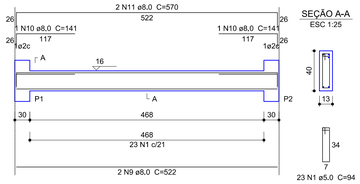
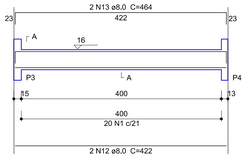
## V1
ESC 1:50



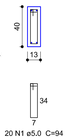

SEÇÃO A-A
ESC 1:25



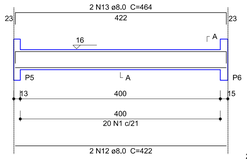

## V2
ESC 1:50



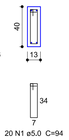

SEÇÃO A-A
ESC 1:25



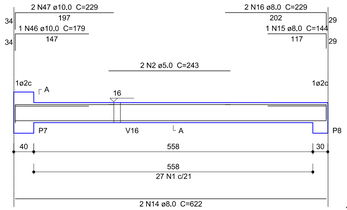

## V3
ESC 1:50



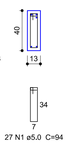

SEÇÃO A-A
ESC 1:25



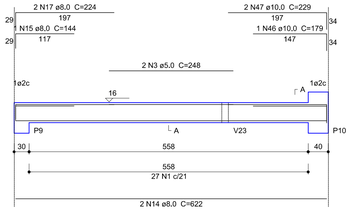

## V4
ESC 1:50



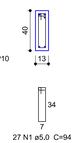

SEÇÃO A-A
ESC 1:25



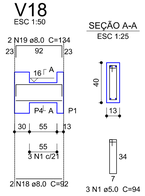

## V5
ESC 1:50




SEÇÃO A-A
ESC 1:25



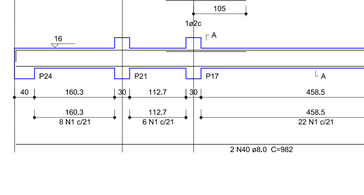

## V18
ESC 1:50




SEÇÃO A-A
ESC 1:25



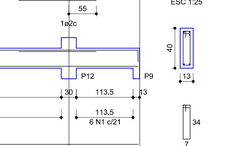

## V6
ESC 1:50



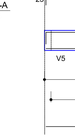

SEÇÃO A-A
ESC 1:25



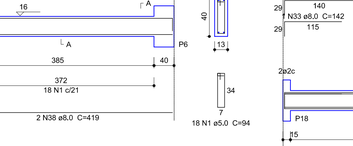

## V7
ESC 1:50



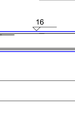

SEÇÃO A-A
ESC 1:25



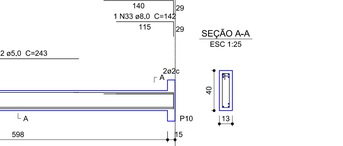

## V8
ESC 1:50




SEÇÃO A-A
ESC 1:25




## V9
ESC 1:50



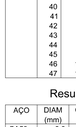

SEÇÃO A-A
ESC 1:25



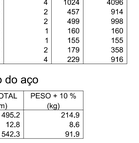

## V10
ESC 1:50




SEÇÃO A-A
ESC 1:25




## V21
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




## V15
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




## V19
ESC 1:50




SEÇÃO A-A
ESC 1:25




## V22
ESC 1:50




SEÇÃO A-A
ESC 1:25




## V20
ESC 1:50




SEÇÃO A-A
ESC 1:25




## V23
ESC 1:50




SEÇÃO A-A
ESC 1:25




## V24
ESC 1:50




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 |

| AÇO | N | DIAM (mm) | QUANT (Barras) | UNIT (cm) | C.TOTAL (cm) |
|---|---|---|---|---|---|
| CA60 | 1 | 5,0 | 516 | 94 | 48504 |
| | 2 | 5,0 | 6 | 243 | 1458 |
| | 3 | 5,0 | 2 | 248 | 496 |
| | 4 | 5,0 | 2 | 240 | 480 |
| | 5 | 5,0 | 21 | 74 | 1554 |
| | 6 | 5,0 | 2 | 316 | 632 |
| | 7 | 5,0 | 2 | 317 | 634 |
| | 8 | 5,0 | 2 | 233 | 466 |
| CA50 | 9 | 8,0 | 6 | 522 | 3132 |
| | 10 | 8,0 | 2 | 141 | 282 |
| | 11 | 8,0 | 2 | 570 | 1140 |
| | 12 | 8,0 | 4 | 422 | 1688 |
| | 13 | 8,0 | 4 | 464 | 1856 |
