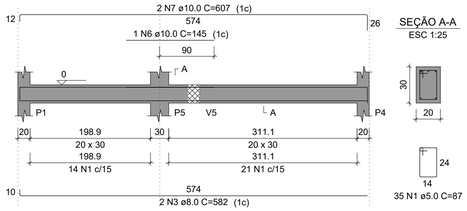
## V101
ESC 1:50

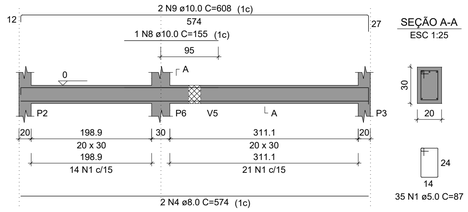



SEÇÃO A-A
ESC 1:25




35 N1 ø5.0 C=87

## V102
ESC 1:50

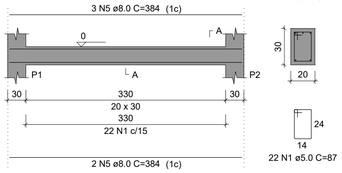



SEÇÃO A-A
ESC 1:25




35 N1 ø5.0 C=87

## V103
ESC 1:50




SEÇÃO A-A
ESC 1:25




22 N1 ø5.0 C=87

RELAÇÃO DO AÇO

V1 V2 V3
V4 V5

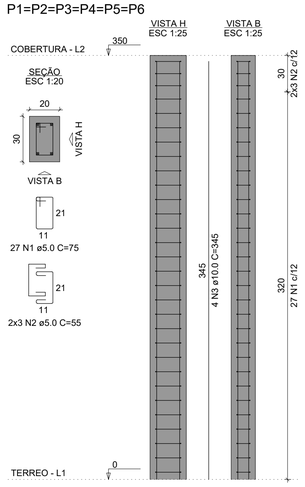
| AÇO | N | DIAM (mm) | QUANT | C.UNIT (cm) | C.TOTAL (cm) |
|---|---|---|---|---|---|
| CA60 | 1 | 5.0 | 138 | 87 | 12006 |
| | 2 | 5.0 | 2 | 384 | 768 |
| CA50 | 3 | 8.0 | 2 | 582 | 1164 |
| | 4 | 8.0 | 2 | 574 | 1148 |
| | 5 | 8.0 | 10 | 384 | 3840 |
| | 6 | 10.0 | 1 | 145 | 145 |
| | 7 | 10.0 | 2 | 607 | 1214 |
| | 8 | 10.0 | 1 | 155 | 155 |
| | 9 | 10.0 | 2 | 608 | 1216 |
| | 10 | 10.0 | 1 | 260 | 260 |
| | 11 | 10.0 | 2 | 384 | 768 |

RESUMO DO AÇO

| AÇO | DIAM (mm) | C.TOTAL (m) | PESO + 0% (kg) |
|---|---|---|---|
| CA50 | 8.0 | 61.5 | 24.3 |
| | 10.0 | 37.6 | 23.2 |
| CA60 | 5.0 | 127.7 | 19.7 |
| PESO TOTAL (kg) | | | |
| CA50 | 47.4 | | |
| CA60 | 19.7 | | |

Volume de concreto (C-30) = 1.23 m³
Área de forma = 18.64 m²

P1=P2=P3=P4=P5=P6




RELAÇÃO DO AÇO

6xP1

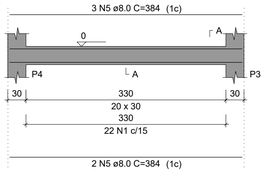
| AÇO | N | DIAM (mm) | QUANT | C.UNIT (cm) | C.TOTAL (cm) |
|---|---|---|---|---|---|
| CA60 | 1 | 5.0 | 162 | 75 | 12150 |
| | 2 | 5.0 | 36 | 55 | 1980 |
| CA50 | 3 | 10.0 | 24 | 345 | 8280 |

RESUMO DO AÇO

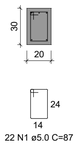
| AÇO | DIAM (mm) | C.TOTAL (m) | PESO + 0% (kg) |
|---|---|---|---|
| CA50 | 10.0 | 82.8 | 51 |
| CA60 | 5.0 | 141.3 | 21.8 |
| PESO TOTAL (kg) | | | |
| CA50 | 51 | | |
| CA60 | 21.8 | | |

