660
	20	12.5	82	VAR	VAR
	21	12.5	82	370	30340
	22	16.0	18	370	6660
	23	16.0	15	415	6225
	24	16.0	18	244	4392
	25	16.0	15	289	4335

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	20	13.7
	12.5	153.2	160.4
	16.0	294.2	510.8
CA60	5.0	258.7	43.9

PESO TOTAL (kg)	
CA50	686.8
CA60	43.9

Volume de concreto (C-25) = 9.62 m³
Área de forma = 23.46 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 16/50

CONTEÚDO:
PLANTA DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

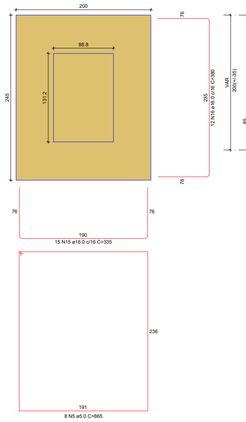
FOLHA: A1

1 DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

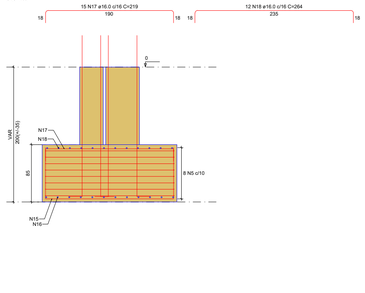
PROCESSO ADMINISTRATIVO
0926
ASSINADO ELETRONICAMENTE

S99-105

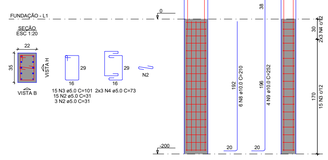
PLANTA
ESC 1:25



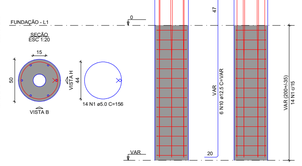
CORTE
ESC 1:25



P105



P99



RELAÇÃO DO AÇO

P99 P105 2xP106
S119-120 S99-105 S106-107

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	14	156	2184
	2	5.0	18	31	558
	3	5.0	34	156	5304
	4	5.0	9	585	8865
	5	5.0	8	865	6920
	6	5.0	8	715	5720
CA50	7	12.5	8	310	2480
	8	10.0	8	310	1280
	9	10.0	20	252	5040
	10	12.5	8	VAR	VAR
	11	12.5	11	282	3102
	12	12.5	11	282	2993
	13	12.5	11	361	3971
	14	12.5	10	247	2470
	15	16.0	15	335	5025
	16	16.0	15	335	5025
	17	16.0	13	219	3285
	18	16.0	12	264	3168
	19	16.0	15	268	4080
	20	16.0	15	139	2085
	21	16.0	16	120	1920
	22	16.0	14	124	1736

RESUMO DO AÇO

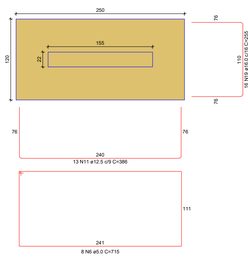
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	63	42.7
	12.5	159	168.5
	16.0	276.2	479.3
CA60	5.0	310.4	52.6

PESO TOTAL (kg)
CA50 690.7
CA60 52.6

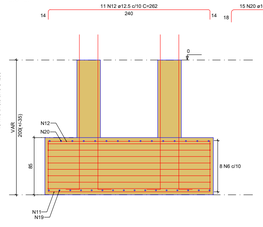
Volume de concreto (C-25) = 9.34 m³
Área de forma = 28.29 m²

S106-107

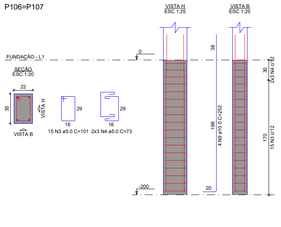
PLANTA
ESC 1:25



CORTE
ESC 1:25

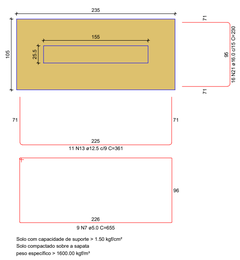


P106=P107

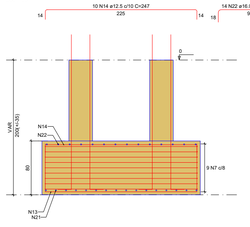


S119-120

PLANTA
ESC 1:25



CORTE
ESC 1:25



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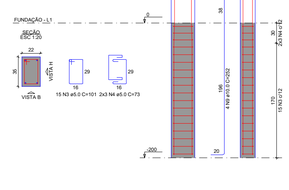
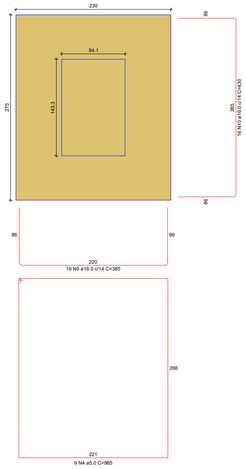
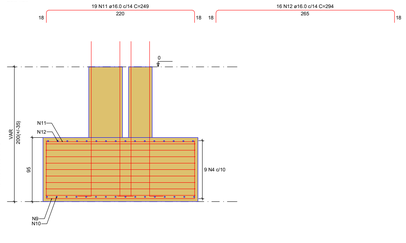


S115-128

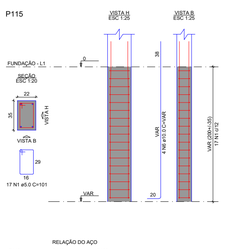
PLANTA
ESC 1:25



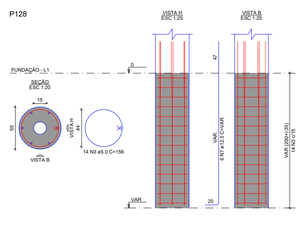
CORTE
ESC 1:25



P115



P128



RELAÇÃO DO AÇO

P115 P116 P128
P129 S115-128 S116-129

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	20	173	3460
	2	5.0	10	73	730
	3	5.0	34	156	5304
	4	5.0	9	985	8865
	5	5.0	9	845	7605
	6	5.0	8	715	5720
CA50	7	12.5	12	VAR	VAR
	8	12.5	19	272	5168
	9	16.0	19	385	7315
	10	16.0	18	340	6120
	11	16.0	19	249	4731
	12	16.0	19	294	4704
	13	16.0	17	320	5440
	14	16.0	17	405	6885
	15	16.0	17	194	3298

RESUMO DO AÇO

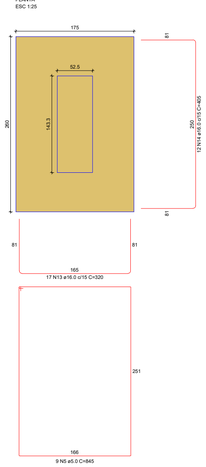
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	20.2	13.7
	12.5	372.3	67.8
	16.0	372.3	646.3
CA60	5.0	254.3	43.1

PESO TOTAL (kg)
CA50 747.8
CA60 43.1

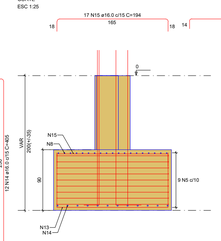
Volume de concreto (C-25) = 10.65 m³
Área de forma = 24.22 m²

S116-129

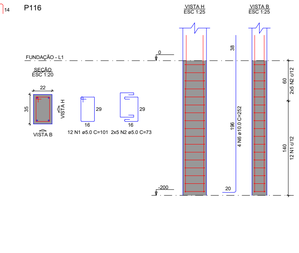
PLANTA
ESC 1:25



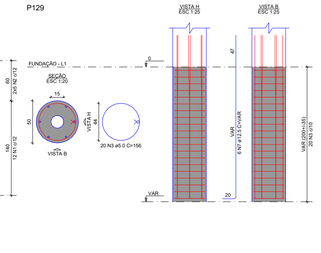
CORTE
ESC 1:25



P116



P129



Solo com capacidade de suporte = 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico = 1600.00 kgf/m³

1 DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 17/50

CONTEÚDO:
PLANTA DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

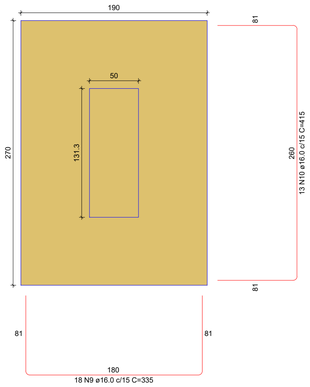
PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

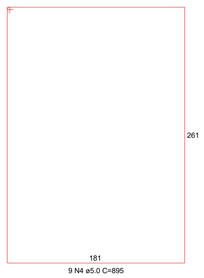
FOLHA: A1

PROCESSO ADMINISTRATIVO
0927
ASSINADO ELETRONICAMENTE

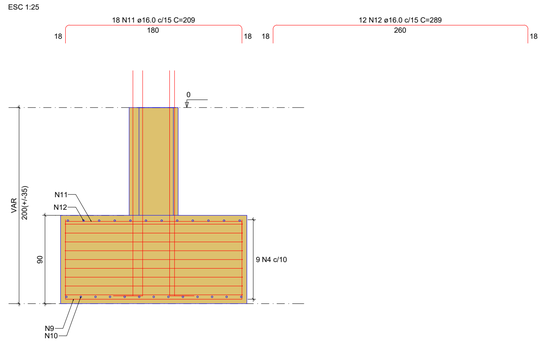
S117-130

PLANTA
ESC 1:25

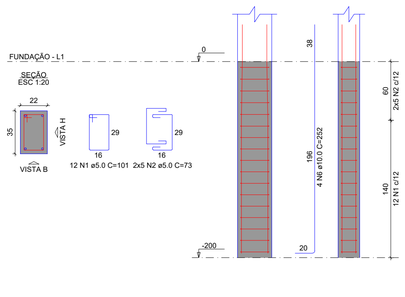




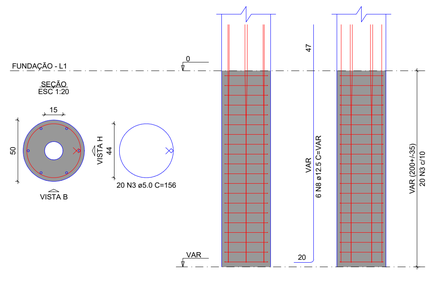
CORTE
ESC 1:25



P117



P130



RELAÇÃO DO AÇO

P117 P118 P130
P131 S117-130 S118-131

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	27	101	2727
	2	5.0	16	73	1168
	3	5.0	34	156	5304
	4	5.0	9	895	8055
	5	5.0	8	865	6920
CA50	6	10.0	8	252	2016
	7	10.0	4	210	840
	8	12.5	12	VAR	VAR
	9	16.0	18	335	6030
	10	16.0	13	415	5395
	11	16.0	18	209	3762
	12	16.0	12	289	3468
	13	16.0	15	335	5025
	14	16.0	12	380	4560
	15	16.0	15	219	3285
	16	16.0	12	264	3168

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	28.6	19.4
	12.5	31.2	33.1
	16.0	346.9	602.3
CA60	5.0	241.7	41

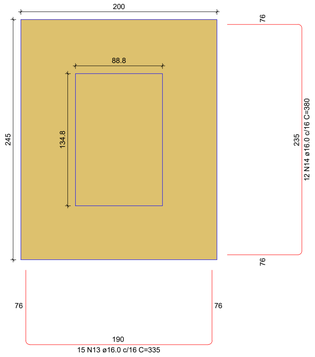
PESO TOTAL (kg)	
CA50	654.8
CA60	41

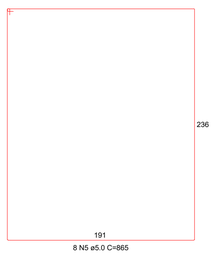
Volume de concreto (C-25) = 9.35 m³
Área de forma = 22.95 m²

Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

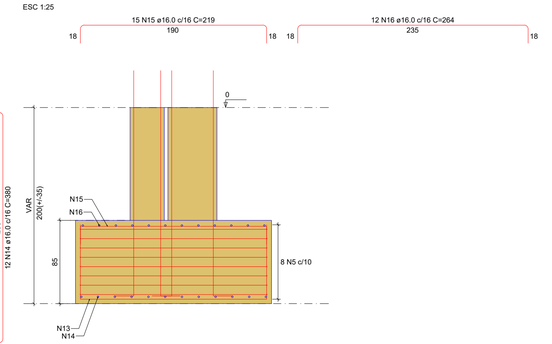
S118-131

PLANTA
ESC 1:25

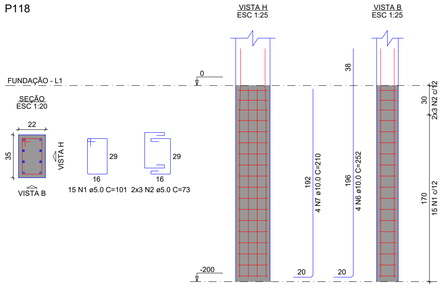




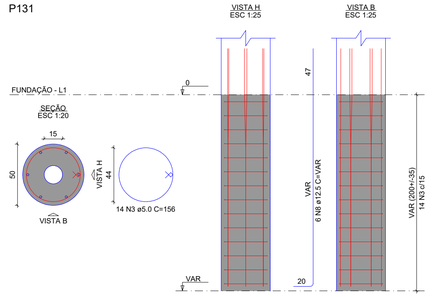
CORTE
ESC 1:25



P118



P131



Solo com capacidade de suporte > 1.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

1 DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 18/50

CONTEÚDO:
PLANTA DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0928
ASSINADO ELETRONICAMENTE

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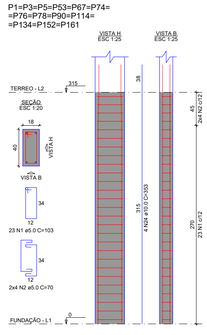
=P76=P78=P90=P114=
=P134=P152=P161



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=P26=P34=P36=P38=P40=
=P42=P44=P46=P48=P66=
=P68=P72=P89=P135=
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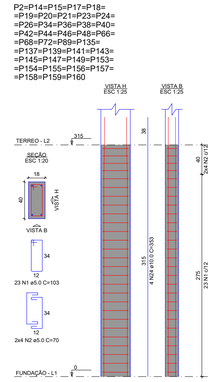
=P154=P155=P156=P157=
=P158=P159=P160



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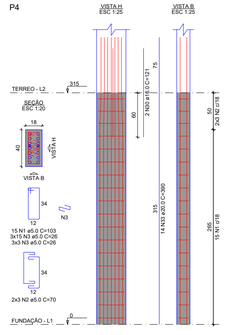
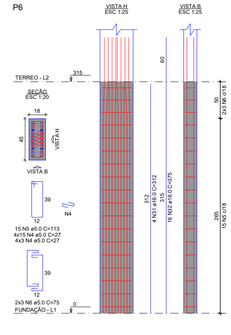


P6



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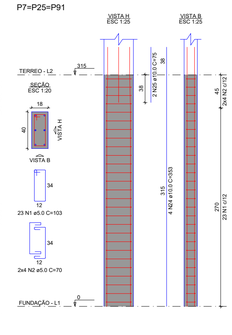

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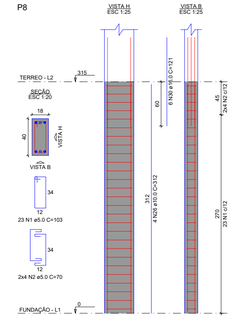
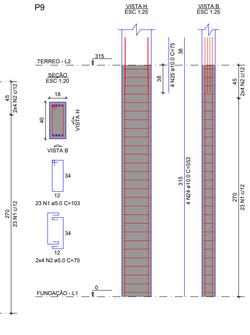


P9



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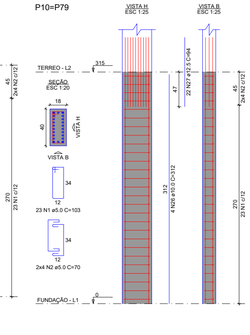
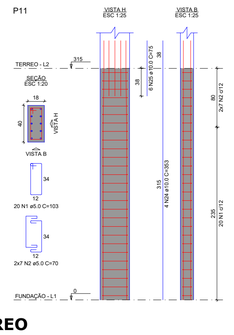
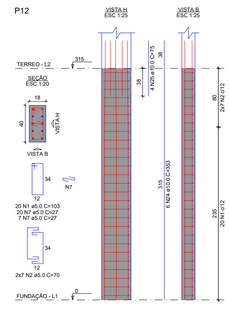


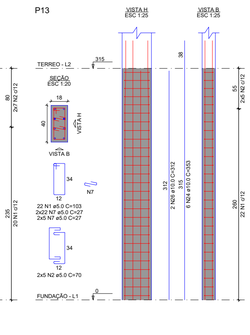
P11



P12



P13



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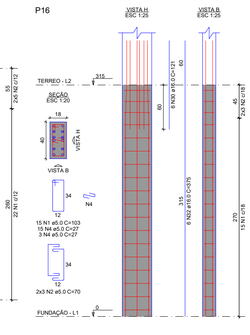
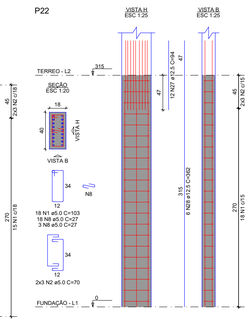
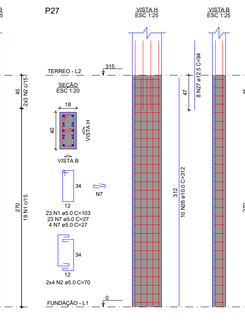


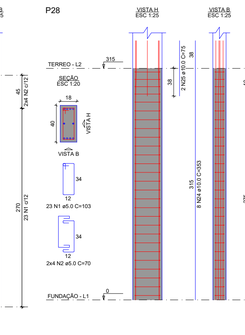
P22



P27



P28



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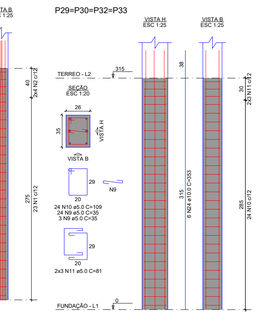
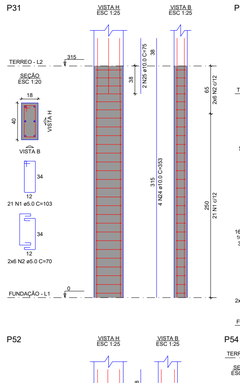


1 DET. ARMAÇÃO DE PILARES DO TÉRREO

P31



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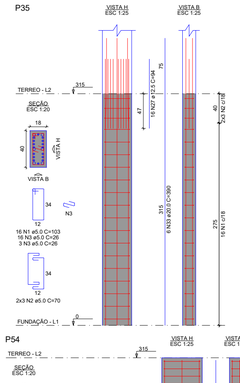

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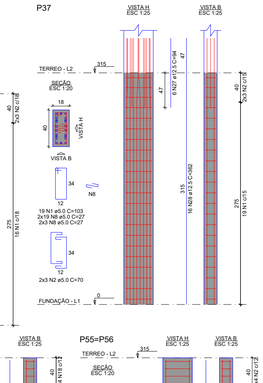

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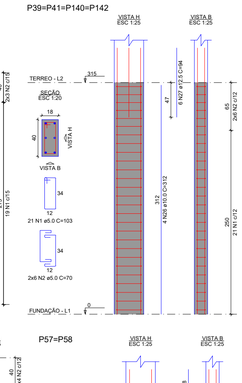

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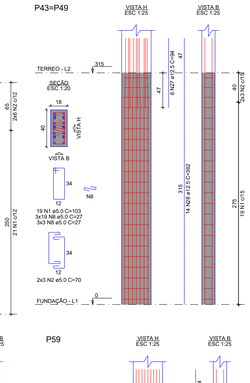

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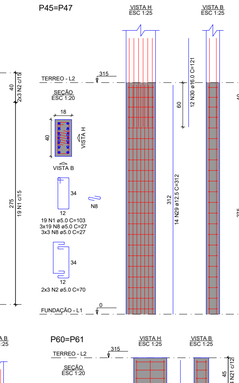

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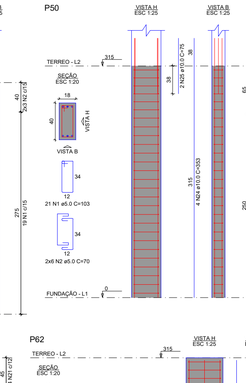

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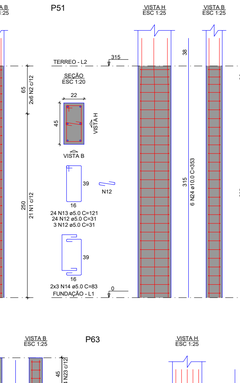

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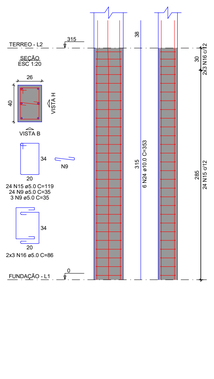

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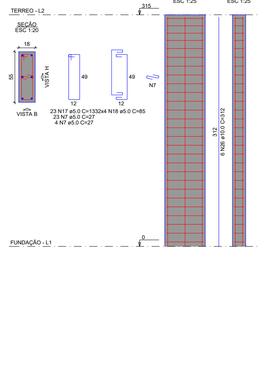

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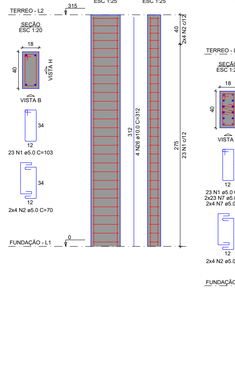

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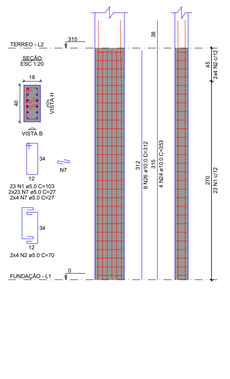

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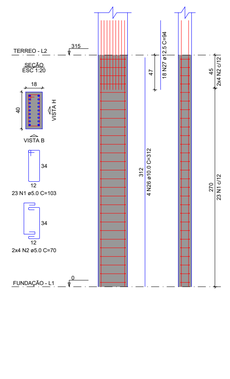

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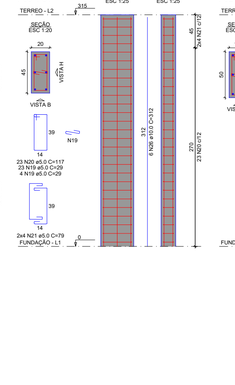

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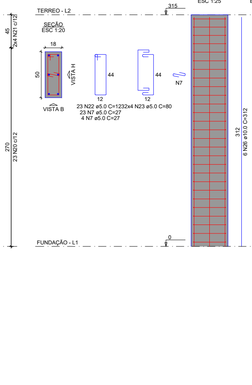

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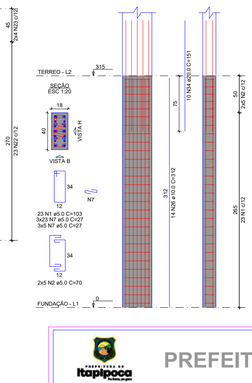


RELAÇÃO DO AÇO

13xP1	39xP2	P4	
P6	2xP10	P11	
P12	P13	P16	
P22	P27	P28	
44P29	P31	P35	
P37	4xP39	2xP43	
2xP45	P50	P51	
P52	P54	2xP57	
2xP57	P59	2xP60	
P62	P63		

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	1888	103	194464
	2	5.0	702	70	49140
	3	5.0	73	26	1898
	4	5.0	1888	60	113280
	5	5.0	15	113	1695
	6	5.0	6	75	450
	7	5.0	354	27	9558
	8	5.0	329	27	8883
	9	5.0	135	35	4725
	10	5.0	96	109	10464
	11	5.0	96	81	7776
	12	5.0	27	31	837
	13	5.0	24	121	2904
	14	5.0	6	83	498
	15	5.0	24	119	2856
	16	5.0	24	118	2832
	17	5.0	23	133	3059
	18	5.0	8	85	680
	19	5.0	54	29	1566
	20	5.0	46	117	5382
	21	5.0	16	78	1264
	22	5.0	73	123	8529
	23	5.0	3	103	309
CA50	24	10.0	300	353	105900
	25	10.0	26	75	1950
	26	10.0	106	312	33072
	27	12.5	140	94	13160
	28	12.5	24	362	8688
	29	12.5	28	312	8736
	30	16.0	38	121	4598
	31	16.0	4	312	1248
	32	16.0	22	375	8250
	33	20.0	20	390	7800
	34	20.0	10	151	1510

RESUMO DO AÇO

AÇO	DIAM.* (mm)	C.TOTAL (m)	PESO * 10% (kg)
CA50	10.0	1406.2	955.7
	12.5	400	423.8
	16.0	141	244.7
	20.0	93.1	252.6
CA60	5.0	3086.8	523.4

PESO TOTAL (kg)	
CA50	1876.8
CA60	523.4

Volume de concreto (C-25) = 22.48 m³
Área de forma = 355.38 m²

2 DET. ARMAÇÃO DE PILARES DO TÉRREO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL:
GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA:
19/50

CONTEÚDO:
PLANTA DETALHMENTO GERAL DE PILARES

PROJETO:
ESTRUTURAL

DESENHO:

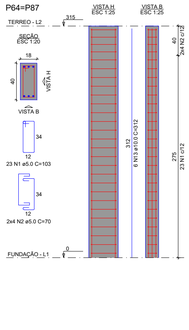
ESCALA:

DATA:
MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0929
ASSINADO ELETRONICAMENTE

P64=P87



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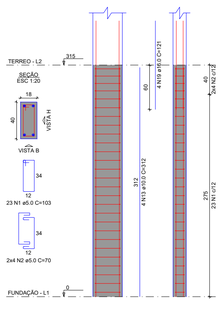

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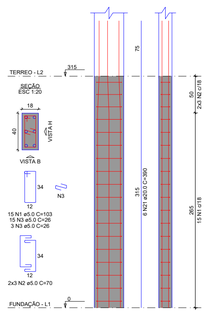

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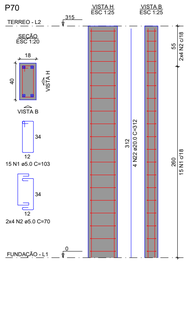

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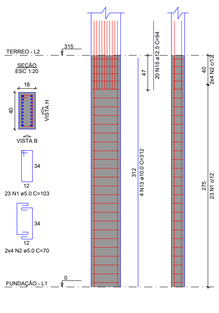

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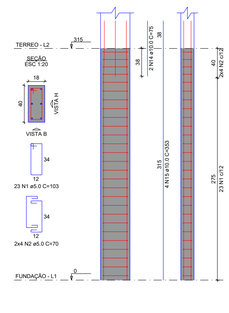

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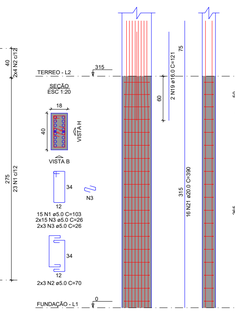

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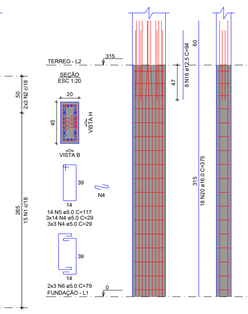


RELAÇÃO DO AÇO

2xP64	P65	P69
P70	P71	P73
P75	P77	P80
P81	P82	P83
P84	P85	P86
P87	P92=P93	P94
11xP95	P101	6xP102
P103	P104	5xP105
P110	2xP111	P113
P116	P117	P122
P123	P126	

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	353	103	36359
	2	5.0	146	70	10220
	3	5.0	54	26	1404
	4	5.0	51	29	1479
	5	5.0	14	117	1638
	6	5.0	6	79	474
	7	5.0	68	79	5372
	8	5.0	479	156	74724
	9	5.0	470	101	47470
	10	5.0	128	73	9344
	11	5.0	21	31	651
	12	5.0	27	31	837
CA50	13	10.0	59	373	22007
	14	10.0	59	75	4425
	15	10.0	92	353	32476
	16	12.5	34	94	3196
	17	12.5	118	362	42716
	18	12.5	2	312	624
	19	16.0	18	121	2178
	20	16.0	2	306	612
	21	20.0	22	306	6580
	22	20.0	4	312	1249
	23	20.0	16	151	2416

RESUMO DO AÇO

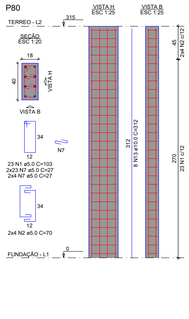
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	587.4	396.4
	12.5	466.4	493.1
	16.0	121.8	82.2
	20.0	1224.4	3302.2
CA60	5.0	1892.4	320.8

PESO TOTAL (kg)

CA50	1404.7
CA60	320.8

Volume de concreto (C-25) = 19.56 m³
Área de forma = 258.86 m²

P80



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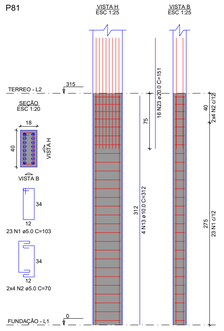

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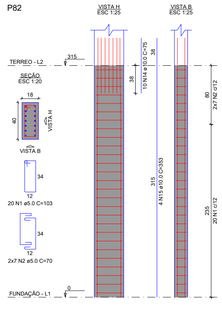

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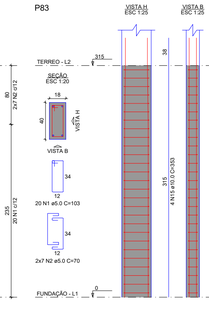

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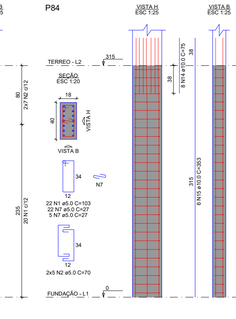

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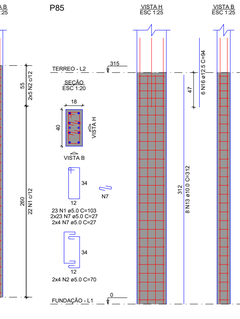

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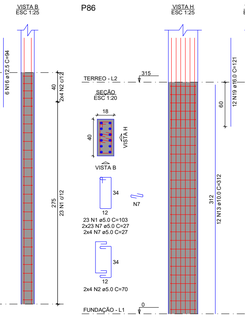

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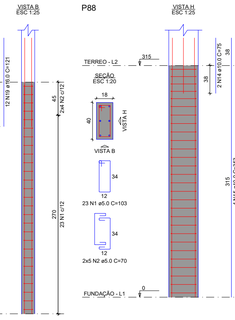

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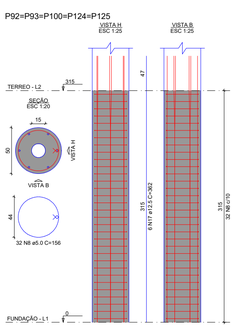

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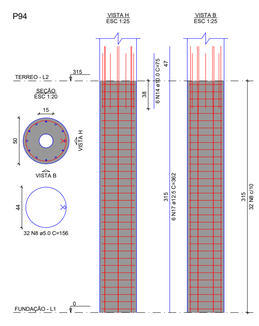

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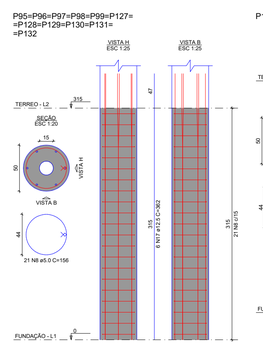

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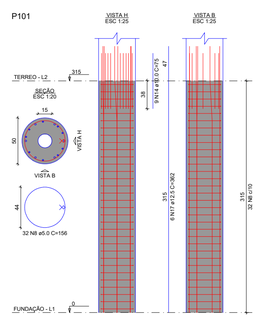

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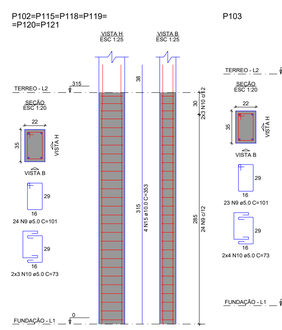

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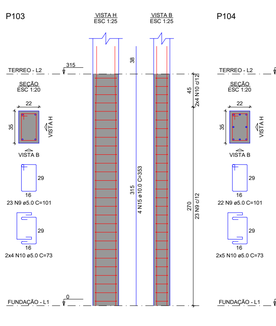

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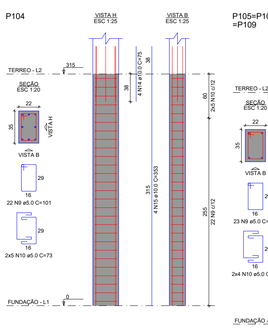

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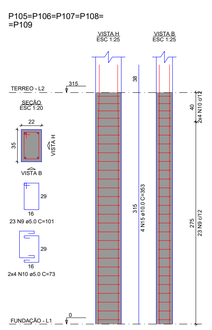

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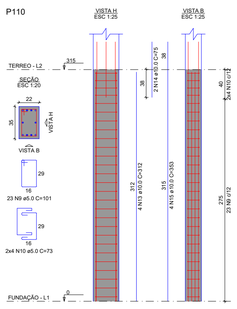

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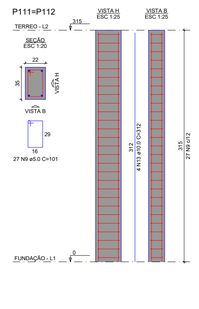

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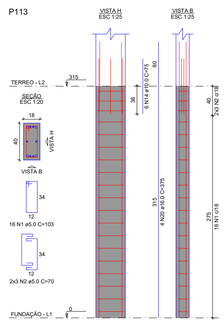

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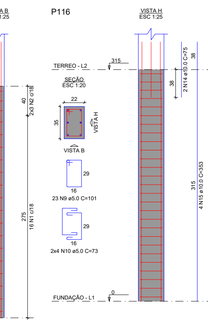

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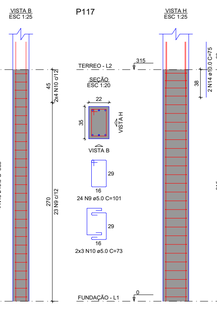

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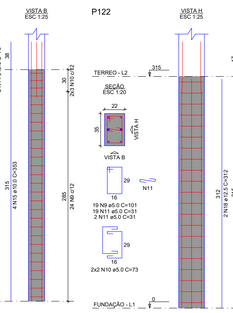

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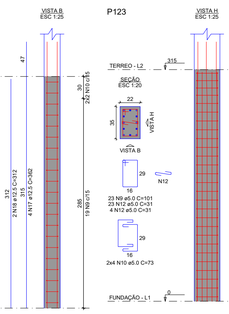

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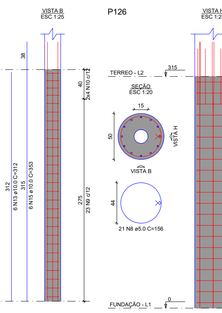

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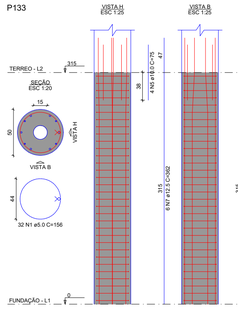

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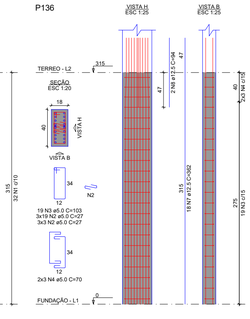

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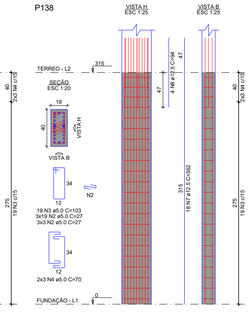

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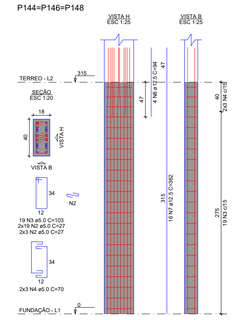

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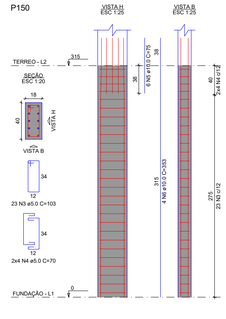

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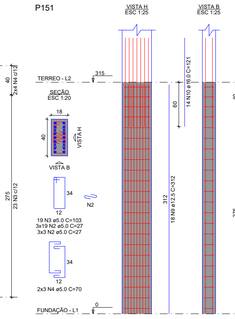


RELAÇÃO DO AÇO

P133	P136	P138
3xP144	P150	P151

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	32	156	4992
	2	5.0	330	27	8910
	3	5.0	137	103	14111
	4	5.0	38	79	3002
CA50	5	10.0	10	75	1500
	6	10.0	4	353	1412
	7	12.5	90	362	32580
	8	12.5	16	94	1692
	9	12.5	18	312	5616
	10	16.0	14	121	1694

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	21.6	14.7
	12.5	398.9	422.7
	16.0	16.9	29.4
CA60	5.0	310.9	52.7

PESO TOTAL (kg)

CA50	466.8
CA60	52.7

Volume de concreto (C-25) = 2.14 m³
Área de forma = 31.94 m²

1 DET. ARMAÇÃO DE PILARES DO TÉRREO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 20/50

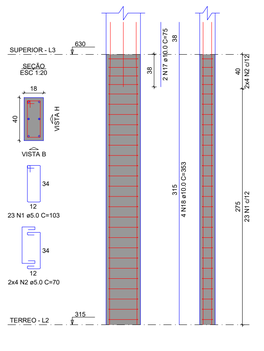
CONTEÚDO: PLANTA DETALHMENTO GERAL DE PILARES

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0930
ASSINADO ELETRONICAMENTE

P1



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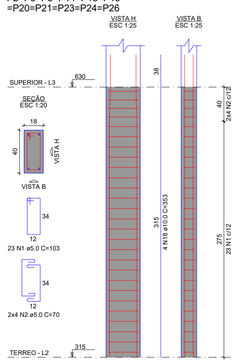
=P20=P21=P23=P24=P26



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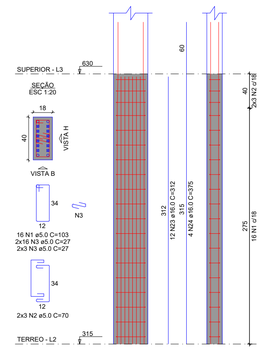

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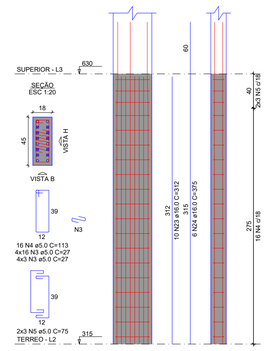

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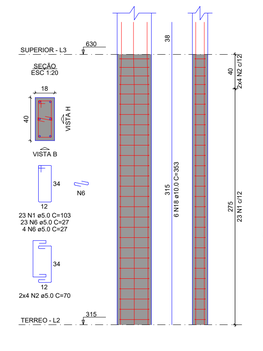

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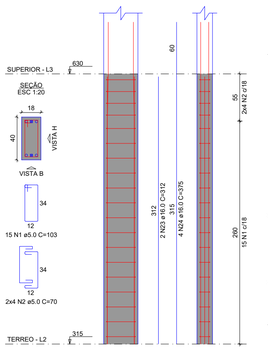

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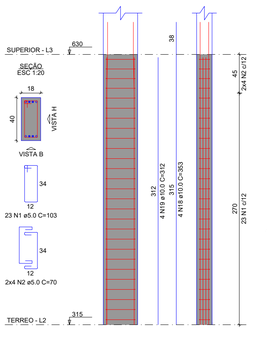

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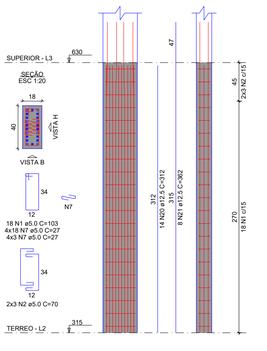

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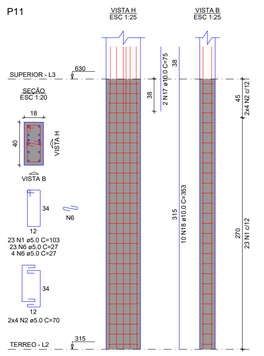

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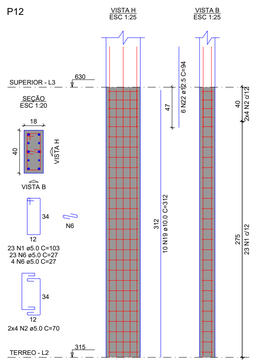

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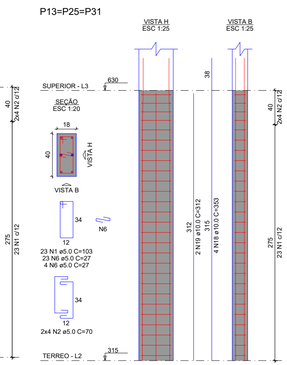

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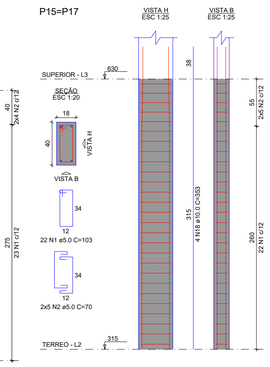

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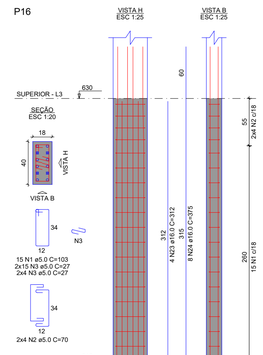

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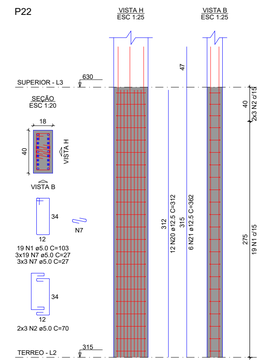

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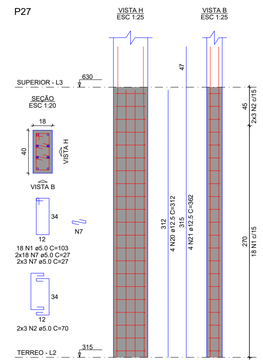

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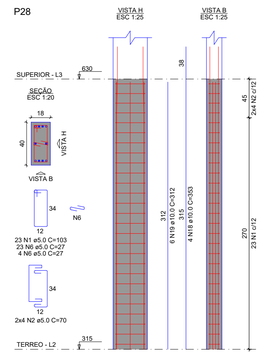

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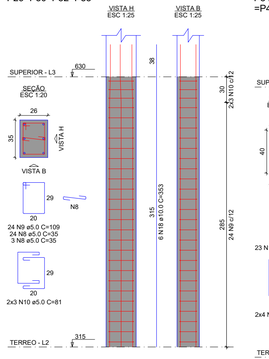

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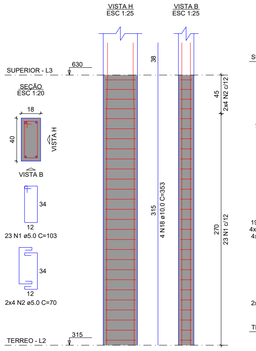

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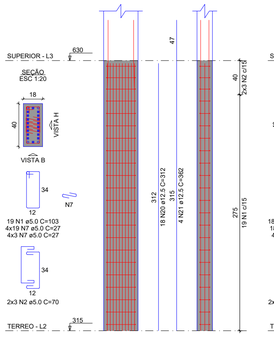

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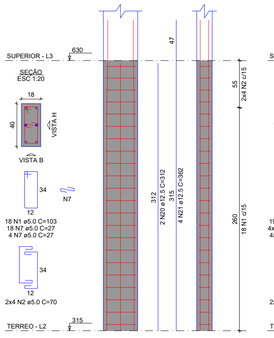

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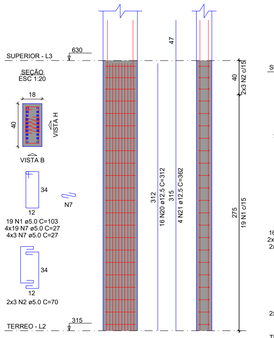

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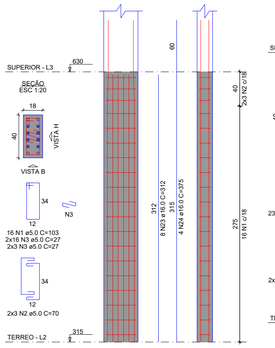

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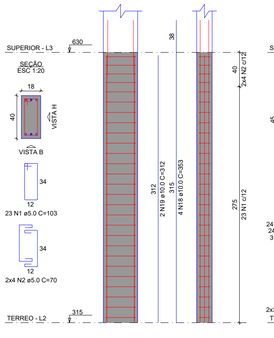

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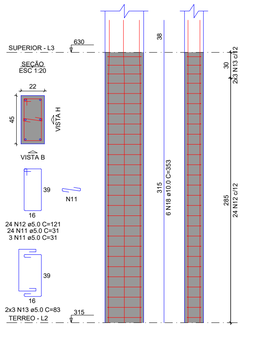

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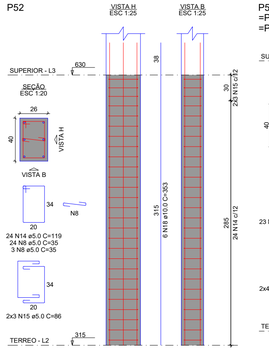

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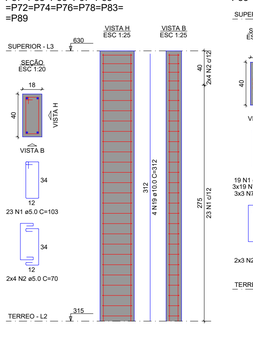

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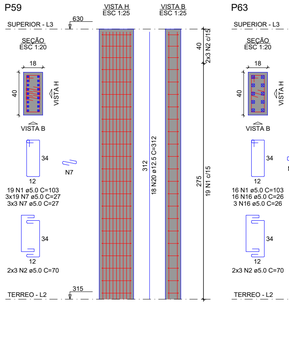

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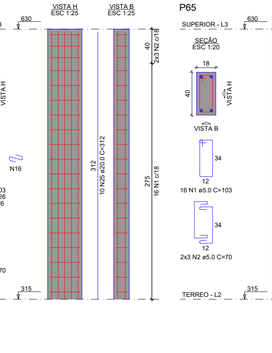

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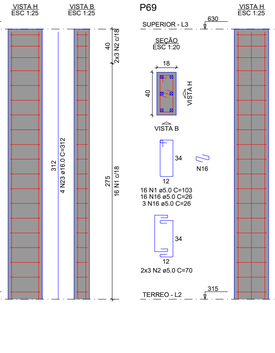

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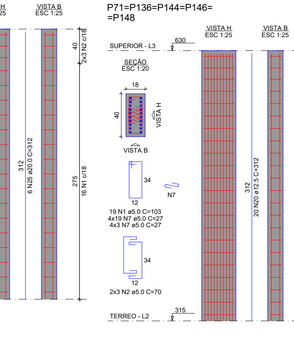

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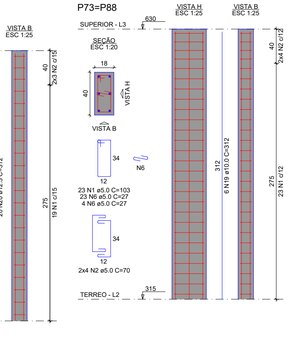

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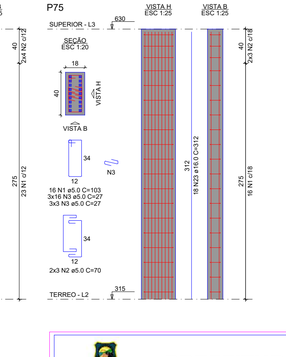


P75

RELAÇÃO DO AÇO

P1	11xP2	P4
P6	P7	P8
P9	P10	P11
P12	3xP13	2xP15
P16	P22	P27
P28	4xP29	9xP34
2xP35	2xP39	2xP43
2xP45	P50	P51
P52	11xP57	P59
P63	P65	P69
5xP71	2xP73	P75

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	5.0	1456	103	149968
	2	5.0	516	70	36120
	3	5.0	285	27	7695
	4	5.0	16	113	1808
	5	5.0	6	75	450
	6	5.0	243	27	6561
	7	5.0	1094	27	29538
	8	5.0	135	121	16335
	9	5.0	6	109	1044
	10	5.0	24	81	1944
	11	5.0	27	31	837
	12	5.0	24	121	2904
	13	5.0	6	83	498
	14	5.0	24	119	2856
	15	5.0	6	86	516
	16	5.0	38	26	988
CA50	17	10.0	4	75	300
	18	10.0	168	353	59304
	19	10.0	84	312	26208
	20	12.5	220	312	68640
	21	12.5	42	362	15204
	22	12.5	6	94	564
	23	16.0	66	312	20592
	24	16.0	30	375	11250
	25	20.0	16	312	4992

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	658.1	582
	12.5	844.1	894.4
	16.0	318.4	552.8
	20.0	49.9	135.4
CA60	5.0	2578.7	437.2

PESO TOTAL (kg)	
CA50	2164.7
CA60	437.2

Volume de concreto (C-25) = 17.69 m³
Área de forma = 279.85 m²

1 DET. ARMAÇÃO DE PILARES DO SUPERIOR

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 21/50

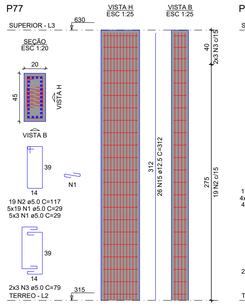
CONTEÚDO:
PLANTA DETALHMENTO GERAL DE PILARES

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0931
ASSINADO ELETRONICAMENTE

P77



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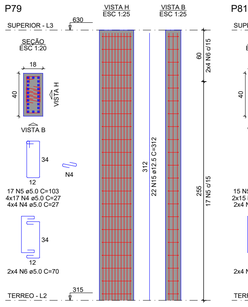

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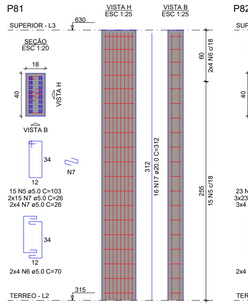

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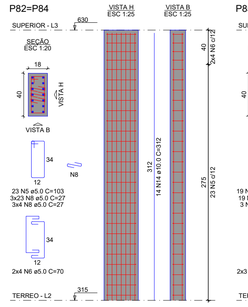

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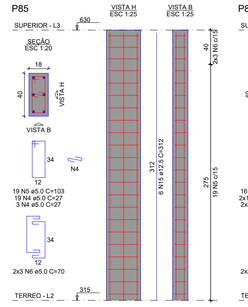

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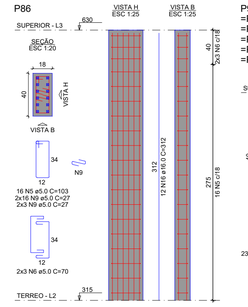

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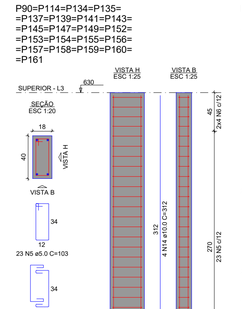

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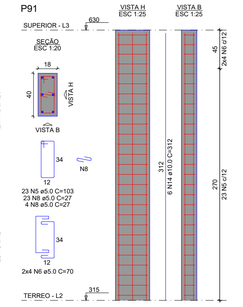

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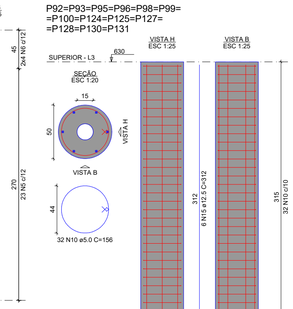

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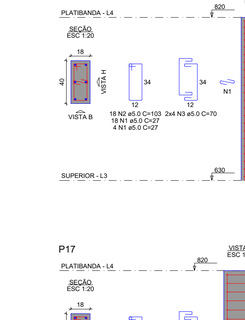

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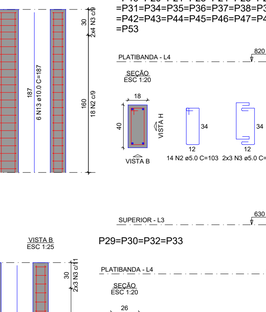

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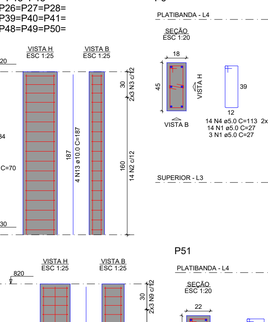

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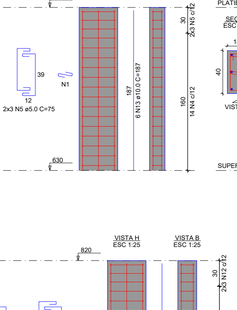

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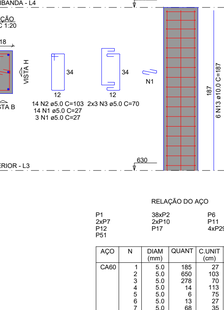

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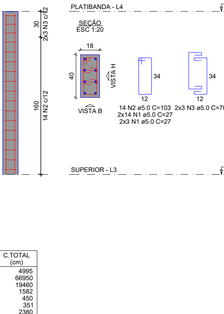

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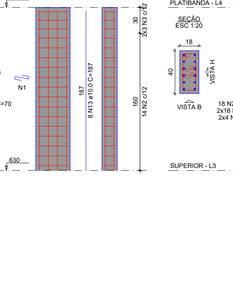

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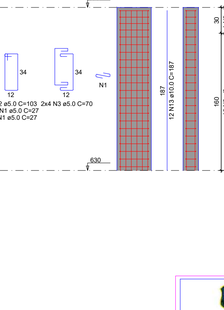

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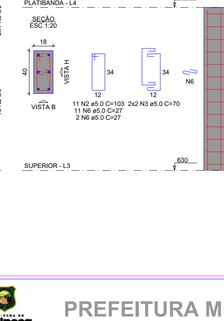

P133

P138

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P150

P151

RELAÇÃO DO AÇO

P77	P79	P81
2xP82	P85	P86
21xP90	P91	13xP92
2xP94	3xP97	P101
13xP102	P104	2xP110
P113	P116	P117
P133	P138	2xP140
P150	P151	

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	110	29	3190
	2	5.0	19	117	2223
	3	5.0	6	79	474
	4	5.0	238	27	6426
	5	5.0	736	103	75808
	6	5.0	284	70	19880
	7	5.0	38	26	988
	8	5.0	243	27	6561
	9	5.0	95	27	2565
	10	5.0	607	156	94692
	11	5.0	426	101	43026
	12	5.0	121	31	3751
	13	5.0	110	31	3410
CA50	14	10.0	271	312	84552
	15	12.5	184	312	57408
	16	16.0	26	312	8112
	17	20.0	16	312	4992

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	845.5	573.4
	12.5	574.1	608.3
	16.0	81.1	140.8
	20.0	49.9	135.4
CA60	5.0	2669	452.5

PESO TOTAL (kg)	
CA50	1458
CA60	452.5

Volume de concreto (C-25) = 23.49 m³
Área de forma = 320.15 m²

1 DET. ARMAÇÃO DE PILARES DO SUPERIOR

P1

P2=P3=P4=P5=P8=P9=P13=P14=P15=P18=
=P19=P20=P21=P23=P24=P25=P26=P27=P28=
=P31=P34=P35=P36=P37=P38=P39=P40=P41=
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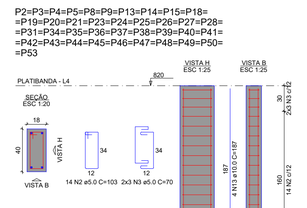

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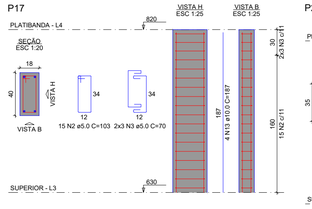

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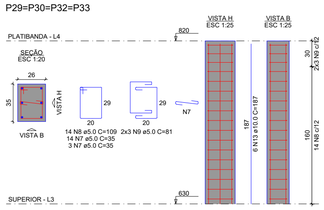

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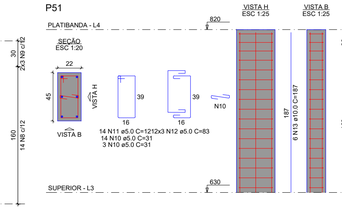


RELAÇÃO DO AÇO

P1	38xP2	P6
2xP7	2xP10	P11
P12	P17	4xP29
P51		

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	185	27	4995
	2	5.0	650	103	66950
	3	5.0	278	70	19460
	4	5.0	14	113	1582
	5	5.0	6	75	450
	6	5.0	13	27	351
	7	5.0	68	35	2380
	8	5.0	56	109	6104
	9	5.0	24	81	1944
	10	5.0	17	31	527
	11	5.0	14	121	1694
	12	5.0	6	83	498
CA50	13	10.0	238	187	44506
	14	12.5	6	187	1122

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	445.1	301.8
	12.5	11.2	11.9
CA60	5.0	1069.3	181.3

PESO TOTAL (kg)	
CA50	313.7
CA60	181.3

Volume de concreto (C-25) = 7.33 m³
Área de forma = 115.60 m²

2 DET. ARMAÇÃO DE PILARES DA PLATIBANDA

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

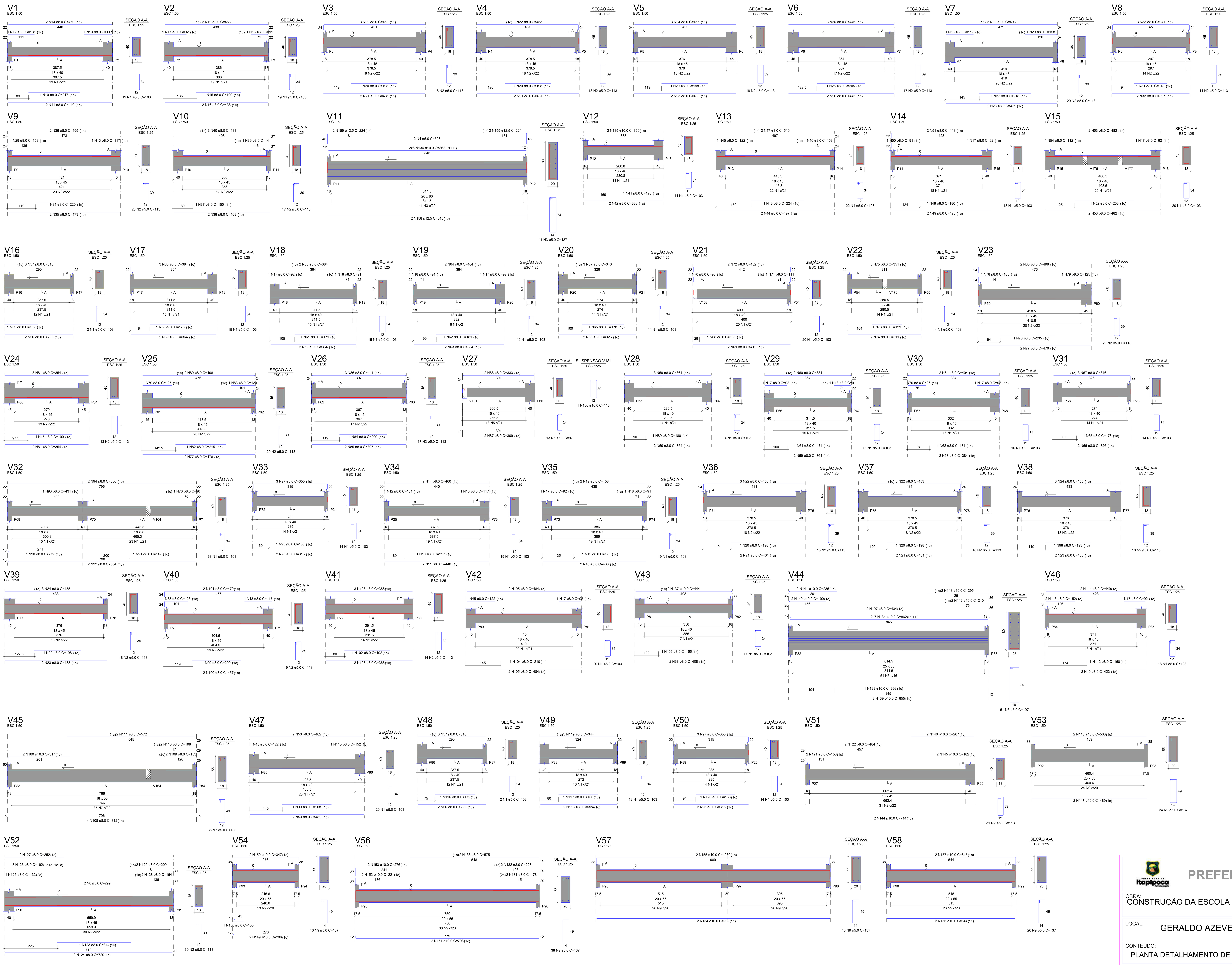
PRANCHA: 22/50

CONTEÚDO:
PLANTA DETALHMENTO GERAL DE PILARES

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0932
ASSINADO ELETRONICAMENTE



1 **DETALHAMENTO VIGAS DA FUNDAÇÃO**

RELAÇÃO DO AÇO

V1	V2	V3
V4	V5	V6
V7	V8	V9
V10	V11	V12
V13	V14	V15
V16	V17	V18
V19	V20	V21
V22	V23	V24
V25	V26	V27
V28	V29	V30
V31	V32	V33
V34	V35	V36
V37	V38	V39
V40	V41	V42
V43	V44	V45
V46	V47	V48
V49	V50	V51
V52	V53	V54
V56	V57	V58

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	481	103	49543
	2	5.0	378	113	42714
	3	5.0	41	187	7667
	4	5.0	2	503	1006
	5	5.0	13	97	1261
	6	5.0	51	197	10047
	7	5.0	35	133	4655
	8	5.0	2	299	598
	9	5.0	147	137	20139
CA50	10	8.0	2	217	434
	11	8.0	4	440	1760
	12	8.0	2	131	262
	13	8.0	5	117	585
	14	8.0	4	460	1840
	15	8.0	3	190	570
	16	8.0	4	438	1752
	17	8.0	10	92	920
	18	8.0	5	91	455
	19	8.0	4	458	1832
	20	8.0	6	198	1188
	21	8.0	8	431	3448
	22	8.0	12	453	5436
	23	8.0	6	433	2598
	24	8.0	9	455	4095
	25	8.0	1	205	205
	26	8.0	5	446	2230
	27	8.0	1	218	218
	28	8.0	2	471	942
	29	8.0	2	158	316
	30	8.0	2	493	986
	31	8.0	1	140	140
	32	8.0	2	327	654
	33	8.0	3	371	1113
	34	8.0	1	220	220
	35	8.0	2	473	946
	36	8.0	2	495	990
	37	8.0	1	150	150
	38	8.0	4	408	1632
	39	8.0	1	141	141
	40	8.0	3	433	1299
	41	8.0	1	120	120
	42	8.0	2	333	666
	43	8.0	1	224	224
	44	8.0	2	497	994
	45	8.0	3	122	366
	46	8.0	1	153	153
	47	8.0	2	519	1038
	48	8.0	1	180	180
	49	8.0	4	423	1692
	50	8.0	1	91	91
	51	8.0	2	443	886
	52	8.0	1	253	253
	53	8.0	8	482	3856
	54	8.0	1	112	112
	55	8.0	1	139	139
	56	8.0	4	290	1160
	57	8.0	6	310	1860
	58	8.0	1	176	176
	59	8.0	11	364	4004
	60	8.0	7	384	2688
	61	8.0	2	171	342
	62	8.0	2	181	362
	63	8.0	4	384	1536
	64	8.0	4	404	1616
	65	8.0	2	178	356
	66	8.0	4	326	1304
	67	8.0	6	346	2076
	68	8.0	1	185	185
	69	8.0	2	412	824
	70	8.0	3	96	288
	71	8.0	1	111	111
	72	8.0	2	452	904
	73	8.0	1	129	129
	74	8.0	2	311	622
	75	8.0	3	351	1053
	76	8.0	1	235	235
	77	8.0	4	476	1904
	78	8.0	1	163	163
	79	8.0	2	125	250
	80	8.0	4	498	1992
	81	8.0	5	354	1770
	82	8.0	1	215	215
	83	8.0	2	123	246
	84	8.0	1	200	200
	85	8.0	2	397	794
	86	8.0	3	441	1323
	87	8.0	2	309	618
	88	8.0	2	333	666
	89	8.0	1	180	180
	90	8.0	1	279	279
	91	8.0	1	149	149
	92	8.0	2	804	1608
	93	8.0	1	431	431
	94	8.0	2	836	1672
	95	8.0	1	183	183
	96	8.0	4	315	1260
	97	8.0	6	355	2130
	98	8.0	1	193	193
	99	8.0	2	209	418
	100	8.0	2	457	914
	101	8.0	2	479	958
	102	8.0	1	192	192
	103	8.0	5	366	1830
	104	8.0	1	210	210
	105	8.0	4	484	1936
	106	8.0	1	155	155
	107	8.0	2	434	868
	108	8.0	4	812	3248
	109	8.0	2	153	306
	110	8.0	2	198	396
	111	8.0	2	572	1144
	112	8.0	1	160	160
	113	8.0	2	152	304
	114	8.0	2	449	898
	115	8.0	1	152	152
	116	8.0	1	172	172
	117	8.0	1	166	166
	118	8.0	2	324	648
	119	8.0	3	344	1032
	120	8.0	1	168	168
	121	8.0	2	158	316
	122	8.0	2	484	968
	123	8.0	1	314	314
	124	8.0	2	720	1440
	125	8.0	1	132	132
	126	8.0	3	192	576
	127	8.0	2	252	504
	128	8.0	2	164	328
	129	8.0	2	209	418
	130	8.0	1	100	100
	131	8.0	2	178	356
	132	8.0	2	223	446
	133	8.0	2	575	1150
	134	10.0	26	862	22412
	135	10.0	2	369	738
	136	10.0	1	115	115
	137	10.0	2	444	888
	138	10.0	1	393	393
	139	10.0	3	855	2565
	140	10.0	2	190	380
	141	10.0	2	235	470
	142	10.0	2	210	420
	143	10.0	2	295	590
	144	10.0	2	714	1428
	145	10.0	2	182	364
	146	10.0	2	267	534
	147	10.0	2	489	978
	148	10.0	2	560	1120
	149	10.0	2	286	572
	150	10.0	2	347	694
	151	10.0	2	798	1596
	152	10.0	2	221	442
	153	10.0	2	276	552
	154	10.0	2	989	1978
	155	10.0	2	1060	2120
	156	10.0	2	544	1088
	157	10.0	2	615	1230
	158	12.5	2	845	1690
	159	12.5	4	224	896
	160	16.0	2	317	634

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	1135.1	492.7
	10.0	436.7	296.1
	12.5	25.9	27.4
	16.0	6.3	11
CA60	5.0	1376.3	233.3

PESO TOTAL (kg)	
CA50	827.2
CA60	233.3

Volume de concreto (C-25) = 20.62 m³
Área de forma = 262.63 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 23/50

CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DA FUNDAÇÃO

PROJETO: ESTRUTURAL

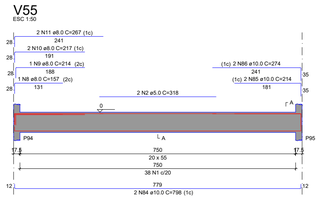
DESENHO:

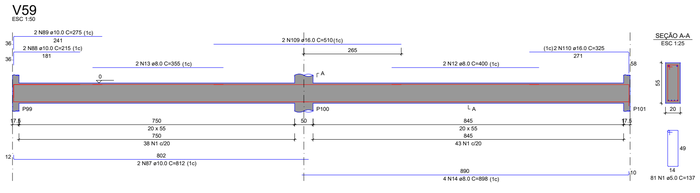
ESCALA:

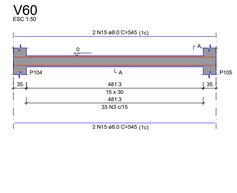
DATA: MAIO/2026

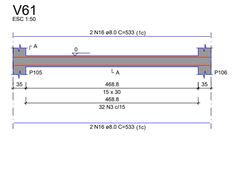
FOLHA: A1

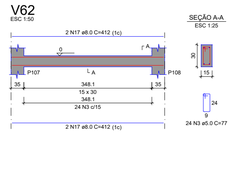
PROCESSO ADMINISTRATIVO
0933
ASSINADO ELETRONICAMENTE

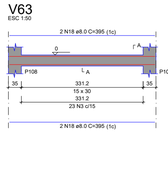


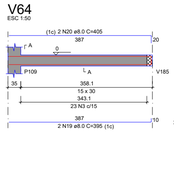


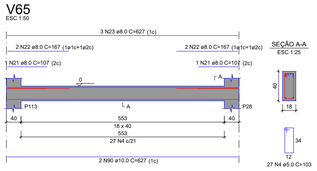


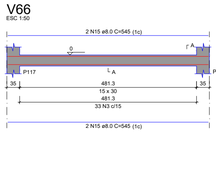


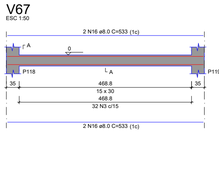


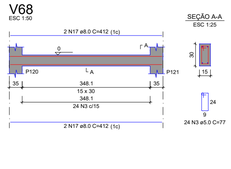


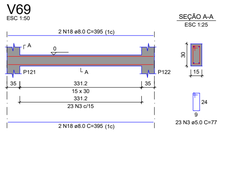


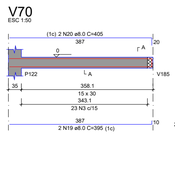


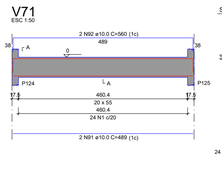


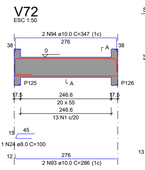


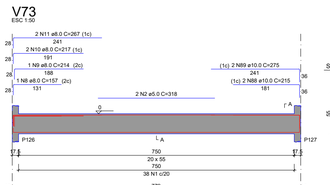


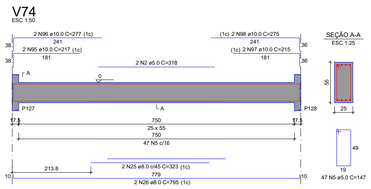


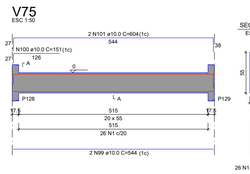


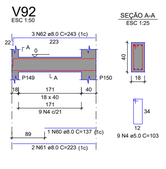


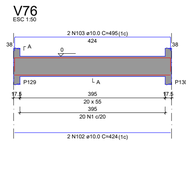


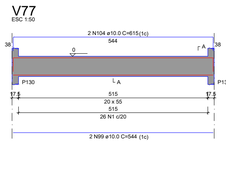


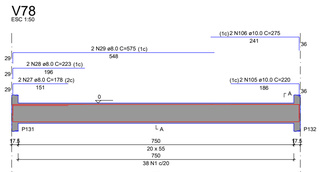


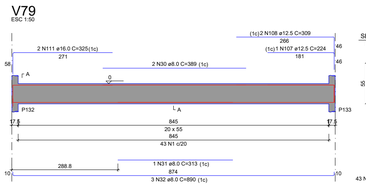


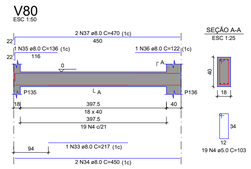


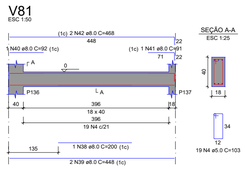


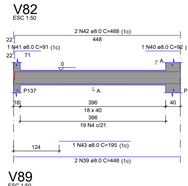


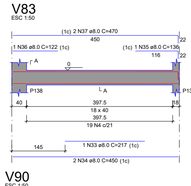


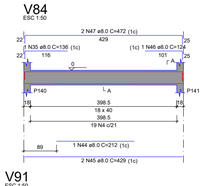


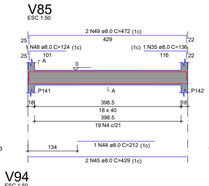


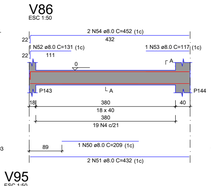


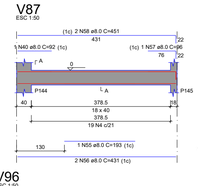


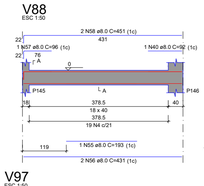


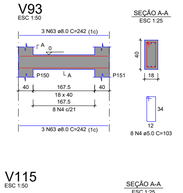


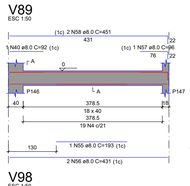


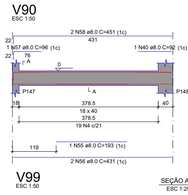


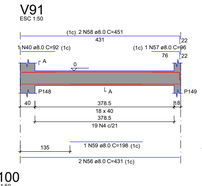


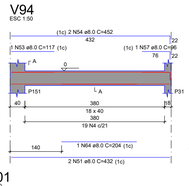


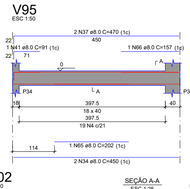


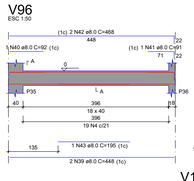


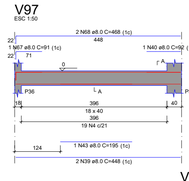












RELAÇÃO DO AÇO

V55	V59	V60
V61	V62	V63
V64	V65	V66
V67	V68	V69
V70	V71	V72
V73	V74	V75
V76	V77	V78
V79	V80	V81
V82	V83	V84
V85	V86	V87
V88	V89	V90
V91	V94	V95
V96	V97	V92
V98	V99	V100
V101	V102	V103
V104	V105	V106
V107	V108	V109
V110	V111	V128

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	347	137	47539
	2	5.0	6	318	1908
	3	5.0	328	77	25256
	4	5.0	587	103	60461
	5	5.0	47	147	6909
	6	5.0	2	329	658
	7	5.0	10	113	1130
CA50	8	8.0	2	157	314
	9	8.0	2	214	428
	10	8.0	4	217	868
	11	8.0	4	267	1068
	12	8.0	2	400	800
	13	8.0	2	355	710
	14	8.0	4	898	3592
	15	8.0	8	545	4360
	16	8.0	8	533	4264
	17	8.0	8	412	3296
	18	8.0	8	395	3160
	19	8.0	4	395	1580
	20	8.0	4	405	1620
	21	8.0	2	107	214
	22	8.0	4	167	668
	23	8.0	3	627	1881
	24	8.0	1	100	100
	25	8.0	2	323	646
	26	8.0	2	795	1590
	27	8.0	2	178	356
	28	8.0	2	223	446
	29	8.0	2	575	1150
	30	8.0	2	389	778
	31	8.0	1	313	313
	32	8.0	3	890	2670
	33	8.0	2	217	434
	34	8.0	8	450	3600
	35	8.0	4	136	544
	36	8.0	2	122	244
	37	8.0	8	470	3760
	38	8.0	1	200	200
	39	8.0	8	448	3584
	40	8.0	16	92	1472
	41	8.0	8	91	728
	42	8.0	6	468	2808
	43	8.0	3	195	585
	44	8.0	2	212	424
	45	8.0	8	429	3432
	46	8.0	1	124	124
	47	8.0	2	472	944
	48	8.0	1	124	124
	49	8.0	2	472	944
	50	8.0	1	209	209
	51	8.0	8	432	3456
	52	8.0	2	131	262
	53	8.0	3	117	351
	54	8.0	8	452	3616
	55	8.0	9	193	1737
	56	8.0	22	431	9482
	57	8.0	12	96	1152
	58	8.0	22	451	9922
	59	8.0	2	198	396
	60	8.0	1	137	137
	61	8.0	2	223	446
	62	8.0	3	243	729
	63	8.0	6	242	1452
	64	8.0	1	204	204
	65	8.0	4	202	808
	66	8.0	2	157	314
	67	8.0	1	91	91
	68	8.0	2	468	936
	69	8.0	1	145	145
	70	8.0	4	327	1308
	71	8.0	6	367	2202
	72	8.0	1	157	157
	73	8.0	2	470	940
	74	8.0	1	157	157
	75	8.0	2	470	940
	76	8.0	1	150	150
	77	8.0	1	199	199
	78	8.0	1	214	214
	79	8.0	2	714	1428
	80	8.0	2	201	402
	81	8.0	2	212	424
	82	8.0	4	266	1064
	83	8.0	6	273	1638
	84	10.0	6	798	4788
	85	10.0	2	214	428
	86	10.0	2	274	548
	87	10.0	2	812	1624
	88	10.0	4	215	860
	89	10.0	4	275	1100
	90	10.0	2	627	1254
	91	10.0	2	489	978
	92	10.0	2	560	1120
	93	10.0	2	286	572
	94	10.0	2	347	694
	95	10.0	2	217	434
	96	10.0	2	277	554
	97	10.0	2	215	430
	98	10.0	2	275	550
	99	10.0	4	544	2176
	100	10.0	1	151	151
	101	10.0	2	604	1208
	102	10.0	2	424	848
	103	10.0	2	495	990
	104	10.0	2	615	1230
	105	10.0	2	220	440
	106	10.0	2	275	550
	107	12.5	1	224	224
	108	12.5	2	309	618
	109	16.0	2	510	1020
	110	16.0	2	325	650
	111	16.0	2	325	650

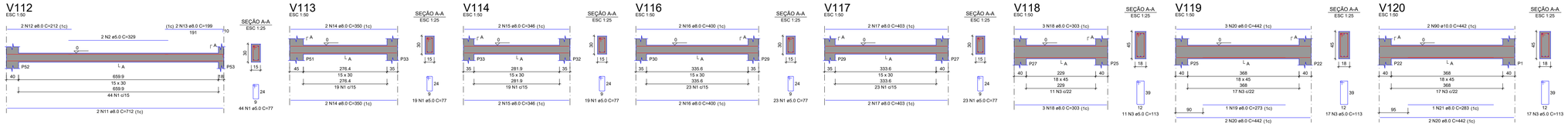
RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	1078.9	468.3
	10.0	235.3	159.6
	12.5	8.4	8.9
	16.0	23.2	40.3
CA60	5.0	1438.6	243.9

PESO TOTAL (kg)	
CA50	677
CA60	243.9

Volume de concreto (C-25) = 19.58 m³
Área de forma =

PROCESSO ADMINISTRATIVO
0934
ASSINADO ELETRONICAMENTE



RELAÇÃO DO AÇO

V112	V113	V114
V116	V117	V118
V119	V120	V121
V122	V123	V124
V125	V126	V127
V129	V130	V131
V132	V133	V134
V135	V136	V137
V138	V139	V140
V141	V142	V143
V144	V145	V146
V147	V148	V149
V150	V151	V152
V153	V154	V155
V156	V157	V158
V159	V160	V161
V162	V163	V164
V165	V166	V167
V168	V169	V170
V171	V172	V173
V174	V175	V176

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	201	77	15477
	2	5.0	2	329	658
	3	5.0	333	113	37629
	4	5.0	372	103	38316
	5	5.0	92	131	12052
	6	5.0	27	137	3699
	7	5.0	52	153	7956
	8	5.0	17	97	1649
	9	5.0	16	107	1712
	10	5.0	23	133	3059
	11	8.0	2	712	1424
	12	8.0	2	212	424
	13	8.0	2	199	398
	14	8.0	4	350	1400
	15	8.0	4	346	1384
	16	8.0	4	400	1600
	17	8.0	4	403	1612
	18	8.0	6	303	1818
	19	8.0	1	273	273
	20	8.0	28	442	12376
	21	8.0	2	283	566
	22	8.0	2	249	498
	23	8.0	2	254	508
	24	8.0	3	288	864
	25	8.0	2	430	860
	26	8.0	6	353	2118
	27	8.0	6	350	2100
	28	8.0	1	285	285
	29	8.0	5	404	2020
	30	8.0	1	296	296
	31	8.0	5	405	2025
	32	8.0	18	334	6012
	33	8.0	18	329	5922
	34	8.0	1	265	265
	35	8.0	2	564	1128
	36	8.0	3	414	1242
	37	8.0	1	297	297
	38	8.0	5	866	4330
	39	8.0	1	278	278
	40	8.0	2	269	538
	41	8.0	12	332	3984
	42	8.0	12	331	3972
	43	8.0	1	249	249
	44	8.0	2	432	864
	45	8.0	1	240	240
	46	8.0	4	454	1816
	47	8.0	1	244	244
	48	8.0	2	432	864
	49	8.0	1	245	245
	50	8.0	1	264	264
	51	8.0	2	447	894
	52	8.0	1	91	91
	53	8.0	2	152	304
	54	8.0	2	467	934
	55	8.0	1	289	289
	56	8.0	2	455	910
	57	8.0	2	410	820
	58	8.0	4	629	2516
	59	8.0	1	286	286
	60	8.0	2	460	920
	61	8.0	1	296	296
	62	8.0	5	425	2125
	63	8.0	2	415	830
	64	8.0	2	395	790
	65	8.0	1	91	91
	66	8.0	2	413	826
	67	8.0	12	351	4212
	68	8.0	6	533	3198
	69	8.0	4	147	588
	70	8.0	1	103	103
	71	8.0	3	411	1233
	72	8.0	2	98	196
	73	8.0	2	400	800
	74	8.0	2	416	832
	75	8.0	1	238	238
	76	8.0	2	348	696
	77	8.0	3	380	1140
	78	8.0	6	330	1980
	79	8.0	6	332	1992
	80	8.0	2	206	412
	81	8.0	2	222	444
	82	8.0	6	210	1260
	83	8.0	6	226	1356
	84	8.0	3	229	687
	85	8.0	3	270	810
	86	8.0	3	282	846
	87	8.0	1	175	175
	88	8.0	2	227	454
	89	8.0	3	267	801
	90	10.0	4	442	1768
	91	10.0	2	479	958
	92	10.0	2	478	956
	93	10.0	6	452	2712
	94	10.0	2	122	244
	95	10.0	4	869	3476
	96	10.0	2	566	1132
	97	10.0	1	127	127
	98	10.0	2	185	370
	99	10.0	2	619	1238
	100	10.0	1	204	204
	101	10.0	2	207	414
	102	10.0	3	287	861
	103	10.0	2	469	938
	104	10.0	2	491	982
	105	10.0	2	487	974
	106	10.0	2	491	982
	107	10.0	2	488	976
	108	10.0	2	474	948
	109	10.0	20	646	12920
	110	10.0	4	117	468
	111	10.0	4	629	2516
	112	10.0	2	460	920
	113	10.0	1	174	174
	114	10.0	2	462	924
	115	10.0	2	540	1080
	116	10.0	2	588	1176
	117	10.0	2	137	274
	118	10.0	2	533	1066
	119	10.0	2	480	960
	120	10.0	2	229	458
	121	12.5	2	649	1298
	122	16.0	6	292	1752

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	1049.8	455.6
	10.0	432	293
	12.5	13	13.8
	16.0	17.5	30.4
CA60	5.0	1222.1	207.2

PESO TOTAL (kg)	
CA50	792.8
CA60	207.2

Volume de concreto (C-25) = 17.14 m³
Área de forma = 229.52 m²

1 DETALHAMENTO VIGAS DA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 25/50

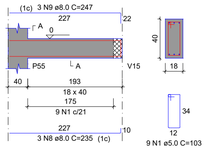
CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DA FUNDAÇÃO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

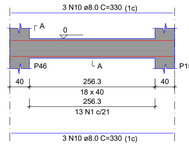
PROCESSO ADMINISTRATIVO
0935
ASSINADO ELETRONICAMENTE

V177
ESC 1:50

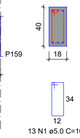


SEÇÃO A-A
ESC 1:25

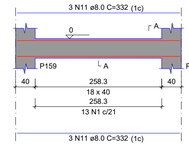
V178
ESC 1:50



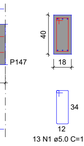
SEÇÃO A-A
ESC 1:25



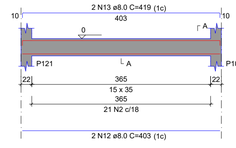
V179
ESC 1:50



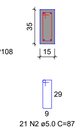
SEÇÃO A-A
ESC 1:25



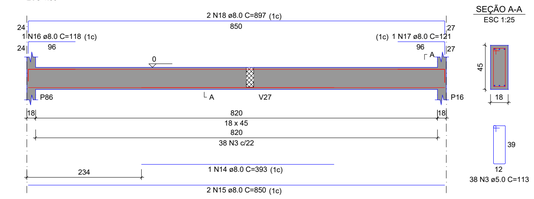
V180
ESC 1:50



SEÇÃO A-A
ESC 1:25

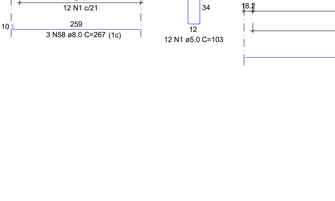


V181
ESC 1:50



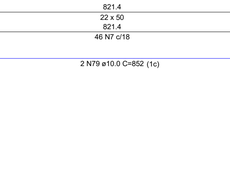
SEÇÃO A-A
ESC 1:25

V182
ESC 1:50



SEÇÃO A-A
ESC 1:25

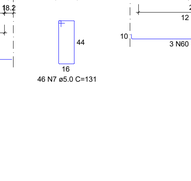
V183
ESC 1:50



SEÇÃO A-A
ESC 1:25



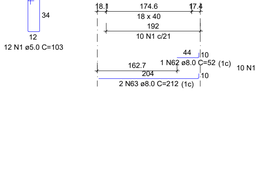
V186
ESC 1:50



SEÇÃO A-A
ESC 1:25



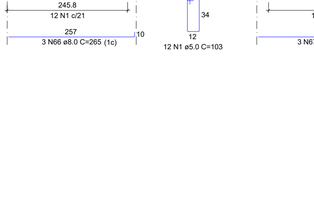
V184
ESC 1:50



SEÇÃO A-A
ESC 1:25



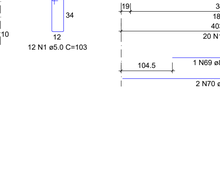
V185
ESC 1:50



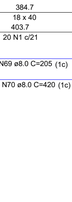
SEÇÃO A-A
ESC 1:25



V187
ESC 1:50



SEÇÃO A-A
ESC 1:25



V188
ESC 1:50



SEÇÃO A-A
ESC 1:25



V189
ESC 1:50

SEÇÃO A-A
ESC 1:25

V190
ESC 1:50

SEÇÃO A-A
ESC 1:25

V191
ESC 1:50

SEÇÃO A-A
ESC 1:25

V192
ESC 1:50

SEÇÃO A-A
ESC 1:25

V193
ESC 1:50

SEÇÃO A-A
ESC 1:25



V194
ESC 1:50

SEÇÃO A-A
ESC 1:25

V195
ESC 1:50

SEÇÃO A-A
ESC 1:25

V196
ESC 1:50

SEÇÃO A-A
ESC 1:25

V197
ESC 1:50

SEÇÃO A-A
ESC 1:25

V198
ESC 1:50

SEÇÃO A-A
ESC 1:25

V199
ESC 1:50

SEÇÃO A-A
ESC 1:25

V201
ESC 1:50

SEÇÃO A-A
ESC 1:25

V200
ESC 1:50

SEÇÃO A-A
ESC 1:25

V202
ESC 1:50

SEÇÃO A-A
ESC 1:25

V204
ESC 1:50

SEÇÃO A-A
ESC 1:25

V205
ESC 1:50

SEÇÃO A-A
ESC 1:25

V206
ESC 1:50

SEÇÃO A-A
ESC 1:25

V207
ESC 1:50

SEÇÃO A-A
ESC 1:25

RELAÇÃO DO AÇO

V177	V178	V179
V180	V181	V182
V183	V184	V185
V186	V187	V188
V189	V190	V191
V192	V193	V194
V195	V196	V197
V198	V199	V200
V201	V202	V204
V205	V206	V207

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	341	103	35123
	2	5.0	42	87	3654
	3	5.0	57	113	6441
	4	5.0	48	77	3696
	5	5.0	2	244	488
	6	5.0	26	153	3978
	7	5.0	46	131	6026
CA50	8	8.0	3	235	705
	9	8.0	3	247	741
	10	8.0	12	330	3960
	11	8.0	12	332	3984
	12	8.0	4	403	1612
	13	8.0	4	419	1676
	14	8.0	1	393	393
	15	8.0	2	850	1700
	16	8.0	1	118	118
	17	8.0	1	121	121
	18	8.0	2	897	1794
	19	8.0	1	226	226
	20	8.0	2	459	918
	21	8.0	4	142	568
	22	8.0	1	126	126
	23	8.0	2	484	968
	24	8.0	1	201	201
	25	8.0	7	404	2828
	26	8.0	3	427	1281
	27	8.0	1	465	465
	28	8.0	3	564	1692
	29	8.0	1	279	279
	30	8.0	2	541	1082
	31	8.0	1	267	267
	32	8.0	2	539	1078
	33	8.0	1	111	111
	34	8.0	1	116	116
	35	8.0	2	579	1158
	36	8.0	1	310	310
	37	8.0	6	239	1434
	38	8.0	3	246	738
	39	8.0	3	258	774
	40	8.0	2	401	802
	41	8.0	2	640	1280
	42	8.0	2	259	518
	43	8.0	4	552	2208
	44	8.0	2	147	294
	45	8.0	2	152	304
	46	8.0	2	578	1156
	47	8.0	2	152	304
	48	8.0	2	578	1156
	49	8.0	6	249	1494
	50	8.0	6	238	1428
	51	8.0	1	272	272
	52	8.0	5	426	2130
	53	8.0	3	478	1434
	54	8.0	1	123	123
	55	8.0	1	117	117
	56	8.0	1	492	984
	57	8.0	2	416	832
	58	8.0	3	267	801
	59	8.0	3	279	837
	60	8.0	3	285	855
	61	8.0	3	305	915
	62	8.0	1	52	52
	63	8.0	2	212	424
	64	8.0	1	132	132
	65	8.0	2	258	516
	66	8.0	3	265	795
	67	8.0	3	289	867
	68	8.0	3	297	891
	69	8.0	1	205	205
	70	8.0	2	420	840
	71	8.0	1	89	89
	72	8.0	1	111	111
	73	8.0	2	436	872
	74	10.0	3	624	1872
	75	10.0	2	192	384
	76	10.0	1	138	138
	77	10.0	2	188	376
	78	10.0	10	657	6570
	79	10.0	2	852	1704
	80	10.0	2	302	604
	81	10.0	2	257	514
	82	10.0	2	292	584
	83	12.5	2	662	1324

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	594.6	258.1
	10.0	127.5	86.4
	12.5	13.2	14
CA60	5.0	594.1	100.7

PESO TOTAL (kg)	
CA50	358.6
CA60	100.7

Volume de concreto (C-25) = 8.17 m³
Área de forma = 109.78 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 26/50

CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DA FUNDAÇÃO

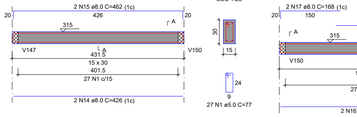
PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

1 DETALHAMENTO VIGAS DA FUNDAÇÃO

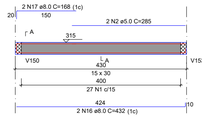
PROCESSO ADMINISTRATIVO
0936
ASSINADO ELETRONICAMENTE

V1
ESC 1:50



SEÇÃO A-A
ESC 1:25

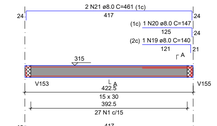
V2
ESC 1:50



SEÇÃO A-A
ESC 1:25



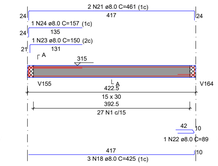
V3
ESC 1:50



SEÇÃO A-A
ESC 1:25



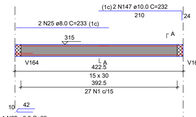
V4
ESC 1:50



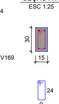
SEÇÃO A-A
ESC 1:25



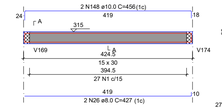
V5
ESC 1:50



SEÇÃO A-A
ESC 1:25



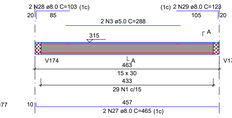
V6
ESC 1:50



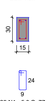
SEÇÃO A-A
ESC 1:25



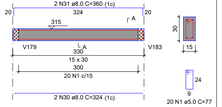
V7
ESC 1:50



SEÇÃO A-A
ESC 1:25

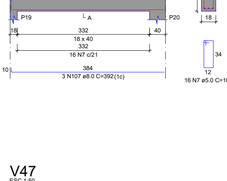


V8
ESC 1:50

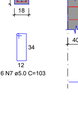


SEÇÃO A-A
ESC 1:25

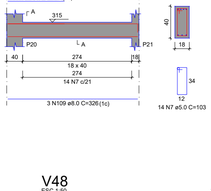
V9
ESC 1:50



SEÇÃO A-A
ESC 1:25



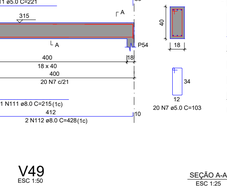
V10
ESC 1:50



SEÇÃO A-A
ESC 1:25



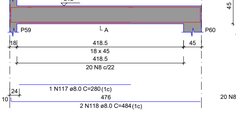
V11
ESC 1:50



SEÇÃO A-A
ESC 1:25

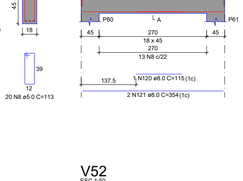


V12
ESC 1:50

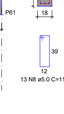


SEÇÃO A-A
ESC 1:25

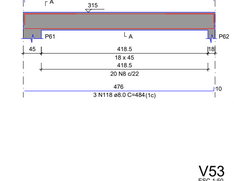
V13
ESC 1:50



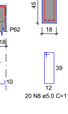
SEÇÃO A-A
ESC 1:25



V14
ESC 1:50



SEÇÃO A-A
ESC 1:25



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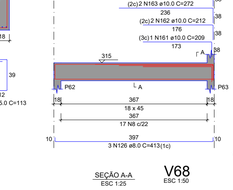
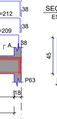
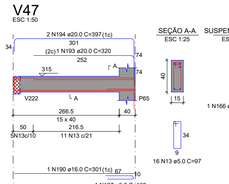
ESC 1:50



