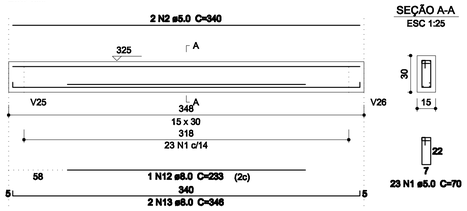
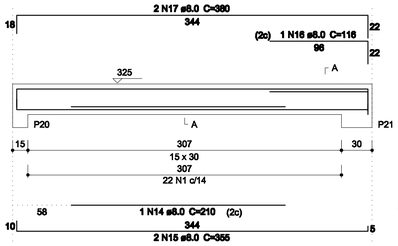
## V16
ESC 1:30



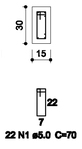

SEÇÃO A-A
ESC 1:25



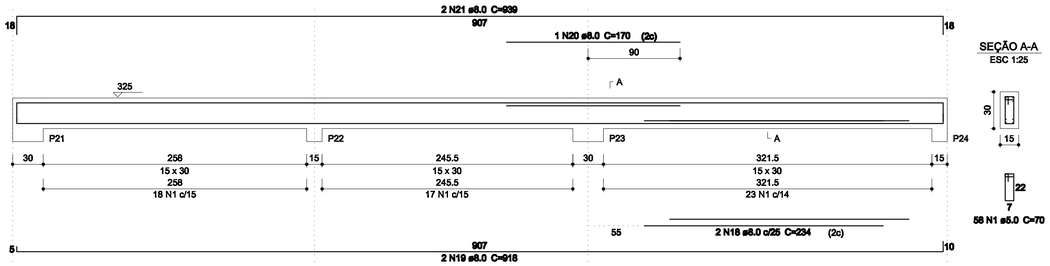

## V18
ESC 1:30




SEÇÃO A-A
ESC 1:25



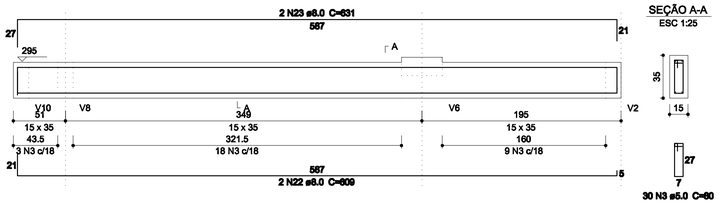

## V19
ESC 1:30




SEÇÃO A-A
ESC 1:25



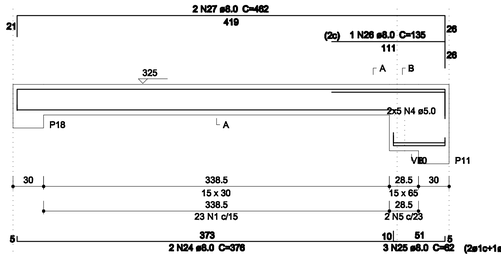

## V20
ESC 1:30



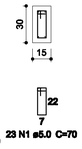

SEÇÃO A-A
ESC 1:25



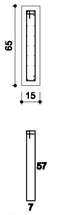

## V21
ESC 1:30



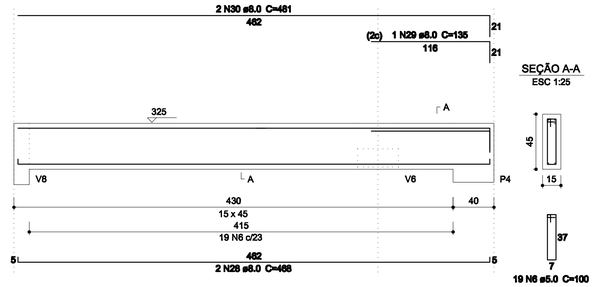

SEÇÃO A-A
ESC 1:25




SEÇÃO B-B
ESC 1:25



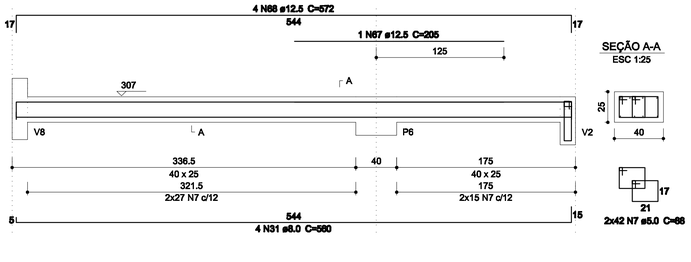

## V23
ESC 1:30




SEÇÃO A-A
ESC 1:25




## V22
ESC 1:30

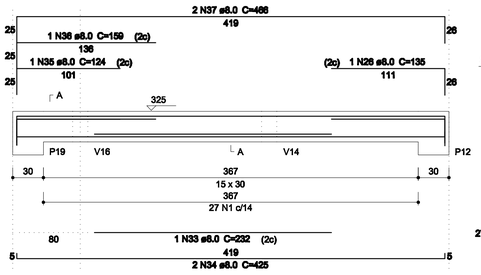



SEÇÃO A-A
ESC 1:25

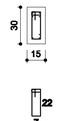



SUSPENSÃO V2
ESC 1:25

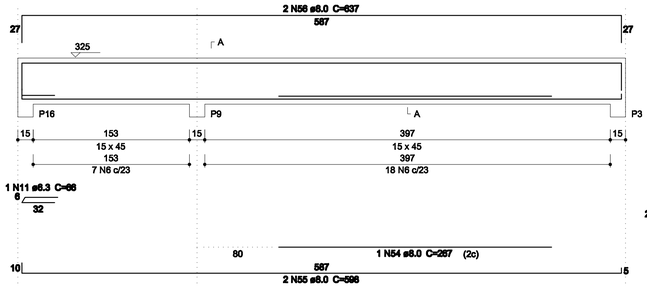
## V25
ESC 1:30



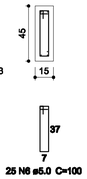

SEÇÃO A-A
ESC 1:25



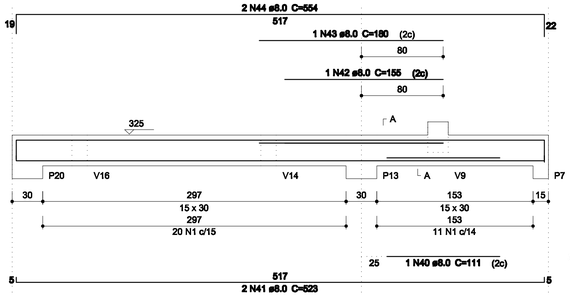

## V31
ESC 1:30



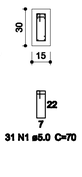

SEÇÃO A-A
ESC 1:25