Volume de concreto (C-30) = 1.26 m³
Área de forma = 21.00 m²

## V104
ESC 1:50

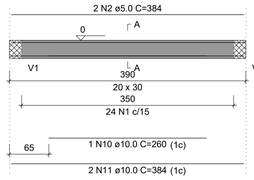



SEÇÃO A-A
ESC 1:25

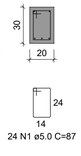



22 N1 ø5.0 C=87

## V105
ESC 1:50




SEÇÃO A-A
ESC 1:25



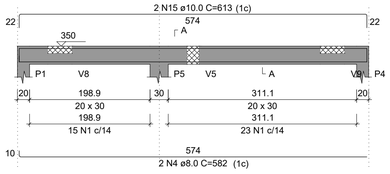

24 N1 ø5.0 C=87

NOTAS:

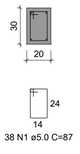
CLASSE DE AGRESSIVIDADE II

COBRIMENTO DAS ARMADURAS: 30 mm

## V201
ESC 1:50

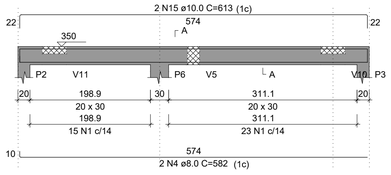



SEÇÃO A-A
ESC 1:25

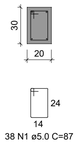



38 N1 ø5.0 C=87

## V202
ESC 1:50

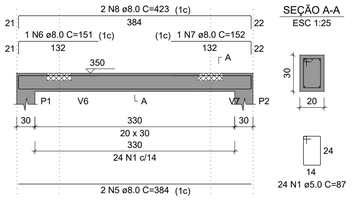



SEÇÃO A-A
ESC 1:25




38 N1 ø5.0 C=87

## V203
ESC 1:50




SEÇÃO A-A
ESC 1:25




24 N1 ø5.0 C=87

RELAÇÃO DO AÇO

V1 V2 V3
V4 V5 V6
V7 V8 V9
V10 V11

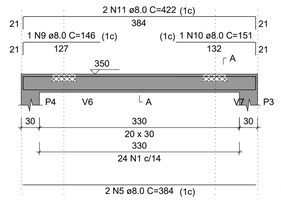
| AÇO | N | DIAM (mm) | QUANT | C.UNIT (cm) | C.TOTAL (cm) |
|---|---|---|---|---|---|
| CA60 | 1 | 5.0 | 148 | 87 | 12876 |
| | 2 | 5.0 | 216 | 63 | 13608 |
| CA50 | 3 | 6.3 | 816 | 64 | 52224 |
| | 4 | 8.0 | 4 | 582 | 2328 |
| | 5 | 8.0 | 6 | 384 | 2304 |
| | 6 | 8.0 | 1 | 151 | 151 |
| | 7 | 8.0 | 1 | 152 | 152 |
| | 8 | 8.0 | 2 | 423 | 846 |
| | 9 | 8.0 | 1 | 146 | 146 |
| | 10 | 8.0 | 1 | 151 | 151 |
| | 11 | 8.0 | 2 | 422 | 844 |
| | 12 | 8.0 | 24 | 702 | 16848 |
| | 13 | 8.0 | 42 | 152 | 6384 |
| | 14 | 8.0 | 6 | 148 | 888 |
| | 15 | 10.0 | 4 | 613 | 2452 |
| | 16 | 10.0 | 2 | 285 | 570 |
| | 17 | 10.0 | 2 | 384 | 768 |

RESUMO DO AÇO

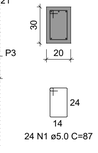
| AÇO | DIAM (mm) | C.TOTAL (m) | PESO + 0% (kg) |
|---|---|---|---|
| CA50 | 6.3 | 522.2 | 127.8 |
| | 8.0 | 310.4 | 122.5 |
| | 10.0 | 37.9 | 23.4 |
| CA60 | 5.0 | 264.8 | 40.8 |
| PESO TOTAL (kg) | | | |
| CA50 | 273.6 | | |
| CA60 | 40.8 | | |