SEÇÃO A-A
ESC 1:25



V16
ESC 1:50

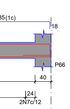


SEÇÃO A-A
ESC 1:25

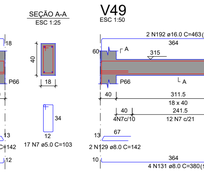


V17
ESC 1:50

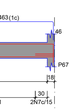
SEÇÃO A-A
ESC 1:25



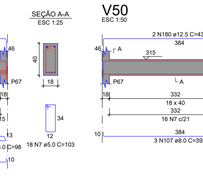
V18
ESC 1:50



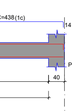
SEÇÃO A-A
ESC 1:25



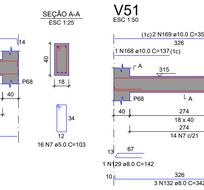
V19
ESC 1:50



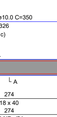
SEÇÃO A-A
ESC 1:25



V20
ESC 1:50



SEÇÃO A-A
ESC 1:25



V21
ESC 1:50

SEÇÃO A-A
ESC 1:25

V22
ESC 1:50

SEÇÃO A-A
ESC 1:25

V23
ESC 1:50

SEÇÃO A-A
ESC 1:25

V83
ESC 1:50

SEÇÃO A-A
ESC 1:25

V24
ESC 1:50

SEÇÃO A-A
ESC 1:25

V25
ESC 1:50

SEÇÃO A-A
ESC 1:25

V26
ESC 1:50

SEÇÃO A-A
ESC 1:25

V27
ESC 1:50

SEÇÃO A-A
ESC 1:25

V28
ESC 1:50

SEÇÃO A-A
ESC 1:25

V29
ESC 1:50

SEÇÃO A-A
ESC 1:25

V30
ESC 1:50

SEÇÃO A-A
ESC 1:25

V32
ESC 1:50

SEÇÃO A-A
ESC 1:25

V31
ESC 1:50

SEÇÃO A-A
ESC 1:25

V33
ESC 1:50

SEÇÃO A-A
ESC 1:25

V34
ESC 1:50

SEÇÃO A-A
ESC 1:25

V35
ESC 1:50

SEÇÃO A-A
ESC 1:25

V36
ESC 1:50

SEÇÃO A-A
ESC 1:25

V37
ESC 1:50

SEÇÃO A-A
ESC 1:25

V38
ESC 1:50

SEÇÃO A-A
ESC 1:25

V39
ESC 1:50

SEÇÃO A-A
ESC 1:25

V40
ESC 1:50

SEÇÃO A-A
ESC 1:25

V41
ESC 1:50

SEÇÃO A-A
ESC 1:25

V42
ESC 1:50

SEÇÃO A-A
ESC 1:25

V43
ESC 1:50

SEÇÃO A-A
ESC 1:25

V44
ESC 1:50

SEÇÃO A-A
ESC 1:25

V45
ESC 1:50

SEÇÃO A-A
ESC 1:25

V46
ESC 1:50

SEÇÃO A-A
ESC 1:25

V47
ESC 1:50

SEÇÃO A-A
ESC 1:25

SUSPENSÃO V222
ESC 1:25

V48
ESC 1:50

SEÇÃO A-A
ESC 1:25

V49
ESC 1:50

SEÇÃO A-A
ESC 1:25

V50
ESC 1:50

SEÇÃO A-A
ESC 1:25

V51
ESC 1:50

SEÇÃO A-A
ESC 1:25

V52
ESC 1:50

SEÇÃO A-A
ESC 1:25

V53
ESC 1:50

SEÇÃO A-A
ESC 1:25

V68
ESC 1:50

SEÇÃO A-A
ESC 1:25

V54
ESC 1:50

SEÇÃO A-A
ESC 1:25

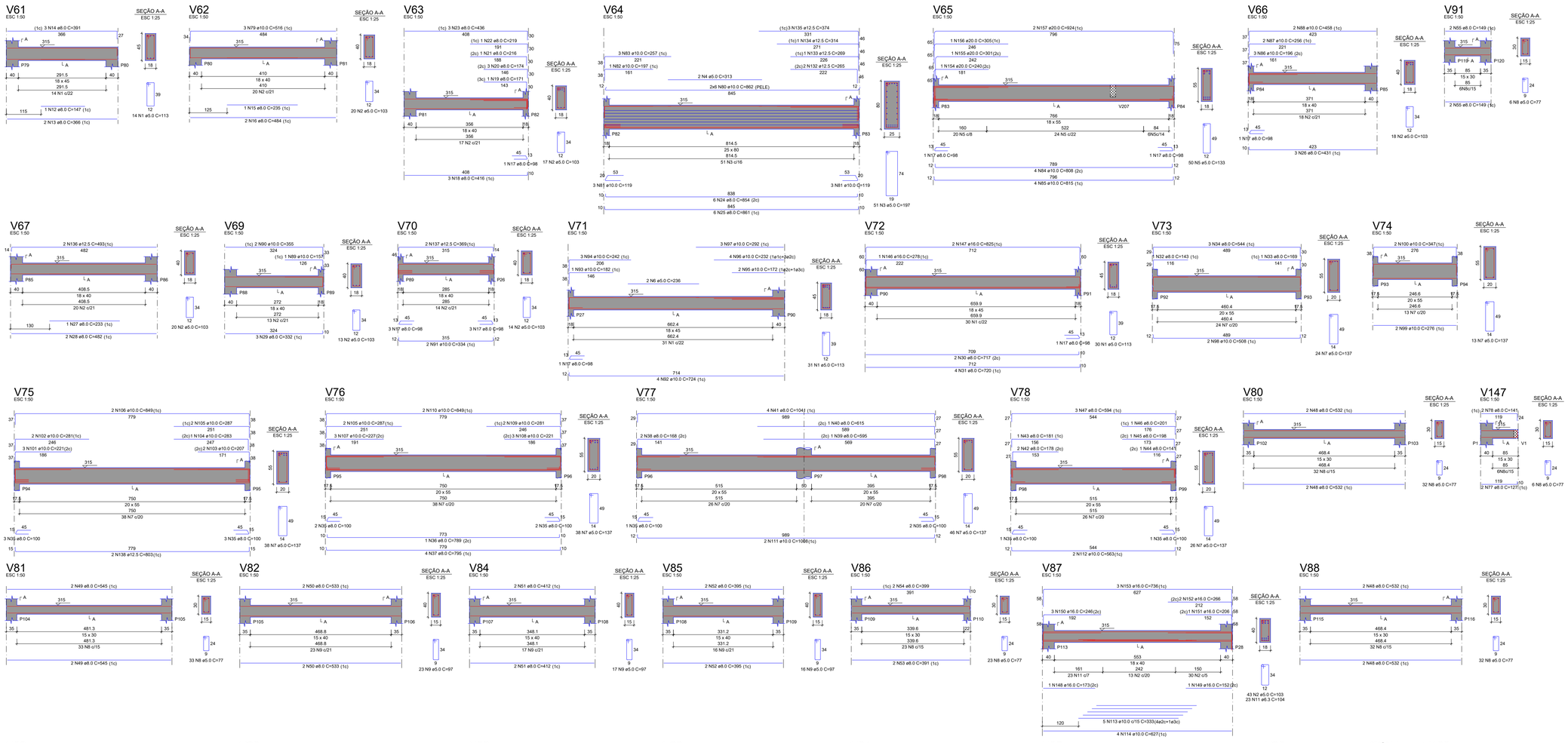
V55
ESC 1:50

SEÇÃO A-A
ESC 1:25

V56
ESC 1:50

3 N172 ø10.0 C=463(1c)
30
431
30
2x3 N149 ø10.0 C=448(PELE)
12
431
315
r A
P74
L A
P75
40
378.5
18 x 45
378.5
26 N8 c/15
10
431
3 N139 ø8

PROCESSO ADMINISTRATIVO
0937
ASSINADO ELETRONICAMENTE



RELAÇÃO DO AÇO

V61	V62	V63
V64	V65	V66
V67	V69	V70
V71	V72	V73
V74	V75	V76
V77	V78	V80
V81	V82	V84
V85	V86	V87
V88	V89	V90
V91	V92	V93
V94	V95	V96
V97	V98	V99
V100	V101	V104
V105	V106	V107
V108	V109	V110
V111	V112	V147

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	75	113	8475
	2	5.0	297	103	29951
	3	5.0	51	197	10047
	4	5.0	2	313	626
	5	5.0	50	133	6650
	6	5.0	2	236	472
	7	5.0	332	137	45484
	8	5.0	307	77	23639
	9	5.0	56	97	5432
	10	5.0	47	147	6909
CA50	11	6.3	23	104	2392
	12	8.0	1	147	147
	13	8.0	2	366	732
	14	8.0	3	391	1173
	15	8.0	1	235	235
	16	8.0	2	484	968
	17	8.0	12	98	1176
	18	8.0	3	416	1248
	19	8.0	1	171	171
	20	8.0	3	174	522
	21	8.0	1	216	216
	22	8.0	1	219	219
	23	8.0	3	436	1308
	24	8.0	6	854	5124
	25	8.0	6	861	5166
	26	8.0	3	431	1293
	27	8.0	1	233	233
	28	8.0	2	482	964
	29	8.0	3	332	996
	30	8.0	2	717	1434
	31	8.0	4	720	2880
	32	8.0	1	143	143
	33	8.0	2	169	338
	34	8.0	3	544	1632
	35	8.0	29	100	2900
	36	8.0	1	789	789
	37	8.0	10	795	7950
	38	8.0	2	168	336
	39	8.0	1	595	595
	40	8.0	1	615	615
	41	8.0	4	1041	4164
	42	8.0	2	178	356
	43	8.0	1	181	181
	44	8.0	1	141	141
	45	8.0	1	198	198
	46	8.0	1	201	201
	47	8.0	3	594	1782
	48	8.0	8	532	4256
	49	8.0	8	545	4360
	50	8.0	8	533	4264
	51	8.0	8	412	3296
	52	8.0	8	395	3160
	53	8.0	4	391	1564
	54	8.0	4	399	1596
	55	8.0	4	149	596
	56	8.0	1	164	164
	57	8.0	3	545	1635
	58	8.0	2	470	940
	59	8.0	4	476	1904
	60	8.0	2	183	366
	61	8.0	1	186	186
	62	8.0	1	147	147
	63	8.0	1	204	204
	64	8.0	1	207	207
	65	8.0	2	595	1785
	66	8.0	3	450	1350
	67	8.0	6	456	2736
	68	8.0	1	232	232
	69	8.0	2	458	916
	70	8.0	4	327	1308
	71	8.0	1	157	157
	72	8.0	2	376	752
	73	8.0	3	437	1311
	74	8.0	3	445	1335
	75	8.0	3	365	1095
	76	8.0	3	432	1296
	77	8.0	2	127	254
	78	8.0	2	141	282
	79	10.0	3	516	1548
	80	10.0	12	862	10344
	81	10.0	6	119	714
	82	10.0	1	197	197
	83	10.0	3	257	771
	84	10.0	4	808	3232
	85	10.0	4	815	3260
	86	10.0	3	196	588
	87	10.0	2	256	512
	88	10.0	2	458	916
	89	10.0	1	157	157
	90	10.0	2	355	710
	91	10.0	2	334	668
	92	10.0	4	724	2896
	93	10.0	1	182	182
	94	10.0	3	242	726
	95	10.0	2	172	344
	96	10.0	4	232	928
	97	10.0	3	292	876
	98	10.0	4	508	2032
	99	10.0	4	276	1104
	100	10.0	4	347	1388
	101	10.0	3	221	663
	102	10.0	2	281	562
	103	10.0	2	207	414
	104	10.0	1	283	283
	105	10.0	4	287	1148
	106	10.0	2	849	1698
	107	10.0	3	227	681
	108	10.0	3	221	663
	109	10.0	2	281	562
	110	10.0	2	849	1698
	111	10.0	2	1008	2016
	112	10.0	6	563	3378
	113	10.0	5	333	1665
	114	10.0	4	627	2508
	115	10.0	3	221	663
	116	10.0	2	281	562
	117	10.0	3	219	657
	118	10.0	1	275	275
	119	10.0	2	279	558
	120	10.0	2	846	1692
	121	10.0	2	213	426
	122	10.0	4	217	868
	123	10.0	4	277	1108
	124	10.0	2	850	1700
	125	10.0	2	443	886
	126	10.0	12	467	5604
	127	10.0	12	465	5580
	128	10.0	1	166	166
	129	10.0	2	497	994
	130	10.0	6	449	2694
	131	10.0	3	459	1377
	132	12.5	2	265	530
	133	12.5	1	269	269
	134	12.5	1	314	314
	135	12.5	3	374	1122
	136	12.5	2	493	986
	137	12.5	2	369	738
	138	12.5	4	803	3212
	139	12.5	1	184	184
	140	12.5	2	621	1242
	141	12.5	2	496	992
	142	12.5	2	501	1002
	143	12.5	2	502	1004
	144	12.5	2	494	988
	145	12.5	2	497	994
	146	16.0	1	278	278
	147	16.0	2	825	1650
	148	16.0	1	172	172
	149	16.0	1	152	152
	150	16.0	3	246	738
	151	16.0	1	206	206
	152	16.0	2	266	532
	153	16.0	3	736	2208
	154	20.0	1	240	240
	155	20.0	1	301	301
	156	20.0	1	305	305
	157	20.0	2	924	1848

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	23.9	6.4
	8.0	921.8	400.1
	10.0	778.4	527.9
	12.5	135.8	143.9
	16.0	59.4	103.1
	20.0	26.9	73.1
CA60	5.0	1373	232.8

PESO TOTAL (kg)
CA50 1254.5
CA60 232.8

Volume de concreto (C-25) = 18.62 m³
Área de forma = 197.64 m²

1 DETALHAMENTO VIGAS DO TÉRREO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 28/50

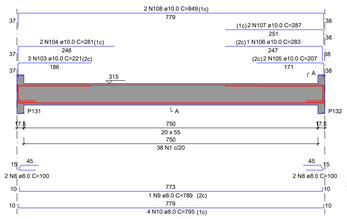
CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DO TÉRREO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

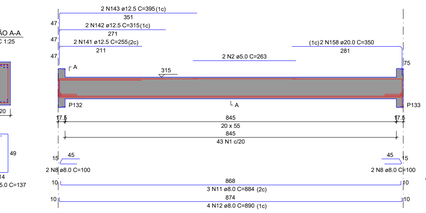
FOLHA: A1

PROCESSO ADMINISTRATIVO
0938
ASSINADO ELETRONICAMENTE

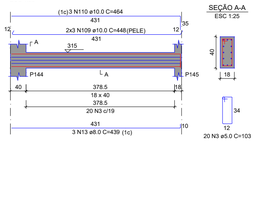
V102
ESC 1:50



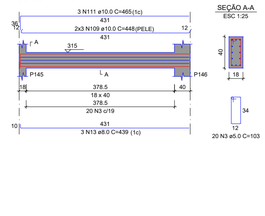
V103
ESC 1:50



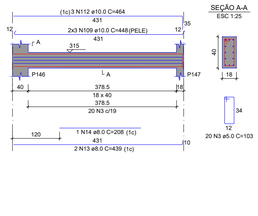
V113
ESC 1:50



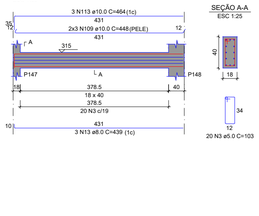
V114
ESC 1:50



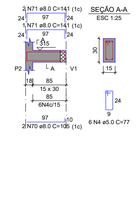
V115
ESC 1:50



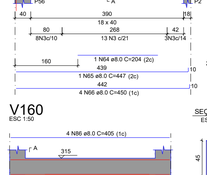
V116
ESC 1:50



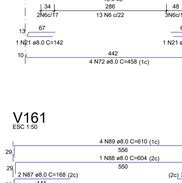
V150
ESC 1:50



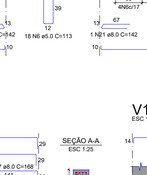
V117
ESC 1:50



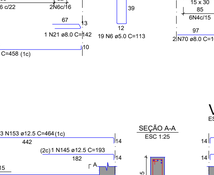
V118
ESC 1:50



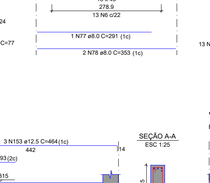
V119
ESC 1:50



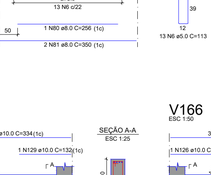
V120
ESC 1:50



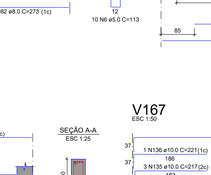
V121
ESC 1:50



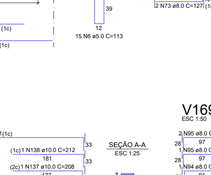
V122
ESC 1:50



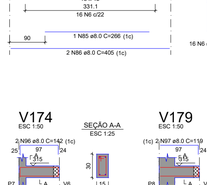
V123
ESC 1:50



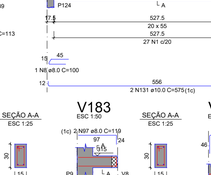
V124
ESC 1:50



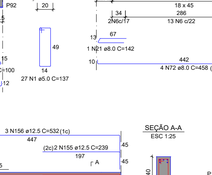
V125
ESC 1:50



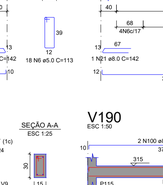
V126
ESC 1:50



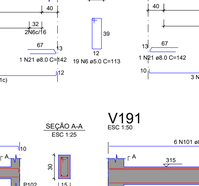
V127
ESC 1:50



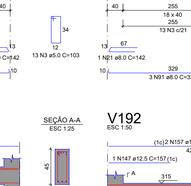
V128
ESC 1:50



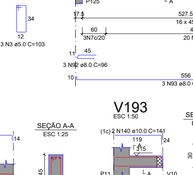
V129
ESC 1:50



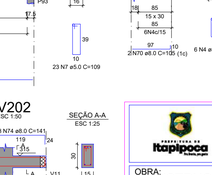
V130
ESC 1:50



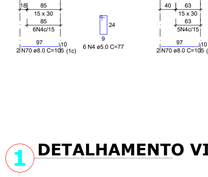
V131
ESC 1:50



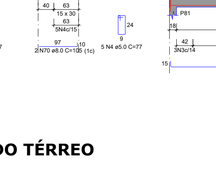
V132
ESC 1:50



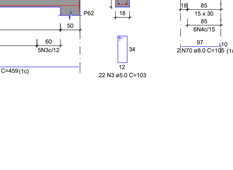
V133
ESC 1:50



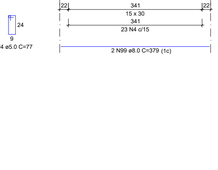
V134
ESC 1:50



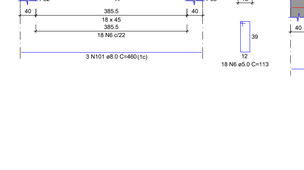
V135
ESC 1:50



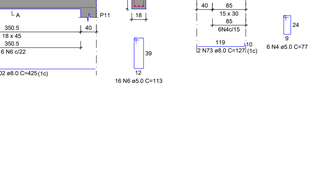
V136
ESC 1:50



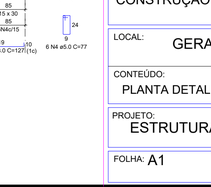
V137
ESC 1:50



V138
ESC 1:50



V139
ESC 1:50



V140
ESC 1:50

V141
ESC 1:50

V142
ESC 1:50

V143
ESC 1:50

V144
ESC 1:50

V145
ESC 1:50

V146
ESC 1:50

V148
ESC 1:50

V153
ESC 1:50

V149
ESC 1:50

V151
ESC 1:50

V152
ESC 1:50

V155
ESC 1:50

V156
ESC 1:50

V157
ESC 1:50

V158
ESC 1:50

V159
ESC 1:50

V164
ESC 1:50

V160
ESC 1:50

V161
ESC 1:50

V162
ESC 1:50

V163
ESC 1:50

V165
ESC 1:50

V166
ESC 1:50

V167
ESC 1:50

V169
ESC 1:50

V174
ESC 1:50

V179
ESC 1:50

V183
ESC 1:50

V186
ESC 1:50

V188
ESC 1:50

V190
ESC 1:50

V191
ESC 1:50

V192
ESC 1:50

V193
ESC 1:50

V202
ESC 1:50

1 DETALHAMENTO VIGAS DO TÉRREO

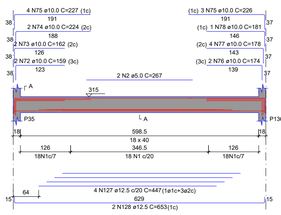
RELAÇÃO DO AÇO

V102	V103	V113	
V114	V115	V116	
V117	V118	V119	
V120	V121	V122	
V123	V124	V125	
V126	V127	V128	
V129	V130	V131	
V132	V133	V134	
V135	V136	V137	
V138	V139	V140	
V141	V142	V143	
V144	V145	V146	
V148	V149	V150	
V151	V152	V153	
V155	V156	V157	
V158	V159	V160	
V161	V162	V163	
V164	V165	V166	
V167	V169	V174	
V179	V183	V186	
V188	V190	V191	
V192	V193	V202	

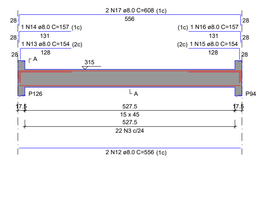
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	108	137	14796
	2	5.0	2	263	526
	3	5.0	553	101	56024
	4	5.0	272	77	20944
	5	5.0	2	329	658
	6	5.0	220	113	24860
	7	5.0	23	109	2507
CA50	8	8.0	10	100	1000
	9	8.0	1	789	789
	10	8.0	4	795	3180
	11	8.0	3	884	2652
	12	8.0	4	890	3560
	13	8.0	13	439	5707
	14	8.0	1	208	208
	15	8.0	1	218	218
	16	8.0	1	97	97
	17	8.0	2	223	446
	18	8.0	3	243	729
	19	8.0	1	118	118
	20	8.0	2	242	484
	21	8.0	12	142	1704
	22	8.0	1	202	202
	23	8.0	4	450	1800
	24	8.0	2	200	400
	25	8.0	4	448	1792
	26	8.0	1	122	122
	27	8.0	1	132	132
	28	8.0	2	474	948
	29	8.0	3	474	1422
	30	8.0	3	207	621
	31	8.0	3	473	1419
	32	8.0	2	150	300
	33	8.0	4	327	1308
	34	8.0	6	367	2202
	35	8.0	4	429	1716
	36	8.0	2	91	182
	37	8.0	1	157	157
	38	8.0	2	470	940
	39	8.0	1	122	122
	40	8.0	1	470	940
	41	8.0	1	199	199
	42	8.0	4	432	1728

ACERVO ADMINISTRATIVO
0939
ASSINADO ELETRONICAMENTE

V170
ESC 1:50

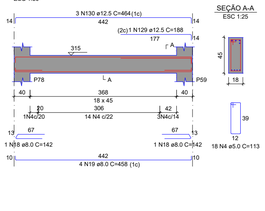


V171
ESC 1:50

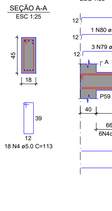


SEÇÃO A-A
ESC 1:25

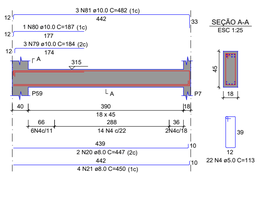
V172
ESC 1:50



SEÇÃO A-A
ESC 1:25

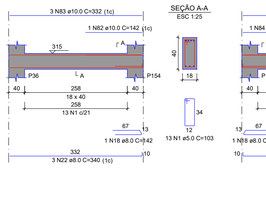


V173
ESC 1:50



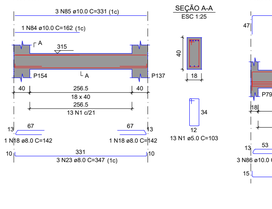
SEÇÃO A-A
ESC 1:25

V175
ESC 1:50



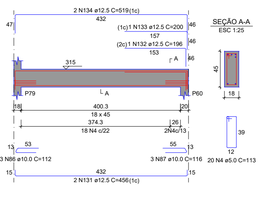
SEÇÃO A-A
ESC 1:25

V176
ESC 1:50



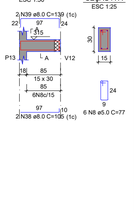
SEÇÃO A-A
ESC 1:25

V177
ESC 1:50



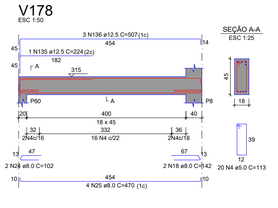
SEÇÃO A-A
ESC 1:25

V205
ESC 1:50



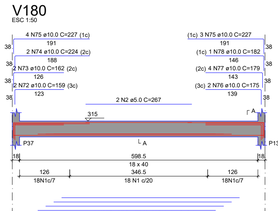
SEÇÃO A-A
ESC 1:25

V178
ESC 1:50

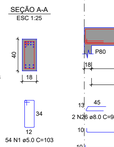


SEÇÃO A-A
ESC 1:25

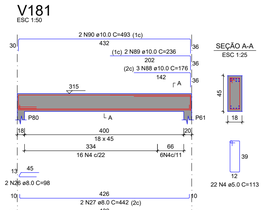
V180
ESC 1:50



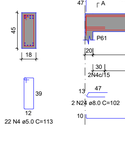
SEÇÃO A-A
ESC 1:25



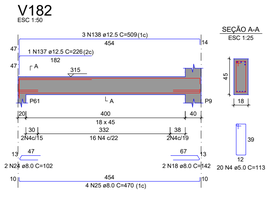
V181
ESC 1:50



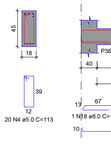
SEÇÃO A-A
ESC 1:25



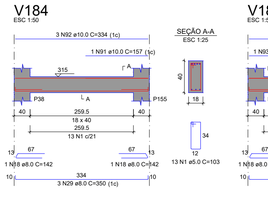
V182
ESC 1:50



SEÇÃO A-A
ESC 1:25

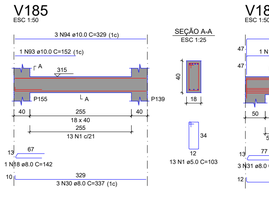


V184
ESC 1:50



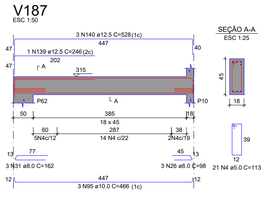
SEÇÃO A-A
ESC 1:25

V185
ESC 1:50



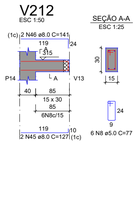
SEÇÃO A-A
ESC 1:25

V187
ESC 1:50



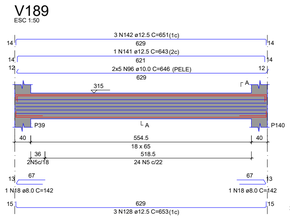
SEÇÃO A-A
ESC 1:25

V212
ESC 1:50

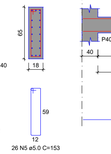


SEÇÃO A-A
ESC 1:25

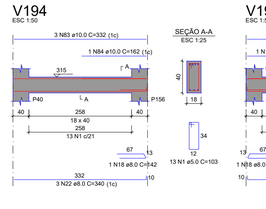
V189
ESC 1:50



SEÇÃO A-A
ESC 1:25

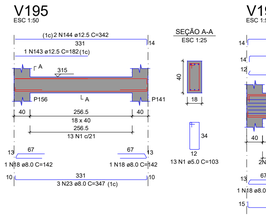


V194
ESC 1:50



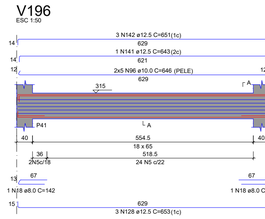
SEÇÃO A-A
ESC 1:25

V195
ESC 1:50

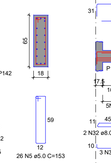


SEÇÃO A-A
ESC 1:25

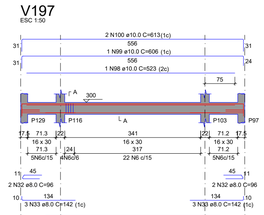
V196
ESC 1:50



SEÇÃO A-A
ESC 1:25



V197
ESC 1:50



SEÇÃO A-A
ESC 1:25

V198
ESC 1:50

SEÇÃO A-A
ESC 1:25

V199
ESC 1:50

SEÇÃO A-A
ESC 1:25

V217
ESC 1:50

SEÇÃO A-A
ESC 1:25

V200
ESC 1:50

SEÇÃO A-A
ESC 1:25

V201
ESC 1:50

SEÇÃO A-A
ESC 1:25

V204
ESC 1:50

SEÇÃO A-A
ESC 1:25

V206
ESC 1:50

SEÇÃO A-A
ESC 1:25

V207
ESC 1:50

SEÇÃO A-A
ESC 1:25

V208
ESC 1:50

SEÇÃO A-A
ESC 1:25

V209
ESC 1:50

SEÇÃO A-A
ESC 1:25

V215
ESC 1:50

SEÇÃO A-A
ESC 1:25

V210
ESC 1:50

SEÇÃO A-A
ESC 1:25

V211
ESC 1:50

SEÇÃO A-A
ESC 1:25

V213
ESC 1:50

SEÇÃO A-A
ESC 1:25

V214
ESC 1:50

SEÇÃO A-A
ESC 1:25

V216
ESC 1:50

SEÇÃO A-A
ESC 1:25

V218
ESC 1:50

SEÇÃO A-A
ESC 1:25

V219
ESC 1:50

SEÇÃO A-A
ESC 1:25

V220
ESC 1:50

SEÇÃO A-A
ESC 1:25

V221
ESC 1:50

SEÇÃO A-A
ESC 1:25

V222
ESC 1:50

SEÇÃO A-A
ESC 1:25

V223
ESC 1:50

SEÇÃO A-A
ESC 1:25

V224
ESC 1:50

SEÇÃO A-A
ESC 1:25

V225
ESC 1:50

SEÇÃO A-A
ESC 1:25

V226
ESC 1:50

SEÇÃO A-A
ESC 1:25

V227
ESC 1:50

SEÇÃO A-A
ESC 1:25

V228
ESC 1:50

SEÇÃO A-A
ESC 1:25

V229
ESC 1:50

SEÇÃO A-A
ESC 1:25

V230
ESC 1:50

SEÇÃO A-A
ESC 1:25

V231
ESC 1:50

SEÇÃO A-A
ESC 1:25

V232
ESC 1:50

SEÇÃO A-A
ESC 1:25

V233
ESC 1:50

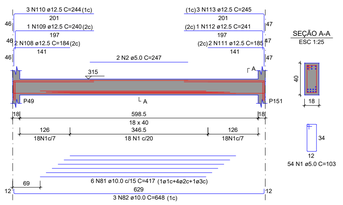
SEÇÃO A-A
ESC 1:25

V234
ESC 1:50

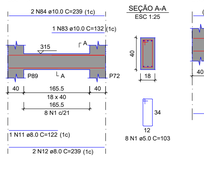
2 N126 ø10.0 C=404 (1c)
N125 ø10.0 C

PROCESSO ADMINISTRATIVO
0940
ASSINADO ELETRONICAMENTE

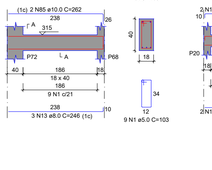
V236
ESC 1:50



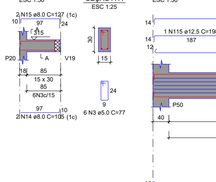
V237
ESC 1:50



V238
ESC 1:50



V239
ESC 1:50



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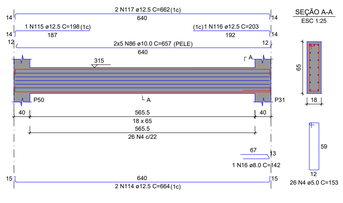

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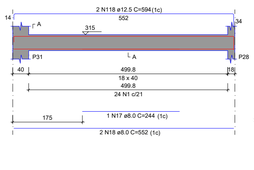

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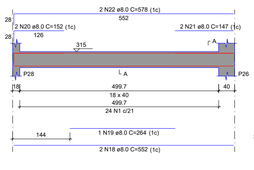
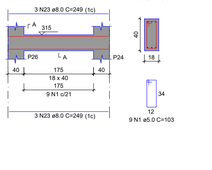
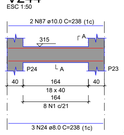
ESC 1:50



V243
ESC 1:50



V244
ESC 1:50



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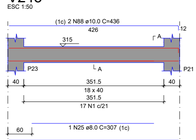
ESC 1:50



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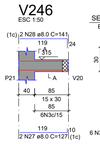
ESC 1:50



V247
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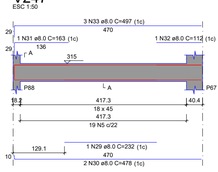
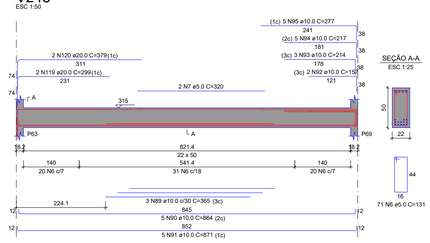


V248
ESC 1:50



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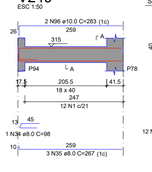
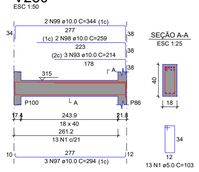
ESC 1:50



V250
ESC 1:50



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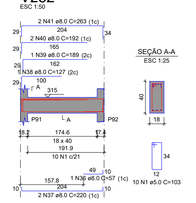
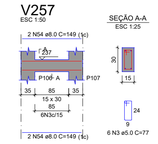
ESC 1:50



V257
ESC 1:50



V253
ESC 1:50

V254
ESC 1:50

V255
ESC 1:50

V256
ESC 1:50

V258
ESC 1:50

V259
ESC 1:50

V260
ESC 1:50

V261
ESC 1:50

V263
ESC 1:50

V262
ESC 1:50

V264
ESC 1:50

V265
ESC 1:50

V266
ESC 1:50

V267
ESC 1:50

V268
ESC 1:50

V269
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V270
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V271
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V274
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V275
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V276
ESC 1:50

V277
ESC 1:50

V278
ESC 1:50

V279
ESC 1:50

V280
ESC 1:50

RELAÇÃO DO AÇO

V236	V237	V238
V239	V240	V241
V242	V243	V244
V245	V246	V247
V248	V249	V250
V252	V253	V254
V255	V256	V257
V258	V259	V260
V261	V262	V263
V264	V265	V266
V267	V268	V269
V270	V271	V274
V275	V276	V277
V278	V279	V280

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	275	103	28325
	2	5.0	2	247	494
	3	5.0	328	77	25256
	4	5.0	26	153	3978
	5	5.0	19	113	2147
	6	5.0	71	131	9301
	7	5.0	2	320	640
	8	5.0	70	97	6790
	9	5.0	10	87	870
	10	5.0	16	107	1712
CA50	11	8.0	1	122	122
	12	8.0	2	239	478
	13	8.0	3	246	738
	14	8.0	2	105	210
	15	8.0	2	127	254
	16	8.0	1	142	142
	17	8.0	1	244	244
	18	8.0	4	552	2208
	19	8.0	1	264	264
	20	8.0	2	152	304
	21	8.0	2	147	294
	22	8.0	2	578	1156
	23	8.0	6	249	1494
	24	8.0	3	238	714
	25	8.0	1	307	307
	26	8.0	2	426	852
	27	8.0	2	127	254
	28	8.0	2	141	282
	29	8.0	1	232	232
	30	8.0	2	478	956
	31	8.0	1	163	163
	32	8.0	1	112	112
	33	8.0	3	497	1491
	34	8.0	1	98	98
	35	8.0	3	267	801
	36	8.0	1	57	57
	37	8.0	2	220	440
	38	8.0	1	127	127
	39	8.0	1	189	189
	40	8.0	2	192	384
	41	8.0	2	263	526
	42	8.0	3	265	795
	43	8.0	1	166	166
	44	8.0	3	282	846
	45	8.0	3	288	864
	46	8.0	3	309	927
	47	8.0	2	354	708
	48	8.0	1	167	167
	49	8.0	2	380	760
	50	8.0	1	210	210
	51	8.0	2	420	840
	52	8.0	1	116	116
	53	8.0	3	449	1347
	54	8.0	24	149	3576
	55	8.0	3	103	309
	56	8.0	2	408	816
	57	8.0	1	255	255
	58	8.0	4	416	1664
	59	8.0	2	231	462
	60	8.0	2	226	452
	61	8.0	1	334	334
	62	8.0	8	545	4360
	63	8.0	8	533	4264
	64	8.0	8	412	3296
	65	8.0	8	395	3160
	66	8.0	2	391	782
	67	8.0	2	435	870
	68	8.0	1	480	480
	69	8.0	2	566	1132
	70	8.0	3	572	1716
	71	8.0	1	400	400
	72	8.0	2	556	1112
	73	8.0	6	395	2370
	74	8.0	2	222	444
	75	8.0	2	226	452
	76	8.0	1	343	343
	77	8.0	1	155	155
	78	8.0	2	419	838
	79	8.0	1	170	170
	80	8.0	2	459	918
	81	10.0	6	417	2502
	82	10.0	3	648	1944
	83	10.0	1	132	132
	84	10.0	2	239	478
	85	10.0	2	262	524
	86	10.0	10	657	6570
	87	10.0	2	238	476
	88	10.0	2	436	872
	89	10.0	3	365	1095
	90	10.0	5	864	4320
	91	10.0	5	871	4355
	92	10.0	2	157	314
	93	10.0	6	214	1284
	94	10.0	5	217	1085
	95	10.0	5	277	1385
	96	10.0	2	283	566
	97	10.0	3	294	882
	98	10.0	2	259	518
	99	10.0	2	344	688
	100	10.0	2	438	876
	101	10.0	1	185	185
	102	10.0	1	189	189
	103	10.0	1	188	188
	104	10.0	1	223	223
	105	10.0	2	620	1240
	106	10.0	1	137	137
	107	10.0	2	617	1234
	108	12.5	2	184	368
	109	12.5	1	240	240
	110	12.5	3	242	726
	111	12.5	2	185	370
	112	12.5	1	241	241
	113	12.5	3	245	735
	114	12.5	2	664	1328
	115	12.5	1	198	198
	116	12.5	1	203	203
	117	12.5	2	662	1324
	118	12.5	2	594	1188
	119	20.0	2	299	598
	120	20.0	2	379	758

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	587.7	255.1
	10.0	342.6	232.4
	12.5	69.3	73.4
	20.0	13.6	36.8
CA60	5.0	795.1	134.8
PESO TOTAL (kg)			
CA50	597.6		
CA60	134.8		

Volume de concreto (C-25) = 8.75 m³
Área de forma = 104.49 m²

1 DETALHAMENTO VIGAS DO TÉRREO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

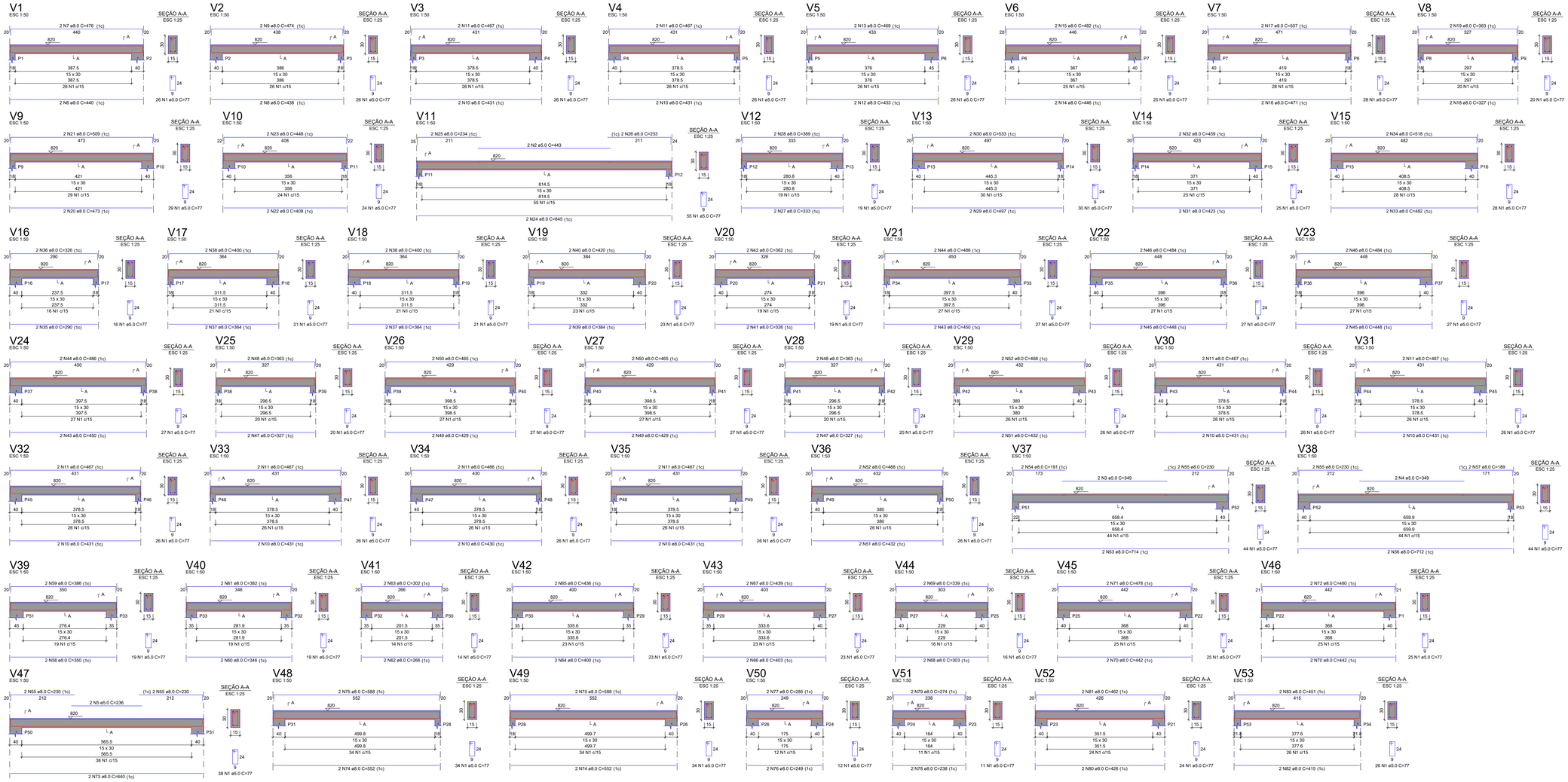
PRANCHA: 31/50

CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DO TÉRREO

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0941
ASSINADO ELETRONICAMENTE



RELAÇÃO DO AÇO

V1	V2	V3
V4	V5	V6
V7	V8	V9
V10	V11	V12
V13	V14	V15
V16	V17	V18
V19	V20	V21
V22	V23	V24
V25	V26	V27
V28	V29	V30
V31	V32	V33
V34	V35	V36
V37	V38	V39
V40	V41	V42
V43	V44	V45
V46	V47	V48
V49	V50	V51
V52	V53	

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	1354	77	104258
	2	5.0	2	443	886
	3	5.0	2	349	698
	4	5.0	2	349	698
	5	5.0	2	236	472
CA50	6	8.0	2	440	880
	7	8.0	2	476	952
	8	8.0	2	438	876
	9	8.0	2	474	948
	10	8.0	16	431	6896
	11	8.0	16	467	7472
	12	8.0	2	433	866
	13	8.0	2	469	938
	14	8.0	2	446	892
	15	8.0	2	482	964
	16	8.0	2	471	942
	17	8.0	2	507	1014
	18	8.0	2	327	654
	19	8.0	2	363	726
	20	8.0	2	473	946
	21	8.0	2	509	1018
	22	8.0	2	408	816
	23	8.0	2	448	896
	24	8.0	2	845	1690
	25	8.0	2	234	468
	26	8.0	2	233	466
	27	8.0	2	333	666
	28	8.0	2	369	738
	29	8.0	2	497	994
	30	8.0	2	533	1066
	31	8.0	2	423	846
	32	8.0	2	459	918
	33	8.0	2	482	964
	34	8.0	2	518	1036
	35	8.0	2	290	580
	36	8.0	2	326	652
	37	8.0	4	364	1456
	38	8.0	4	400	1600
	39	8.0	2	384	768
	40	8.0	2	420	840
	41	8.0	2	326	652
	42	8.0	2	362	724
	43	8.0	4	450	1800
	44	8.0	4	486	1944
	45	8.0	4	448	1792
	46	8.0	4	484	1936
	47	8.0	4	327	1308
	48	8.0	4	363	1452
	49	8.0	4	429	1716
	50	8.0	4	465	1860
	51	8.0	4	432	1728
	52	8.0	4	468	1872
	53	8.0	2	714	1428
	54	8.0	2	191	382
	55	8.0	8	230	1840
	56	8.0	2	712	1424
	57	8.0	2	189	378
	58	8.0	2	350	700
	59	8.0	2	386	772
	60	8.0	2	346	692
	61	8.0	2	382	764
	62	8.0	2	266	532
	63	8.0	2	302	604
	64	8.0	2	400	800
	65	8.0	2	436	872
	66	8.0	2	403	806
	67	8.0	2	439	878
	68	8.0	2	303	606
	69	8.0	2	339	678
	70	8.0	4	442	1768
	71	8.0	2	478	956
	72	8.0	2	480	960
	73	8.0	2	640	1280
	74	8.0	4	552	2208
	75	8.0	4	588	2352
	76	8.0	2	249	498
	77	8.0	2	285	570
	78	8.0	2	238	476
	79	8.0	2	274	548
	80	8.0	2	426	852
	81	8.0	2	462	924
	82	8.0	2	415	830
	83	8.0	2	451	902

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	925	401.5
CA60	5.0	1070.1	181.4

PESO TOTAL (kg)	
CA50	401.5
CA60	181.4

Volume de concreto (C-25) = 8.96 m³
Área de forma = 149.38 m²

1 DETALHAMENTO VIGAS DA PLATIBANDA

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL:
GERALDO AZEVEDO, ITAPIPOCA-CE

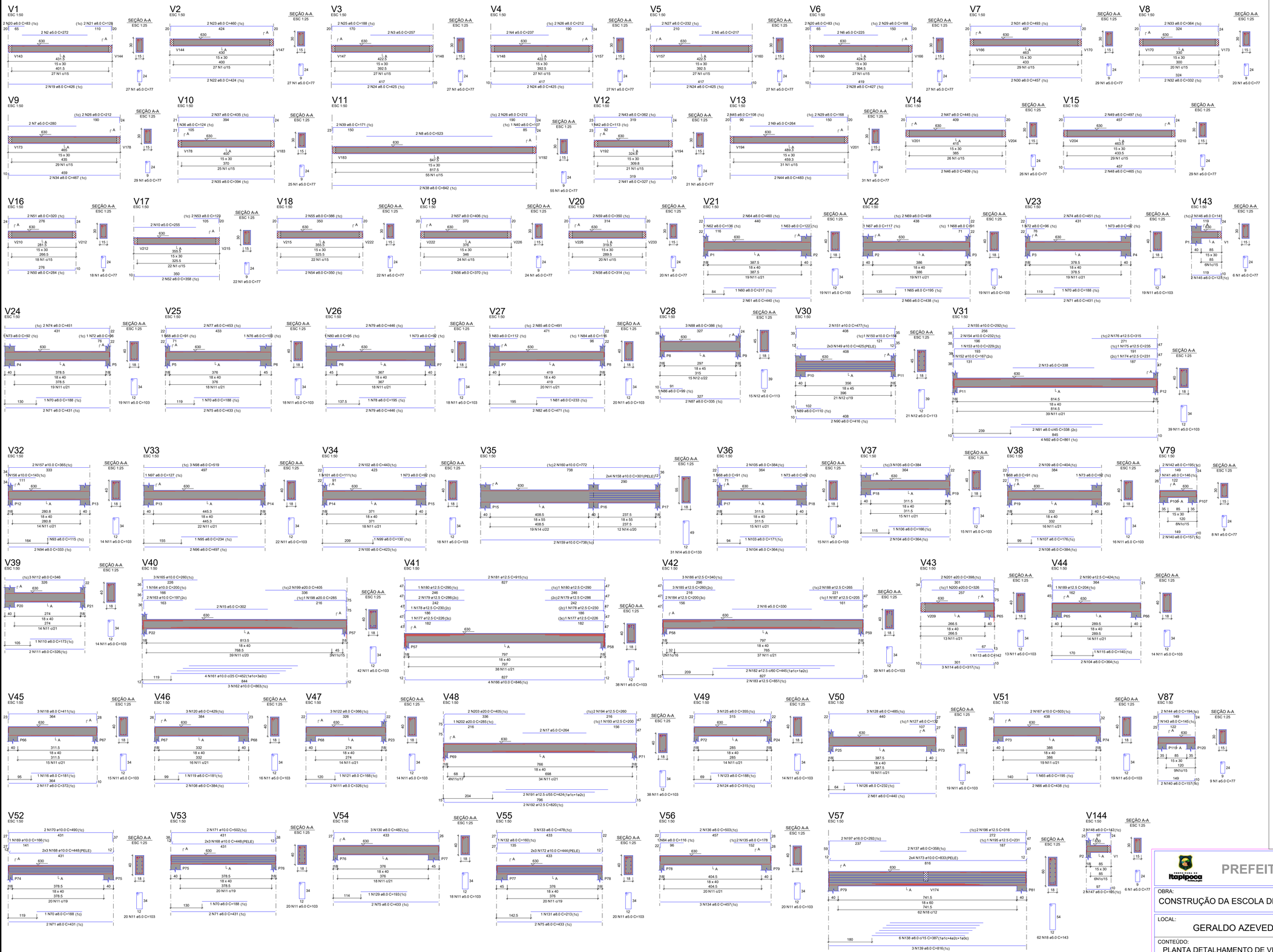
PRANCHA:
32/50

CONTEÚDO:
PLANTA DETALHAMENTO DE VIGAS DA PLATIBANDA

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0942
ASSINADO ELETRONICAMENTE



RELAÇÃO DO AÇO

V1	V2	V3
V4	V5	V6
V7	V8	V9
V10	V11	V12
V13	V14	V15
V16	V17	V18
V19	V20	V21
V22	V23	V24
V25	V26	V27
V28	V30	V31
V32	V33	V34
V35	V36	V37
V38	V39	V40
V41	V42	V43
V44	V45	V46
V47	V48	V49
V50	V51	V52
V53	V54	V55
V56	V57	V79
V87	V143	V144

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	562	772	43374
	2	5.0	2	272	544
	3	5.0	2	257	514
	4	5.0	2	237	474
	5	5.0	2	217	434
	6	5.0	2	225	450
	7	5.0	2	280	560
	8	5.0	2	264	528
	9	5.0	2	264	528
	10	5.0	2	255	510
	11	5.0	664	103	68392
	12	5.0	36	113	4068
	13	5.0	2	168	336
	14	5.0	41	133	5453
	15	5.0	2	302	604
	16	5.0	2	330	660
	17	5.0	2	264	528
	18	5.0	62	143	8866
CA50	19	8.0	2	426	852
	20	8.0	2	128	256
	21	8.0	2	128	256
	22	8.0	2	424	848
	23	8.0	2	460	920
	24	8.0	6	425	2550
	25	8.0	2	188	376
	26	8.0	2	212	1270
	27	8.0	2	232	464
	28	8.0	4	427	854
	29	8.0	4	168	672
	30	8.0	2	457	914
	31	8.0	2	493	986
	32	8.0	2	364	728
	33	8.0	2	364	728
	34	8.0	2	467	934
	35	8.0	2	394	788
	36	8.0	1	124	124
	37	8.0	2	435	1650
	38	8.0	2	942	1884
	39	8.0	1	342	342
	40	8.0	1	107	107
	41	8.0	2	327	654
	42	8.0	1	113	113
	43	8.0	2	362	724
	44	8.0	2	458	916
	45	8.0	2	108	216
	46	8.0	2	409	818
	47	8.0	2	445	890
	48	8.0	2	465	930
	49	8.0	2	497	994
	50	8.0	2	284	568
	51	8.0	2	358	716
	52	8.0	2	123	246
	53	8.0	2	350	700
	54	8.0	2	386	772
	55	8.0	2	406	812
	56	8.0	2	406	812
	57	8.0	2	314	628
	58	8.0	2	350	700
	59	8.0	1	217	217
	60	8.0	1	440	440
	61	8.0	1	120	120
	62	8.0	1	120	120
	63	8.0	1	122	122
	64	8.0	2	900	1800
	65	8.0	2	195	390
	66	8.0	4	438	1752
	67	8.0	1	117	117
	68	8.0	1	458	458
	69	8.0	2	458	916
	70	8.0	5	188	940
	71	8.0	8	431	3448
	72	8.0	2	96	192
	73	8.0	2	352	704
	74	8.0	4	451	1804
	75	8.0	4	453	1812
	76	8.0	1	100	100
	77	8.0	2	453	906
	78	8.0	2	195	390
	79	8.0	4	446	1784
	80	8.0	2	95	190
	81	8.0	1	95	95
	82	8.0	2	471	942
	83	8.0	1	112	112
	84	8.0	2	116	232
	85	8.0	1	491	982
	86	8.0	1	99	99
	87	8.0	1	386	1158
	88	8.0	1	110	110
	89	8.0	1	110	110
	90	8.0	2	416	832
	91	8.0	2	338	676
	92	8.0	1	115	115
	93	8.0	1	115	115
	94	8.0	2	333	666
	95	8.0	1	234	234
	96	8.0	2	497	994
	97	8.0	1	127	127
	98	8.0	3	519	1557
	99	8.0	1	130	130
	100	8.0	2	423	846
	101	8.0	1	111	111
	102	8.0	2	443	886
	103	8.0	1	171	171
	104	8.0	2	364	728
	105	8.0	5	384	1920
	106	8.0	1	166	166
	107	8.0	1	176	176
	108	8.0	4	384	1536
	109	8.0	2	404	808
	110	8.0	1	173	173
	111	8.0	4	326	1304
	112	8.0	3	346	1038
	113	8.0	1	142	142
	114	8.0	2	317	951
	115	8.0	1	140	140
	116	8.0	1	181	181
	117	8.0	2	372	744
	118	8.0	1	133	133
	119	8.0	1	181	181
	120	8.0	3	429	1287
	121	8.0	2	178	356
	122	8.0	3	366	1098
	123	8.0	1	188	188
	124	8.0	2	315	630
	125	8.0	2	316	632
	126	8.0	2	416	832
	127	8.0	1	132	132
	128	8.0	3	485	1455
	129	8.0	1	193	193
	130	8.0	3	482	1446
	131	8.0	1	215	215
	132	8.0	2	497	994
	133	8.0	3	477	1431
	134	8.0	3	457	1371
	135	8.0	2	178	356
	136	8.0	2	503	1006
	137	8.0	2	387	774
	138	8.0	6	387	2322
	139	8.0	3	816	2448
	140	8.0	4	157	628
	141	8.0	1	146	146
	142	8.0	2	195	390
	143	8.0	1	195	195
	144	8.0	1	349	349
	145	8.0	2	127	254
	146	8.0	2	141	282
	147	8.0	2	105	210
	148	8.0	2	142	284
	149	10.0	1	1760	1760
	150	10.0	1	154	154
	151	10.0	2	477	954
	152	10.0	1	167	167
	153	10.0	1	229	229
	154	10.0	2	232	464
	155	10.0	1	193	193
	156	10.0	2	272	544
	157	10.0	2	365	730
	158	10.0	8	301	2408
	159	10.0	2	738	1476
	160	10.0	2	772	1544
	161	10.0	2	863	1726
	162	10.0	3	863	2589
	163	10.0	2	197	394
	164	10.0	1	200	200
	165	10.0	3	260	780
	166	10.0	3	846	2538
	167	10.0	12	603	7236
	168	10.0	1	1004	1004
	169	10.0	1	166	166
	170	10.0	2	490	980
	171	10.0	2	502	1004
	172	10.0	6	444	2664
	173	10.0	4	433	1732
	174	12.5	1	233	233
	175	12.5	1	235	235
	176	12.5	2	315	630
	177	12.5	2	226	452
	178	12.5	2	230	460
	179	12.5	4	286	1144
	180	12.5	4	290	1160
	181	12.5	2	815	1630
	182	12.5	2	445	890
	183	12.5	2	851	1702
	184	12.5	2	200	400
	185	12.5	2	405	810
	186	12.5	2	340	1020
	187	12.5	1	205	205
	188	12.5	2	265	530
	189	12.5	1	204	204
	190	12.5	2	424	848
	191	12.5	2	424	848
	192	12.5	2	200	400
	193	12.5	1	200	200
	194	12.5	1	260	520
	195	12.5	1	231	231
	196	12.5	2	316	632
	197	12.5	2	316	632
	198	20.0	1	285	285
	199	20.0	2	405	810
	200	20.0	2	326	652
	201	20.0	2	398	796
	202	20.0	1	285	285
	203	20.0	2	405	810

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	986.2	427.6
	10.0	384.2	260.5
	12.5	162.1	171.8
	16.0	5.8	10.1
	20.0	33.1	89.8
CA60	5.0	1362.5	231
PESO TOTAL (kg)			
CA50	960		
CA60	231		

Volume de concreto (C-25) = 15.40 m³
Área de forma = 161.49 m²

1 DETALHAMENTO VIGAS DO PAVIMENTO SUPERIOR

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL:
GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA:
33/50

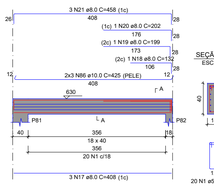
CONTEÚDO:
PLANTA DETALHAMENTO DE VIGAS PAVIMENTO SUPERIOR

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

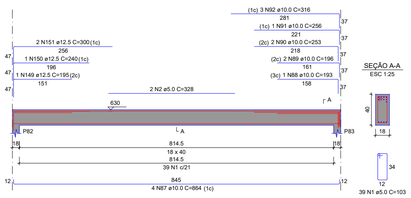
FOLHA: A1

PROTOCOLO ADMINISTRATIVO
0943
ASSINADO ELETRONICAMENTE

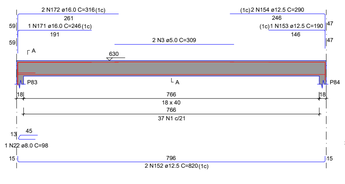
V58
ESC 1:50



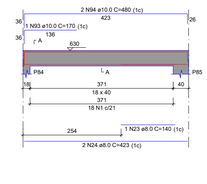
V59
ESC 1:50



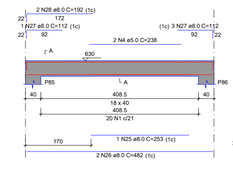
V60
ESC 1:50



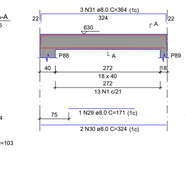
V61
ESC 1:50



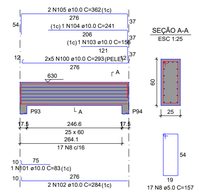
V62
ESC 1:50



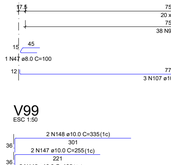
V63
ESC 1:50



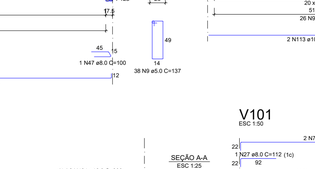
V68
ESC 1:50



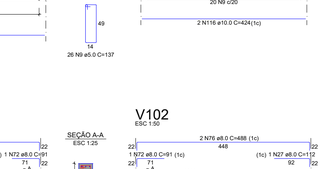
V64
ESC 1:50



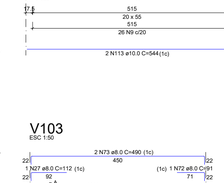
V65
ESC 1:50



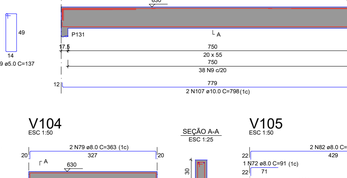
V66
ESC 1:50



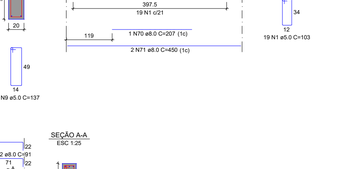
V67
ESC 1:50



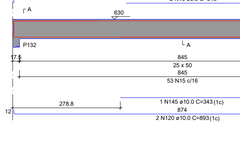
V69
ESC 1:50



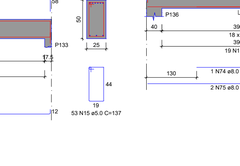
V70
ESC 1:50



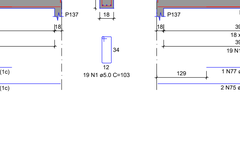
V71
ESC 1:50



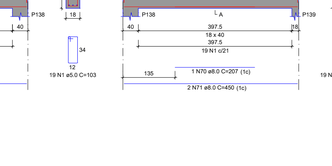
V72
ESC 1:50



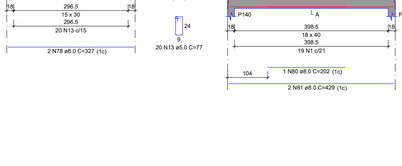
V73
ESC 1:50



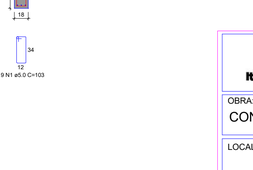
V74
ESC 1:50



V75
ESC 1:50



V76
ESC 1:50



V77
ESC 1:50



V78
ESC 1:50



V80
ESC 1:50



V81
ESC 1:50

V82
ESC 1:50

V83
ESC 1:50

V84
ESC 1:50



V85
ESC 1:50

V86
ESC 1:50

V88
ESC 1:50

V89
ESC 1:50

V90
ESC 1:50

V91
ESC 1:50

V92
ESC 1:50

V114
ESC 1:50

V94
ESC 1:50

V95
ESC 1:50

V96
ESC 1:50

V97
ESC 1:50

V98
ESC 1:50

V100
ESC 1:50

V99
ESC 1:50

V101
ESC 1:50

V102
ESC 1:50

V103
ESC 1:50

V104
ESC 1:50

V105
ESC 1:50

1 DETALHAMENTO VIGAS DO PAVIMENTO SUPERIOR

RELAÇÃO DO AÇO

V58 V59 V60
V61 V62 V63
V64 V65 V66
V67 V68 V69
V70 V71 V72
V73 V74 V75
V76 V77 V78
V80 V81 V82
V83 V84 V85
V86 V88 V89
V90 V91 V92
V94 V95 V96
V98 V99 V100
V101 V102 V103
V104 V105 V114

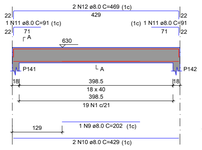
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	265	103	27295
	2	5.0	2	328	656
	3	5.0	2	309	618
	4	5.0	2	238	476
	5	5.0	87	153	13311
	6	5.0	2	331	662
	7	5.0	2	329	658
	8	5.0	92	157	14444
	9	5.0	298	137	40826
	10	5.0	38	117	4446
	11	5.0	2	273	546
	12	5.0	47	141	6627
	13	5.0	354	77	27258
	14	5.0	2	313	626
	15	5.0	53	137	7261
	16	5.0	2	348	696
	17	8.0	3	408	1224
	18	8.0	1	132	132
	19	8.0	1	169	169
	20	8.0	1	359	359
	21	8.0	3	458	1374
	22	8.0	1	98	98
	23	8.0	1	140	140
	24	8.0	2	423	846
	25	8.0	1	253	253
	26	8.0	2	482	964
	27	8.0	8	112	896
	28	8.0	2	192	384
	29	8.0	1	171	171
	30	8.0	2	324	648
	31	8.0	3	364	1092
	32	8.0	1	153	153
	33	8.0	2	315	630
	34	8.0	3	324	972
	35	8.0	2	869	1738
	36	8.0	2	714	1428
	37	8.0	1	123	123
	38	8.0	2	178	356
	39	8.0	2	195	390
	40	8.0	2	275	550
	41	8.0	1	304	304
	42	8.0	2	712	1424
	43	8.0	2	194	388
	44	8.0	2	274	548
	45	8.0	1	125	125
	46	8.0	2	180	360
	47	8.0	1	100	100
	48	8.0	1	263	263
	49	8.0	2	583	1166
	50	8.0	1	102	102
	51	8.0	4	532	2128
	52	8.0	1	146	146
	53	8.0	1	145	145
	54	8.0	1	583	1166
	55	8.0	3	395	1185
	56	8.0	3	627	1881
	57	8.0	1	154	154
	58	8.0	1	132	132
	59	8.0	2	649	1298
	60	8.0	1	146	146
	61	8.0	1	140	140
	62	8.0	2	583	1166
	63	8.0	2	412	824
	64	8.0	3	263	789
	65	8.0	2	411	822
	66	8.0	1	158	158
	67	8.0	1	215	215
	68	8.0	2	218	436
	69	8.0	2	268	536
	70	8.0	2	207	414
	71	8.0	4	450	1800
	72	8.0	6	91	546
	73	8.0	4	490	1960
	74	8.0	1	195	195
	75	8.0	4	448	1792
	76	8.0	4	488	1952
	77	8.0	1	207	207
	78	8.0	2	363	726
	79	8.0	2	202	404
	80	8.0	1	202	202
	81	8.0	2	429	858
	82	8.0	2	469	938
	83	8.0	1	72	72
	84	8.0	2	223	446
	85	8.0	3	263	789
	86	10.0	6	425	2550
	87	10.0	4	864	3456
	88	10.0	1	193	193
	89	10.0	2	196	392
	90	10.0	2	253	506
	91	10.0	1	256	256
	92	10.0	1	115	115
	93	10.0	1	170	170
	94	10.0	2	480	960
	95	10.0	20	506	10120
	96	10.0	2	258	516
	97	10.0	4	489	1956
	98	10.0	4	175	700
	99	10.0	8	278	2224
	100	10.0	20	293	5860
	101	10.0	1	83	166
	102	10.0	4	284	1136
	103	10.0	1	156	156
	104	10.0	1	241	241
	105	10.0	2	362	724
	106	10.0	6	112	672
	107	10.0	2	842	1684
	108	10.0	7	243	1701
	109	10.0	4	302	1208
	110	10.0	4	233	466
	111	10.0	4	237	948
	112	10.0	8	850	3400
	113	10.0	8	544	4352
	114	10.0	1	149	149
	115	10.0	2	607	1214
	116	10.0	4	424	1696
	117	10.0	4	495	1980
	118	10.0	1	151	151
	119	10.0	2	604	1208
	120	10.0	6	893	5358
	121	10.0	9	201	1809
	122	10.0	9	207	1863
	123	10.0	3	616	1848
	124	10.0	1	249	249
	125	10.0	4	552	2208
	126	10.0	2	422	844
	127	10.0	4	410	1640
	128	10.0	1	171	171
	129	10.0	1	231	231
	130	10.0	2	462	924
	131	10.0	3	200	600
	132	10.0	3	615	1845
	133	10.0	1	254	254
	134	10.0	1	186	186
	135	10.0	2	190	380
	136	10.0	2	459	918
	137	10.0	2	457	914
	138	10.0	1	363	726
	139	10.0	1	149	149
	140	10.0	2	607	1214
	141	10.0	1	151	151
	142	10.0	2	604	1208
	143	10.0	2	221	442
	144	10.0	2	281	562
	145	10.0	1	343	343
	146	10.0	2	195	390
	147	10.0	2	255	510
	148	10.0	2	335	670
	149	12.5	1	195	195
	150	12.5	1	240	240
	151	12.5	2	345	690
	152	12.5	2	820	1640
	153	12.5	1	190	190
	154	12.5	2	290	580
	155	12.5	4	803	3212
	156	12.5	2	234	468
	157	12.5	1	290	290
	158	12.5	2	294	588
	159	12.5	3	255	765
	160	12.5	2	315	630
	161	12.5	2	866	1732
	162	12.5	1	218	218
	163	12.5	2	318	636
	164	12.5	4	545	2180
	165	12.5	1	231	231
	166	12.5	2	483	966
	167	12.5	2	493	986
	168	12.5	1	230	230
	169	12.5	2	489	978
	170	12.5	2	483	966
	171	16.0	1	246	246
	172	16.0	2	316	632
	173	16.0	2	306	612
	174	16.0	1	267	267
	175	16.0	1	271	271
	176	16.0	2	986	1972
	177	16.0	1	219	219
	178	16.0	2	639	1278
	179	16.0	1	218	218
	180	16.0	2	637	1274
	181	16.0	2	300	600

RESUMO DO AÇO

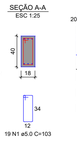
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)

PROCESSO ADMINISTRATIVO
0944
ASSINADO ELETRONICAMENTE

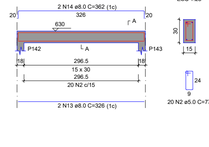
V106
ESC 1:50



SEÇÃO A-A
ESC 1:25



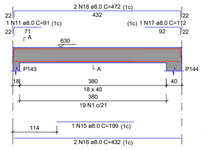
V107
ESC 1:50



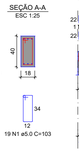
SEÇÃO A-A
ESC 1:25



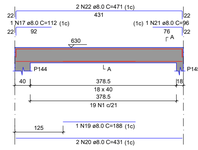
V108
ESC 1:50



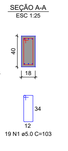
SEÇÃO A-A
ESC 1:25



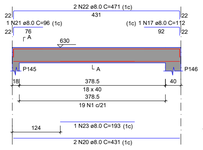
V109
ESC 1:50



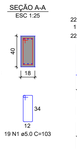
SEÇÃO A-A
ESC 1:25



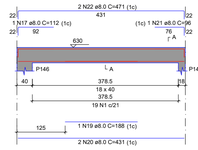
V110
ESC 1:50



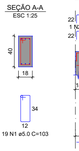
SEÇÃO A-A
ESC 1:25



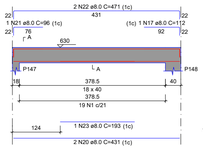
V111
ESC 1:50



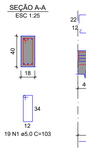
SEÇÃO A-A
ESC 1:25



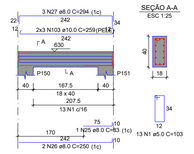
V112
ESC 1:50



SEÇÃO A-A
ESC 1:25

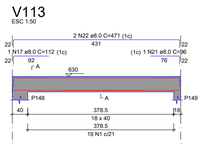


V115
ESC 1:50

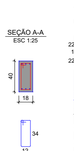


SEÇÃO A-A
ESC 1:25

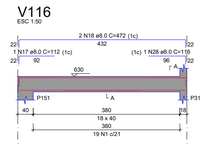
V113
ESC 1:50



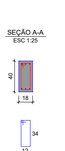
SEÇÃO A-A
ESC 1:25



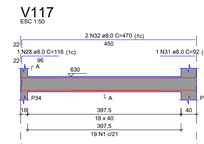
V116
ESC 1:50



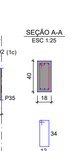
SEÇÃO A-A
ESC 1:25



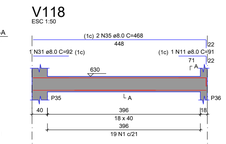
V117
ESC 1:50



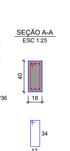
SEÇÃO A-A
ESC 1:25



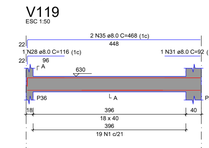
V118
ESC 1:50



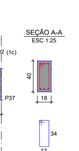
SEÇÃO A-A
ESC 1:25



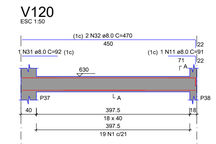
V119
ESC 1:50



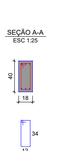
SEÇÃO A-A
ESC 1:25



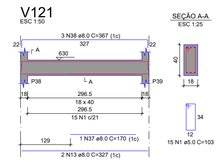
V120
ESC 1:50



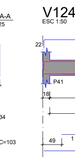
SEÇÃO A-A
ESC 1:25



V121
ESC 1:50

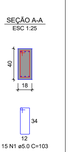


SEÇÃO A-A
ESC 1:25

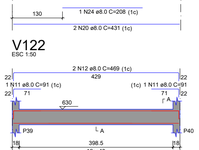


V124
ESC 1:50

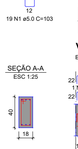
SEÇÃO A-A
ESC 1:25



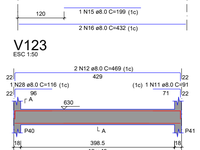
V122
ESC 1:50



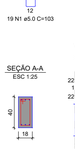
SEÇÃO A-A
ESC 1:25



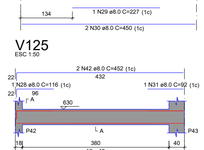
V123
ESC 1:50



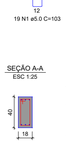
SEÇÃO A-A
ESC 1:25



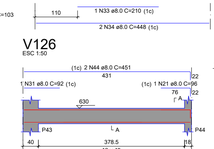
V125
ESC 1:50



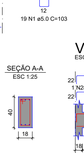
SEÇÃO A-A
ESC 1:25



V126
ESC 1:50



SEÇÃO A-A
ESC 1:25



V127
ESC 1:50

SEÇÃO A-A
ESC 1:25

V128
ESC 1:50

SEÇÃO A-A
ESC 1:25

V129
ESC 1:50

SEÇÃO A-A
ESC 1:25

V135
ESC 1:50

SEÇÃO A-A
ESC 1:25

V130
ESC 1:50

SEÇÃO A-A
ESC 1:25

V131
ESC 1:50

SEÇÃO A-A
ESC 1:25

V132
ESC 1:50

SEÇÃO A-A
ESC 1:25

V133
ESC 1:50

SEÇÃO A-A
ESC 1:25

V134
ESC 1:50

SEÇÃO A-A
ESC 1:25

V136
ESC 1:50

SEÇÃO A-A
ESC 1:25

V137
ESC 1:50

SEÇÃO A-A
ESC 1:25

V138
ESC 1:50

SEÇÃO A-A
ESC 1:25

V139
ESC 1:50

SEÇÃO A-A
ESC 1:25

V140
ESC 1:50

SEÇÃO A-A
ESC 1:25

V141
ESC 1:50

SEÇÃO A-A
ESC 1:25

V142
ESC 1:50

SEÇÃO A-A
ESC 1:25

V145
ESC 1:50

SEÇÃO A-A
ESC 1:25

V146
ESC 1:50

SEÇÃO A-A
ESC 1:25

V147
ESC 1:50

SEÇÃO A-A
ESC 1:25

V148
ESC 1:50

SEÇÃO A-A
ESC 1:25

V149
ESC 1:50

SEÇÃO A-A
ESC 1:25

V150
ESC 1:50

SEÇÃO A-A
ESC 1:25

V151
ESC 1:50

SEÇÃO A-A
ESC 1:25

V152
ESC 1:50

SEÇÃO A-A
ESC 1:25

V153
ESC 1:50

SEÇÃO A-A
ESC 1:25

V154
ESC 1:50

SEÇÃO A-A
ESC 1:25

V155
ESC 1:50

SEÇÃO A-A
ESC 1:25

V156
ESC 1:50

SEÇÃO A-A
ESC 1:25

V157
ESC 1:50

SEÇÃO A-A
ESC 1:25

V158
ESC 1:50

SEÇÃO A-A
ESC 1:25

V159
ESC 1:50

SEÇÃO A-A
ESC 1:25

V160
ESC 1:50

SEÇÃO A-A
ESC 1:25

V161
ESC 1:50

SEÇÃO A-A
ESC 1:25

V162
ESC 1:50

SEÇÃO A-A
ESC 1:25

V163
ESC 1:50

SEÇÃO A-A
ESC 1:25

V164
ESC 1:50

SEÇÃO A-A
ESC 1:25

V165
ESC 1:50

SEÇÃO A-A
ESC 1:25

V166
ESC 1:50

SEÇÃO A-A
ESC 1:25

V167
ESC 1:50

(1c) 3 N96 ø8.0

PROCESSO ADMINISTRATIVO
0945
ASSINADO ELETRONICAMENTE



RELAÇÃO DO AÇO

V172	V173	V174
V175	V176	V177
V178	V179	V180
V181	V182	V183
V184	V185	V186
V187	V188	V189
V190	V191	V192
V193	V194	V195
V196	V197	V198
V199	V200	V201
V202	V203	V204
V205	V206	V207
V208	V209	V210
V211	V212	V213
V214	V215	V216
V217	V218	V219
V220	V221	V222
V223	V224	V225
V226	V227	V229
V230	V231	V232
V233	V234	V235
V236	V237	V238
V239	V240	V241
V242	V243	V244
V245		

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	288	77	22176
	2	5.0	489	103	50367
	3	5.0	144	113	16272
	4	5.0	2	333	666
	5	5.0	52	133	6916
	6	5.0	4	230	920
	7	5.0	33	157	5181
	8	5.0	21	117	2457
	9	5.0	2	199	398
	10	8.0	2	556	1112
	11	8.0	2	592	1184
	12	8.0	14	105	1470
	13	8.0	2	119	238
	14	8.0	2	207	414
	15	8.0	4	334	1336
	16	8.0	6	356	2136
	17	8.0	2	180	360
	18	8.0	4	329	1316
	19	8.0	6	373	2238
	20	8.0	3	142	426
	21	8.0	2	379	758
	22	8.0	2	415	830
	23	8.0	1	231	231
	24	8.0	2	460	920
	25	8.0	1	145	145
	26	8.0	1	112	112
	27	8.0	2	503	1006
	28	8.0	1	95	95
	29	8.0	2	425	850
	30	8.0	10	127	1270
	31	8.0	9	141	1269
	32	8.0	1	183	183
	33	8.0	2	332	664
	34	8.0	3	355	1065
	35	8.0	1	177	177
	36	8.0	2	331	662
	37	8.0	3	375	1125
	38	8.0	1	213	213
	39	8.0	2	572	1144
	40	8.0	5	351	1755
	41	8.0	3	391	1173
	42	8.0	1	201	201
	43	8.0	2	533	1066
	44	8.0	1	132	132
	45	8.0	1	132	132
	46	8.0	2	553	1106
	47	8.0	2	105	210
	48	8.0	6	127	762
	49	8.0	2	400	1600
	50	8.0	2	436	872
	51	8.0	4	208	832
	52	8.0	6	330	1980
	53	8.0	3	354	1062
	54	8.0	2	183	366
	55	8.0	6	332	1992
	56	8.0	6	376	2256
	57	8.0	1	192	192
	58	8.0	1	154	154
	59	8.0	3	405	1215
	60	8.0	1	100	100
	61	8.0	2	448	896
	62	8.0	6	403	2418
	63	8.0	2	452	904
	64	8.0	3	354	1062
	65	8.0	4	439	1756
	66	8.0	3	98	294
	67	8.0	2	355	710
	68	8.0	3	145	435
	69	8.0	1	296	296
	70	8.0	2	412	824
	71	8.0	6	424	2544
	72	8.0	2	140	280
	73	8.0	2	95	190
	74	8.0	3	609	1827
	75	8.0	3	354	1062
	76	8.0	4	549	2196
	77	8.0	1	120	120
	78	8.0	3	180	540
	79	8.0	4	540	2160
	80	8.0	1	127	127
	81	8.0	2	404	808
	82	8.0	3	357	1071
	83	8.0	3	645	1935
	84	8.0	1	87	87
	85	8.0	2	239	478
	86	8.0	3	279	837
	87	8.0	3	246	738
	88	8.0	3	278	834
	89	8.0	1	264	264
	90	8.0	2	560	1120
	91	10.0	1	160	160
	92	10.0	2	217	434
	93	10.0	2	220	440
	94	10.0	2	265	530
	95	10.0	4	629	2516
	96	10.0	6	442	2652
	97	10.0	2	460	920
	98	10.0	1	523	523
	99	10.0	2	587	1174
	100	10.0	2	150	300
	101	10.0	10	573	5730
	102	10.0	1	94	94
	103	10.0	1	292	292
	104	10.0	1	132	132
	105	10.0	4	575	2300
	106	10.0	3	625	1875
	107	10.0	6	367	2202
	108	10.0	6	648	3888
	109	10.0	3	142	426
	110	10.0	6	187	1122
	111	10.0	6	196	1176
	112	10.0	6	694	4164
	113	10.0	6	368	2208
	114	10.0	6	550	3300
	115	10.0	2	533	1066
	116	10.0	1	201	201
	117	10.0	1	162	162
	118	10.0	3	576	1728
	119	10.0	4	867	3468
	120	10.0	1	862	862
	121	10.0	4	869	3476
	122	10.0	8	567	4536
	123	10.0	1	179	179
	124	10.0	2	182	364
	125	10.0	2	197	394
	126	10.0	2	695	1390
	127	12.5	1	217	217
	128	12.5	2	899	1798
	129	12.5	4	223	892
	130	12.5	2	250	500
	131	12.5	2	250	500
	132	12.5	1	204	204
	133	12.5	2	260	520
	134	12.5	1	264	264
	135	12.5	2	329	658
	136	12.5	1	179	179
	137	12.5	2	235	470
	138	12.5	1	239	239
	139	12.5	2	304	608
	140	12.5	1	195	195
	141	12.5	2	594	1188
	142	12.5	2	606	1212
	143	16.0	2	568	1136
	144	16.0	4	881	3524
	145	16.0	1	493	493
	146	16.0	2	261	522
	147	20.0	2	375	750

RESUMO DO AÇO

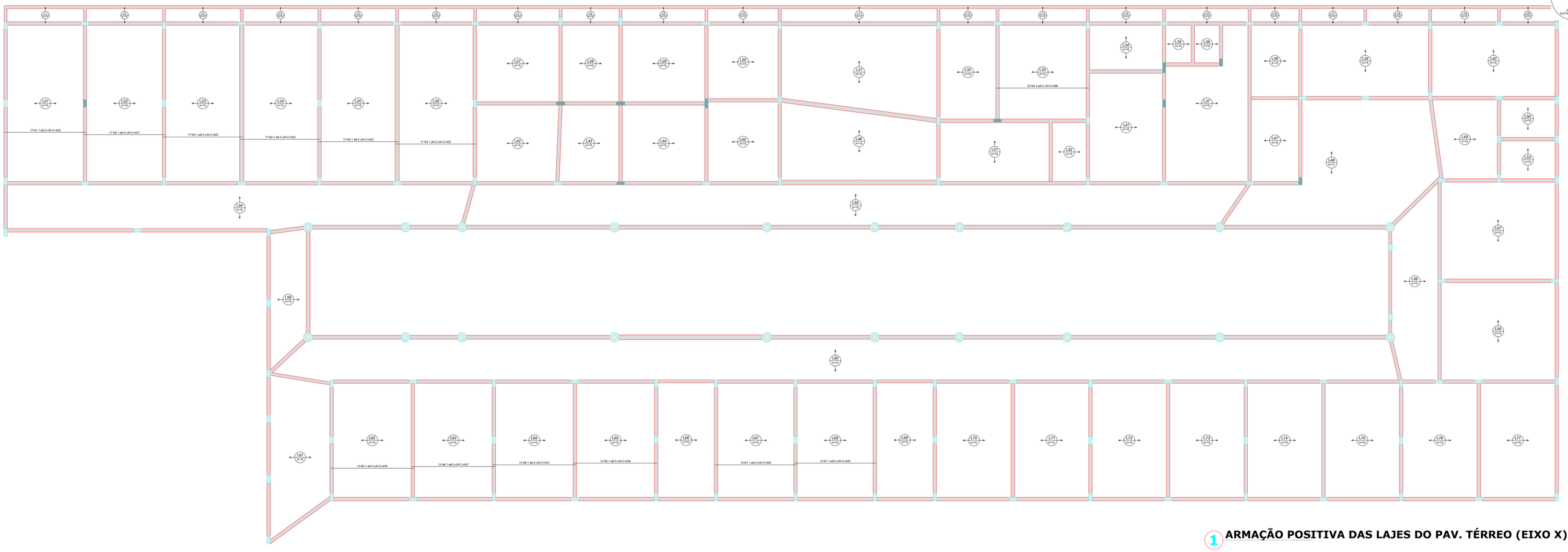
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	232.3	100.8
	10.0	118.3	80.2
	12.5	52.7	55.9
	16.0	7.3	12.6
CA60	5.0	338.4	57.4

PESO TOTAL (kg)

CA50	249.6
CA60	57.4

Volume de concreto (C-25) = 3.67 m³
Área de forma = 38.05 m²

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	267	103	27501
	2	5.0	2	241	482
	3	5.0	40	77	3080
	4	5.0	2	315	630
	5	5.0	19	113	2147
CA50	6	8.0	1	291	291
	7	8.0	2	640	1280
	8	8.0	1	264	264
	9	8.0	2	560	1120
	10	8.0	2	556	1112
	11	8.0	6	238	1428
	12	8.0	6	426	2556
	13	8.0	2	127	254
	14	8.0	2	141	282
	15	8.0	2	98	196
	16	8.0	6	267	1602
	17	8



1 ARMAÇÃO POSITIVA DAS LAJES DO PAV. TÉRREO (EIXO X)

RELAÇÃO DO AÇO

Positivos X

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	8.0	43	429	18447
	2	8.0	17	427	7259
	3	8.0	68	422	28696
	4	8.0	22	486	10692
	5	8.0	26	439	11414
	6	8.0	26	437	11362

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	878.7	381.4

PESO TOTAL (kg)	
CA50	381.4

Volume de concreto (C-25) = 91.07 m³
Área de forma = 0.00 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

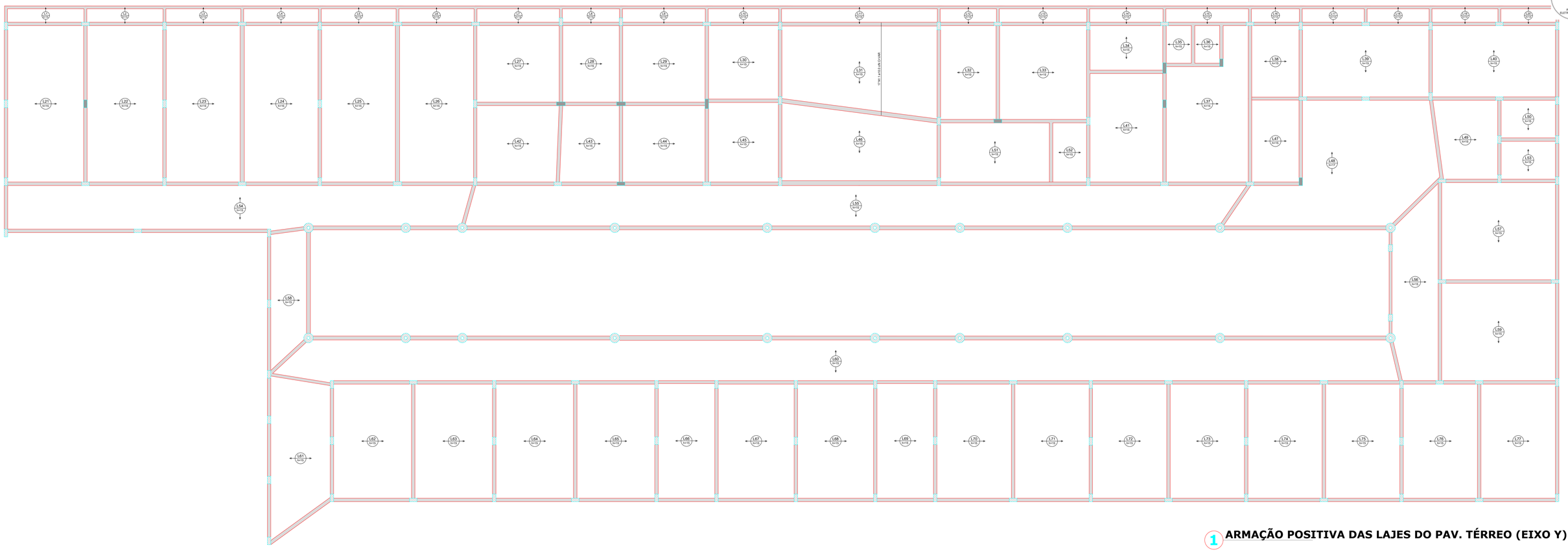
PRANCHA: 37/50

CONTEÚDO: DETALHAMENTO DE LAJES

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0947
ASSINADO ELETRONICAMENTE



1 ARMAÇÃO POSITIVA DAS LAJES DO PAV. TÉRREO (EIXO Y)

RELAÇÃO DO AÇO

Positivos Y

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	10.0	17	VAR	VAR

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	82.5	55.9

PESO TOTAL (kg)	
CA50	55.9

Volume de concreto (C-25) = 0.00 m³
Área de forma = 0.00 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

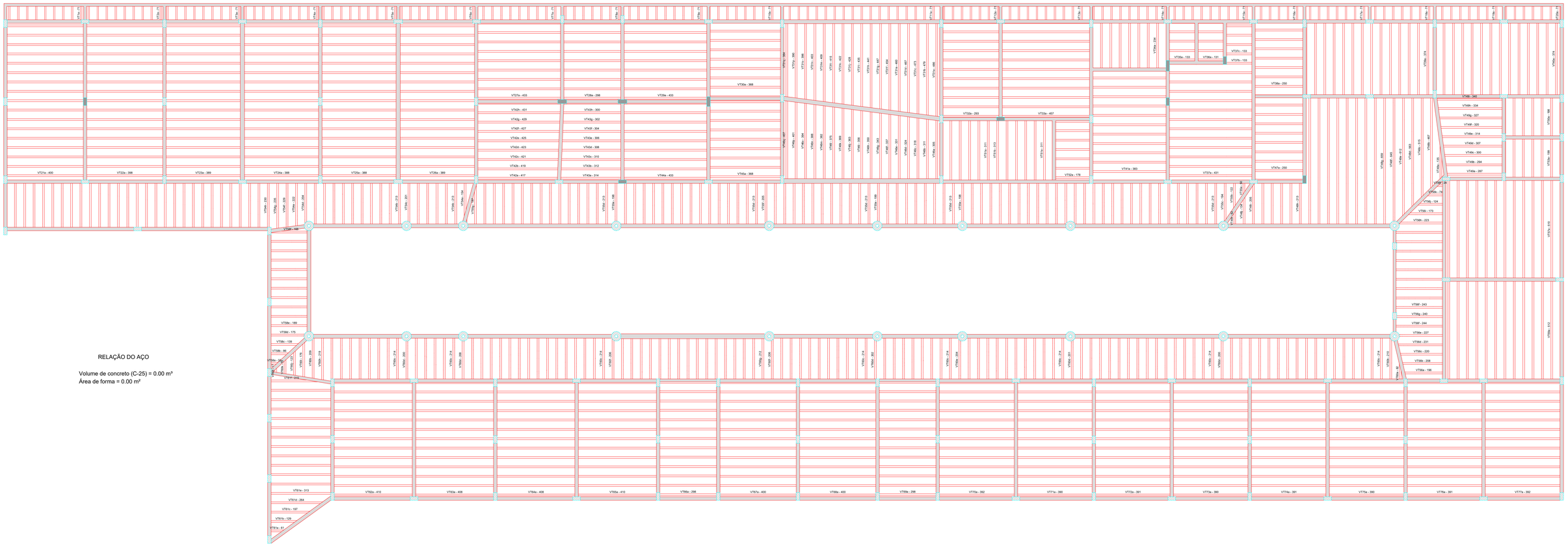
PRANCHA: 38/50

CONTEÚDO: DETALHAMENTO DE LAJES

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0948
ASSINADO ELETRONICAMENTE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VT46q - 324
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VT46t - 305
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VT47c - 311
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VT55n - 184
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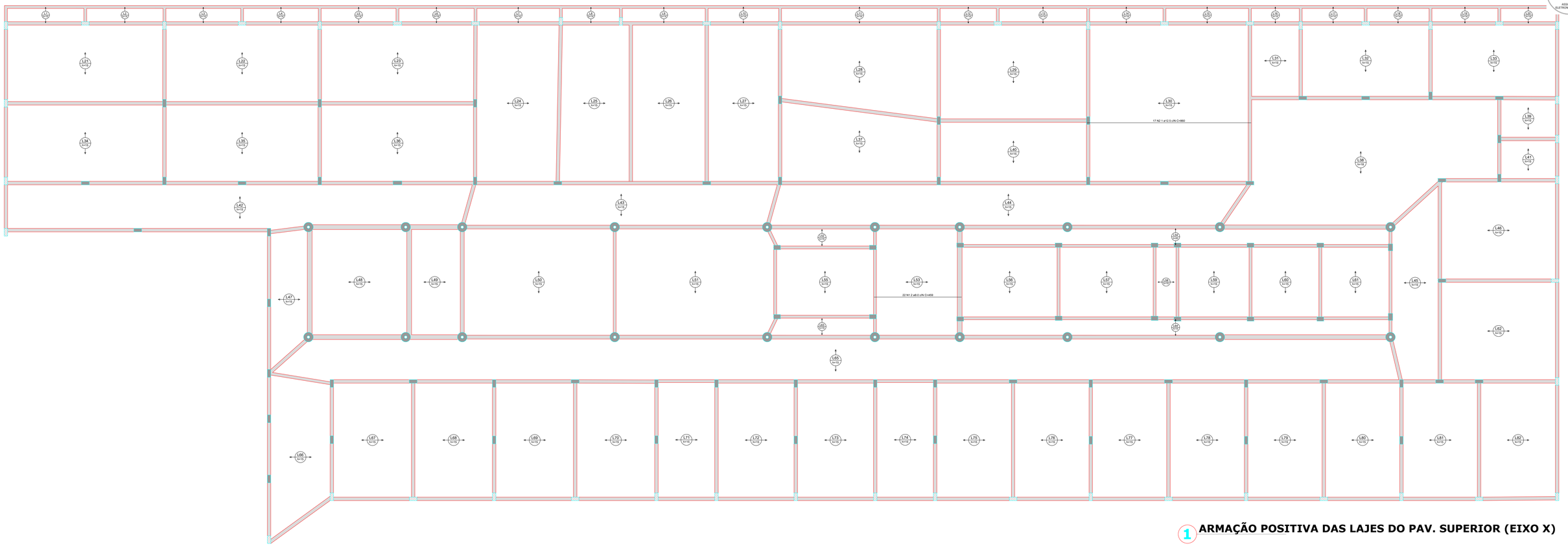
VT69k - 213
VT69