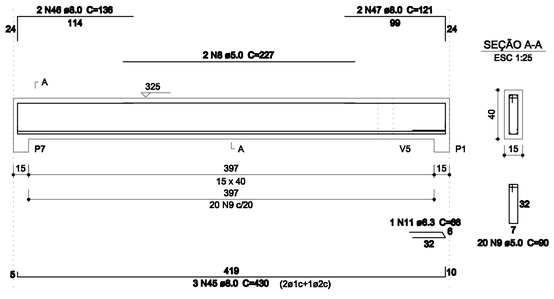

## V26
ESC 1:30




SEÇÃO A-A
ESC 1:25



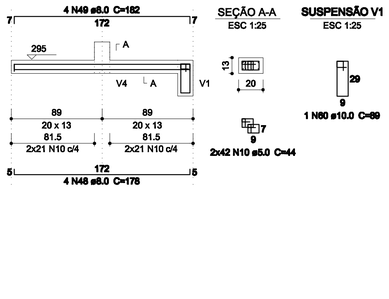

## V27
ESC 1:30




SEÇÃO A-A
ESC 1:25




## V32
ESC 1:30



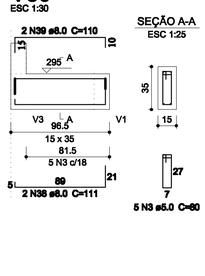

SEÇÃO A-A
ESC 1:25




SUSPENSÃO V1
ESC 1:25



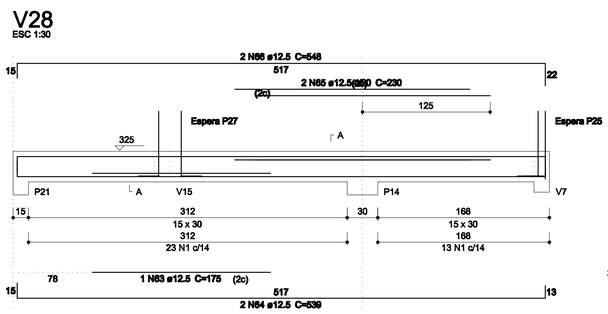

## V30
ESC 1:30



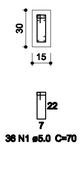

SEÇÃO A-A
ESC 1:25



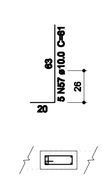

## V28
ESC 1:30



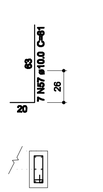

SEÇÃO A-A
ESC 1:25



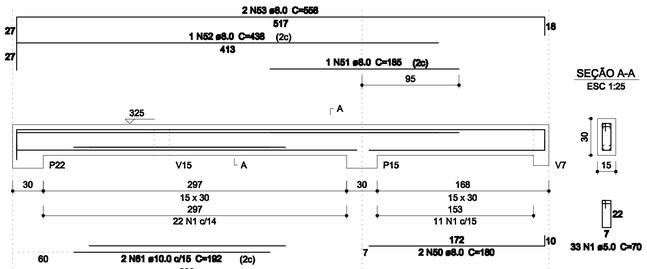

ESPERA P27
ESC 1:25




ESPERA P25
ESC 1:25



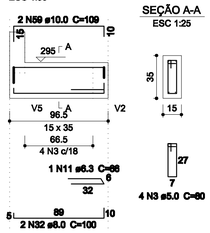

## V29
ESC 1:30




SEÇÃO A-A
ESC 1:25




## V24
ESC 1:30




SEÇÃO A-A
ESC 1:25




## Relação do aço

V16 V18 V19
V20 V21 V22
V23 V24 V25
V26 V27 V28
V29 V30 V31
V32

| AÇO | N | DIAM | Q | UNIT (cm) | C.TOTAL (cm) |
|---|---|---|---|---|---|
| CA60 | 1 | 5.0 | 259 | 70 | 18130 |
| | 2 | 5.0 | 2 | 340 | 680 |
| | 3 | 5.0 | 39 | 80 | 3120 |
| | 4 | 5.0 | 10 | CORR | 510 |
| | 5 | 5.0 | 2 | 140 | 280 |
| | 6 | 5.0 | 44 | 100 | 4400 |