Volume de concreto (C-30) = 2.10 m³
Área de forma = 31.44 m²

## V204
ESC 1:50

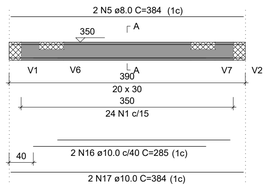



SEÇÃO A-A
ESC 1:25

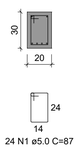



24 N1 ø5.0 C=87

## V205
ESC 1:50

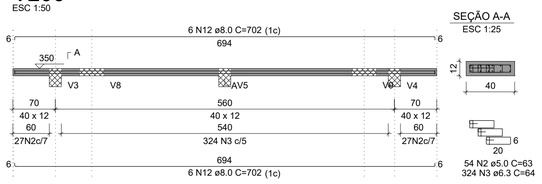



SEÇÃO A-A
ESC 1:25




24 N1 ø5.0 C=87

## V206
ESC 1:50




SEÇÃO A-A
ESC 1:25



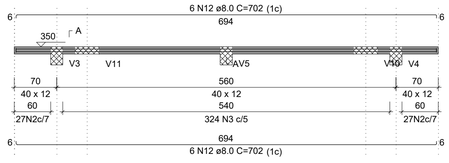

54 N2 ø5.0 C=63
324 N3 ø6.3 C=64

RESUMO DO AÇO

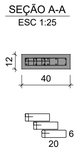
| AÇO | DIAM (mm) | C.TOTAL (m) | PESO + 0% (kg) |
|---|---|---|---|
| CA50 | 6.3 | 522.2 | 127.8 |
| | 8.0 | 310.4 | 122.5 |
| | 10.0 | 37.9 | 23.4 |
| CA60 | 5.0 | 264.8 | 40.8 |
| PESO TOTAL (kg) | | | |
| CA50 | 273.6 | | |
| CA60 | 40.8 | | |

Volume de concreto (C-30) = 2.10 m³
Área de forma = 31.44 m²

## V207
ESC 1:50

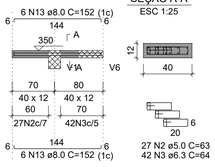



SEÇÃO A-A
ESC 1:25




54 N2 ø5.0 C=63
324 N3 ø6.3 C=64

## V208
ESC 1:50

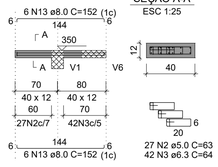



SEÇÃO A-A
ESC 1:25




27 N2 ø5.0 C=63
42 N3 ø6.3 C=64

## V209
ESC 1:50

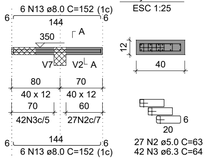



SEÇÃO A-A
ESC 1:25




27 N2 ø5.0 C=63
42 N3 ø6.3 C=64

## V210
ESC 1:50

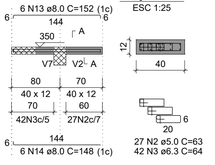



SEÇÃO A-A
ESC 1:25




27 N2 ø5.0 C=63
42 N3 ø6.3 C=64

## V211
ESC 1:50




SEÇÃO A-A
ESC 1:25




27 N2 ø5.0 C=63
42 N3 ø6.3 C=64

| REV. | DESCRIÇÃO | DATA | EXEC. | VERIF. |
|---|---|---|---|---|
| 1 | REVISÃO DA PROFUNDIDADE DA ESTACA | 05/07/2022 | MCR | MCR |
| 0 | EMISSÃO INICIAL | 16/06/2022 | MCR | MCR |

EMITENTE

**CONSÓRCIO QUANTA / TETRIS / FLEX**
CONTRATO Nº 006/2022

MARCOS CAMARA REBELO - CREA/RJ - 200727911-8

| | | |
|---|---|---|
| EXEC. | MCR | 15/06/2022 |
| DES. | MCR | 15/06/2022 |
| VER. | MCR | 16/06/2022 |

PREFEITURA SAQUAREMA
TRABALHO E RESPEITO

**SECRETARIA MUNICIPAL DE DESENVOLVIMENTO ECONÔMICO**

TÍTULO
**COMPLEXO EDUCACIONAL - BONSUCESSO- SUBESTAÇÃO**
**PROJETO EXECUTIVO ESTRUTURAL**
ARMADURA DE VIGAS E PILARES

LOCAL: ESTRADA DE BONSUCESSO- BAIRRO BONSUCESSO (BONSUCESSO - 2º DISTRITO (BACAXÁ)- SAQUAREMA - RJ)
ARQ. ELETRÔNICO: SQ_OS012_BONSUCESSO_SUBESTAÇÃO-PE-EST-ARM-VIGAS-PIL-R01
Nº: PD004 - SBP004
ESCALA: INDICADA
DATA: JULHO/2022
PRANCHA: 03-05
A 1