1 ARMAÇÃO POSITIVA DAS LAJES DO PAV. SUPERIOR (EIXO X)

RELAÇÃO DO AÇO

Positivos X

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	8.0	22	459	10098
	2	12.5	17	860	14620

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	101	43.8
	12.5	146.2	154.9

PESO TOTAL (kg)	
CA50	198.8

Volume de concreto (C-25) = 112.48 m³
Área de forma = 0.00 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

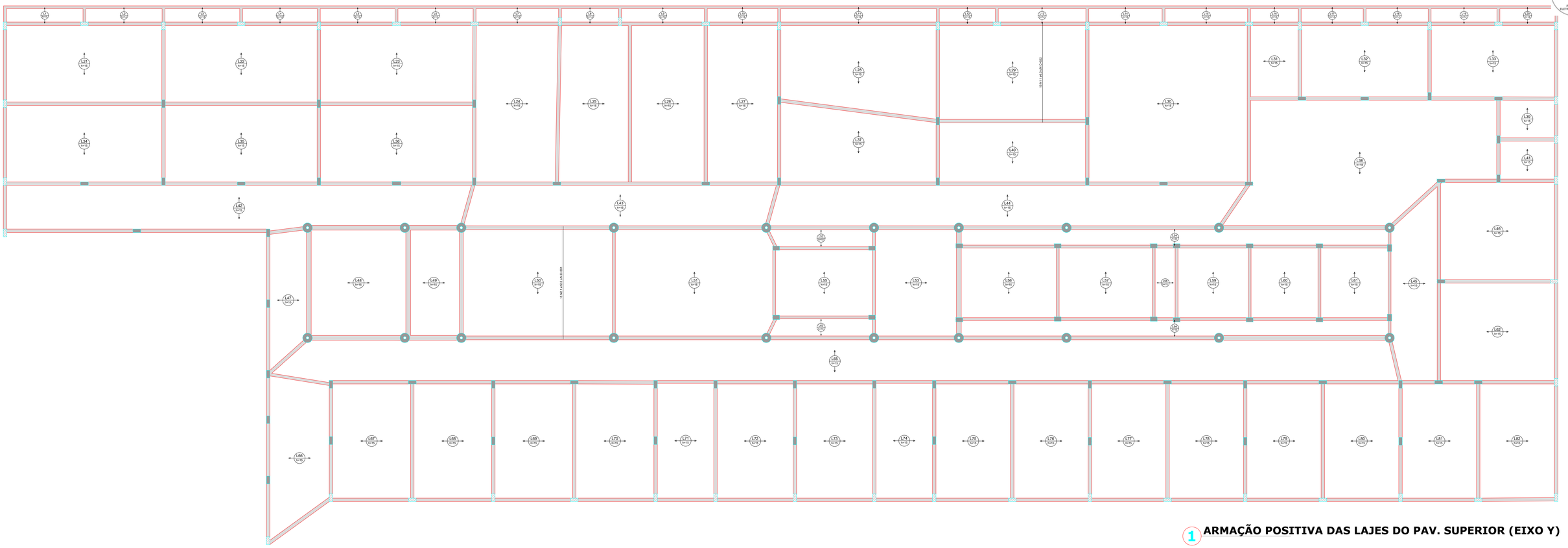
CONTEÚDO: DETALHAMENTO DE LAJES

PRANCHA: 40/50

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO 0949 ASSINADO ELETRONICAMENTE



1 ARMAÇÃO POSITIVA DAS LAJES DO PAV. SUPERIOR (EIXO Y)

RELAÇÃO DO AÇO

Positivos Y

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	15	522	7830
	2	12.5	15	591	8865

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	78.3	21.1
	12.5	88.7	93.9

PESO TOTAL (kg)	
CA50	115

Volume de concreto (C-25) = 0.00 m³
Área de forma = 0.00 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

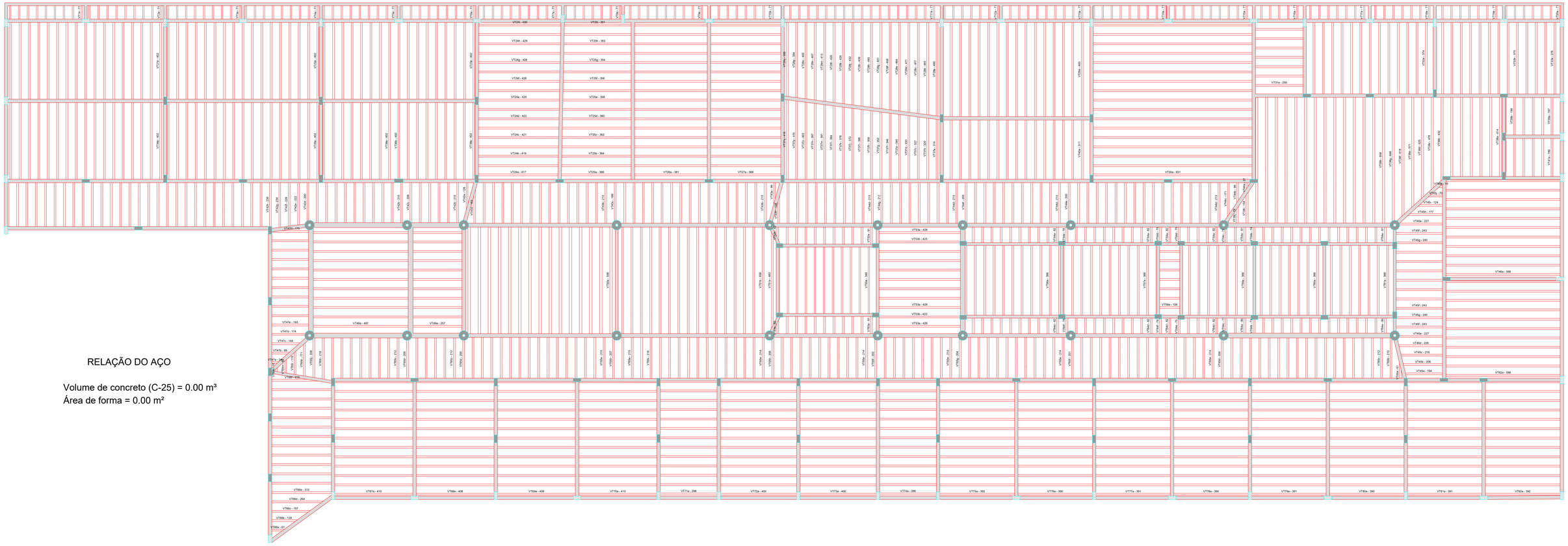
CONTEÚDO: DETALHAMENTO DE LAJES

PRANCHA: 41/50

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0951
ASSINADO ELETRONICAMENTE



RELAÇÃO DO AÇO

Volume de concreto (C-25) = 0.00 m³
Área de forma = 0.00 m²

1 PLANTA VIGÓTAS PRÉ-MOLDADAS PAV. SUPERIOR

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 42/50

CONTEÚDO: DETALHAMENTO DE LAJES

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0952
ASSINADO ELETRONICAMENTE

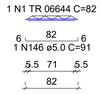
VT1a (9 unidades)
(L1)
ESC 1:50



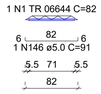
VT2a (9 unidades)
(L2)
ESC 1:50



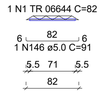
VT3a (9 unidades)
(L3)
ESC 1:50



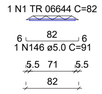
VT4a (9 unidades)
(L4)
ESC 1:50



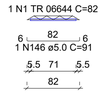
VT5a (9 unidades)
(L5)
ESC 1:50



VT6a (9 unidades)
(L6)
ESC 1:50



VT7a (9 unidades)
(L7)
ESC 1:50



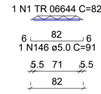
VT8a (7 unidades)
(L8)
ESC 1:50



VT9a (9 unidades)
(L9)
ESC 1:50



VT10a (7 unidades)
(L10)
ESC 1:50



VT11a (17 unidades)
(L11)
ESC 1:50



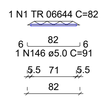
VT12a (7 unidades)
(L12)
ESC 1:50



VT13a (9 unidades)
(L13)
ESC 1:50



VT14a (9 unidades)
(L14)
ESC 1:50



VT15a (9 unidades)
(L15)
ESC 1:50



VT16a (5 unidades)
(L16)
ESC 1:50



VT17a (7 unidades)
(L17)
ESC 1:50



VT18a (7 unidades)
(L18)
ESC 1:50

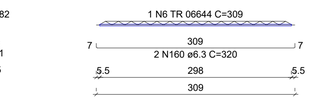


VT19a (7 unidades)
(L19)
ESC 1:50

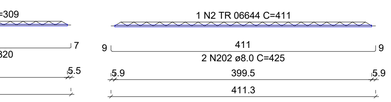


VT20a (7 unidades)
(L20)
ESC 1:50

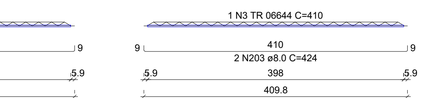
VT28a (8 unidades)
(L28)
ESC 1:50



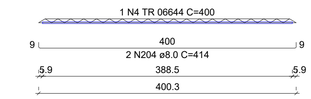
VT21a (17 unidades)
(L21)
ESC 1:50



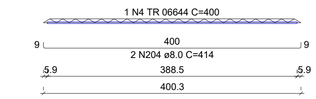
VT22a (17 unidades)
(L22)
ESC 1:50



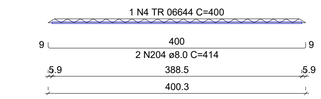
VT23a (17 unidades)
(L23)
ESC 1:50



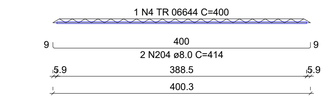
VT24a (17 unidades)
(L24)
ESC 1:50



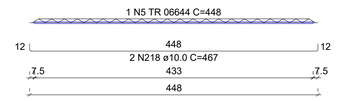
VT25a (17 unidades)
(L25)
ESC 1:50



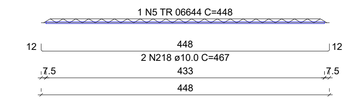
VT26a (17 unidades)
(L26)
ESC 1:50



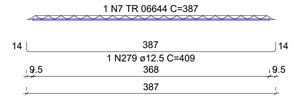
VT27a (8 unidades)
(L27)
ESC 1:50



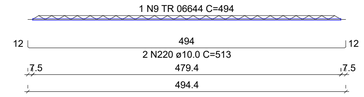
VT29a (8 unidades)
(L29)
ESC 1:50



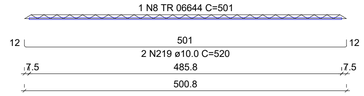
VT30a (7 unidades)
(L30)
ESC 1:50



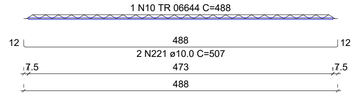
VT31b (1 unidades)
(L31)
ESC 1:50



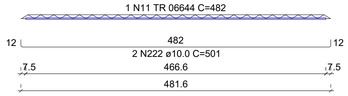
VT31a (1 unidades)
(L31)
ESC 1:50



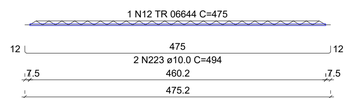
VT31c (1 unidades)
(L31)
ESC 1:50



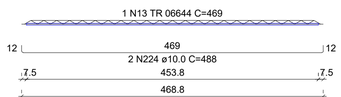
VT31d (1 unidades)
(L31)
ESC 1:50



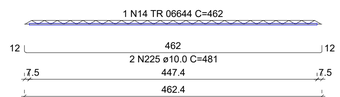
VT31e (1 unidades)
(L31)
ESC 1:50



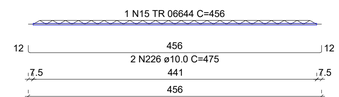
VT31f (1 unidades)
(L31)
ESC 1:50



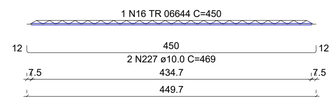
VT31g (1 unidades)
(L31)
ESC 1:50



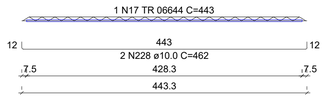
VT31h (1 unidades)
(L31)
ESC 1:50



VT31i (1 unidades)
(L31)
ESC 1:50



VT31j (1 unidades)
(L31)
ESC 1:50



VT31k (1 unidades)
(L31)
ESC 1:50

VT31l (1 unidades)
(L31)
ESC 1:50

VT31m (1 unidades)
(L31)
ESC 1:50

VT31n (1 unidades)
(L31)
ESC 1:50

VT31o (1 unidades)
(L31)
ESC 1:50

VT31p (1 unidades)
(L31)
ESC 1:50

VT31q (1 unidades)
(L31)
ESC 1:50

VT32a (10 unidades)
(L32)
ESC 1:50

VT33a (10 unidades)
(L33)
ESC 1:50

VT34a (7 unidades)
(L34)
ESC 1:50

VT35a (4 unidades)
(L35)
ESC 1:50

VT36a (4 unidades)
(L36)
ESC 1:50

VT37a (12 unidades)
(L37)
ESC 1:50

VT37b (1 unidades)
(L37)
ESC 1:50

VT37c (4 unidades)
(L37)
ESC 1:50

VT38a (7 unidades)
(L38)
ESC 1:50

VT39a (13 unidades)
(L39)
ESC 1:50

VT40a (13 unidades)
(L40)
ESC 1:50

VT41a (11 unidades)
(L41)
ESC 1:50

VT42a (1 unidades)
(L42)
ESC 1:50

VT42b (1 unidades)
(L42)
ESC 1:50

VT42c (1 unidades)
(L42)
ESC 1:50

VT43a (1 unidades)
(L43)
ESC 1:50

VT42d (1 unidades)
(L42)
ESC 1:50

VT42e (1 unidades)
(L42)
ESC 1:50

VT42f (1 unidades)
(L42)
ESC 1:50

VT42g (1 unidades)
(L42)
ESC 1:50

VT42h (1 unidades)
(L42)
ESC 1:50

1 PLANTA DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS DOS PAVIMENTO TÉRREO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 43/50

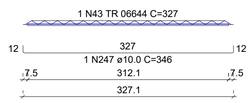
CONTEÚDO:
DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS TÉRREO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

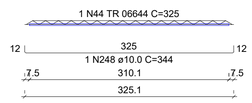
FOLHA: A1

PROCESSO ADMINISTRATIVO
0953
ASSINADO ELETRONICAMENTE

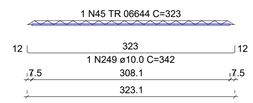
VT43b (1 unidades)
(L43)
ESC 1:50



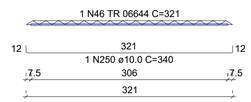
VT43c (1 unidades)
(L43)
ESC 1:50



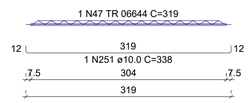
VT43d (1 unidades)
(L43)
ESC 1:50



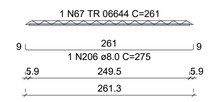
VT43e (1 unidades)
(L43)
ESC 1:50



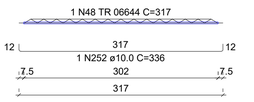
VT43f (1 unidades)
(L43)
ESC 1:50



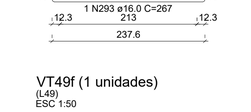
VT47a (8 unidades)
(L47)
ESC 1:50



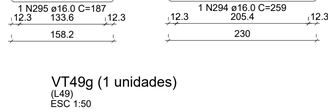
VT43g (1 unidades)
(L43)
ESC 1:50



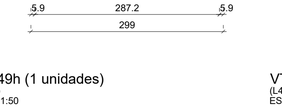
VT43h (1 unidades)
(L43)
ESC 1:50



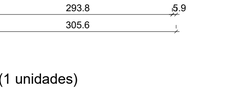
VT44a (8 unidades)
(L44)
ESC 1:50



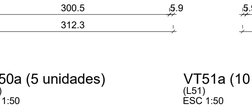
VT45a (9 unidades)
(L45)
ESC 1:50



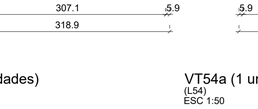
VT46a (1 unidades)
(L46)
ESC 1:50



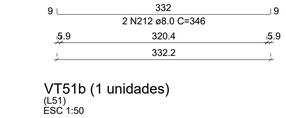
VT46b (1 unidades)
(L46)
ESC 1:50



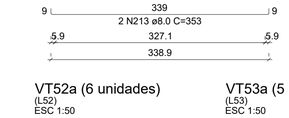
VT46c (1 unidades)
(L46)
ESC 1:50



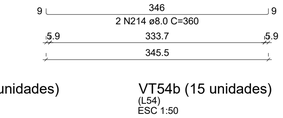
VT46d (1 unidades)
(L46)
ESC 1:50



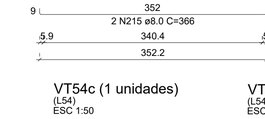
VT46e (1 unidades)
(L46)
ESC 1:50



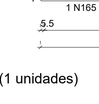
VT46f (1 unidades)
(L46)
ESC 1:50



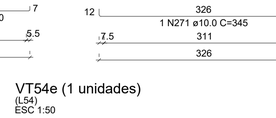
VT46g (1 unidades)
(L46)
ESC 1:50



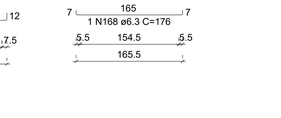
VT48k (1 unidades)
(L48)
ESC 1:50



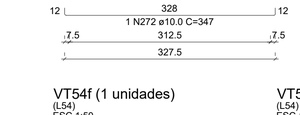
VT46h (1 unidades)
(L46)
ESC 1:50



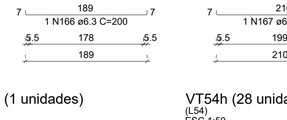
VT46i (1 unidades)
(L46)
ESC 1:50



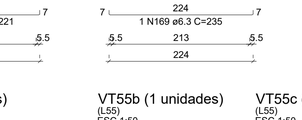
VT46j (1 unidades)
(L46)
ESC 1:50



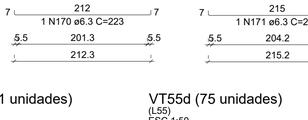
VT46k (1 unidades)
(L46)
ESC 1:50



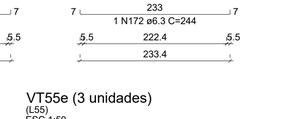
VT46l (1 unidades)
(L46)
ESC 1:50



VT46m (1 unidades)
(L46)
ESC 1:50



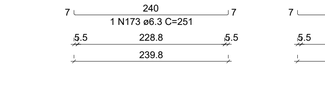
VT46n (1 unidades)
(L46)
ESC 1:50



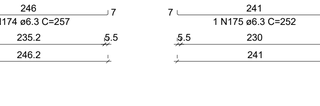
VT46o (1 unidades)
(L46)
ESC 1:50



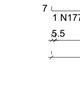
VT46p (1 unidades)
(L46)
ESC 1:50



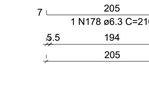
VT46q (1 unidades)
(L46)
ESC 1:50



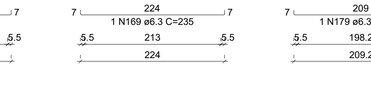
VT55a (1 unidades)
(L55)
ESC 1:50



VT48a (1 unidades)
(L48)
ESC 1:50



VT48b (1 unidades)
(L48)
ESC 1:50



VT48c (1 unidades)
(L48)
ESC 1:50



VT48d (1 unidades)
(L48)
ESC 1:50

VT48e (1 unidades)
(L48)
ESC 1:50

VT48f (1 unidades)
(L48)
ESC 1:50

VT48g (9 unidades)
(L48)
ESC 1:50

VT48h (5 unidades)
(L48)
ESC 1:50

VT48j (1 unidades)
(L48)
ESC 1:50

VT48i (1 unidades)
(L48)
ESC 1:50

VT49a (1 unidades)
(L49)
ESC 1:50

VT49b (1 unidades)
(L49)
ESC 1:50

VT49c (1 unidades)
(L49)
ESC 1:50

VT49d (1 unidades)
(L49)
ESC 1:50

VT49e (1 unidades)
(L49)
ESC 1:50

VT49f (1 unidades)
(L49)
ESC 1:50

VT49g (1 unidades)
(L49)
ESC 1:50

VT49h (1 unidades)
(L49)
ESC 1:50

VT49i (1 unidades)
(L49)
ESC 1:50

VT50a (5 unidades)
(L50)
ESC 1:50

VT51a (10 unidades)
(L51)
ESC 1:50

VT54a (1 unidades)
(L54)
ESC 1:50

VT51b (1 unidades)
(L51)
ESC 1:50

VT52a (6 unidades)
(L52)
ESC 1:50

VT53a (5 unidades)
(L53)
ESC 1:50

VT54b (15 unidades)
(L54)
ESC 1:50

VT54c (1 unidades)
(L54)
ESC 1:50

VT54d (1 unidades)
(L54)
ESC 1:50

VT54e (1 unidades)
(L54)
ESC 1:50

VT54f (1 unidades)
(L54)
ESC 1:50

VT54g (1 unidades)
(L54)
ESC 1:50

VT54h (28 unidades)
(L54)
ESC 1:50

VT55b (1 unidades)
(L55)
ESC 1:50

VT55c (1 unidades)
(L55)
ESC 1:50

VT55d (75 unidades)
(L55)
ESC 1:50

VT55e (3 unidades)
(L55)
ESC 1:50

1 PLANTA DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS DOS PAVIMENTO TÉRREO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 44/50

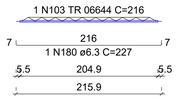
CONTEÚDO:
DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS TÉRREO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

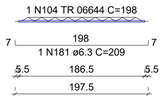
FOLHA: A1

PROCESSO ADMINISTRATIVO
0954
ASSINADO ELETRONICAMENTE

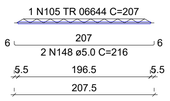
VT55f (1 unidades)
(L55)
ESC 1:50



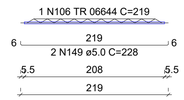
VT55g (1 unidades)
(L55)
ESC 1:50



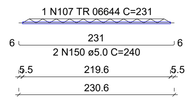
VT56a (1 unidades)
(L56)
ESC 1:50



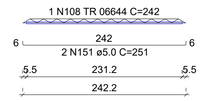
VT56b (1 unidades)
(L56)
ESC 1:50



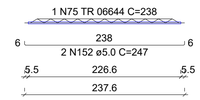
VT56c (1 unidades)
(L56)
ESC 1:50



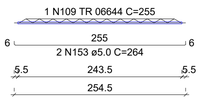
VT56d (1 unidades)
(L56)
ESC 1:50



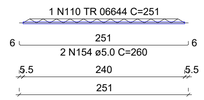
VT56e (1 unidades)
(L56)
ESC 1:50



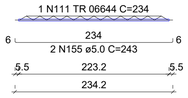
VT56f (10 unidades)
(L56)
ESC 1:50



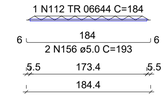
VT56g (1 unidades)
(L56)
ESC 1:50



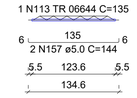
VT56h (1 unidades)
(L56)
ESC 1:50



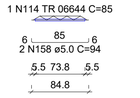
VT56i (1 unidades)
(L56)
ESC 1:50



VT56j (1 unidades)
(L56)
ESC 1:50



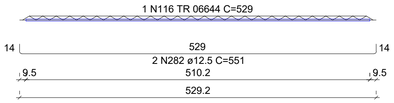
VT56k (1 unidades)
(L56)
ESC 1:50



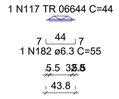
VT56l (1 unidades)
(L56)
ESC 1:50



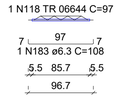
VT57a (12 unidades)
(L57)
ESC 1:50



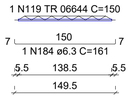
VT58a (1 unidades)
(L58)
ESC 1:50



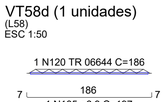
VT58b (1 unidades)
(L58)
ESC 1:50



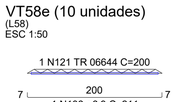
VT58c (1 unidades)
(L58)
ESC 1:50



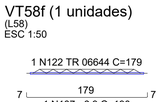
VT58d (1 unidades)
(L58)
ESC 1:50



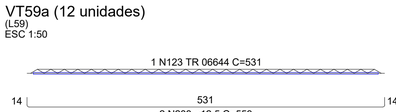
VT58e (10 unidades)
(L58)
ESC 1:50



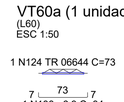
VT58f (1 unidades)
(L58)
ESC 1:50



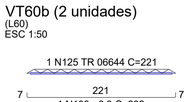
VT59a (12 unidades)
(L59)
ESC 1:50



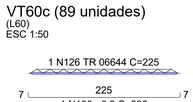
VT60a (1 unidades)
(L60)
ESC 1:50



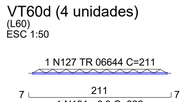
VT60b (2 unidades)
(L60)
ESC 1:50



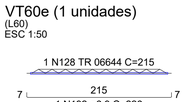
VT60c (89 unidades)
(L60)
ESC 1:50



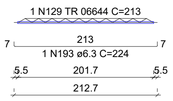
VT60d (4 unidades)
(L60)
ESC 1:50



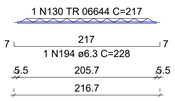
VT60e (1 unidades)
(L60)
ESC 1:50



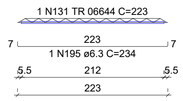
VT60f (1 unidades)
(L60)
ESC 1:50



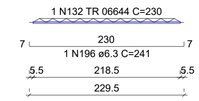
VT60g (2 unidades)
(L60)
ESC 1:50



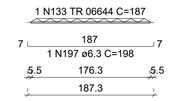
VT60h (16 unidades)
(L60)
ESC 1:50



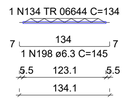
VT60i (1 unidades)
(L60)
ESC 1:50



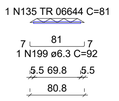
VT60j (1 unidades)
(L60)
ESC 1:50



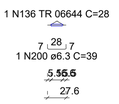
VT60k (1 unidades)
(L60)
ESC 1:50



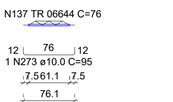
VT60l (1 unidades)
(L60)
ESC 1:50



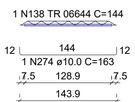
VT60m (1 unidades)
(L60)
ESC 1:50



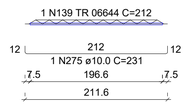
VT61a (1 unidades)
(L61)
ESC 1:50



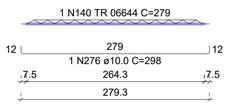
VT61b (1 unidades)
(L61)
ESC 1:50



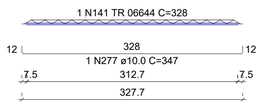
VT61c (1 unidades)
(L61)
ESC 1:50



VT61d (1 unidades)
(L61)
ESC 1:50



VT61e (12 unidades)
(L61)
ESC 1:50



VT61f (1 unidades)
(L61)
ESC 1:50

VT62a (12 unidades)
(L62)
ESC 1:50

VT63a (12 unidades)
(L63)
ESC 1:50

VT64a (12 unidades)
(L64)
ESC 1:50

VT65a (12 unidades)
(L65)
ESC 1:50

VT66a (12 unidades)
(L66)
ESC 1:50

VT69a (12 unidades)
(L69)
ESC 1:50

VT67a (12 unidades)
(L67)
ESC 1:50

VT68a (12 unidades)
(L68)
ESC 1:50

VT70a (12 unidades)
(L70)
ESC 1:50

VT71a (12 unidades)
(L71)
ESC 1:50

VT72a (12 unidades)
(L72)
ESC 1:50

VT73a (12 unidades)
(L73)
ESC 1:50

VT74a (12 unidades)
(L74)
ESC 1:50

VT75a (12 unidades)
(L75)
ESC 1:50

VT76a (12 unidades)
(L76)
ESC 1:50

VT77a (12 unidades)
(L77)
ESC 1:50

1 **PLANTA DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS DOS PAVIMENTO TÉRREO**

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

CONTEÚDO: DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS TÉRREO

PRANCHA: 45/50

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0955
ASSINADO ELETRONICAMENTE

RELAÇÃO DO AÇO

9xVT1a	9xVT2a	9xVT3a
9xVT4a	9xVT5a	9xVT6a
9xVT7a	7xVT8a	9xVT9a
7xVT10a	17xVT11a	7xVT12a
9xVT13a	9xVT14a	9xVT15a
5xVT16a	7xVT17a	7xVT18a
7xVT19a	7xVT20a	17xVT21a
17xVT22a	17xVT23a	17xVT24a
17xVT25a	17xVT26a	8xVT27a
8xVT28a	8xVT29a	7xVT30a
VT31a	VT31b	VT31c
VT31d	VT31e	VT31f
VT31g	VT31h	VT31i
VT31j	VT31k	VT31l
VT31m	VT31n	VT31o
VT31p	VT31q	10xVT32a
10xVT33a	7xVT34a	4xVT35a
4xVT36a	12xVT37a	VT37b
4xVT37c	7xVT38a	13xVT39a
13xVT40a	11xVT41a	VT42a
VT42b	VT42c	VT42d
VT42e	VT42f	VT42g
VT42h	VT43a	VT43b
VT43c	VT43d	VT43e
VT43f	VT43g	VT43h
8xVT44a	9xVT45a	VT46a
VT46b	VT46c	VT46d
VT46e	VT46f	VT46g
VT46h	VT46i	VT46j
VT46k	VT46l	VT46m
VT46n	VT46o	VT46p
VT46q	8xVT47a	VT48a
VT48b	VT48c	VT48d
VT48e	VT48f	9xVT48g
5xVT48h	VT48i	VT48j
VT48k	VT49a	VT49b
VT49c	VT49d	VT49e
VT49f	VT49g	VT49h
VT49i	5xVT50a	10xVT51a
VT51b	6xVT52a	5xVT53a
VT54a	15xVT54b	VT54c
VT54d	VT54e	VT54f
VT54g	28xVT54h	VT55a
VT55b	VT55c	75xVT55d
3xVT55e	VT55f	VT55g
VT56a	VT56b	VT56c
VT56d	VT56e	10xVT56f
VT56g	VT56h	VT56i
VT56j	VT56k	VT56l
12xVT57a	VT58a	VT58b
VT58c	VT58d	10xVT58e
VT58f	12xVT59a	VT60a
2xVT60b	89xVT60c	4xVT60d
VT60e	VT60f	2xVT60g
16xVT60h	VT60i	VT60j
VT60k	VT60l	VT60m
VT61a	VT61b	VT61c
VT61d	12xVT61e	VT61f
12xVT62a	12xVT63a	12xVT64a
12xVT65a	12xVT66a	12xVT67a
12xVT68a	12xVT69a	12xVT70a
12xVT71a	12xVT72a	12xVT73a
12xVT74a	12xVT75a	12xVT76a
12xVT77a		

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	TR 06644	170	82	13940
	2	TR 06644	42	411	17262
	3	TR 06644	17	410	6970
	4	TR 06644	68	400	27200
	5	TR 06644	24	448	10752
	6	TR 06644	8	309	2472
	7	TR 06644	16	387	6192
	8	TR 06644	1	501	501
	9	TR 06644	1	494	494
	10	TR 06644	1	488	488
	11	TR 06644	1	482	482
	12	TR 06644	1	475	475
	13	TR 06644	1	469	469
	14	TR 06644	1	462	462
	15	TR 06644	1	456	456
	16	TR 06644	1	450	450
	17	TR 06644	1	443	443
	18	TR 06644	1	437	437
	19	TR 06644	1	430	430
	20	TR 06644	1	424	424
	21	TR 06644	1	418	418
	22	TR 06644	1	405	405
	23	TR 06644	1	399	399
	24	TR 06644	10	304	3040
	25	TR 06644	10	469	4690
	26	TR 06644	7	245	1715
	27	TR 06644	4	144	576
	28	TR 06644	4	142	568
	29	TR 06644	12	446	5352
	30	TR 06644	5	148	740
	31	TR 06644	7	261	1827
	32	TR 06644	26	393	10218
	33	TR 06644	11	402	4422
	34	TR 06644	1	432	432
	35	TR 06644	1	434	434
	36	TR 06644	1	436	436
	37	TR 06644	1	438	438
	38	TR 06644	1	440	440
	39	TR 06644	1	442	442
	40	TR 06644	1	444	444
	41	TR 06644	1	446	446
	42	TR 06644	1	329	329
	43	TR 06644	1	327	327
	44	TR 06644	1	325	325
	45	TR 06644	1	323	323
	46	TR 06644	1	321	321
	47	TR 06644	2	319	638
	48	TR 06644	1	317	317
	49	TR 06644	1	315	315
	50	TR 06644	1	320	320

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
	51	TR 06644	1	326	326
	52	TR 06644	1	333	333
	53	TR 06644	1	339	339
	54	TR 06644	2	346	692
	55	TR 06644	1	352	352
	56	TR 06644	1	358	358
	57	TR 06644	1	365	365
	58	TR 06644	1	371	371
	59	TR 06644	1	378	378
	60	TR 06644	1	384	384
	61	TR 06644	1	390	390
	62	TR 06644	1	397	397
	63	TR 06644	1	403	403
	64	TR 06644	73	409	29857
	65	TR 06644	1	416	416
	66	TR 06644	1	422	422
	67	TR 06644	8	261	2088
	68	TR 06644	1	160	160
	69	TR 06644	1	491	491
	70	TR 06644	1	540	540
	71	TR 06644	1	588	588
	72	TR 06644	1	636	636
	73	TR 06644	1	669	669
	74	TR 06644	9	684	6156
	75	TR 06644	6	238	1428
	76	TR 06644	1	230	230
	77	TR 06644	1	158	158
	78	TR 06644	1	86	86
	79	TR 06644	1	299	299
	80	TR 06644	1	306	306
	81	TR 06644	1	312	312
	82	TR 06644	1	326	326
	83	TR 06644	1	332	332
	84	TR 06644	1	339	339
	85	TR 06644	1	352	352
	86	TR 06644	5	209	1045
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	88	TR 06644	1	328	328
	89	TR 06644	6	189	1134
	90	TR 06644	5	210	1050
	91	TR 06644	1	165	165
	92	TR 06644	90	224	20160
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	94	TR 06644	1	215	215
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	96	TR 06644	1	240	240
	97	TR 06644	1	246	246
	98	TR 06644	28	241	6748
	99	TR 06644	1	61	61
	100	TR 06644	1	133	133
	101	TR 06644	1	205	205
	102	TR 06644	3	209	627
	103	TR 06644	1	216	216
	104	TR 06644	1	198	198
	105	TR 06644	1	207	207
	106	TR 06644	1	219	219
	107	TR 06644	1	231	231
	108	TR 06644	1	242	242
	109	TR 06644	10	255	2550
	110	TR 06644	1	251	251
	111	TR 06644	1	234	234
	112	TR 06644	1	184	184
	113	TR 06644	1	135	135
	114	TR 06644	1	85	85
	115	TR 06644	1	35	35
	116	TR 06644	12	529	6348
	117	TR 06644	1	44	44
	118	TR 06644	1	97	97
	119	TR 06644	1	150	150
	120	TR 06644	1	186	186
	121	TR 06644	10	200	2000
	122	TR 06644	1	179	179
	123	TR 06644	12	531	6372
	124	TR 06644	1	73	73
	125	TR 06644	2	221	442
	126	TR 06644	89	225	20025
	127	TR 06644	4	211	844
	128	TR 06644	1	215	215
	129	TR 06644	1	213	213
	130	TR 06644	2	217	434
	131	TR 06644	16	223	3568
	132	TR 06644	2	230	460
	133	TR 06644	1	187	187
	134	TR 06644	1	134	134
	135	TR 06644	1	81	81
	136	TR 06644	1	28	28
	137	TR 06644	1	76	76
	138	TR 06644	1	144	144
	139	TR 06644	1	212	212
	140	TR 06644	1	279	279
	141	TR 06644	12	328	3936
	142	TR 06644	24	421	10104
	143	TR 06644	24	420	10080
	144	TR 06644	24	309	7416
	145	TR 06644	24	411	9864
	146	5.0	170	91	15470
	147	5.0	14	270	3780
	148	5.0	2	216	432
	149	5.0	2	228	456
	150	5.0	2	240	480
	151	5.0	2	251	502
	152	5.0	2	247	494
	153	5.0	20	264	5280
	154	5.0	2	260	520
	155	5.0	2	243	486
	156	5.0	2	193	386
	157	5.0	2	144	288
	158	5.0	2	94	188
	159	5.0	2	44	88

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	160	6.3	16	320	5120
	161	6.3	20	315	6300
	162	6.3	7	256	1792
	163	6.3	4	155	620
	164	6.3	4	153	612
	165	6.3	5	220	1100
	166	6.3	6	200	1200
	167	6.3	5	221	1105
	168	6.3	1	176	176
	169	6.3	90	235	21150
	170	6.3	1	223	223
	171	6.3	1	226	226
	172	6.3	1	244	244
	173	6.3	1	251	251
	174	6.3	1	257	257
	175	6.3	28	252	7056
	176	6.3	1	72	72
	177	6.3	1	144	144
	178	6.3	1	216	216
	179	6.3	3	220	660
	180	6.3	1	227	227
	181	6.3	1	209	209
	182	6.3	1	55	55
	183	6.3	1	108	108
	184	6.3	1	161	161
	185	6.3	1	197	197
	186	6.3	10	211	2110
	187	6.3	1	190	190
	188	6.3	1	84	84
	189	6.3	2	232	464
	190	6.3	89	236	21004
	191	6.3	4	222	888
	192	6.3	1	226	226
	193	6.3	1	224	224
	194	6.3	2	228	456
	195	6.3	16	234	3744
	196	6.3	1	241	241
	197	6.3	1	198	198
	198	6.3	1	145	145
	199	6.3	1	92	92
	200	6.3	1	39	39
	201	6.3	48	320	15360
	202	8.0	82	425	34850
	203	8.0	34	424	14416
	204	8.0	136	414	56304
	205	8.0	20	483	9660
	206	8.0	8	275	2200
	207	8.0	2	313	626
	208	8.0	2	320	640
	209	8.0	2	326	652
	210	8.0	2	333	666
	211	8.0	2	340	680
	212	8.0	2	346	692
	213	8.0	2	353	706
	214	8.0	2	360	720
	215	8.0	2	366	732
	216	8.0	48	435	20880
	217	8.0	48	434	20832
	218	10.0	48	467	22416
	219	10.0	2	520	1040
	220	10.0	2	513	1026
	221	10.0	2	507	1014
	222	10.0	2	501	1002
	223	10.0	2	494	988
	224	10.0	2	488	976
	225	10.0	2	481	962
	226	10.0	2	475	950
	227	10.0	2	469	938
	228	10.0	2	462	924
	229	10.0	2	456	912
	230	10.0	2	449	898
	231	10.0	2	443	886
	232	10.0	2	437	874
	233	10.0	2	430	860
	234	10.0	2	424	848
	235	10.0	2	418	836
	236	10.0	24	465	11160
	237	10.0	6	167	1002
	238	10.0	2	451	902
	239	10.0	2	453	906

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
	240	10.0	2	455	910
	241	10.0	2	457	914
	242	10.0	2	459	918
	243	10.0	2	461	922
	244	10.0	2	463	926
	245	10.0	2	465	930
	246	10.0	1	348	348
	247	10.0	1	346	346
	248	10.0	1	344	344
	249	10.0	1	342	342
	250	10.0	1	340	340
	251	10.0	1	338	338
	252	10.0	1	336	336
	253	10.0	1	334	334
	254	10.0	2	339	678
	255	10.0	2	345	690
	256	10.0	2	352	704
	257	10.0	2	358	716
	258	10.0	2	365	730
	259	10.0	2	371	742
	260	10.0	2	377	754
	261	10.0	2	384	768
	262	10.0	2	390	780
	263	10.0	2	397	794
	264	10.0	2	403	806
	265	10.0	2	409	818
	266	10.0	2	416	832
	267	10.0	2	422	844
	268	10.0	2	428	856
	269	10.0	2	435	870
	270	10.0	2	441	882
	271	10.0	10	345	3450
	272	10.0	1	347	347
	273	10.0	1	95	95
	274	10.0	1	163	163
	275	10.0	1	231	231
	276	10.0	1	298	298
	277	10.0	12	347	4164
	278	10.0	1	249	249
	279	12.5	16	409	6544
	280	12.5	26	415	10790
	281	12.5	11	424	4664
	282	12.5	24	551	13224
	283	12.5	24	553	13272
	284	12.5	24	433	10392
	285	12.5	72	432	31104
	286	16.0	1	189	189
	287	16.0	1	520	520
	288	16.0	2	569	1138
	289	16.0	2	617	1234
	290	16.0	2	665	1330
	291	16.0	2	698	1396
	292	16.0	18	713	12834
	293	16.0	5	267	1335
	294	16.0	1	259	259
	295	16.0	1	187	187
	296	16.0	1	115	115

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	949.5	255.6
	8.0	1652.6	717.3
	10.0	828.3	561.7
	12.5	899.7	953.3
	16.0	205.4	356.6
CA60	5.0	288.5	48.9
	TR 06644	3082.5	2410.8

PESO TOTAL (kg)	
CA50	2844.5
CA60	2459.7

Volume de concreto (C-25) = 0.00 m³
Área de forma = 0.00 m²

1 **PLANTA DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS DOS PAVIMENTO TÉRREO**

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 46/50

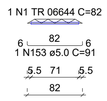
CONTEÚDO: DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS TÉRREO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

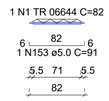
FOLHA: A1

PROCESSO ADMINISTRATIVO
0956
ASSINADO ELETRONICAMENTE

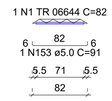
VT1a (9 unidades)
(L1)
ESC 1:50



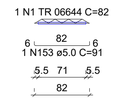
VT2a (9 unidades)
(L2)
ESC 1:50



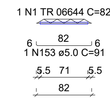
VT3a (9 unidades)
(L3)
ESC 1:50



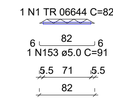
VT4a (9 unidades)
(L4)
ESC 1:50



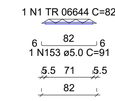
VT5a (9 unidades)
(L5)
ESC 1:50



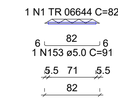
VT6a (9 unidades)
(L6)
ESC 1:50



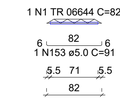
VT7a (9 unidades)
(L7)
ESC 1:50



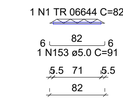
VT8a (7 unidades)
(L8)
ESC 1:50



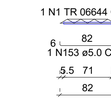
VT9a (9 unidades)
(L9)
ESC 1:50



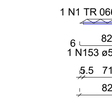
VT10a (7 unidades)
(L10)
ESC 1:50



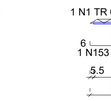
VT11a (17 unidades)
(L11)
ESC 1:50



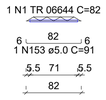
VT12a (7 unidades)
(L12)
ESC 1:50



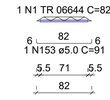
VT13a (9 unidades)
(L13)
ESC 1:50



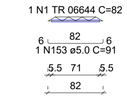
VT14a (9 unidades)
(L14)
ESC 1:50



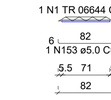
VT15a (9 unidades)
(L15)
ESC 1:50



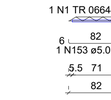
VT16a (5 unidades)
(L16)
ESC 1:50



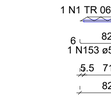
VT17a (7 unidades)
(L17)
ESC 1:50



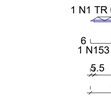
VT18a (7 unidades)
(L18)
ESC 1:50



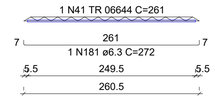
VT19a (7 unidades)
(L19)
ESC 1:50



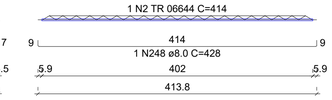
VT20a (7 unidades)
(L20)
ESC 1:50



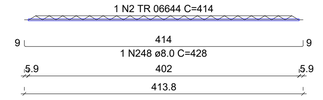
VT31a (7 unidades)
(L31)
ESC 1:50



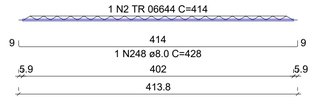
VT21a (17 unidades)
(L21)
ESC 1:50



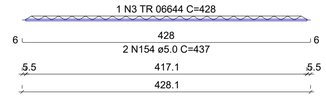
VT22a (17 unidades)
(L22)
ESC 1:50



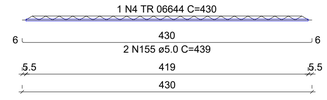
VT23a (17 unidades)
(L23)
ESC 1:50



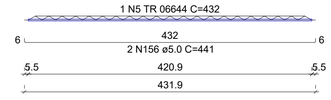
VT24a (2 unidades)
(L24)
ESC 1:50



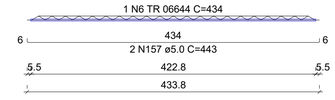
VT24b (2 unidades)
(L24)
ESC 1:50



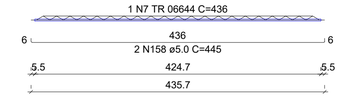
VT24c (2 unidades)
(L24)
ESC 1:50



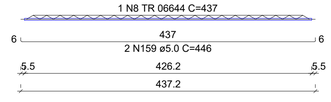
VT24d (2 unidades)
(L24)
ESC 1:50



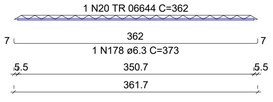
VT24e (2 unidades)
(L24)
ESC 1:50



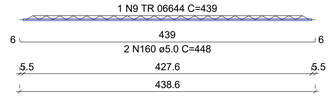
VT24f (2 unidades)
(L24)
ESC 1:50



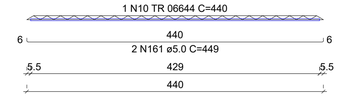
VT25i (1 unidades)
(L25)
ESC 1:50



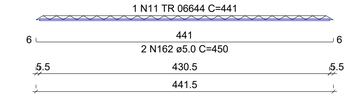
VT24g (2 unidades)
(L24)
ESC 1:50



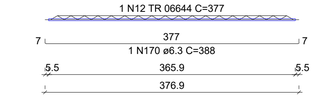
VT24h (2 unidades)
(L24)
ESC 1:50



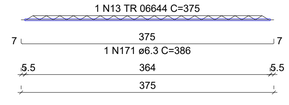
VT24i (1 unidades)
(L24)
ESC 1:50



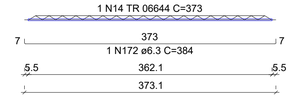
VT25a (2 unidades)
(L25)
ESC 1:50



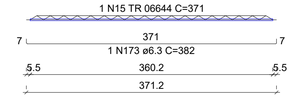
VT25b (2 unidades)
(L25)
ESC 1:50



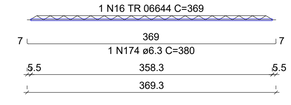
VT25c (2 unidades)
(L25)
ESC 1:50



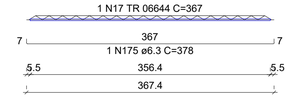
VT25d (2 unidades)
(L25)
ESC 1:50



VT25e (2 unidades)
(L25)
ESC 1:50



VT25f (2 unidades)
(L25)
ESC 1:50



VT25g (2 unidades)
(L25)
ESC 1:50

VT38i (1 unidades)
(L38)
ESC 1:50

VT25h (2 unidades)
(L25)
ESC 1:50

VT26a (17 unidades)
(L26)
ESC 1:50

VT27a (17 unidades)
(L27)
ESC 1:50

VT28a (1 unidades)
(L28)
ESC 1:50

VT28b (1 unidades)
(L28)
ESC 1:50

VT28c (1 unidades)
(L28)
ESC 1:50

VT28d (1 unidades)
(L28)
ESC 1:50

VT28e (1 unidades)
(L28)
ESC 1:50

VT28f (1 unidades)
(L28)
ESC 1:50

VT38j (1 unidades)
(L38)
ESC 1:50

VT28g (1 unidades)
(L28)
ESC 1:50

VT28h (1 unidades)
(L28)
ESC 1:50

VT28i (1 unidades)
(L28)
ESC 1:50

VT28j (1 unidades)
(L28)
ESC 1:50

VT28k (1 unidades)
(L28)
ESC 1:50

VT28l (1 unidades)
(L28)
ESC 1:50

VT28m (1 unidades)
(L28)
ESC 1:50

VT28n (1 unidades)
(L28)
ESC 1:50

VT28o (1 unidades)
(L28)
ESC 1:50

VT39a (4 unidades)
(L39)
ESC 1:50

VT28p (1 unidades)
(L28)
ESC 1:50

VT28q (1 unidades)
(L28)
ESC 1:50

VT29a (15 unidades)
(L29)
ESC 1:50

VT30a (17 unidades)
(L30)
ESC 1:50

VT32a (13 unidades)
(L32)
ESC 1:50

VT33a (4 unidades)
(L33)
ESC 1:50

VT33b (9 unidades)
(L33)
ESC 1:50

1 **PLANTA DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS DOS PAVIMENTO SUPERIOR**

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 47/50

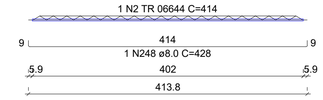
CONTEÚDO:
DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS SUPERIOR

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

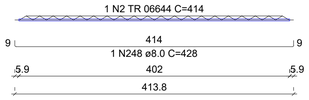
FOLHA: A1

PROTOCOLO ADMINISTRATIVO
0957
ASSINADO ELETRONICAMENTE

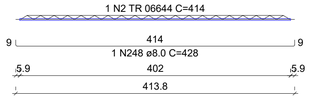
VT34a (17 unidades)
(L34)
ESC 1:50



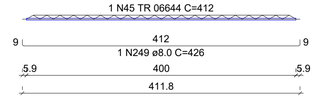
VT35a (17 unidades)
(L35)
ESC 1:50



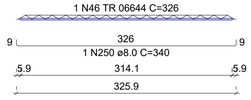
VT36a (16 unidades)
(L36)
ESC 1:50



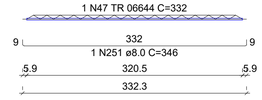
VT36b (1 unidades)
(L36)
ESC 1:50



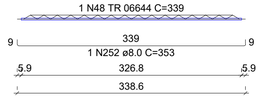
VT37a (1 unidades)
(L37)
ESC 1:50



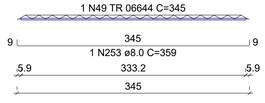
VT37b (1 unidades)
(L37)
ESC 1:50



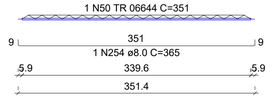
VT37c (1 unidades)
(L37)
ESC 1:50



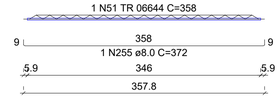
VT37d (1 unidades)
(L37)
ESC 1:50



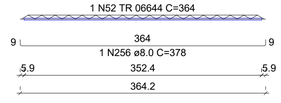
VT37e (1 unidades)
(L37)
ESC 1:50



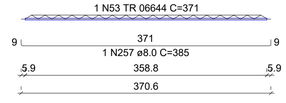
VT37f (1 unidades)
(L37)
ESC 1:50



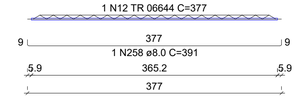
VT37g (1 unidades)
(L37)
ESC 1:50



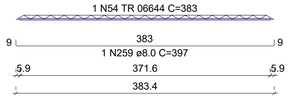
VT37h (1 unidades)
(L37)
ESC 1:50



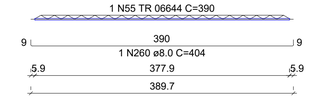
VT37i (1 unidades)
(L37)
ESC 1:50



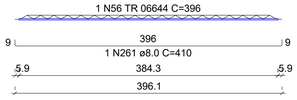
VT37j (1 unidades)
(L37)
ESC 1:50



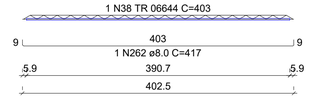
VT37k (1 unidades)
(L37)
ESC 1:50



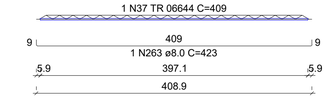
VT37l (1 unidades)
(L37)
ESC 1:50



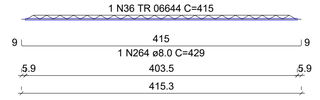
VT37m (1 unidades)
(L37)
ESC 1:50



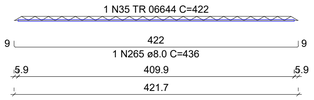
VT37n (1 unidades)
(L37)
ESC 1:50



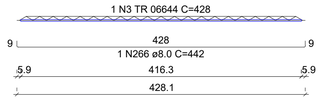
VT37o (1 unidades)
(L37)
ESC 1:50



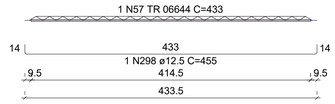
VT37p (1 unidades)
(L37)
ESC 1:50



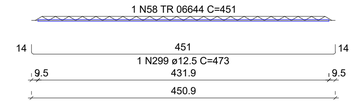
VT37q (1 unidades)
(L37)
ESC 1:50



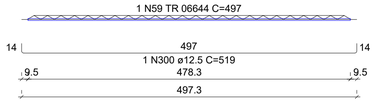
VT38a (6 unidades)
(L38)
ESC 1:50



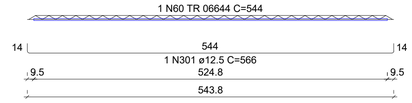
VT38b (1 unidades)
(L38)
ESC 1:50



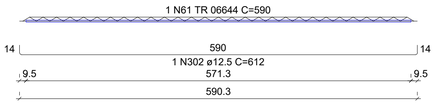
VT38c (1 unidades)
(L38)
ESC 1:50



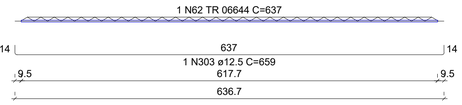
VT38d (1 unidades)
(L38)
ESC 1:50



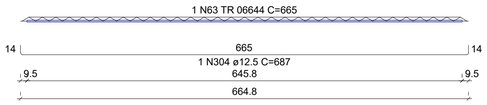
VT38e (1 unidades)
(L38)
ESC 1:50



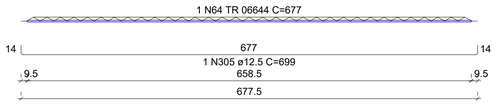
VT38f (1 unidades)
(L38)
ESC 1:50



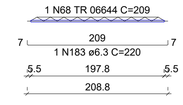
VT38g (1 unidades)
(L38)
ESC 1:50



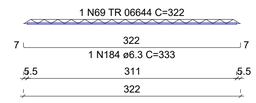
VT38h (14 unidades)
(L38)
ESC 1:50



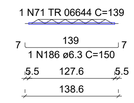
VT39b (1 unidades)
(L39)
ESC 1:50



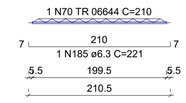
VT40a (15 unidades)
(L40)
ESC 1:50



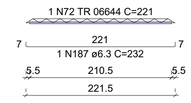
VT42a (1 unidades)
(L42)
ESC 1:50



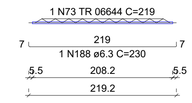
VT41a (5 unidades)
(L41)
ESC 1:50



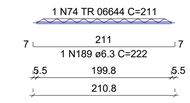
VT42b (15 unidades)
(L42)
ESC 1:50



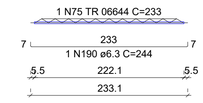
VT42c (1 unidades)
(L42)
ESC 1:50



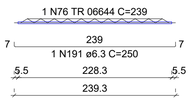
VT42d (1 unidades)
(L42)
ESC 1:50



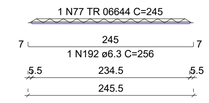
VT42e (1 unidades)
(L42)
ESC 1:50



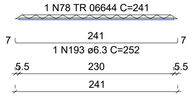
VT42f (1 unidades)
(L42)
ESC 1:50



VT42g (1 unidades)
(L42)
ESC 1:50



VT42h (28 unidades)
(L42)
ESC 1:50



VT43a (1 unidades)
(L43)
ESC 1:50

VT43b (30 unidades)
(L43)
ESC 1:50

VT43c (1 unidades)
(L43)
ESC 1:50

VT43d (1 unidades)
(L43)
ESC 1:50

VT44a (1 unidades)
(L44)
ESC 1:50

VT44b (1 unidades)
(L44)
ESC 1:50

VT44c (1 unidades)
(L44)
ESC 1:50

VT44d (44 unidades)
(L44)
ESC 1:50

VT44h (1 unidades)
(L44)
ESC 1:50

VT44e (1 unidades)
(L44)
ESC 1:50

VT44f (1 unidades)
(L44)
ESC 1:50

VT44g (1 unidades)
(L44)
ESC 1:50

VT45a (1 unidades)
(L45)
ESC 1:50

VT45b (1 unidades)
(L45)
ESC 1:50

VT45c (1 unidades)
(L45)
ESC 1:50

VT45d (1 unidades)
(L45)
ESC 1:50

VT45e (2 unidades)
(L45)
ESC 1:50

VT45f (9 unidades)
(L45)
ESC 1:50

VT45g (2 unidades)
(L45)
ESC 1:50

VT45h (1 unidades)
(L45)
ESC 1:50

VT45i (1 unidades)
(L45)
ESC 1:50

VT45j (1 unidades)
(L45)
ESC 1:50

VT45k (1 unidades)
(L45)
ESC 1:50

VT46a (11 unidades)
(L46)
ESC 1:50

VT47a (1 unidades)
(L47)
ESC 1:50

VT47b (1 unidades)
(L47)
ESC 1:50

1 PLANTA DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS DOS PAVIMENTO SUPERIOR

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 48/50

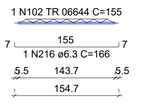
CONTEÚDO:
DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS SUPERIOR

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

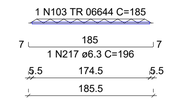
FOLHA: A1

PROCESSO ADMINISTRATIVO
0958
ASSINADO ELETRONICAMENTE

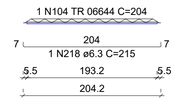
VT47c (1 unidades)
(L47)
ESC 1:50



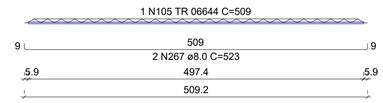
VT47d (2 unidades)
(L47)
ESC 1:50



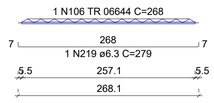
VT47e (10 unidades)
(L47)
ESC 1:50



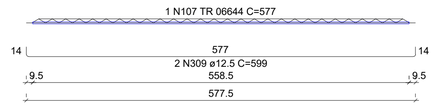
VT48a (11 unidades)
(L48)
ESC 1:50



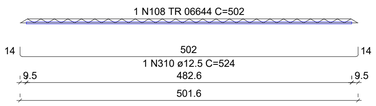
VT49a (11 unidades)
(L49)
ESC 1:50



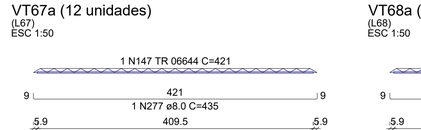
VT50a (15 unidades)
(L50)
ESC 1:50



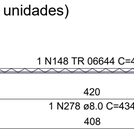
VT51a (1 unidades)
(L51)
ESC 1:50



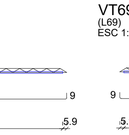
VT51b (16 unidades)
(L51)
ESC 1:50



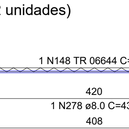
VT52a (10 unidades)
(L52)
ESC 1:50



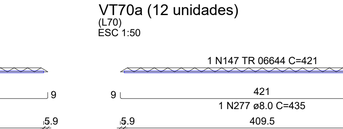
VT52b (1 unidades)
(L52)
ESC 1:50



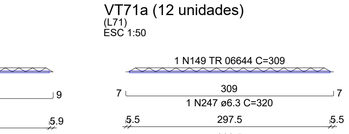
VT54a (30 unidades)
(L54)
ESC 1:50



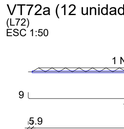
VT53a (9 unidades)
(L53)
ESC 1:50



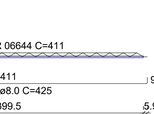
VT53b (2 unidades)
(L53)
ESC 1:50



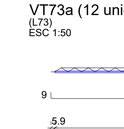
VT54b (1 unidades)
(L54)
ESC 1:50



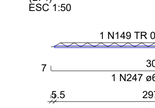
VT54c (1 unidades)
(L54)
ESC 1:50



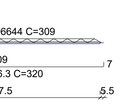
VT54d (2 unidades)
(L54)
ESC 1:50



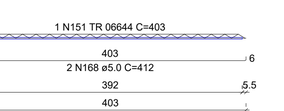
VT54e (10 unidades)
(L54)
ESC 1:50



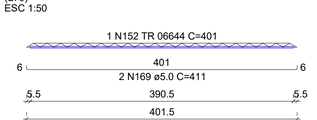
VT54f (1 unidades)
(L54)
ESC 1:50



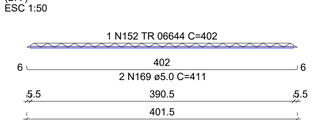
VT55a (10 unidades)
(L55)
ESC 1:50



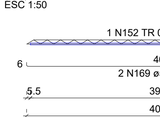
VT56a (9 unidades)
(L56)
ESC 1:50



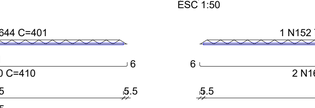
VT57a (9 unidades)
(L57)
ESC 1:50



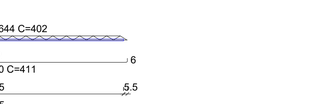
VT58a (7 unidades)
(L58)
ESC 1:50



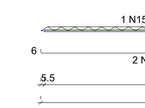
VT59a (7 unidades)
(L59)
ESC 1:50



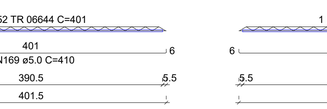
VT60a (7 unidades)
(L60)
ESC 1:50



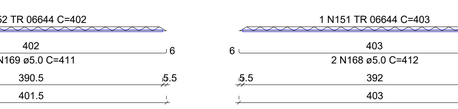
VT63a (10 unidades)
(L63)
ESC 1:50



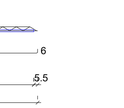
VT61a (7 unidades)
(L61)
ESC 1:50



VT62a (11 unidades)
(L62)
ESC 1:50



VT63b (1 unidades)
(L63)
ESC 1:50



VT64a (16 unidades)
(L64)
ESC 1:50

VT64b (1 unidades)
(L64)
ESC 1:50

VT64c (1 unidades)
(L64)
ESC 1:50

VT64d (24 unidades)
(L64)
ESC 1:50

VT64e (1 unidades)
(L64)
ESC 1:50



VT64f (2 unidades)
(L64)
ESC 1:50

VT65a (1 unidades)
(L65)
ESC 1:50

VT65b (1 unidades)
(L65)
ESC 1:50

VT65c (30 unidades)
(L65)
ESC 1:50

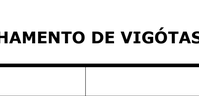


VT65d (3 unidades)
(L65)
ESC 1:50

VT65e (73 unidades)
(L65)
ESC 1:50



VT65f (2 unidades)
(L65)
ESC 1:50



VT65g (1 unidades)
(L65)
ESC 1:50

VT65h (2 unidades)
(L65)
ESC 1:50

VT65i (3 unidades)
(L65)
ESC 1:50

VT65j (1 unidades)
(L65)
ESC 1:50

VT65k (1 unidades)
(L65)
ESC 1:50

VT65l (1 unidades)
(L65)
ESC 1:50

VT65m (1 unidades)
(L65)
ESC 1:50

VT65n (1 unidades)
(L65)
ESC 1:50

VT66a (1 unidades)
(L66)
ESC 1:50

VT66b (1 unidades)
(L66)
ESC 1:50

VT66c (1 unidades)
(L66)
ESC 1:50

VT66d (1 unidades)
(L66)
ESC 1:50

VT66e (12 unidades)
(L66)
ESC 1:50

VT66f (1 unidades)
(L66)
ESC 1:50

VT67a (12 unidades)
(L67)
ESC 1:50

VT68a (12 unidades)
(L68)
ESC 1:50

VT69a (12 unidades)
(L69)
ESC 1:50

VT70a (12 unidades)
(L70)
ESC 1:50

VT71a (12 unidades)
(L71)
ESC 1:50

VT72a (12 unidades)
(L72)
ESC 1:50

VT73a (12 unidades)
(L73)
ESC 1:50

VT74a (12 unidades)
(L74)
ESC 1:50

VT75a (12 unidades)
(L75)
ESC 1:50

VT76a (12 unidades)
(L76)
ESC 1:50

VT77a (12 unidades)
(L77)
ESC 1:50

VT78a (12 unidades)
(L78)
ESC 1:50

VT79a (12 unidades)
(L79)
ESC 1:50

VT80a (12 unidades)
(L80)
ESC 1:50

VT81a (12 unidades)
(L81)
ESC 1:50

VT82a (12 unidades)
(L82)
ESC 1:50

1 PLANTA DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS DOS PAVIMENTO SUPERIOR

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

PRANCHA: 49/50

CONTEÚDO:
DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS SUPERIOR

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0959
ASSINADO ELETRONICAMENTE

RELAÇÃO DO AÇO

9xVT1a	9xVT2a	9xVT3a
9xVT4a	9xVT5a	9xVT6a
9xVT7a	7xVT8a	9xVT9a
7xVT10a	17xVT11a	7xVT12a
9xVT13a	9xVT14a	9xVT15a
5xVT16a	7xVT17a	7xVT18a
7xVT19a	7xVT20a	17xVT21a
17xVT22a	17xVT23a	2xVT24a
2xVT24b	2xVT24c	2xVT24d
2xVT24e	2xVT24f	2xVT24g
2xVT24h	VT24i	2xVT25a
2xVT25b	2xVT25c	2xVT25d
2xVT25e	2xVT25f	2xVT25g
2xVT25h	VT25i	17xVT26a
17xVT27a	VT28a	VT28b
VT28c	VT28d	VT28e
VT28f	VT28g	VT28h
VT28i	VT28j	VT28k
VT28l	VT28m	VT28n
VT28o	VT28p	VT28q
15xVT29a	17xVT30a	7xVT31a
13xVT32a	4xVT33a	9xVT33b
17xVT34a	17xVT35a	16xVT36a
VT36b	VT37a	VT37b
VT37c	VT37d	VT37e
VT37f	VT37g	VT37h
VT37i	VT37j	VT37k
VT37l	VT37m	VT37n
VT37o	VT37p	VT37q
6xVT38a	VT38b	VT38c
VT38d	VT38e	VT38f
VT38g	14xVT38h	VT38i
VT38j	4xVT39a	VT39b
15xVT40a	5xVT41a	VT42a
15xVT42b	VT42c	VT42d
VT42e	VT42f	VT42g
28xVT42h	VT43a	30xVT43b
VT43c	VT43d	VT44a
VT44b	VT44c	44xVT44d
VT44e	VT44f	VT44g
VT44h	VT45a	VT45b
VT45c	VT45d	2xVT45e
9xVT45f	2xVT45g	VT45h
VT45i	VT45j	VT45k
11xVT46a	VT47a	VT47b
VT47c	2xVT47d	10xVT47e
11xVT48a	11xVT49a	15xVT50a
VT51a	16xVT51b	10xVT52a
VT52b	9xVT53a	2xVT53b
30xVT54a	VT54b	VT54c
2xVT54d	10xVT54e	VT54f
10xVT55a	9xVT56a	9xVT57a
7xVT58a	7xVT59a	7xVT60a
7xVT61a	11xVT62a	10xVT63a
VT63b	16xVT64a	VT64b
VT64c	24xVT64d	VT64e
2xVT64f	VT65a	VT65b
30xVT65c	3xVT65d	73xVT65e
2xVT65f	VT65g	2xVT65h
3xVT65i	VT65j	VT65k
VT65l	VT65m	VT65n
VT66a	VT66b	VT66c
VT66d	12xVT66e	VT66f
12xVT67a	12xVT68a	12xVT69a
12xVT70a	12xVT71a	12xVT72a
12xVT73a	12xVT74a	12xVT75a
12xVT76a	12xVT77a	12xVT78a
12xVT79a	12xVT80a	12xVT81a
12xVT82a		

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	41	TR 06644	7	261	1827
	42	TR 06644	13	385	5005
	43	TR 06644	4	387	1548
	44	TR 06644	9	386	3474
	45	TR 06644	1	412	412
	46	TR 06644	1	326	326
	47	TR 06644	1	332	332
	48	TR 06644	1	339	339
	49	TR 06644	1	345	345
	50	TR 06644	1	351	351
	51	TR 06644	1	358	358
	52	TR 06644	1	364	364
	53	TR 06644	1	371	371
	54	TR 06644	1	383	383
	55	TR 06644	1	390	390
	56	TR 06644	1	396	396
	57	TR 06644	6	433	2598
	58	TR 06644	1	451	451
	59	TR 06644	1	497	497
	60	TR 06644	1	544	544
	61	TR 06644	1	590	590
	62	TR 06644	1	637	637
	63	TR 06644	1	665	665
	64	TR 06644	14	677	9478
	65	TR 06644	1	173	173
	66	TR 06644	1	98	98
	67	TR 06644	4	208	832
	68	TR 06644	1	209	209
	69	TR 06644	15	322	4830
	70	TR 06644	5	210	1050
	71	TR 06644	1	139	139
	72	TR 06644	16	221	3536
	73	TR 06644	2	219	438
	74	TR 06644	1	211	211
	75	TR 06644	1	233	233
	76	TR 06644	1	239	239
	77	TR 06644	1	245	245
	78	TR 06644	28	241	6748
	79	TR 06644	2	110	220
	80	TR 06644	74	224	16576
	81	TR 06644	1	210	210
	82	TR 06644	1	174	174
	83	TR 06644	1	38	38
	84	TR 06644	1	182	182
	85	TR 06644	1	211	211
	86	TR 06644	1	216	216
	87	TR 06644	1	139	139
	88	TR 06644	1	205	205
	89	TR 06644	1	217	217
	90	TR 06644	1	229	229
	91	TR 06644	1	240	240
	92	TR 06644	2	238	476
	93	TR 06644	9	254	2286
	94	TR 06644	2	251	502
	95	TR 06644	1	188	188
	96	TR 06644	1	135	135
	97	TR 06644	1	81	81
	98	TR 06644	1	27	27
	99	TR 06644	22	617	13574
	100	TR 06644	1	45	45

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	101	TR 06644	1	100	100
	102	TR 06644	1	155	155
	103	TR 06644	2	185	370
	104	TR 06644	10	204	2040
	105	TR 06644	11	509	5599
	106	TR 06644	11	268	2948
	107	TR 06644	31	577	17887
	108	TR 06644	1	502	502
	109	TR 06644	20	102	2040
	110	TR 06644	2	73	146
	111	TR 06644	9	438	3942
	112	TR 06644	2	435	870
	113	TR 06644	30	93	2790
	114	TR 06644	1	86	86
	115	TR 06644	1	82	82
	116	TR 06644	2	87	174
	117	TR 06644	10	94	940
	118	TR 06644	1	90	90
	119	TR 06644	10	360	3600
	120	TR 06644	18	378	6804
	121	TR 06644	7	117	819
	122	TR 06644	21	385	8085
	123	TR 06644	16	91	1456
	124	TR 06644	1	84	84
	125	TR 06644	1	82	82
	126	TR 06644	24	93	2232
	127	TR 06644	1	86	86
	128	TR 06644	2	90	180
	129	TR 06644	1	72	72
	130	TR 06644	1	221	221
	131	TR 06644	30	223	6690
	132	TR 06644	3	211	633
	133	TR 06644	74	225	16650
	134	TR 06644	2	212	424
	135	TR 06644	1	215	215
	136	TR 06644	2	217	434
	137	TR 06644	3	227	681
	138	TR 06644	1	182	182
	139	TR 06644	1	130	130
	140	TR 06644	1	79	79
	141	TR 06644	1	27	27
	142	TR 06644	1	72	72
	143	TR 06644	1	140	140
	144	TR 06644	1	208	208
	145	TR 06644	1	275	275
	146	TR 06644	12	324	3888
	147	TR 06644	24	421	10104
	148	TR 06644	24	420	10080
	149	TR 06644	24	309	7416
	150	TR 06644	24	411	9864
	151	TR 06644	24	403	9672
	152	TR 06644	72	401	28872
	153	5.0	170	91	15470
	154	5.0	4	437	1748
	155	5.0	4	439	1756
	156	5.0	4	441	1764
	157	5.0	4	443	1772
	158	5.0	4	445	1780
	159	5.0	4	446	1784
	160	5.0	4	448	1792
	161	5.0	4	449	1796
	162	5.0	2	450	900
	163	5.0	34	401	13634
	164	5.0	26	394	10244
	165	5.0	8	396	3168
	166	5.0	18	395	7110
	167	5.0	10	369	3690
	168	5.0	48	412	19776
	169	5.0	144	411	59184

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	170	6.3	2	388	776
	171	6.3	2	386	772
	172	6.3	2	384	768
	173	6.3	2	382	764
	174	6.3	2	380	760
	175	6.3	2	378	756
	176	6.3	2	376	752
	177	6.3	2	375	750
	178	6.3	1	373	373
	179	6.3	17	390	6630
	180	6.3	30	515	15450
	181	6.3	7	272	1904
	182	6.3	4	219	876
	183	6.3	1	220	220
	184	6.3	15	333	4995
	185	6.3	5	221	1105
	186	6.3	1	150	150
	187	6.3	16	232	3712
	188	6.3	2	230	460
	189	6.3	1	222	222
	190	6.3	1	244	244
	191	6.3	1	250	250
	192	6.3	1	256	256
	193	6.3	28	252	7056
	194	6.3	2	121	242
	195	6.3	74	235	17390
	196	6.3	1	221	221
	197	6.3	1	185	185
	198	6.3	1	49	49
	199	6.3	1	193	193
	200	6.3	1	222	222
	201	6.3	1	227	227
	202	6.3	1	150	150
	203	6.3	1	216	216
	204	6.3	1	228	228
	205	6.3	1	240	240
	206	6.3	1	251	251
	207	6.3	2	249	498
	208	6.3	9	265	2385
	209	6.3	2	262	524
	210	6.3	1	199	199
	211	6.3	1	146	146
	212	6.3	1	92	92
	213	6.3	1	38	38
	214	6.3	1	56	56
	215	6.3	1	111	111
	216	6.3	1	166	166
	217	6.3	2	196	392
	218	6.3	10	215	2150
	219	6.3	11	279	3069
	220	6.3	20	113	2260
	221	6.3	2	84	168
	222	6.3	7	128	896
	223	6.3	16	102	1632
	224	6.3	1	95	95
	225	6.3	1	93	93
	226	6.3	24	104	2496
	227	6.3	1	97	97
	228	6.3	2	101	202
	229	6.3	1	83	83
	230	6.3	1	232	232
	231	6.3	30	234	7020
	232	6.3	3	222	666
	233	6.3	74	236	17464
	234	6.3	2	223	446
	235	6.3	1	226	226
	236	6.3	2	228	456
	237	6.3	3	238	714
	238	6.3	1	193	193
	239	6.3	1	141	141
	240	6.3	1	90	90
	241	6.3	1	38	38
	242	6.3	1	83	83
	243	6.3	1	151	151
	244	6.3	1	219	219
	245	6.3	1	286	286

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	246	6.3	12	335	4020
	247	6.3	24	320	7680
	248	8.0	101	428	43228
	249	8.0	1	426	426
	250	8.0	1	340	340
	251	8.0	1	346	346
	252	8.0	1	353	353
	253	8.0	1	359	359
	254	8.0	1	365	365
	255	8.0	1	372	372
	256	8.0	1	378	378
	257	8.0	1	385	385
	258	8.0	1	391	391
	259	8.0	1	397	397
	260	8.0	1	404	404
	261	8.0	1	410	410
	262	8.0	1	417	417
	263	8.0	1	423	423
	264	8.0	1	429	429
	265	8.0	1	436	436
	266	8.0	1	442	442
	267	8.0	22	523	11506
	268	8.0	18	452	8136
	269	8.0	4	449	1796
	270	8.0	30	107	3210
	271	8.0	1	100	100
	272	8.0	1	96	96
	273	8.0	2	101	202
	274	8.0	10	108	1080
	275	8.0	1	104	104
	276	8.0	36	392	14112
	277	8.0	24	435	10440
	278	8.0	24	434	10416
	279	8.0	24	425	10200
	280	10.0	1	524	524
	281	10.0	1	517	517
	282	10.0	1	511	511
	283	10.0	1	505	505
	284	10.0	1	498	498
	285	10.0	1	492	492
	286	10.0	1	485	485
	287	10.0	1	479	479
	288	10.0	1	473	473
	289	10.0	1	466	466
	290	10.0	1	460	460
	291	10.0	1	454	454
	292	10.0	1	447	447
	293	10.0	1	441	441
	294	10.0	1	434	434
	295	10.0	1	428	428
	296	10.0	1	422	422
	297	12.5	34	872	29648
	298	12.5	6	455	2730
	299	12.5	1	473	473
	300	12.5	1	519	519
	301	12.5	1	566	566
	302	12.5	1	612	612
	303	12.5	1	659	659
	304	12.5	1	687	687
	305	12.5	14	699	9786
	306	12.5	1	195	195
	307	12.5	1	120	120
	308	12.5	22	639	14058
	309	12.5	46	599	27554
	310	12.5	1	524	524
	311	12.5	21	407	8547

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	1277.9	344
	8.0	1217	528.2
	10.0	80.4	54.5
	12.5	966.8	1024.5
CA60	5.0	1473.2	249.8
	TR 06644	3728	2915.7

PESO TOTAL (kg)	
CA50	1951.2
CA60	3165.5

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	TR 06644	170	82	13940
	2	TR 06644	101	414	41814
	3	TR 06644	4	428	1712
	4	TR 06644	2	430	860
	5	TR 06644	2	432	864
	6	TR 06644	2	434	868
	7	TR 06644	2	436	872
	8	TR 06644	2	437	874
	9	TR 06644	2	439	878
	10	TR 06644	2	440	880
	11	TR 06644	1	441	441
	12	TR 06644	3	377	1131
	13	TR 06644	2	375	750
	14	TR 06644	2	373	746
	15	TR 06644	2	371	742
	16	TR 06644	2	369	738
	17	TR 06644	2	367	734
	18	TR 06644	2	365	730
	19	TR 06644	2	364	728
	20	TR 06644	1	362	362
	21	TR 06644	17	392	6664
	22	TR 06644	17	379	6443
	23	TR 06644	1	505	505
	24	TR 06644	1	498	498
	25	TR 06644	1	492	492
	26	TR 06644	1	486	486
	27	TR 06644	1	479	479
	28	TR 06644	1	473	473
	29	TR 06644	1	466	466
	30	TR 06644	1	460	460
	31	TR 06644	1	454	454
	32	TR 06644	1	447	447
	33	TR 06644	1	441	441
	34	TR 06644	1	435	435
	35	TR 06644	2	422	844
	36	TR 06644	2	415	830
	37	TR 06644	2	409	818
	38	TR 06644	2	403	806
	39	TR 06644	15	504	7560
	40	TR 06644	17	850	14450

Volume de concreto (C-25) = 0.00 m³
Área de forma = 0.00 m²

1 PLANTA DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS DOS PAVIMENTO SUPERIOR

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO DA ESCOLA DE ENSINO EM TEMPO INTEGRAL - GERALDO AZEVEDO

LOCAL: GERALDO AZEVEDO, ITAPIPOCA-CE

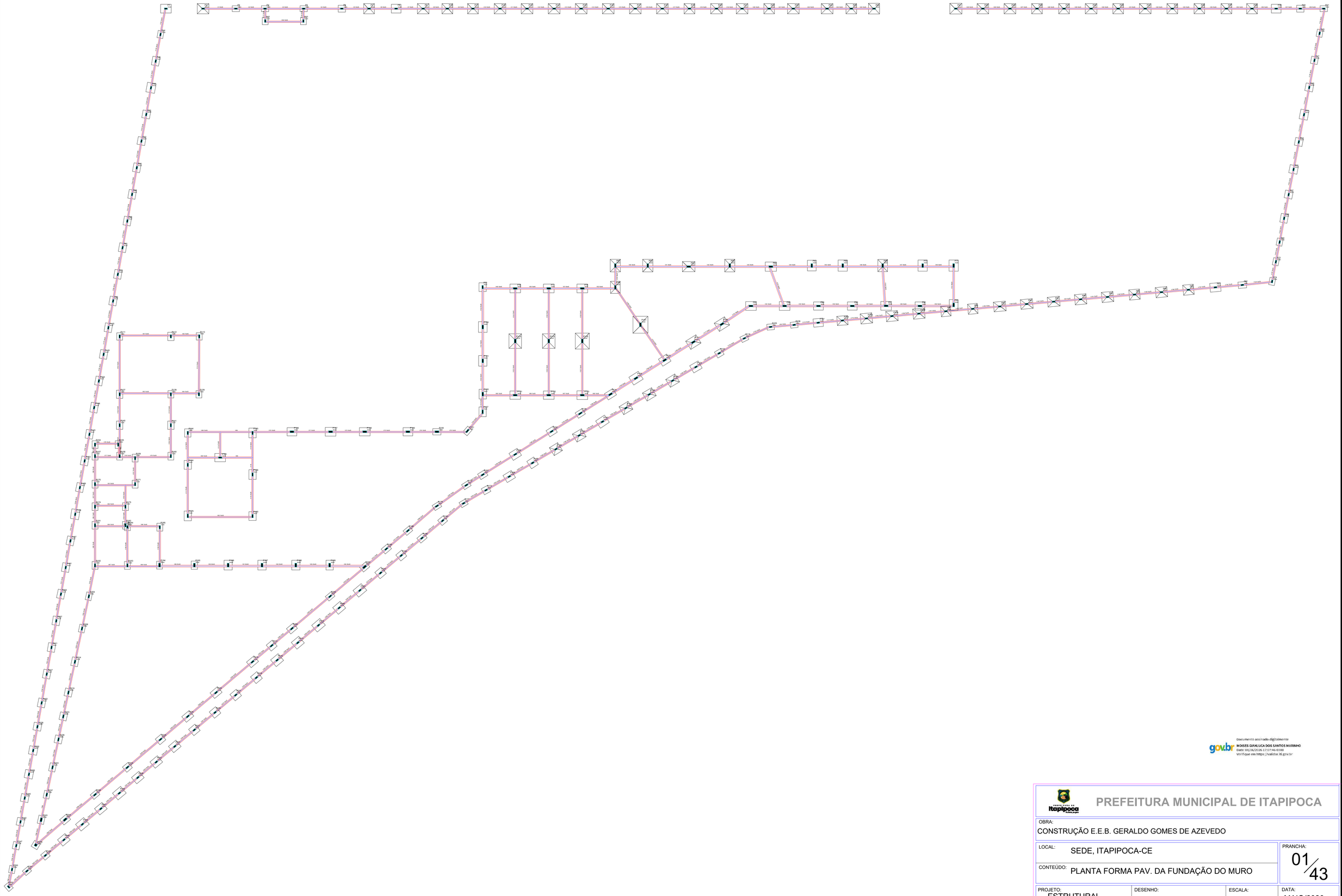
PRANCHA: 50/50

CONTEÚDO: DETALHAMENTO DE VIGÓTAS PRÉ-MOLDADAS SUPERIOR

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0960
ASSINADO ELETRONICAMENTE



1 **PLANTA FORMA PAVIMENTO FUNDAÇÃO**

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PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 01/43

CONTEÚDO: PLANTA FORMA PAV. DA FUNDAÇÃO DO MURO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V1	15x35	0	0
V2	15x35	0	0
V3	15x35	0	0
V4	15x35	0	0
V5	15x35	0	0
V6	15x35	0	0
V7	15x35	0	0
V8	15x35	0	0
V9	15x35	0	0
V10	15x35	0	0
V11	15x35	0	0
V12	15x35	0	0
V13	15x35	0	0
V14	15x35	0	0
V15	15x35	0	0
V16	15x35	0	0
V17	15x35	0	0
V18	15x35	0	0
V19	15x35	0	0
V20	15x35	0	0
V21	15x35	0	0
V22	15x35	0	0
V23	15x35	0	0
V24	15x35	0	0
V25	15x35	0	0
V26	15x35	0	0
V27	15x35	0	0
V28	15x35	0	0
V29	15x35	0	0
V30	15x35	0	0
V31	15x35	0	0
V32	15x35	0	0
V33	15x35	0	0
V34	15x35	0	0
V35	15x35	0	0
V36	15x35	0	0
V37	15x35	0	0
V38	15x35	0	0
V39	15x35	0	0
V40	18x40	0	0
V41	18x40	0	0
V42	18x40	0	0
V43	18x40	0	0
V44	18x40	0	0
V45	18x40	0	0
V46	18x40	0	0
V47	18x40	0	0
V48	18x40	0	0
V49	18x40	0	0
V50	18x40	0	0
V51	18x40	0	0
V52	18x40	0	0
V53	15x35	0	0
V54	18x40	0	0
V55	18x40	0	0
V56	18x40	0	0
V57	18x40	0	0
V58	18x40	0	0
V59	18x40	0	0
V60	15x35	0	0
V61	15x45	0	0
V62	15x40	0	0
V63	15x30	0	0
V64	15x35	0	0
V65	15x35	0	0
V66	15x35	0	0
V67	15x35	0	0
V68	15x35	0	0
V69	15x30	0	0
V70	15x35	0	0
V71	15x35	0	0
V72	15x35	0	0
V73	15x35	0	0
V74	15x35	0	0
V75	15x35	0	0
V76	15x30	0	0
V77	15x40	0	0
V78	15x30	0	0
V79	15x30	0	0
V80	15x30	0	0
V81	15x30	0	0
V82	15x30	0	0
V83	15x30	0	0
V84	15x30	0	0
V85	15x30	0	0
V86	15x40	0	0
V87	15x30	0	0
V88	15x30	0	0
V89	20x40	0	0

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V90	20x40	0	0
V91	20x40	0	0
V92	20x40	0	0
V93	20x40	0	0
V94	20x40	0	0
V95	15x30	0	0
V96	15x30	0	0
V97	15x30	0	0
V98	15x30	0	0
V99	15x30	0	0
V100	15x30	0	0
V101	15x30	0	0
V102	15x30	0	0
V103	15x35	0	0
V104	15x40	0	0
V105	15x30	0	0
V106	15x40	0	0
V107	15x30	0	0
V108	15x30	0	0
V109	15x30	0	0
V110	15x30	0	0
V111	15x30	0	0
V112	15x30	0	0
V113	15x35	0	0
V114	15x30	0	0
V115	15x30	0	0
V116	15x30	0	0
V117	15x35	0	0
V118	15x35	0	0
V119	15x35	0	0
V120	18x40	0	0
V121	18x40	0	0
V122	18x40	0	0
V123	15x45	0	0
V124	15x45	0	0
V125	15x45	0	0
V126	15x45	0	0
V127	15x45	0	0
V128	15x45	0	0
V129	18x40	0	0
V130	18x40	0	0
V131	18x40	0	0
V132	15x35	0	0
V133	15x35	0	0
V134	15x35	0	0
V135	15x35	0	0
V136	15x35	0	0
V137	15x35	0	0
V138	15x35	0	0
V139	15x35	0	0
V140	15x35	0	0
V141	15x35	0	0
V142	15x35	0	0
V143	15x35	0	0
V144	15x35	0	0
V145	15x35	0	0
V146	15x35	0	0
V147	15x35	0	0
V148	15x35	0	0
V149	15x35	0	0
V150	15x35	0	0
V151	18x40	0	0
V152	15x35	0	0
V153	15x35	0	0
V154	15x35	0	0
V155	15x35	0	0
V156	15x45	0	0
V157	15x35	0	0
V158	15x35	0	0
V159	15x35	0	0
V160	15x35	0	0
V161	15x35	0	0
V162	15x35	0	0
V163	15x35	0	0
V164	15x35	0	0
V165	15x35	0	0
V166	15x35	0	0
V167	15x35	0	0
V168	15x35	0	0
V169	15x35	0	0
V170	15x35	0	0
V171	15x35	0	0
V172	18x40	0	0
V173	15x35	0	0
V174	15x45	0	0
V175	15x35	0	0
V176	15x35	0	0
V177	18x40	0	0
V178	15x35	0	0

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V179	15x35	0	0
V180	18x40	0	0
V181	15x35	0	0
V182	18x40	0	0
V183	15x35	0	0
V184	15x35	0	0
V185	18x40	0	0
V186	15x35	0	0
V187	15x35	0	0
V188	15x35	0	0
V189	15x40	0	0
V190	15x35	0	0
V191	15x35	0	0
V192	15x30	0	0
V193	15x35	0	0
V194	15x35	0	0
V195	15x35	0	0
V196	15x30	0	0
V197	15x35	0	0
V198	15x35	0	0
V199	15x30	0	0
V200	15x35	0	0
V201	15x30	0	0
V202	15x35	0	0
V203	15x35	0	0
V204	15x35	0	0
V205	15x30	0	0
V206	15x35	0	0
V207	15x35	0	0
V208	15x30	0	0
V209	15x35	0	0
V210	15x35	0	0
V211	15x35	0	0
V212	15x35	0	0
V213	15x35	0	0
V214	15x35	0	0
V215	15x35	0	0
V216	15x35	0	0
V217	15x35	0	0
V218	15x30	0	0
V219	15x30	0	0
V220	15x35	0	0
V221	15x35	0	0
V222	15x35	0	0
V223	15x30	0	0
V224	15x35	0	0
V225	15x35	0	0
V226	15x35	0	0
V227	15x35	0	0
V228	15x35	0	0
V229	15x30	0	0
V230	15x35	0	0
V231	15x35	0	0
V232	15x35	0	0
V233	15x30	0	0
V234	15x30	0	0
V235	15x35	0	0
V236	15x35	0	0
V237	15x35	0	0
V238	15x30	0	0
V239	15x30	0	0
V240	15x35	0	0
V241	15x35	0	0
V242	15x30	0	0
V243	15x35	0	0
V244	15x35	0	0
V245	15x35	0	0
V246	15x35	0	0
V247	15x30	0	0
V248	15x30	0	0
V249	15x35	0	0
V250	15x35	0	0
V251	15x35	0	0
V252	15x30	0	0
V253	15x30	0	0
V254	15x35	0	0
V255	15x35	0	0
V256	15x30	0	0
V257	15x35	0	0
V258	15x35	0	0
V259	15x35	0	0
V260	15x30	0	0
V261	15x35	0	0
V262	15x30	0	0
V263	15x35	0	0
V264	15x35	0	0
V265	15x35	0	0
V266	15x35	0	0
V267	15x35	0	0

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P1	15 x 30	0	0
P2	15 x 30	0	0
P3	15 x 30	0	0
P4	15 x 30	0	0
P5	15 x 30	0	0
P6	15 x 30	0	0
P7	15 x 30	0	0
P8	15 x 30	-100	-100
P9	15 x 30	-100	-100
P10	15 x 30	-100	-100
P11	15 x 30	-100	-100
P12	15 x 30	-100	-100
P13	15 x 30	-100	-100
P14	15 x 30	-100	-100
P15	15 x 30	-100	-100
P16	15 x 30	-100	-100
P17	15 x 30	-100	-100
P18	15 x 30	-100	-100
P19	15 x 30	-100	-100
P20	15 x 30	-100	-100
P21	15 x 30	-100	-100
P22	15 x 30	-100	-100
P23	15 x 30	-100	-100
P24	15 x 30	-100	-100
P25	15 x 30	-100	-100
P26	15 x 30	-100	-100
P27	15 x 30	-100	-100
P28	15 x 30	-100	-100
P29	15 x 30	-100	-100
P30	15 x 30	-100	-100
P31	15 x 30	-100	-100
P32	15 x 30	-100	-100
P33	15 x 30	-100	-100
P34	15 x 30	-100	-100
P35	15 x 30	-100	-100
P36	15 x 30	-100	-100
P37	15 x 30	-100	-100
P38	15 x 30	-100	-100
P39	15 x 30	-100	-100
P40	15 x 30	-100	-100
P41	15 x 30	-100	-100
P42	15 x 30	0	0
P43	15 x 30	0	0
P44	15 x 30	-100	-100
P45	15 x 30	-100	-100
P46	15 x 30	-100	-100
P47	15 x 30	-100	-100
P48	15 x 30	-100	-100
P49	15 x 30	-100	-100
P50	15 x 30	-100	-100
P51	15 x 30	-100	-100
P52	15 x 30	-100	-100
P53	15 x 30	-100	-100
P54	15 x 30	-100	-100
P55	15 x 30	-100	-100
P56	15 x 30	-100	-100
P57	15 x 30	-100	-100
P58	15 x 30	-100	-100
P59	15 x 30	-100	-100
P60	15 x 30	-100	-100
P61	15 x 30	-100	-100
P62	18 x 40	0	0
P63	18 x 40	0	0
P64	18 x 40	0	0
P65	18 x 40	0	0
P66	18 x 40	0	0
P67	18 x 40	0	0
P68	18 x 40	0	0
P69	18 x 40	0	0
P70	18 x 40	0	0
P71	18 x 40	0	0
P72	15 x 30	-100	-100
P73	15 x 30	-100	-100
P74	15 x 30	-100	-100
P75	15 x 35	0	0
P76	18 x 40	0	0
P77	18 x 40	0	0
P78	18 x 40	0	0
P79	18 x 40	0	0
P80	15 x 30	-100	-100
P81	15 x 30	-100	-100
P82	15 x 30	-100	-100
P83	15 x 30	-100	-100
P84	15 x 30	-100	-100