| | 14 | 8,0 | 8 | 622 | 4976 |
| | 15 | 8,0 | 2 | 144 | 288 |
| | 16 | 8,0 | 2 | 229 | 458 |
| | 17 | 8,0 | 2 | 224 | 448 |
| | 18 | 8,0 | 4 | 92 | 368 |
| | 19 | 8,0 | 4 | 134 | 536 |
| | 20 | 8,0 | 2 | 538 | 1076 |
| | 21 | 8,0 | 2 | 182 | 364 |
| | 22 | 8,0 | 2 | 177 | 354 |
| | 23 | 8,0 | 2 | 327 | 654 |
| | 24 | 8,0 | 2 | 359 | 718 |
| | 25 | 8,0 | 4 | 183 | 732 |
| | 26 | 8,0 | 4 | 218 | 872 |
| | 27 | 8,0 | 4 | 155 | 620 |
| | 28 | 8,0 | 2 | 564 | 1128 |
| | 29 | 8,0 | 4 | 424 | 1696 |
| | 30 | 8,0 | 4 | 466 | 1864 |
| | 31 | 8,0 | 4 | 176 | 704 |
| | 32 | 8,0 | 6 | 638 | 3828 |
| | 33 | 8,0 | 4 | 142 | 568 |
| | 34 | 8,0 | 4 | 167 | 668 |
| | 35 | 8,0 | 8 | 227 | 1816 |
| | 36 | 8,0 | 4 | 342 | 1368 |
| | 37 | 8,0 | 4 | 384 | 1536 |
| | 38 | 8,0 | 4 | 419 | 1676 |
| | 39 | 8,0 | 4 | 463 | 1852 |
| | 40 | 8,0 | 4 | 982 | 3928 |
| | 41 | 8,0 | 4 | 1024 | 4096 |
| | 42 | 8,0 | 2 | 457 | 914 |
| | 43 | 8,0 | 2 | 499 | 998 |
| | 44 | 8,0 | 1 | 160 | 160 |
| | 45 | 8,0 | 1 | 155 | 155 |
| | 46 | 10,0 | 2 | 179 | 358 |
| | 47 | 10,0 | 4 | 229 | 916 |

### Resumo do aço

| AÇO | DIAM (mm) | C.TOTAL (m) | PESO + 10 % (kg) |
|---|---|---|---|
| CA50 | 8,0 | 495,2 | 214,9 |
| | 10,0 | 12,8 | 8,6 |
| CA60 | 5,0 | 542,3 | 91,9 |

| PESO TOTAL (kg) | |
|---|---|
| CA50 | 223,6 |
| CA60 | 91,9 |

Volume de concreto (C-25) = 6,25 m³
Área de forma = 111,95 m²

MUNICÍPIO DE VALE DO SOL
PODER EXECUTIVO
RUA AUGUSTO EMMEL, Nº 96, CENTRO, CEP. 96878-000, FONE: 015 (51) 3750-1122

KATCZINSKIengenharia

**Projeto FNDE - Ampliação de 2 salas EMEI Daltro Filho**
ESTRADA VICINAL DE FAXINAL DE DENTRO, ÁREA RURAL, VALE DO SOL - RS.

Projeto: JOAO LUIZ DOS SANTOS KATCZINSKI:00311836038
Assinado de forma digital por JOAO LUIZ DOS SANTOS KATCZINSKI:00311836038
Dados: 2024.07.03 18:04:46 -03'00'
Eng.º Civil - João Luiz Katczinski
CREA - RS213510

Projetista: KATCZINSKI
Data: JULHO / 2024
Cliente: Prefeitura Municipal de Vale do Sol/RS (EMEF. Daltro Filho)
CNPJ: 94.577.574/0001-70
Escala: Indicada
Conteúdo da Prancha: ESTR. CONCRETO - VIGAS NÍVEL 00
Prancha: 02/05