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P85	15 x 30	-100	-100
P86	15 x 30	-100	-100
P87	18 x 40	0	0
P88	18 x 40	0	0
P89	18 x 40	0	0
P90	18 x 40	0	0
P91	18 x 40	0	0
P92	18 x 40	0	0
P93	18 x 40	0	0
P94	15 x 30	-100	-100
P95	15 x 30	-100	-100
P96	15 x 30	-100	-100
P97	15 x 30	-100	-100
P98	15 x 30	-100	-100
P99	15 x 30	-100	-100
P100	18 x 40	0	0
P101	20 x 40	0	0
P102	18 x 40	0	0
P103	15 x 30	-100	-100
P104	15 x 30	-100	-100
P105	15 x 30	-100	-100
P106	15 x 30	-100	-100
P107	15 x 30	-100	-100
P108	15 x 30	-100	-100
P109	15 x 30	-100	-100
P110	15 x 30	-100	-100
P111	15 x 35	0	0
P112	15 x 35	0	0
P113	15 x 35	0	0
P114	20 x 40	0	0
P115	20 x 40	0	0
P116	20 x 40	0	0
P117	18 x 40	0	0
P118	15 x 30	-100	-100
P119	15 x 30	-100	-100
P120	15 x 30	-100	-100
P121	18 x 40	0	0
P122	18 x 40	0	0
P123	15 x 30	-100	-100
P124	15 x 30	-100	-100
P125	18 x 40	0	0
P126	15 x 30	-100	-100
P127	15 x 35	0	0
P128	15 x 35	0	0
P129	15 x 35	0	0
P130	18 x 40	0	0
P131	18 x 40	0	0
P132	18 x 40	0	0
P133	18 x 40	0	0
P134	18 x 40	0	0
P135	15 x 30	-100	-100
P136	15 x 30	-100	-100
P137	15 x 40	0	0
P138	15 x 30	-100	-100
P139	15 x 40	0	0
P140	15 x 35	0	0
P141	15 x 35	0	0
P142	15 x 30	-100	-100
P143	15 x 30	-100	-100
P144	15 x 35	0	0
P145	15 x 35	0	0
P146	20 x 40	0	0
P147	20 x 40	0	0
P148	20 x 40	0	0
P149	20 x 40	0	0
P150	20 x 40	0	0
P151	15 x 40	0	0
P152	15 x 35	0	0
P153	15 x 30	-100	-100
P154	15 x 35	0	0
P155	15 x 35	0	0
P156	15 x 30	-100	-100
P157	15 x 35	0	0
P158	15 x 35	0	0
P159	15 x 35	0	0
P160	15 x 35	0	0
P161	15 x 35	0	0
P162	15 x 35	0	0
P163	15 x 30	-100	-100
P164	15 x 35	0	0
P165	15 x 30	-100	-100
P166	15 x 35	0	0
P167	15 x 35	0	0
P168	15 x 30	-100	-100

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P169	15 x 30	-100	-100
P170	15 x 35	0	0
P171	15 x 35	0	0
P172	15 x 35	0	0
P173	15 x 30	-100	-100
P174	15 x 35	0	0
P175	15 x 35	0	0
P176	15 x 35	0	0
P177	15 x 30	-100	-100
P178	15 x 30	-100	-100
P179	15 x 40	0	0
P180	15 x 35	0	0
P181	15 x 35	0	0
P182	15 x 35	0	0
P183	15 x 30	-100	-100
P184	15 x 30	0	0
P185	15 x 35	0	0
P186	15 x 35	0	0
P187	15 x 30	-100	-100
P188	15 x 30	-100	-100
P189	15 x 35	0	0
P190	15 x 30	-100	-100
P191	15 x 30	-100	-100
P192	15 x 35	0	0
P193	15 x 35	0	0
P194	20 x 40	0	0
P195	20 x 40	0	0
P196	20 x 40	0	0
P197	20 x 40	0	0
P198	20 x 40	0	0
P199	20 x 40	0	0
P200	20 x 40	0	0
P201	15 x 30	-100	-100
P202	15 x 30	-100	-100
P203	15 x 30	-100	-100
P204	15 x 35	0	0
P205	15 x 35	0	0
P206	15 x 30	-100	-100
P207	15 x 30	-100	-100
P208	15 x 35	0	0
P209	15 x 35	0	0
P210	15 x 30	-100	-100
P211	15 x 30	-100	-100
P212	15 x 35	0	0
P213	15 x 30	-100	-100
P214	15 x 35	0	0
P215	15 x 35	0	0
P216	15 x 30	-100	-100
P217	15 x 30	-100	-100
P218	15 x 30	-100	-100
P219	15 x 35	0	0
P220	15 x 35	0	0
P221	15 x 30	-100	-100
P222	15 x 30	-100	-100
P223	15 x 35	0	0
P224	15 x 35	0	0
P225	15 x 30	-100	-100
P226	15 x 30	-100	-100
P227	15 x 30	-100	-100
P228	15 x 35	0	0
P229	15 x 35	0	0
P230	15 x 30	-100	-100
P231	15 x 30	-100	-100
P232	15 x 30	-100	-100
P233	15 x 35	0	0
P234	15 x 35	0	0
P235	15 x 30	-100	-100
P236	15 x 30	-100	-100
P237	15 x 35	0	0
P238	15 x 35	0	0
P239	15 x 30	-100	-100
P240	15 x 30	-100	-100
P241	15 x 30	-100	-100
P242	15 x 30	-100	-100
P243	20 x 40	0	0
P244	20 x 40	0	0
P245	15 x 30	-100	-100
P246	15 x 30	-100	-100
P247	15 x 30	-100	-100
P248	25 x 25	0	0
P249	15 x 30	-100	-100
P250	15 x 30	-100	-100
P251	15 x 30	-100	-100
P252	15 x 30	-100	-100

Características dos materiais

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

Legenda dos Pilares	
	Pilar que morre
	Pilar que passa
	Pilar que nasce
	Pilar com mudança de seção

1 LEGENDAS DE PILARES E VIGAS DA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 02/43

CONTEÚDO: LEGENDAS PLANTA FORMA PAV. DA FUNDAÇÃO DO MURO

PROJETO: ESTRUTURAL

DESENHO:

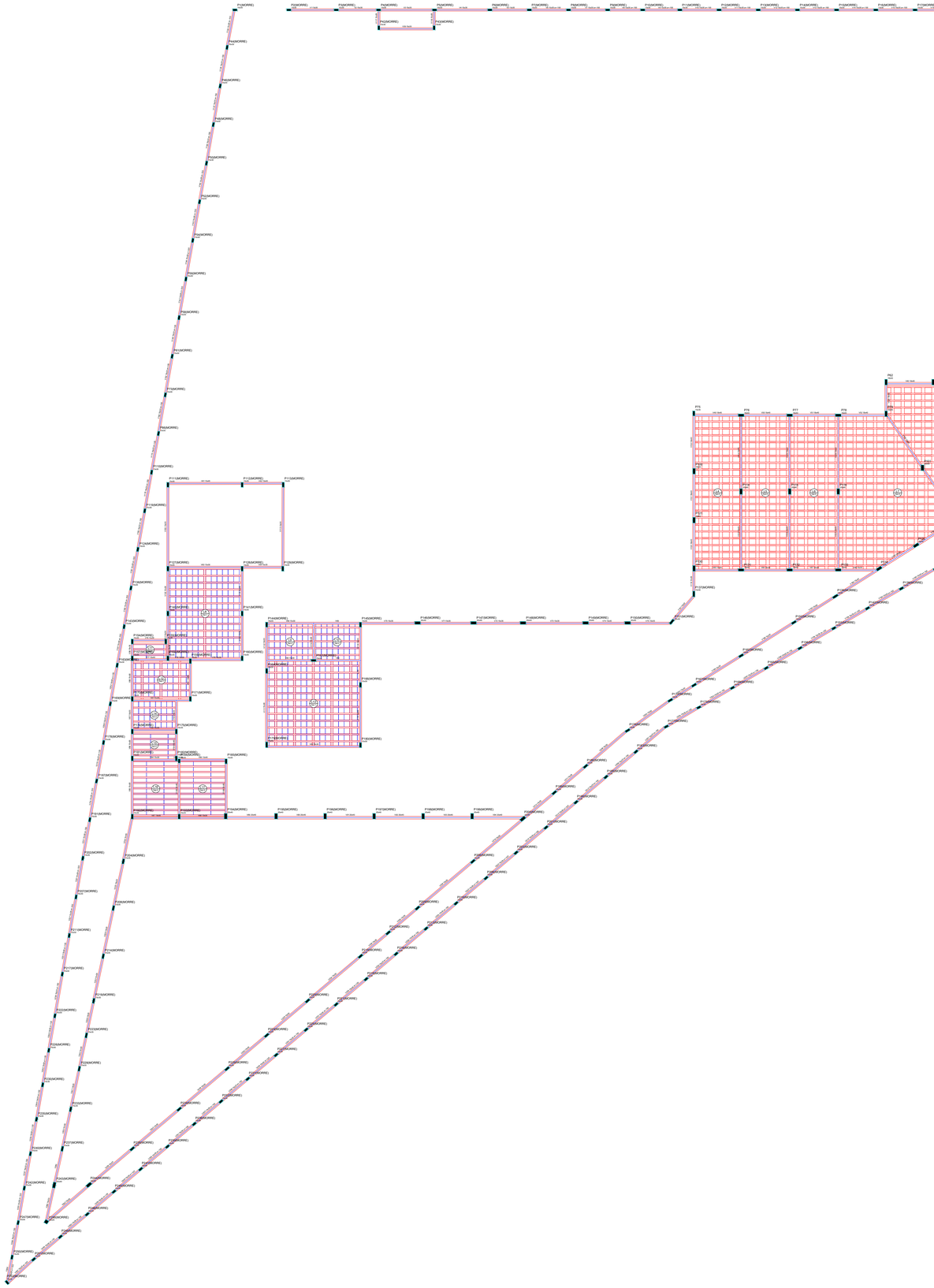
ESCALA:

DATA: MAIO/2026

FOLHA: A1

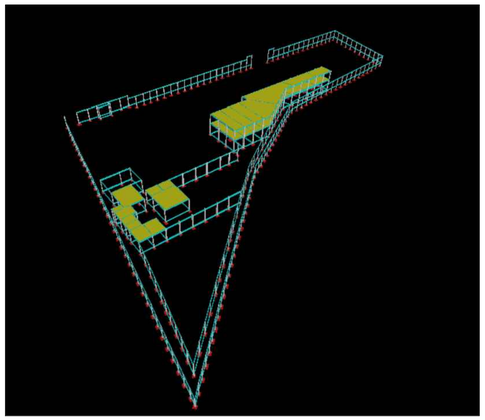
PROCESSO ADMINISTRATIVO 0961 ASSINADO ELETRONICAMENTE

PROCESSO ADMINISTRATIVO
0962
ASSINADO ELETRONICAMENTE



1 PLANTA FORMA PAVIMENTO TÉRREO

2 PROJEÇÃO ESTRUTURAL 3D



PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: PLANTA FORMA DO MURO PAV. TÉRREO

PRANCHA: 03/43

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0963
ASSINADO ELETRONICAMENTE

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V1	15x35	0	350
V2	15x35	0	350
V3	15x35	0	350
V4	15x35	0	350
V5	15x35	0	350
V6	15x35	-100	250
V7	15x35	-100	250
V8	15x35	-100	250
V9	15x35	-100	250
V10	15x35	-100	250
V11	15x35	-100	250
V12	15x35	-100	250
V13	15x35	-100	250
V14	15x35	-100	250
V15	15x35	-100	250
V16	15x35	-100	250
V17	15x35	-100	250
V18	15x35	-100	250
V19	15x35	-100	250
V20	15x35	-100	250
V21	15x35	-100	250
V22	15x35	-100	250
V23	15x35	-100	250
V24	15x35	0	350
V25	15x35	0	350
V26	15x35	-100	250
V27	15x35	-100	250
V28	15x35	-100	250
V29	15x35	-100	250
V30	15x35	-100	250
V31	15x35	-100	250
V32	15x35	-100	250
V33	15x35	-100	250
V34	15x35	-100	250
V35	15x35	-100	250
V36	15x35	-100	250
V37	15x35	-100	250
V38	15x35	-100	250
V39	15x35	0	350
V40	18x40	0	350
V41	18x40	0	350
V42	18x40	0	350
V43	18x40	0	350
V44	18x40	0	350
V45	18x40	0	350
V46	18x40	0	350
V47	18x40	0	350
V48	18x40	0	350
V49	18x40	0	350
V50	18x40	0	350
V51	18x40	0	350
V52	18x40	0	350
V53	15x35	-100	250
V54	18x40	0	350
V55	18x40	0	350
V56	18x40	0	350
V57	18x40	0	350
V58	18x40	0	350
V59	18x40	0	350
V60	15x35	-100	250
V61	15x45	0	350
V62	15x40	0	350
V63	15x30	0	350
V64	15x35	0	350
V65	15x35	0	350
V66	15x35	0	350
V67	15x35	0	350
V68	15x35	0	350
V69	15x30	0	350
V70	15x35	0	350
V71	15x35	0	350
V72	15x35	0	350
V73	15x35	0	350
V74	15x35	0	350
V75	15x35	0	350
V76	15x30	0	350
V77	15x40	0	350
V78	15x30	0	350
V79	15x30	0	350
V80	15x30	0	350
V81	15x30	0	350
V82	15x30	0	350
V83	15x30	0	350
V84	15x30	0	350
V85	15x30	0	350
V86	15x40	0	350
V87	15x30	0	350
V88	15x30	0	350
V89	20x40	0	350

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V90	20x40	0	350
V91	20x40	0	350
V92	20x40	0	350
V93	20x40	0	350
V94	20x40	0	350
V95	15x30	0	350
V96	15x30	0	350
V97	15x30	0	350
V98	15x30	0	350
V99	15x30	0	350
V100	15x30	0	350
V101	15x30	0	350
V102	15x30	0	350
V103	15x35	0	350
V104	15x40	0	350
V105	15x30	0	350
V106	15x40	0	350
V107	15x30	0	350
V108	15x30	0	350
V109	15x30	0	350
V110	15x30	0	350
V111	15x30	0	350
V112	15x30	0	350
V113	15x35	0	350
V114	15x30	0	350
V115	15x30	0	350
V116	15x30	0	350
V117	15x35	0	350
V118	15x35	0	350
V119	15x35	0	350
V120	18x40	0	350
V121	18x40	0	350
V122	18x40	0	350
V123	15x45	0	350
V124	15x45	0	350
V125	15x45	0	350
V126	15x45	0	350
V127	15x45	0	350
V128	15x45	0	350
V129	18x40	0	350
V130	18x40	0	350
V131	18x40	0	350
V132	15x35	-100	250
V133	15x35	-100	250
V134	15x35	-100	250
V135	15x35	-100	250
V136	15x35	-100	250
V137	15x35	-100	250
V138	15x35	-100	250
V139	15x35	-100	250
V140	15x35	-100	250
V141	15x35	-100	250
V142	15x35	-100	250
V143	15x35	-100	250
V144	15x35	-100	250
V145	15x35	-100	250
V146	15x35	-100	250
V147	15x35	-100	250
V148	15x35	-100	250
V149	15x35	-100	250
V150	15x35	-100	250
V151	18x40	0	350
V152	15x35	-100	250
V153	15x35	-100	250
V154	15x35	-100	250
V155	15x35	-100	250
V156	15x45	0	350
V157	15x35	-100	250
V158	15x35	-100	250
V159	15x35	-100	250
V160	15x35	-100	250
V161	15x35	-100	250
V162	15x35	-100	250
V163	15x35	-100	250
V164	15x35	-100	250
V165	15x35	-100	250
V166	15x35	-100	250
V167	15x35	-100	250
V168	15x35	-100	250
V169	15x35	-100	250
V170	15x35	-100	250
V171	15x35	-100	250
V172	18x40	0	350
V173	15x35	-100	250
V174	15x45	0	350
V175	15x35	-100	250
V176	15x35	-100	250
V177	18x40	0	350
V178	15x35	-100	250

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V179	15x35	-100	250
V180	18x40	0	350
V181	15x35	-100	250
V182	18x40	0	350
V183	15x35	-100	250
V184	15x35	-100	250
V185	18x40	0	350
V186	15x35	-100	250
V187	15x35	-100	250
V188	15x35	-100	250
V189	15x40	0	350
V190	15x35	-100	250
V191	15x35	0	350
V192	15x30	0	350
V193	15x35	-100	250
V194	15x35	-100	250
V195	15x35	-100	250
V196	15x30	0	350
V197	15x35	-100	250
V198	15x35	-100	250
V199	15x30	0	350
V200	15x35	-100	250
V201	15x30	0	350
V202	15x35	-100	250
V203	15x35	-100	250
V204	15x35	-100	250
V205	15x30	0	350
V206	15x35	-100	250
V207	15x35	-100	250
V208	15x30	0	350
V209	15x35	-100	250
V210	15x35	-100	250
V211	15x35	0	350
V212	15x35	-100	250
V213	15x35	0	350
V214	15x35	-100	250
V215	15x35	-100	250
V216	15x35	-100	250
V217	15x35	-100	250
V218	15x30	0	350
V219	15x30	0	350
V220	15x35	-100	250
V221	15x35	-100	250
V222	15x35	-100	250
V223	15x30	0	350
V224	15x35	0	350
V225	15x35	-100	250
V226	15x35	0	350
V227	15x35	-100	250
V228	15x35	-100	250
V229	15x30	0	350
V230	15x35	0	350
V231	15x35	-100	250
V232	15x35	-100	250
V233	15x30	0	350
V234	15x30	0	350
V235	15x35	-100	250
V236	15x35	-100	250
V237	15x35	-100	250
V238	15x30	0	350
V239	15x30	0	350
V240	15x35	-100	250
V241	15x35	-100	250
V242	15x30	0	350
V243	15x35	0	350
V244	15x35	-100	250
V245	15x35	-100	250
V246	15x35	-100	250
V247	15x30	0	350
V248	15x30	0	350
V249	15x35	-100	250
V250	15x35	-100	250
V251	15x35	-100	250
V252	15x30	0	350
V253	15x30	0	350
V254	15x35	-100	250
V255	15x35	-100	250
V256	15x30	0	350
V257	15x35	-100	250
V258	15x35	-100	250
V259	15x35	-100	250
V260	15x30	0	350
V261	15x35	-100	250
V262	15x30	0	350
V263	15x35	-100	250
V264	15x35	-100	250
V265	15x35	-100	250
V266	15x35	-100	250
V267	15x35	-100	250

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P1	15 x 30	0	350
P2	15 x 30	0	350
P3	15 x 30	0	350
P4	15 x 30	0	350
P5	15 x 30	0	350
P6	15 x 30	0	350
P7	15 x 30	0	350
P8	15 x 30	-100	250
P9	15 x 30	-100	250
P10	15 x 30	-100	250
P11	15 x 30	-100	250
P12	15 x 30	-100	250
P13	15 x 30	-100	250
P14	15 x 30	-100	250
P15	15 x 30	-100	250
P16	15 x 30	-100	250
P17	15 x 30	-100	250
P18	15 x 30	-100	250
P19	15 x 30	-100	250
P20	15 x 30	-100	250
P21	15 x 30	-100	250
P22	15 x 30	-100	250
P23	15 x 30	-100	250
P24	15 x 30	-100	250
P25	15 x 30	0	350
P26	15 x 30	0	350
P27	15 x 30	0	350
P28	15 x 30	0	350
P29	15 x 30	-100	250
P30	15 x 30	-100	250
P31	15 x 30	-100	250
P32	15 x 30	-100	250
P33	15 x 30	-100	250
P34	15 x 30	-100	250
P35	15 x 30	-100	250
P36	15 x 30	-100	250
P37	15 x 30	-100	250
P38	15 x 30	-100	250
P39	15 x 30	-100	250
P40	15 x 30	-100	250
P41	15 x 30	-100	250
P42	15 x 30	0	350
P43	15 x 30	0	350
P44	15 x 30	-100	250
P45	15 x 30	-100	250
P46	15 x 30	-100	250
P47	15 x 30	-100	250
P48	15 x 30	-100	250
P49	15 x 30	-100	250
P50	15 x 30	-100	250
P51	15 x 30	-100	250
P52	15 x 30	-100	250
P53	15 x 30	-100	250
P54	15 x 30	-100	250
P55	15 x 30	-100	250
P56	15 x 30	-100	250
P57	15 x 30	-100	250
P58	15 x 30	-100	250
P59	15 x 30	-100	250
P60	15 x 30	-100	250
P61	15 x 30	-100	250
P62	18 x 40	0	350
P63	18 x 40	0	350
P64	18 x 40	0	350
P65	18 x 40	0	350
P66	18 x 40	0	350
P67	18 x 40	0	350
P68	18 x 40	0	350
P69	18 x 40	0	350
P70	18 x 40	0	350
P71	18 x 40	0	350
P72	15 x 30	-100	250
P73	15 x 30	-100	250
P74	15 x 30	-100	250
P75	15 x 35	0	350
P76	18 x 40	0	350
P77	18 x 40	0	350
P78	18 x 40	0	350
P79	18 x 40	0	350
P80	15 x 30	-100	250
P81	15 x 30	-100	250
P82	15 x 30	-100	250
P83	15 x 30	-100	250
P84	15 x 30	-100	250

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P85	15 x 30	-100	250
P86	15 x 30	-100	250
P87	18 x 40	0	350
P88	18 x 40	0	350
P89	18 x 40	0	350
P90	18 x 40	0	350
P91	18 x 40	0	350
P92	18 x 40	0	350
P93	18 x 40	0	350
P94	15 x 30	-100	250
P95	15 x 30	-100	250
P96	15 x 30	-100	250
P97	15 x 30	-100	250
P98	15 x 30	-100	250
P99	15 x 30	-100	250
P100	18 x 40	0	350
P101	20 x 40	0	350
P102	18 x 40	0	350
P103	15 x 30	-100	250
P104	15 x 30	-100	250
P105	15 x 30	-100	250
P106	15 x 30	-100	250
P107	15 x 30	-100	250
P108	15 x 30	-100	250
P109	15 x 30	-100	250
P110	15 x 30	-100	250
P111	15 x 35	0	350
P112	15 x 35	0	350
P113	15 x 35	0	350
P114	20 x 40	0	350
P115	20 x 40	0	350
P116	20 x 40	0	350
P117	18 x 40	0	350
P118	15 x 30	-100	250
P119	15 x 30	-100	250
P120	15 x 30	-100	250
P121	18 x 40	0	350
P122	18 x 40	0	350
P123	15 x 30	-100	250
P124	15 x 30	-100	250
P125	18 x 40	0	350
P126	15 x 30	-100	250
P127	15 x 35	0	350
P128	15 x 35	0	350
P129	15 x 35	0	350
P130	18 x 40	0	350
P131	18 x 40	0	350
P132	18 x 40	0	350
P133	18 x 40	0	350
P134	18 x 40	0	350
P135	15 x 30	-100	250
P136	15 x 30	-100	250
P137	15 x 40	0	350
P138	15 x 30	-100	250
P139	15 x 40	0	350
P140	15 x 35	0	350
P141	15 x 35	0	350
P142	15 x 30	-100	250
P143	15 x 30	-100	250
P144	15 x 35	0	350
P145	15 x 35	0	350
P146	20 x 40	0	350
P147	20 x 40	0	350
P148	20 x 40	0	350
P149	20 x 40	0	350
P150	20 x 40	0	350
P151	15 x 40	0	350
P152	15 x 35	0	350
P153	15 x 30	-100	250
P154	15 x 35	0	350
P155	15 x 35	0	350
P156	15 x 30	-100	250
P157	15 x 35	0	350
P158	15 x 35	0	350
P159	15 x 35	0	350
P160	15 x 35	0	350
P161	15 x 35	0	350
P162	15 x 35	0	350
P163	15 x 30	-100	250
P164	15 x 35	0	350
P165	15 x 30	-100	250
P166	15 x 35	0	350
P167	15 x 35	0	350
P168	15 x 30	-100	250

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P169	15 x 30	-100	250
P170	15 x 35	0	350
P171	15 x 35	0	350
P172	15 x 35	0	350
P173	15 x 30	-100	250
P174	15 x 35	0	350
P175	15 x 35	0	350
P176	15 x 35	0	350
P177	15 x 30	-100	250
P178	15 x 30	-100	250
P179	15 x 40	0	350
P180	15 x 35	0	350
P181	15 x 35	0	350
P182	15 x 35	0	350
P183	15 x 30	-100	250
P184	15 x 30	0	350
P185	15 x 35	0	350
P186	15 x 35	0	350
P187	15 x 30	-100	250
P188	15 x 30	-100	250
P189	15 x 35	0	350
P190	15 x 30	-100	250
P191	15 x 30	-100	250
P192	15 x 35	0	350
P193	15 x 35	0	350
P194	20 x 40	0	350
P195	20 x 40	0	350
P196	20 x 40	0	350
P197	20 x 40	0	350
P198	20 x 40	0	350
P199	20 x 40	0	350
P200	20 x 40	0	350
P201	15 x 30	-100	250
P202	15 x 30	-100	250
P203	15 x 30	-100	250
P204	15 x 35	0	350
P205	15 x 35	0	350
P206	15 x 30	-100	250
P207	15 x 30	-100	250
P208	15 x 35	0	350
P209	15 x 35	0	350
P210	15 x 30	-100	250
P211	15 x 30	-100	250
P212	15 x 35	0	350
P213	15 x 30	-100	250
P214	15 x 35	0	350
P215	15 x 35	0	350
P216	15 x 30	-100	250
P217	15 x 30	-100	250
P218	15 x 30	-100	250
P219	15 x 35	0	350
P220	15 x 35	0	350
P221	15 x 30	-100	250
P222	15 x 30	-100	250
P223	15 x 35	0	350
P224	15 x 35	0	350
P225	15 x 30	-100	250
P226	15 x 30	-100	250
P227	15 x 30	-100	250
P228	15 x 35	0	350
P229	15 x 35	0	350
P230	15 x 30	-100	250
P231	15 x 30	-100	250
P232	15 x 30	-100	250
P233	15 x 35	0	350
P234	15 x 35	0	350
P235	15 x 30	-100	250
P236	15 x 30	-100	250
P237	15 x 35	0	350
P238	15 x 35	0	350
P239	15 x 30	-100	250
P240	15 x 30	-100	250
P241	15 x 30	-100	250
P242	15 x 30	-100	250
P243	20 x 40	0	350
P244	20 x 40	0	350
P245	15 x 30	-100	250
P246	15 x 30	-100	250
P247	15 x 30	-100	250
P248	25 x 25	0	350
P249	15 x 30	-100	250
P250	15 x 30	-100	250
P251	15 x 30	-100	250
P252	15 x 30	-100	250

Lajes

Dados					Sobrecarga (kgf/m²)	
Nome	Tipo	Altura (cm)	Elevação (cm)	Nível (cm)	Adicional	Acidental
L1	Treliçada 2D	27	0	350	0	0
L2	Treliçada 2D	25	0	350	0	0
L3	Treliçada 2D	25	0	350	0	0
L4	Treliçada 2D	27	0	350	0	0
L5	Treliçada 2D	27	0	350	0	0
L6	Treliçada 2D	27	0	350	0	0
L7	Treliçada 2D	27	0	350	0	0
L8	Treliçada 1D	25	0	350	100	0
L9	Treliçada 1D	25	0	350	100	0
L10	Treliçada 1D	25	0	350	100	0
L11	Treliçada 1D	16	0	350	100	0
L12	Treliçada 1D	25	0	350	100	0
L13	Treliçada 1D	25	0	350	100	0
L14	Treliçada 1D	25	0	350	100	0
L15	Treliçada 1D	16	0	350	100	0
L16	Treliçada 1D	16	0	350	100	0
L17	Treliçada 1D	16	0	350	100	0

Legenda dos Pilares

	Pilar que morre
	Pilar que passa
	Pilar que nasce
	Pilar com mudança de seção

Área de lajes

Tipo	Altura (cm)	Bloco de Enchimento	Área (m²)
Treliçada 1D	16	B8/30/125	34.42
Treliçada 1D	25	B10/40/40/7	105.44
Treliçada 2D	25	B10/40/40	69.78
Treliçada 2D	27	B12/40/49	267.84

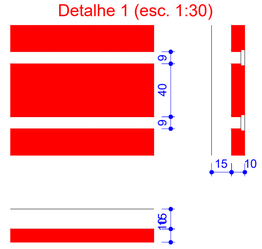
Características dos materiais

fck (kgf/cm²)	Ecs (kgf/cm²)
300	260716

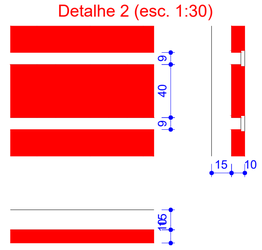
Blocos de enchimento

Detalhe	Tipo	Nome	Dimensões(cm)			Quantidade
			hb	bx	by	
1/2	EPS Unidirecional	B10/40/40/7	10	40	40	529
3	EPS Unidirecional	B8/30/125	8	30	125	81
4	EPS Bidirecional	B10/40/40	10	40	40	283
5	EPS Bidirecional	B12/40/49	12	40	49	829

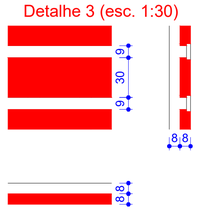
Detalhe 1 (esc. 1:30)



Detalhe 2 (esc. 1:30)



Detalhe 3 (esc. 1:30)



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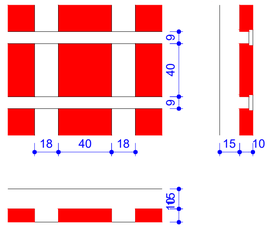
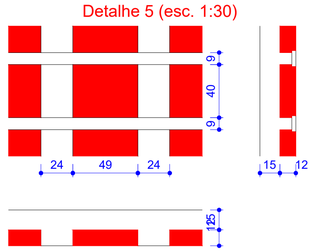


Detalhe 5 (esc. 1:30)



1 LEGENDAS DE PILARES E VIGAS DO TÉRREO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: LEGENDAS PLANTA FORMA PAV. TÉRREO DO MURO

PRANCHA: 04/43

PROJETO: ESTRUTURAL

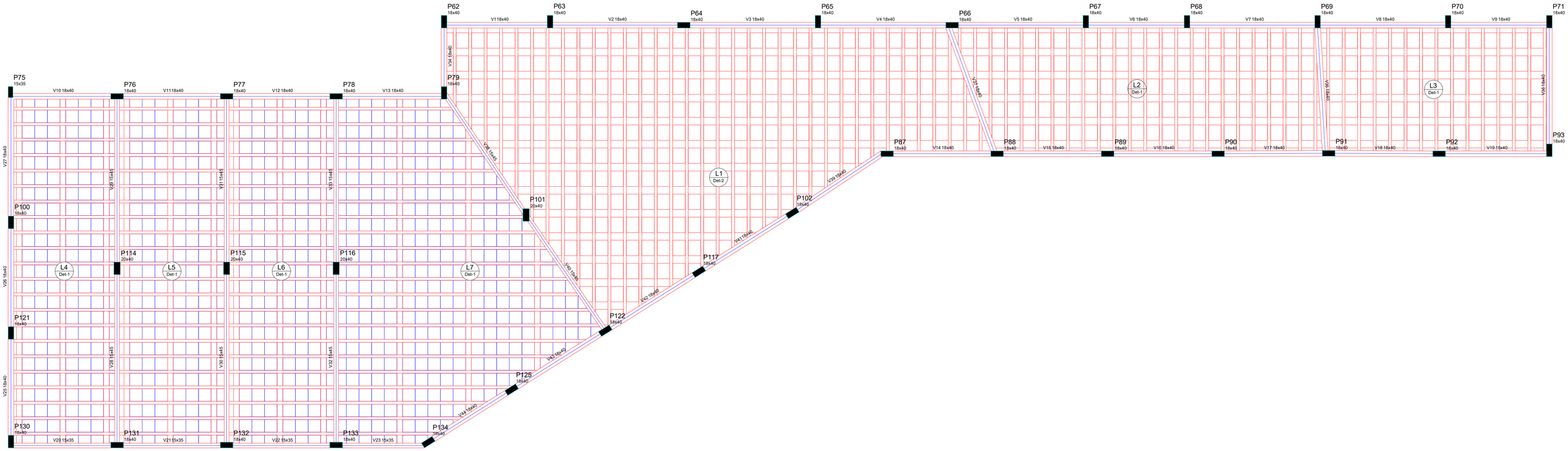
DESENHO:

ESCALA:

DATA: MAIO/2026

FOLHA: A1

PROTOCOLO ADMINISTRATIVO
0964
ASSINADO ELETRONICAMENTE



1 PLANTA FORMA PAVIMENTO SUPERIOR

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P62	18 x 40	0	650
P63	18 x 40	0	650
P64	18 x 40	0	650
P65	18 x 40	0	650
P66	18 x 40	0	650
P67	18 x 40	0	650
P68	18 x 40	0	650
P69	18 x 40	0	650
P70	18 x 40	0	650
P71	18 x 40	0	650
P75	15 x 35	0	650
P76	18 x 40	0	650
P77	18 x 40	0	650
P78	18 x 40	0	650
P79	18 x 40	0	650
P87	18 x 40	0	650
P88	18 x 40	0	650
P89	18 x 40	0	650
P90	18 x 40	0	650
P91	18 x 40	0	650
P92	18 x 40	0	650
P93	18 x 40	0	650
P100	18 x 40	0	650
P101	20 x 40	0	650
P102	18 x 40	0	650
P114	20 x 40	0	650
P115	20 x 40	0	650
P116	20 x 40	0	650
P117	18 x 40	0	650
P121	18 x 40	0	650
P122	18 x 40	0	650
P125	18 x 40	0	650
P130	18 x 40	0	650
P131	18 x 40	0	650
P132	18 x 40	0	650
P133	18 x 40	0	650
P134	18 x 40	0	650

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V1	18x40	0	650
V2	18x40	0	650
V3	18x40	0	650
V4	18x40	0	650
V5	18x40	0	650
V6	18x40	0	650
V7	18x40	0	650
V8	18x40	0	650
V9	18x40	0	650
V10	18x40	0	650
V11	18x40	0	650
V12	18x40	0	650
V13	18x40	0	650
V14	18x40	0	650
V15	18x40	0	650
V16	18x40	0	650
V17	18x40	0	650
V18	18x40	0	650
V19	18x40	0	650
V20	15x35	0	650
V21	15x35	0	650
V22	15x35	0	650
V23	15x35	0	650
V25	18x40	0	650
V26	18x40	0	650
V27	18x40	0	650
V28	15x45	0	650
V29	15x45	0	650
V30	15x45	0	650
V31	15x45	0	650
V32	15x45	0	650
V33	15x45	0	650
V34	18x40	0	650
V35	18x40	0	650
V36	18x40	0	650
V37	18x40	0	650
V38	15x45	0	650
V39	18x40	0	650
V40	15x45	0	650
V41	18x40	0	650
V42	18x40	0	650
V43	18x40	0	650
V44	18x40	0	650

Blocos de enchimento						
Detalhe	Tipo	Nome	Dimensões(cm)			Quantidade
			hb	bx	by	
1	EPS Unidirecional	B12/40/40/9	12	40	40	1186
2	EPS Bidirecional	B12/40/49	12	40	49	281

Lajes

Dados					Sobrecarga (kgf/m²)	
Nome	Tipo	Altura (cm)	Elevação (cm)	Nível (cm)	Adicional	Acidental
L1	Treliçada 2D	22	0	650	100	0
L2	Treliçada 1D	22	0	650	100	0
L3	Treliçada 1D	22	0	650	100	0
L4	Treliçada 1D	22	0	650	100	0
L5	Treliçada 1D	22	0	650	100	0
L6	Treliçada 1D	22	0	650	100	0
L7	Treliçada 1D	22	0	650	100	0

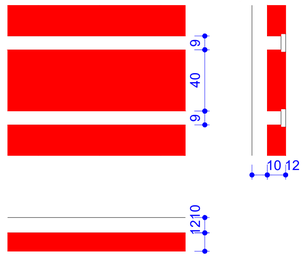
Área de lajes			
Tipo	Altura (cm)	Bloco de Enchimento	Área (m²)
Treliçada 1D	22	B12/40/40/9	239.28
Treliçada 2D	22	B12/40/49	98.34

Características dos materiais

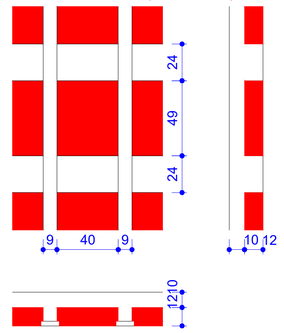
fck (kgf/cm²)	Ecs (kgf/cm²)
300	260716

Legenda dos Pilares	
	Pilar que morre
	Pilar que passa
	Pilar que nasce
	Pilar com mudança de seção

Detalhe 1 (esc. 1:30)



Detalhe 2 (esc. 1:30)



PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

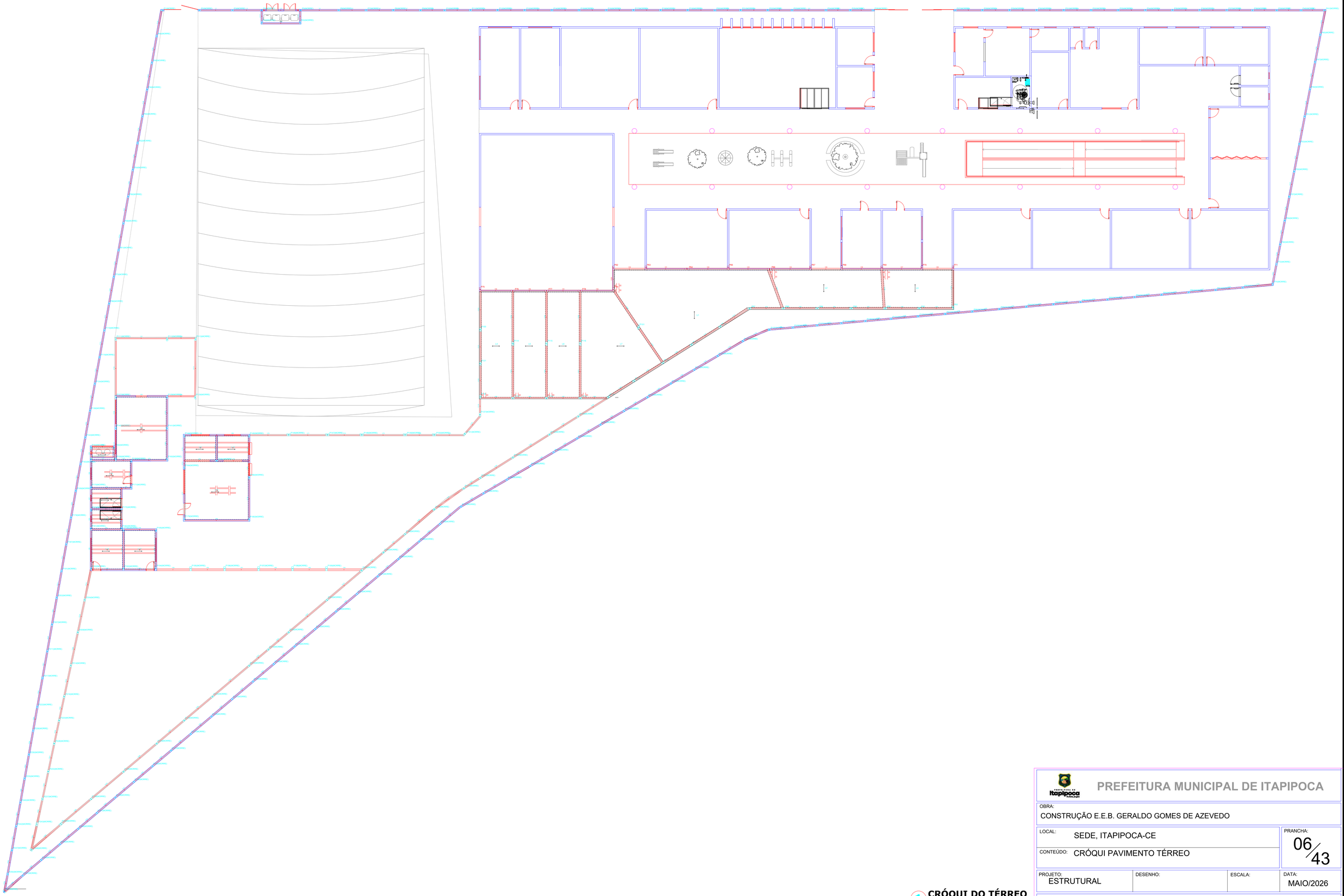
PRANCHA: 05/43

CONTEÚDO: PLANTA FORMA PAV. SUPERIOR DO MURO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROTOCOLO ADMINISTRATIVO
0965
ASSINADO ELETRONICAMENTE



1 **CRÓQUI DO TÉRREO**

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

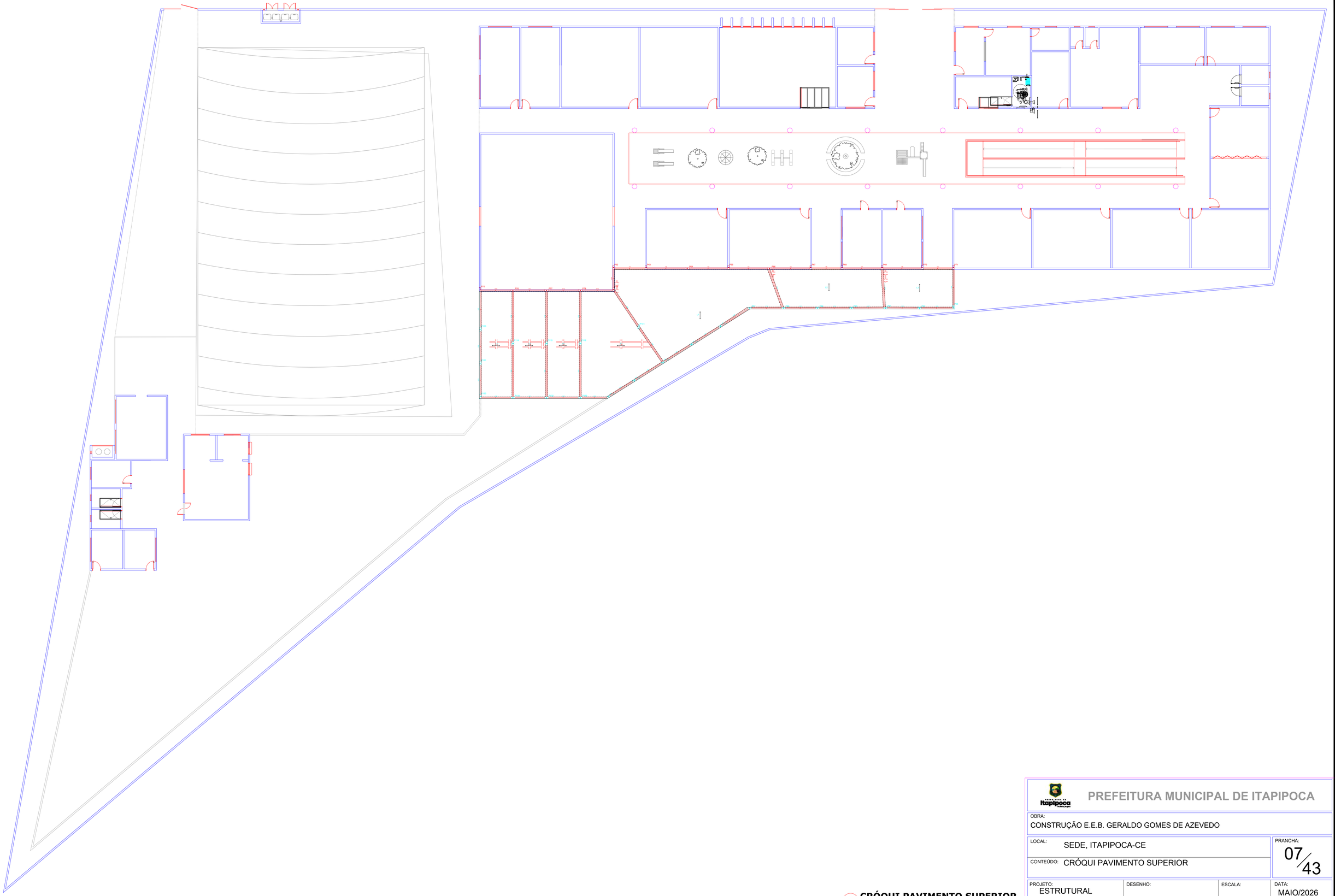
CONTEÚDO: CRÓQUI PAVIMENTO TÉRREO

PRANCHA: 06/43

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0966
ASSINADO ELETRONICAMENTE



1 CRÓQUI PAVIMENTO SUPERIOR

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

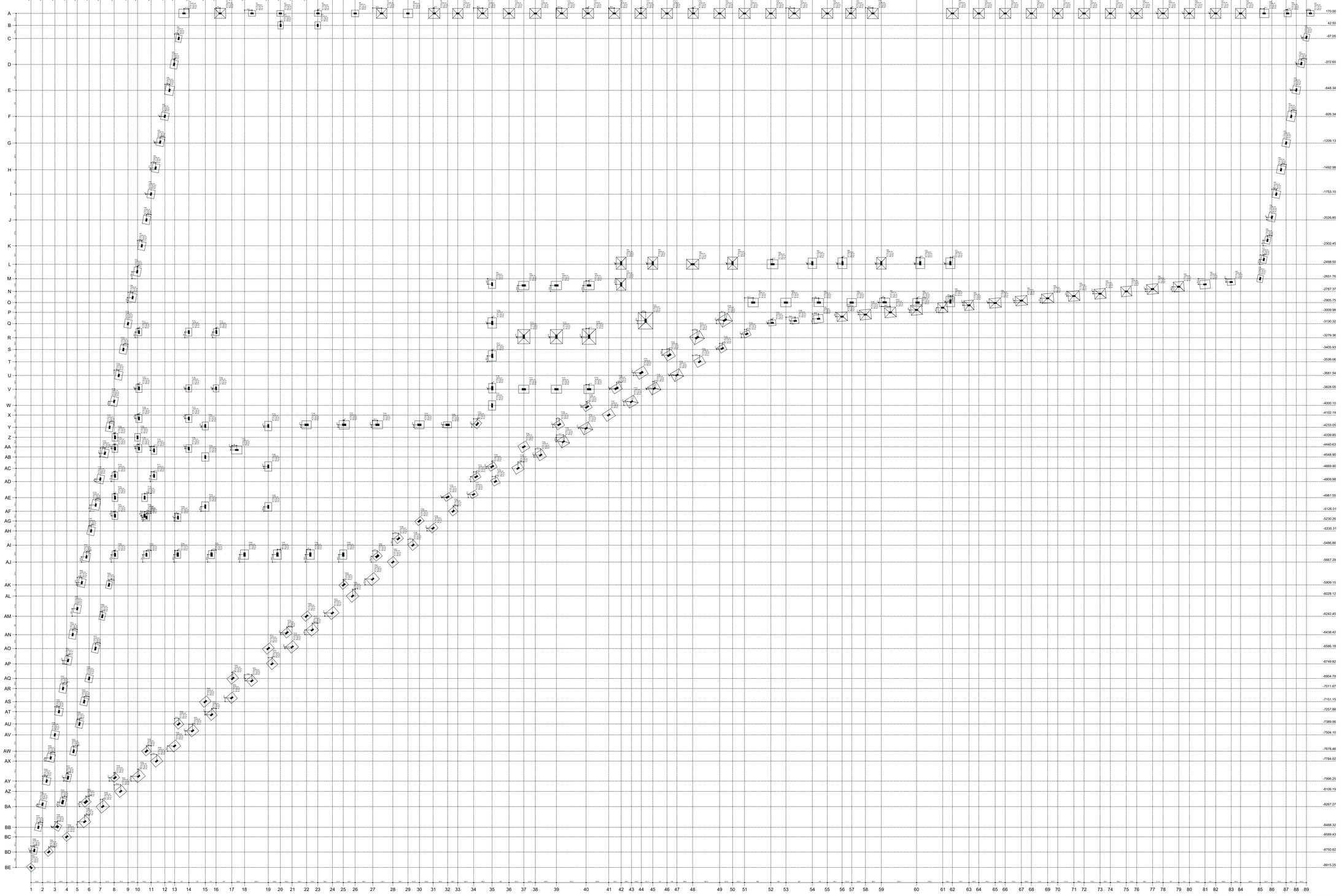
CONTEÚDO: CRÓQUI PAVIMENTO SUPERIOR

PRANCHA: 07/43

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0967
ASSINADO ELETRONICAMENTE



1 PLANTA DE LOCAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 08/43

CONTEÚDO: PLANTA DE LOCAÇÃO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

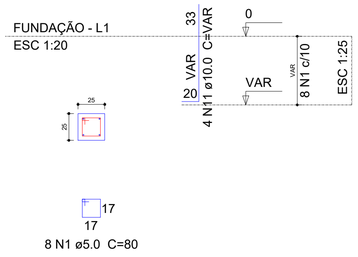
	Pilar					Fundação				
Nome	Seção (cm)	X (cm)	Y (cm)	Carga Máx. (tf)	Carga Mín. (tf)	Lado B (cm)	Lado H (cm)	h0 / ha (cm)	h1 / hb (cm)	df (cm)
P1	15x30	-11416.90	170.00	1.0	0.6	90	110	25	25	80
P2	15x30	-11032.55	170.00	1.0	0.8	105	120	15	30	80
P3	15x30	-10693.35	170.00	1.4	1.3	60	75	25	25	80
P4	15x30	-10391.85	170.00	2.2	0.8	60	75	25	25	80
P5	15x30	-9991.85	170.00	2.4	1.0	60	75	25	25	80
P6	15x30	-9596.45	170.00	1.5	1.3	70	75	25	25	80
P7	15x30	-9315.00	170.00	1.3	1.1	105	110	15	30	80
P8	15x30	-9035.00	170.00	1.4	1.1	90	100	25	25	80
P9	15x30	-8755.00	170.00	1.4	1.1	105	120	15	30	80
P10	15x30	-8505.00	170.00	1.3	1.1	105	110	15	30	80
P11	15x30	-8240.00	170.00	1.4	1.1	105	110	15	30	80
P12	15x30	-7960.00	170.00	1.4	1.2	105	120	15	30	80
P13	15x30	-7680.00	170.00	1.4	1.2	105	120	15	30	80
P14	15x30	-7400.00	170.00	1.4	1.2	105	120	15	30	80
P15	15x30	-7120.00	170.00	1.4	1.2	105	120	15	30	80
P16	15x30	-6840.00	170.00	1.4	1.2	105	120	15	30	80
P17	15x30	-6560.00	170.00	1.4	1.2	105	120	15	30	80
P18	15x30	-6280.00	170.00	1.4	1.2	105	120	15	30	80
P19	15x30	-6000.00	170.00	1.4	1.2	105	110	15	30	80
P20	15x30	-5720.00	170.00	1.4	1.1	105	120	15	30	80
P21	15x30	-5455.00	170.00	1.4	1.1	105	120	15	30	80
P22	15x30	-5175.00	170.00	1.3	1.1	105	110	15	30	80
P23	15x30	-4925.00	170.00	1.5	1.2	105	120	15	30	80
P24	15x30	-4575.00	170.00	1.5	1.2	105	120	15	30	80
P25	15x30	-4325.00	170.00	1.3	1.0	105	110	15	30	80
P26	15x30	-4090.00	170.00	1.1	0.6	105	115	15	35	80
P27	15x30	-3243.50	170.00	1.1	0.7	110	125	15	35	80
P28	15x30	-2963.53	170.00	1.4	1.2	105	120	15	30	80
P29	15x30	-2683.55	170.00	1.4	1.2	105	120	15	30	80
P30	15x30	-2403.55	170.00	1.4	1.2	105	110	15	30	80
P31	15x30	-2123.55	170.00	1.4	1.2	105	110	15	30	80
P32	15x30	-1843.55	170.00	1.4	1.2	105	120	15	30	80
P33	15x30	-1563.55	170.00	1.4	1.1	105	110	15	30	80
P34	15x30	-1283.55	170.23	1.4	1.1	105	120	15	30	80
P35	15x30	-1003.55	170.23	1.4	1.2	105	110	15	30	80
P36	15x30	-723.55	170.23	1.4	1.2	105	110	15	30	80
P37	15x30	-443.55	170.23	1.4	1.1	105	110	15	30	80
P38	15x30	-178.55	170.00	1.3	1.1	105	110	15	30	80
P39	15x30	71.45	170.00	1.3	1.1	90	100	25	25	80
P40	15x30	321.45	170.00	1.4	1.1	70	75	25	25	80
P41	15x30	563.85	170.00	1.4	0.9	60	75	25	25	80
P42	15x30	-10389.35	42.50	1.9	0.5	60	75	25	25	80
P43	15x30	-9994.35	42.50	1.9	0.5	60	75	25	25	80
P44	15x30	-11473.11	-97.05	1.5	1.1	60	75	25	25	80
P45	15x30	521.02	-84.62	1.4	1.2	60	75	25	25	80
P46	15x30	-11522.29	-372.65	1.4	1.1	75	90	25	25	80
P47	15x30	467.51	-364.05	1.4	1.2	70	75	25	25	80
P48	15x30	-11571.31	-648.34	1.4	1.1	90	100	25	25	80
P49	15x30	413.78	-644.61	1.4	1.2	80	90	25	25	80
P50	15x30	-11620.21	-924.11	1.4	1.1	80	80	25	25	80
P51	15x30	359.83	-926.34	1.4	1.2	85	100	25	25	80
P52	15x30	-11670.04	-1199.58	1.4	1.1	80	80	25	25	80
P53	15x30	305.68	-1209.13	1.4	1.2	80	80	25	25	80
P54	15x30	-11718.40	-1475.36	1.4	1.1	75	90	25	25	80
P55	15x30	251.32	-1492.98	1.4	1.1	85	85	25	25	80
P56	15x30	-11767.20	-1751.21	1.4	1.2	75	90	25	25	80
P57	15x30	200.68	-1753.10	1.3	1.1	80	80	25	25	80
P58	15x30	-11816.28	-2026.85	1.4	1.2	75	90	25	25	80
P59	15x30	154.06	-1998.71	1.3	1.1	75	90	25	25	80
P60	15x30	107.43	-2244.33	1.3	1.0	60	75	25	25	80
P61	15x30	-11865.41	-2302.45	1.4	1.2	75	90	25	25	80
P62	18x40	-6766.70	-2487.50	5.9	1.2	105	130	15	30	80
P63	18x40	-6431.00	-2487.50	15.1	14.8	105	130	15	30	80
P64	18x40	-6007.50	-2498.50	18.0	17.7	105	130	15	30	80
P65	18x40	-5582.50	-2487.50	15.6	15.3	105	130	15	30	80
P66	18x40	-5157.50	-2498.50	13.4	12.3	95	115	25	25	80
P67	18x40	-4734.00	-2487.50	9.9	9.6	90	110	25	25	80
P68	18x40	-4413.50	-2487.50	10.3	10.0	95	115	25	25	80
P69	18x40	-4000.00	-2487.50	13.4	11.6	100	125	15	30	80
P70	18x40	-3586.50	-2487.50	10.4	10.0	95	115	25	25	80
P71	18x40	-3266.00	-2487.50	6.5	4.0	95	115	25	25	80
P72	15x30	68.22	-2448.00	1.3	0.9	60	75	25	25	80
P73	15x30	-11914.39	-2578.18	1.4	1.2	75	90	25	25	80
P74	15x30	29.39	-2651.76	1.6	0.7	60	75	25	25	80
P75	15x35	-8140.00	-2710.50	5.8	4.4	90	110	25	25	80
P76	18x40	-7802.50	-2724.00	12.2	11.3	90	110	25	25	80
P77	18x40	-7455.50	-2724.00	11.9	11.0	90	110	25	25	80
P78	18x40	-7108.50	-2724.00	12.3	11.8	90	110	25	25	80
P79	18x40	-6766.70	-2713.00	14.2	10.6	100	125	15	30	80
P80	15x30	-836.59	-2737.79	1.4	1.2	105	110	15	30	80
P81	15x30	-557.69	-2712.97	1.4	1.1	90	110	25	25	80
P82	15x30	-278.74	-2688.05	1.5	1.2	65	85	25	25	80
P83	15x30	-1673.25	-2812.23	1.4	1.1	105	120	15	30	80
P84	15x30	-1394.34	-2787.37	1.4	1.1	105	110	15	30	80
P85	15x30	-1115.47	-2762.65	1.4	1.1	105	120	15	30	80
P86	15x30	-11963.45	-2853.87	1.4	1.2	75	90	25	25	80
P87	18x40	-5363.30	-2905.75	12.2	10.7	90	110	25	25	80
P88	18x40	-5015.00	-2905.75	11.0	9.7	90	110	25	25	80
P89	18x40	-4665.00	-2905.75	9.7	9.5	85	100	25	25	80
P90	18x40	-4315.00	-2905.75	9.6	9.4	85	100	25	25	80
P91	18x40	-3965.00	-2904.25	11.8	10.0	90	110	25	25	80
P92	18x40	-3615.00	-2905.75	10.0	9.7	85	100	25	25	80
P93	18x40	-3266.00	-2894.75	8.3	5.4	90	110	25	25	80
P94	15x30	-2510.08	-2885.22	1.4	1.1	100	125	15	30	80
P95	15x30	-2231.15	-2860.78	1.4	1.1	100	125	15	30	80
P96	15x30	-1952.18	-2836.72	1.4	1.1	105	120	15	30	80
P97	15x30	-3346.74	-2960.12	1.4	1.1	105	100	15	30	80
P98	15x30	-3067.81	-2935.30	1.4	1.1	105	100	15	30	80
P99	15x30	-2788.93	-2910.58	1.4	1.1	100	125	15	30	80
P100	18x40	-8138.50	-3123.00	10.3	9.8	90	110	25	25	80
P101	20x40	-6506.79	-3099.42	36.6	36.4	155	175	15	45	80
P102	18x40	-5663.64	-3093.12	16.0	15.8	100	125	15	30	80
P103	15x30	-4416.92	-3056.08	1.3	1.1	95	110	15	30	80
P104	15x30	-3904.50	-3009.98	1.4	1.1	105	120	15	30	80
P105	15x30	-5160.01	-3122.10	1.5	1.0	60	75	25	25	80
P106	15x30	-4916.37	-3101.10	1.3	1.0	60	75	25	25	80
P107	15x30	-4667.16	-3078.45	1.3	1.1	85	100	25	25	80
P108	15x30	-4169.16	-3034.29	1.4	1.0	105	120	15	30	80
P109	15x30	-3625.66	-2984.53	1.4	1.1	105	120	15	30	80
P110	15x30	-12012.41	-3130.32	1.4	1.2	75	90	25	25	80
P111	15x35	-11895.60	-3220.70	2.2	2.0	60	75	25	25	80
P112	15x35	-11365.60	-3220.32	2.3	2.0	65	85	25	25	80
P113	15x35	-11072.35	-3219.95	1.8	1.5	60	75	25	25	80
P114	20x40	-7802.50	-3268.53	25.4	25.2	130	150	15	40	80
P115	20x40	-7455.50	-3268.52	26.4	26.1	130	150	15	40	80
P116	20x40	-7108.50	-3268.52	31.6	31.3	145	165	15	45	80
P117	18x40	-5959.60	-3279.36	16.1	15.9	100	125	15	30	80
P118	15x30	-5431.52	-3240.23	1.5	1.2	60	75	25	25	80
P119	15x30	-12061.53	-3405.93	1.4	1.2	75	90	25	25	80
P120	15x30	-5691.30	-3394.27	1.4	1.2	70	75	25	25	80
P121	18x40	-8138.50	-3473.00	9.1	8.7	85	110	25	25	80
P122	18x40	-6255.93	-3465.84	8.5	7.5	85	100	25	25	80
P123	15x30	-5932.56	-3536.06	1.4	1.1	85	100	25	25	80
P124	15x30	-12110.65	-3681.54	1.4	1.2	75	90	25	25	80
P125	18x40	-6552.71	-3652.61	14.0	13.5	95	115	25	25	80
P126	15x30	-6174.03	-3678.02	1.4	1.1	95	110	15	30	80

	Pilar					Fundação				
Nome	Seção (cm)	X (cm)	Y (cm)	Carga Máx. (tf)	Carga Mín. (tf)	Lado B (cm)	Lado H (cm)	h0 / ha (cm)	h1 / hb (cm)	df (cm)
P127	15x35	-11895.60	-3819.15	4.9	4.7	65	85	25	25	80
P128	15x35	-11365.60	-3819.15	4.9	4.5	60	75	25	25	80
P129	15x35	-11075.57	-3819.15	1.6	1.2	60	75	25	25	80
P130	18x40	-8138.50	-3817.05	6.3	4.6	75	100	25	25	80
P131	18x40	-7802.50	-3828.05	12.0	11.2	85	110	25	25	80
P132	18x40	-7455.50	-3828.05	12.0	11.2	85	110	25	25	80
P133	18x40	-7108.50	-3828.05	12.5	11.7	90	110	25	25	80
P134	18x40	-6816.78	-3818.77	7.4	6.4	75	100	25	25	80
P135	15x30	-6415.16	-3820.04	1.4	1.1	95	110	15	30	80
P136	15x40	-12159.62	-3957.25	1.4	1.2	75	100	25	25	80
P137	15x40	-8140.00	-4000.10	1.3	0.6	75	100	25	25	80
P138	15x30	-6657.31	-3960.87	1.4	1.2	95	110	15	30	80
P139	15x40	-12129.14	-4017.10	1.8	1.4	65	85	25	25	80
P140	15x35	-11895.60	-4139.22	5.5	5.3	65	85	25	25	80
P141	15x35	-11365.60	-4139.22	5.6	5.4	65	85	25	25	80
P142	15x35	-8899.39	-4102.19	1.4	1.1	90	110	25	25	80
P143	15x30	-12208.49	-4233.05	1.4	1.1	75	90	25	25	80
P144	15x35	-11190.60	-4219.15	4.3	3.9	65	85	25	25	80
P145	15x35	-10520.60	-4219.15	6.1	5.8	75	100	25	25	80
P146	20x40	-10113.10	-4206.62	1.5	1.2	85	100	25	25	80
P147	20x40	-9713.10	-4206.62	1.9	1.7	90	110	25	25	80
P148	20x40	-9359.44	-4206.62	2.0	1.7	85	110	25	25	80
P149	20x40	-8913.10	-4206.62	1.9	1.6	85	100	25	25	80
P150	20x40	-8613.10	-4206.62	1.8	1.5	65	85	25	25	80
P151	15x40	-8297.41	-4198.48	1.7	1.0	60	80	25	25	80
P152	15x35	-7425.48	-4203.34	1.5	1.3	75	90	25	25	80
P153	15x30	-7140.01	-4244.55	1.4	1.1	95	110	15	30	80
P154	15x35	-12150.60	-4339.85	1.8	0.6	60	80	25	25	80
P155	15x35	-11910.60	-4339.85	2.6	1.4	60	80	25	25	80
P156	15x30	-7381.43	-4386.55	1.4	1.2	95	100	15	30	80
P157	15x35	-12150.60	-4459.30	3.4	2.3	60	80	25	25	80
P158	15x35	-11895.60	-4459.30	4.2	3.0	60	80	25	25	80
P159	15x35	-11735.60	-4479.30	4.8	4.4	60	80	25	25	80
P160	15x35	-11365.60	-4459.30	3.5	3.1	60	80	25	25	80
P161	15x35	-10855.60	-4474.15	8.6	8.4	85	110	25	25	80
P162	15x30	-7802.50	-4440.63	1.6	1.4	85	100	25	25	80
P163	15x30	-12257.87	-4508.46	1.4	1.2	75	90	25	25	80
P164	15x35	-11190.60	-4548.90	7.3	7.0	75	90	25	25	80
P165	15x30	-7622.83	-4528.70	1.4	1.1	90	85	25	25	80
P166	15x35	-10520.60	-4649.15	7.5	7.3	75	100	25	25	80
P167	15x35	-8138.50	-4650.98	1.4	1.0	65	85	25	25	80
P168	15x30	-7864.25	-4669.90	1.4	1.2	85	100	25	25	80
P169	15x30	-12307.07	-4794.00	1.4	1.1	75	90	25	25	80
P170	15x35	-12150.60	-4748.95	4.5	4.2	60	80	25	25	80
P171	15x35	-11735.60	-4748.95	3.6	3.2	60	80	25	25	80
P172	15x35	-8308.31	-4758.99	1.4	1.0	60	80	25	25	80
P173	15x30	-8104.27	-4809.98	1.4	1.1	70	75	25	25	80
P174	15x35	-12150.60	-4981.55	2.8	2.5	60	80	25	25	80
P175	15x35	-11835.60	-4981.55	4.0	3.2	60	80	25	25	80
P176	15x35	-8613.10	-4974.97	1.5	1.3	60	80	25	25	80
P177	15x30	-8336.61	-4946.93	1.7	0.8	60	75	25	25	80
P178	15x30	-12355.67	-5060.01	1.4	1.1	85	100	25	25	80
P179	15x40	-11190.60	-5076.65	6.9	6.7	75	100	25	25	80
P180	15x35	-10520.60	-5079.15	5.8	5.5	75	90	25	25	80
P181	15x35	-12150.60	-5174.15	3.6	3.2	60	80	25	25	80
P182	15x35	-11835.60	-5174.15	2.0	1.0	60	80	25	25	80
P183	15x30	-8553.33	-5126.01	1.4	1.1	70	75	25	25	80
P184	15x30	-11815.60	-5191.65	4.2	3.8	60	75	25	25	80
P185	15x30	-11480.60	-5194.15	2.8	2.6	60	80	25	25	80
P186	15x35	-8913.10	-5230.26	1.5	1.2	60	80	25	25	80
P187	15x30	-12405.19	-5335.31	1.4	1.1	75	90	25	25	80
P188	15x30	-8767.47	-5306.45	1.4	1.2	65	85	25	25	80
P189	15x35	-9136.27	-5418.59	1.4	1.2	65	85	25	25	80
P190	15x30	-8981.57	-5486.86	1.4	1.1	80	80	25	25	80
P191	15x30	-12453.73	-5611.36	1.4	1.1	75	90	25	25	80
P192	15x35	-12150.60	-5589.15	3.2	2.9	60	80	25	25	80
P193	15x35	-11815.60	-5589.15	4.6	4.2	60	80	25	25	80
P194	20x40	-11483.10	-5586.65	3.7	3.4	60	80	25	25	80
P195	20x40	-11123.10	-5586.65	2.4	2.2	65	85	25	25	80
P196	20x40	-10773.10	-5586.65	2.3	2.1	85	100	25	25	80
P197	20x40	-10423.10	-5586.65	2.4	2.2	85	100	25	25	80
P198	20x40	-10073.10	-5586.65	2.3	2.1	85	100	25	25	80
P199	20x40	-9723.10	-5586.65	2.5	2.2	75	100	25	25	80
P200	20x40	-9361.05	-5605.01	2.8	2.1	65	85	25	25	80
P201	15x30	-11995.69	-5667.29	1.4	1.2	85	85	25	25	80
P202	15x30	-12503.28	-5886.63	1.4	1.1	75	90	25	25	80
P203	15x30	-9409.75	-5847.78	1.4	1.1	90	110	25	25	80
P204	15x35	-12214.64	-5909.15	1.3	1.1	60	80	25	25	80
P205	15x35	-9717.93	-5909.15	1.8	1.7	60	80	25	25	80
P206	15x30	-9623.91	-6028.12	1.4	1.2	90	100	25	25	80
P207	15x30	-12551.74	-6162.74	1.4	1.1	75	90	25	25	80
P208	15x35	-12285.40	-6242.45	1.4	1.3	60	80	25	25	80
P209	15x35	-10113.10	-6242.45	1.8	1.4	70	90	25	25	80
P210	15x30	-9838.03	-6208.56	1.4	1.1	90	110	25	25	80
P211	15x30	-12600.76	-6438.42	1.4	1.1	75	90	25	25	80
P212	15x35	-10322.69	-6419.24	1.2	1.1	80	80	25	25	80
P213	15x30	-10052.14	-6388.97	1.4	1.2	90	100	25	25	80
P214	15x35	-12358.37	-6586.18	1.4	1.2	70	90	25	25	80
P215	15x35	-10520.60	-6586.18	1.7	1.2	75	100	25	25	80
P216	15x30	-10266.27	-6569.41	1.4	1.2	90	100	25	25	80
P217	15x30	-12650.06	-6713.89	1.4	1.2	75	90	25	25	80
P218	15x30	-10480.38	-6749.82	1.4	1.2	90	85	25	25	80
P219	15x30	-12426.01	-6904.79	1.3	1.1	75	85	25	25	80
P220	15x35	-10898.34	-6904.79	1.6	1.4	75	100	25	25	80
P221	15x30	-10694.50	-6930.25	1.4	1.2	85	85	25	25	80
P222	15x30	-12702.96	-7011.67	1.4	1.1	75	90	25	25	80
P223	15x35	-12478.30	-7151.15	1.2	1.0	75	80	25	25	80
P224	15x35	-11190.60	-7151.15	1.5	1.3	75	100	25	25	80
P225	15x30	-10908.62	-7110.67	1.4	1.2	85	85	25	25	80
P226	15x30	-12746.66	-7257.88	1.3	1.1	80	80	25	25	80
P227	15x30	-11122.74	-7291.10	1.4	1.1	85	85	25	25	80
P228	15x35	-12528.92	-7389.56	1.2	1.0	75	80	25	25	80
P229	15x35	-11473.10	-7389.56	1.7	1.4	75	80	25	25	80
P230	15x30	-12790.33	-7504.10	1.3	1.1	85	85	25	25	80
P231	15x30	-11325.39	-7461.86	1.3	1.1	85	100	25	25	80
P232	15x30	-11516.58	-7622.94	1.3	1.1	85	100	25	25	80
P233	15x35	-12590.25	-7678.46	1.3	1.1	65	85	25	25	80
P234	15x35	-11815.60	-7678.46	1.6	1.5	70	75	25	25	80
P235	15x30	-12834.30	-7750.00	1.3	1.1	85	85	25	25	80
P236	15x30	-11707.77	-7784.02	1.3	1.1	85	100	25	25	80
P237	15x35	-12650.24	-7961.03	1.3	1.1	60	80	25	25	80
P238	15x35	-12150.60	-7961.03	1.6	1.4	60	80	25	25	80
P239	15x30	-11898.95	-7945.10	1.3	1.1	90	110	25	25	80
P240	15x30	-12877.81	-7996.25	1.3	1.1	80	80	25	25	80
P241	15x30	-12090.14	-8106.19	1.3	1.1	85	100	25	25	80
P242	15x30	-12921.63	-8242.27	1.3	1.1	75	80	25	25	80
P243	20x40	-12707.68	-8220.57	1.6	1.3	65	85	25	25	80
P244	20x40	-12459.91	-8218.66	1.8	1.6	70	90	25	25	80
P245	15x30	-12281.33	-8267.27	1.3	1.1	90	110	25	25	80
P246	15x30	-12472.52	-8428.35	1.3	1.1	85	100	25	25	80
P247	15x30	-12965.65	-8488.32	1.3	1.1	70	75	25	25	80
P248	25x25	-12763.91	-8482.18	1.6	1.1	70	70	25	25	80
P249	15x30	-12663.71	-8589.43	1.3	1.1	70	70	25	25	80
P250	15x30	-13009.10	-8734.81	1.3	1.1	60	75	25	25	80
P251	15x30	-12854.80	-8750.62	1.4	1.1	60	75	25	25	80
P252	15x30	-13044.25	-8915.25	1.4	0.6	60	75	25	25	80

Locação no eixo X	
Coordenadas (cm)	Nome
-13044.25	P252
-13009.10	P250
-12965.65	P247
-12921.63	P242
-12877.81	P240
-12854.80	P251
-12834.30	P235
-12790.33	P230
-12763.91	P248
-12746.66	P226
-12707.68	P243
-12702.96	P222
-12663.71	P249
-12650.24	P237
-12650.06	P217
-12600.76	P211
-12590.25	P233
-12551.74	P207
-12528.92	P228
-12503.28	P202
-12478.30	P223
-12472.52	P246
-12459.91	P244
-12453.73	P191
-12426.01	P219
-12405.19	P187
-12358.37	P214
-12355.67	P178
-12307.07	P169
-12285.40	P208
-12281.33	P245
-12257.87	P163
-12214.64	P204
-12208.49	P143
-12159.62	P136
-12150.60	P154, P157, P170, P174, P181, P192, P238
-12110.65	P124
-12090.14	P241
-12061.53	P119
-12012.41	P110
-11963.45	P86
-11914.39	P73
-11910.60	P155
-11898.95	P239
-11895.60	P111, P127, P140, P158
-11865.41	P61
-11835.60	P175, P182
-11816.28	P58
-11815.60	P184, P193, P234
-11767.20	P56
-11735.60	P159, P171
-11718.40	P54
-11707.77	P236
-11670.04	P52
-11620.21	P50
-11571.31	P48
-11522.29	P46
-11516.58	P232
-11483.10	P194
-11480.60	P185
-11473.11	P44
-11473.10	P229
-11416.90	P1
-11365.60	P112, P128, P141, P160
-11325.39	P231
-11190.60	P144, P164, P179, P224
-11123.10	P195
-11122.74	P227
-11075.57	P129
-11072.35	P113
-11032.55	P2
-10908.62	P225
-10898.34	P220
-10855.60	P161
-10773.10	P196
-10694.50	P221
-10693.35	P3
-10520.60	P145, P166, P180, P215
-10480.38	P218
-10423.10	P197
-10391.85	P4
-10389.35	P42
-10322

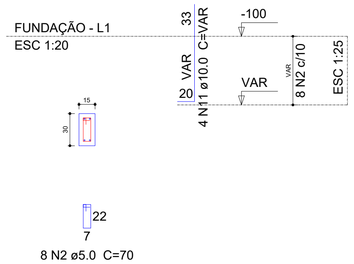
PROCESSO ADMINISTRATIVO
0969
ASSINADO ELETRONICAMENTE

P248



8 N1 ø5.0 C=80

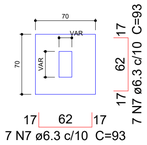
P249



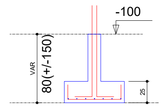
8 N2 ø5.0 C=70

S248=S249

PLANTA
ESC 1:25

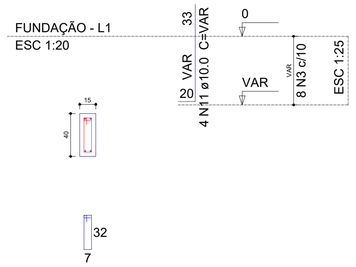


CORTE
ESC 1:25



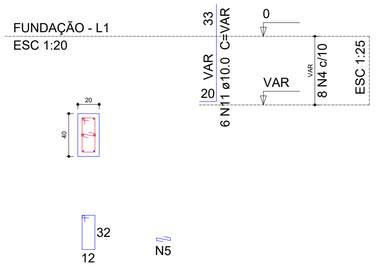
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

P151



8 N3 ø5.0 C=90

P194



8 N4 ø5.0 C=100
8 N5 ø5.0 C=27

Relação do aço

6xP3	P6	6xP40
13xP41	2xP82	4xP111
7xP112	P139	P144
4xP150	P151	23xP154
P194	P234	P248
P249	23xS3	25xS194
8xS234	2xS249	

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	8	80	640
	2	5.0	232	70	16240
	3	5.0	16	90	1440
	4	5.0	40	100	4000
	5	5.0	40	27	1080
	6	5.0	288	80	23040
CA50	7	6.3	84	93	7812
	8	6.3	361	83	29963
	9	6.3	150	103	15450
	10	6.3	194	98	19012
	11	10.0	302	VAR	VAR
	12	12.5	8	83	664

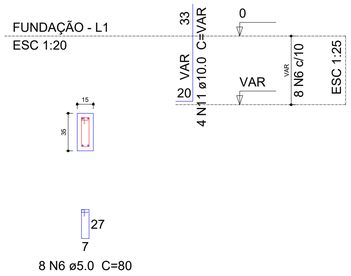
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	722.4	185.6
	10.0	395.7	256.1
	12.5	6.7	6.7
CA60	5.0	464.4	75.2

PESO TOTAL (kg)	
CA50	448.4
CA60	75.2

Volume de concreto (C-30) = 3.02 m³
Volume de concreto (C-20) = 6.88 m³
Área de forma = 97.27 m²

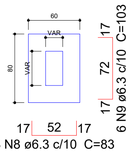
P154=P155=P157=P158=P159=P160=P170=P171 =P172=P174=P175=P176=P181=P182=P185=P186 =P192=P193=P204=P205=P208=P237=P238



8 N6 ø5.0 C=80

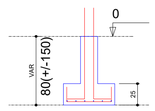
S151=S154=S155=S157=S158=S159=S160=S170 =S171=S172=S174=S175=S176=S181=S182=S185 =S186=S192=S193=S194=S204=S205=S208=S237 =S238

PLANTA
ESC 1:25

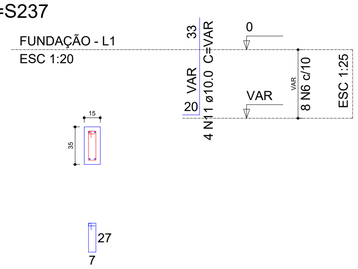


Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25

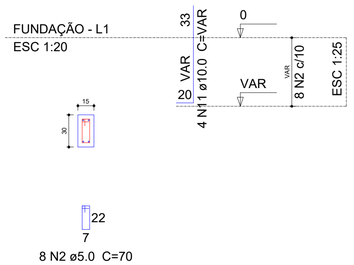


P111=P113=P128=P129



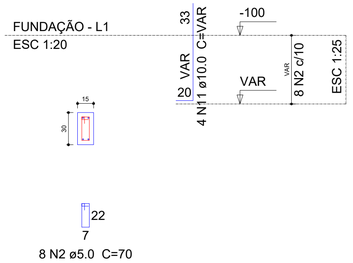
8 N6 ø5.0 C=80

P3=P4=P5=P42=P43=P184



8 N2 ø5.0 C=70

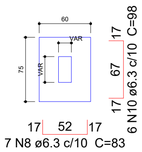
P41=P44=P45=P60=P72=P74=P105=P106=P118 =P177=P250=P251=P252



8 N2 ø5.0 C=70

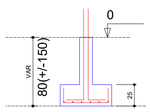
S3=S4=S5=S41=S42=S43=S44=S45=S60=S72 =S74=S105=S106=S111=S113=S118=S128=S129 =S177=S184=S250=S251=S252

PLANTA
ESC 1:25

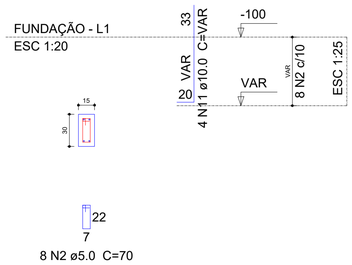


Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25

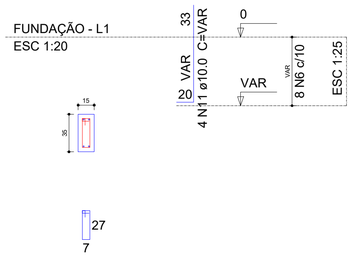


P234



8 N2 ø5.0 C=70

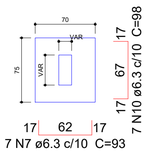
P6



8 N6 ø5.0 C=80

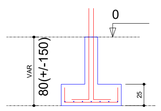
S6=S40=S47=S120=S173=S183=S234=S247

PLANTA
ESC 1:25

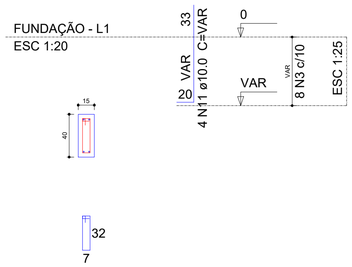


Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25

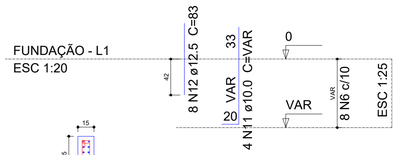


P139



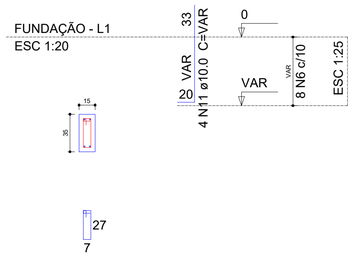
8 N3 ø5.0 C=90

P144



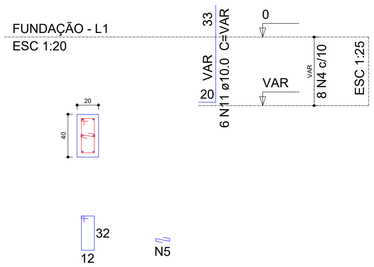
8 N6 ø5.0 C=80

P112=P127=P140=P141=P167=P189=P233



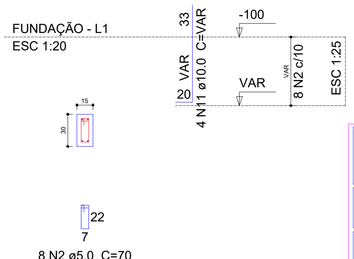
8 N6 ø5.0 C=80

P150=P195=P200=P243



8 N4 ø5.0 C=100
8 N5 ø5.0 C=27

P82=P188



8 N2 ø5.0 C=70

1 DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 10/43

CONTEÚDO:
PLANTA DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

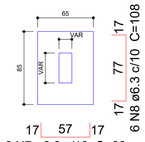
PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

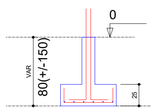
FOLHA: A1

PROCESSO ADMINISTRATIVO
0970
ASSINADO ELETRONICAMENTE

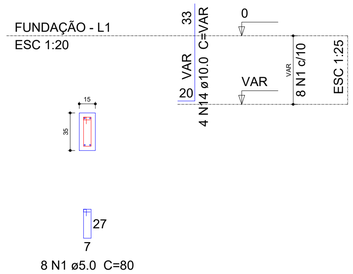
S82=S112=S127=S139=S140=S141=S144=S152=S219=P223=P228=P229 =S167=S188=S189=S195=S200=S233=S243

PLANTA ESC 1:25 — CORTE ESC 1:25

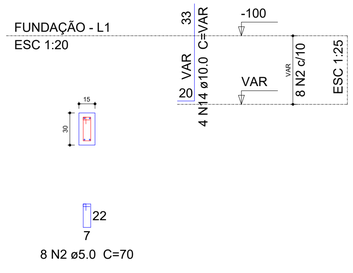




Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

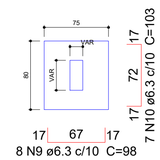


P242

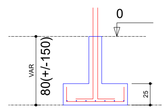


S219=S223=S228=S229=S242

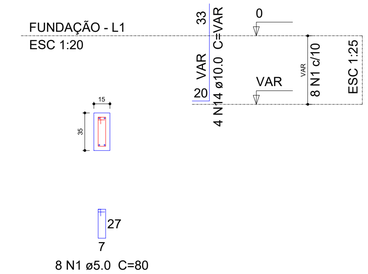
PLANTA ESC 1:25 — CORTE ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³



P209=P214



Relação do aço

8xP49	3xP75	2xP130
P136	P137	P145
4xP166	P179	P180
P199	2xP209	P212
4xP219	P242	P244
11xS137	15xS144	9xS190
3xS214	5xS223	

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	128	80	10240
	2	5.0	80	70	5600
	3	5.0	16	100	1600
	4	5.0	16	27	432
	5	5.0	16	96	1536
	6	5.0	16	90	1440
CA50	7	6.3	120	88	10560
	8	6.3	90	108	9720
	9	6.3	172	98	16856
	10	6.3	179	103	18437
	11	6.3	30	93	2790
	12	6.3	21	113	2373
	13	6.3	77	123	9471
	14	10.0	132	VAR	VAR
	15	10.0	6	67	402
	16	12.5	12	83	996
	17	16.0	10	107	1070

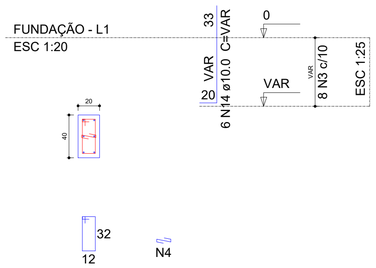
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	702.1	180.4
	10.0	177	114.5
	12.5	10	10.1
	16.0	10.7	17.7
CA60	5.0	208.5	33.7

PESO TOTAL (kg)	
CA50	322.7
CA60	33.7

Volume de concreto (C-20) = 6.8 m³
Volume de concreto (C-30) = 1.37 m³
Área de forma = 59.89 m²

P244



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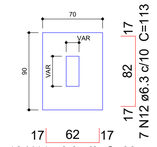
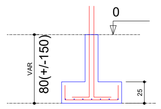
PLANTA ESC 1:25 — CORTE ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³



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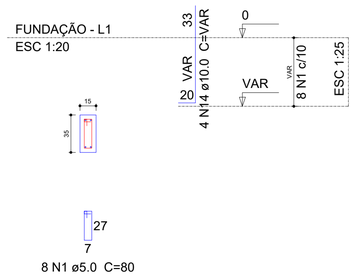

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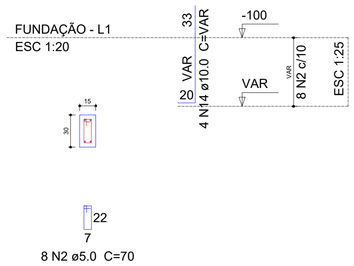

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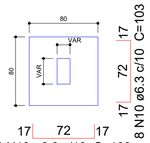
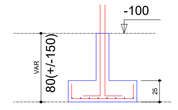
PLANTA ESC 1:25 — CORTE ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³



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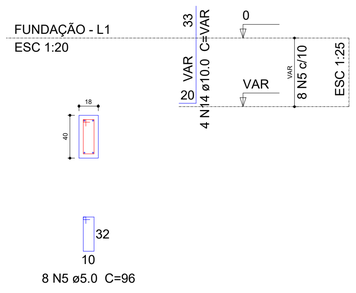

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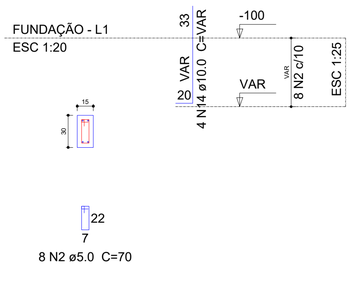

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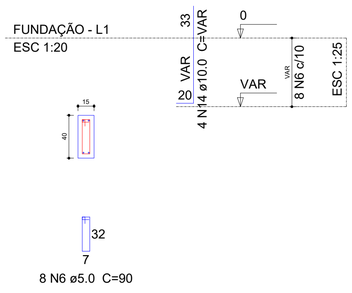

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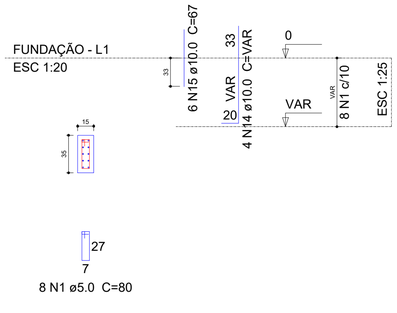

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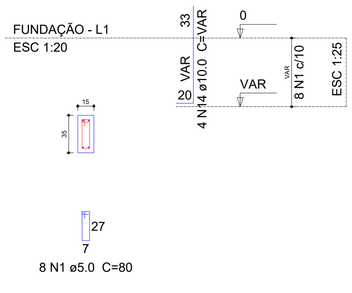

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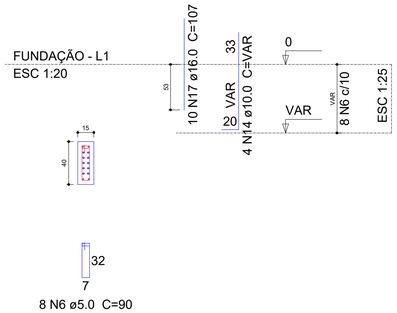

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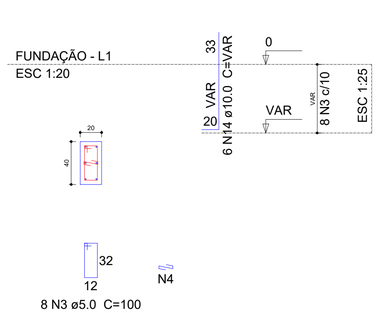

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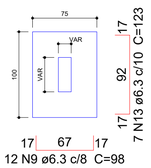
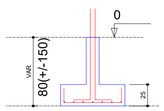
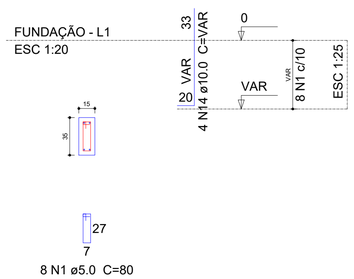
PLANTA ESC 1:25 — CORTE ESC 1:25

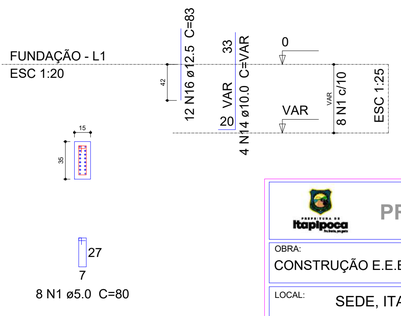


Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³





P180



1 DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: PLANTA DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

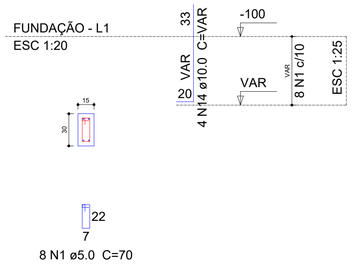
PRANCHA: 11/43

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0971
ASSINADO ELETRONICAMENTE

P46=P54=P56=P58=P59=P61=P73=P86=P110 =P119=P124=P143=P163=P169=P187=P191=P202 =P207=P211=P217=P222



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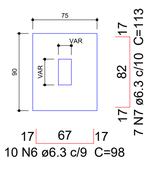
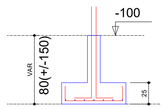
PLANTA
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25



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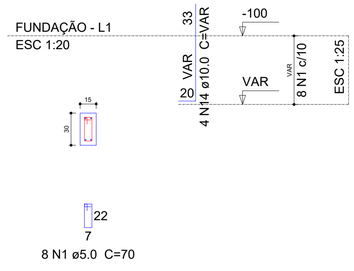

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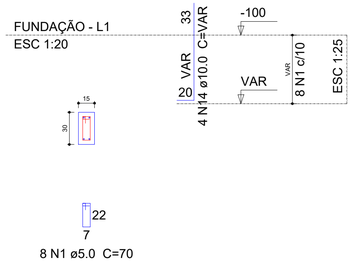

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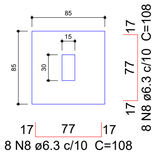
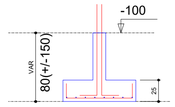
PLANTA
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25



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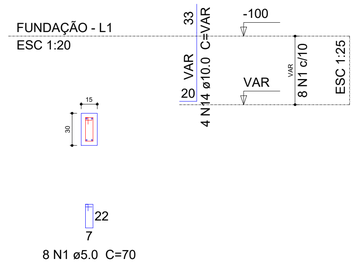


Relação do aço

P1	6xP8	21xP46
10xP51	7xP55	4xP89
3xP121	5xP146	P148
P156	P161	P162
2xP165	25xS110	5xS131
S156	2xS165	20xS168
6xS216	7xS225	

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	384	70	26880
	2	5.0	56	96	5376
	3	5.0	48	100	4800
	4	5.0	48	27	1296
	5	5.0	16	80	1280
CA50	6	6.3	250	98	24500
	7	6.3	267	113	30171
	8	6.3	368	108	39744
	9	6.3	220	123	27060
	10	6.3	40	133	5320
	11	6.3	12	98	1176
	12	6.3	10	103	1030
	13	8.0	45	107	4815
	14	10.0	264	VAR	VAR
	15	12.5	8	83	664

Resumo do aço

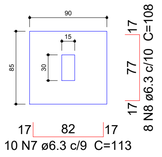
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	1290.1	331.5
	8.0	48.2	19.9
	10.0	345.9	223.9
	12.5	6.7	6.7
CA60	5.0	396.4	64.1

PESO TOTAL (kg)	
CA50	582
CA60	64.1

Volume de concreto (C-30) = 2.6 m³
Volume de concreto (C-20) = 12.84 m³
Área de forma = 106.4 m²

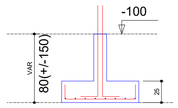
S165=S218

PLANTA
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25



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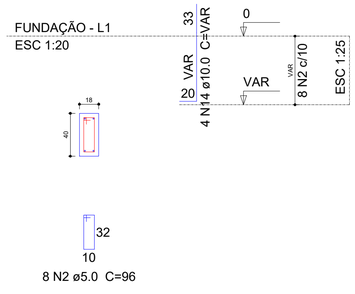

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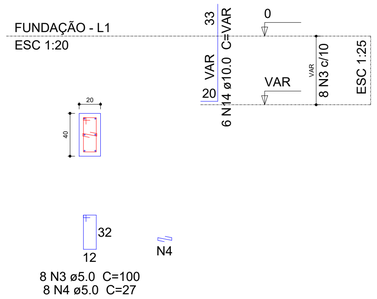

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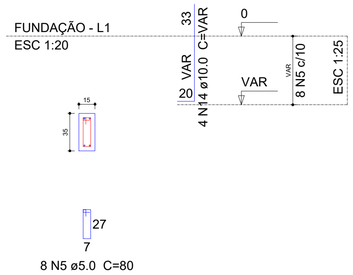

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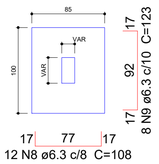
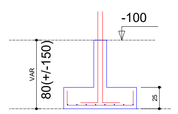
PLANTA
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25



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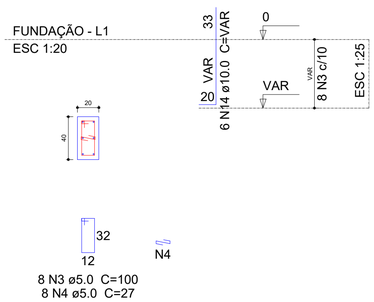

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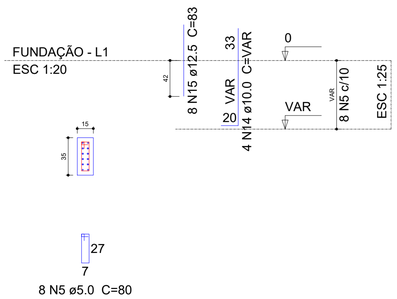

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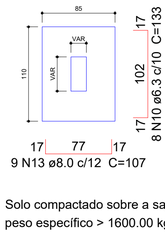
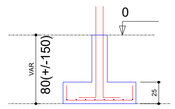
PLANTA
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25



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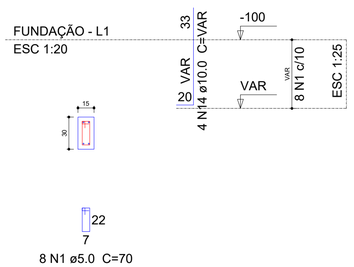
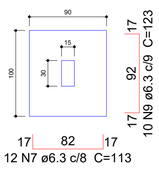


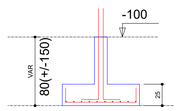
S8=S39=S48=S206=S213=S216

PLANTA
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25



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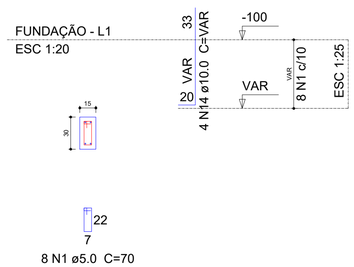
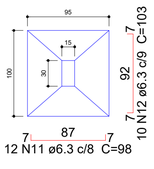


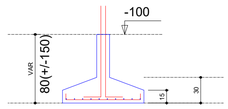
S156

PLANTA
ESC 1:25

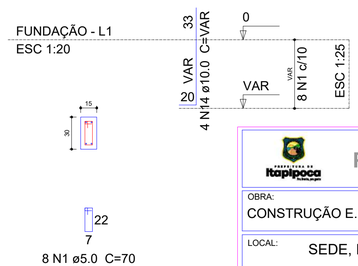


Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

CORTE
ESC 1:25



P1



1 DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 12/43

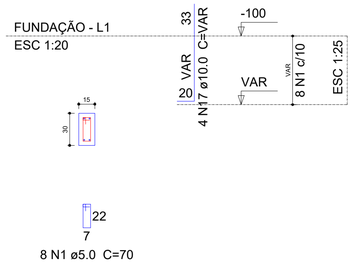
CONTEÚDO:
PLANTA DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

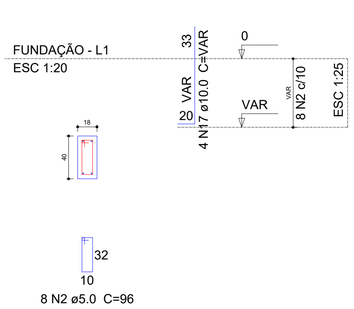
FOLHA: A1

PROCESSO ADMINISTRATIVO
0972
ASSINADO ELETRONICAMENTE

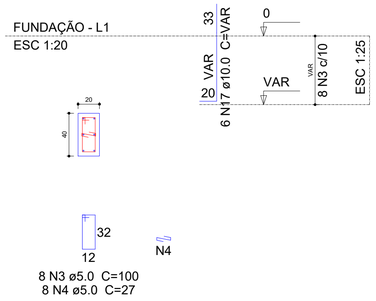
P81=P142=P203=P210=P239=P245



P67=P76=P77=P78=P87=P88=P91=P93=P100=P133



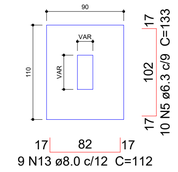
P147



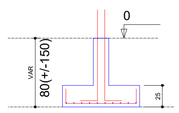
S1=S67=S76=S77=S78=S81=S87=S88=S91=S93=S99=S100=S133=S142=S147=S203=S210=S239=S245

PLANTA
ESC 1:25

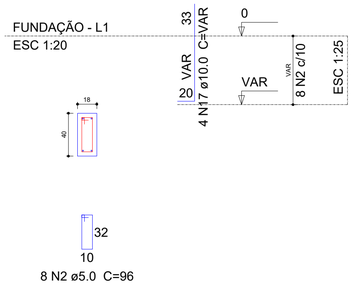
CORTE
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³



P66=P68=P70=P71=P125



Relação do aço

P2	P9	12xP10
21xP12	2xP38	5xP66
10xP67	4xP69	6xP81
3xP94	2xP97	5xP103
P147	2xS97	5xS103
23xS104	7xS117	5xS125
18xS133		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	424	70	29680
	2	5.0	152	96	14592
	3	5.0	8	100	800
	4	5.0	8	27	216
CA50	5	6.3	180	133	23940
	6	6.3	50	138	6900
	7	6.3	65	98	6370
	8	6.3	50	113	5650
	9	6.3	24	108	2592
	10	6.3	26	103	2678
	11	6.3	77	128	9856
	12	6.3	299	123	36777
	13	8.0	162	112	18144
	14	8.0	45	117	5265
	15	8.0	77	102	7854
	16	8.0	230	107	24610
	17	10.0	294	VAR	VAR
	18	10.0	76	VAR	VAR

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	947.7	243.5
	8.0	558.8	231.5
	10.0	456.6	295.6
CA60	5.0	452.9	73.3

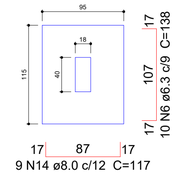
PESO TOTAL (kg)	
CA50	770.5
CA60	73.3

Volume de concreto (C-30) = 3.07 m³
Volume de concreto (C-20) = 15.38 m³
Área de forma = 104.56 m²

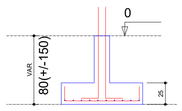
S66=S68=S70=S71=S125

PLANTA
ESC 1:25

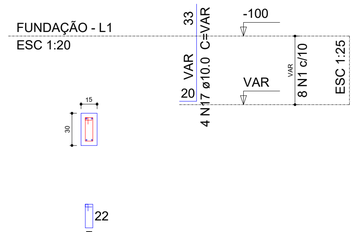
CORTE
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³



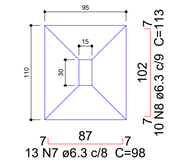
P103=P126=P135=P138=P153



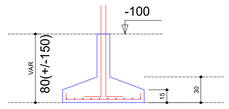
S103=S126=S135=S138=S153

PLANTA
ESC 1:25

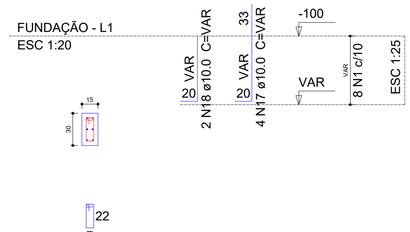
CORTE
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³



P97=P98



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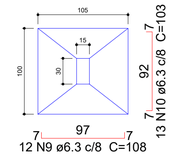
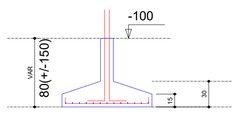
PLANTA
ESC 1:25

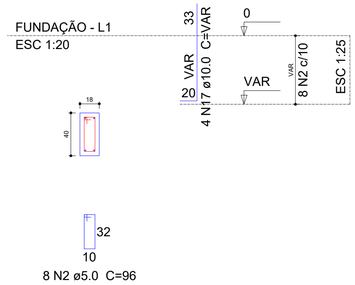
CORTE
ESC 1:25



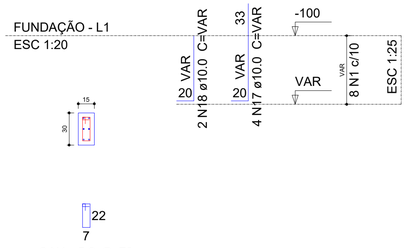
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³



P69=P79=P102=P117



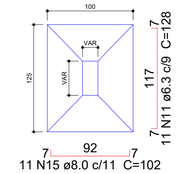
P94=P95=P99



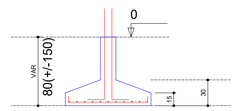
S69=S79=S94=S95=S99=S102=S117

PLANTA
ESC 1:25

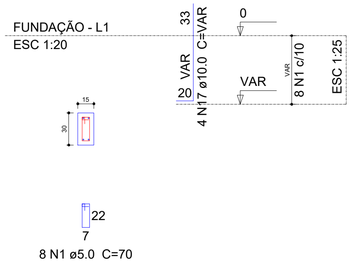
CORTE
ESC 1:25



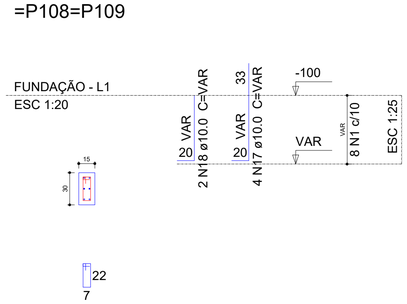
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

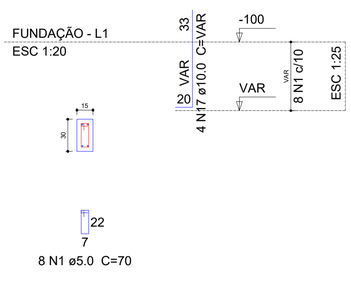


P2



P12=P13=P14=P15=P16=P17=P18=P20=P21=P23=P24=P28=P29=P32=P34=P83=P85=P96=P104=P108=P109

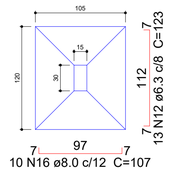




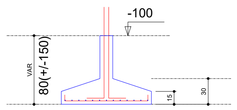
S2=S9=S12=S13=S14=S15=S16=S17=S18=S20=S21=S23=S24=S28=S29=S32=S34=S83=S85=S96=S104=S108=S109

PLANTA
ESC 1:25

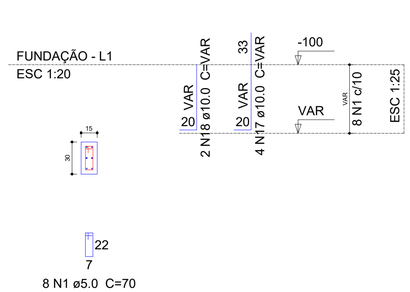
CORTE
ESC 1:25

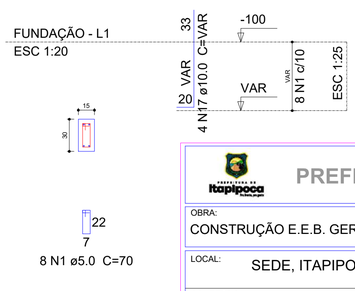


Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³



P10=P11=P19=P22=P25=P30=P31=P33=P35=P36=P38=P80=P37=P84





1 DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 13/43

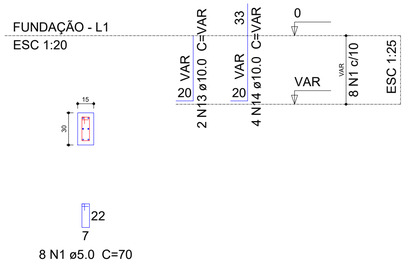
CONTEÚDO:
PLANTA DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0973
ASSINADO ELETRONICAMENTE

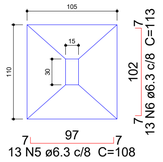
P7



8 N1 ø5.0 C=70

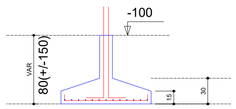
S7=S10=S11=S19=S22=S25=S30=S31=S33=S35 =S36=S37=S38=S80=S84

PLANTA
ESC 1:25



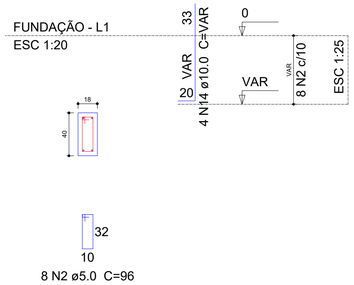
13 N5 ø6.3 c/8 C=108

CORTE
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

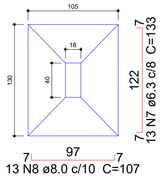
P62=P63=P64=P65



8 N2 ø5.0 C=96

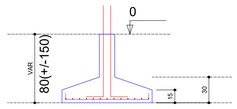
S62=S63=S64=S65

PLANTA
ESC 1:25



13 N8 ø8.0 c/10 C=107

CORTE
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

Relação do aço

P7	P26	P27
4xP62	P101	2xP114
P116	15xS10	S26
S27	4xS64	S101
2xS114	S116	

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	24	70	1680
	2	5.0	32	96	3072
	3	5.0	32	100	3200
	4	5.0	32	27	864
CA50	5	6.3	195	108	21060
	6	6.3	195	113	22035
	7	6.3	52	133	6916
	8	8.0	52	107	5564
	9	8.0	22	112	2464
	10	8.0	9	117	1053
	11	8.0	9	127	1143
	12	8.0	28	152	4256
	13	10.0	4	VAR	VAR
	14	10.0	52	VAR	VAR
	15	10.0	26	131	3406
	16	10.0	18	146	2628
	17	10.0	13	166	2158
	18	10.0	19	156	2964
	19	10.0	14	176	2464

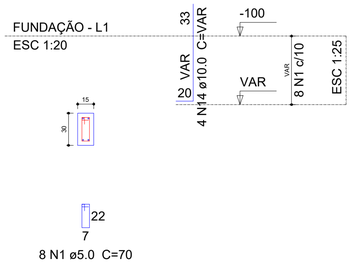
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	500.2	128.5
	8.0	144.8	60
	10.0	208.1	134.7
CA60	5.0	88.2	14.3

PESO TOTAL (kg)	
CA50	323.2
CA60	14.3

Volume de concreto (C-30) = 0.59 m³
Volume de concreto (C-20) = 7.82 m³
Área de forma = 27.19 m²

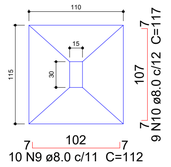
P26



8 N1 ø5.0 C=70

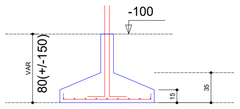
S26

PLANTA
ESC 1:25



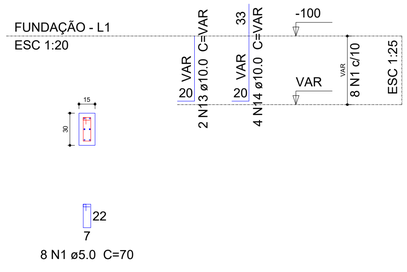
10 N9 ø8.0 c/11 C=112

CORTE
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

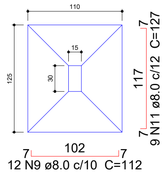
P27



8 N1 ø5.0 C=70

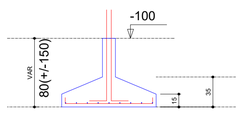
S27

PLANTA
ESC 1:25



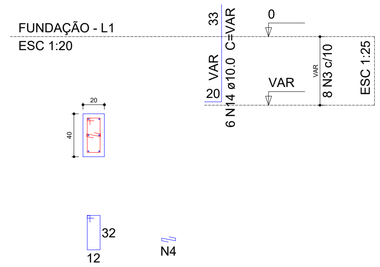
12 N9 ø8.0 c/10 C=112

CORTE
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

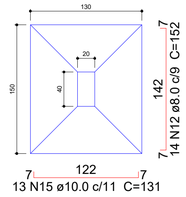
P114=P115



8 N3 ø5.0 C=100
8 N4 ø5.0 C=27

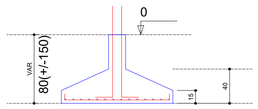
S114=S115

PLANTA
ESC 1:25



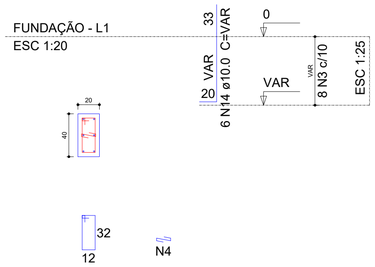
13 N15 ø10.0 c/11 C=131

CORTE
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

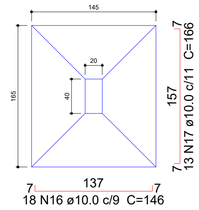
P116



8 N3 ø5.0 C=100
8 N4 ø5.0 C=27

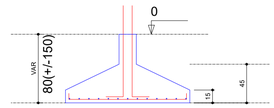
S116

PLANTA
ESC 1:25



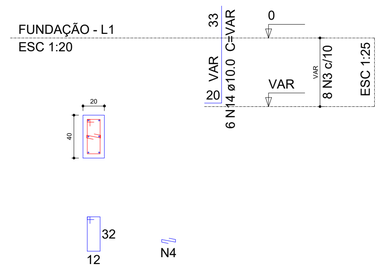
18 N16 ø10.0 c/9 C=146

CORTE
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

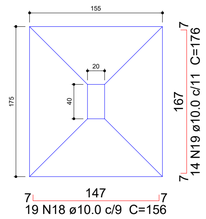
P101



8 N3 ø5.0 C=100
8 N4 ø5.0 C=27

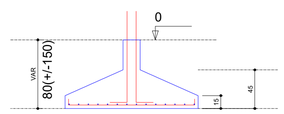
S101

PLANTA
ESC 1:25



19 N18 ø10.0 c/9 C=156

CORTE
ESC 1:25



Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³

1 DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA:
CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: PLANTA DET. ARMAÇÃO DE SAPATAS E PILARES NA FUNDAÇÃO

PRANCHA: 14/43

PROJETO: ESTRUTURAL

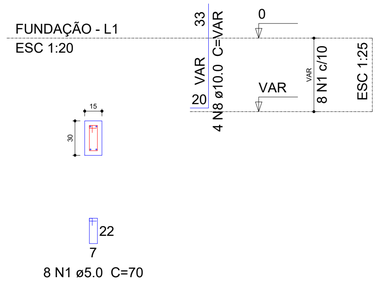
DESENHO:

ESCALA:

DATA: MAIO/2026

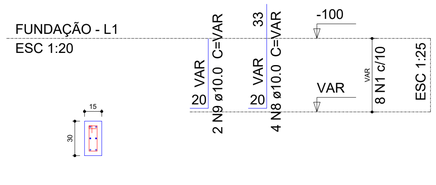
FOLHA: A1

P1=P2=P3=P4=P5=P6=P42=P43=P184



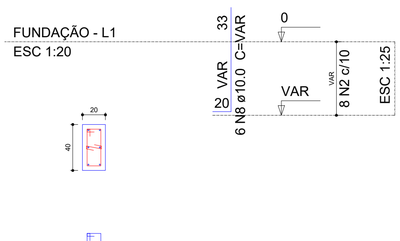
8 N1 ø5.0 C=70

P10=P11=P12=P13=P14=P15=P16=P17=P18=P19
=P20=P21=P22=P23=P24=P25=P27=P28=P29
=P30=P31=P32=P33=P34=P35=P36=P37=P83
=P84=P85=P94=P95=P96=P97=P98=P99=P104
=P108=P109



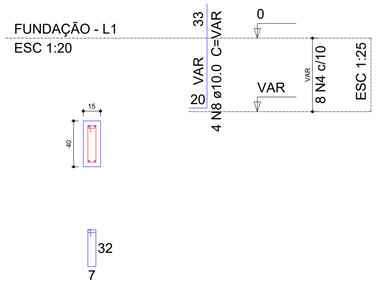
8 N1 ø5.0 C=70

P101=P114=P115=P116=P146=P147=P148=P149
=P150=P194=P195=P196=P197=P198=P199=P200
=P243=P244



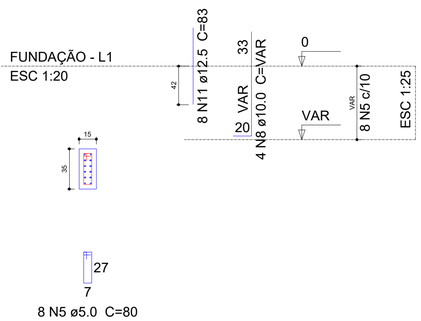
8 N2 ø5.0 C=100
8 N3 ø5.0 C=27

P137=P139=P151



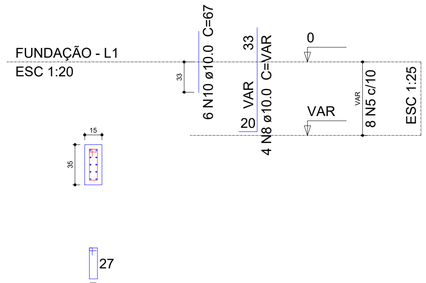
8 N4 ø5.0 C=90

P144=P161



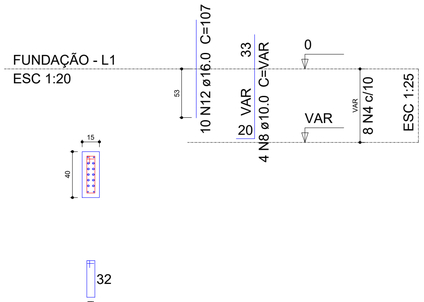
8 N5 ø5.0 C=80

P145



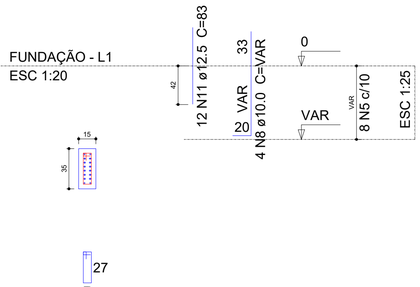
8 N5 ø5.0 C=80

P179



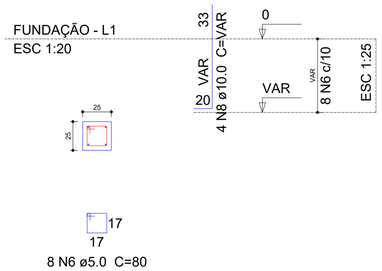
8 N4 ø5.0 C=90

P180



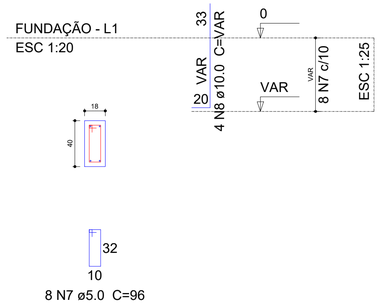
8 N5 ø5.0 C=80

P248



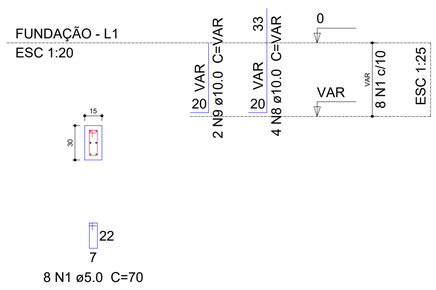
8 N6 ø5.0 C=80

P62=P63=P64=P65=P66=P67=P68=P69=P70=P71
=P76=P77=P78=P79=P87=P88=P89=P90=P91
=P92=P93=P100=P102=P117=P121=P122=P125
=P130=P131=P132=P133=P134



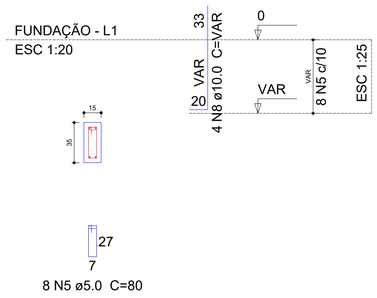
8 N7 ø5.0 C=96

P7



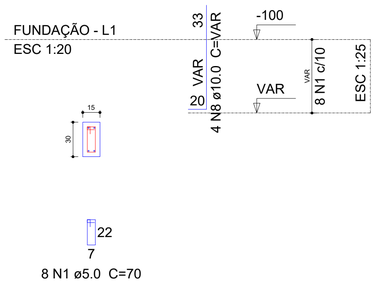
8 N1 ø5.0 C=70

P75=P111=P112=P113=P127=P128=P129=P140
=P141=P152=P154=P155=P157=P158=P159=P160
=P162=P164=P166=P167=P170=P171=P172=P174
=P175=P176=P181=P182=P185=P186=P189=P192
=P193=P204=P205=P208=P209=P212=P214=P215
=P219=P220=P223=P224=P228=P229=P233=P234
=P237=P238



8 N5 ø5.0 C=80

P8=P9=P26=P38=P39=P40=P41=P44=P45=P46
=P47=P48=P49=P50=P51=P52=P53=P54=P55
=P56=P57=P58=P59=P60=P61=P72=P73=P74
=P80=P81=P82=P86=P103=P105=P106=P107
=P110=P118=P119=P120=P123=P124=P126=P135
=P136=P138=P142=P143=P153=P156=P163=P165
=P168=P169=P173=P177=P178=P183=P187=P188
=P190=P191=P201=P202=P203=P206=P207=P210
=P211=P213=P216=P217=P218=P221=P222=P225
=P226=P227=P230=P231=P232=P235=P236=P239
=P240=P241=P242=P245=P246=P247=P249=P250
=P251=P252



8 N1 ø5.0 C=70

Relação do aço

9xP1	P7	94xP8
39xP10	32xP62	50xP75
18xP101	3xP137	2xP144
P145	P179	P180
P248		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	1144	70	80080
	2	5.0	144	100	14400
	3	5.0	144	27	3888
	4	5.0	32	90	2880
	5	5.0	432	80	34560
	6	5.0	8	80	640
	7	5.0	256	96	24576
CA50	8	10.0	1044	VAR	VAR
	9	10.0	80	VAR	VAR
	10	10.0	6	67	402
	11	12.5	28	83	2324
	12	16.0	10	107	1070

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	10.0	1446.9	936.6
	12.5	23.3	23.5
	16.0	10.7	17.7
CA60	5.0	1610.3	260.6

PESO TOTAL (kg)	
CA50	977.9
CA60	260.6

Volume de concreto (C-30) = 10.65 m³
Área de forma = 197.46 m²

1 DET. ARMAÇÃO DE PILARES DA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: PLANTA DETALHAMENTO GERAL DE PILARES

PRANCHA: 15/43

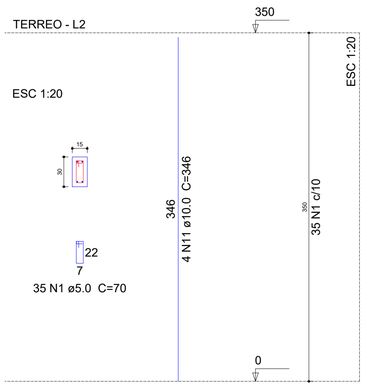
PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1

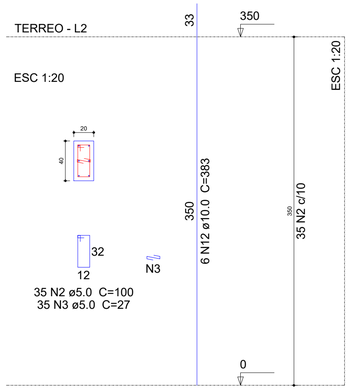
PROCESSO ADMINISTRATIVO 0974 ASSINADO ELETRONICAMENTE

PROCESSO ADMINISTRATIVO
0975
ASSINADO ELETRONICAMENTE

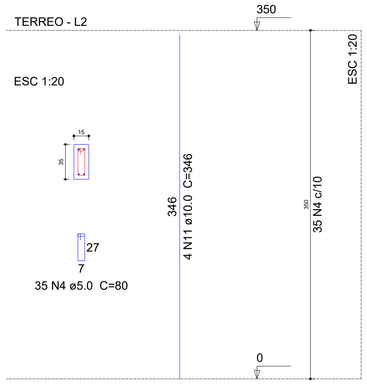
P1=P2=P3=P4=P5=P6=P7=P42=P43=P184



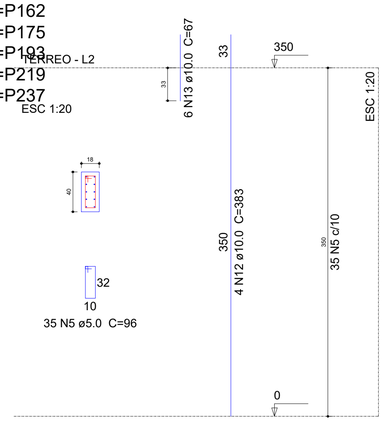
P101=P114=P115=P116



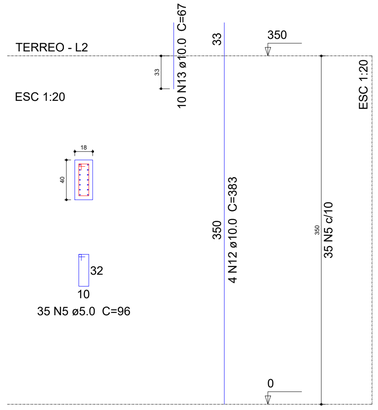
P111=P112=P113=P127=P128=P129=P140=P141=P151 =P152=P154=P155=P157=P158=P159=P160=P162 =P164=P166=P167=P170=P171=P172=P174=P175 =P176=P181=P182=P185=P186=P189=P192=P193 =P204=P205=P208=P209=P212=P214=P215=P219 =P220=P223=P224=P228=P229=P233=P234=P237 =P238



P131=P132



P133



Relação do aço

10xP1	4xP25	23xP62
P75	4xP101	49xP111
2xP131	P133	3xP137
2xP144	P145	14xP146
P179	P180	P248

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	530	70	37100
	2	5.0	630	100	63000
	3	5.0	630	27	17010
	4	5.0	1857	80	148560
	5	5.0	910	96	87360
	6	5.0	129	90	11610
	7	5.0	35	22	770
	8	5.0	24	22	528
	9	5.0	24	22	528
	10	5.0	35	80	2800
CA50	11	10.0	346	346	119716
	12	10.0	132	383	50556
	13	10.0	22	67	1474
	14	10.0	16	446	7136
	15	12.5	40	346	13840
	16	16.0	14	346	4844

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	10.0	1788.9	1158
	12.5	138.4	140
	16.0	48.5	80.3
CA60	5.0	3692.7	597.6

PESO TOTAL (kg)	
CA50	1378.3
CA60	597.6

Volume de concreto (C-30) = 24.96 m³
Área de forma = 436.76 m²

P137=P139=P151

P144=P161

P145

P146=P147=P148=P149=P150=P194=P195=P196=P197=P198=P199=P200=P243=P244

P179

P180

P248

P25=P26=P27=P28

P62=P63=P64=P65=P66=P67=P68=P69=P70=P75 =P79=P87=P89=P90=P92=P93=P100=P102=P117 =P121=P125=P130=P134

1 DET. ARMAÇÃO DE PILARES DO TÉRREO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: PLANTA DETALHAMENTO GERAL DE PILARES PAV. TÉRREO

PRANCHA: 16/43

PROJETO: ESTRUTURAL

DESENHO:

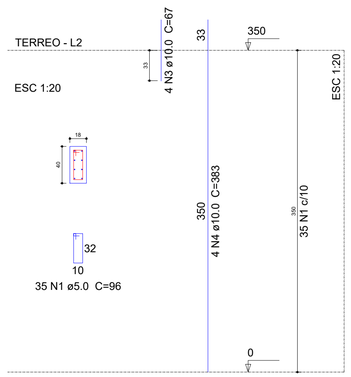
ESCALA:

DATA: MAIO/2026

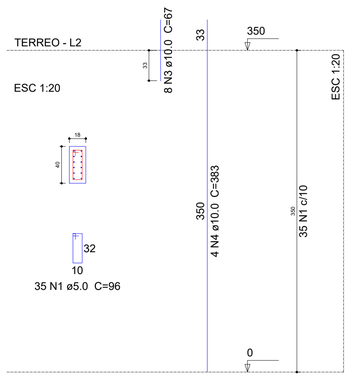
FOLHA: A1

PROCESSO ADMINISTRATIVO
0976
ASSINADO ELETRONICAMENTE

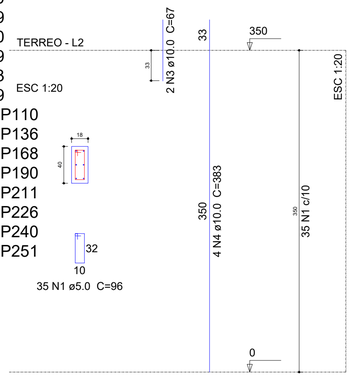
P76=P77=P91

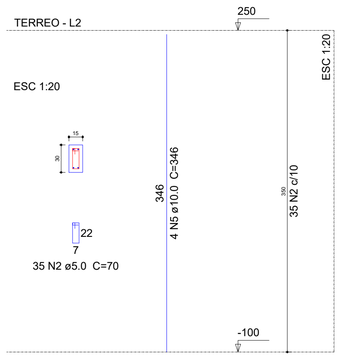


P78=P122



P8=P9=P10=P11=P12=P13=P14=P15=P16=P17P88 =P18=P19=P20=P21=P22=P23=P24=P29=P30 =P31=P32=P33=P34=P35=P36=P37=P38=P39 =P40=P41=P44=P45=P46=P47=P48=P49=P50 =P51=P52=P53=P54=P55=P56=P57=P58=P59 =P60=P61=P72=P73=P74=P80=P81=P82=P83 =P84=P85=P86=P94=P95=P96=P97=P98=P99 =P103=P104=P105=P106=P107=P108=P109=P110 =P118=P119=P120=P123=P124=P126=P135=P136 =P138=P142=P143=P153=P156=P163=P165=P168 =P169=P173=P177=P178=P183=P187=P188=P190 =P191=P201=P202=P203=P206=P207=P210=P211 =P213=P216=P217=P218=P221=P222=P225=P226 =P227=P230=P231=P232=P235=P236=P239=P240 =P241=P242=P245=P246=P247=P249=P250=P251 =P252





Relação do aço

129xP8
P88
3xP76
2xP78

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	210	96	20160
	2	5.0	4515	70	316050
CA50	3	10.0	30	67	2010
	4	10.0	24	383	9192
	5	10.0	516	346	178536

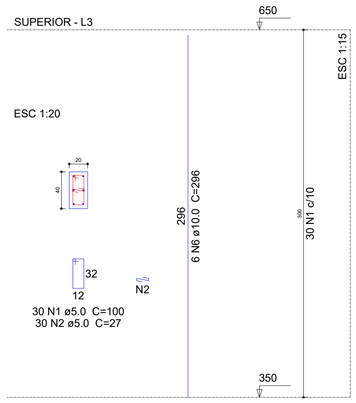
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	10.0	1897.4	1228.3
CA60	5.0	3362.1	544.1

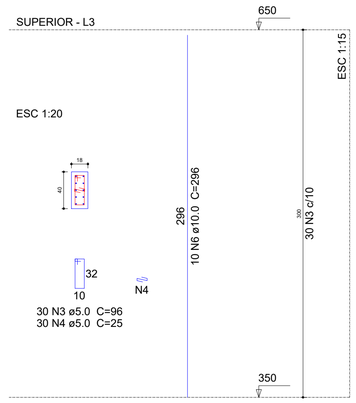
PESO TOTAL (kg)	
CA50	1228.3
CA60	544.1

Volume de concreto (C-30) = 21.83 m³
Área de forma = 430.71 m²

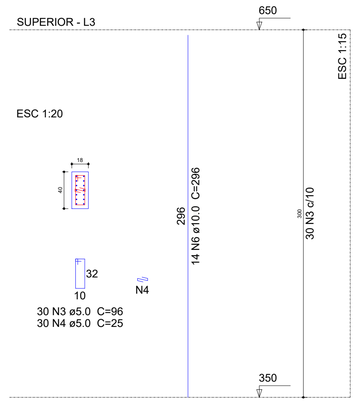
P101=P114=P115=P116



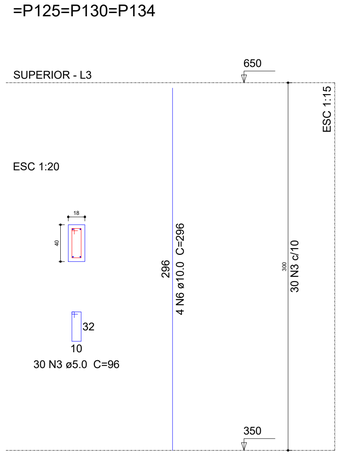
P131=P132

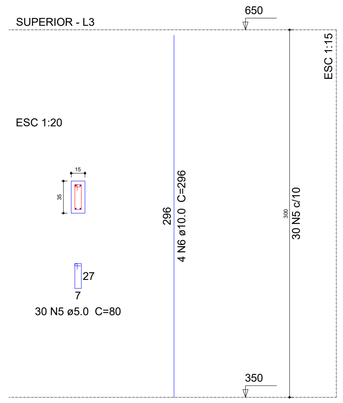


P133



P62=P63=P64=P65=P66=P67=P68=P69=P70=P71=P75 =P79=P87=P89=P90=P92=P100=P102=P117=P121 =P125=P130=P134





Relação do aço

22xP62
2xP78
4xP101
P75
P88
2xP131
3xP76
P93
P133

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	120	100	12000
	2	5.0	120	27	3240
	3	5.0	950	96	91200
	4	5.0	180	25	4500
	5	5.0	30	80	2400
CA50	6	10.0	204	296	60384
	7	12.5	4	296	1184

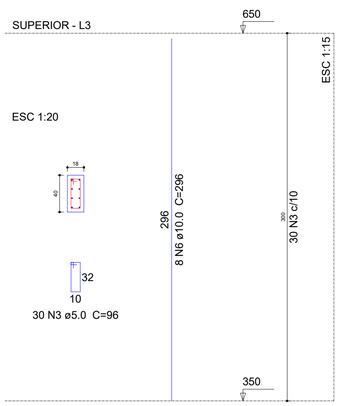
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	10.0	603.9	390.9
	12.5	11.9	12
CA60	5.0	1133.4	183.4

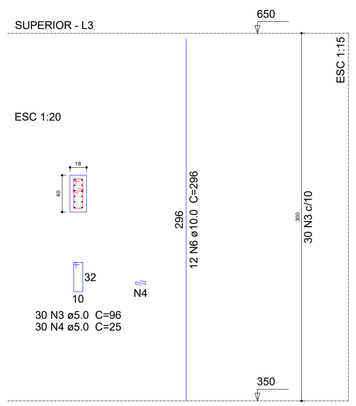
PESO TOTAL (kg)	
CA50	402.9
CA60	183.4

Volume de concreto (C-30) = 8.03 m³
Área de forma = 128.76 m²

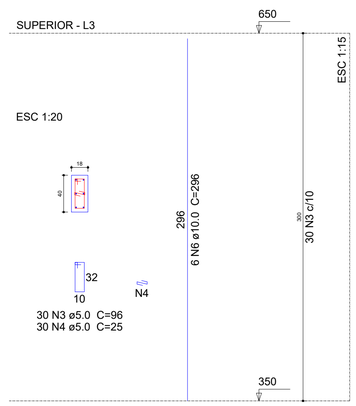
P76=P77=P91



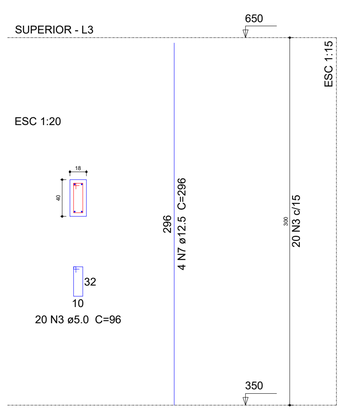
P78=P122



P88



P93



1 DET. ARMAÇÃO DE PILARES

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B. GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: PLANTA DETALHAMENTO GERAL DE PILARES

PRANCHA: 17/43

PROJETO: ESTRUTURAL

DESENHO:

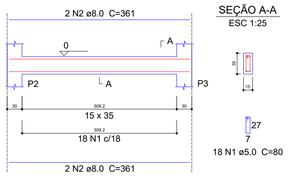
ESCALA:

DATA: MAIO/2026

FOLHA: A1

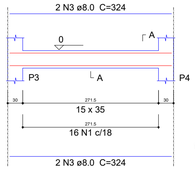
PROCESSO ADMINISTRATIVO
0977
ASSINADO ELETRONICAMENTE

V1
ESC 1:30



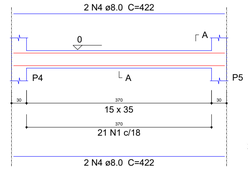
SEÇÃO A-A
ESC 1:25

V2
ESC 1:30



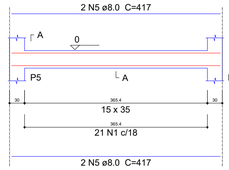
SEÇÃO A-A
ESC 1:25

V3
ESC 1:30



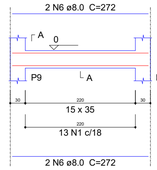
SEÇÃO A-A
ESC 1:25

V4
ESC 1:30



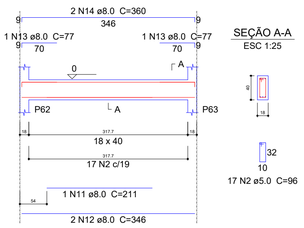
SEÇÃO A-A
ESC 1:25

V8
ESC 1:30



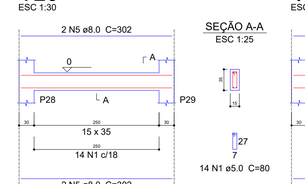
SEÇÃO A-A
ESC 1:25

V40
ESC 1:30



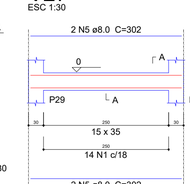
SEÇÃO A-A
ESC 1:25

V5
ESC 1:30



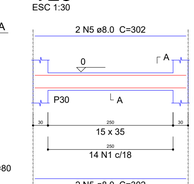
SEÇÃO A-A
ESC 1:25

V6
ESC 1:30



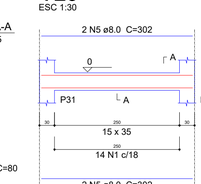
SEÇÃO A-A
ESC 1:25

V7
ESC 1:30



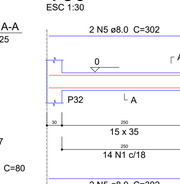
SEÇÃO A-A
ESC 1:25

V9
ESC 1:30



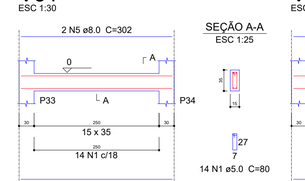
SEÇÃO A-A
ESC 1:25

V10
ESC 1:30



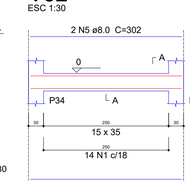
SEÇÃO A-A
ESC 1:25

V11
ESC 1:30



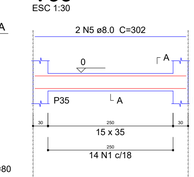
SEÇÃO A-A
ESC 1:25

V12
ESC 1:30



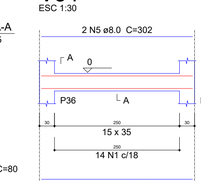
SEÇÃO A-A
ESC 1:25

V13
ESC 1:30



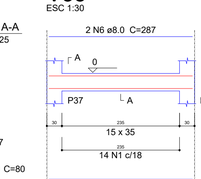
SEÇÃO A-A
ESC 1:25

V14
ESC 1:30



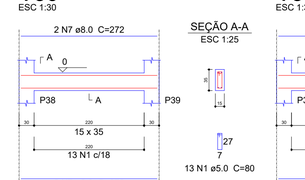
SEÇÃO A-A
ESC 1:25

V15
ESC 1:30



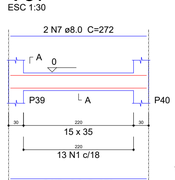
SEÇÃO A-A
ESC 1:25

V16
ESC 1:30



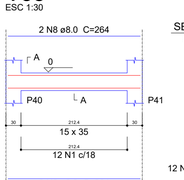
SEÇÃO A-A
ESC 1:25

V17
ESC 1:30



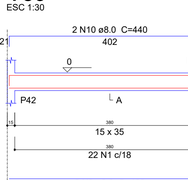
SEÇÃO A-A
ESC 1:25

V18
ESC 1:30



SEÇÃO A-A
ESC 1:25

V19
ESC 1:30



SEÇÃO A-A
ESC 1:25

V20
ESC 1:30

SEÇÃO A-A
ESC 1:25

V21
ESC 1:30

SEÇÃO A-A
ESC 1:25

V22
ESC 1:30

SEÇÃO A-A
ESC 1:25

V23
ESC 1:30

SEÇÃO A-A
ESC 1:25

V24
ESC 1:30

SEÇÃO A-A
ESC 1:25

V25
ESC 1:30

SEÇÃO A-A
ESC 1:25

V26
ESC 1:30

SEÇÃO A-A
ESC 1:25

V27
ESC 1:30

SEÇÃO A-A
ESC 1:25

V28
ESC 1:30

SEÇÃO A-A
ESC 1:25

V29
ESC 1:30

SEÇÃO A-A
ESC 1:25

V30
ESC 1:30

SEÇÃO A-A
ESC 1:25

V31
ESC 1:30

SEÇÃO A-A
ESC 1:25

V32
ESC 1:30

SEÇÃO A-A
ESC 1:25

V33
ESC 1:30

SEÇÃO A-A
ESC 1:25

V34
ESC 1:30

SEÇÃO A-A
ESC 1:25

V35
ESC 1:30

SEÇÃO A-A
ESC 1:25

V36
ESC 1:30

SEÇÃO A-A
ESC 1:25

V37
ESC 1:30

SEÇÃO A-A
ESC 1:25

V38
ESC 1:30

SEÇÃO A-A
ESC 1:25

V39
ESC 1:30

SEÇÃO A-A
ESC 1:25

V41
ESC 1:30

SEÇÃO A-A
ESC 1:25

V42
ESC 1:30

SEÇÃO A-A
ESC 1:25

V43
ESC 1:30

SEÇÃO A-A
ESC 1:25

V44
ESC 1:30

SEÇÃO A-A
ESC 1:25

V45
ESC 1:30

SEÇÃO A-A
ESC 1:25

V46
ESC 1:30

SEÇÃO A-A
ESC 1:25

V47
ESC 1:30

SEÇÃO A-A
ESC 1:25

V48
ESC 1:30

SEÇÃO A-A
ESC 1:25

V85
ESC 1:30

SEÇÃO A-A
ESC 1:25

Relação do aço

V1	V2	V3
V4	V5	V6
V7	V8	V9
V10	V11	V12
V13	V14	V15
V16	V17	V18
V19	V20	V21
V22	V23	V24
V25		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	369	80	29520
CA50	2	8.0	4	361	1444
	3	8.0	4	324	1296
	4	8.0	4	422	1688
	5	8.0	4	417	1668
	6	8.0	12	272	3264
	7	8.0	4	303	1212
	8	8.0	52	302	15704
	9	8.0	8	287	2296
	10	8.0	4	372	1488
	11	8.0	4	257	1028

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	310.9	128.8
CA60	5.0	295.2	47.8

PESO TOTAL (kg)	
CA50	128.8
CA60	47.8

Volume de concreto (C-30) = 4.19 m³
Área de forma = 67.77 m²

Relação do aço

V26	V27	V28
V29	V30	V31
V32	V33	V34
V35	V36	V37
V38	V39	V40
V41	V42	V43
V44	V45	V46
V47	V48	V85

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	200	80	16000
	2	5.0	175	96	16800
	3	5.0	2	27	54
	4	5.0	1	70	70
CA50	5	8.0	36	302	10872
	6	8.0	4	287	1148
	7	8.0	8	272	2176
	8	8.0	4	264	1056
	9	8.0	2	402	804
	10	8.0	2	440	880
	11	8.0	2	211	422
	12	8.0	2	346	692
	13	8.0	10	77	770
	14	8.0	2	360	720
	15	8.0	3	224	672
	16	8.0	4	445	1780
	17	8.0	2	111	222
	18	8.0	4	452	1808
	19	8.0	1	220	220
	20	8.0	4	446	1784
	21	8.0	2	91	182
	22	8.0	4	453	1812
	23	8.0	1	230	230
	24	8.0	1	229	229
	25	8.0	1	196	196
	26	8.0	4	331	1324
	27	8.0	6	345	2070
	28	8.0	4	424	1696
	29	8.0	4	438	1752
	30	8.0	2	27	54

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	355.8	147.4
CA60	5.0	329.3	53.3

PESO TOTAL (kg)	
CA50	147.4
CA60	53.3

Volume de concreto (C-30) = 4.96 m³
Área de forma = 73.37 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 18/43

CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DA FUNDAÇÃO

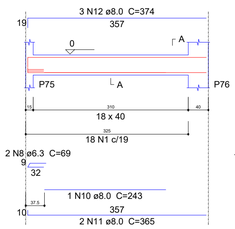
PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

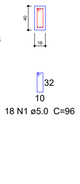
1 DETALHAMENTO DAS VIGAS DA FUNDAÇÃO

PROCESSO ADMINISTRATIVO
0978
ASSINADO ELETRONICAMENTE

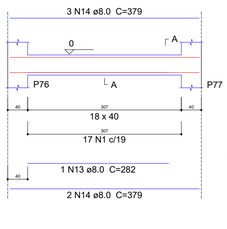
V49
ESC 1:30



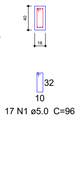
SEÇÃO A-A
ESC 1:25



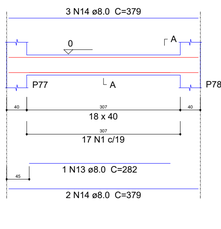
V50
ESC 1:30



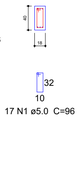
SEÇÃO A-A
ESC 1:25



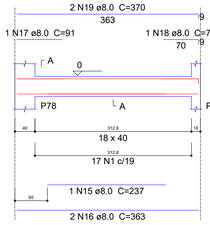
V51
ESC 1:30



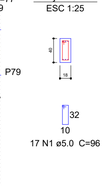
SEÇÃO A-A
ESC 1:25



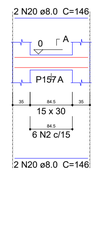
V52
ESC 1:30



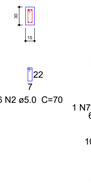
SEÇÃO A-A
ESC 1:25



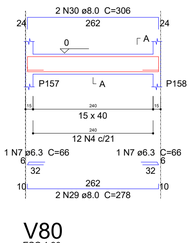
V99
ESC 1:30



SEÇÃO A-A
ESC 1:25



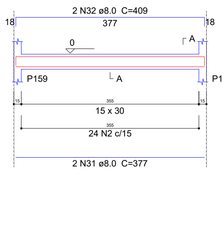
V77
ESC 1:30



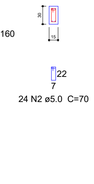
SEÇÃO A-A
ESC 1:25



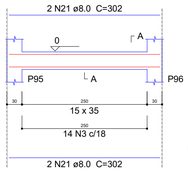
V79
ESC 1:30



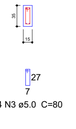
SEÇÃO A-A
ESC 1:25



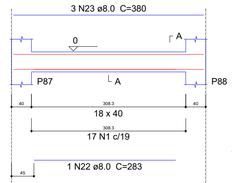
V53
ESC 1:30



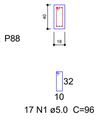
SEÇÃO A-A
ESC 1:25



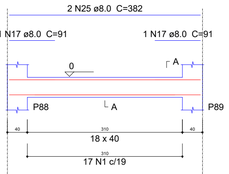
V54
ESC 1:30



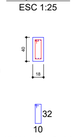
SEÇÃO A-A
ESC 1:25



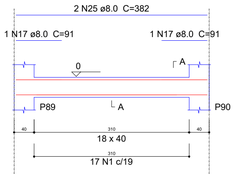
V55
ESC 1:30



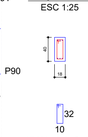
SEÇÃO A-A
ESC 1:25



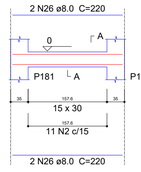
V56
ESC 1:30



SEÇÃO A-A
ESC 1:25



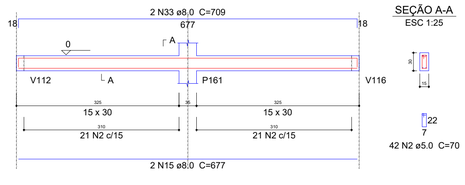
V96
ESC 1:30



SEÇÃO A-A
ESC 1:25

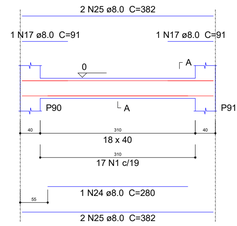


V80
ESC 1:30

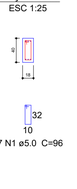


SEÇÃO A-A
ESC 1:25

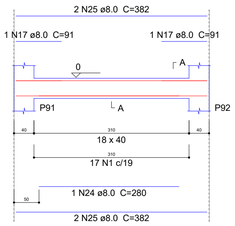
V57
ESC 1:30



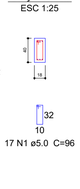
SEÇÃO A-A
ESC 1:25



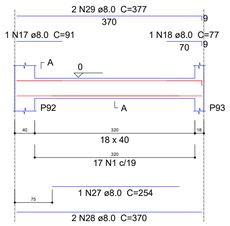
V58
ESC 1:30



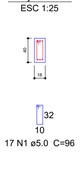
SEÇÃO A-A
ESC 1:25



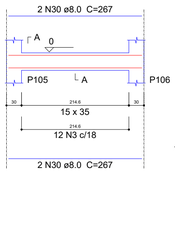
V59
ESC 1:30



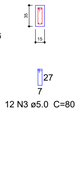
SEÇÃO A-A
ESC 1:25



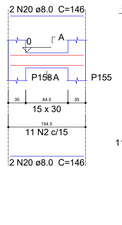
V60
ESC 1:30



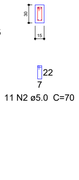
SEÇÃO A-A
ESC 1:25



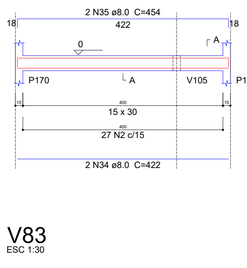
V100
ESC 1:30



SEÇÃO A-A
ESC 1:25



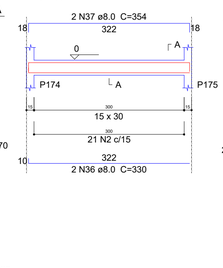
V81
ESC 1:30



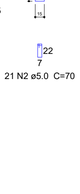
SEÇÃO A-A
ESC 1:25



V82
ESC 1:30



SEÇÃO A-A
ESC 1:25



V83
ESC 1:30

SEÇÃO A-A
ESC 1:25

V61
ESC 1:30

SEÇÃO A-A
ESC 1:25

V62
ESC 1:30

SEÇÃO A-A
ESC 1:25

V63
ESC 1:30

SEÇÃO A-A
ESC 1:25

V64
ESC 1:30

SEÇÃO A-A
ESC 1:25

V84
ESC 1:30

SEÇÃO A-A
ESC 1:25

V86
ESC 1:30

SEÇÃO A-A
ESC 1:25

V65
ESC 1:30

SEÇÃO A-A
ESC 1:25

V66
ESC 1:30

SEÇÃO A-A
ESC 1:25

V67
ESC 1:30

SEÇÃO A-A
ESC 1:25

V68
ESC 1:30

SEÇÃO A-A
ESC 1:25

V78
ESC 1:30

SEÇÃO A-A
ESC 1:25

V69
ESC 1:30

SEÇÃO A-A
ESC 1:25

V70
ESC 1:30

SEÇÃO A-A
ESC 1:25

V71
ESC 1:30

SEÇÃO A-A
ESC 1:25

V72
ESC 1:30

SEÇÃO A-A
ESC 1:25

V73
ESC 1:30

SEÇÃO A-A
ESC 1:25

V74
ESC 1:30

SEÇÃO A-A
ESC 1:25

V75
ESC 1:30

SEÇÃO A-A
ESC 1:25

V76
ESC 1:30

SEÇÃO A-A
ESC 1:25

V104
ESC 1:30

SEÇÃO A-A
ESC 1:25

1 DETALHAMENTO DAS VIGAS DA FUNDAÇÃO

Relação do aço

V49	V50	V51
V52	V53	V54
V55	V56	V57
V58	V59	V60
V61	V62	V63
V64	V96	V99
V100		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	171	96	16416
	2	5.0	63	70	4410
	3	5.0	42	80	3360
	4	5.0	2	270	540
	5	5.0	23	100	2300
	6	5.0	14	90	1260
	7	5.0	2	220	440
CA50	8	6.3	2	69	138
	9	6.3	3	66	198
	10	8.0	1	243	243
	11	8.0	2	365	730
	12	8.0	3	374	1122
	13	8.0	2	282	564
	14	8.0	10	379	3790
	15	8.0	1	237	237
	16	8.0	2	363	726
	17	8.0	10	91	910
	18	8.0	2	77	154
	19	8.0	2	370	740
	20	8.0	8	146	1168
	21	8.0	4	302	1208
	22	8.0	1	283	283
	23	8.0	5	380	1900
	24	8.0	4	280	1120
	25	8.0	16	382	6112
	26	8.0	4	220	880
	27	8.0	1	254	254
	28	8.0	2	370	740
	29	8.0	2	377	754
	30	8.0	4	267	1068
	31	8.0	4	537	2148
	32	8.0	2	159	318
	33	8.0	2	179	358
	34	8.0	2	308	616
	35	8.0	2	344	688
	36	8.0	4	185	740
	37	8.0	2	313	626
	38	8.0	2	335	670

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	3.4	0.9
	8.0	308.7	127.9
CA60	5.0	287.3	46.5

PESO TOTAL (kg)	
CA50	128.7
CA60	46.5

Volume de concreto (C-30) = 4.27 m³
Área de forma = 61.92 m²

Relação do aço

V65	V66	V67
V68	V69	V70
V71	V72	V73
V74	V75	V76
V77	V78	V79
V80	V81	V82
V83	V84	V86
V104		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	185	80	14800
	2	5.0	249	70	17430
	3	5.0	2	335	670
	4	5.0	36	90	3240
	5	5.0	2	280	560
	6	6.3	1	70	70
	7	6.3	7	66	462
	8	8.0	2	357	714
	9	8.0	2	376	752
	10	8.0	8	379	3032
	11	8.0	2	312	624
	12	8.0	2	323	646
	13	8.0	2	183	366
	14	8.0	2	199	398
	15	8.0	6	677	4062
	16	8.0	2	210	420
	17	8.0	2	185	370
	18	8.0	2	427	854
	19	8.0	2	446	892
	20	8.0	4	432	1728
	21	8.0	4	386	1544
	22	8.0	4	478	1912
	23	8.0	4	332	1328
	24	8.0	2	328	656
	25	8.0	2	335	670
	26	8.0	2	263	526
	27	8.0	2	279	558
	28	8.0	4	220	880
	29	8.0	2	278	556
	30	8.0	2	306	612
	31	8.0	2	377	754
	32	8.0	2	409	818
	33	8.0	2	709	1418
	34	8.0	2	422	844
	35	8.0	2	454	908
	36	8.0	2	330	660
	37	8.0	4	354	1416
	38	8.0	4	227	908
	39	8.0	2	322	644
	40	8.0	2	350	700
	41	8.0	2	386	772

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	5.4	1.4
	8.0	339.5	140.6
CA60	5.0	367	59.4

PESO TOTAL (kg)	
CA50	142
CA60	59.4

Volume de concreto (C-30) = 4.33 m³
Área de forma = 70.75 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 19/43

CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DA FUNDAÇÃO

PROJETO: ESTRUTURAL

DESENHO:

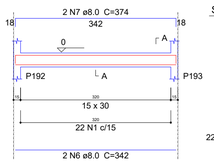
ESCALA:

DATA: MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
0979
ASSINADO ELETRONICAMENTE

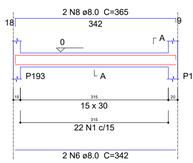
V87
ESC 1:30



SEÇÃO A-A
ESC 1:25



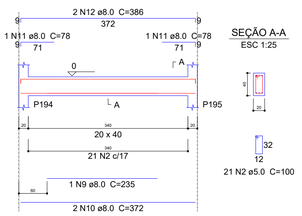
V88
ESC 1:30



SEÇÃO A-A
ESC 1:25

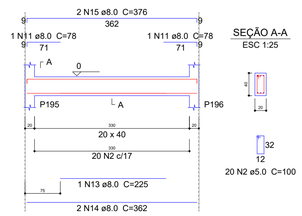


V89
ESC 1:30



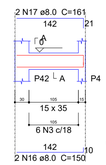
SEÇÃO A-A
ESC 1:25

V90
ESC 1:30

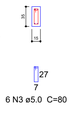


SEÇÃO A-A
ESC 1:25

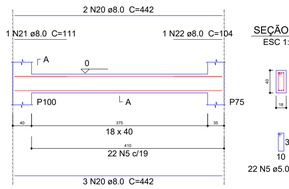
V117
ESC 1:30



SEÇÃO A-A
ESC 1:25

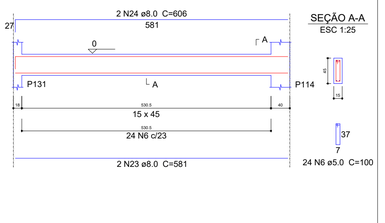


V122
ESC 1:30



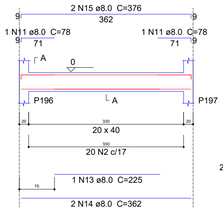
SEÇÃO A-A
ESC 1:25

V123
ESC 1:30



SEÇÃO A-A
ESC 1:25

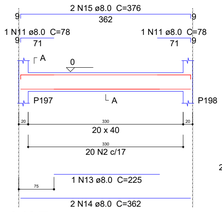
V91
ESC 1:30



SEÇÃO A-A
ESC 1:25



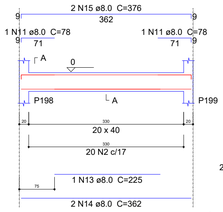
V92
ESC 1:30



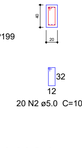
SEÇÃO A-A
ESC 1:25



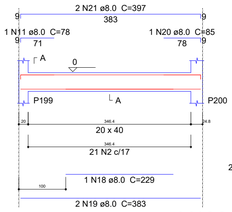
V93
ESC 1:30



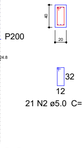
SEÇÃO A-A
ESC 1:25



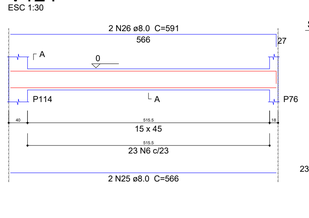
V94
ESC 1:30



SEÇÃO A-A
ESC 1:25



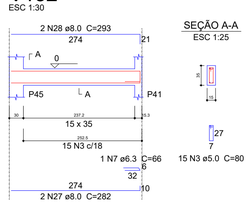
V124
ESC 1:30



SEÇÃO A-A
ESC 1:25

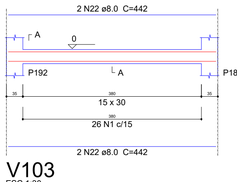


V132
ESC 1:30



SEÇÃO A-A
ESC 1:25

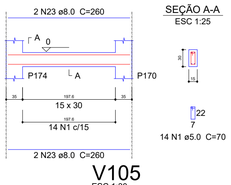
V95
ESC 1:30



SEÇÃO A-A
ESC 1:25



V97
ESC 1:30

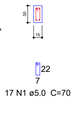


SEÇÃO A-A
ESC 1:25

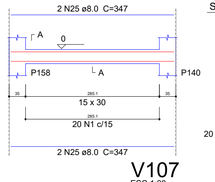


V98
ESC 1:30

SEÇÃO A-A
ESC 1:25



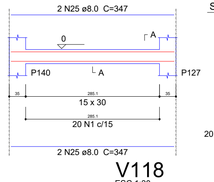
V101
ESC 1:30



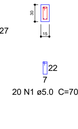
SEÇÃO A-A
ESC 1:25



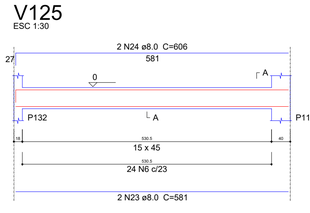
V102
ESC 1:30



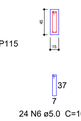
SEÇÃO A-A
ESC 1:25



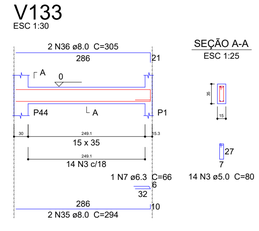
V125
ESC 1:30



SEÇÃO A-A
ESC 1:25



V133
ESC 1:30



SEÇÃO A-A
ESC 1:25

V103
ESC 1:30

SEÇÃO A-A
ESC 1:25

V105
ESC 1:30

SEÇÃO A-A
ESC 1:25

V106
ESC 1:30

SEÇÃO A-A
ESC 1:25

V107
ESC 1:30

SEÇÃO A-A
ESC 1:25

V118
ESC 1:30

SEÇÃO A-A
ESC 1:25

V126
ESC 1:30

SEÇÃO A-A
ESC 1:25

V108
ESC 1:30

SEÇÃO A-A
ESC 1:25

V109
ESC 1:30

SEÇÃO A-A
ESC 1:25

V110
ESC 1:30

SEÇÃO A-A
ESC 1:25

V111
ESC 1:30

SEÇÃO A-A
ESC 1:25

V127
ESC 1:30

SEÇÃO A-A
ESC 1:25

V130
ESC 1:30

SEÇÃO A-A
ESC 1:25

V128
ESC 1:30

SEÇÃO A-A
ESC 1:25

V131
ESC 1:30

SEÇÃO A-A
ESC 1:25

V112
ESC 1:30

SEÇÃO A-A
ESC 1:25

V113
ESC 1:30

SEÇÃO A-A
ESC 1:25

V114
ESC 1:30

SEÇÃO A-A
ESC 1:25

V115
ESC 1:30

SEÇÃO A-A
ESC 1:25

V116
ESC 1:30

SEÇÃO A-A
ESC 1:25

V119
ESC 1:30

SEÇÃO A-A
ESC 1:25

V120
ESC 1:30

SEÇÃO A-A
ESC 1:25

V121
ESC 1:30

SEÇÃO A-A
ESC 1:25

V129
ESC 1:30

SEÇÃO A-A
ESC 1:25

Relação do aço

V87	V88	V89
V90	V91	V92
V93	V94	V95
V97	V98	V101
V102	V103	V105
V106	V107	V108
V109	V110	V111
V117	V118	

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	268	70	18760
	2	5.0	122	100	12200
	3	5.0	44	80	3520
	4	5.0	2	278	556
	5	5.0	18	90	1620
CA50	6	8.0	4	342	1368
	7	8.0	2	374	748
	8	8.0	2	365	730
	9	8.0	1	235	235
	10	8.0	2	372	744
	11	8.0	11	78	858
	12	8.0	2	386	772
	13	8.0	4	225	900
	14	8.0	8	362	2896
	15	8.0	8	376	3008
	16	8.0	4	150	600
	17	8.0	4	161	644
	18	8.0	1	229	229
	19	8.0	2	383	766
	20	8.0	1	85	85
	21	8.0	2	397	794
	22	8.0	4	442	1768
	23	8.0	4	260	1040
	24	8.0	4	317	1268
	25	8.0	16	347	5552
	26	8.0	2	625	1250
	27	8.0	4	184	736
	28	8.0	2	240	480
	29	8.0	2	256	512
	30	8.0	6	422	2532
	31	8.0	4	297	1188
	32	8.0	2	557	1114
	33	10.0	2	422	844
	34	10.0	2	557	1114

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	328.2	136
	10.0	19.6	12.7
CA60	5.0	366.6	59.3

PESO TOTAL (kg)	
CA50	148.6
CA60	59.3

Volume de concreto (C-30) = 4.67 m³
Área de forma = 69.86 m²

Relação do aço

V112	V113	V114
V115	V116	V119
V120	V121	V122
V123	V124	V125
V126	V127	V128
V129	V130	V131
V132	V133	

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	92	70	6440
	2	5.0	2	239	478
	3	5.0	69	80	5520
	4	5.0	2	215	430
	5	5.0	107	96	10272
	6	5.0	141	100	14100
CA50	7	6.3	2	66	132
	8	6.3	2	72	144
	9	6.3	1	75	75
	10	8.0	4	357	1428
	11	8.0	2	626	1252
	12	8.0	4	204	816
	13	8.0	2	288	576
	14	8.0	2	310	620
	15	8.0	6	457	2742
	16	8.0	2	215	430
	17	8.0	6	376	2256
	18	8.0	6	382	2292
	19	8.0	6	258	1548
	20	8.0	5	442	2210
	21	8.0	4	111	444
	22	8.0	1	104	104
	23	8.0	6	581	3486
	24	8.0	6	606	3636
	25	8.0	2	566	1132
	26	8.0	6	591	3546
	27	8.0	2	282	564
	28	8.0	2	293	586
	29	8.0	4	574	2296
	30	8.0	1	229	229
	31	8.0	2	447	894
	32	8.0	1	97	97
	33	8.0	2	446	892
	34	8.0	5	439	2195
	35	8.0	2	294	588
	36	8.0	2	305	610
	37	10.0	2	457	914

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	3.6	0.9
	8.0	374.7	155.2
	10.0	9.2	5.9
CA60	5.0	372.4	60.3

PESO TOTAL (kg)	
CA50	162.1
CA60	60.3

Volume de concreto (C-30) = 5.53 m³
Área de forma = 83.96 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 20/43

CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DA FUNDAÇÃO

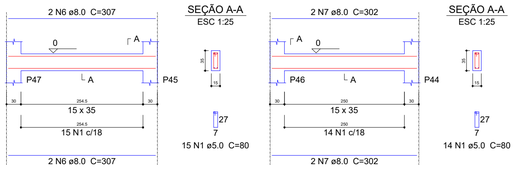
PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

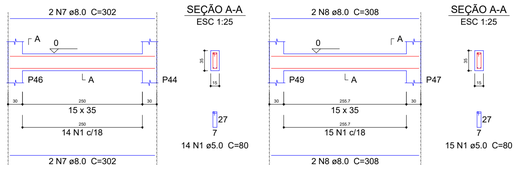
1 DETALHAMENTO DAS VIGAS DA FUNDAÇÃO

PROCESSO ADMINISTRATIVO
0980
ASSINADO ELETRONICAMENTE

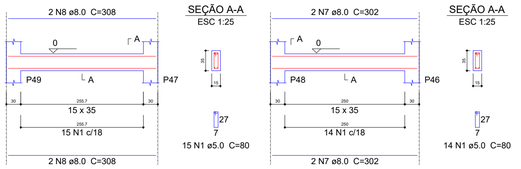
V134
ESC 1:30



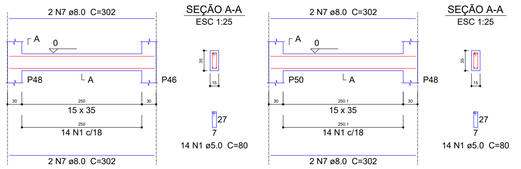
V135
ESC 1:30



V136
ESC 1:30



V137
ESC 1:30



V138
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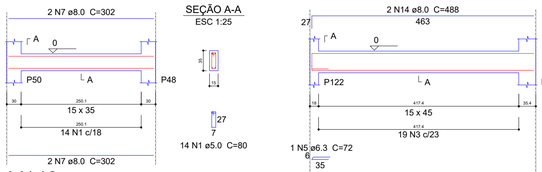
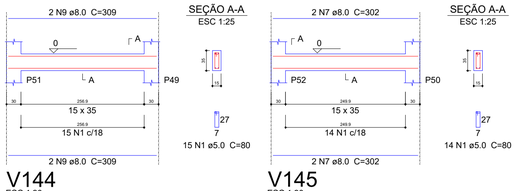
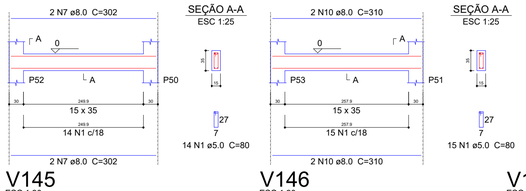


V139
ESC 1:30

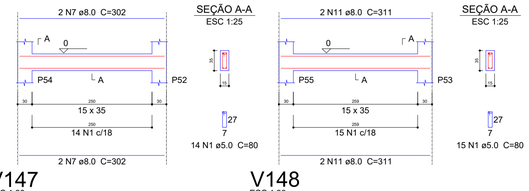


V140
ESC 1:30

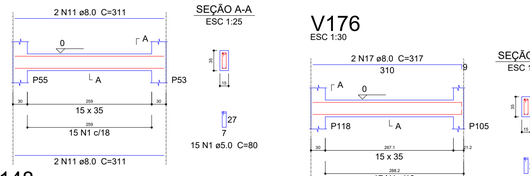


V141
ESC 1:30

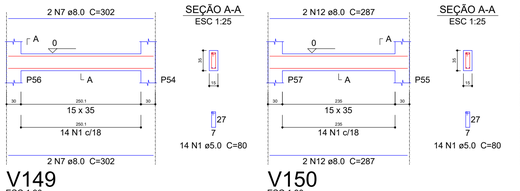
V142
ESC 1:30



V143
ESC 1:30



V144
ESC 1:30



V145
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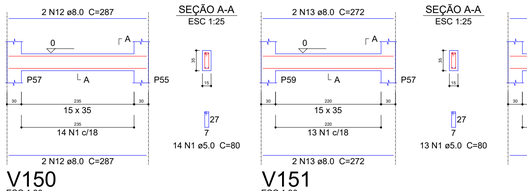
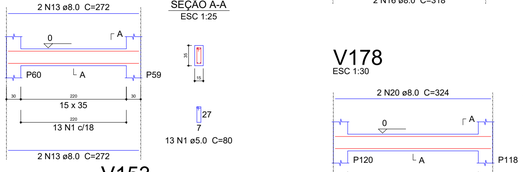


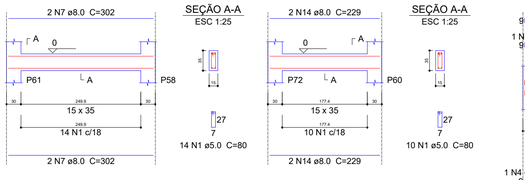
V146
ESC 1:30

V147
ESC 1:30

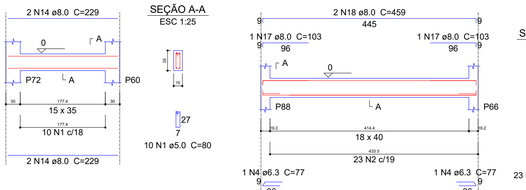
V148
ESC 1:30



V149
ESC 1:30

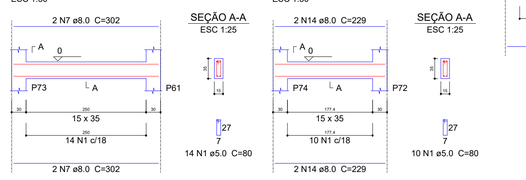


V150
ESC 1:30

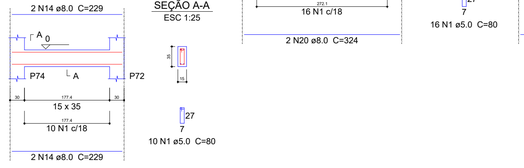


V151
ESC 1:30

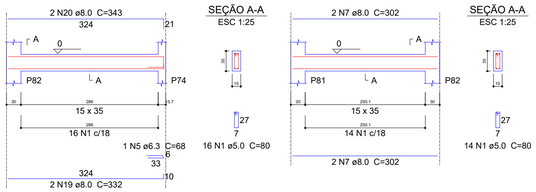
V152
ESC 1:30



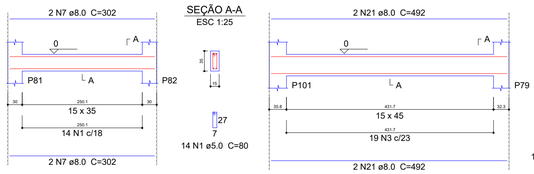
V153
ESC 1:30



V154
ESC 1:30

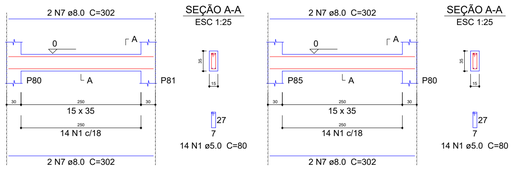


V155
ESC 1:30

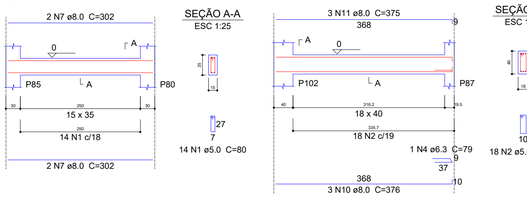


V156
ESC 1:30

V157
ESC 1:30

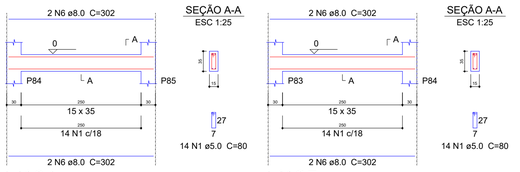


V158
ESC 1:30

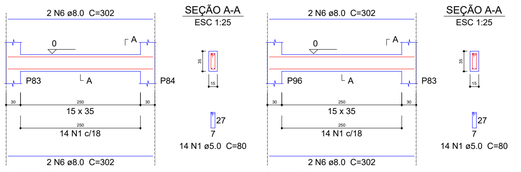


V172
ESC 1:30

V159
ESC 1:30

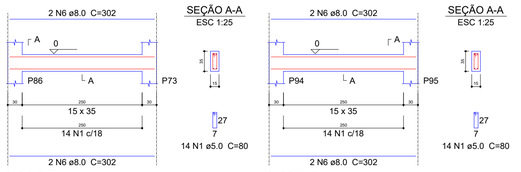


V160
ESC 1:30

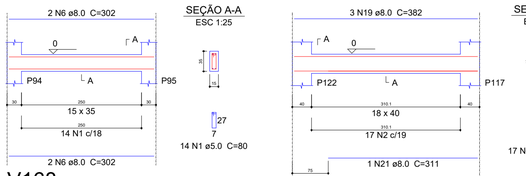


V161
ESC 1:30

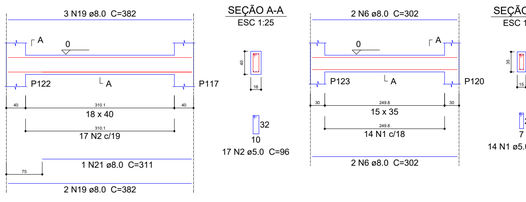
V162
ESC 1:30



V163
ESC 1:30

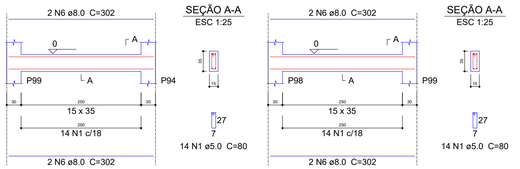


V180
ESC 1:30

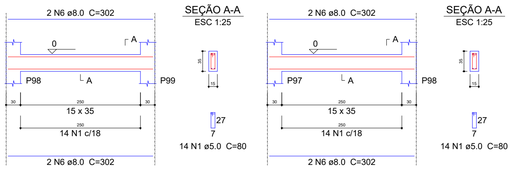


V181
ESC 1:30

V164
ESC 1:30

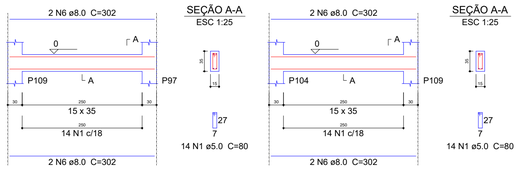


V165
ESC 1:30

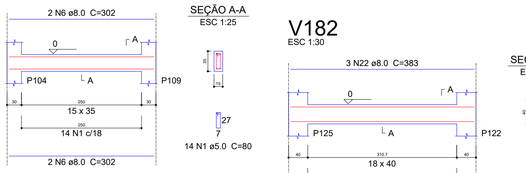


V166
ESC 1:30

V167
ESC 1:30

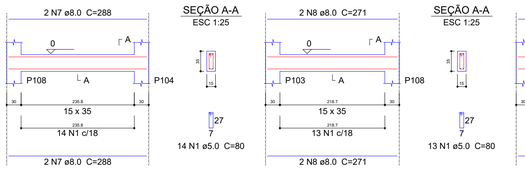


V168
ESC 1:30



V182
ESC 1:30

V169
ESC 1:30



V170
ESC 1:30

V171
ESC 1:30

V173
ESC 1:30

V174
ESC 1:30

V175
ESC 1:30

V176
ESC 1:30

V177
ESC 1:30

V178
ESC 1:30

V179
ESC 1:30

Relação do aço

V134	V135	V136
V137	V138	V139
V140	V141	V142
V143	V144	V145
V146	V147	V148
V149	V150	V151
V152	V153	V154
V155	V156	V157
V158		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	319	80	25520
	2	5.0	23	96	2208
	3	5.0	19	100	1900
CA50	4	6.3	2	77	154
	5	6.3	1	68	68
	6	8.0	4	307	1228
	7	8.0	48	302	14496
	8	8.0	4	308	1232
	9	8.0	4	309	1236
	10	8.0	4	310	1240
	11	8.0	4	311	1244
	12	8.0	4	287	1148
	13	8.0	8	272	2176
	14	8.0	8	229	1832
	15	8.0	1	397	397
	16	8.0	2	461	922
	17	8.0	2	103	206
	18	8.0	2	459	918
	19	8.0	2	332	664
	20	8.0	2	343	686
	21	8.0	4	492	1968

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	2.3	0.6
	8.0	316	130.9
CA60	5.0	296.3	48

PESO TOTAL (kg)	
CA50	131.5
CA60	48

Volume de concreto (C-30) = 4.32 m³
Área de forma = 68.89 m²

Relação do aço

V159	V160	V161
V162	V163	V164
V165	V166	V167
V168	V169	V170
V171	V172	V173
V174	V175	V176
V177	V178	V179
V180	V181	V182

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	268	80	21440
	2	5.0	69	96	6624
	3	5.0	19	100	1900
CA50	4	6.3	1	79	79
	5	6.3	1	72	72
	6	8.0	48	302	14496
	7	8.0	4	288	1152
	8	8.0	4	271	1084
	9	8.0	4	273	1092
	10	8.0	3	376	1128
	11	8.0	3	375	1125
	12	8.0	4	272	1088
	13	8.0	2	471	942
	14	8.0	2	488	976
	15	8.0	4	303	1212
	16	8.0	2	318	636
	17	8.0	2	317	634
	18	8.0	1	346	346
	19	8.0	10	382	3820
	20	8.0	4	324	1296
	21	8.0	1	311	311
	22	8.0	6	383	2298

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	1.6	0.4
	8.0	336.4	139.4
CA60	5.0	299.7	48.5

PESO TOTAL (kg)	
CA50	139.7
CA60	48.5

Volume de concreto (C-30) = 4.48 m³
Área de forma = 69.54 m²

1 DETALHAMENTO DAS VIGAS DA FUNDAÇÃO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DA FUNDAÇÃO

PRANCHA: 21/43

PROJETO: ESTRUTURAL

DESENHO:

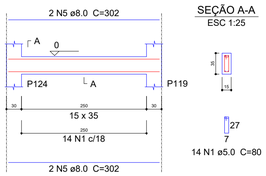
ESCALA:

DATA: MAIO/2026

FOLHA: A1

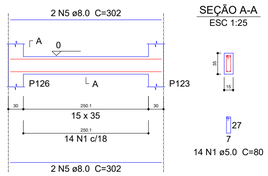
PROCESSO ADMINISTRATIVO
0981
ASSINADO ELETRONICAMENTE

V183
ESC 1:30



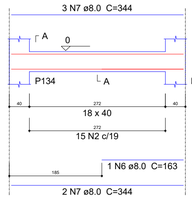
SEÇÃO A-A
ESC 1:25

V184
ESC 1:30



SEÇÃO A-A
ESC 1:25

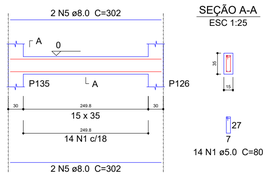
V185
ESC 1:30



SEÇÃO A-A
ESC 1:25

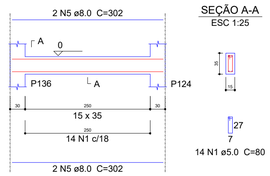


V186
ESC 1:30



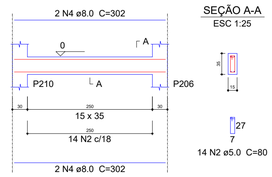
SEÇÃO A-A
ESC 1:25

V187
ESC 1:30



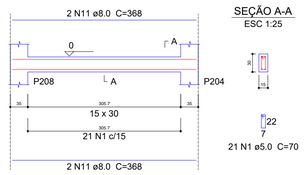
SEÇÃO A-A
ESC 1:25

V222
ESC 1:30



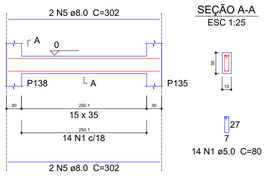
SEÇÃO A-A
ESC 1:25

V223
ESC 1:30



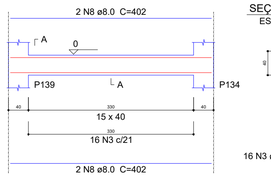
SEÇÃO A-A
ESC 1:25

V188
ESC 1:30

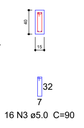


SEÇÃO A-A
ESC 1:25

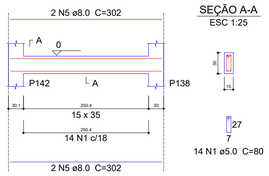
V189
ESC 1:30



SEÇÃO A-A
ESC 1:25

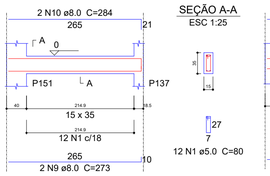


V190
ESC 1:30



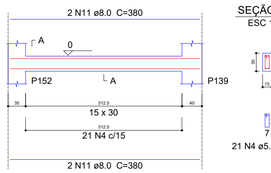
SEÇÃO A-A
ESC 1:25

V191
ESC 1:30



SEÇÃO A-A
ESC 1:25

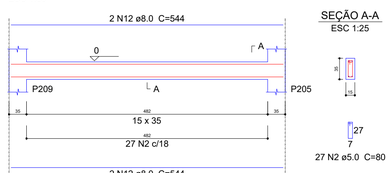
V192
ESC 1:30



SEÇÃO A-A
ESC 1:25

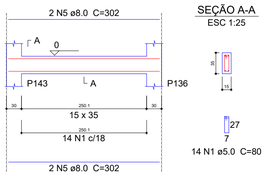


V224
ESC 1:30



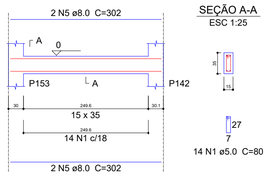
SEÇÃO A-A
ESC 1:25

V193
ESC 1:30



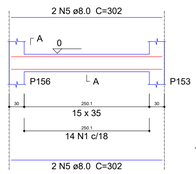
SEÇÃO A-A
ESC 1:25

V194
ESC 1:30



SEÇÃO A-A
ESC 1:25

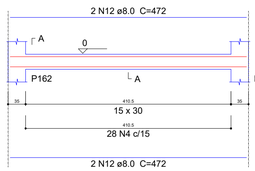
V195
ESC 1:30



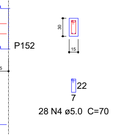
SEÇÃO A-A
ESC 1:25



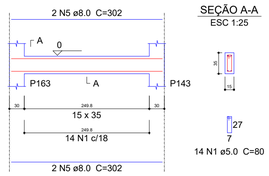
V196
ESC 1:30



SEÇÃO A-A
ESC 1:25

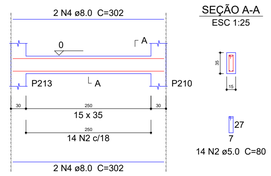


V197
ESC 1:30



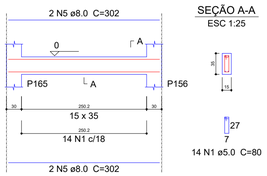
SEÇÃO A-A
ESC 1:25

V225
ESC 1:30



SEÇÃO A-A
ESC 1:25

V198
ESC 1:30



SEÇÃO A-A
ESC 1:25

V199
ESC 1:30

SEÇÃO A-A
ESC 1:25

V200
ESC 1:30

SEÇÃO A-A
ESC 1:25

V201
ESC 1:30

SEÇÃO A-A
ESC 1:25

V202
ESC 1:30

SEÇÃO A-A
ESC 1:25

V226
ESC 1:30

SEÇÃO A-A
ESC 1:25

V203
ESC 1:30

SEÇÃO A-A
ESC 1:25

V204
ESC 1:30

SEÇÃO A-A
ESC 1:25

V205
ESC 1:30

SEÇÃO A-A
ESC 1:25

V206
ESC 1:30

SEÇÃO A-A
ESC 1:25

V207
ESC 1:30

SEÇÃO A-A
ESC 1:25

V227
ESC 1:30

SEÇÃO A-A
ESC 1:25

V228
ESC 1:30

SEÇÃO A-A
ESC 1:25

V208
ESC 1:30

SEÇÃO A-A
ESC 1:25

V209
ESC 1:30

SEÇÃO A-A
ESC 1:25

V210
ESC 1:30

SEÇÃO A-A
ESC 1:25

V211
ESC 1:30

SEÇÃO A-A
ESC 1:25

V212
ESC 1:30

SEÇÃO A-A
ESC 1:25

V229
ESC 1:30

SEÇÃO A-A
ESC 1:25

V230
ESC 1:30

SEÇÃO A-A
ESC 1:25

V213
ESC 1:30

SEÇÃO A-A
ESC 1:25

V214
ESC 1:30

SEÇÃO A-A
ESC 1:25

V215
ESC 1:30

SEÇÃO A-A
ESC 1:25

V216
ESC 1:30

SEÇÃO A-A
ESC 1:25

V217
ESC 1:30

SEÇÃO A-A
ESC 1:25

V218
ESC 1:30

SEÇÃO A-A
ESC 1:25

V219
ESC 1:30

SEÇÃO A-A
ESC 1:25

V220
ESC 1:30

SEÇÃO A-A
ESC 1:25

V221
ESC 1:30

SEÇÃO A-A
ESC 1:25

V266
ESC 1:30

SEÇÃO A-A
ESC 1:25

1 DETALHAMENTO DAS VIGAS DA FUNDAÇÃO

Relação do aço

V183	V184	V185
V186	V187	V188
V189	V190	V191
V192	V193	V194
V195	V196	V197
V198	V199	V200
V201	V202	V203
V204	V205	V206
V207		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	252	80	20160
	2	5.0	15	96	1440
	3	5.0	16	90	1440
	4	5.0	109	70	7630
CA50	5	8.0	56	302	16912
	6	8.0	1	163	163
	7	8.0	5	344	1720
	8	8.0	4	402	1608
	9	8.0	2	273	546
	10	8.0	2	284	568
	11	8.0	4	380	1520
	12	8.0	4	472	1888
	13	8.0	4	423	1692
	14	8.0	4	228	912
	15	8.0	4	300	1200
	16	8.0	4	292	1168
	17	8.0	4	401	1604
	18	8.0	4	304	1216

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	327.2	135.6
CA60	5.0	306.7	49.6

PESO TOTAL (kg)	
CA50	135.6
CA60	49.6

Volume de concreto (C-30) = 4.28 m³
Área de forma = 68.96 m²

Relação do aço

V208	V209	V210
V211	V212	V213
V214	V215	V216
V217	V218	V219
V220	V221	V222
V223	V224	V225
V226	V227	V228
V229	V230	V266

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	121	70	8470
	2	5.0	275	80	22000
CA50	3	8.0	4	422	1688
	4	8.0	52	302	15704
	5	8.0	4	319	1276
	6	8.0	4	322	1288
	7	8.0	4	354	1416
	8	8.0	4	498	1992
	9	8.0	2	208	416
	10	8.0	2	207	414
	11	8.0	4	368	1472
	12	8.0	4	544	2176
	13	8.0	4	301	1204
	14	8.0	4	378	1512
	15	8.0	4	286	1144

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	317.1	131.3
CA60	5.0	304.7	49.3

PESO TOTAL (kg)	
CA50	131.3
CA60	49.3

Volume de concreto (C-30) = 4.1 m³
Área de forma = 66.87 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DA FUNDAÇÃO

PRANCHA: 22/43

PROJETO: ESTRUTURAL

DESENHO:

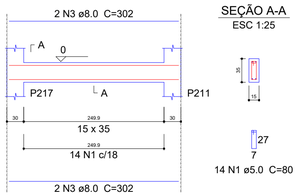
ESCALA:

DATA: MAIO/2026

FOLHA: A1

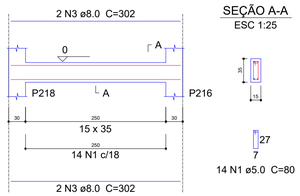
PROCESSO ADMINISTRATIVO
0982
ASSINADO ELETRONICAMENTE

V231
ESC 1:30



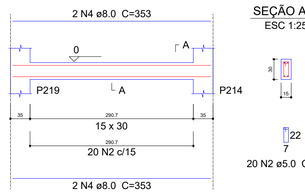
SEÇÃO A-A
ESC 1:25

V232
ESC 1:30



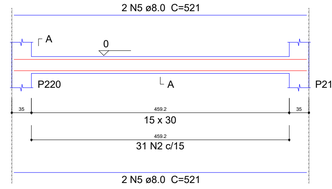
SEÇÃO A-A
ESC 1:25

V233
ESC 1:30



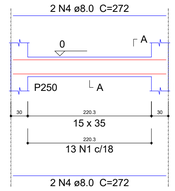
SEÇÃO A-A
ESC 1:25

V234
ESC 1:30



SEÇÃO A-A
ESC 1:25

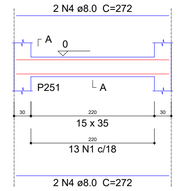
V264
ESC 1:30



SEÇÃO A-A
ESC 1:25



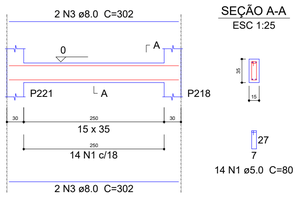
V265
ESC 1:30



SEÇÃO A-A
ESC 1:25

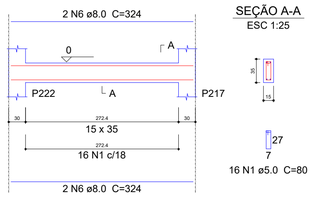


V235
ESC 1:30



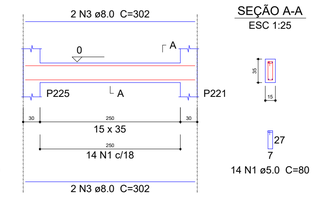
SEÇÃO A-A
ESC 1:25

V236
ESC 1:30



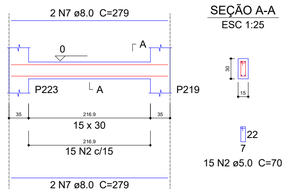
SEÇÃO A-A
ESC 1:25

V237
ESC 1:30



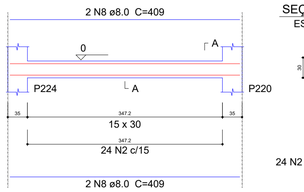
SEÇÃO A-A
ESC 1:25

V238
ESC 1:30



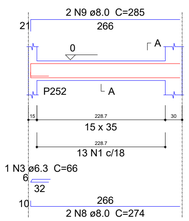
SEÇÃO A-A
ESC 1:25

V239
ESC 1:30

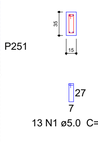


SEÇÃO A-A
ESC 1:25

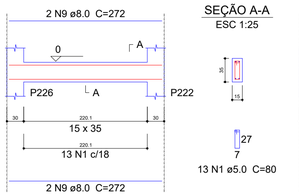
V267
ESC 1:30



SEÇÃO A-A
ESC 1:25

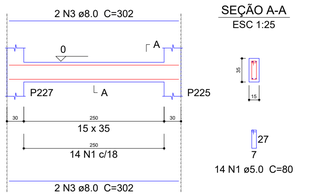


V240
ESC 1:30



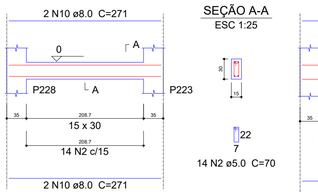
SEÇÃO A-A
ESC 1:25

V241
ESC 1:30



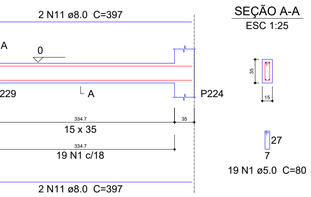
SEÇÃO A-A
ESC 1:25

V242
ESC 1:30



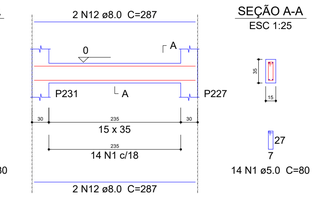
SEÇÃO A-A
ESC 1:25

V243
ESC 1:30



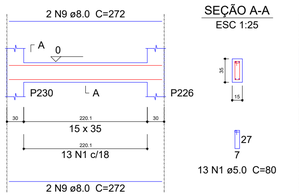
SEÇÃO A-A
ESC 1:25

V244
ESC 1:30



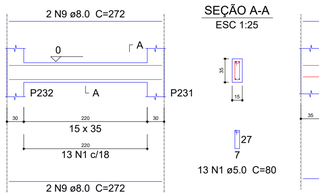
SEÇÃO A-A
ESC 1:25

V245
ESC 1:30



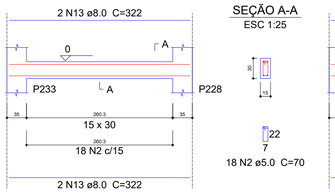
SEÇÃO A-A
ESC 1:25

V246
ESC 1:30



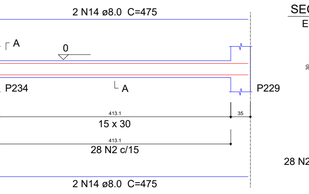
SEÇÃO A-A
ESC 1:25

V247
ESC 1:30



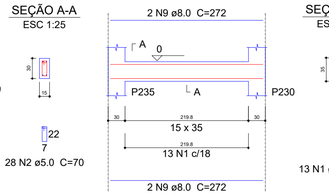
SEÇÃO A-A
ESC 1:25

V248
ESC 1:30



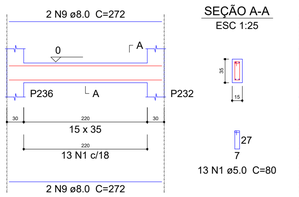
SEÇÃO A-A
ESC 1:25

V249
ESC 1:30



SEÇÃO A-A
ESC 1:25

V250
ESC 1:30



SEÇÃO A-A
ESC 1:25

V251
ESC 1:30

SEÇÃO A-A
ESC 1:25

V252
ESC 1:30

SEÇÃO A-A
ESC 1:25

V253
ESC 1:30

SEÇÃO A-A
ESC 1:25

V254
ESC 1:30

SEÇÃO A-A
ESC 1:25

V255
ESC 1:30

SEÇÃO A-A
ESC 1:25

V256
ESC 1:30

SEÇÃO A-A
ESC 1:25

V257
ESC 1:30

SEÇÃO A-A
ESC 1:25

V258
ESC 1:30

SEÇÃO A-A
ESC 1:25

V259
ESC 1:30

SEÇÃO A-A
ESC 1:25

V260
ESC 1:30

SEÇÃO A-A
ESC 1:25

V261
ESC 1:30

SEÇÃO A-A
ESC 1:25

V262
ESC 1:30

SEÇÃO A-A
ESC 1:25

V263
ESC 1:30

SEÇÃO A-A
ESC 1:25

1 DETALHAMENTO DAS VIGAS DA FUNDAÇÃO

Relação do aço

V231	V232	V233
V234	V235	V236
V237	V238	V239
V240	V241	V242
V243	V244	V245
V246	V247	V248
V249	V250	V251
V252	V253	V254

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	210	80	16800
	2	5.0	194	70	13580
CA50	3	8.0	20	302	6040
	4	8.0	4	353	1412
	5	8.0	4	521	2084
	6	8.0	4	324	1296
	7	8.0	4	279	1116
	8	8.0	4	409	1636
	9	8.0	28	272	7616
	10	8.0	4	271	1084
	11	8.0	4	397	1588
	12	8.0	4	287	1148
	13	8.0	4	322	1288
	14	8.0	4	475	1900
	15	8.0	4	316	1264
	16	8.0	4	465	1860

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	313.4	129.8
CA60	5.0	303.8	49.2

PESO TOTAL (kg)	
CA50	129.8
CA60	49.2

Volume de concreto (C-30) = 3.95 m³
Área de forma = 64.73 m²

Relação do aço

V255	V256	V257
V258	V259	V260
V261	V262	V263
V264	V265	V267

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	117	80	9360
	2	5.0	82	70	5740
CA50	3	6.3	1	66	66
	4	8.0	32	272	8704
	5	8.0	4	432	1728
	6	8.0	4	556	2224
	7	8.0	4	427	1708
	8	8.0	2	274	548
	9	8.0	2	285	570

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	0.7	0.2
	8.0	154.9	64.1
CA60	5.0	151	24.4

PESO TOTAL (kg)	
CA50	64.3
CA60	24.4

Volume de concreto (C-30) = 1.97 m³
Área de forma = 32.16 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

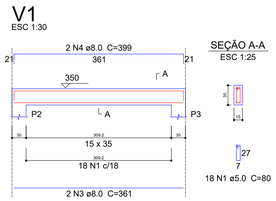
LOCAL: SEDE, ITAPIPOCA-CE

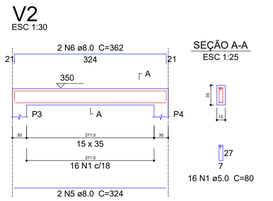
PRANCHA: 23/43

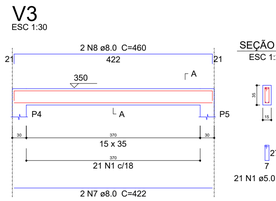
CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DA FUNDAÇÃO

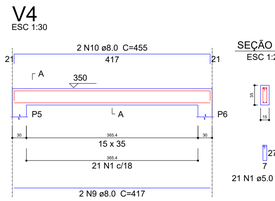
PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

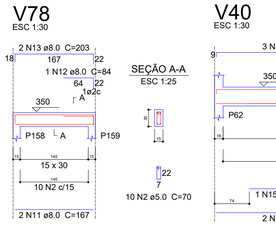
FOLHA: A1

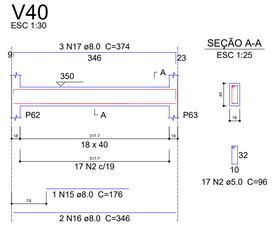


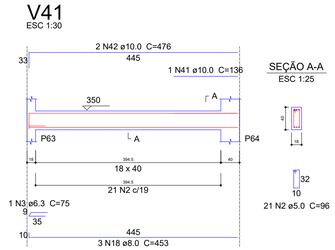


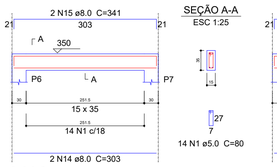


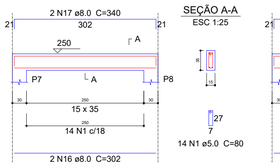


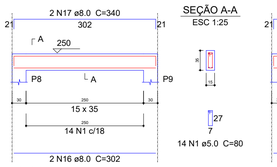


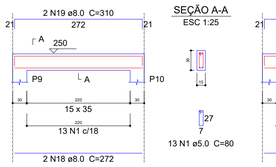


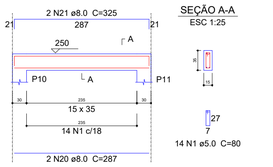


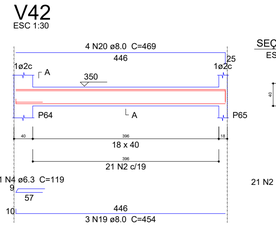


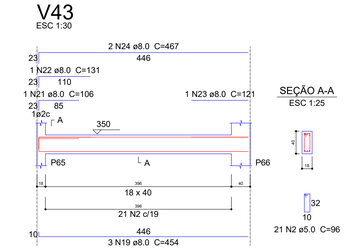


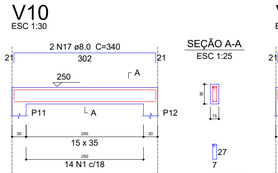


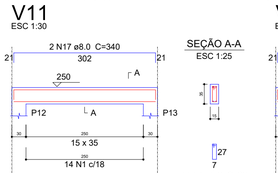


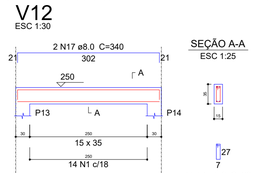


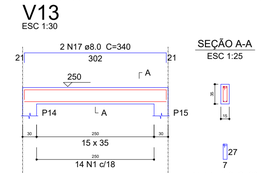


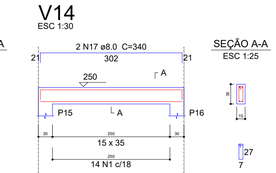


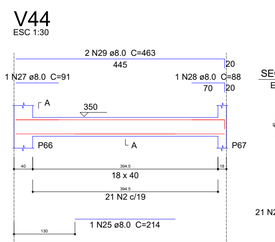


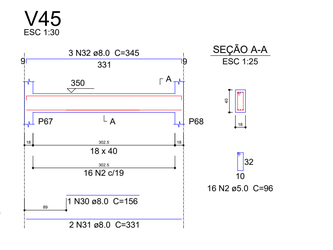


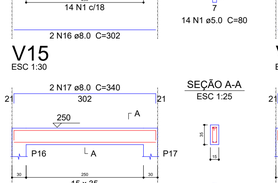


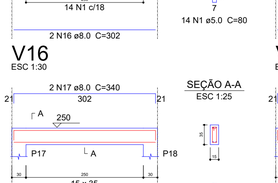


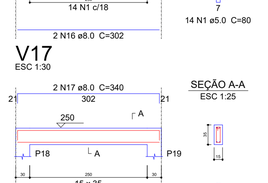


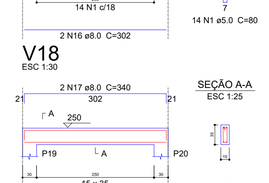


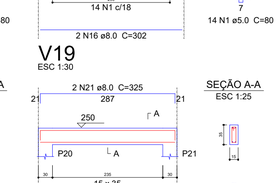


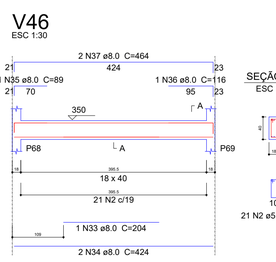


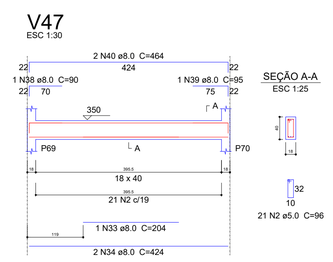


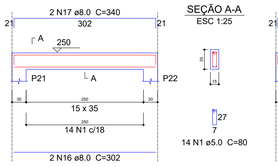


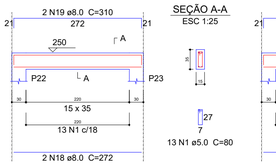


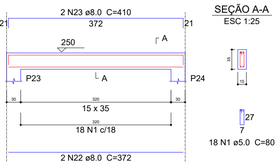


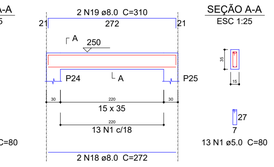


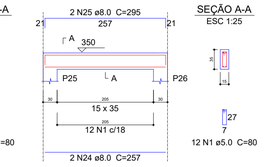


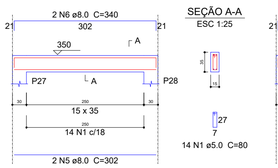


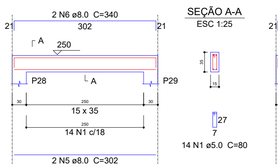


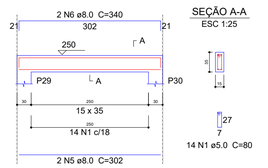


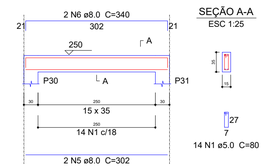


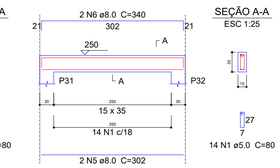


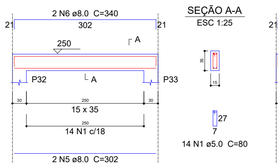


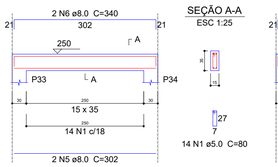












Relação do aço

V1	V2	V3
V4	V5	V6
V7	V8	V9
V10	V11	V12
V13	V14	V15
V16	V17	V18
V19	V20	V21
V22	V23	V24
V78		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	355	80	28400
	2	5.0	10	70	700
CA50	3	8.0	2	361	722
	4	8.0	2	399	798
	5	8.0	2	324	648
	6	8.0	2	362	724
	7	8.0	2	422	844
	8	8.0	2	460	920
	9	8.0	2	417	834
	10	8.0	2	455	910
	11	8.0	2	167	334
	12	8.0	1	84	84
	13	8.0	2	203	406
	14	8.0	2	303	606
	15	8.0	2	341	682
	16	8.0	24	302	7248
	17	8.0	24	340	8160
	18	8.0	6	272	1632
	19	8.0	6	310	1860
	20	8.0	4	287	1148
	21	8.0	4	325	1300
	22	8.0	2	372	744
	23	8.0	2	410	820
	24	8.0	2	257	514
	25	8.0	2	295	590

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	325.3	134.8
CA60	5.0	291	47.1

PESO TOTAL (kg)	
CA50	134.8
CA60	47.1

Volume de concreto (C-30) = 4.1 m³
Área de forma = 66.44 m²

Relação do aço

V25	V26	V27
V28	V29	V30
V31	V32	V33
V34	V35	V36
V37	V38	V39
V40	V41	V42
V43	V44	V45
V46	V47	

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	214	80	17120
	2	5.0	159	96	15264
CA50	3	6.3	1	75	75
	4	6.3	1	119	119
	5	8.0	20	302	6040
	6	8.0	20	340	6800
	7	8.0	2	287	574
	8	8.0	2	325	650
	9	8.0	4	272	1088
	10	8.0	4	310	1240
	11	8.0	2	264	528
	12	8.0	2	302	604
	13	8.0	2	402	804
	14	8.0	2	440	880
	15	8.0	1	176	176
	16	8.0	2	346	692
	17	8.0	3	374	1122
	18	8.0	3	453	1359
	19	8.0	6	454	2724
	20	8.0	4	469	1876
	21	8.0	1	106	106
	22	8.0	1	131	131
	23	8.0	1	121	121
	24	8.0	2	467	934
	25	8.0	1	214	214
	26	8.0	2	445	890
	27	8.0	1	91	91
	28	8.0	1	88	88
	29	8.0	2	463	926
	30	8.0	1	156	156
	31	8.0	2	331	662
	32	8.0	3	345	1035
	33	8.0	2	204	408
	34	8.0	4	424	1696
	35	8.0	1	89	89
	36	8.0	1	116	116
	37	8.0	2	464	928
	38	8.0	1	90	90
	39	8.0	1	95	95
	40	8.0	2	464	928
	41	10.0	1	136	136
	42	10.0	2	476	952

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	2	0.5
	8.0	368.7	152.7
	10.0	10.9	7
CA60	5.0	323.9	52.4

PESO TOTAL (kg)	
CA50	160.3
CA60	52.4

Volume de concreto (C-30) = 4.86 m³
Área de forma = 72.43 m²

1 DETALHAMENTO DAS VIGAS DO TÉRREO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 24/43

CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DO PAV. TÉRREO

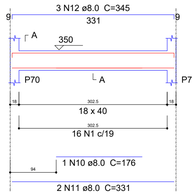
PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO 0983 ASSINADO ELETRONICAMENTE

PROCESSO ADMINISTRATIVO
0984
ASSINADO ELETRONICAMENTE

V48
ESC 1:30

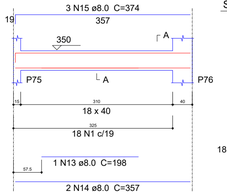


SEÇÃO A-A
ESC 1:25



16 N1 ø5.0 C=96

V49
ESC 1:30

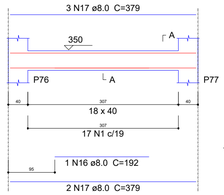


SEÇÃO A-A
ESC 1:25



18 N1 ø5.0 C=96

V50
ESC 1:30

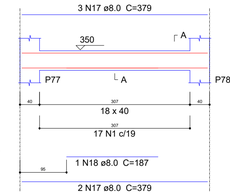


SEÇÃO A-A
ESC 1:25

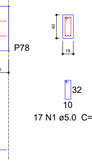


17 N1 ø5.0 C=96

V51
ESC 1:30

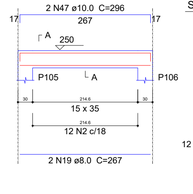


SEÇÃO A-A
ESC 1:25

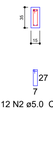


17 N1 ø5.0 C=96

V60
ESC 1:30

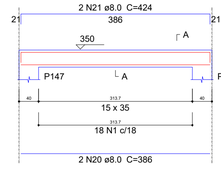


SEÇÃO A-A
ESC 1:25

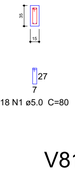


12 N2 ø5.0 C=80

V72
ESC 1:30

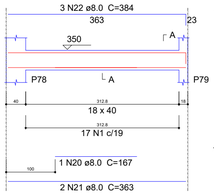


SEÇÃO A-A
ESC 1:25



18 N1 ø5.0 C=80

V52
ESC 1:30

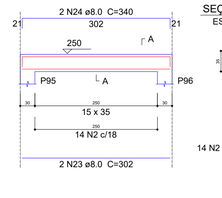


SEÇÃO A-A
ESC 1:25

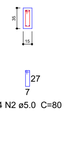


17 N1 ø5.0 C=96

V53
ESC 1:30

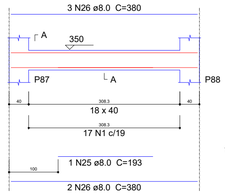


SEÇÃO A-A
ESC 1:25



14 N2 ø5.0 C=80

V54
ESC 1:30

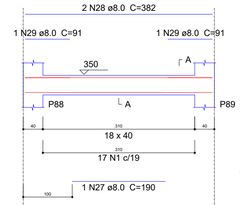


SEÇÃO A-A
ESC 1:25

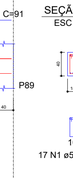


17 N1 ø5.0 C=96

V55
ESC 1:30

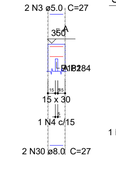


SEÇÃO A-A
ESC 1:25

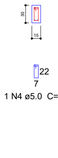


17 N1 ø5.0 C=96

V85
ESC 1:30

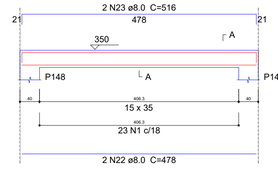


SEÇÃO A-A
ESC 1:25

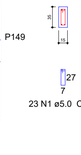


1 N4 ø5.0 C=70

V73
ESC 1:30

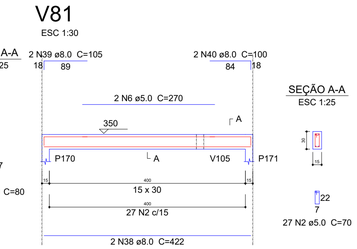


SEÇÃO A-A
ESC 1:25



23 N1 ø5.0 C=80

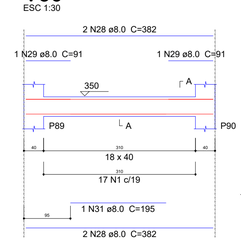
V81
ESC 1:30



SEÇÃO A-A
ESC 1:25

27 N2 ø5.0 C=70

V56
ESC 1:30

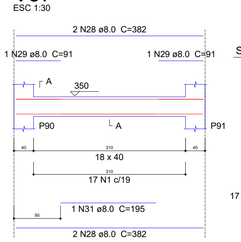


SEÇÃO A-A
ESC 1:25



17 N1 ø5.0 C=96

V57
ESC 1:30

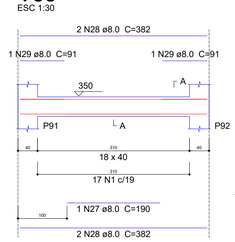


SEÇÃO A-A
ESC 1:25



17 N1 ø5.0 C=96

V58
ESC 1:30

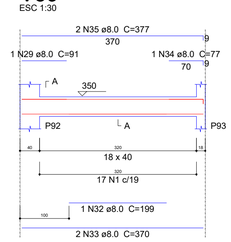


SEÇÃO A-A
ESC 1:25

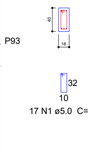


17 N1 ø5.0 C=96

V59
ESC 1:30

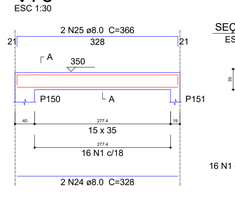


SEÇÃO A-A
ESC 1:25

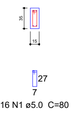


17 N1 ø5.0 C=96

V75
ESC 1:30

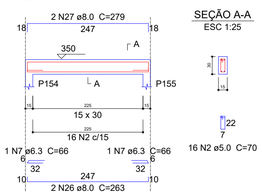


SEÇÃO A-A
ESC 1:25



16 N1 ø5.0 C=80

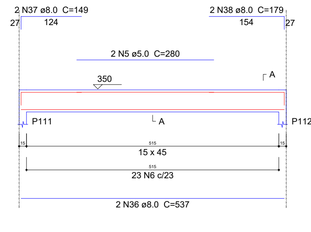
V76
ESC 1:30



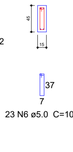
SEÇÃO A-A
ESC 1:25

16 N2 ø5.0 C=70

V61
ESC 1:30



SEÇÃO A-A
ESC 1:25



23 N6 ø5.0 C=100

V62
ESC 1:30

SEÇÃO A-A
ESC 1:25

14 N7 ø5.0 C=90

V63
ESC 1:30

SEÇÃO A-A
ESC 1:25

37 N4 ø5.0 C=70

V64
ESC 1:30

SEÇÃO A-A
ESC 1:25

17 N2 ø5.0 C=80

V117
ESC 1:30

SEÇÃO A-A
ESC 1:25

6 N1 ø5.0 C=80

V77
ESC 1:30

SEÇÃO A-A
ESC 1:25

12 N4 ø5.0 C=90

V80
ESC 1:30

SEÇÃO A-A
ESC 1:25

43 N2 ø5.0 C=70

V65
ESC 1:30

SEÇÃO A-A
ESC 1:25

18 N1 ø5.0 C=80

V66
ESC 1:30

SEÇÃO A-A
ESC 1:25

18 N1 ø5.0 C=80

V67
ESC 1:30

SEÇÃO A-A
ESC 1:25

18 N1 ø5.0 C=80

V68
ESC 1:30

SEÇÃO A-A
ESC 1:25

16 N1 ø5.0 C=80

V96
ESC 1:30

SEÇÃO A-A
ESC 1:25

11 N2 ø5.0 C=70

V69
ESC 1:30

SEÇÃO A-A
ESC 1:25

51 N2 ø5.0 C=70

V70
ESC 1:30

SEÇÃO A-A
ESC 1:25

24 N1 ø5.0 C=80

V71
ESC 1:30

SEÇÃO A-A
ESC 1:25

21 N1 ø5.0 C=80

V74
ESC 1:30

SEÇÃO A-A
ESC 1:25

15 N1 ø5.0 C=80

V79
ESC 1:30

SEÇÃO A-A
ESC 1:25

24 N2 ø5.0 C=70

Relação do aço

V48	V49	V50
V51	V52	V53
V54	V55	V56
V57	V58	V59
V60	V61	V62
V63	V64	V85

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	187	96	17952
	2	5.0	43	80	3440
	3	5.0	2	27	54
	4	5.0	38	70	2660
	5	5.0	2	280	560
	6	5.0	23	100	2300
	7	5.0	14	90	1260
	8	5.0	2	260	520
	9	6.3	1	66	66
CA50	10	8.0	1	176	176
	11	8.0	2	331	662
	12	8.0	3	345	1035
	13	8.0	1	198	198
	14	8.0	2	357	714
	15	8.0	3	374	1122
	16	8.0	1	192	192
	17	8.0	10	379	3790
	18	8.0	1	187	187
	19	8.0	2	267	534
	20	8.0	1	167	167
	21	8.0	2	363	726
	22	8.0	3	384	1152
	23	8.0	2	302	604
	24	8.0	2	340	680
	25	8.0	1	193	193
	26	8.0	5	380	1900
	27	8.0	2	190	380
	28	8.0	16	382	6112
	29	8.0	9	91	819
	30	8.0	2	27	54
	31	8.0	2	195	390
	32	8.0	1	199	199
	33	8.0	2	370	740
	34	8.0	1	77	77
	35	8.0	2	377	754
	36	8.0	4	537	2148
	37	8.0	2	149	298
	38	8.0	2	179	358
	39	8.0	2	308	616
	40	8.0	2	344	688
	41	8.0	1	175	175
	42	8.0	2	141	282
	43	8.0	1	111	111
	44	8.0	2	196	392
	45	8.0	2	316	632
	46	8.0	2	342	684
	47	10.0	2	296	592

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	0.7	0.2
	8.0	299.5	124
	10.0	6	3.8
CA60	5.0	287.5	46.5

PESO TOTAL (kg)	
CA50	128.1
CA60	46.5

Volume de concreto (C-30) = 4.29 m³
Área de forma = 61.47 m²

Relação do aço

V65	V66	V67
V68	V69	V70
V71	V72	V73
V74	V75	V76
V77	V79	V80
V81	V96	V117

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	193	80	15440
	2	5.0	172	70	12040
	3	5.0	2	335	670
	4	5.0	12	90	1080
	5	5.0	2	219	438
	6	5.0	2	270	540
CA50	7	6.3	3	66	198
	8	8.0	2	357	714
	9	8.0	2	376	752
	10	8.0	8	379	3032
	11	8.0	2	304	608
	12	8.0	2	323	646
	13	8.0	2	220	440
	14	8.0	2	252	504
	15	8.0	2	446	892
	16	8.0	2	432	864
	17	8.0	2	470	940
	18	8.0	2	332	664
	19	8.0	2	370	740
	20	8.0	2	386	772
	21	8.0	2	424	848
	22	8.0	2	478	956
	23	8.0	2	516	1032
	24	8.0	2	328	656
	25	8.0	2	366	732
	26	8.0	2	263	526
	27	8.0	2	279	558
	28	8.0	2	150	300
	29	8.0	2	180	360
	30	8.0	2	270	540
	31	8.0	2	306	612
	32	8.0	2	385	770
	33	8.0	1	104	104
	34	8.0	2	418	836
	35	8.0	2	701	1402
	36	8.0	2	160	160
	37	8.0	2	489	978
	38	8.0	2	422	844
	39	8.0	2	105	210
	40	8.0	2	100	200
	41	10.0	3	240	720
	42	10.0	2	677	1354
	43	10.0	2	200	400
	44	10.0	1	140	140
	45	10.0	1	180	180
	46	10.0	2	225	450
	47	10.0	2	482	964

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	2	0.5
	8.0	242	100.2
	10.0	42.1	27.2
CA60	5.0	302.1	48.9

PESO TOTAL (kg)	
CA50	128
CA60	48.9

Volume de concreto (C-30) = 3.48 m³
Área de forma = 56.84 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DO PAV. TÉRREO

PRANCHA: 25/43

PROJETO: ESTRUTURAL

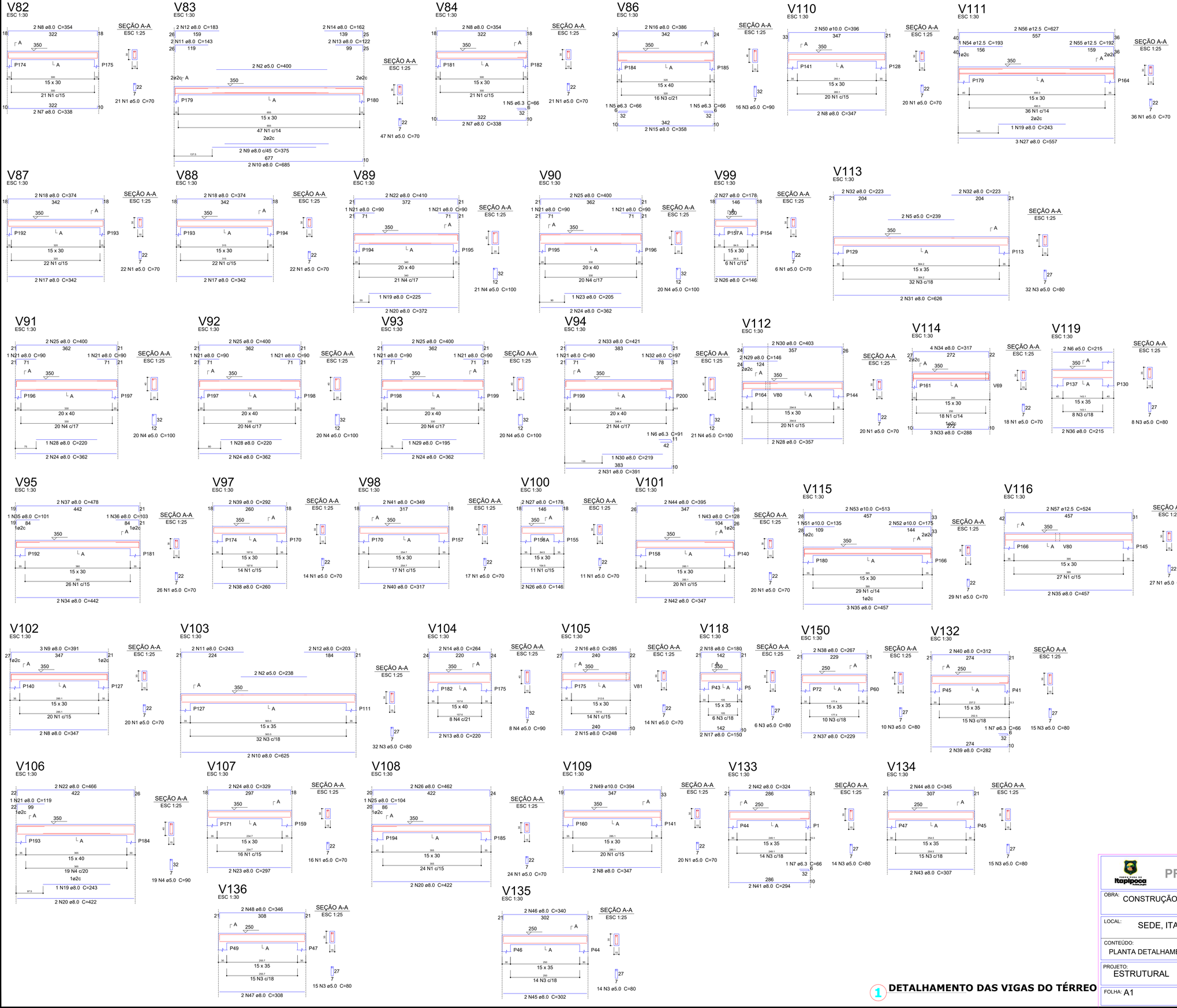
DESENHO:

ESCALA:

DATA: MAIO/2026

FOLHA: A1

1 **DETALHAMENTO DAS VIGAS DO TÉRREO**



Relação do aço

V82		V83		V84	
V86		V87		V88	
V89		V90		V91	
V92		V93		V94	
V95		V97		V98	
V99		V100		V101	

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	227	70	15890
	2	5.0	2	400	800
	3	5.0	16	90	1440
	4	5.0	122	100	12200
CA50	5	6.3	3	66	198
	6	6.3	1	91	91
	7	8.0	4	338	1352
	8	8.0	4	354	1416
	9	8.0	2	375	750
	10	8.0	2	685	1370
	11	8.0	2	143	286
	12	8.0	2	183	366
	13	8.0	2	122	244
	14	8.0	2	162	324
	15	8.0	2	358	716
	16	8.0	2	386	772
	17	8.0	4	342	1368
	18	8.0	4	374	1496
	19	8.0	1	225	225
	20	8.0	2	372	744
	21	8.0	11	90	990
	22	8.0	2	410	820
	23	8.0	1	205	205
	24	8.0	8	362	2896
	25	8.0	8	400	3200
	26	8.0	4	146	584
	27	8.0	4	178	712
	28	8.0	2	220	440
	29	8.0	1	195	195
	30	8.0	1	219	219
	31	8.0	2	391	782
	32	8.0	1	97	97
	33	8.0	2	421	842
	34	8.0	2	442	884
	35	8.0	1	101	101
	36	8.0	1	103	103
	37	8.0	2	478	956
	38	8.0	2	260	520
	39	8.0	2	292	584
	40	8.0	2	317	634
	41	8.0	2	349	698
	42	8.0	2	347	694
	43	8.0	1	128	128
	44	8.0	2	395	790

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	2.9	0.7
	8.0	295.1	122.2
CA60	5.0	303.3	49.1

PESO TOTAL (kg)	
CA50	123
CA60	49.1

Volume de concreto (C-30) = 3.7 m³
Área de forma = 53.97 m²

Relação do aço

V102	V103		V104
V105	V106		V107
V108	V109		V110
V111	V112		V113
V114	V115		V116
V118	V119		V132
V133	V134		V135
V136	V150		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	244	70	17080
	2	5.0	2	238	476
	3	5.0	161	80	12880
	4	5.0	27	90	2430
	5	5.0	2	239	478
	6	5.0	2	215	430
CA50	7	6.3	2	66	132
	8	8.0	6	347	2082
	9	8.0	3	391	1173
	10	8.0	2	625	1250
	11	8.0	2	243	486
	12	8.0	2	203	406
	13	8.0	2	220	440
	14	8.0	2	264	528
	15	8.0	2	248	496
	16	8.0	2	285	570
	17	8.0	2	150	300
	18	8.0	2	180	360
	19	8.0	2	243	486
	20	8.0	4	422	1688
	21	8.0	1	119	119
	22	8.0	2	466	932
	23	8.0	2	297	594
	24	8.0	2	329	658
	25	8.0	1	104	104
	26	8.0	2	462	924
	27	8.0	3	557	1671
	28	8.0	2	357	714
	29	8.0	2	146	292
	30	8.0	2	403	806
	31	8.0	2	626	1252
	32	8.0	4	223	892
	33	8.0	3	288	864
	34	8.0	4	317	1268
	35	8.0	5	457	2285
	36	8.0	2	215	430
	37	8.0	2	229	458
	38	8.0	2	267	534
	39	8.0	2	282	564
	40	8.0	2	312	624
	41	8.0	2	294	588
	42	8.0	2	324	648
	43	8.0	2	307	614
	44	8.0	2	345	690
	45	8.0	2	302	604
	46	8.0	2	340	680
	47	8.0	2	308	616
	48	8.0	2	346	692
	49	10.0	2	394	788
	50	10.0	2	396	792
	51	10.0	1	135	135
	52	10.0	2	175	350
	53	10.0	2	513	1026
	54	12.5	1	193	193
	55	12.5	2	192	384
	56	12.5	2	627	1254
	57	12.5	2	524	1048

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	1.4	0.3
	8.0	313.9	130
	10.0	31	20
	12.5	28.8	29.1
CA60	5.0	337.8	54.7

PESO TOTAL (kg)	
CA50	179.5
CA60	54.7

Volume de concreto (C-30) = 4.06 m³
Área de forma = 66.51 m²

1 DETALHAMENTO DAS VIGAS DO TÉRREO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DO PAV. TÉRREO

PRANCHA: 26/43

PROJETO: ESTRUTURAL

DESENHO:

ESCALA:

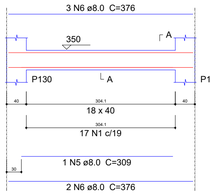
DATA: MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO 0985 ASSINADO ELETRONICAMENTE

PROCESSO ADMINISTRATIVO
0986
ASSINADO ELETRONICAMENTE

V120
ESC 1:30

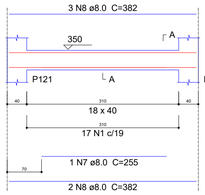


SEÇÃO A-A
ESC 1:25



17 N1 ø5.0 C=96

V121
ESC 1:30

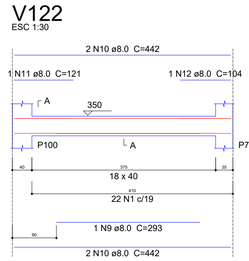


SEÇÃO A-A
ESC 1:25



17 N1 ø5.0 C=96

V122
ESC 1:30

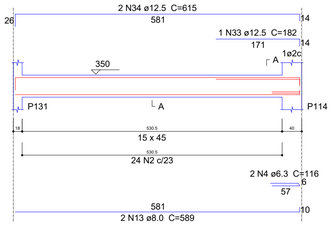


SEÇÃO A-A
ESC 1:25



22 N1 ø5.0 C=96

V123
ESC 1:30

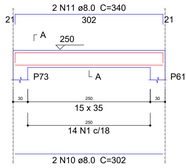


SEÇÃO A-A
ESC 1:25



24 N2 ø5.0 C=100

V152
ESC 1:30



SEÇÃO A-A
ESC 1:25



14 N1 ø5.0 C=80

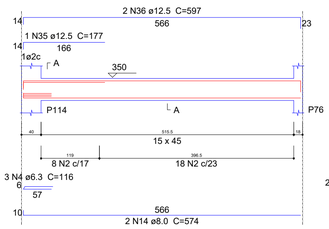
V153
ESC 1:30

SEÇÃO A-A
ESC 1:25



10 N1 ø5.0 C=80

V124
ESC 1:30

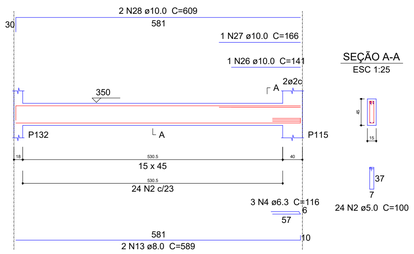


SEÇÃO A-A
ESC 1:25



26 N2 ø5.0 C=100

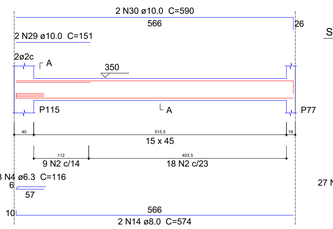
V125
ESC 1:30



SEÇÃO A-A
ESC 1:25

24 N2 ø5.0 C=100

V126
ESC 1:30

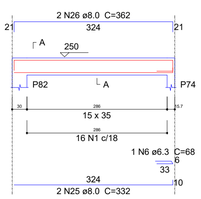


SEÇÃO A-A
ESC 1:25



27 N2 ø5.0 C=100

V154
ESC 1:30

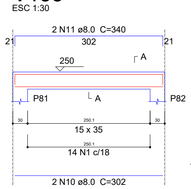


SEÇÃO A-A
ESC 1:25



16 N1 ø5.0 C=80

V155
ESC 1:30

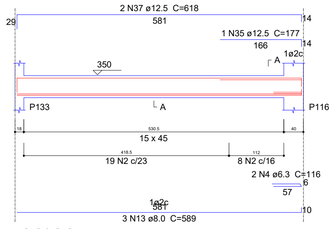


SEÇÃO A-A
ESC 1:25



14 N1 ø5.0 C=80

V127
ESC 1:30

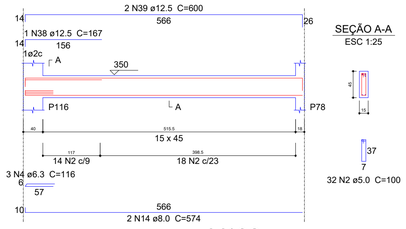


SEÇÃO A-A
ESC 1:25



27 N2 ø5.0 C=100

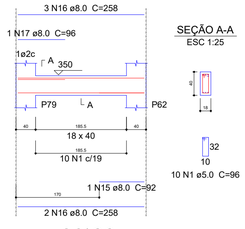
V128
ESC 1:30



SEÇÃO A-A
ESC 1:25

32 N2 ø5.0 C=100

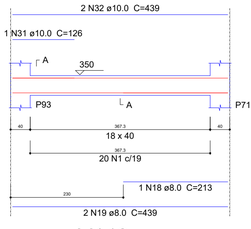
V129
ESC 1:30



SEÇÃO A-A
ESC 1:25

10 N1 ø5.0 C=96

V131
ESC 1:30

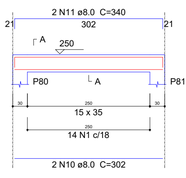


SEÇÃO A-A
ESC 1:25



20 N1 ø5.0 C=96

V157
ESC 1:30

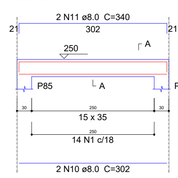


SEÇÃO A-A
ESC 1:25



14 N1 ø5.0 C=80

V158
ESC 1:30

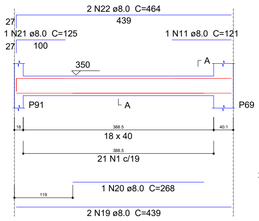


SEÇÃO A-A
ESC 1:25



14 N1 ø5.0 C=80

V130
ESC 1:30

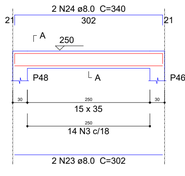


SEÇÃO A-A
ESC 1:25



21 N1 ø5.0 C=96

V137
ESC 1:30

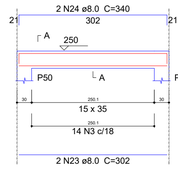


SEÇÃO A-A
ESC 1:25



14 N3 ø5.0 C=80

V138
ESC 1:30



SEÇÃO A-A
ESC 1:25



14 N3 ø5.0 C=80

V139
ESC 1:30

SEÇÃO A-A
ESC 1:25

15 N3 ø5.0 C=80

V140
ESC 1:30

SEÇÃO A-A
ESC 1:25

14 N3 ø5.0 C=80

V156
ESC 1:30

SEÇÃO A-A
ESC 1:25

25 N3 ø5.0 C=100

V141
ESC 1:30

SEÇÃO A-A
ESC 1:25

15 N1 ø5.0 C=80

V142
ESC 1:30

SEÇÃO A-A
ESC 1:25

14 N1 ø5.0 C=80

V143
ESC 1:30

SEÇÃO A-A
ESC 1:25

15 N1 ø5.0 C=80

V144
ESC 1:30

SEÇÃO A-A
ESC 1:25

14 N1 ø5.0 C=80

V145
ESC 1:30

SEÇÃO A-A
ESC 1:25

14 N1 ø5.0 C=80

V159
ESC 1:30

SEÇÃO A-A
ESC 1:25

14 N1 ø5.0 C=80

V160
ESC 1:30

SEÇÃO A-A
ESC 1:25

14 N1 ø5.0 C=80

V146
ESC 1:30

SEÇÃO A-A
ESC 1:25

13 N1 ø5.0 C=80

V147
ESC 1:30

SEÇÃO A-A
ESC 1:25

14 N1 ø5.0 C=80

V148
ESC 1:30

SEÇÃO A-A
ESC 1:25

13 N1 ø5.0 C=80

V149
ESC 1:30

SEÇÃO A-A
ESC 1:25

14 N1 ø5.0 C=80

V151
ESC 1:30

SEÇÃO A-A
ESC 1:25

23 N2 ø5.0 C=96

V201
ESC 1:30

SEÇÃO A-A
ESC 1:25

12 N4 ø5.0 C=70

V161
ESC 1:30

SEÇÃO A-A
ESC 1:25

14 N1 ø5.0 C=80

V162
ESC 1:30

SEÇÃO A-A
ESC 1:25

14 N1 ø5.0 C=80

V163
ESC 1:30

SEÇÃO A-A
ESC 1:25

14 N1 ø5.0 C=80

V164
ESC 1:30

SEÇÃO A-A
ESC 1:25

14 N1 ø5.0 C=80

V165
ESC 1:30

SEÇÃO A-A
ESC 1:25

14 N1 ø5.0 C=80

1 DETALHAMENTO DAS VIGAS DO TÉRREO

Relação do aço

V120	V121	V122
V123	V124	V125
V126	V127	V128
V129	V130	V131
V137	V138	V139
V140		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	107	96	10272
	2	5.0	160	100	16000
	3	5.0	57	80	4560
CA50	4	6.3	16	116	1856
	5	8.0	3	309	927
	6	8.0	5	376	1880
	7	8.0	1	255	255
	8	8.0	5	382	1910
	9	8.0	1	293	293
	10	8.0	4	442	1768
	11	8.0	2	121	242
	12	8.0	1	104	104
	13	8.0	7	589	4123
	14	8.0	6	574	3444
	15	8.0	1	92	92
	16	8.0	5	258	1290
	17	8.0	1	96	96
	18	8.0	1	213	213
	19	8.0	4	439	1756
	20	8.0	1	268	268
	21	8.0	1	125	125
	22	8.0	2	464	928
	23	8.0	6	302	1812
	24	8.0	6	340	2040
	25	8.0	2	347	694
	26	10.0	1	141	141
	27	10.0	1	166	166
	28	10.0	2	609	1218
	29	10.0	2	151	302
	30	10.0	2	590	1180
	31	10.0	1	126	126
	32	10.0	2	439	878
	33	12.5	1	182	182
	34	12.5	2	615	1230
	35	12.5	2	177	354
	36	12.5	2	597	1194
	37	12.5	2	618	1236
	38	12.5	1	167	167
	39	12.5	2	600	1200

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	18.6	4.8
	8.0	242.6	100.5
	10.0	40.2	26
	12.5	55.7	56.3
CA60	5.0	308.4	49.9
PESO TOTAL (kg)		Volume de concreto (C-30) = 4.72 m³ Área de forma = 70.56 m²	
CA50	187.5		
CA60	49.9		

Relação do aço

V141	V142	V143
V144	V145	V146
V147	V148	V149
V151	V156	V157
V158	V159	V160
V161	V162	V163
V164	V165	V201

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	306	80	24480
	2	5.0	23	96	2208
	3	5.0	25	100	2500
	4	5.0	12	70	840
CA50	5	6.3	1	77	77
	6	6.3	1	68	68
	7	6.3	2	108	216
	8	8.0	2	310	620
	9	8.0	2	348	696
	10	8.0	30	302	9060
	11	8.0	30	340	10200
	12	8.0	2	311	622
	13	8.0	2	349	698
	14	8.0	2	287	574
	15	8.0	2	325	650
	16	8.0	4	272	1088
	17	8.0	4	310	1240
	18	8.0	1	264	264
	19	8.0	2	453	906
	20	8.0	1	123	123
	21	8.0	1	103	103
	22	8.0	2	474	948
	23	8.0	2	229	458
	24	8.0	2	267	534
	25	8.0	2	332	664
	26	8.0	2	362	724
	27	8.0	3	500	1500
	28	8.0	2	228	456
	29	10.0	2	251	502
	30	12.5	2	160	320
	31	12.5	1	143	143
	32	12.5	2	514	1028

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	3.7	0.9
	8.0	321.3	133.1
	10.0	5.1	3.2
	12.5	15	15.1
CA60	5.0	300.3	48.6
PESO TOTAL (kg)		Volume de concreto (C-30) = 4.29 m³ Área de forma = 68.5 m²	
CA50	152.4		
CA60	48.6		

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 27/43

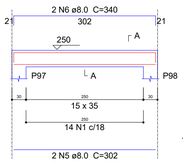
CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DO PAV. TÉRREO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

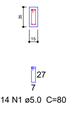
FOLHA: A1

PROCESSO ADMINISTRATIVO
0987
ASSINADO ELETRONICAMENTE

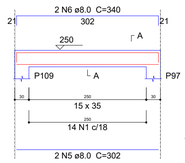
V166
ESC 1:30



SEÇÃO A-A
ESC 1:25



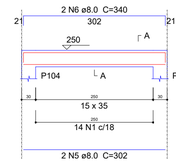
V167
ESC 1:30



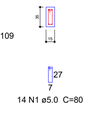
SEÇÃO A-A
ESC 1:25



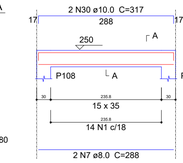
V168
ESC 1:30



SEÇÃO A-A
ESC 1:25



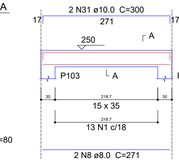
V169
ESC 1:30



SEÇÃO A-A
ESC 1:25



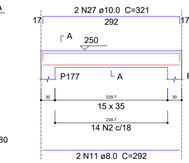
V170
ESC 1:30



SEÇÃO A-A
ESC 1:25



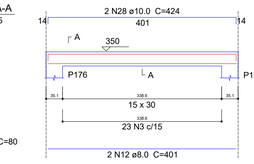
V204
ESC 1:30



SEÇÃO A-A
ESC 1:25

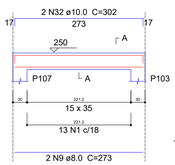


V205
ESC 1:30



SEÇÃO A-A
ESC 1:25

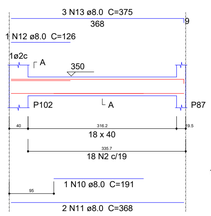
V171
ESC 1:30



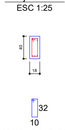
SEÇÃO A-A
ESC 1:25



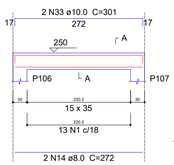
V172
ESC 1:30



SEÇÃO A-A
ESC 1:25



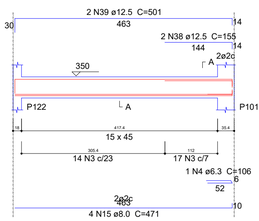
V173
ESC 1:30



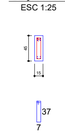
SEÇÃO A-A
ESC 1:25



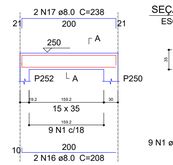
V174
ESC 1:30



SEÇÃO A-A
ESC 1:25



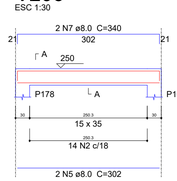
V266
ESC 1:30



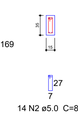
SEÇÃO A-A
ESC 1:25



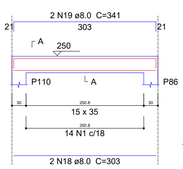
V206
ESC 1:30



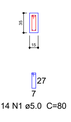
SEÇÃO A-A
ESC 1:25



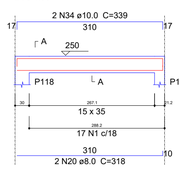
V175
ESC 1:30



SEÇÃO A-A
ESC 1:25



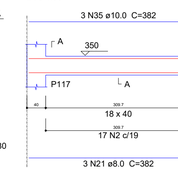
V176
ESC 1:30



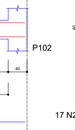
SEÇÃO A-A
ESC 1:25



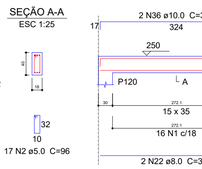
V177
ESC 1:30



SEÇÃO A-A
ESC 1:25



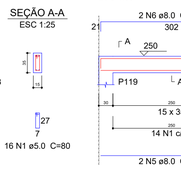
V178
ESC 1:30



SEÇÃO A-A
ESC 1:25



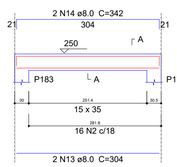
V179
ESC 1:30



SEÇÃO A-A
ESC 1:25



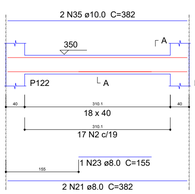
V207
ESC 1:30



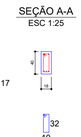
SEÇÃO A-A
ESC 1:25



V180
ESC 1:30



SEÇÃO A-A
ESC 1:25



V181
ESC 1:30

SEÇÃO A-A
ESC 1:25

V182
ESC 1:30

SEÇÃO A-A
ESC 1:25

V183
ESC 1:30

SEÇÃO A-A
ESC 1:25

V191
ESC 1:30

SEÇÃO A-A
ESC 1:25

V209
ESC 1:30

SEÇÃO A-A
ESC 1:25

V184
ESC 1:30

SEÇÃO A-A
ESC 1:25

V185
ESC 1:30

SEÇÃO A-A
ESC 1:25

V186
ESC 1:30

SEÇÃO A-A
ESC 1:25

V187
ESC 1:30

SEÇÃO A-A
ESC 1:25

V188
ESC 1:30

SEÇÃO A-A
ESC 1:25

V208
ESC 1:30

SEÇÃO A-A
ESC 1:25

V189
ESC 1:30

SEÇÃO A-A
ESC 1:25

V190
ESC 1:30

SEÇÃO A-A
ESC 1:25

V192
ESC 1:30

SEÇÃO A-A
ESC 1:25

V193
ESC 1:30

SEÇÃO A-A
ESC 1:25

V210
ESC 1:30

SEÇÃO A-A
ESC 1:25

V211
ESC 1:30

SEÇÃO A-A
ESC 1:25

V194
ESC 1:30

SEÇÃO A-A
ESC 1:25

V195
ESC 1:30

SEÇÃO A-A
ESC 1:25

V196
ESC 1:30

SEÇÃO A-A
ESC 1:25

V197
ESC 1:30

SEÇÃO A-A
ESC 1:25

V212
ESC 1:30

SEÇÃO A-A
ESC 1:25

V230
ESC 1:30

SEÇÃO A-A
ESC 1:25

V198
ESC 1:30

SEÇÃO A-A
ESC 1:25

V199
ESC 1:30

SEÇÃO A-A
ESC 1:25

V200
ESC 1:30

SEÇÃO A-A
ESC 1:25

V202
ESC 1:30

SEÇÃO A-A
ESC 1:25

V203
ESC 1:30

SEÇÃO A-A
ESC 1:25

1 DETALHAMENTO DAS VIGAS DO TÉRREO

Relação do aço

V166	V167	V168
V169	V170	V171
V172	V173	V174
V175	V176	V177
V178	V179	V180
V181	V182	V183
V184	V185	V186
V187	V188	V189
V190	V191	V192
V193	V194	V195
V196	V197	V198
V199	V200	V202
V203	V204	V205
V206	V207	V208
V209	V210	V211
V212	V230	
V266		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	261	80	20880
	2	5.0	84	96	8064
	3	5.0	31	100	3100
CA50	4	6.3	1	106	106
	5	8.0	20	302	6040
	6	8.0	12	340	4080
	7	8.0	2	288	576
	8	8.0	2	271	542
	9	8.0	2	273	546
	10	8.0	1	191	191
	11	8.0	2	368	736
	12	8.0	2	126	252
	13	8.0	3	375	1125
	14	8.0	2	272	544
	15	8.0	4	471	1884
	16	8.0	2	208	416
	17	8.0	2	238	476
	18	8.0	2	303	606
	19	8.0	2	341	682
	20	8.0	2	318	636
	21	8.0	5	382	1910
	22	8.0	2	324	648
	23	8.0	1	155	155
	24	8.0	1	231	231
	25	8.0	5	383	1915
	26	8.0	2	273	546
	27	8.0	2	303	606
	28	8.0	1	187	187
	29	8.0	5	344	1720
	30	10.0	2	317	634
	31	10.0	2	300	600
	32	10.0	2	302	604
	33	10.0	2	301	602
	34	10.0	2	339	678
	35	10.0	5	382	1910
	36	10.0	2	353	706
	37	10.0	8	331	2648
	38	12.5	2	155	310
	39	12.5	2	501	1002

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	1.1	0.3
	8.0	272.5	112.9
	10.0	83.9	54.3
	12.5	13.2	13.3
CA60	5.0	320.5	51.9

PESO TOTAL (kg)	
CA50	180.7
CA60	51.9

Volume de concreto (C-30) = 4.67 m³
Área de forma = 71.82 m²

Relação do aço

V189	V190	V192
V193	V194	V195
V196	V197	V198
V199	V200	V202
V203	V204	V205
V206	V207	V208
V209	V210	V211
V212	V230	

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	16	90	1440
	2	5.0	240	80	19200
	3	5.0	124	70	8680
CA50	4	8.0	2	402	804
	5	8.0	24	302	7248
	6	8.0	2	380	760
	7	8.0	10	340	3400
	8	8.0	2	472	944
	9	8.0	2	423	846
	10	8.0	2	300	600
	11	8.0	2	292	584
	12	8.0	2	401	802
	13	8.0	2	304	608
	14	8.0	2	342	684
	15	8.0	2	422	844
	16	8.0	2	454	908
	17	8.0	2	319	638
	18	8.0	2	357	714
	19	8.0	2	286	572
	20	8.0	2	324	648
	21	10.0	2	419	838
	22	10.0	14	331	4634
	23	10.0	2	403	806
	24	10.0	2	495	990
	25	10.0	2	446	892
	26	10.0	2	329	658
	27	10.0	2	321	642
	28	10.0	2	424	848

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	216.1	89.5
	10.0	103.1	66.7
CA60	5.0	293.2	47.5

PESO TOTAL (kg)	
CA50	156.2
CA60	47.5

Volume de concreto (C-30) = 3.97 m³
Área de forma = 64.64 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 28/43

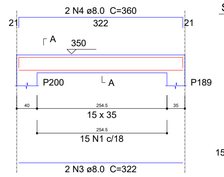
CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DO PAV. TÉRREO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

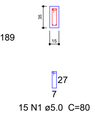
FOLHA: A1

PROCESSO ADMINISTRATIVO
0988
ASSINADO ELETRONICAMENTE

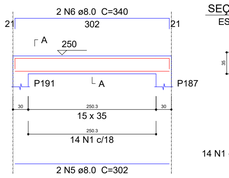
V213
ESC 1:30



SEÇÃO A-A
ESC 1:25



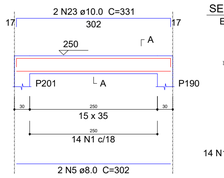
V214
ESC 1:30



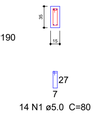
SEÇÃO A-A
ESC 1:25



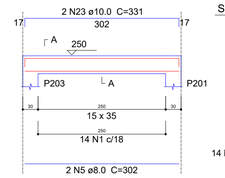
V215
ESC 1:30



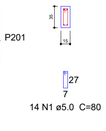
SEÇÃO A-A
ESC 1:25



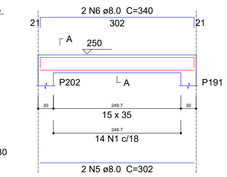
V216
ESC 1:30



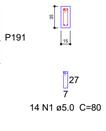
SEÇÃO A-A
ESC 1:25



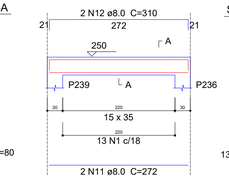
V217
ESC 1:30



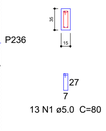
SEÇÃO A-A
ESC 1:25



V251
ESC 1:30



SEÇÃO A-A
ESC 1:25



V252
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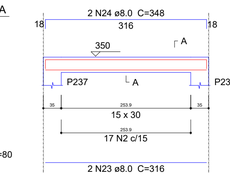
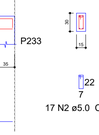
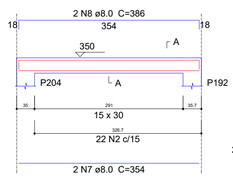


SEÇÃO A-A
ESC 1:25



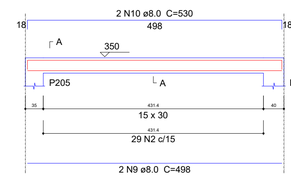
V218
ESC 1:30



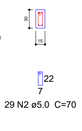
SEÇÃO A-A
ESC 1:25



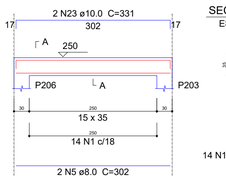
V219
ESC 1:30



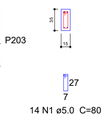
SEÇÃO A-A
ESC 1:25



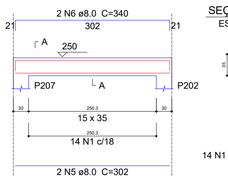
V220
ESC 1:30



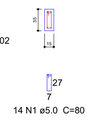
SEÇÃO A-A
ESC 1:25



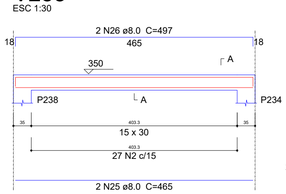
V221
ESC 1:30



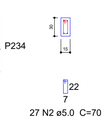
SEÇÃO A-A
ESC 1:25



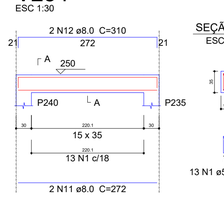
V253
ESC 1:30



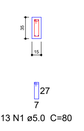
SEÇÃO A-A
ESC 1:25



V254
ESC 1:30



SEÇÃO A-A
ESC 1:25



V222
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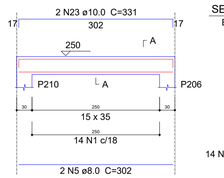
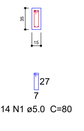
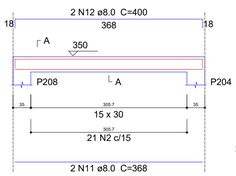


SEÇÃO A-A
ESC 1:25



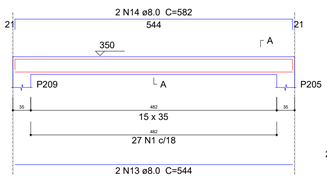
V223
ESC 1:30



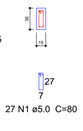
SEÇÃO A-A
ESC 1:25



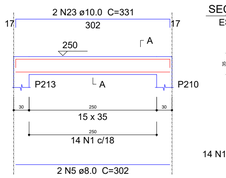
V224
ESC 1:30



SEÇÃO A-A
ESC 1:25



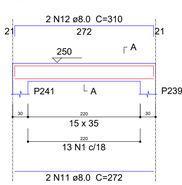
V225
ESC 1:30



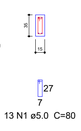
SEÇÃO A-A
ESC 1:25



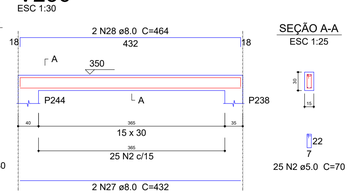
V255
ESC 1:30



SEÇÃO A-A
ESC 1:25

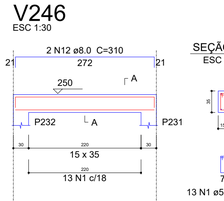


V256
ESC 1:30

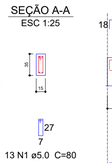


SEÇÃO A-A
ESC 1:25

V226
ESC 1:30



SEÇÃO A-A
ESC 1:25



V227
ESC 1:30

SEÇÃO A-A
ESC 1:25

V228
ESC 1:30

SEÇÃO A-A
ESC 1:25

V229
ESC 1:30

SEÇÃO A-A
ESC 1:25

V231
ESC 1:30

SEÇÃO A-A
ESC 1:25

V257
ESC 1:30

SEÇÃO A-A
ESC 1:25

V232
ESC 1:30

SEÇÃO A-A
ESC 1:25

V233
ESC 1:30

SEÇÃO A-A
ESC 1:25

V234
ESC 1:30

SEÇÃO A-A
ESC 1:25

V235
ESC 1:30

SEÇÃO A-A
ESC 1:25

V258
ESC 1:30

SEÇÃO A-A
ESC 1:25

V259
ESC 1:30

SEÇÃO A-A
ESC 1:25

V236
ESC 1:30

SEÇÃO A-A
ESC 1:25

V237
ESC 1:30

SEÇÃO A-A
ESC 1:25

V238
ESC 1:30

SEÇÃO A-A
ESC 1:25

V239
ESC 1:30

SEÇÃO A-A
ESC 1:25

V240
ESC 1:30

SEÇÃO A-A
ESC 1:25

V261
ESC 1:30

SEÇÃO A-A
ESC 1:25

V241
ESC 1:30

SEÇÃO A-A
ESC 1:25

V242
ESC 1:30

SEÇÃO A-A
ESC 1:25

V243
ESC 1:30

SEÇÃO A-A
ESC 1:25

V244
ESC 1:30

SEÇÃO A-A
ESC 1:25

V245
ESC 1:30

SEÇÃO A-A
ESC 1:25

V246
ESC 1:30

SEÇÃO A-A
ESC 1:25

V247
ESC 1:30

SEÇÃO A-A
ESC 1:25

V248
ESC 1:30

SEÇÃO A-A
ESC 1:25

V249
ESC 1:30

SEÇÃO A-A
ESC 1:25

V250
ESC 1:30

SEÇÃO A-A
ESC 1:25

1 DETALHAMENTO DAS VIGAS DO TÉRREO

Relação do aço

V213	V214	V215
V216	V217	V218
V219	V220	V221
V222	V223	V224
V225	V226	V227
V228	V229	V231
V232	V233	V234
V235		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	238	80	19040
	2	5.0	145	70	10150
CA50	3	8.0	2	322	644
	4	8.0	2	360	720
	5	8.0	26	302	7852
	6	8.0	10	340	3400
	7	8.0	2	354	708
	8	8.0	2	386	772
	9	8.0	2	498	996
	10	8.0	2	530	1060
	11	8.0	2	368	736
	12	8.0	2	400	800
	13	8.0	2	544	1088
	14	8.0	2	582	1164
	15	8.0	2	301	602
	16	8.0	2	339	678
	17	8.0	2	378	756
	18	8.0	2	410	820
	19	8.0	2	353	706
	20	8.0	2	385	770
	21	8.0	2	521	1042
	22	8.0	2	553	1106
	23	10.0	16	331	5296

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	264.2	109.5
	10.0	53	34.3
CA60	5.0	291.9	47.2

PESO TOTAL (kg)	
CA50	143.7
CA60	47.2

Volume de concreto (C-30) = 3.88 m³
Área de forma = 63.28 m²

Relação do aço

V236	V237	V238
V239	V240	V241
V242	V243	V244
V245	V246	V249
V250	V251	V252
V253	V254	V255
V256	V257	V258
V259	V261	

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	233	80	18640
	2	5.0	168	70	11760
CA50	3	8.0	2	324	648
	4	8.0	2	362	724
	5	8.0	4	302	1208
	6	8.0	4	340	1360
	7	8.0	2	279	558
	8	8.0	2	311	622
	9	8.0	2	409	818
	10	8.0	2	441	882
	11	8.0	24	272	6528
	12	8.0	24	310	7440
	13	8.0	2	271	542
	14	8.0	2	303	606
	15	8.0	2	397	794
	16	8.0	2	435	870
	17	8.0	2	287	574
	18	8.0	2	325	650
	19	8.0	2	322	644
	20	8.0	2	354	708
	21	8.0	2	475	950
	22	8.0	2	507	1014
	23	8.0	2	316	632
	24	8.0	2	348	696
	25	8.0	2	465	930
	26	8.0	2	497	994
	27	8.0	2	432	864
	28	8.0	2	464	928

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	331.9	137.5
CA60	5.0	304	49.2

PESO TOTAL (kg)	
CA50	137.5
CA60	49.2

Volume de concreto (C-30) = 4 m³
Área de forma = 65.35 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 29/43

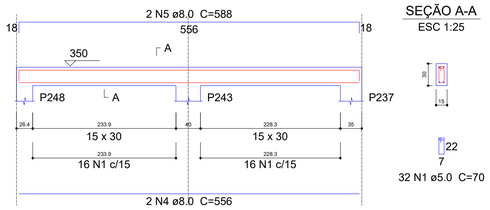
CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DO PAV. TÉRREO

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

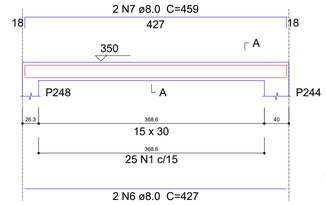
PROCESSO ADMINISTRATIVO
0989
ASSINADO ELETRONICAMENTE

V260
ESC 1:30

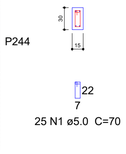


SEÇÃO A-A
ESC 1:25

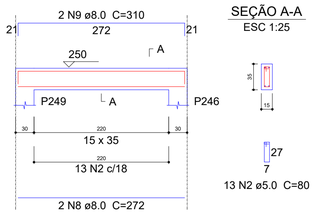
V262
ESC 1:30



SEÇÃO A-A
ESC 1:25

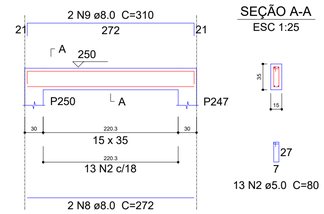


V263
ESC 1:30



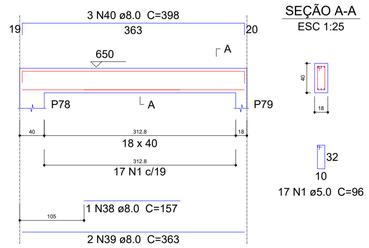
SEÇÃO A-A
ESC 1:25

V264
ESC 1:30



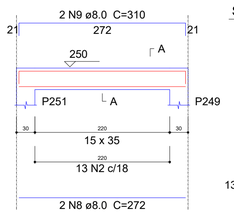
SEÇÃO A-A
ESC 1:25

V13
ESC 1:30

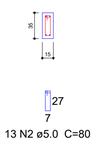


SEÇÃO A-A
ESC 1:25

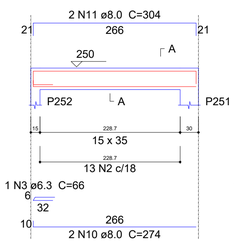
V265
ESC 1:30



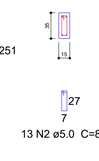
SEÇÃO A-A
ESC 1:25



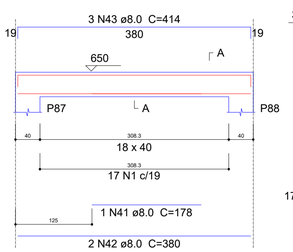
V267
ESC 1:30



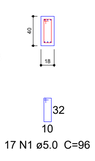
SEÇÃO A-A
ESC 1:25



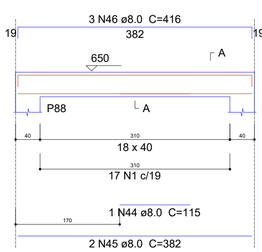
V14
ESC 1:30



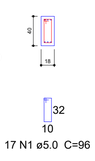
SEÇÃO A-A
ESC 1:25



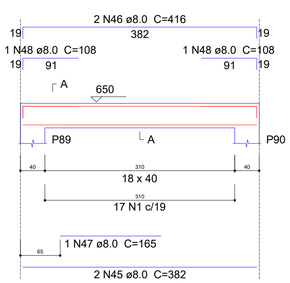
V15
ESC 1:30



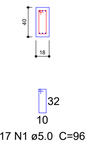
SEÇÃO A-A
ESC 1:25



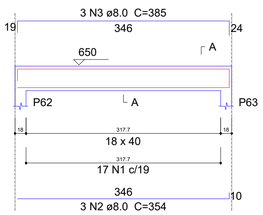
V16
ESC 1:30



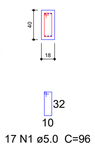
SEÇÃO A-A
ESC 1:25



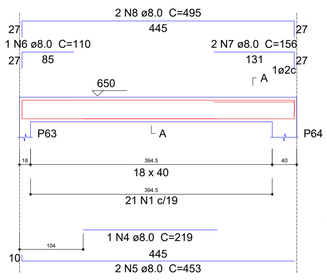
V1
ESC 1:30



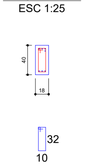
SEÇÃO A-A
ESC 1:25



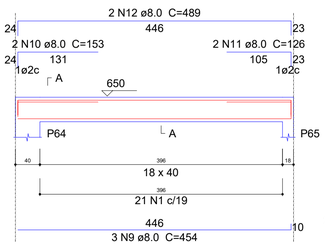
V2
ESC 1:30



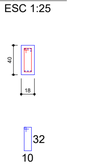
SEÇÃO A-A
ESC 1:25



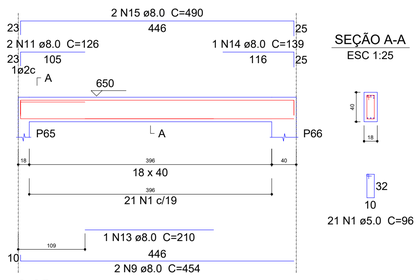
V3
ESC 1:30



SEÇÃO A-A
ESC 1:25

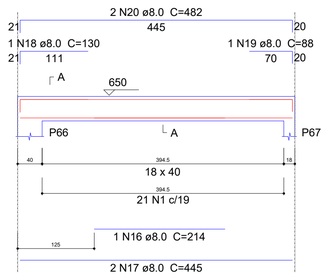


V4
ESC 1:30

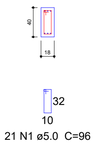


SEÇÃO A-A
ESC 1:25

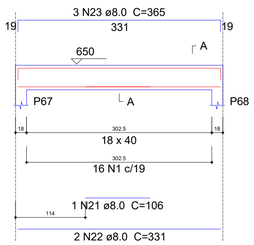
V5
ESC 1:30



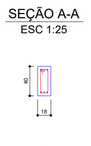
SEÇÃO A-A
ESC 1:25



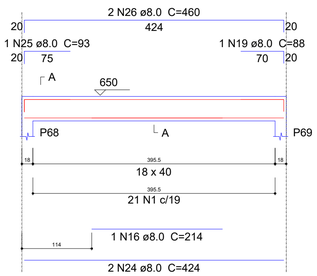
V6
ESC 1:30



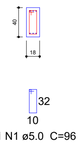
SEÇÃO A-A
ESC 1:25



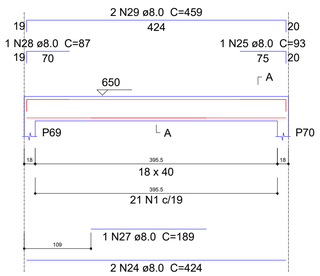
V7
ESC 1:30



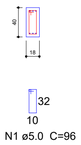
SEÇÃO A-A
ESC 1:25



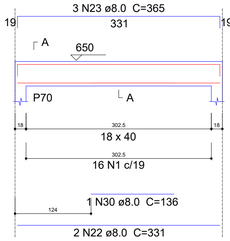
V8
ESC 1:30



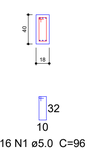
SEÇÃO A-A
ESC 1:25



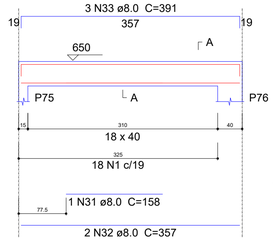
V9
ESC 1:30



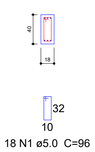
SEÇÃO A-A
ESC 1:25



V10
ESC 1:30



SEÇÃO A-A
ESC 1:25



V11
ESC 1:30

SEÇÃO A-A
ESC 1:25

V12
ESC 1:30

SEÇÃO A-A
ESC 1:25

Relação do aço

V260 V262 V263
V264 V265 V267

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	57	70	3990
	2	5.0	52	80	4160
CA50	3	6.3	1	66	66
	4	8.0	2	556	1112
	5	8.0	2	588	1176
	6	8.0	2	427	854
	7	8.0	2	459	918
	8	8.0	6	272	1632
	9	8.0	6	310	1860
	10	8.0	2	274	548
	11	8.0	2	304	608

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	0.7	0.2
	8.0	87.1	36.1
CA60	5.0	81.5	13.2

PESO TOTAL (kg)	
CA50	36.2
CA60	13.2

Volume de concreto (C-30) = 1.03 m³
Área de forma = 16.96 m²

Relação do aço

V1 V2 V3
V4 V5 V6
V7 V8 V9
V10 V11 V12
V13 V14 V15
V16

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	295	96	28320
CA50	2	8.0	3	354	1062
	3	8.0	3	385	1155
	4	8.0	1	219	219
	5	8.0	2	453	906
	6	8.0	1	110	110
	7	8.0	2	156	312
	8	8.0	2	495	990
	9	8.0	5	454	2270
	10	8.0	2	153	306
	11	8.0	4	126	504
	12	8.0	2	489	978
	13	8.0	1	210	210
	14	8.0	1	139	139
	15	8.0	2	490	980
	16	8.0	2	214	428
	17	8.0	2	445	890
	18	8.0	1	130	130
	19	8.0	2	88	176
	20	8.0	2	482	964
	21	8.0	1	106	106
	22	8.0	4	331	1324
	23	8.0	6	365	2190
	24	8.0	4	424	1696
	25	8.0	2	93	186
	26	8.0	2	460	920
	27	8.0	1	189	189
	28	8.0	1	87	87
	29	8.0	2	459	918
	30	8.0	1	136	136
	31	8.0	1	158	158
	32	8.0	2	357	714
	33	8.0	3	391	1173
	34	8.0	1	137	137
	35	8.0	4	379	1516
	36	8.0	6	413	2478
	37	8.0	1	147	147
	38	8.0	1	157	157
	39	8.0	2	363	726
	40	8.0	3	398	1194
	41	8.0	1	178	178
	42	8.0	2	380	760
	43	8.0	3	414	1242
	44	8.0	1	115	115
	45	8.0	4	382	1528
	46	8.0	5	416	2080
	47	8.0	1	165	165
	48	8.0	2	108	216

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	351.7	145.7
CA60	5.0	283.2	45.8

PESO TOTAL (kg)	
CA50	145.7
CA60	45.8

Volume de concreto (C-30) = 4.6 m³
Área de forma = 62.57 m²

1 DETALHAMENTO DAS VIGAS DO TÉRREO E SUPERIOR

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 30/43

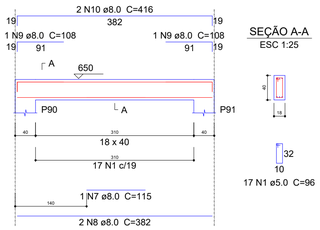
CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DO PAV. TÉRREO E SUPERIOR

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1

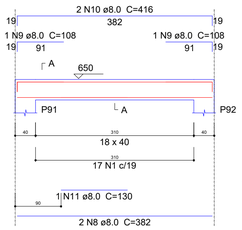
PROCESSO ADMINISTRATIVO
0990
ASSINADO ELETRONICAMENTE

V17
ESC 1:30

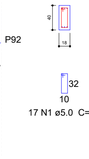


SEÇÃO A-A
ESC 1:25

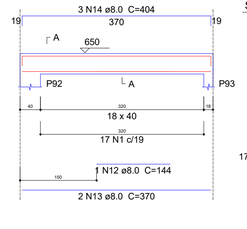
V18
ESC 1:30



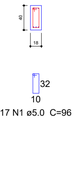
SEÇÃO A-A
ESC 1:25



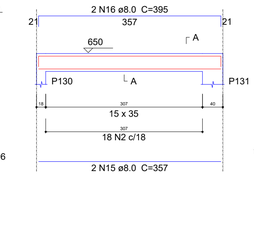
V19
ESC 1:30



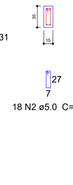
SEÇÃO A-A
ESC 1:25



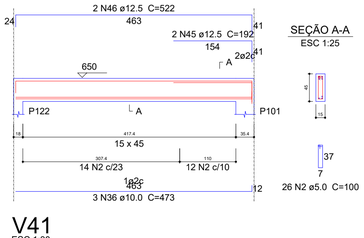
V20
ESC 1:30



SEÇÃO A-A
ESC 1:25

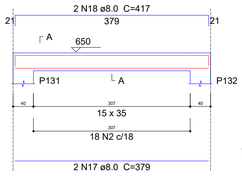


V40
ESC 1:30

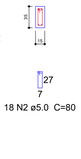


SEÇÃO A-A
ESC 1:25

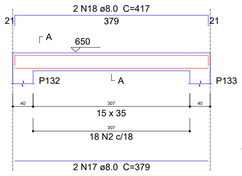
V21
ESC 1:30



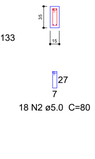
SEÇÃO A-A
ESC 1:25



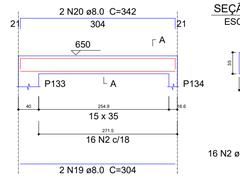
V22
ESC 1:30



SEÇÃO A-A
ESC 1:25



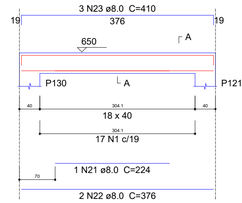
V23
ESC 1:30



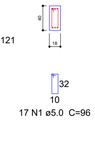
SEÇÃO A-A
ESC 1:25



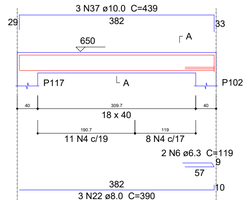
V25
ESC 1:30



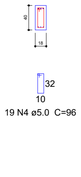
SEÇÃO A-A
ESC 1:25



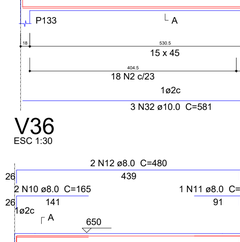
V41
ESC 1:30



SEÇÃO A-A
ESC 1:25



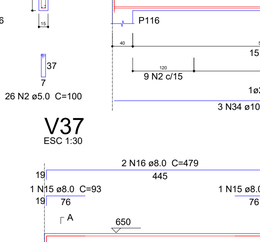
V26
ESC 1:30



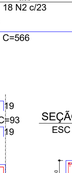
SEÇÃO A-A
ESC 1:25



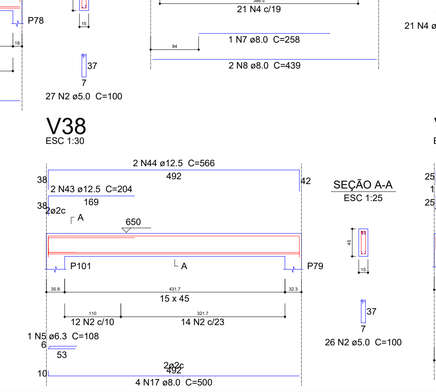
V27
ESC 1:30



SEÇÃO A-A
ESC 1:25

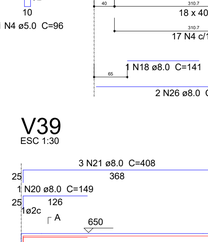


V28
ESC 1:30



SEÇÃO A-A
ESC 1:25

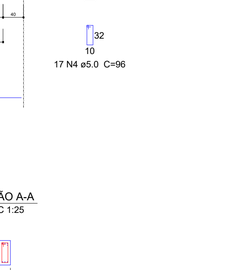
V34
ESC 1:30



SEÇÃO A-A
ESC 1:25

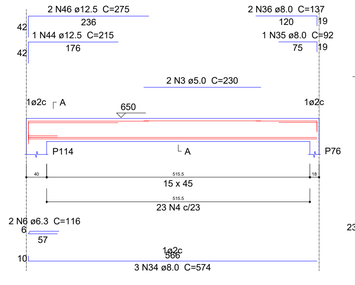


V44
ESC 1:30



SEÇÃO A-A
ESC 1:25

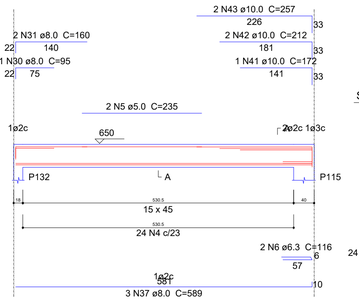
V29
ESC 1:30



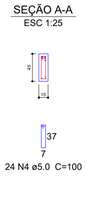
SEÇÃO A-A
ESC 1:25



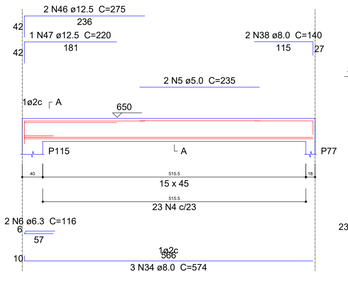
V30
ESC 1:30



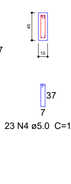
SEÇÃO A-A
ESC 1:25



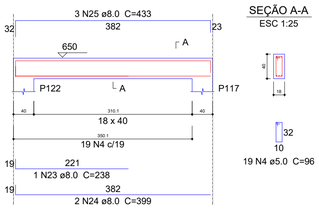
V31
ESC 1:30



SEÇÃO A-A
ESC 1:25

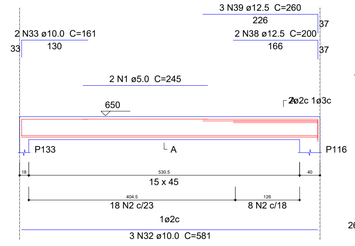


V42
ESC 1:30



SEÇÃO A-A
ESC 1:25

V32
ESC 1:30



SEÇÃO A-A
ESC 1:25

V33
ESC 1:30

SEÇÃO A-A
ESC 1:25

V35
ESC 1:30

SEÇÃO A-A
ESC 1:25

V43
ESC 1:30

SEÇÃO A-A
ESC 1:25

V36
ESC 1:30

SEÇÃO A-A
ESC 1:25

V37
ESC 1:30

SEÇÃO A-A
ESC 1:25

V38
ESC 1:30

SEÇÃO A-A
ESC 1:25

V39
ESC 1:30

SEÇÃO A-A
ESC 1:25

Relação do aço

V17	V18	V19
V20	V21	V22
V23	V25	V26
V27	V28	V29
V30	V31	V34

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	117	96	11232
	2	5.0	70	80	5600
	3	5.0	4	230	920
	4	5.0	94	100	9400
	5	5.0	4	235	940
CA50	6	6.3	7	116	812
	7	8.0	1	115	115
	8	8.0	6	382	2292
	9	8.0	6	108	648
	10	8.0	6	416	2496
	11	8.0	1	130	130
	12	8.0	1	144	144
	13	8.0	2	370	740
	14	8.0	3	404	1212
	15	8.0	2	357	714
	16	8.0	2	395	790
	17	8.0	4	379	1516
	18	8.0	4	417	1668
	19	8.0	2	304	608
	20	8.0	2	342	684
	21	8.0	1	224	224
	22	8.0	2	376	752
	23	8.0	3	410	1230
	24	8.0	1	210	210
	25	8.0	1	243	243
	26	8.0	2	442	884
	27	8.0	1	111	111
	28	8.0	1	106	106
	29	8.0	2	479	958
	30	8.0	2	95	190
	31	8.0	4	160	640
	32	8.0	1	112	112
	33	8.0	2	258	516
	34	8.0	6	574	3444
	35	8.0	1	92	92
	36	8.0	2	137	274
	37	8.0	3	589	1767
	38	8.0	2	140	280
	39	10.0	2	591	1182
	40	10.0	2	309	618
	41	10.0	1	172	172
	42	10.0	2	212	424
	43	10.0	2	257	514
	44	12.5	2	215	430
	45	12.5	2	270	540
	46	12.5	4	275	1100
	47	12.5	1	220	220

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	8.2	2.1
	8.0	257.9	106.9
	10.0	29.1	18.8
	12.5	22.9	23.2
CA60	5.0	281	45.5

PESO TOTAL (kg)	
CA50	150.9
CA60	45.5

Volume de concreto (C-30) = 4.24 m³
Área de forma = 62.68 m²

Relação do aço

V32	V33	V35
V36	V37	V38
V39	V40	V41
V42	V43	V44

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	2	245	490
	2	5.0	105	100	10500
	3	5.0	2	235	470
	4	5.0	152	96	14592
CA50	5	6.3	1	108	108
	6	6.3	2	119	238
	7	8.0	1	258	258
	8	8.0	4	439	1756
	9	8.0	1	308	308
	10	8.0	2	165	330
	11	8.0	1	108	108
	12	8.0	2	480	960
	13	8.0	1	284	284
	14	8.0	2	445	890
	15	8.0	2	93	186
	16	8.0	2	479	958
	17	8.0	4	500	2000
	18	8.0	2	141	282
	19	8.0	2	368	736
	20	8.0	1	149	149
	21	8.0	3	408	1224
	22	8.0	3	390	1170
	23	8.0	1	238	238
	24	8.0	2	399	798
	25	8.0	3	433	1299
	26	8.0	2	383	766
	27	8.0	1	133	133
	28	8.0	3	422	1266
	29	8.0	1	177	177
	30	8.0	2	344	688
	31	8.0	3	379	1137
	32	10.0	3	581	1743
	33	10.0	2	161	322
	34	10.0	3	566	1698
	35	10.0	2	494	988
	36	10.0	3	473	1419
	37	10.0	3	439	1317
	38	12.5	2	200	400
	39	12.5	3	260	780
	40	12.5	2	195	390
	41	12.5	3	255	765
	42	12.5	2	151	302
	43	12.5	2	204	408
	44	12.5	2	566	1132
	45	12.5	2	192	384
	46	12.5	2	522	1044

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	3.5	0.9
	8.0	181.1	75
	10.0	74.9	48.5
	12.5	56.1	56.7
CA60	5.0	260.6	42.2

PESO TOTAL (kg)	
CA50	181
CA60	42.2

Volume de concreto (C-30) = 3.78 m³
Área de forma = 54.19 m²

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

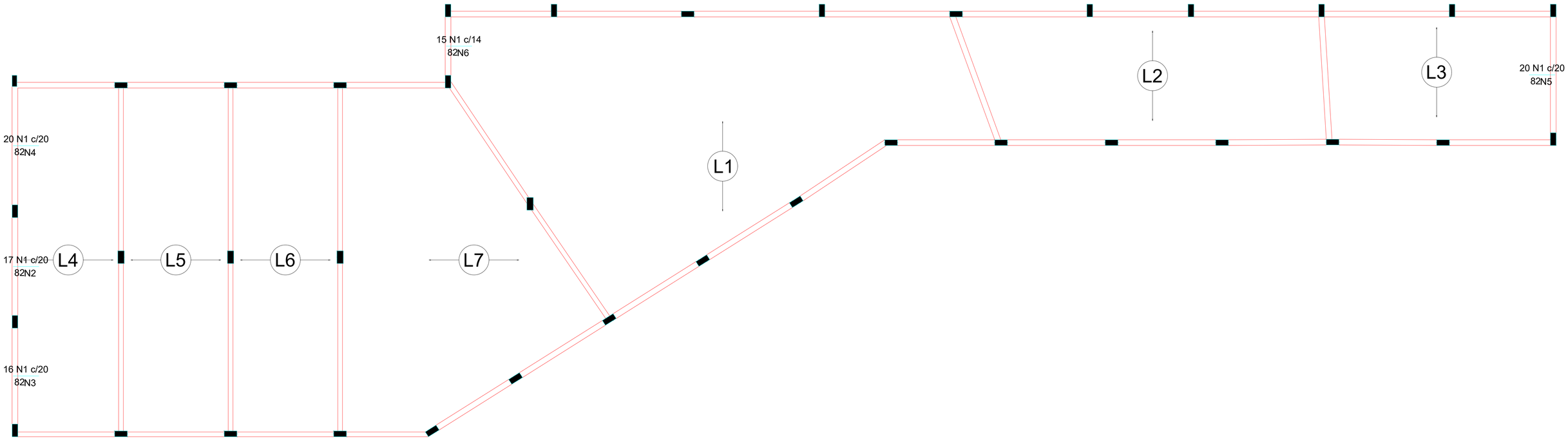
PRANCHA: 31/43

CONTEÚDO: PLANTA DETALHAMENTO DE VIGAS DO PAV. SUPERIOR

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1

1 **DETALHAMENTO DAS VIGAS DO SUPERIOR**



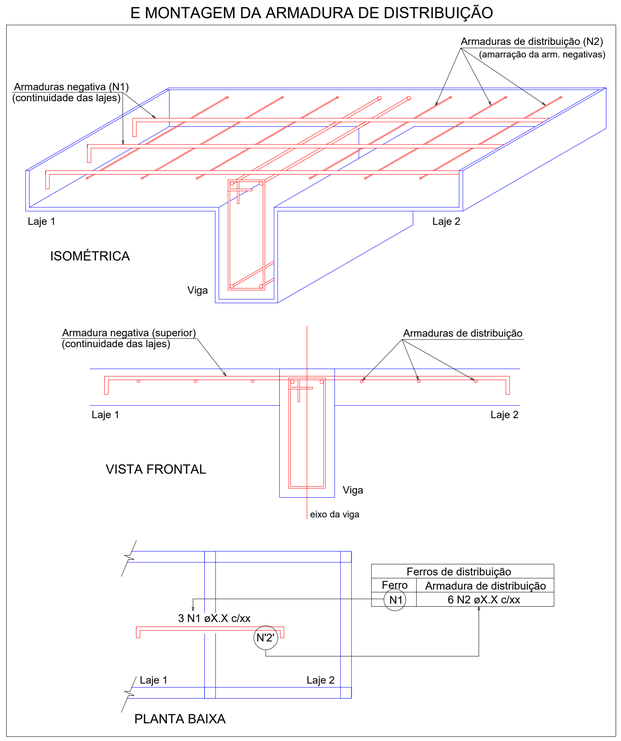
1 **ARMAÇÃO NEGATIVA DAS LAJES DO PAV. TÉRREO (EIXO X)**

Ferros de distribuição	
Ferro	Armadura de distribuição
N1	4 N2 ø5.0 c/20 C=334
N1	4 N3 ø5.0 c/20 C=328
N1	4 N4 ø5.0 c/20 C=399
N1	4 N5 ø5.0 c/20 C=391
N1	4 N6 ø5.0 c/20 C=210

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA60	5.0	138.7	22.4
PESO TOTAL (kg)			
CA60	22.4		

DETALHE DA ARMADURA DE SUPERIOR DE CONTINUIDADE DA LAJE
E MONTAGEM DA ARMADURA DE DISTRIBUIÇÃO



Relação do aço

Negativos X

AÇO		DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	88	82	7216
	2	5.0	4	334	1336
	3	5.0	4	328	1312
	4	5.0	4	399	1596
	5	5.0	4	391	1564
	6	5.0	4	210	840

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

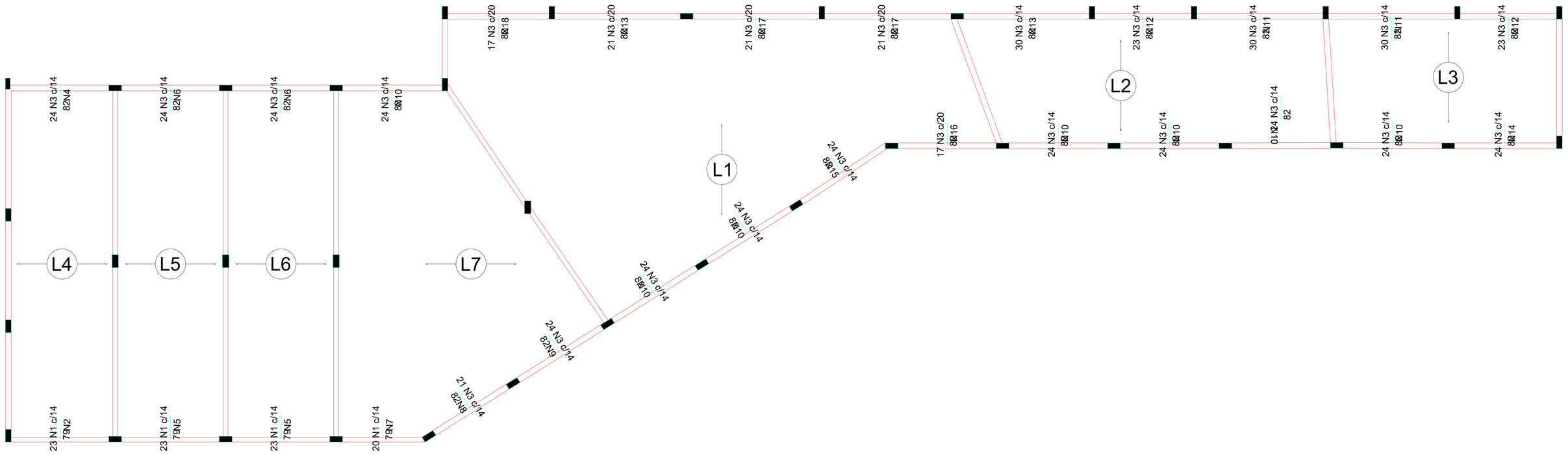
LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 32/43

CONTEÚDO: DETALHAMENTO DE LAJES

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

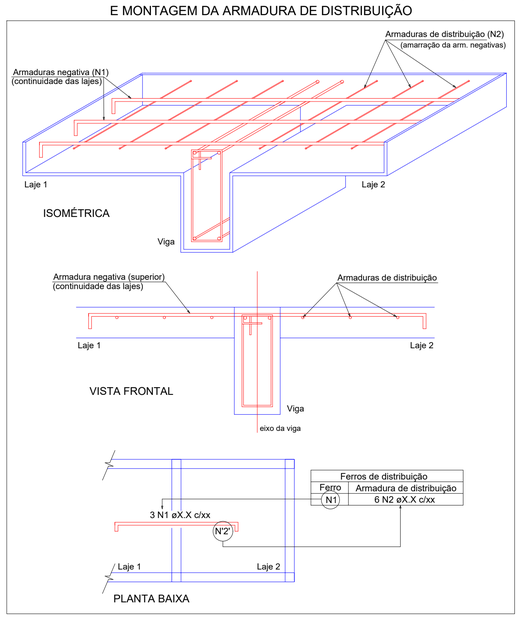
FOLHA: A1



1 ARMAÇÃO NEGATIVA DAS LAJES DO PAV. TÉRREO (EIXO Y)

Ferros de distribuição	
Ferro	Armadura de distribuição
N1	4 N2 ø5.0 c/20 C=327
N3	4 N4 ø5.0 c/20 C=330
N1	4 N5 ø5.0 c/20 C=328
N3	4 N6 ø5.0 c/20 C=331
N3	4 N6 ø5.0 c/20 C=331
N1	4 N5 ø5.0 c/20 C=328
N1	4 N7 ø5.0 c/20 C=274
N3	4 N8 ø5.0 c/20 C=296
N3	4 N9 ø5.0 c/20 C=335
N3	4 N10 ø5.0 c/20 C=334
N3	4 N10 ø5.0 c/20 C=334
N3	4 N10 ø5.0 c/20 C=334
N3	4 N10 ø5.0 c/20 C=334
N3	4 N11 ø5.0 c/20 C=414
N3	4 N12 ø5.0 c/20 C=321
N3	4 N13 ø5.0 c/20 C=416
N3	4 N10 ø5.0 c/20 C=334
N3	4 N14 ø5.0 c/20 C=341
N3	4 N12 ø5.0 c/20 C=321
N3	4 N11 ø5.0 c/20 C=414
N3	4 N10 ø5.0 c/20 C=334
N3	4 N10 ø5.0 c/20 C=334
N3	4 N15 ø5.0 c/20 C=338
N3	4 N16 ø5.0 c/20 C=333
N3	4 N17 ø5.0 c/20 C=417
N3	4 N17 ø5.0 c/20 C=417
N3	4 N13 ø5.0 c/20 C=416
N3	4 N18 ø5.0 c/20 C=336

DETALHE DA ARMADURA DE SUPERIOR DE CONTINUIDADE DA LAJE
E MONTAGEM DA ARMADURA DE DISTRIBUIÇÃO



Relação do aço

Negativos Y

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	89	79	7031
	2	5.0	4	327	1308
	3	5.0	566	82	46412
	4	5.0	4	330	1320
	5	5.0	8	328	2624
	6	5.0	8	331	2648
	7	5.0	4	274	1096
	8	5.0	4	296	1184
	9	5.0	4	335	1340
	10	5.0	28	334	9352
	11	5.0	8	414	3312
	12	5.0	8	321	2568
	13	5.0	8	416	3328
	14	5.0	4	341	1364
	15	5.0	4	338	1352
	16	5.0	4	333	1332
	17	5.0	8	417	3336
	18	5.0	4	336	1344

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA60	5.0	922.6	149.3

PESO TOTAL (kg)	
CA60	149.3

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

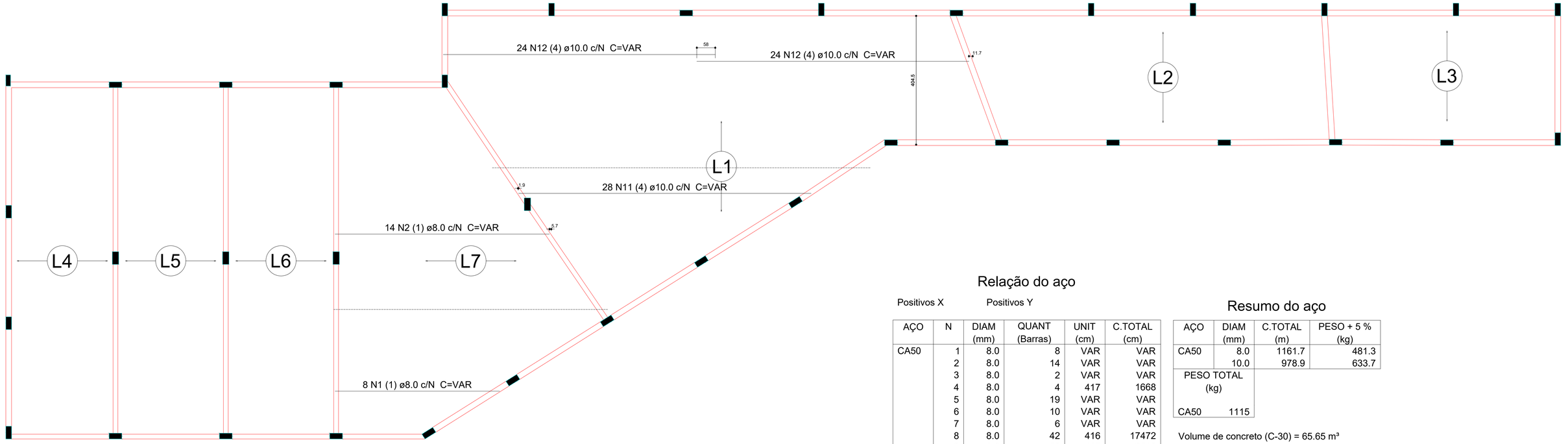
LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 33/43

CONTEÚDO: DETALHAMENTO DE LAJES

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

FOLHA: A1



Relação do aço

Positivos X Positivos Y

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA50	1	8.0	8	VAR	VAR
	2	8.0	14	VAR	VAR
	3	8.0	2	VAR	VAR
	4	8.0	4	417	1668
	5	8.0	19	VAR	VAR
	6	8.0	10	VAR	VAR
	7	8.0	6	VAR	VAR
	8	8.0	42	416	17472
	9	8.0	30	417	12510
	10	8.0	45	1114	50130
	11	10.0	28	VAR	VAR
	12	10.0	48	VAR	VAR
	13	10.0	16	1114	17824
	14	10.0	28	VAR	VAR

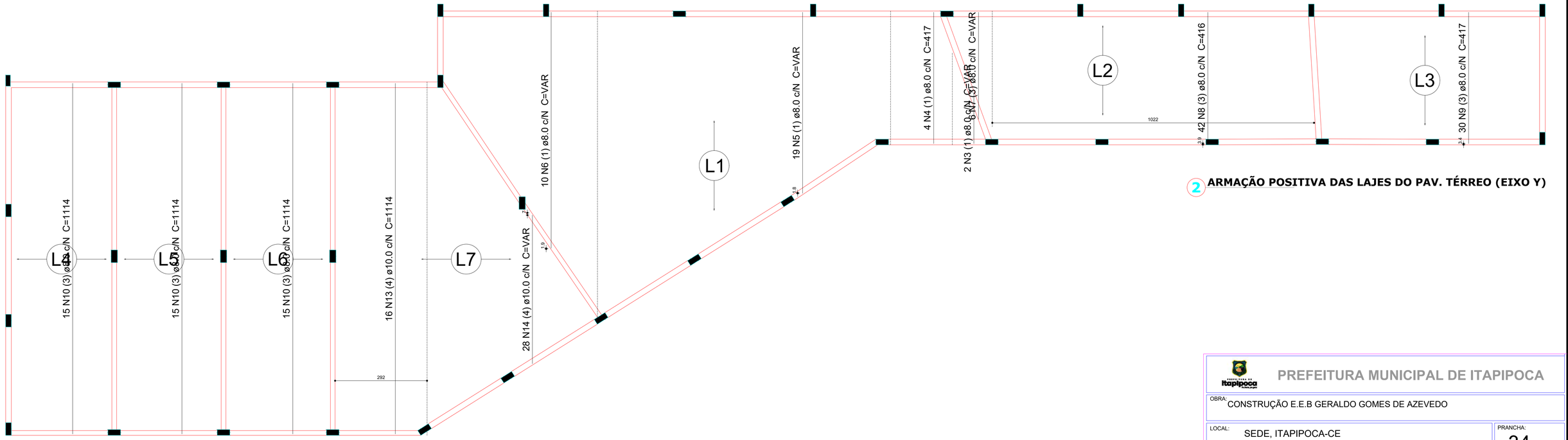
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	1161.7	481.3
	10.0	978.9	633.7

PESO TOTAL (kg)	
CA50	1115

Volume de concreto (C-30) = 65.65 m³

1 ARMAÇÃO POSITIVA DAS LAJES DO PAV. TÉRREO (EIXO X)



2 ARMAÇÃO POSITIVA DAS LAJES DO PAV. TÉRREO (EIXO Y)

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

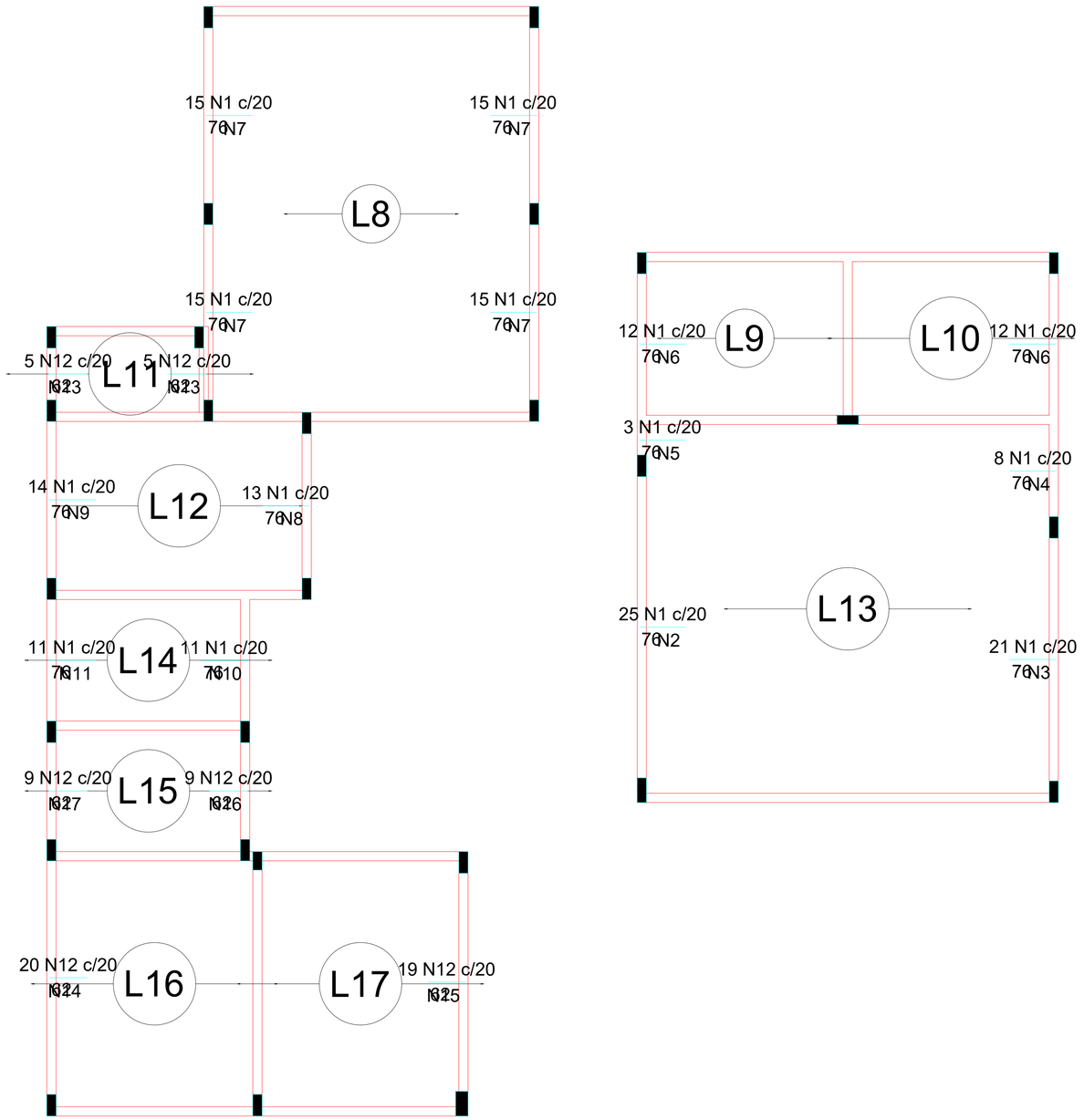
LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: DETALHAMENTO DE LAJES

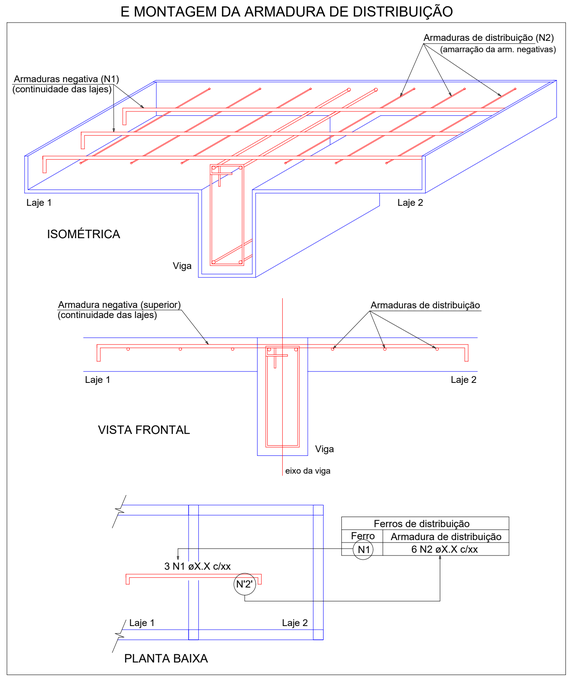
PRANCHA: 34/43

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1



DETALHE DA ARMADURA DE SUPERIOR DE CONTINUIDADE DA LAJE
E MONTAGEM DA ARMADURA DE DISTRIBUIÇÃO



Ferros de distribuição	
Ferro	Armadura de distribuição
N1	4 N2 ø5.0 c/20 C=508
N1	4 N3 ø5.0 c/20 C=413
N1	4 N4 ø5.0 c/20 C=167
N1	4 N5 ø5.0 c/20 C=66
N1	4 N6 ø5.0 c/20 C=247
N1	4 N6 ø5.0 c/20 C=247
N1	4 N7 ø5.0 c/20 C=303
N1	4 N7 ø5.0 c/20 C=303
N1	4 N7 ø5.0 c/20 C=303
N1	4 N7 ø5.0 c/20 C=303
N1	4 N8 ø5.0 c/20 C=253
N1	4 N9 ø5.0 c/20 C=273
N1	4 N10 ø5.0 c/20 C=214
N1	4 N11 ø5.0 c/20 C=216
N12	4 N13 ø5.0 c/20 C=102
N12	4 N13 ø5.0 c/20 C=102
N12	4 N14 ø5.0 c/20 C=398
N12	4 N15 ø5.0 c/20 C=373
N12	4 N16 ø5.0 c/20 C=182
N12	4 N17 ø5.0 c/20 C=176

Relação do aço

Negativos X Negativos Y

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	309	76	23484
	2	5.0	4	508	2032
	3	5.0	4	413	1652
	4	5.0	4	167	668
	5	5.0	4	66	264
	6	5.0	8	247	1976
	7	5.0	16	303	4848
	8	5.0	4	253	1012
	9	5.0	4	273	1092
	10	5.0	4	214	856
	11	5.0	4	216	864
	12	5.0	131	62	8122
	13	5.0	8	102	816
	14	5.0	4	398	1592
	15	5.0	4	373	1492
	16	5.0	4	182	728
	17	5.0	4	176	704
	18	5.0	4	670	2680
	19	5.0	16	335	5360
	20	5.0	4	370	1480
	21	5.0	4	530	2120
	22	5.0	4	100	400
	23	5.0	4	240	960
	24	5.0	4	332	1328

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA60	5.0	665.3	107.7

PESO TOTAL (kg)	
CA60	107.7

1 ARMAÇÃO NEGATIVA DAS LAJES DO PAV. TÉRREO (EIXO X)

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

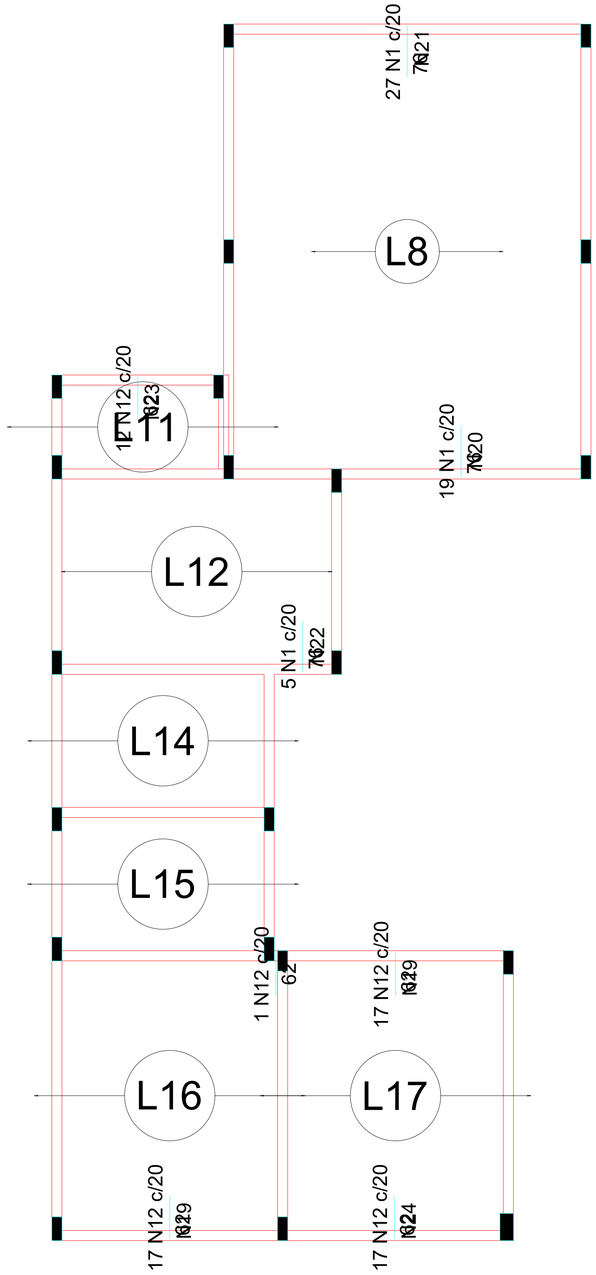
CONTEÚDO: DETALHAMENTO DE LAJES

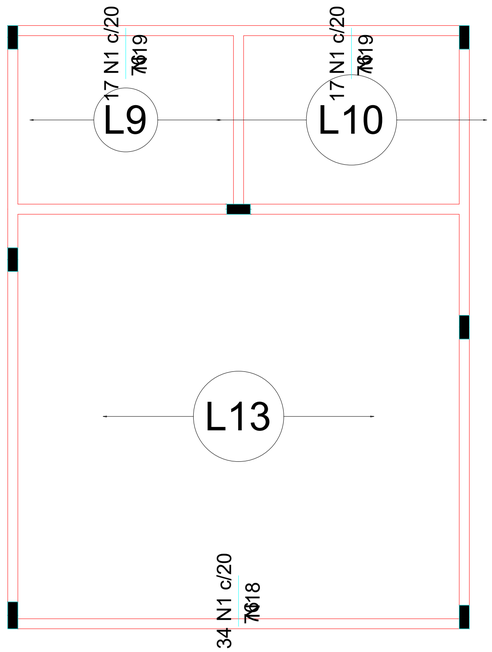
PRANCHA: 35/43

PROJETO:	DESENHO:	ESCALA:	DATA:
ESTRUTURAL			MAIO/2026

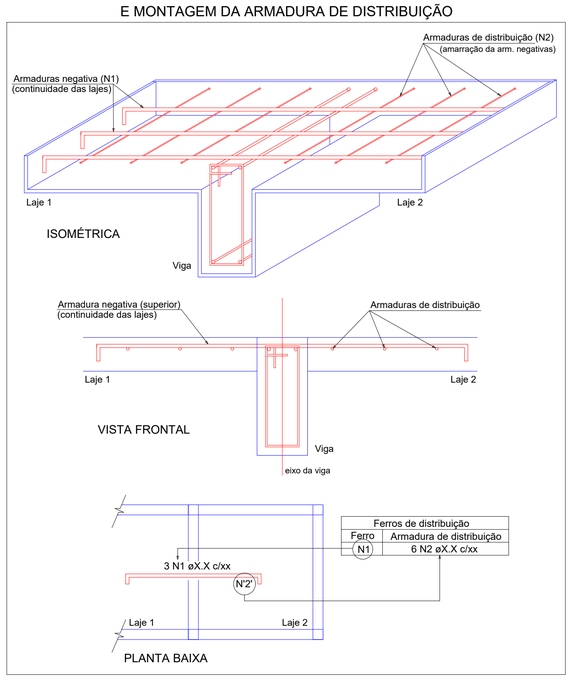
FOLHA: A1

PROCESSO ADMINISTRATIVO
0995
ASSINADO ELETRONICAMENTE





DETALHE DA ARMADURA DE SUPERIOR DE CONTINUIDADE DA LAJE
E MONTAGEM DA ARMADURA DE DISTRIBUIÇÃO



Ferros de distribuição	
Ferro	Armadura de distribuição
N1	4 N18 ø5.0 c/20 C=670
N1	4 N19 ø5.0 c/20 C=335
N1	4 N19 ø5.0 c/20 C=335
N1	4 N20 ø5.0 c/20 C=370
N1	4 N21 ø5.0 c/20 C=530
N1	4 N22 ø5.0 c/20 C=100
N12	4 N23 ø5.0 c/20 C=240
N12	4 N19 ø5.0 c/20 C=335
N12	4 N24 ø5.0 c/20 C=332
N12	4 N19 ø5.0 c/20 C=335

1 ARMAÇÃO NEGATIVA DAS LAJES DO PAV. TÉRREO (EIXO Y)

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

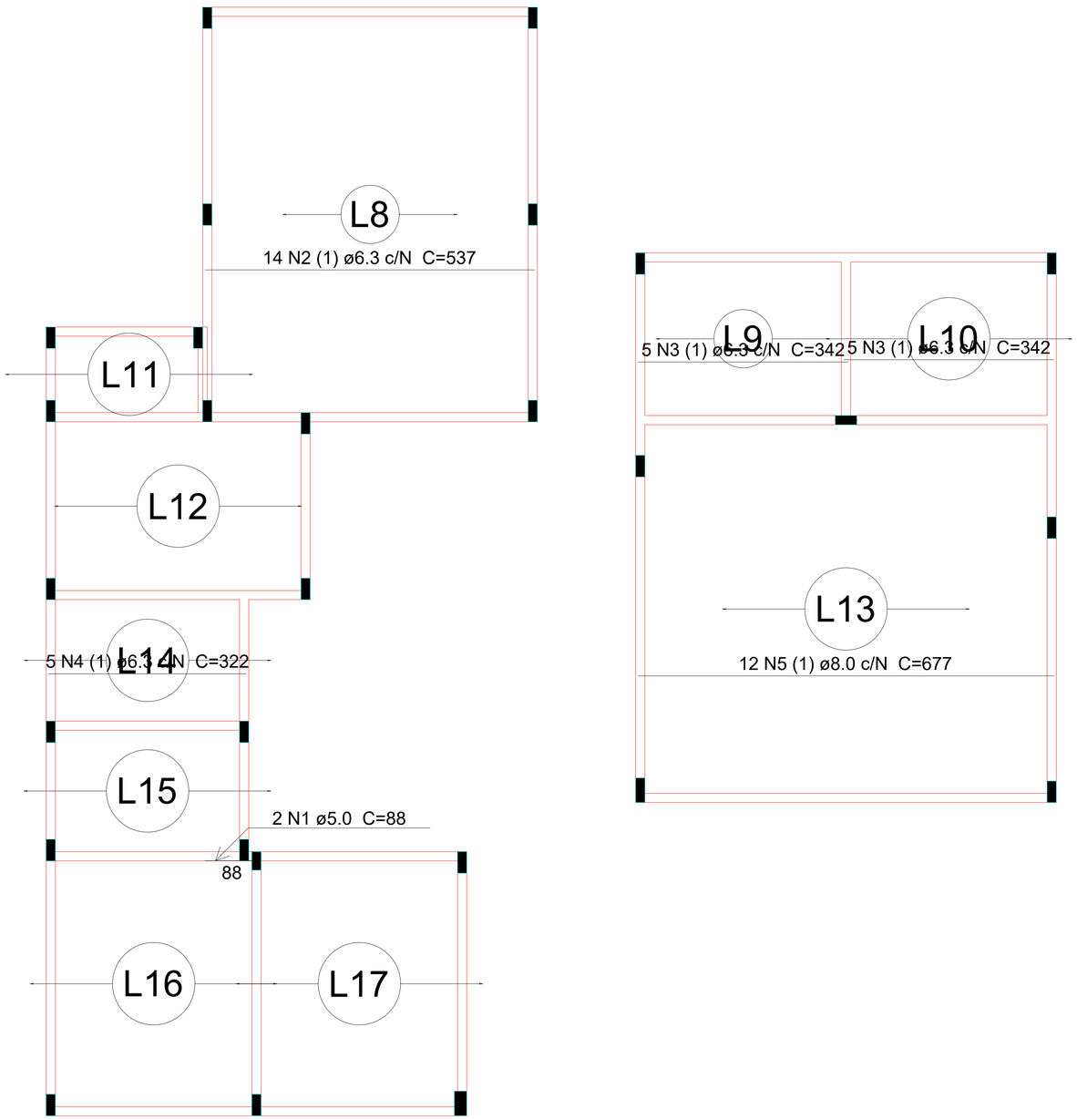
LOCAL: SEDE, ITAPIPOCA-CE

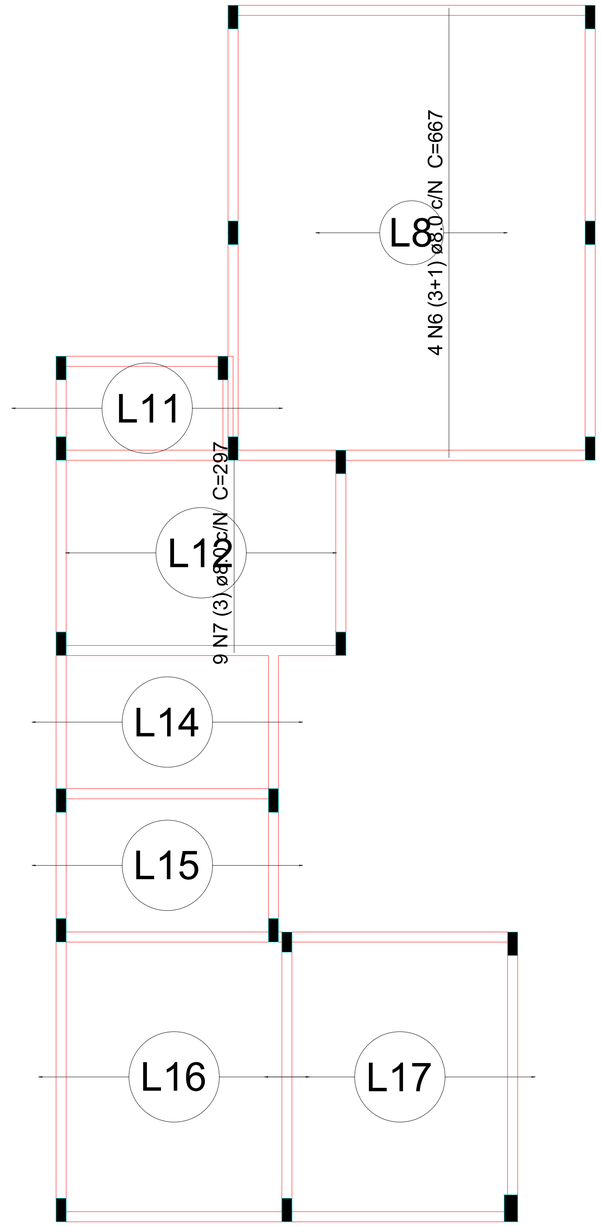
PRANCHA: 36/43

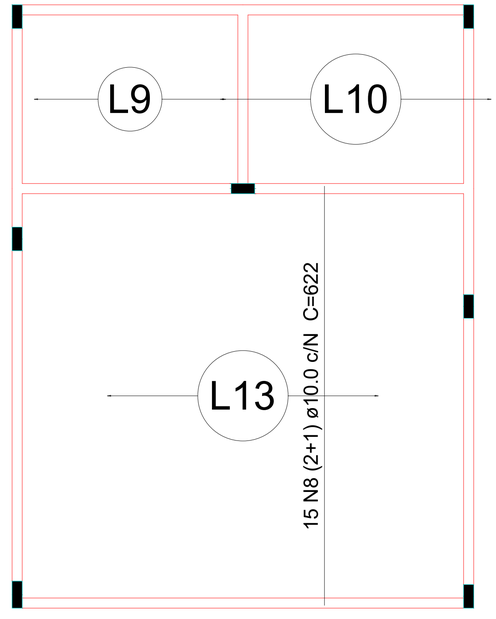
CONTEÚDO: DETALHAMENTO DE LAJES

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1







Relação do aço

Positivos X Positivos Y

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	2	88	176
CA50	2	6.3	14	537	7518
	3	6.3	10	342	3420
	4	6.3	5	322	1610
	5	8.0	12	677	8124
	6	8.0	4	667	2668
	7	8.0	9	297	2673
	8	10.0	15	622	9330

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	125.5	32.2
	8.0	134.7	55.8
	10.0	93.3	60.4
CA60	5.0	1.8	0.3

PESO TOTAL (kg)	
CA50	148.4
CA60	0.3

Volume de concreto (C-30) = 20.82 m³

1 **ARMAÇÃO POSITIVA DAS LAJES DO PAV. TÉRREO (EIXO X)**

1 **ARMAÇÃO POSITIVA DAS LAJES DO PAV. TÉRREO (EIXO Y)**

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

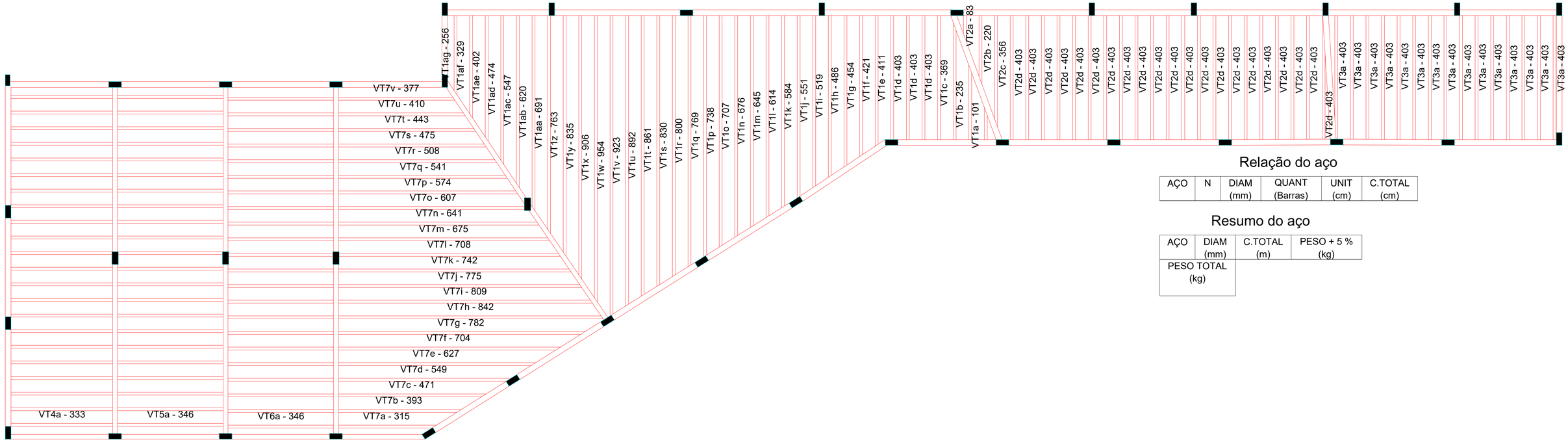
LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: DETALHAMENTO DE LAJES

PRANCHA: 37/43

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1



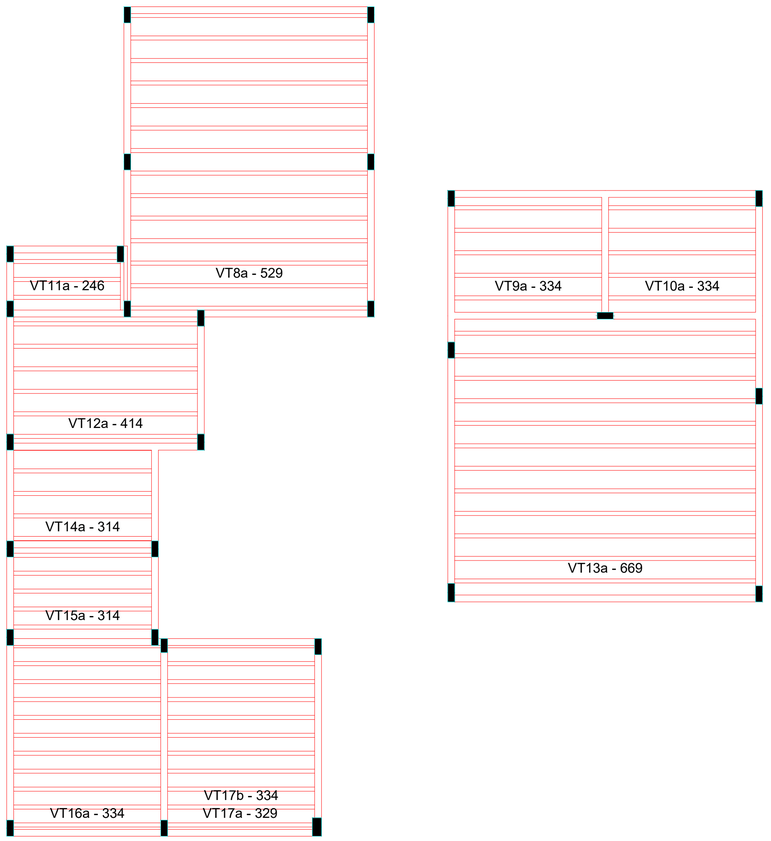
1 PLANTA VIGOTAS PRÉ-MOLDADAS PAV. TÉRREO

Relação do aço

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
PESO TOTAL (kg)			



2 PLANTA VIGOTAS PRÉ-MOLDADAS PAV. TÉRREO

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

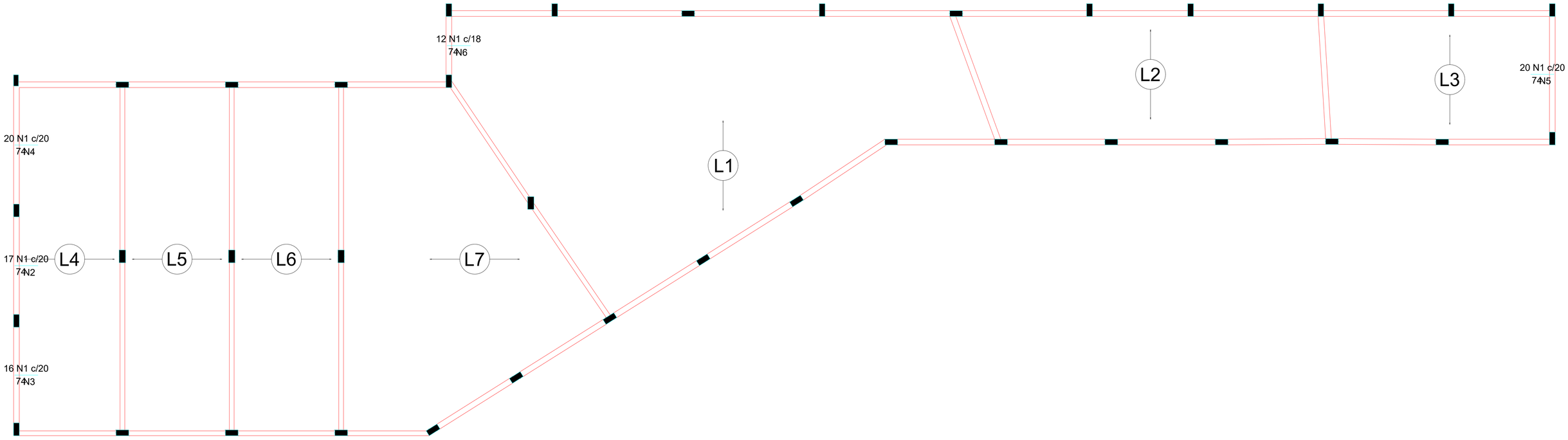
LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: DETALHAMENTO DE LAJES

PRANCHA: 38/43

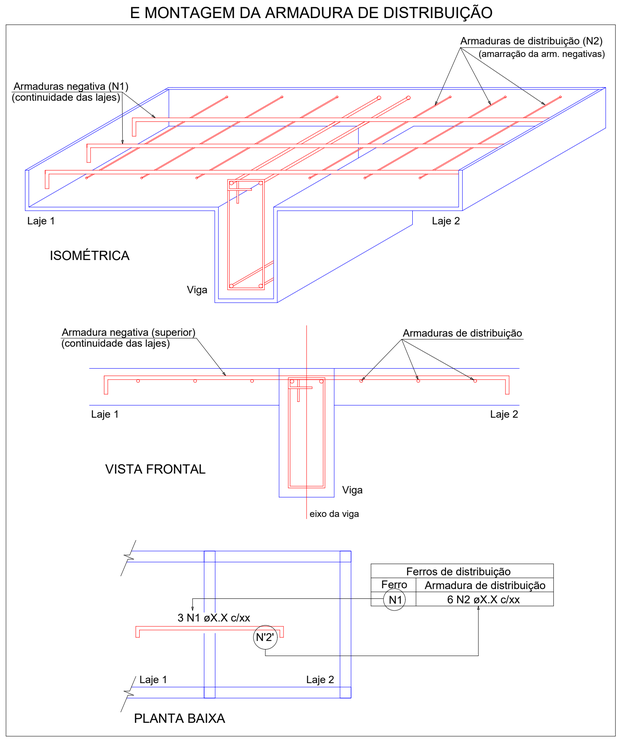
PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1



1 ARMAÇÃO NEGATIVA DAS LAJES DO PAV. SUPERIOR (EIXO X)

DETALHE DA ARMADURA DE SUPERIOR DE CONTINUIDADE DA LAJE
E MONTAGEM DA ARMADURA DE DISTRIBUIÇÃO



Relação do aço

Negativos X

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	85	74	6290
	2	5.0	4	334	1336
	3	5.0	4	328	1312
	4	5.0	4	399	1596
	5	5.0	4	391	1564
	6	5.0	4	210	840

Ferros de distribuição	
Ferro	Armadura de distribuição
N1	4 N2 ø5.0 c/20 C=334
N1	4 N3 ø5.0 c/20 C=328
N1	4 N4 ø5.0 c/20 C=399
N1	4 N5 ø5.0 c/20 C=391
N1	4 N6 ø5.0 c/20 C=210

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA60	5.0	129.4	20.9

PESO TOTAL (kg)	
CA60	20.9

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

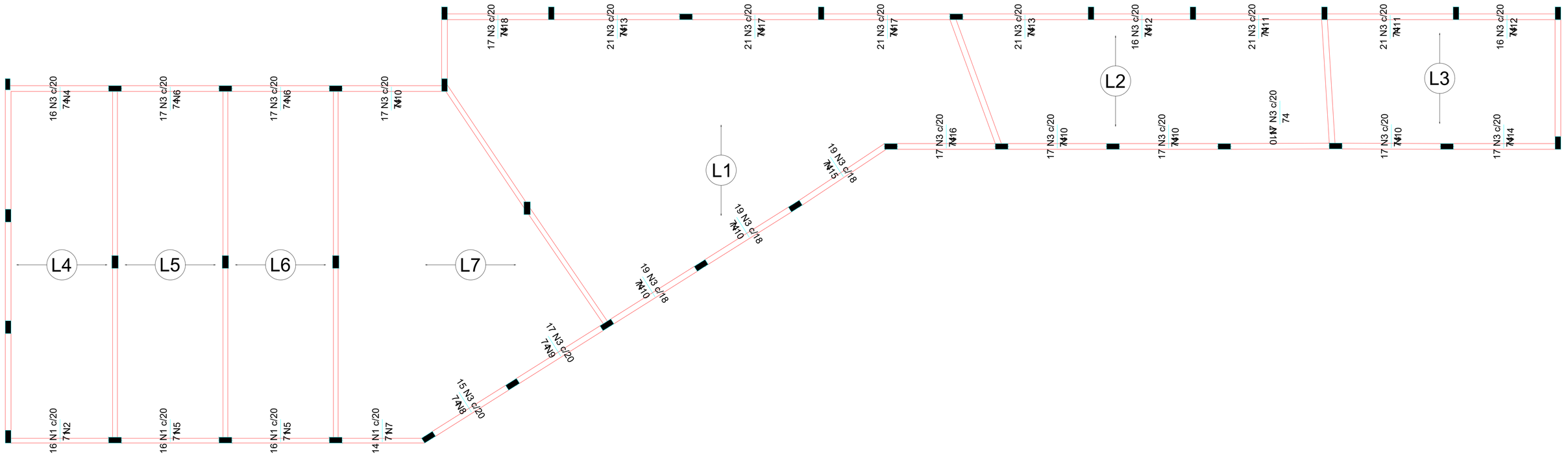
LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: DETALHAMENTO DE LAJES

PRANCHA: 39/43

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1

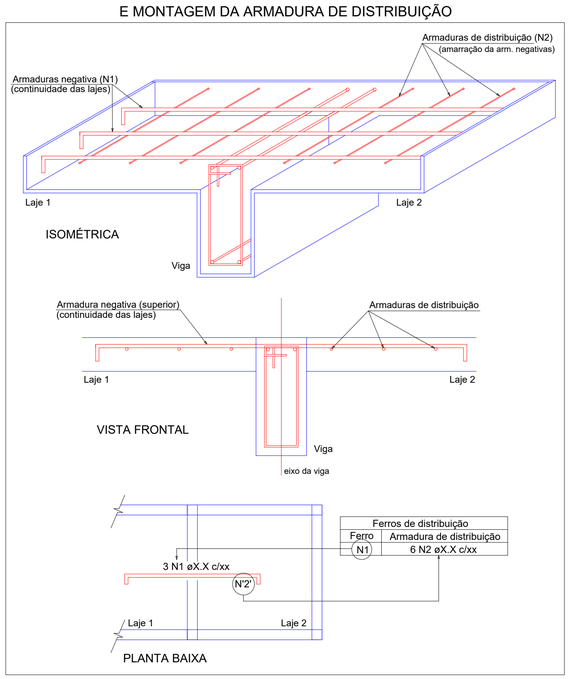


1 ARMAÇÃO NEGATIVA DAS LAJES DO PAV. SUPERIOR (EIXO Y)

Relação do aço

Ferros de distribuição	
Ferro	Armadura de distribuição
N1	4 N2 ø5.0 c/20 C=327
N3	4 N4 ø5.0 c/20 C=330
N1	4 N5 ø5.0 c/20 C=328
N3	4 N6 ø5.0 c/20 C=331
N3	4 N6 ø5.0 c/20 C=331
N1	4 N5 ø5.0 c/20 C=328
N1	4 N7 ø5.0 c/20 C=274
N3	4 N8 ø5.0 c/20 C=296
N3	4 N9 ø5.0 c/20 C=335
N3	4 N10 ø5.0 c/20 C=334
N3	4 N10 ø5.0 c/20 C=334
N3	4 N10 ø5.0 c/20 C=334
N3	4 N10 ø5.0 c/20 C=334
N3	4 N11 ø5.0 c/20 C=414
N3	4 N12 ø5.0 c/20 C=321
N3	4 N13 ø5.0 c/20 C=416
N3	4 N10 ø5.0 c/20 C=334
N3	4 N14 ø5.0 c/20 C=341
N3	4 N12 ø5.0 c/20 C=321
N3	4 N11 ø5.0 c/20 C=414
N3	4 N10 ø5.0 c/20 C=334
N3	4 N10 ø5.0 c/20 C=334
N3	4 N15 ø5.0 c/20 C=338
N3	4 N16 ø5.0 c/20 C=333
N3	4 N17 ø5.0 c/20 C=417
N3	4 N17 ø5.0 c/20 C=417
N3	4 N13 ø5.0 c/20 C=416
N3	4 N18 ø5.0 c/20 C=336

DETALHE DA ARMADURA DE SUPERIOR DE CONTINUIDADE DA LAJE
E MONTAGEM DA ARMADURA DE DISTRIBUIÇÃO



Negativos Y

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	62	71	4402
	2	5.0	4	327	1308
	3	5.0	433	74	32042
	4	5.0	4	330	1320
	5	5.0	8	328	2624
	6	5.0	8	331	2648
	7	5.0	4	274	1096
	8	5.0	4	296	1184
	9	5.0	4	335	1340
	10	5.0	28	334	9352
	11	5.0	8	414	3312
	12	5.0	8	321	2568
	13	5.0	8	416	3328
	14	5.0	4	341	1364
	15	5.0	4	338	1352
	16	5.0	4	333	1332
	17	5.0	8	417	3336
	18	5.0	4	336	1344

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA60	5.0	752.6	121.8

PESO TOTAL (kg)	
CA60	121.8

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

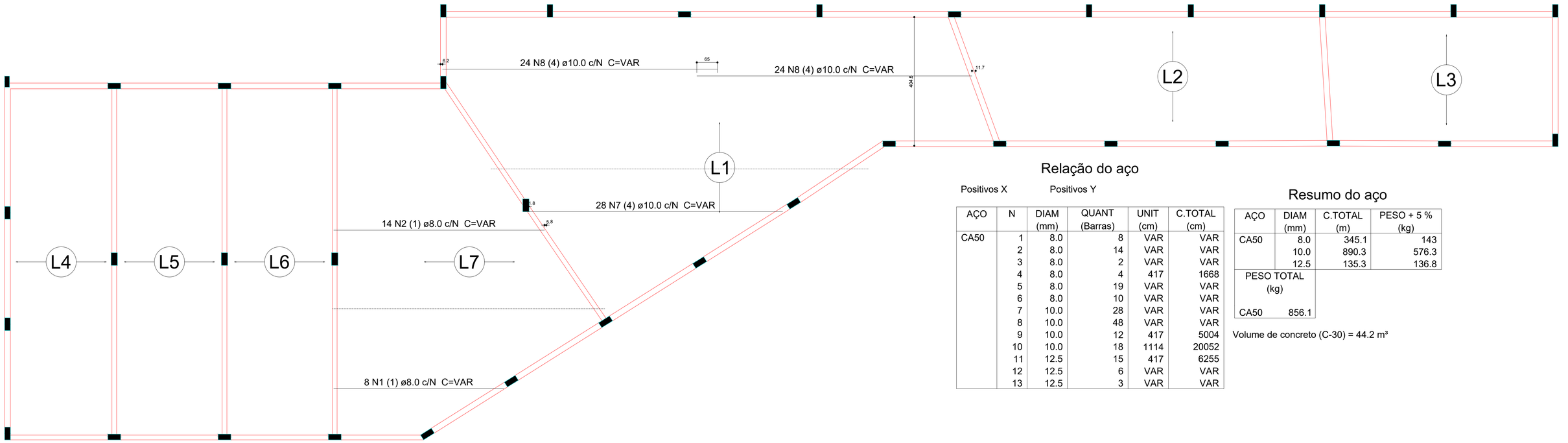
LOCAL: SEDE, ITAPIPOCA-CE

PRANCHA: 40/43

CONTEÚDO: DETALHAMENTO DE LAJES

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1



Relação do aço

Positivos X Positivos Y

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA50	1	8.0	8	VAR	VAR
	2	8.0	14	VAR	VAR
	3	8.0	2	VAR	VAR
	4	8.0	4	417	1668
	5	8.0	19	VAR	VAR
	6	8.0	10	VAR	VAR
	7	10.0	28	VAR	VAR
	8	10.0	48	VAR	VAR
	9	10.0	12	417	5004
	10	10.0	18	1114	20052
	11	12.5	15	417	6255
	12	12.5	6	VAR	VAR
	13	12.5	3	VAR	VAR

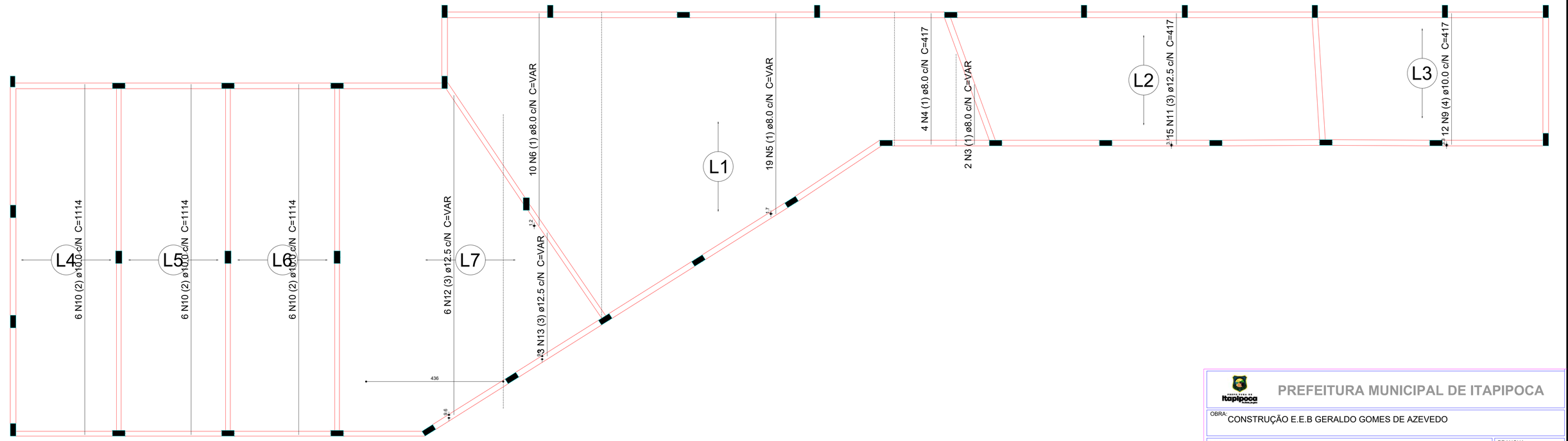
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	345.1	143
	10.0	890.3	576.3
	12.5	135.3	136.8

PESO TOTAL (kg)	
CA50	856.1

Volume de concreto (C-30) = 44.2 m³

1 ARMAÇÃO POSITIVA DAS LAJES DO PAV. SUPERIOR (EIXO X)



2 ARMAÇÃO POSITIVA DAS LAJES DO PAV. SUPERIOR (EIXO Y)

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

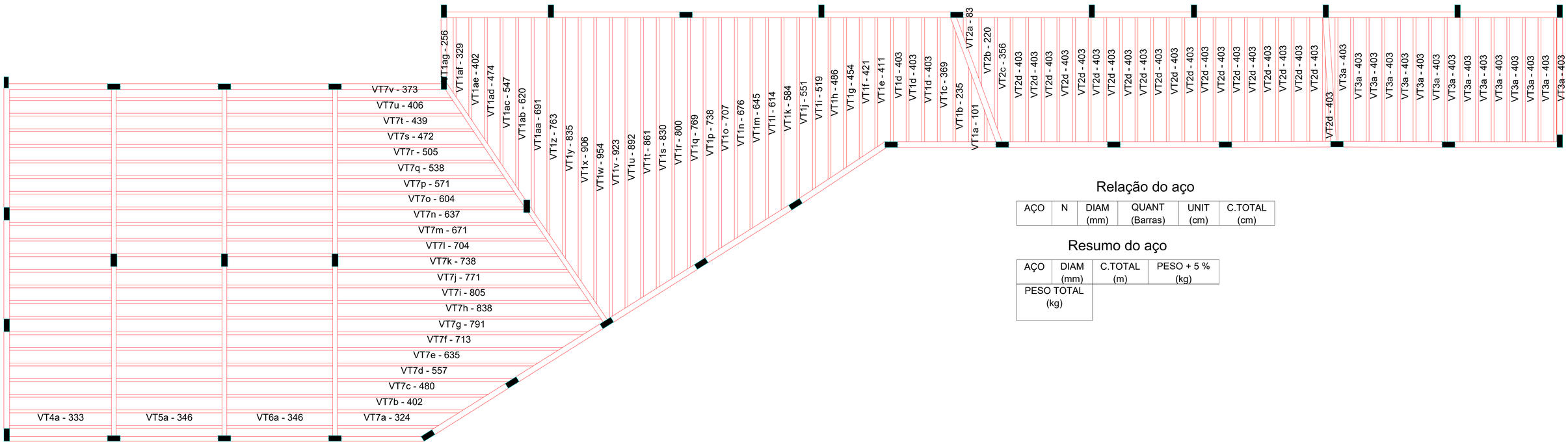
CONTEÚDO: DETALHAMENTO DE LAJES

PRANCHA: 41/43

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1

PROCESSO ADMINISTRATIVO
1001
ASSINADO ELETRONICAMENTE



Relação do aço

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
PESO TOTAL (kg)			

1 PLANTA VIGOTAS PRÉ-MOLDADAS PAV. SUPERIOR

PREFEITURA MUNICIPAL DE ITAPIPOCA

OBRA: CONSTRUÇÃO E.E.B GERALDO GOMES DE AZEVEDO

LOCAL: SEDE, ITAPIPOCA-CE

CONTEÚDO: DETALHAMENTO DE LAJES

PRANCHA: 42/43

PROJETO: ESTRUTURAL | DESENHO: | ESCALA: | DATA: MAIO/2026

FOLHA: A1

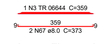
PROCESSO ADMINISTRATIVO 1002 ASSINADO ELETRONICAMENTE

VT1a (2 unidades) (L1) ESC 1:50



VT1b (2 unidades) (L1) ESC 1:50

VT1c (2 unidades) (L1) ESC 1:50



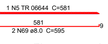
VT1d (39 unidades) (L1) ESC 1:50



VT1e (1 unidades) (L1) ESC 1:50



VT1f (1 unidades) (L1) ESC 1:50



VT1g (1 unidades) (L1) ESC 1:50



VT4a (22 unidades) (L4) ESC 1:50



VT1h (1 unidades) (L1) ESC 1:50



VT1i (1 unidades) (L1) ESC 1:50



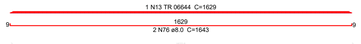
VT1j (1 unidades) (L1) ESC 1:50



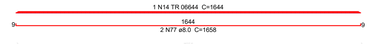
VT1k (1 unidades) (L1) ESC 1:50



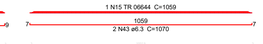
VT1l (1 unidades) (L1) ESC 1:50



VT1m (1 unidades) (L1) ESC 1:50



VT2a (1 unidades) (L2) ESC 1:50



VT1n (2 unidades) (L1) ESC 1:50



VT1o (1 unidades) (L1) ESC 1:50



VT2b (1 unidades) (L2) ESC 1:50



VT1p (1 unidades) (L1) ESC 1:50



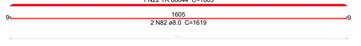
VT1q (1 unidades) (L1) ESC 1:50



VT2c (1 unidades) (L2) ESC 1:50



VT1r (1 unidades) (L1) ESC 1:50



VT2d (1 unidades) (L2) ESC 1:50



VT2e (1 unidades) (L2) ESC 1:50



VT5a (22 unidades) (L5) ESC 1:50



VT2f (1 unidades) (L2) ESC 1:50



VT2g (1 unidades) (L2) ESC 1:50



VT2h (1 unidades) (L2) ESC 1:50



VT3a (1 unidades) (L3) ESC 1:50



VT7f (1 unidades) (L7) ESC 1:50



VT7g (1 unidades) (L7) ESC 1:50



VT7h (1 unidades) (L7) ESC 1:50



VT7i (1 unidades) (L7) ESC 1:50



VT7j (1 unidades) (L7) ESC 1:50



VT7k (1 unidades) (L7) ESC 1:50



VT7l (1 unidades) (L7) ESC 1:50



VT7m (1 unidades) (L7) ESC 1:50



VT7n (1 unidades) (L7) ESC 1:50



VT7o (1 unidades) (L7) ESC 1:50



VT7p (1 unidades) (L7) ESC 1:50



VT7q (1 unidades) (L7) ESC 1:50

VT7r (1 unidades) (L7) ESC 1:50

VT7s (1 unidades) (L7) ESC 1:50

VT7t (1 unidades) (L7) ESC 1:50

VT7u (1 unidades) (L7) ESC 1:50

VT7v (1 unidades) (L7) ESC 1:50

VT8a (12 unidades) (L8) ESC 1:50

VT9a (5 unidades) (L9) ESC 1:50

VT10a (5 unidades) (L10) ESC 1:50

VT11a (3 unidades) (L11) ESC 1:50

VT12a (6 unidades) (L12) ESC 1:50

VT13a (12 unidades) (L13) ESC 1:50

VT14a (4 unidades) (L14) ESC 1:50

VT15a (5 unidades) (L15) ESC 1:50

VT16a (10 unidades) (L16) ESC 1:50

VT17a (1 unidades) (L17) ESC 1:50

VT17b (9 unidades) (L17) ESC 1:50

VT3b (1 unidades) (L3) ESC 1:50

VT3c (1 unidades) (L3) ESC 1:50

VT3d (1 unidades) (L3) ESC 1:50

VT3e (1 unidades) (L3) ESC 1:50

VT3f (1 unidades) (L3) ESC 1:50

VT6a (22 unidades) (L6) ESC 1:50

VT3g (1 unidades) (L3) ESC 1:50

VT3h (1 unidades) (L3) ESC 1:50

VT7a (1 unidades) (L7) ESC 1:50

VT7b (1 unidades) (L7) ESC 1:50

VT7c (1 unidades) (L7) ESC 1:50

VT7d (1 unidades) (L7) ESC 1:50

VT7e (1 unidades) (L7) ESC 1:50

1 DETALHAMENTO ARMAÇÃO DE VIGÓTAS PRÉ-MOLDADAS DO PAV.TÉRREO

Relação do aço

VT1a	VT1b	VT1c
VT1d	VT1e	VT1f
VT1g	VT1h	VT1i
VT1j	VT1k	VT1l
VT1m	2xVT1n	VT1o
VT1p	VT1q	VT1r
VT2a	VT2b	VT2c
VT2d	VT2e	VT2f
VT2g	VT2h	VT3a
VT3b	VT3c	VT3d
VT3e	VT3f	VT3g
VT3h	22xVT4a	22xVT5a
22xVT6a	VT7a	VT7b
VT7c	VT7d	VT7e

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	TR 06644	1	136	136
	2	TR 06644	1	247	247
	3	TR 06644	1	359	359
	4	TR 06644	1	470	470
	5	TR 06644	1	581	581
	6	TR 06644	1	693	693
	7	TR 06644	1	804	804
	8	TR 06644	22	340	7480
	9	TR 06644	1	914	914
	10	TR 06644	1	1021	1021
	11	TR 06644	1	1128	1128
	12	TR 06644	1	1234	1234
	13	TR 06644	1	1629	1629
	14	TR 06644	1	1644	1644
	15	TR 06644	1	1059	1059
	16	TR 06644	2	1659	3318
	17	TR 06644	1	1674	1674
	18	TR 06644	1	1074	1074
	19	TR 06644	1	1641	1641
	20	TR 06644	1	1623	1623
	21	TR 06644	1	1089	1089
	22	TR 06644	1	1605	1605
	23	TR 06644	1	1103	1103
	24	TR 06644	1	1118	1118
	25	TR 06644	44	352	15488
	26	TR 06644	1	1133	1133
	27	TR 06644	1	1148	1148
	28	TR 06644	1	1163	1163
	29	TR 06644	1	713	713
	30	TR 06644	1	716	716
	31	TR 06644	1	719	719
	32	TR 06644	1	722	722
	33	TR 06644	1	725	725
	34	TR 06644	1	728	728
	35	TR 06644	1	731	731
	36	TR 06644	1	734	734
	37	TR 06644	1	321	321
	38	TR 06644	1	399	399
	39	TR 06644	1	477	477
	40	TR 06644	1	555	555
	41	TR 06644	1	633	633
CA50	42	6.3	44	351	15444
	43	6.3	2	1070	2140
	44	6.3	2	1085	2170
	45	6.3	2	1100	2200
	46	6.3	2	1114	2228
	47	6.3	2	1129	2258
	48	6.3	88	363	31944
	49	6.3	2	1144	2288
	50	6.3	2	1159	2318
	51	6.3	2	1174	2348
	52	6.3	2	724	1448
	53	6.3	2	727	1454
	54	6.3	2	730	1460
	55	6.3	2	733	1466
	56	6.3	2	736	1472
	57	6.3	2	739	1478
	58	6.3	2	742	1484
	59	6.3	2	745	1490
	60	6.3	2	332	664
	61	6.3	2	410	820
	62	6.3	2	488	976
	63	6.3	2	566	1132
	64	6.3	2	644	1288
	65	8.0	2	150	300
	66	8.0	2	261	522
	67	8.0	2	373	746
	68	8.0	2	484	968
	69	8.0	2	595	1190
	70	8.0	2	707	1414
	71	8.0	2	818	1636
	72	8.0	2	928	1856
	73	8.0	2	1035	2070
	74	8.0	2	1142	2284
	75	8.0	2	1248	2496
	76	8.0	2	1643	3286
	77	8.0	2	1658	3316
	78	8.0	4	1673	6692
	79	8.0	2	1688	3376
	80	8.0	2	1655	3310
	81	8.0	2	1637	3274
	82	8.0	2	1619	3238

Relação do aço

VT7f	VT7g	VT7h
VT7i	VT7j	VT7k
VT7l	VT7m	VT7n
VT7o	VT7p	VT7q
VT7r	VT7s	VT7t
VT7u	VT7v	12xVT8a
5xVT9a	5xVT10a	3xVT11a
6xVT12a	12xVT13a	4xVT14a
5xVT15a	10xVT16a	VT17a
9xVT17b		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	TR 06644	1	710	710
	2	TR 06644	1	788	788
	3	TR 06644	1	848	848
	4	TR 06644	1	815	815
	5	TR 06644	1	781	781
	6	TR 06644	1	748	748
	7	TR 06644	1	714	714
	8	TR 06644	1	681	681
	9	TR 06644	1	647	647
	10	TR 06644	1	613	613
	11	TR 06644	1	580	580
	12	TR 06644	1	547	547
	13	TR 06644	1	514	514
	14	TR 06644	1	482	482
	15	TR 06644	1	449	449
	16	TR 06644	1	416	416
	17	TR 06644	1	383	383
	18	TR 06644	12	535	6420
	19	TR 06644	29	340	9860
	20	TR 06644	3	253	759
	21	TR 06644	6	420	2520
	22	TR 06644	12	675	8100
	23	TR 06644	9	320	2880
	24	TR 06644	1	335	335
	25	5.0	1	263	1578
	26	5.0	10	330	3300
	27	5.0	38	330	13200
	28	5.0	2	345	690
CA50	29	6.3	2	721	1442
	30	6.3	2	799	1598
	31	6.3	2	859	1718
	32	6.3	2	826	1652
	33	6.3	2	792	1584
	34	6.3	2	759	1518
	35	6.3	2	725	1450
	36	6.3	2	692	1384
	37	6.3	2	658	1316
	38	6.3	2	624	1248
	39	6.3	2	591	1182
	40	6.3	2	558	1116
	41	6.3	2	525	1050
	42	6.3	2	493	986
	43	6.3	2	460	920
	44	6.3	2	427	854
	45	6.3	2	394	788
	46	6.3	24	546	13104
	47	6.3	20	351	7020
	48	6.3	2	2170	5172
	49	6.3	8	331	2648
	50	8.0	24	689	16536

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	497.5	127.8
	8.0	165.4	68.5
CA60	TR 06644	415.9	310.5
	5.0	188.7	30.5

PESO TOTAL (kg)	
CA50	196.3
CA60	341

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	6.3	819.7	210.6
	8.0	419.8	173.9
CA60	TR 06644	607.5	453.5

PESO TOTAL (kg)	
CA50	384.5
CA60	453.5

Relação do aço

VT1a	VT1aa	VT1ab
VT1ac	VT1ad	VT1ae
VT1af	VT1ag	VT1b
VT1c	3xVT1d	VT1e
VT1f	VT1g	VT1h
VT1i	VT1j	VT1k
VT1l	VT1m	VT1n
VT1o	VT1p	VT1q
VT1r	VT1s	VT1t
VT1u	VT1v	VT1w
VT1x	VT1y	VT1z
VT2a	VT2b	VT2c
VT2d	VT2e	VT2f
VT2g	VT2h	VT3a
VT3b	VT3c	VT3d
VT3e	VT3f	VT3g
VT3h	22xVT4a	22xVT5a
22xVT6a	VT7a	VT7b
VT7c	VT7d	VT7e

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	TR 06644	1	107	107
	2	TR 06644	1	241	241
	3	TR 06644	1	375	375
	4	TR 06644	3	409	1227
	5	TR 06644	1	417	417
	6	TR 06644	1	427	427
	7	TR 06644	1	460	460
	8	TR 06644	1	492	492
	9	TR 06644	1	525	525
	10	TR 06644	1	557	557
	11	TR 06644	1	590	590
	12	TR 06644	1	620	620
	13	TR 06644	1	651	651
	14	TR 06644	1	682	682
	15	TR 06644	2	713	1426
	16	TR 06644	1	744	744
	17	TR 06644	1	775	775
	18	TR 06644	1	806	806
	19	TR 06644	1	836	836
	20	TR 06644	1	867	867
	21	TR 06644	1	898	898
	22	TR 06644	1	929	929
	23	TR 06644	1	960	960
	24	TR 06644	1	912	912
	25	TR 06644	1	626	626
	26	TR 06644	1	841	841
	27	TR 06644	1	769	769
	28	TR 06644	1	697	697
	29	TR 06644	1	553	553
	30	TR 06644	1	480	480
	31	TR 06644	1	408	408
	32	TR 06644	1	335	335
	33	TR 06644	1	262	262
	34	TR 06644	1	1059	1059
	35	TR 06644	1	1074	1074
	36	TR 06644	1	1089	1089
	37	TR 06644	1	1104	1104
	38	TR 06644	1	1118	1118
	39	TR 06644	1	1133	1133
	40	TR 06644	1	716	716
	41	TR 06644	1	1148	1148
	42	TR 06644	1	1163	1163
	43	TR 06644	1	719	719
	44	TR 06644	1	722	722
	45	TR 06644	22	340	7480
	46	TR 06644	1	725	725
	47	TR 06644	1	728	728
	48	TR 06644	1	732	732
	49	TR 06644	1	735	735
	50	TR 06644	44	352	15488

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	432.4	179.1
CA60	TR 06644	587.6	438.7
	5.0	769.4	124.5

PESO TOTAL (kg)	
CA50	179.1
CA60	563.2

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 5 % (kg)
CA50	8.0	261.4	108.3
CA60	TR 06644	127.8	95.4

PESO TOTAL (kg)	
CA50	108.3
CA60	95.4

VT1a (2 unidades) (L1) ESC 1:50

VT1b (2 unidades) (L1) ESC 1:50

VT1c (2 unidades) (L1) ESC 1:50

VT1d (39 unidades) (L1) ESC 1:50

VT1e (1 unidades) (L1) ESC 1:50

VT1f (1 unidades) (L1) ESC 1:50

VT1g (1 unidades) (L1) ESC 1:50

VT1h (1 unidades) (L1) ESC 1:50

VT1i (1 unidades) (L1) ESC 1:50

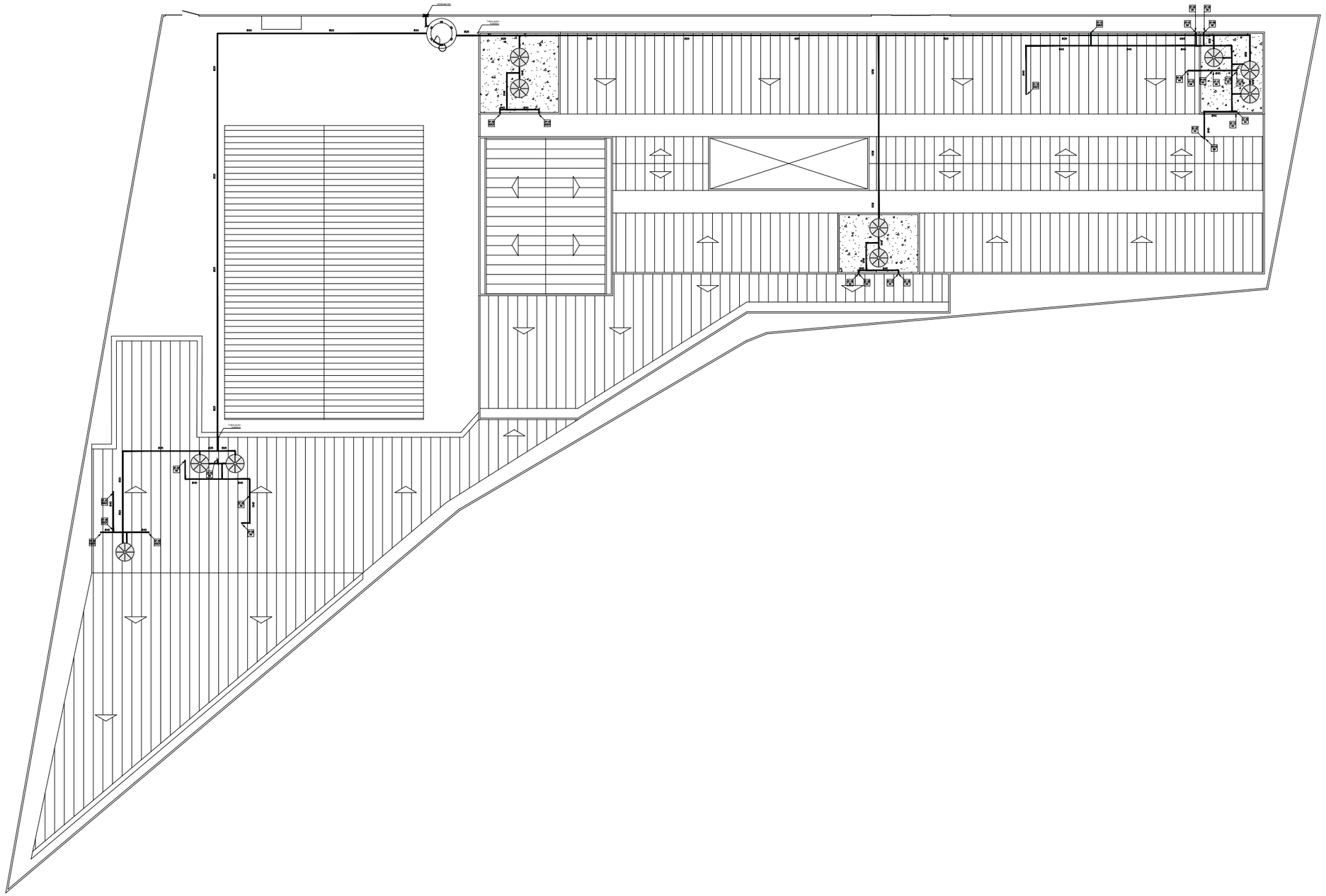
VT7b (1 unidades) (L7) ESC 1:50

VT7c (1 unidades) (L7) ESC 1:50

VT7d (1 unidades) (L7) ESC 1:50

VT7e (1 unidades) (L7) ESC 1:50

1 N



1 PLANTA BAIXA COBERTA
ESC.: 1:450

LEGENDA - HIDRÁ

AF–00 / RGØ / Ø	INDICAÇÃO DAS COLUNA DE
	HIDRÔMETRO
.CH	CHUVEIRO.
.DH	DUCHA HIGIENICA
.VS	VASO SANITÁRIO.
.VD	VALVULA DE DESCARGA.
.RG	REGISTRO DE GAVETA
.RP	REGISTRO DE PRESSÃO
.TL	TANQUE DE LAVAR ROUPAS
PIA	PIA DE COZINHA
.LV	LAVATÓRIO
	JOELHO DE 90º VOLTADO PARA BAIXO
	JOELHO 90º SIMPLES OU C/ REDUÇÃO.
	TÊ SIMPLES OU C/ REDUÇÃO.
	TÊ DE 90º VOLTADO PARA BAIXO
	LUVA OU BUCHA DE REDUÇÃO
	REGISTRO DE PRESSÃO
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA NA PAREDE E LAJE.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA PELO PISO.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA NA PAREDE E LAJE.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA PELO PISO.

OBSEVAÇÕES

1) TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL.
2) AS INTERFERÊNCIAS DAS INSTALAÇÕES COM A ESTRUTURA EXISTENTE SERÃO RESOLVIDOS NO TRANSCORRER DA OBRA.

PROCESSO ADMINISTRATIVO 1003 ASSINADO ELETRONICAMENTE

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PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO –
CONSTRUÇÃO DE ESCOLA GERALDO GOMES

LOCAL – BOA VISTA, - ITAPIPOCA - CE

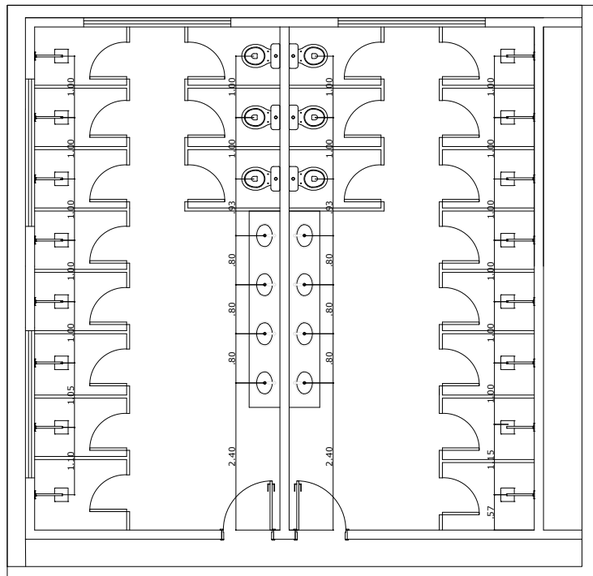
ASSUNTO: PLANTA BAIXA- (COBERTA)

PRANCHA 01/15

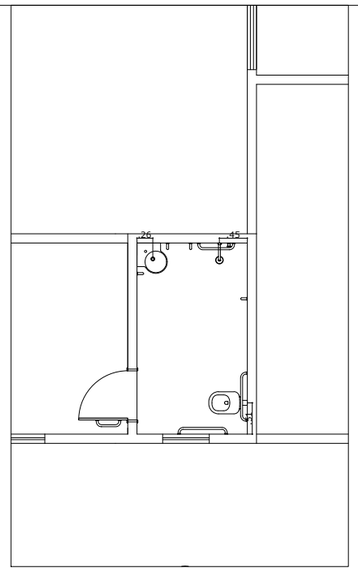
RESP. DESENHO

2026

PROCESSO ADMINISTRATIVO
1004
ASSINADO ELETRONICAMENTE



1 DETALHE 01
ESC.: 1:100



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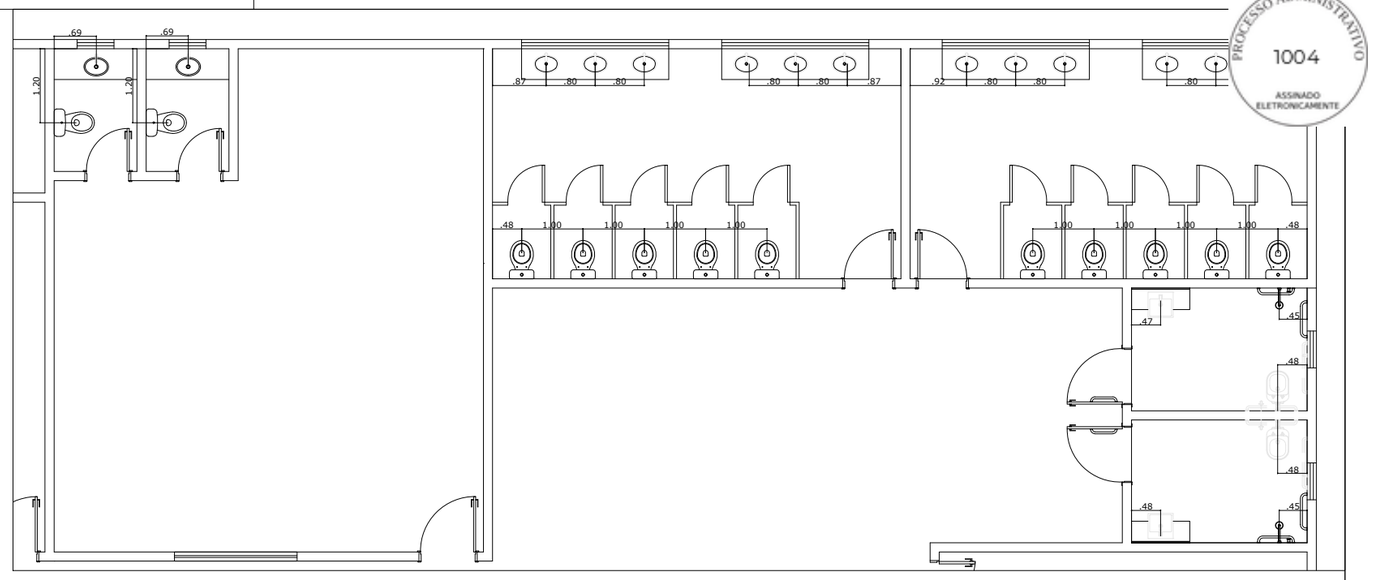

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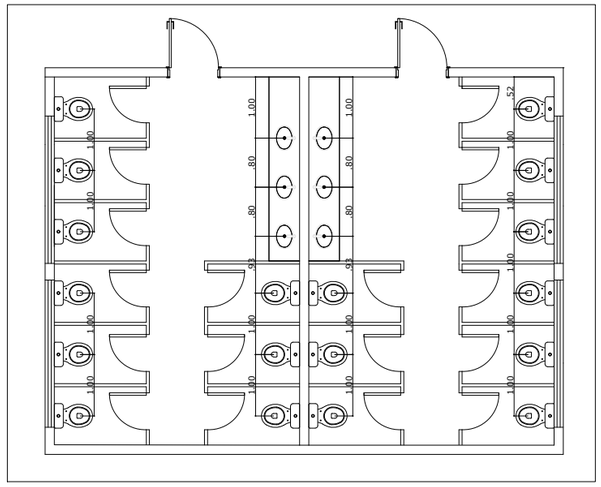
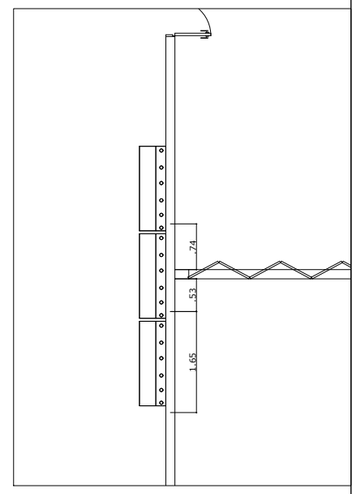


4 DETALHE 04
ESC.: 1:100



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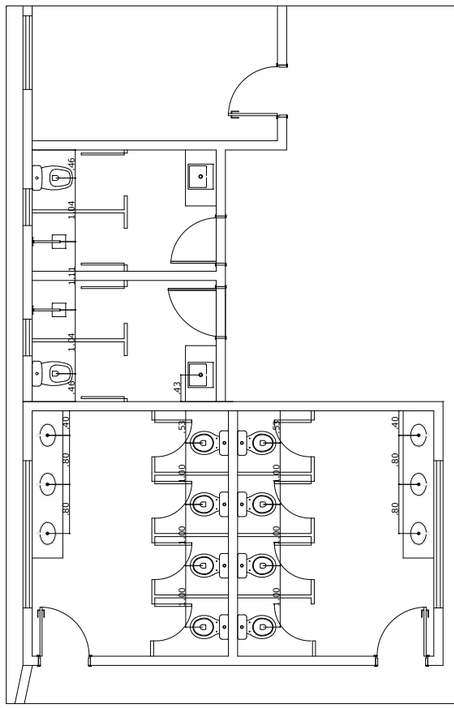
ESC.: 1:100



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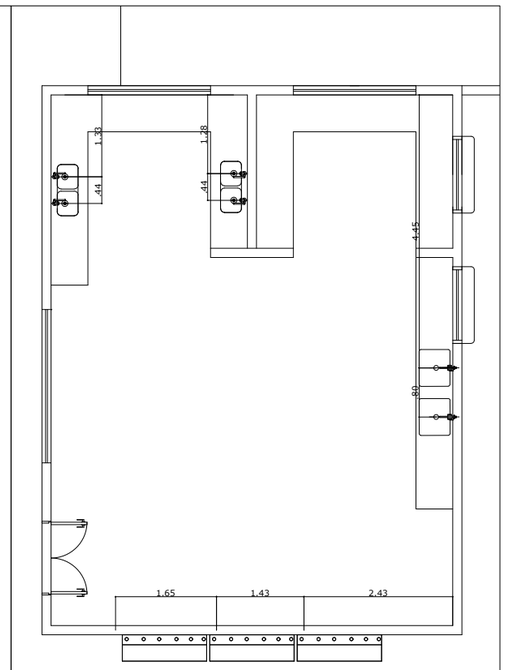

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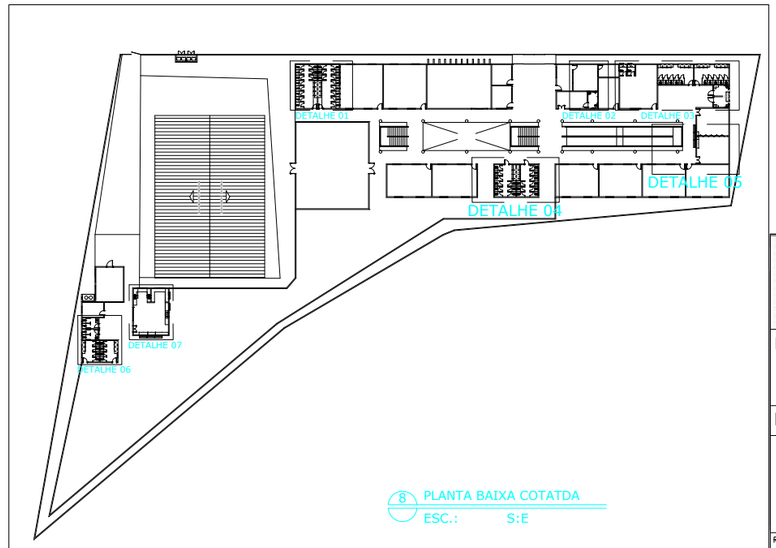


8 PLANTA BAIXA COTATDA
ESC.: S:E

PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO –
CONSTRUÇÃO DE ESCOLA GERALDO GOMES

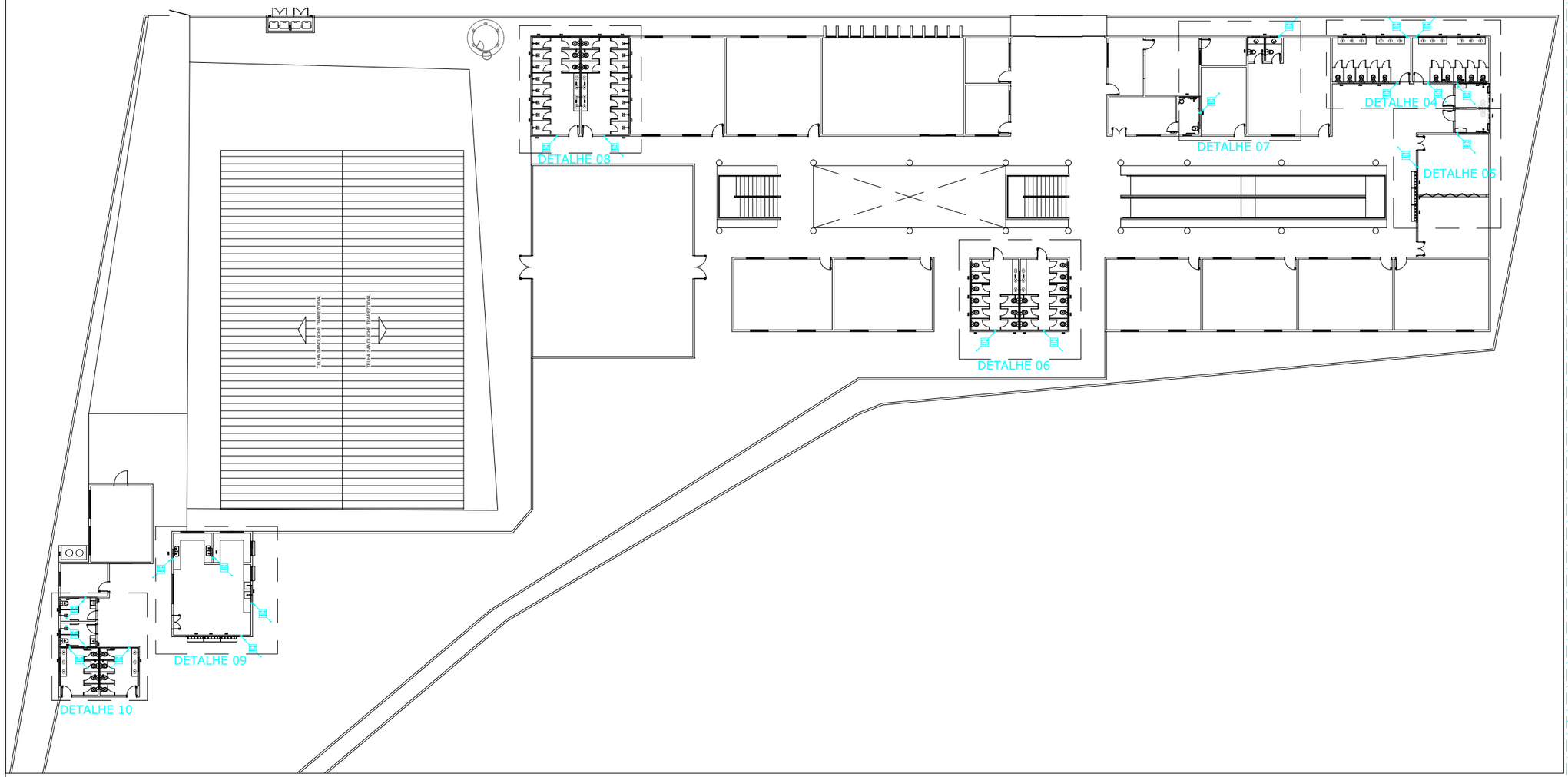
LOCAL – BOA VISTA, - ITAPIPOCA - CE

ASSUNTO: PLANTA BAIXA- (COTAS)

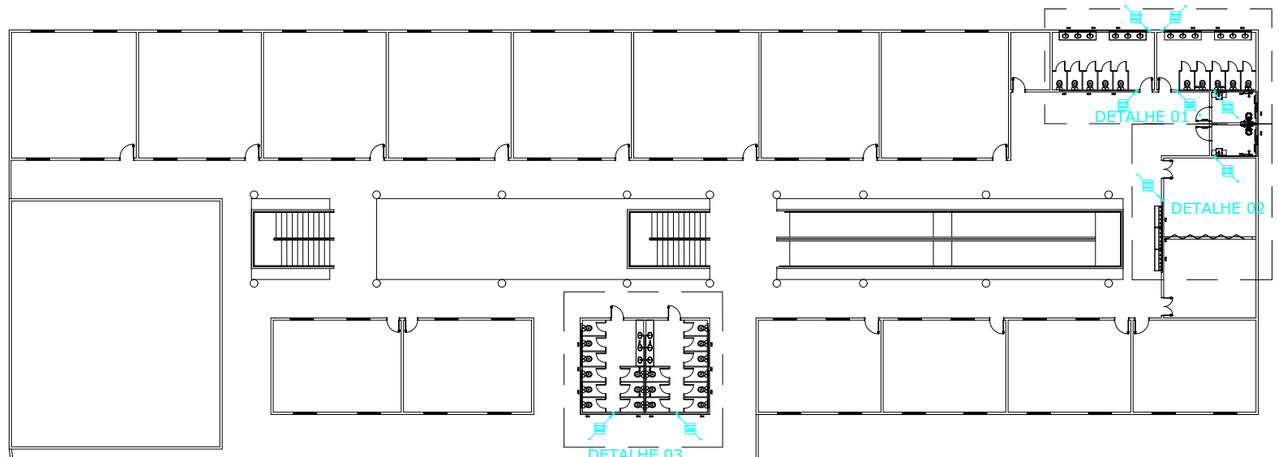
PRANCHA 02/15

RESP. DESENHO

2026



1 PLANTA BAIXA PAV. TÉRREO (SANITÁRIO)
ESC.: 1:450



2 PLANTA BAIXA PAV. SUPERIOR (SANITÁRIO)
ESC.: 1:450

PROCESSO ADMINISTRATIVO 1005 ASSINADO ELETRONICAMENTE

LEGENDA - HIDRÁ

AF–00 RGØ Ø	INDICAÇÃO DAS COLUNA DE
	HIDRÔMETRO
.CH	CHUVEIRO.
.DH	DUCHA HIGIENICA
.VS	VASO SANITÁRIO.
.VD	VALVULA DE DESCARGA.
.RG	REGISTRO DE GAVETA
.RP	REGISTRO DE PRESSÃO
.TL	TANQUE DE LAVAR ROUPAS
PIA	PIA DE COZINHA
.LV	LAVATÓRIO
	JOELHO DE 90º VOLTADO PARA BAIXO
	JOELHO 90º SIMPLES OU C/ REDUÇÃO.
	TÊ SIMPLES OU C/ REDUÇÃO.
	TÊ DE 90º VOLTADO PARA BAIXO
	LUVA OU BUCHA DE REDUÇÃO
	REGISTRO DE PRESSÃO
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA NA PAREDE E LAJE.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA PELO PISO.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA NA PAREDE E LAJE.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA PELO PISO.

OBSEVAÇÕES

1) TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL.
2) AS INTERFERÊNCIAS DAS INSTALAÇÕES COM A ESTRUTURA EXISTENTE SERÃO RESOLVIDOS NO TRANSCORRER DA OBRA.

PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO –
CONSTRUÇÃO DE ESCOLA GERALDO GOMES

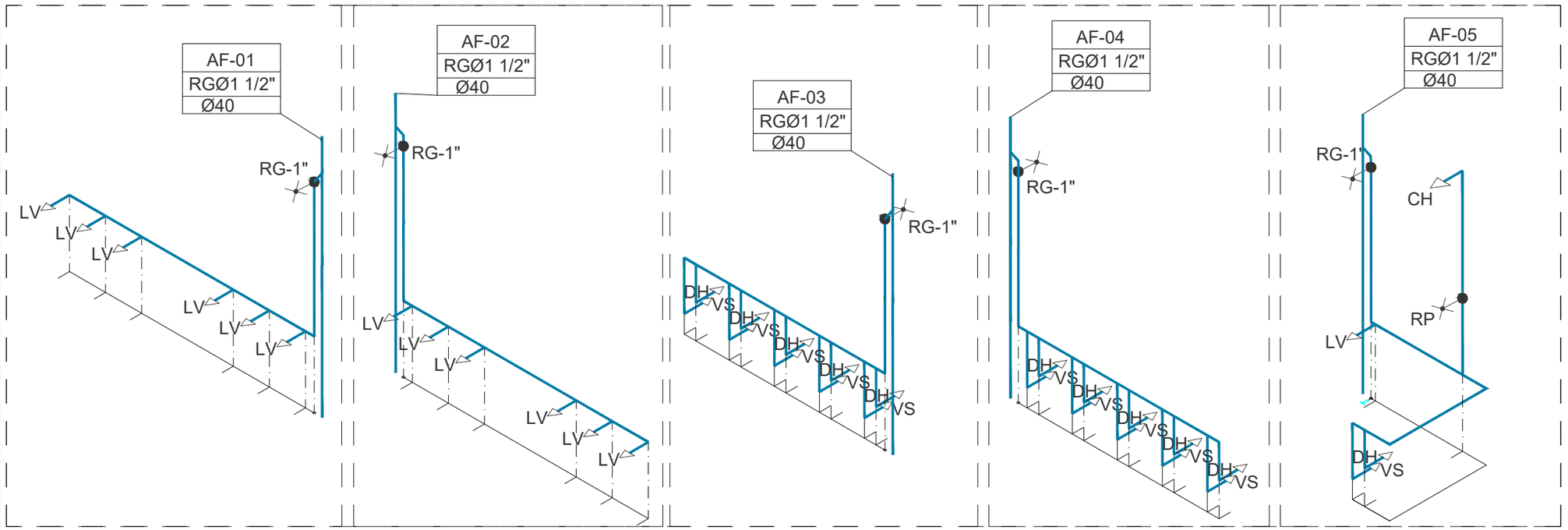
LOCAL – BOA VISTA, - ITAPIPOCA - CE

ASSUNTO: PLANTA BAIXA (HIDRÁULICO)

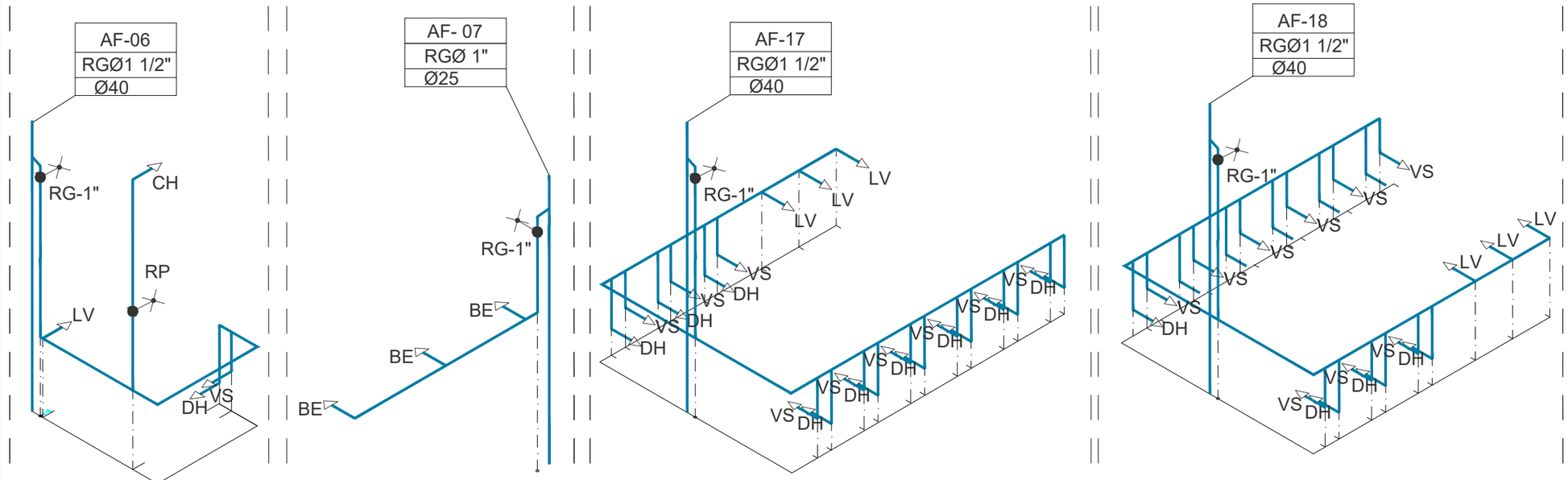
PRANCHA 03/15

RESP. DESENHO

2026



1 ISOMÉTRICO 01 (HIDRÁULICO)
ESC.: 1:75



2 ISOMÉTRICO 02 (HIDRÁULICO)
ESC.: 1:75

3 ISOMÉTRICO 03 (HIDRÁULICO)
ESC.: 1:75

LEGENDA - HIDRÁ

AF–00 / RGØ / Ø	INDICAÇÃO DAS COLUNA DE
	HIDRÔMETRO
.CH	CHUVEIRO.
.DH	DUCHA HIGIENICA
.VS	VASO SANITÁRIO.
.VD	VALVULA DE DESCARGA.
.RG	REGISTRO DE GAVETA
.RP	REGISTRO DE PRESSÃO
.TL	TANQUE DE LAVAR ROUPAS
PIA	PIA DE COZINHA
.LV	LAVATÓRIO
	JOELHO DE 90º VOLTADO PARA BAIXO
	JOELHO 90º SIMPLES OU C/ REDUÇÃO.
	TÊ SIMPLES OU C/ REDUÇÃO.
	TÊ DE 90º VOLTADO PARA BAIXO
	LUVA OU BUCHA DE REDUÇÃO
	REGISTRO DE PRESSÃO
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA NA PAREDE E LAJE.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA PELO PISO.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA NA PAREDE E LAJE.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA PELO PISO.

OBSEVAÇÕES

1) TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL.

2) AS INTERFERÊNCIAS DAS INSTALAÇÕES COM A ESTRUTURA EXISTENTE SERÃO RESOLVIDOS NO TRANSCORRER DA OBRA.

PROCESSO ADMINISTRATIVO 1006 ASSINADO ELETRONICAMENTE

PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO –
CONSTRUÇÃO DE ESCOLA GERALDO GOMES

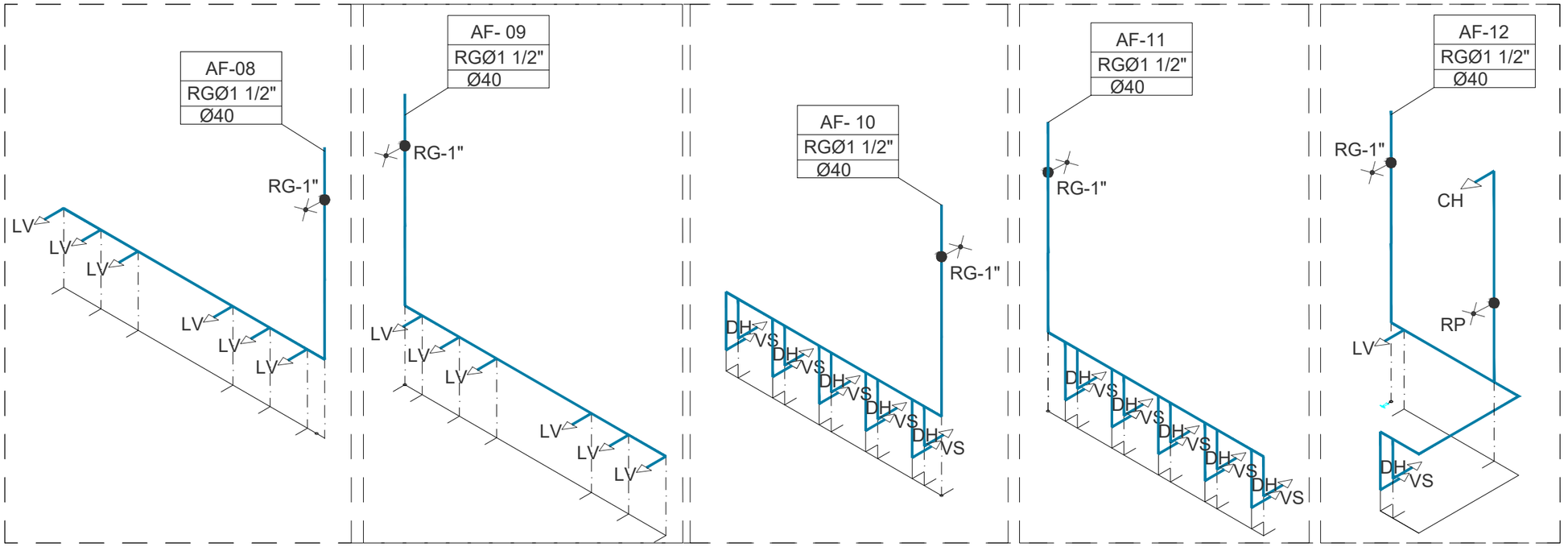
LOCAL – BOA VISTA, - ITAPIPOCA - CE

ASSUNTO: DETALHES ISOMÉTRICO- (HIDRÁULICO)

PRANCHA 04/15

RESP. DESENHO

2026



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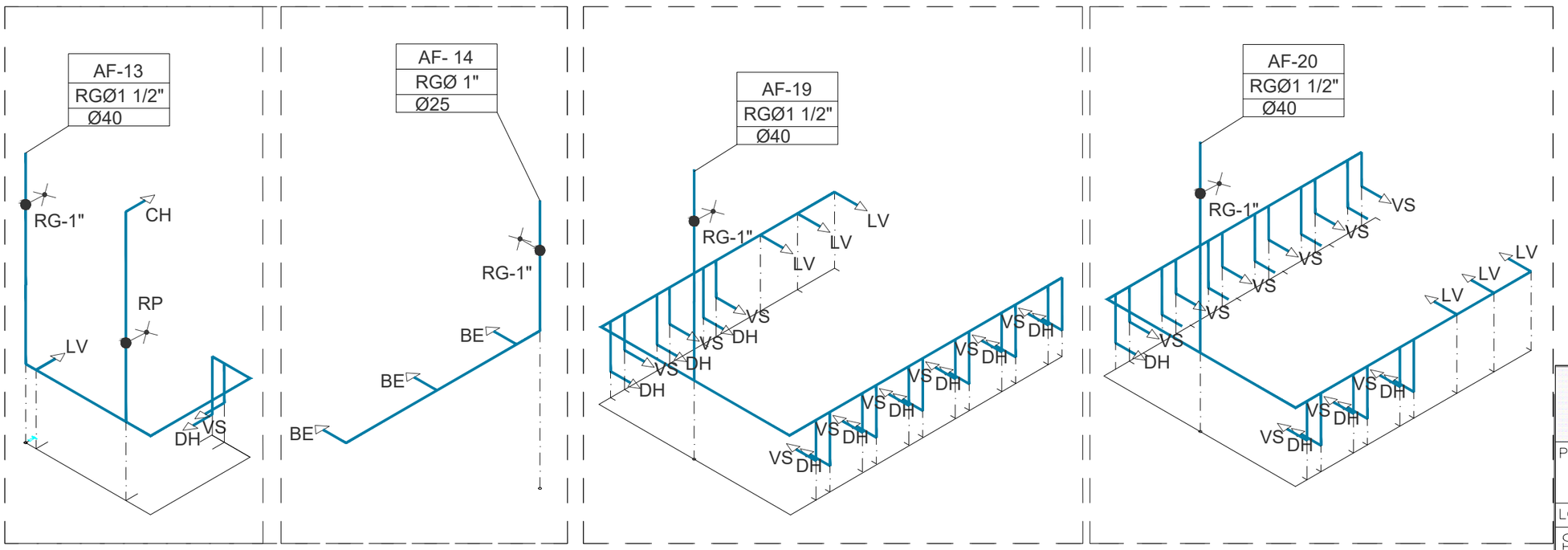
ESC.: 1:75



2 ISOMÉTRICO 05 (HIDRÁULICO)
ESC.: 1:75

3 ISOMÉTRICO 06 (HIDRÁULICO)
ESC.: 1:75

LEGENDA - HIDRÁ

AF–00 / RGØ / Ø	INDICAÇÃO DAS COLUNA DE
	HIDRÔMETRO
.CH	CHUVEIRO.
.DH	DUCHA HIGIENICA
.VS	VASO SANITÁRIO.
.VD	VALVULA DE DESCARGA.
.RG	REGISTRO DE GAVETA
.RP	REGISTRO DE PRESSÃO
.TL	TANQUE DE LAVAR ROUPAS
PIA	PIA DE COZINHA
.LV	LAVATÓRIO
	JOELHO DE 90º VOLTADO PARA BAIXO
	JOELHO 90º SIMPLES OU C/ REDUÇÃO.
	TÊ SIMPLES OU C/ REDUÇÃO.
	TÊ DE 90º VOLTADO PARA BAIXO
	LUVA OU BUCHA DE REDUÇÃO
	REGISTRO DE PRESSÃO
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA NA PAREDE E LAJE.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA PELO PISO.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA NA PAREDE E LAJE.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA PELO PISO.

OBSEVAÇÕES

1) TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL.
2) AS INTERFERÊNCIAS DAS INSTALAÇÕES COM A ESTRUTURA EXISTENTE SERÃO RESOLVIDOS NO TRANSCORRER DA OBRA.

PROCESSO ADMINISTRATIVO 1007 ASSINADO ELETRONICAMENTE

PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO –
CONSTRUÇÃO DE ESCOLA GERALDO GOMES

LOCAL – BOA VISTA, - ITAPIPOCA - CE

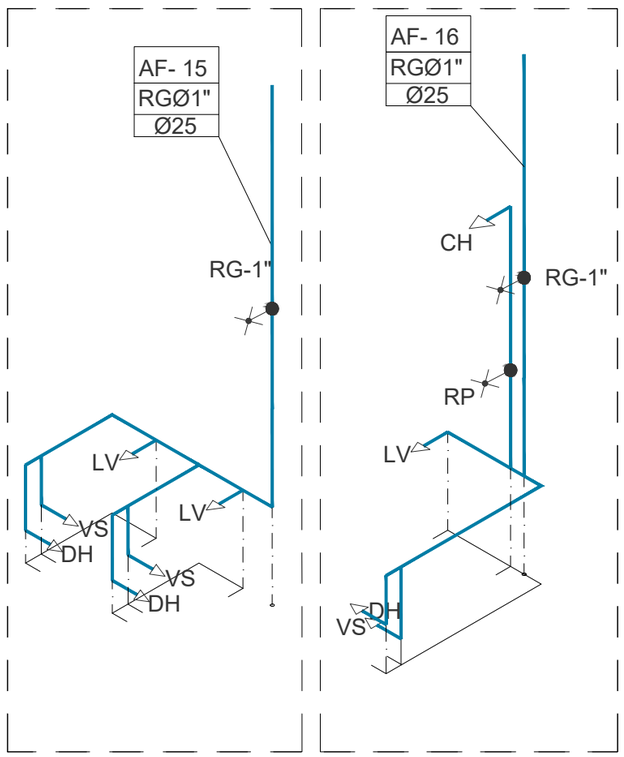
ASSUNTO: DETALHES ISOMÉTRICO- (HIDRÁULICO)

PRANCHA 05/15

RESP. DESENHO

2026

PROCESSO ADMINISTRATIVO
1008
ASSINADO ELETRONICAMENTE



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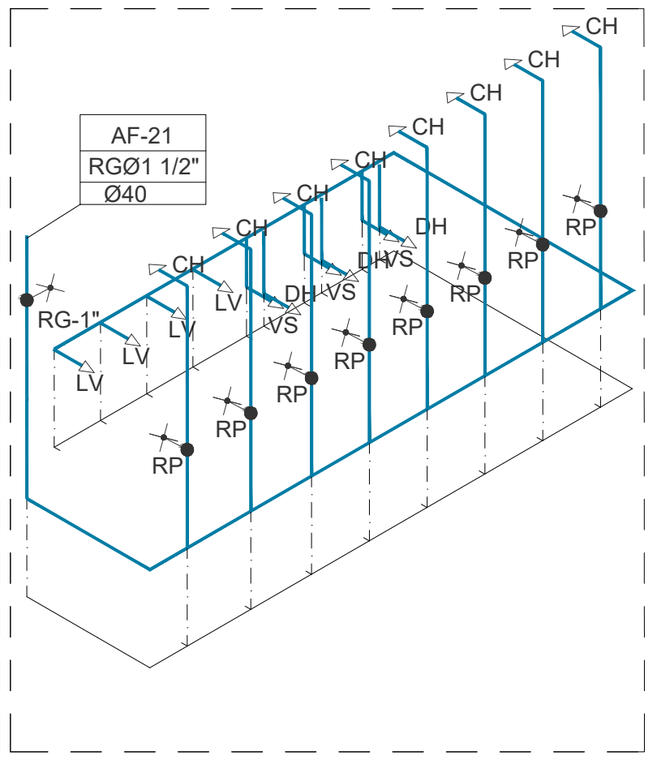
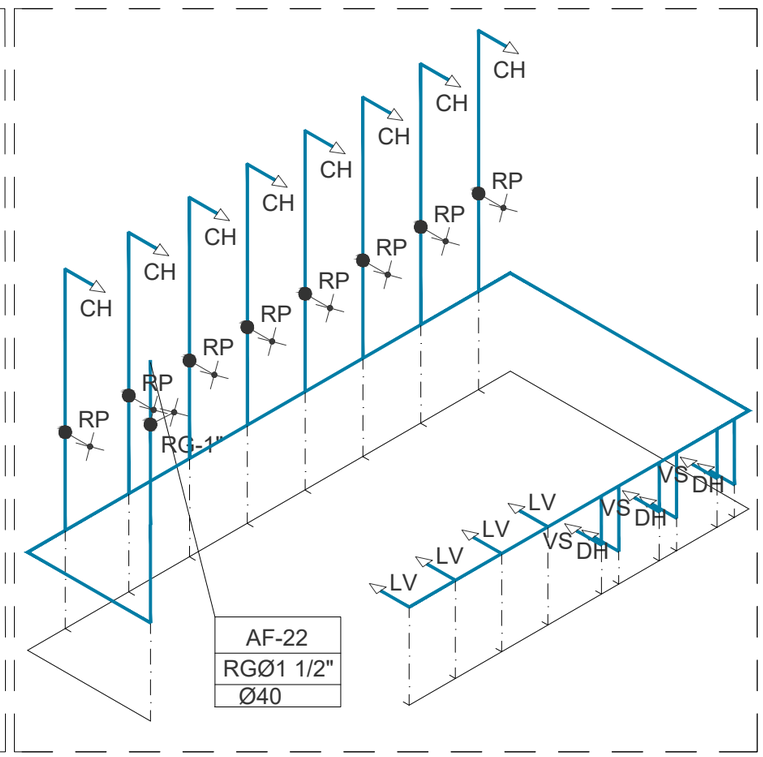
ESC.: 1:75





2 ISOMÉTRICO 08 (HIDRÁULICO)
ESC.: 1:75

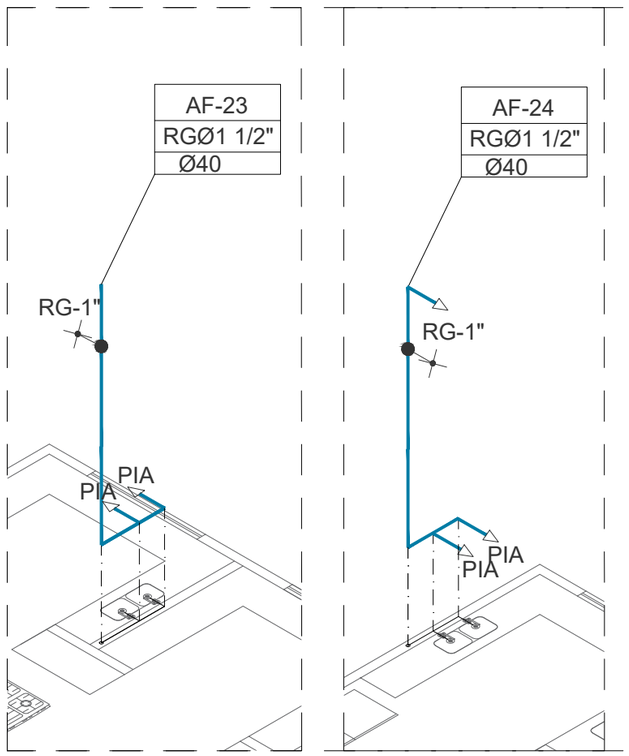
LEGENDA - HIDRÁ

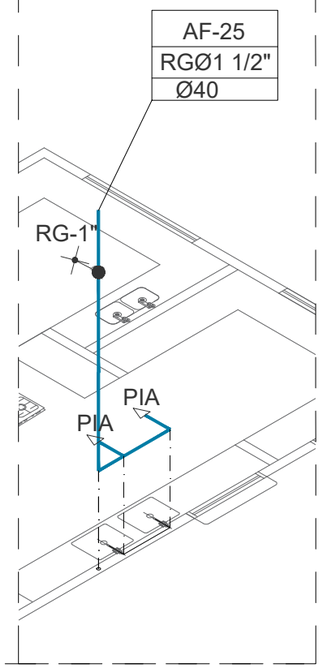
AF–00 / RGØ / Ø	INDICAÇÃO DAS COLUNA DE
	HIDRÔMETRO
.CH	CHUVEIRO.
.DH	DUCHA HIGIENICA
.VS	VASO SANITÁRIO.
.VD	VALVULA DE DESCARGA.
.RG	REGISTRO DE GAVETA
.RP	REGISTRO DE PRESSÃO
.TL	TANQUE DE LAVAR ROUPAS
PIA	PIA DE COZINHA
.LV	LAVATÓRIO
	JOELHO DE 90º VOLTADO PARA BAIXO
	JOELHO 90º SIMPLES OU C/ REDUÇÃO.
	TÊ SIMPLES OU C/ REDUÇÃO.
	TÊ DE 90º VOLTADO PARA BAIXO
	LUVA OU BUCHA DE REDUÇÃO
	REGISTRO DE PRESSÃO
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA NA PAREDE E LAJE.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA PELO PISO.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA NA PAREDE E LAJE.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA PELO PISO.

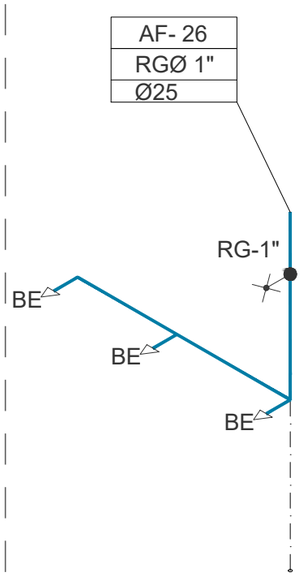
OBSEVAÇÕES

1) TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL.

2) AS INTERFERÊNCIAS DAS INSTALAÇÕES COM A ESTRUTURA EXISTENTE SERÃO RESOLVIDOS NO TRANSCORRER DA OBRA.







3 ISOMÉTRICO 09 (HIDRÁULICO)
ESC.: 1:75

PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO –
CONSTRUÇÃO DE ESCOLA GERALDO GOMES

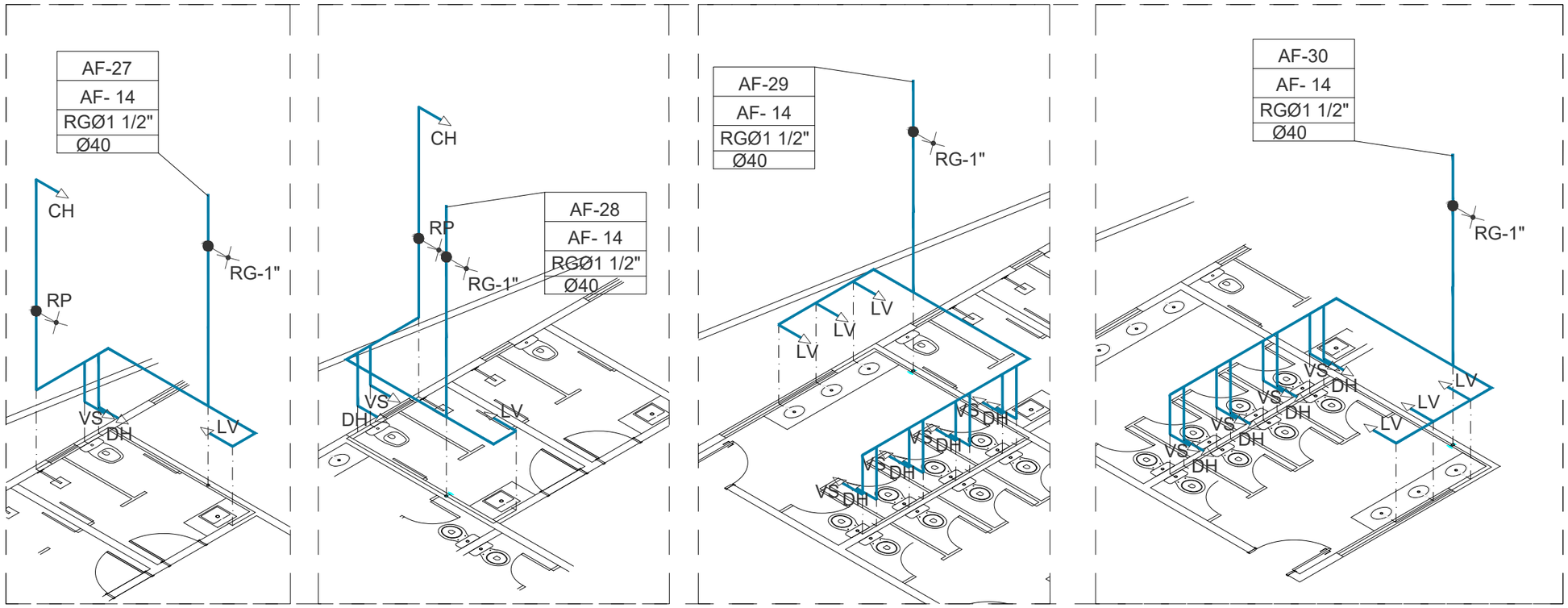
LOCAL – BOA VISTA, - ITAPIPOCA - CE

ASSUNTO: DETALHES ISOMÉTRICO- (HIDRÁULICO)

PRANCHA 06/15

RESP. DESENHO

2026



1 ISOMÉTRICO 10 (HIDRÁULICO)
ESC.: 1:75

LEGENDA - HIDRÁ

AF–00 / RGØ / Ø	INDICAÇÃO DAS COLUNA DE
	HIDRÔMETRO
.CH	CHUVEIRO.
.DH	DUCHA HIGIENICA
.VS	VASO SANITÁRIO.
.VD	VALVULA DE DESCARGA.
.RG	REGISTRO DE GAVETA
.RP	REGISTRO DE PRESSÃO
.TL	TANQUE DE LAVAR ROUPAS
PIA	PIA DE COZINHA
.LV	LAVATÓRIO
	JOELHO DE 90º VOLTADO PARA BAIXO
	JOELHO 90º SIMPLES OU C/ REDUÇÃO.
	TÊ SIMPLES OU C/ REDUÇÃO.
	TÊ DE 90º VOLTADO PARA BAIXO
	LUVA OU BUCHA DE REDUÇÃO
	REGISTRO DE PRESSÃO
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA NA PAREDE E LAJE.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA PELO PISO.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA NA PAREDE E LAJE.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA PELO PISO.

OBSEVAÇÕES

1) TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL.
2) AS INTERFERÊNCIAS DAS INSTALAÇÕES COM A ESTRUTURA EXISTENTE SERÃO RESOLVIDOS NO TRANSCORRER DA OBRA.

PROCESSO ADMINISTRATIVO
1009
ASSINADO ELETRONICAMENTE

PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO –
CONSTRUÇÃO DE ESCOLA GERALDO GOMES

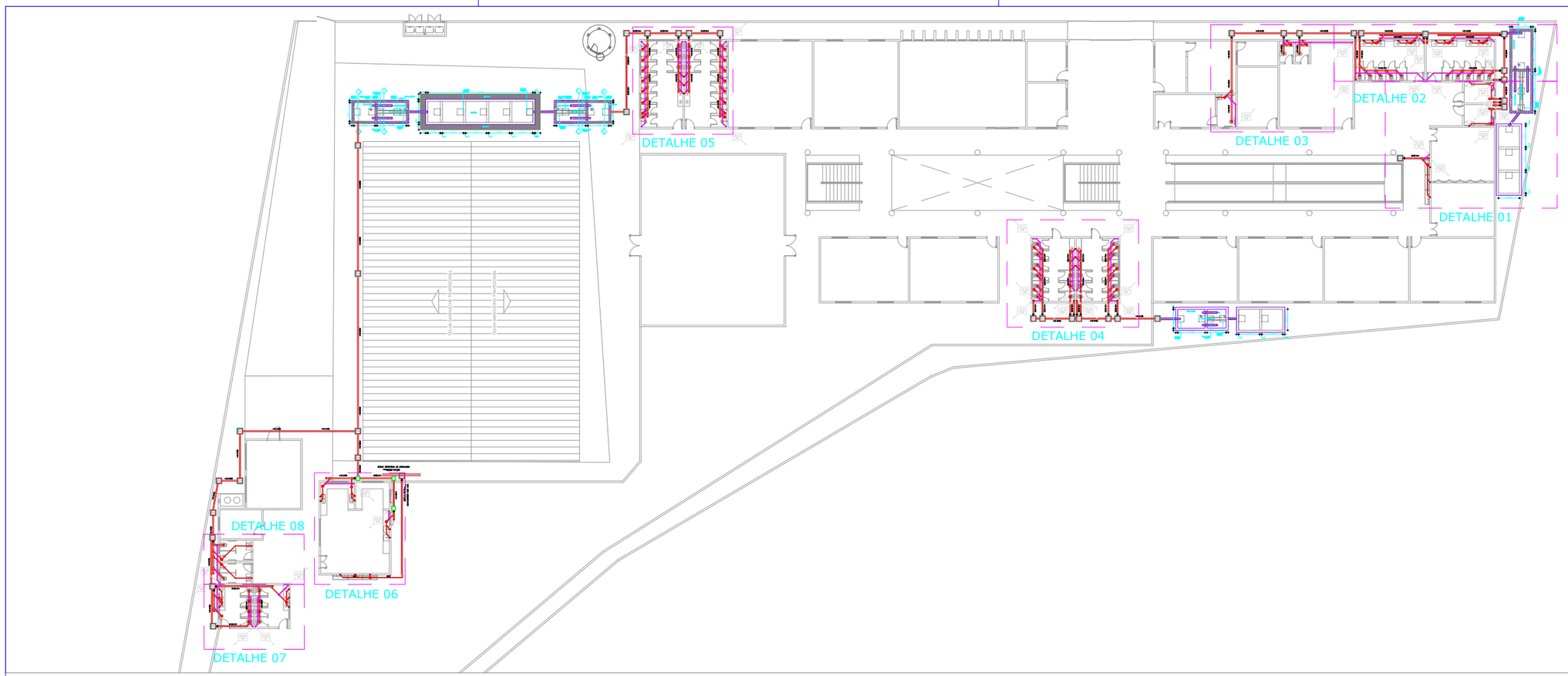
LOCAL – BOA VISTA, - ITAPIPOCA - CE

ASSUNTO: DETALHES ISOMÉTRICO- (HIDRÁULICO)

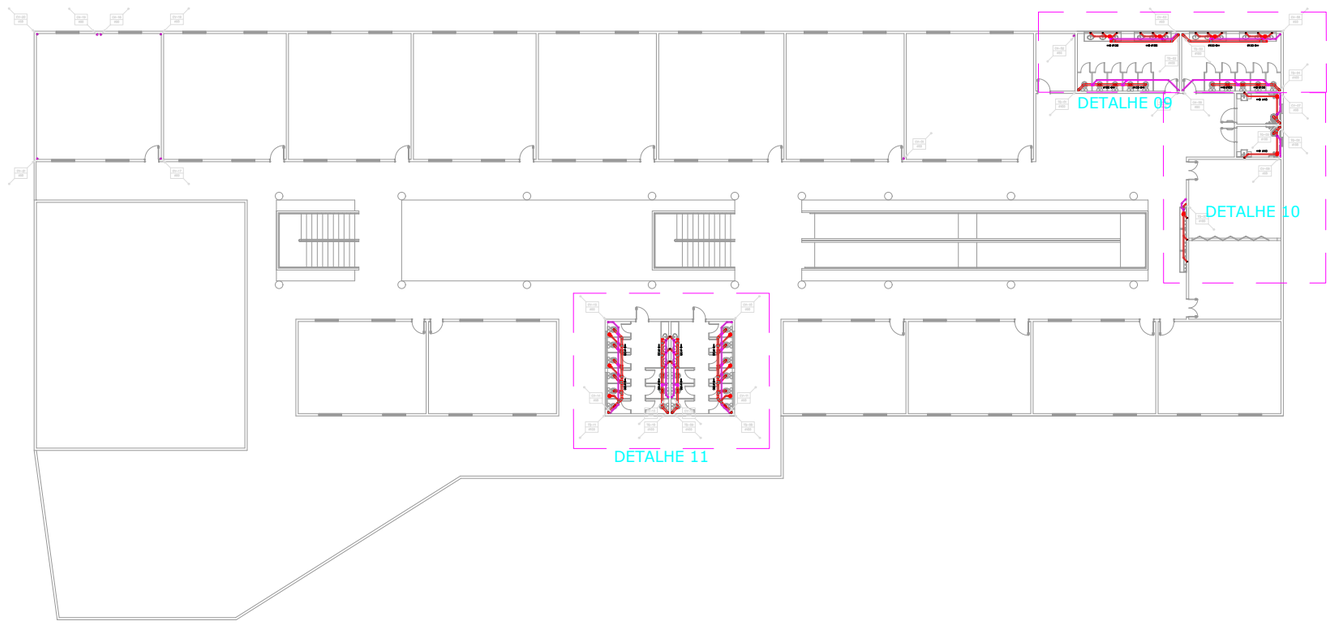
PRANCHA 07 /15

RESP. DESENHO

2026



1 PLANTA BAIXA (SANITÁRIO)
ESC.: 1:400



2 PLANTA BAIXA (SANITÁRIO)
ESC.: 1:400

LEGENDA - HIDRÁ

AF–00 RGØ Ø	INDICAÇÃO DAS COLUNA DE
	HIDRÔMETRO
.CH	CHUVEIRO.
.DH	DUCHA HIGIENICA
.VS	VASO SANITÁRIO.
.VD	VALVULA DE DESCARGA.
.RG	REGISTRO DE GAVETA
.RP	REGISTRO DE PRESSÃO
.TL	TANQUE DE LAVAR ROUPAS
PIA	PIA DE COZINHA
.LV	LAVATÓRIO
	JOELHO DE 90º VOLTADO PARA BAIXO
	JOELHO 90º SIMPLES OU C/ REDUÇÃO.
	TÊ SIMPLES OU C/ REDUÇÃO.
	TÊ DE 90º VOLTADO PARA BAIXO
	LUVA OU BUCHA DE REDUÇÃO
	REGISTRO DE PRESSÃO
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA NA PAREDE E LAJE.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA PELO PISO.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA NA PAREDE E LAJE.
	TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL EMBUTIDA PELO PISO.

OBSEVAÇÕES

1) TUBULAÇÃO DE ÁGUA FRIA EM PVC SOLDÁVEL.
2) AS INTERFERÊNCIAS DAS INSTALAÇÕES COM A ESTRUTURA EXISTENTE SERÃO RESOLVIDOS NO TRANSCORRER DA OBRA.

PROCESSO ADMINISTRATIVO 1010 ASSINADO ELETRONICAMENTE

PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO –
CONSTRUÇÃO DE ESCOLA GERALDO GOMES

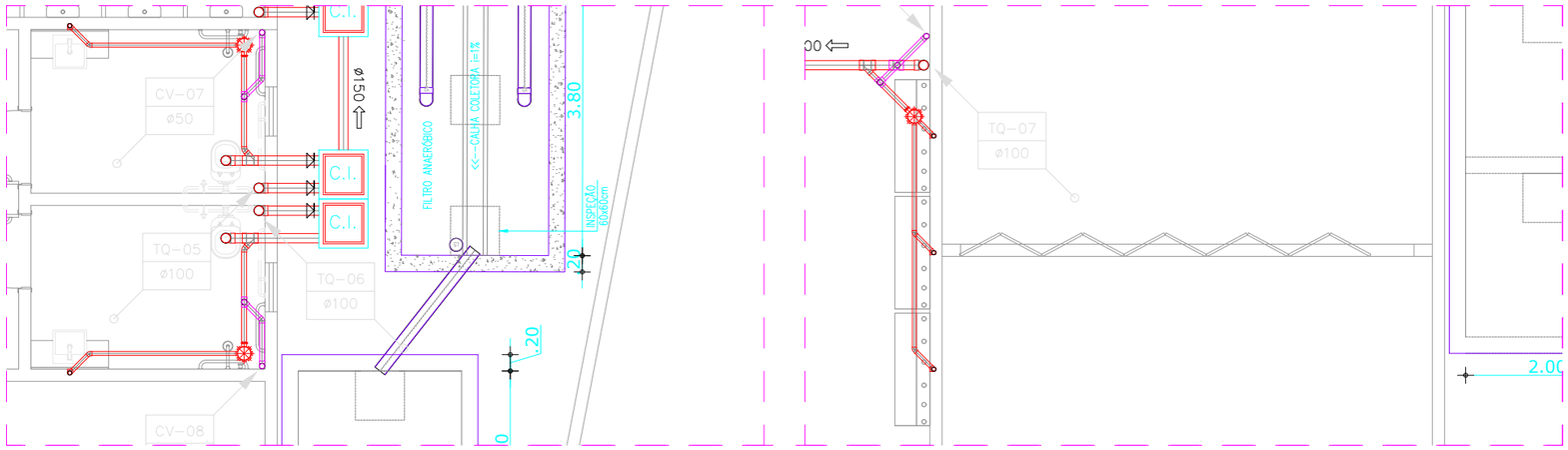
LOCAL – BOA VISTA, - ITAPIPOCA - CE

ASSUNTO: PLANTA BAIXA (SANITÁRIO)

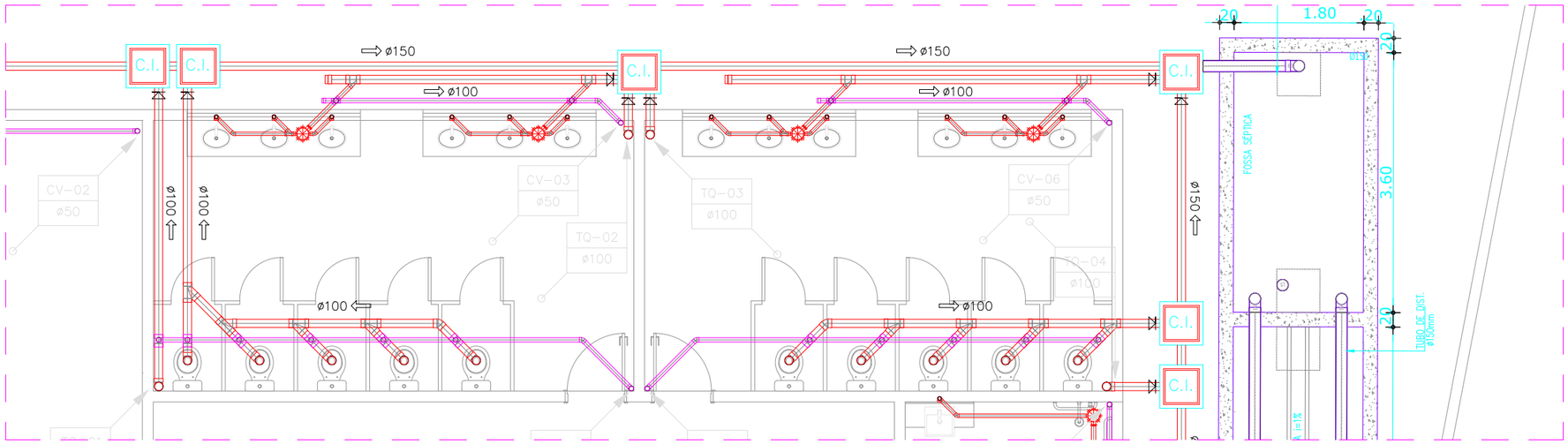
RESP. DESENHO

2026

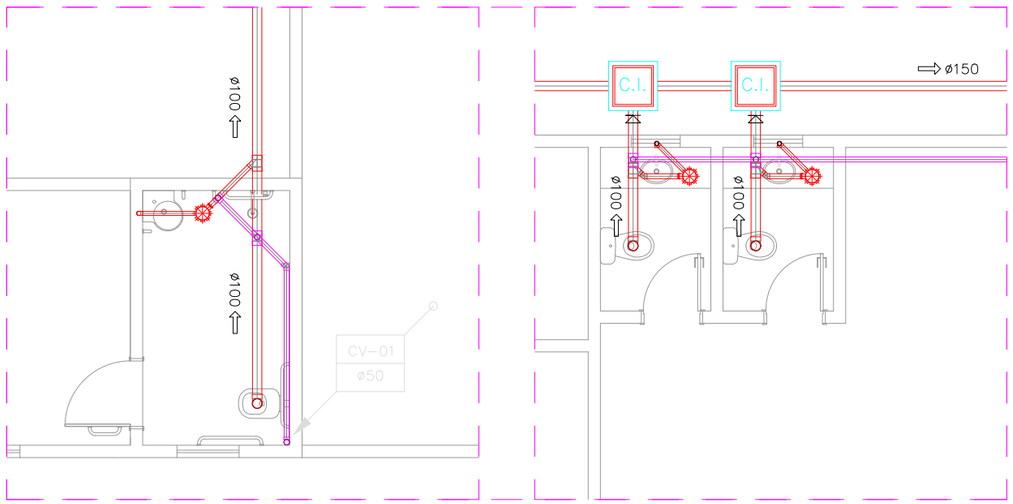
PRANCHA 08 /15



1 DETALHE 01 (SANITÁRIO)
ESC.: 1:75



2 DETALHE 02 (SANITÁRIO)
ESC.: 1:75



3 DETALHE 03 (SANITÁRIO)
ESC.: 1:75

LEGENDA HIDROSSANITÁ

- TUBULAÇÃO DE ESGOTO OU ÁGUAS PLUVIAIS EM PVC SÉRIE NORMAL Ø150,100,75,50 E 40mm.
- CSG — CAIXA SIFONADA 150x150x50mm EM PVC COM PORTA GRELHA QUADRADA E GRELHA REDONDA DEØ150mm.
- RS — RALO SINFONADO CILÍNDRICO 100x40mm EM PVC COM PORTA GRELHA QUADRADA E GRELHA REDONDA DEØ100mm.
- SF — SIFÃO METAL CROMADO - 1"x40mm OU 1.1/2"x50mm
- TV — TERMINAL DE VENTILAÇÃO PVC 50mm
- CV-00 / 50 — INDICAÇÃO DAS COLUNA DE VENTILAÇÃO
- TQ-00 / 50 — INDICAÇÃO DOS TUBOS DE QUEDA DO ESGOTO
- AP-00 / 50 — INDICAÇÃO DAS COLUNA DE ÁGUA PLUVIAL
- AF-00 / 50 — INDICAÇÃO DAS COLUNA DE ÁGUA FRIA
- TUBULAÇÃO QUE SOBE/DESCE/PASSA.
- C.I. — CAIXA DE INSPEÇÃO
- C.S. — CAIXA DE ESGOTO
- C.A. — CAIXA DE AREIA
- C.G. — CAIXA DE GORDURA

OBSERVAÇÕES:

1) DECLIVIDADES MÍNIMAS SANITÁRIA:
Ø100mm - INC=1,0%
Ø75mm - INC=2,0%
Ø50mm - INC=2,0%
Ø40mm - INC=3,0%

2) TODA TUBULAÇÃO E CONEXÕES DE ESGOTO E ÁGUAS PLUVIAIS EM PVC SÉRIE NORMAL.

3) TODA TUBULAÇÃO DE VENTILAÇÃO DEVERÁ CONTER TERMINAL EM PVC. ESTE TERMINAL DE VENTILAÇÃO DEVERÁ FICAR A 30cm DA COBERTA.

4) AS INTERFERÊNCIAS DAS INSTALAÇÕES COM A ESTRUTURA EXISTENTE SERÃO RESOLVIDAS NO TRANSCORRER DA OBRA.

PROCESSO ADMINISTRATIVO 1011 ASSINADO ELETRONICAMENTE

PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO –
CONSTRUÇÃO DE ESCOLA GERALDO GOMES

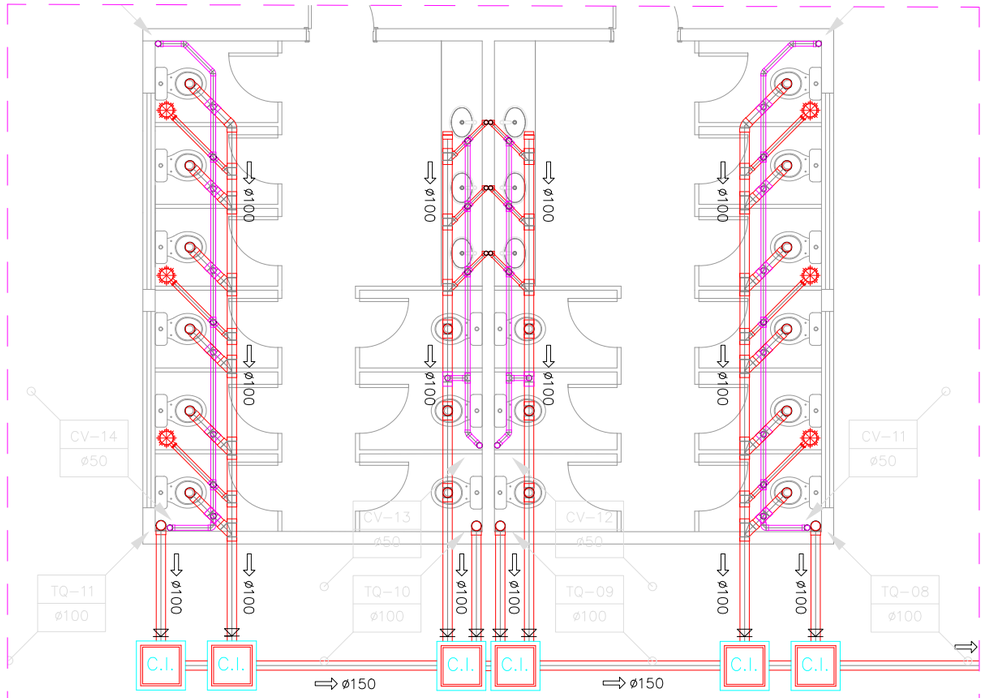
LOCAL – BOA VISTA, - ITAPIPOCA - CE

ASSUNTO: DETALHES (SANITÁRIO)

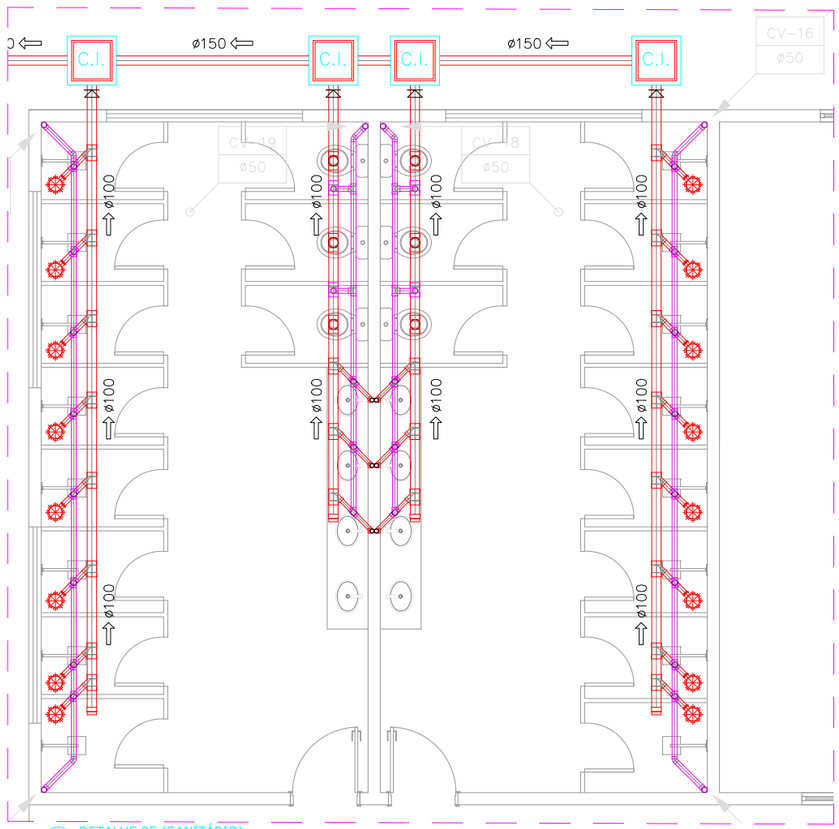
PRANCHA 08/15

RESP. DESENHO

2026



1 DETALHE 04 (SANITÁRIO)
ESC.: 1:75



2 DETALHE 05 (SANITÁRIO)
ESC.: 1:75

LEGENDA HIDROSSANITÁ

- TUBULAÇÃO DE ESGOTO OU ÁGUAS PLUVIAIS EM PVC SÉRIE NORMAL Ø150,100,75,50 E 40mm.
- CSG — CAIXA SIFONADA 150x150x50mm EM PVC COM PORTA GRELHA QUADRADA E GRELHA REDONDA DEØ150mm.
- RS — RALO SINFONADO CILÍNDRICO 100x40mm EM PVC COM PORTA GRELHA QUADRADA E GRELHA REDONDA DEØ100mm.
- SF — SIFÃO METAL CROMADO - 1"x40mm OU 1.1/2"x50mm
- TV — TERMINAL DE VENTILAÇÃO PVC 50mm
- CV-00 50 — INDICAÇÃO DAS COLUNA DE VENTILAÇÃO
- TQ-00 50 — INDICAÇÃO DOS TUBOS DE QUEDA DO ESGOTO
- AP-00 50 — INDICAÇÃO DAS COLUNA DE ÁGUA PLUVIAL
- AF-00 50 — INDICAÇÃO DAS COLUNA DE ÁGUA FRIA
- TUBULAÇÃO QUE SOBE/DESCE/PASSA.
- C.I. — CAIXA DE INSPEÇÃO
- C.S. — CAIXA DE ESGOTO
- C.A. — CAIXA DE AREIA
- C.G. — CAIXA DE GORDURA

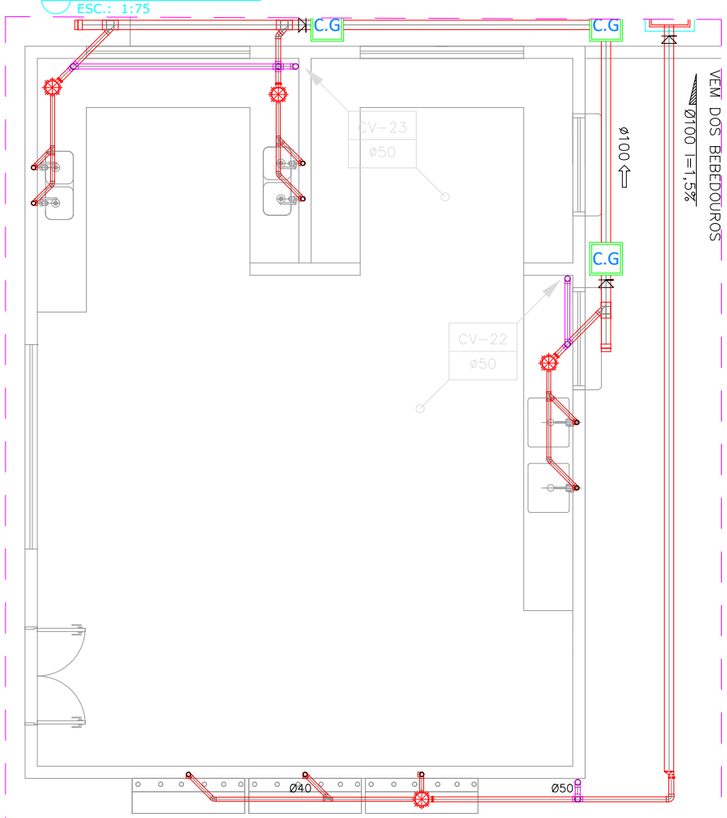
OBSERVAÇÕES:

1) DECLIVIDADES MÍNIMAS SANITÁRIA:
Ø100mm - INC=1,0%
Ø75mm - INC=2,0%
Ø50mm - INC=2,0%
Ø40mm - INC=3,0%

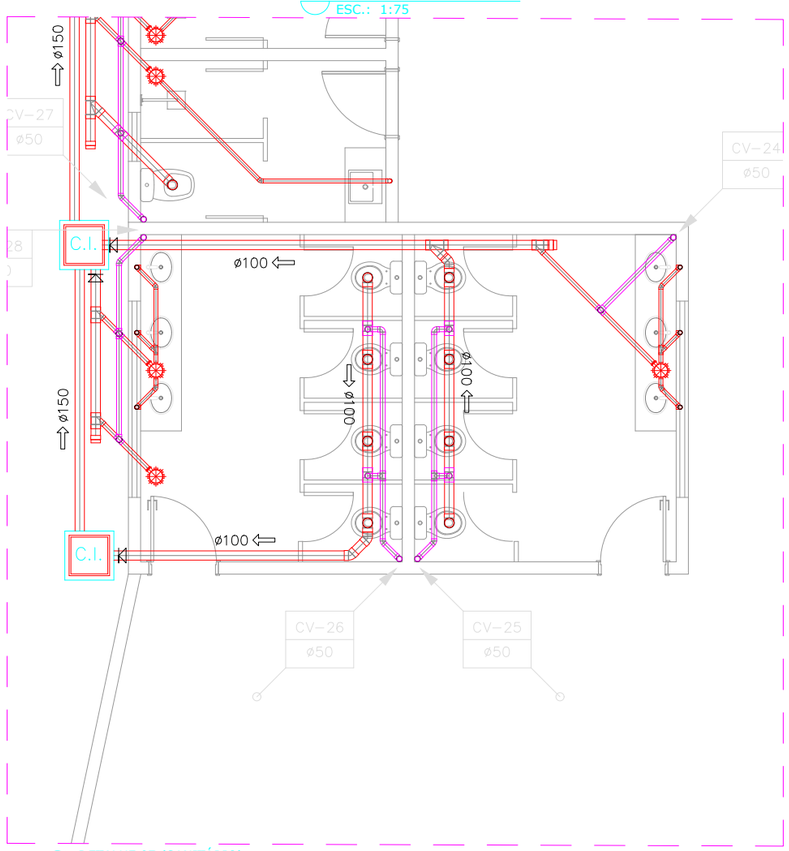
2) TODA TUBULAÇÃO E CONEXÕES DE ESGOTO E ÁGUAS PLUVIAIS EM PVC SÉRIE NORMAL.

3) TODA TUBULAÇÃO DE VENTILAÇÃO DEVERÁ CONTER TERMINAL EM PVC. ESTE TERMINAL DE VENTILAÇÃO DEVERÁ FICAR A 30cm DA COBERTA.

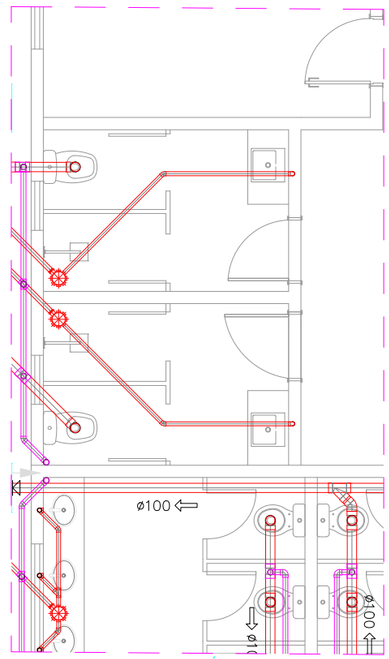
4) AS INTERFERÊNCIAS DAS INSTALAÇÕES COM A ESTRUTURA EXISTENTE SERÃO RESOLVIDAS NO TRANSCORRER DA OBRA.



3 DETALHE 06 (SANITÁRIO)
ESC.: 1:75



4 DETALHE 07 (SANITÁRIO)
ESC.: 1:75



5 DETALHE 08 (SANITÁRIO)
ESC.: 1:75

PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO – CONSTRUÇÃO DE ESCOLA GERALDO GOMES

LOCAL – BOA VISTA, - ITAPIPOCA - CE

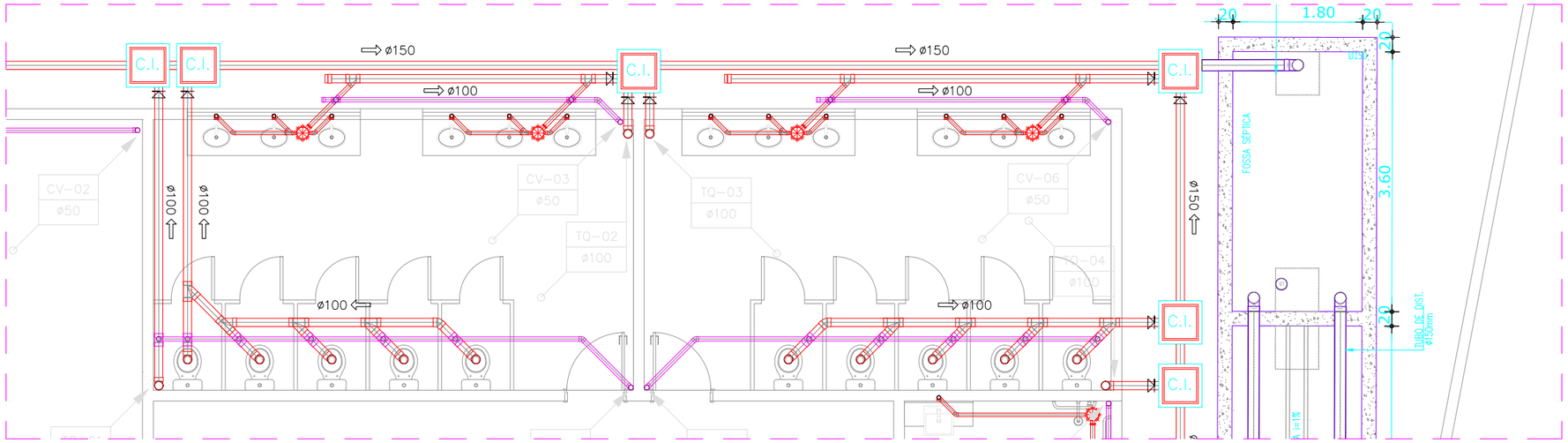
ASSUNTO: DETALHES (SANITÁRIO)

RESP. DESENHO

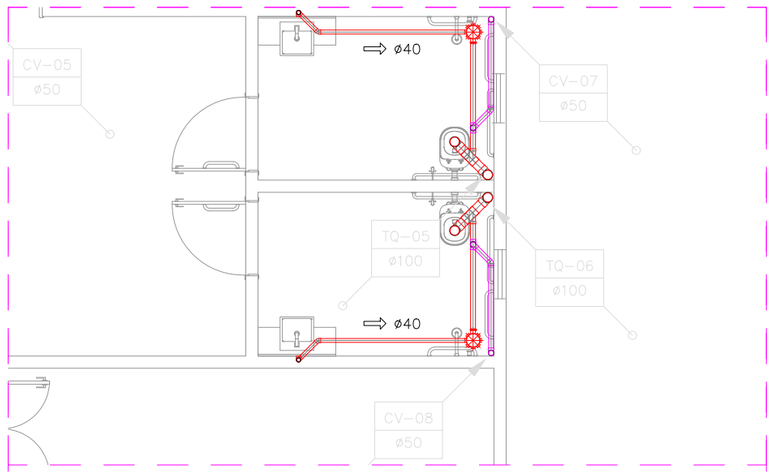
2026

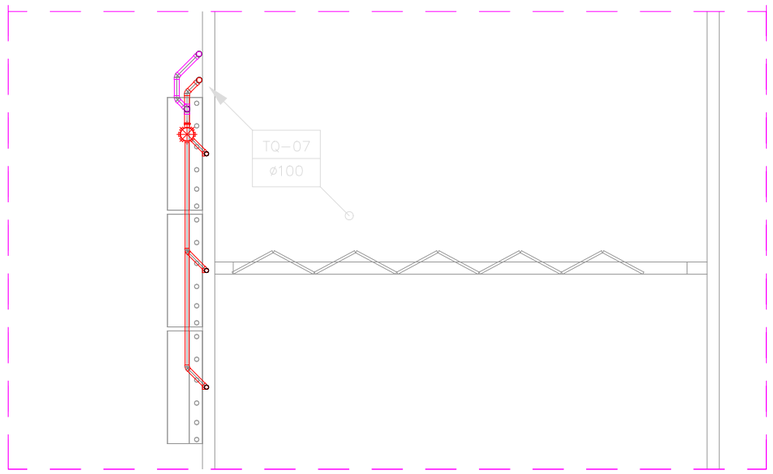
PRANCHA 10 /15

PROCESSO ADMINISTRATIVO 1012 ASSINADO ELETRONICAMENTE

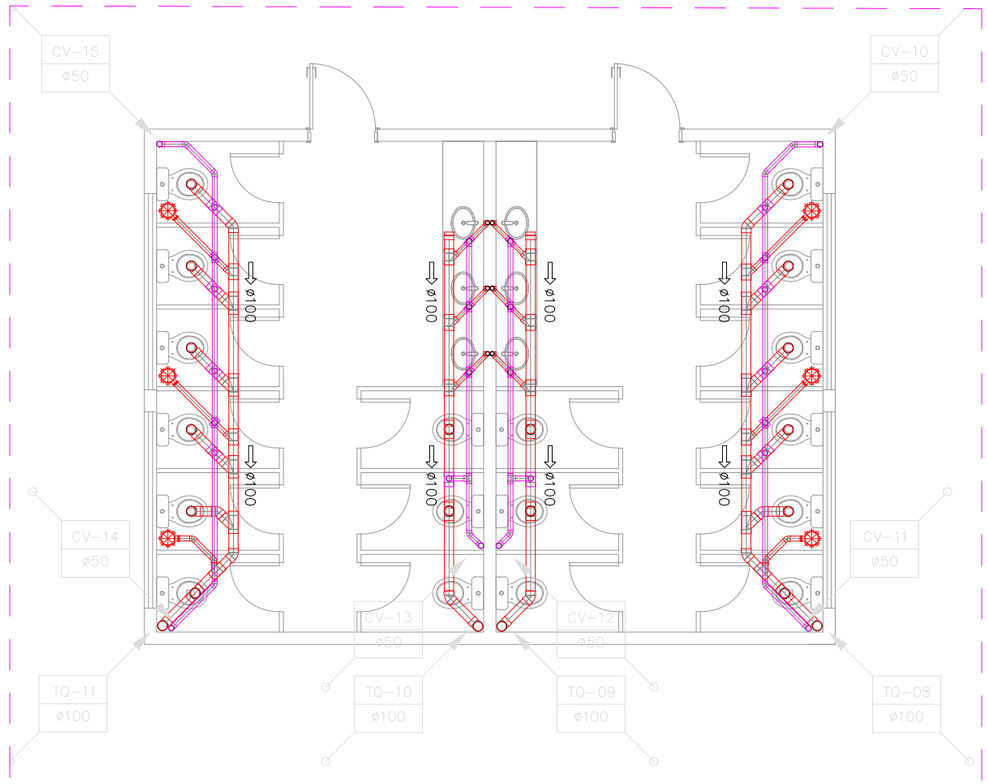


2 DETALHE 09 (SANITÁRIO)
ESC.: 1:75





2 DETALHE 10 (SANITÁRIO)
ESC.: 1:75



3 DETALHE 11 (SANITÁRIO)
ESC.: 1:75

LEGENDA HIDROSSANITÁRIA

- TUBULAÇÃO DE ESGOTO OU ÁGUAS PLUVIAIS EM PVC SÉRIE NORMAL Ø150,100,75,50 E 40mm.
- CSG — CAIXA SIFONADA 150x150x50mm EM PVC COM PORTA GRELHA QUADRADA E GRELHA REDONDA DEØ150mm.
- RS — RALO SINFONADO CILÍNDRICO 100x40mm EM PVC COM PORTA GRELHA QUADRADA E GRELHA REDONDA DEØ100mm.
- SF — SIFÃO METAL CROMADO - 1"x40mm OU 1.1/2"x50mm
- TV — TERMINAL DE VENTILAÇÃO PVC 50mm
- CV-00 / 50 — INDICAÇÃO DAS COLUNA DE VENTILAÇÃO
- TQ-00 / 50 — INDICAÇÃO DOS TUBOS DE QUEDA DO ESGOTO
- AP-00 / 50 — INDICAÇÃO DAS COLUNA DE ÁGUA PLUVIAL
- AF-00 / 50 — INDICAÇÃO DAS COLUNA DE ÁGUA FRIA
- TUBULAÇÃO QUE SOBE/DESCE/PASSA.
- C.I. — CAIXA DE INSPEÇÃO
- C.S. — CAIXA DE ESGOTO
- C.A. — CAIXA DE AREIA
- C.G. — CAIXA DE GORDURA

OBSERVAÇÕES:

1) DECLIVIDADES MÍNIMAS SANITÁRIA:
Ø100mm - INC=1,0%
Ø75mm - INC=2,0%
Ø50mm - INC=2,0%
Ø40mm - INC=3,0%

2) TODA TUBULAÇÃO E CONEXÕES DE ESGOTO E ÁGUAS PLUVIAIS EM PVC SÉRIE NORMAL.

3) TODA TUBULAÇÃO DE VENTILAÇÃO DEVERÁ CONTER TERMINAL EM PVC. ESTE TERMINAL DE VENTILAÇÃO DEVERÁ FICAR A 30cm DA COBERTA.

4) AS INTERFERÊNCIAS DAS INSTALAÇÕES COM A ESTRUTURA EXISTENTE SERÃO RESOLVIDAS NO TRANSCORRER DA OBRA.

PROCESSO ADMINISTRATIVO 1013 ASSINADO ELETRONICAMENTE

PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO –
CONSTRUÇÃO DE ESCOLA GERALDO GOMES

LOCAL – BOA VISTA, - ITAPIPOCA - CE

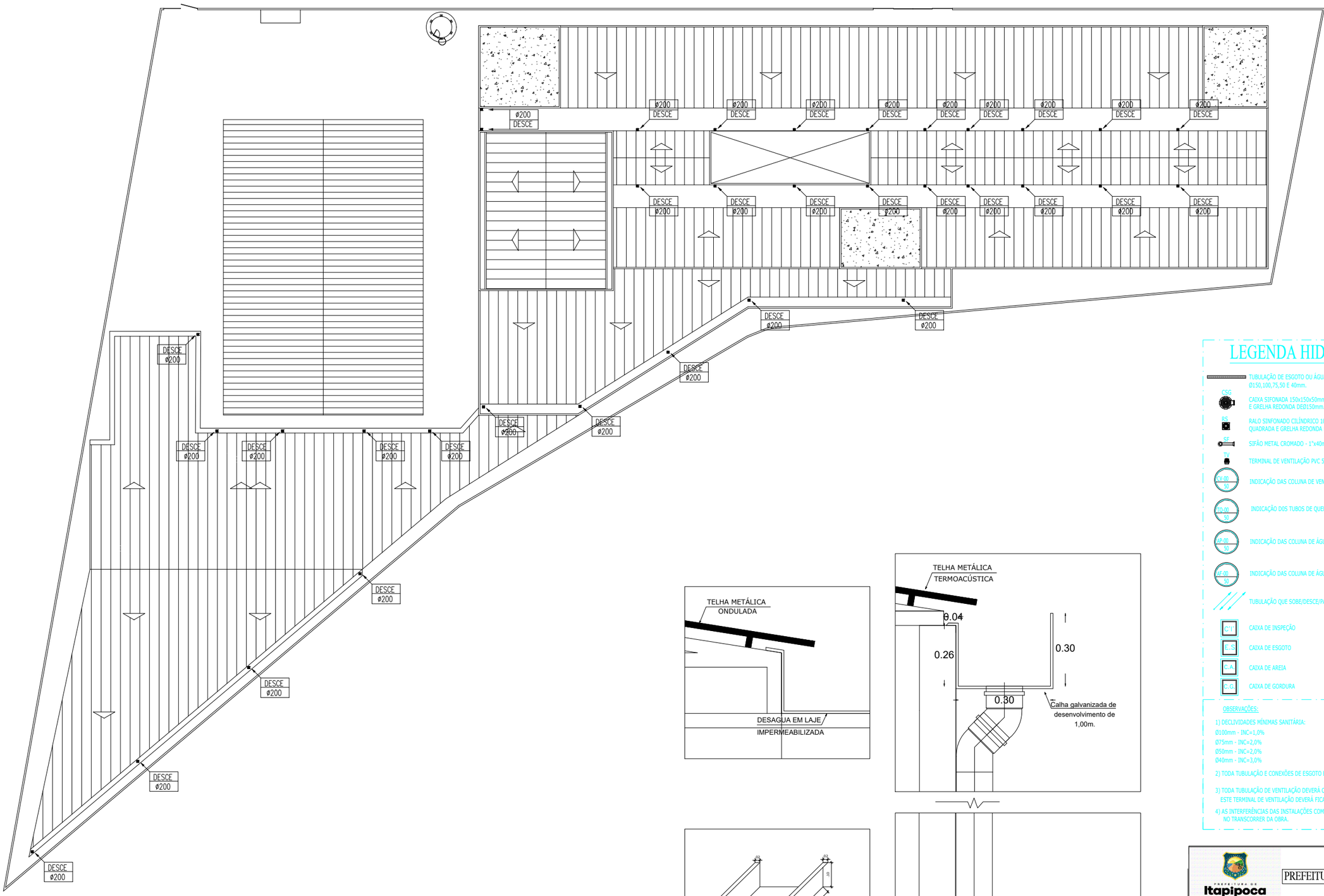
ASSUNTO: DETALHES (SANITÁRIO)

PRANCHA 11 /15

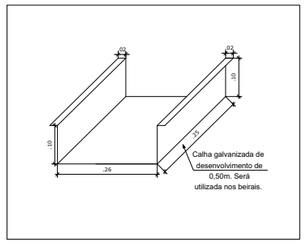
RESP. DESENHO

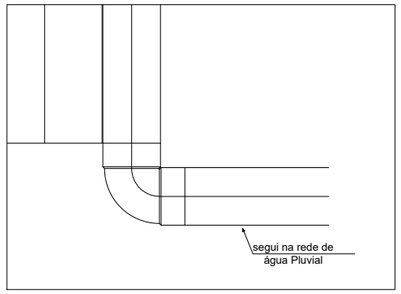
2026

PROCESSO ADMINISTRATIVO
1014
ASSINADO ELETRONICAMENTE



1 PLANTA BAIXA (PLUVIA)
ESC.: 1:400





2 DETALHE CALHA
ESC.: s:e

LEGENDA HIDROSSANITÁRIA

- TUBULAÇÃO DE ESGOTO OU ÁGUAS PLUVIAIS EM PVC SÉRIE NORMAL Ø150,100,75,50 E 40mm.
- CSG — CAIXA SIFONADA 150x150x50mm EM PVC COM PORTA GRELHA QUADRADA E GRELHA REDONDA DE0150mm.
- RS — RALO SINFONADO CILÍNDRICO 100x40mm EM PVC COM PORTA GRELHA QUADRADA E GRELHA REDONDA DE0100mm.
- SF — SIFÃO METAL CROMADO - 1"x40mm OU 1.1/2"x50mm
- TV — TERMINAL DE VENTILAÇÃO PVC 50mm
- CV-00 / 50 — INDICAÇÃO DAS COLUNA DE VENTILAÇÃO
- TQ-00 / 50 — INDICAÇÃO DOS TUBOS DE QUEDA DO ESGOTO
- AP-00 / 50 — INDICAÇÃO DAS COLUNA DE ÁGUA PLUVIAL
- AF-00 / 50 — INDICAÇÃO DAS COLUNA DE ÁGUA FRIA
- TUBULAÇÃO QUE SOBE/DESCE/PASSA.
- C.I. — CAIXA DE INSPEÇÃO
- C.E. — CAIXA DE ESGOTO
- C.A. — CAIXA DE AREIA
- C.G. — CAIXA DE GORDURA

OBSERVAÇÕES:

1) DECLIVIDADES MÍNIMAS SANITÁRIA:
Ø100mm - INC=1,0%
Ø75mm - INC=2,0%
Ø50mm - INC=2,0%
Ø40mm - INC=3,0%

2) TODA TUBULAÇÃO E CONEXÕES DE ESGOTO E ÁGUAS PLUVIAIS EM PVC SÉRIE NORMAL.

3) TODA TUBULAÇÃO DE VENTILAÇÃO DEVERÁ CONTER TERMINAL EM PVC. ESTE TERMINAL DE VENTILAÇÃO DEVERÁ FICAR A 30cm DA COBERTA.

4) AS INTERFERÊNCIAS DAS INSTALAÇÕES COM A ESTRUTURA EXISTENTE SERÃO RESOLVIDAS NO TRANSCORRER DA OBRA.

PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO — CONSTRUÇÃO DE ESCOLA GERALDO GOMES

LOCAL — BOA VISTA, - ITAPIPOCA - CE

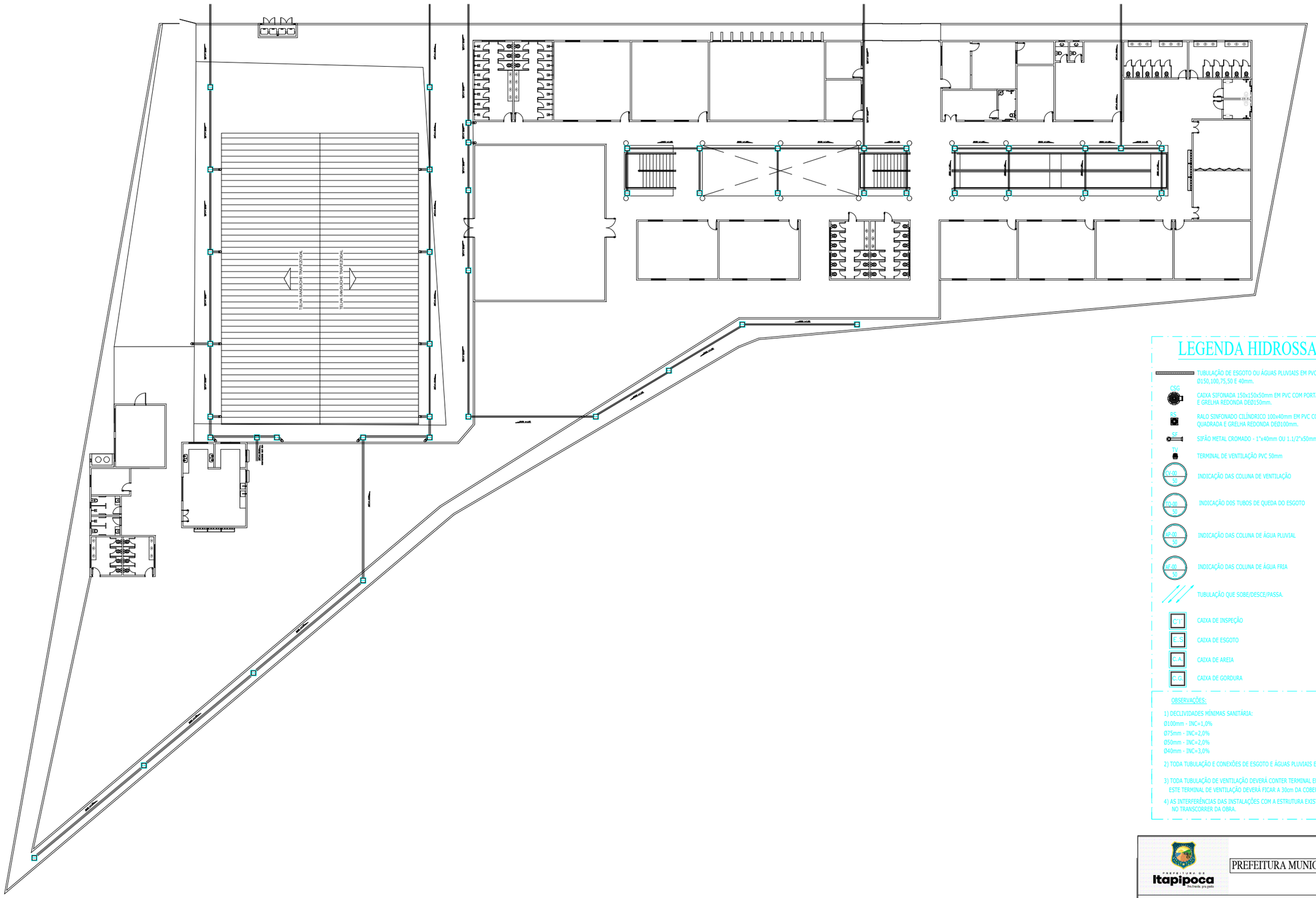
ASSUNTO: PLUVIA

RESP. DESENHO

2026

PRANCHA 12 /15

PROCESSO ADMINISTRATIVO
1015
ASSINADO ELETRONICAMENTE



1 PLANTA BAIXA (PLUVIA)
ESC.: 1:400

LEGENDA HIDROSSANITÁRIA

- TUBULAÇÃO DE ESGOTO OU ÁGUAS PLUVIAIS EM PVC SÉRIE NORMAL Ø150,100,75,50 E 40mm.
- CSG — CAIXA SIFONADA 150x150x50mm EM PVC COM PORTA GRELHA QUADRADA E GRELHA REDONDA DE Ø150mm.
- RS — RALO SINFONADO CILÍNDRICO 100x40mm EM PVC COM PORTA GRELHA QUADRADA E GRELHA REDONDA DE Ø100mm.
- SF — SIFÃO METAL CROMADO - 1"x40mm OU 1.1/2"x50mm
- TV — TERMINAL DE VENTILAÇÃO PVC 50mm
- CV-00 / 50 — INDICAÇÃO DAS COLUNA DE VENTILAÇÃO
- TQ-00 / 50 — INDICAÇÃO DOS TUBOS DE QUEDA DO ESGOTO
- AP-00 / 50 — INDICAÇÃO DAS COLUNA DE ÁGUA PLUVIAL
- AF-00 / 50 — INDICAÇÃO DAS COLUNA DE ÁGUA FRIA
- TUBULAÇÃO QUE SOBE/DESCE/PASSA.
- CI — CAIXA DE INSPEÇÃO
- C.S. — CAIXA DE ESGOTO
- C.A. — CAIXA DE AREIA
- C.G. — CAIXA DE GORDURA

OBSERVAÇÕES:

1) DECLIVIDADES MÍNIMAS SANITÁRIA:
Ø100mm - INC=1,0%
Ø75mm - INC=2,0%
Ø50mm - INC=2,0%
Ø40mm - INC=3,0%

2) TODA TUBULAÇÃO E CONEXÕES DE ESGOTO E ÁGUAS PLUVIAIS EM PVC SÉRIE NORMAL.

3) TODA TUBULAÇÃO DE VENTILAÇÃO DEVERÁ CONTER TERMINAL EM PVC. ESTE TERMINAL DE VENTILAÇÃO DEVERÁ FICAR A 30cm DA COBERTA.

4) AS INTERFERÊNCIAS DAS INSTALAÇÕES COM A ESTRUTURA EXISTENTE SERÃO RESOLVIDAS NO TRANSCORRER DA OBRA.

PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO –
CONSTRUÇÃO DE ESCOLA GERALDO GOMES

LOCAL – BOA VISTA, - ITAPIPOCA - CE

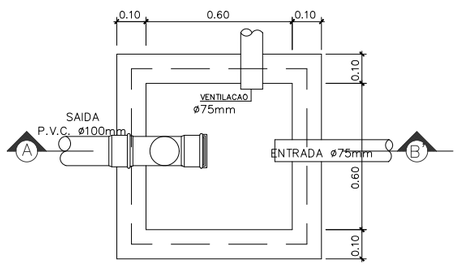
ASSUNTO: DETALHES (SANITÁRIO)

PRANCHA 13 /15

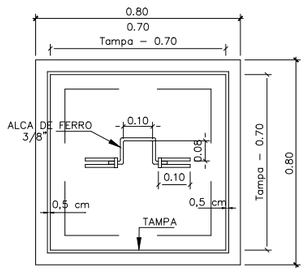
RESP. DESENHO

2026

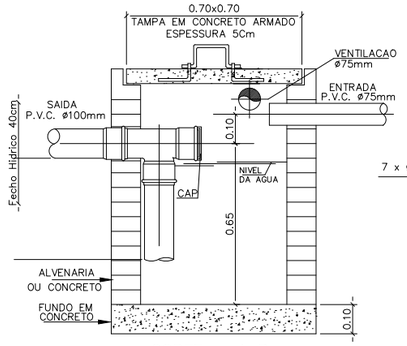
PROCESSO ADMINISTRATIVO
1016
ASSINADO ELETRONICAMENTE



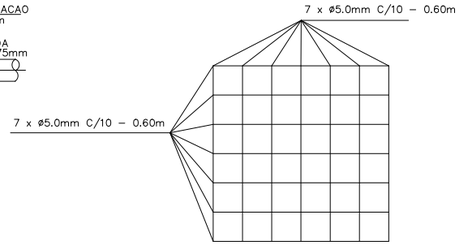
PLANTA BAIXA



VISTA SUPERIOR.

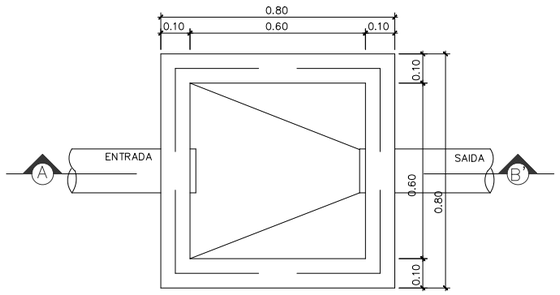


CORTE – A B

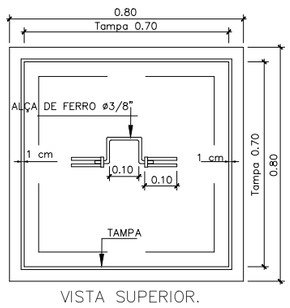


FERRAGEM DA TAMPA

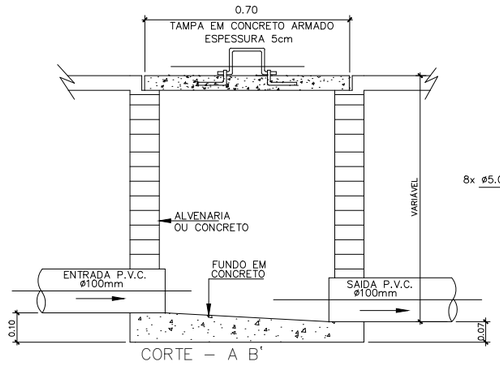
DETALHE EXECUTIVO DE ESGOTO
CAIXA DE GORDURA (Capacidade 216 litros)



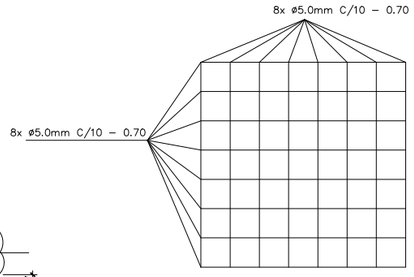
PLANTA BAIXA



VISTA SUPERIOR.

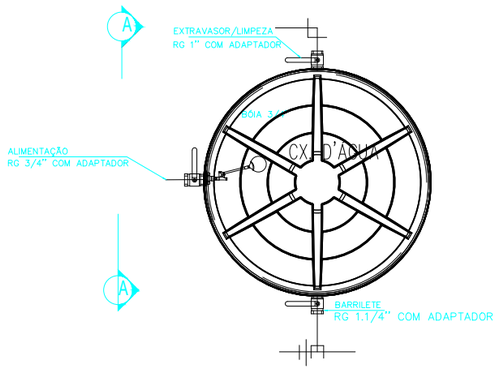


CORTE – A B'

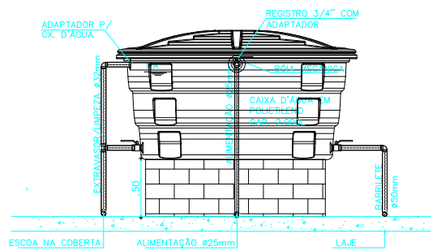


FERRAGEM DA TAMPA

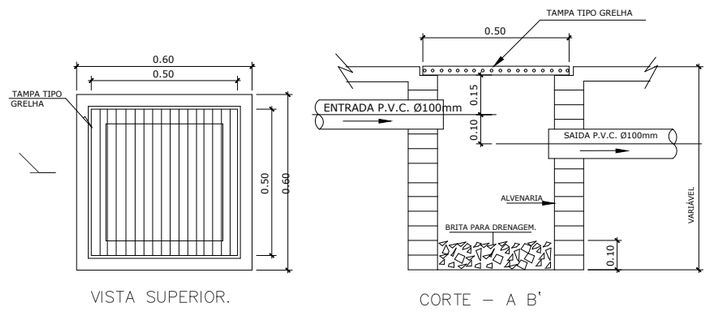
DETALHE EXECUTIVO DE ESGOTO
CAIXA DE INSPERÇÃO 60x60 – TAMPA DE CONCRETO



PLANTA BAIXA– CAIXA D'ÁGUA
ESCALA: S/E



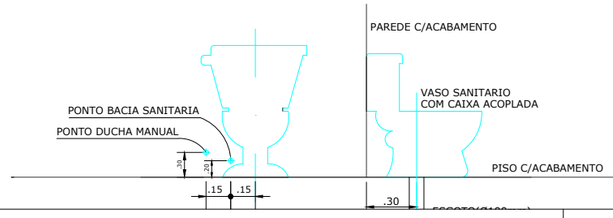
CORTE AA – CAIXA D'ÁGUA
ESCALA: S/E

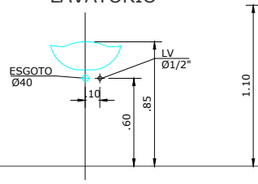


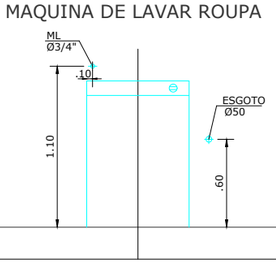
VISTA SUPERIOR.

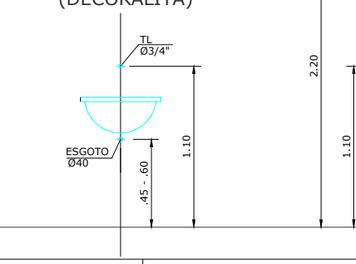
CORTE – A B'

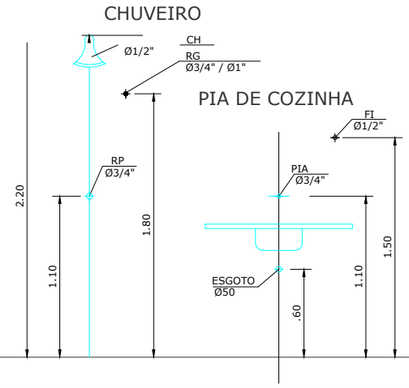
DETALHE EXECUTIVO DE ESGOTO
CAIXA DE AREIA 50x50 C/ TAMPA GRELHA











PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO –
CONSTRUÇÃO DE ESCOLA GERALDO GOMES

LOCAL – BOA VISTA, - ITAPIPOCA - CE

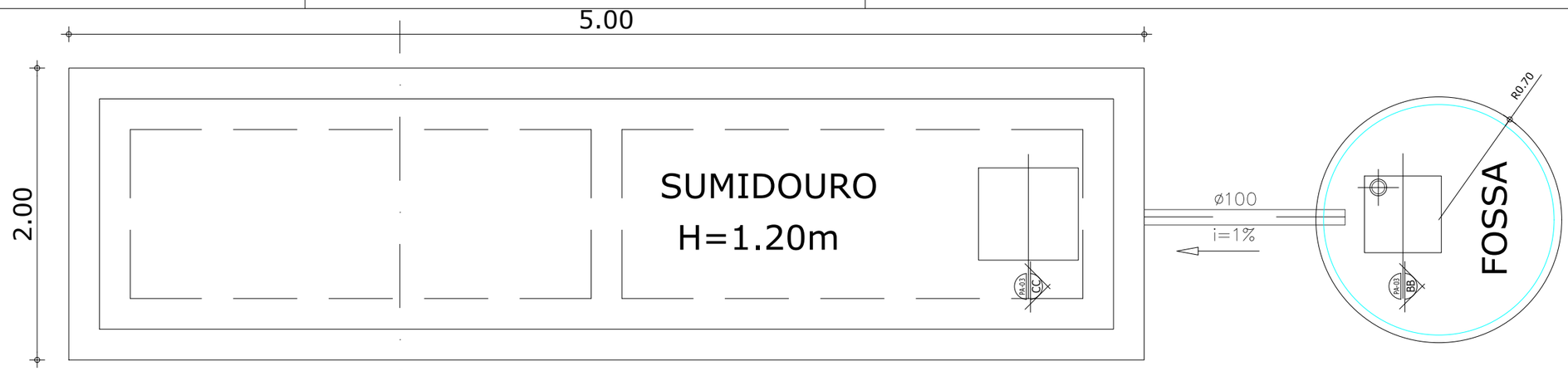
ASSUNTO: DETALHES CONSTRUTIVOS- (HIDROSSANITÁRIO)

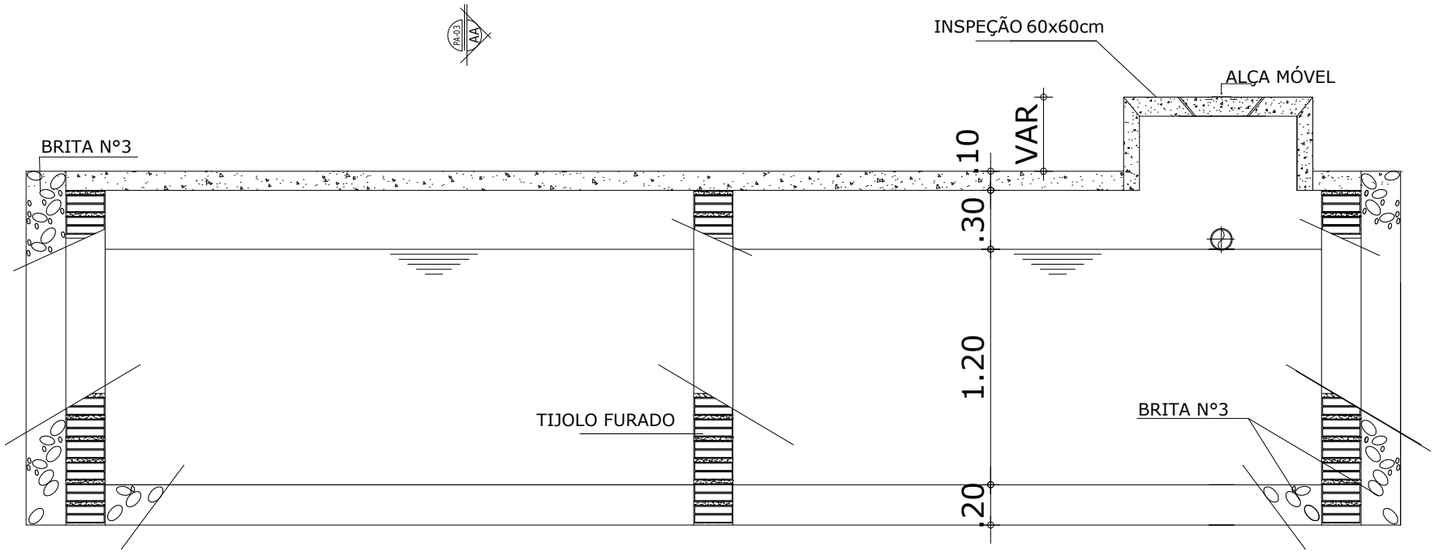
PRANCHA 14 /15

RESP. DESENHO

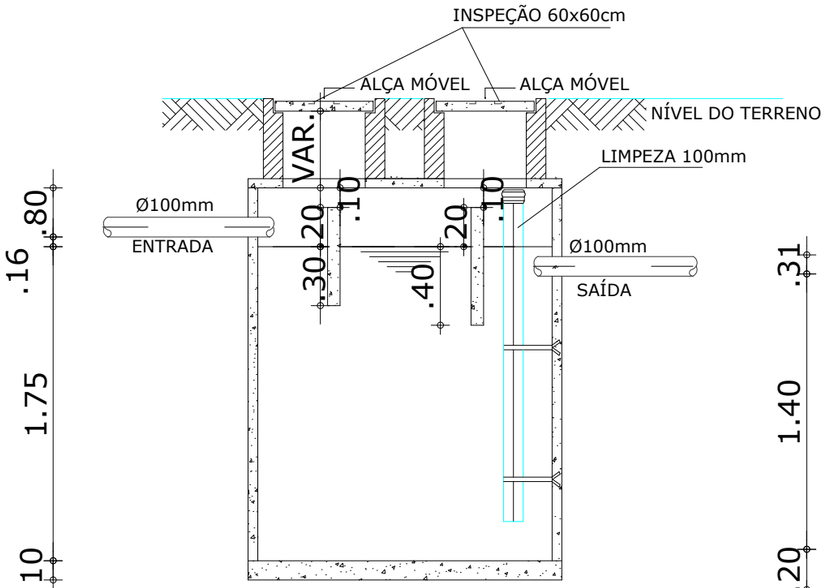
2026

PROCESSO ADMINISTRATIVO
1017
ASSINADO ELETRONICAMENTE



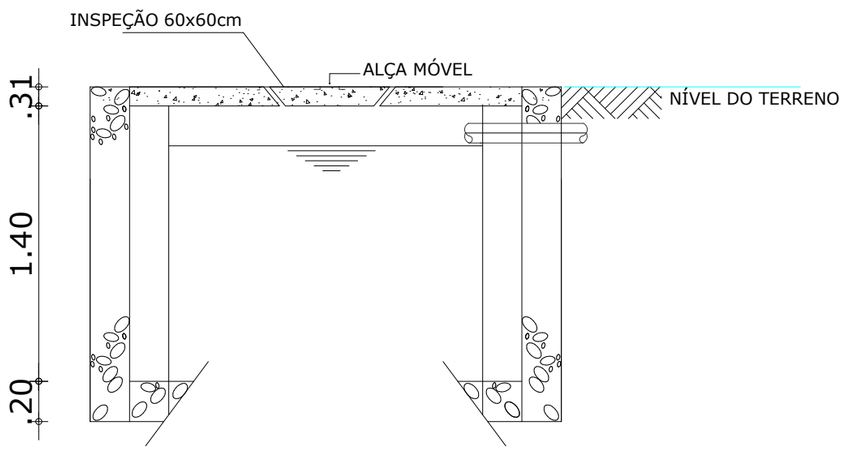


CORTE-AA
ESCALA 1/25



CORTE-BB
ESCALA 1/25

01 DETALHE FOSSA SÉPTICA SUMIDOURO
ESCALA: SEM ESCALA



CORTE-CC
ESCALA 1/25

PREFEITURA MUNICIPAL DE ITAPIPOCA

PROJETO –
CONSTRUÇÃO DE ESCOLA GERALDO GOMES

LOCAL – BOA VISTA, - ITAPIPOCA - CE

ASSUNTO: DETALHES COSNTRUTIVOS - (HIDROSSANITÁRIO)

PRANCHA 15 /15

RESP. DESENHO

2026