| | 7 | 5.0 | 84 | 88 | 7392 |
| | 8 | 5.0 | 2 | 227 | 454 |
| | 9 | 5.0 | 20 | 90 | 1800 |
| | 10 | 5.0 | 84 | 44 | 3696 |
| CA50 | 11 | 6.3 | 3 | 66 | 198 |
| | 12 | 8.0 | 1 | 233 | 233 |
| | 13 | 8.0 | 2 | 346 | 692 |
| | 14 | 8.0 | 1 | 210 | 210 |
| | 15 | 8.0 | 2 | 355 | 710 |
| | 16 | 8.0 | 1 | 116 | 116 |
| | 17 | 8.0 | 2 | 380 | 760 |
| | 18 | 8.0 | 2 | 234 | 468 |
| | 19 | 8.0 | 2 | 918 | 1836 |
| | 20 | 8.0 | 1 | 170 | 170 |
| | 21 | 8.0 | 2 | 939 | 1878 |
| | 22 | 8.0 | 2 | 609 | 1218 |
| | 23 | 8.0 | 2 | 631 | 1262 |
| | 24 | 8.0 | 2 | 376 | 752 |
| | 25 | 8.0 | 3 | 62 | 186 |
| | 26 | 8.0 | 2 | 135 | 270 |
| | 27 | 8.0 | 2 | 462 | 924 |
| | 28 | 8.0 | 2 | 468 | 936 |
| | 29 | 8.0 | 1 | 135 | 135 |
| | 30 | 8.0 | 2 | 481 | 962 |
| | 31 | 8.0 | 4 | 560 | 2240 |
| | 32 | 8.0 | 2 | 100 | 200 |
| | 33 | 8.0 | 1 | 232 | 232 |
| | 34 | 8.0 | 2 | 425 | 850 |
| | 35 | 8.0 | 1 | 124 | 124 |
| | 36 | 8.0 | 1 | 159 | 159 |
| | 37 | 8.0 | 2 | 466 | 932 |
| | 38 | 8.0 | 2 | 111 | 222 |
| | 39 | 8.0 | 2 | 110 | 220 |
| | 40 | 8.0 | 1 | 111 | 111 |
| | 41 | 8.0 | 2 | 523 | 1046 |
| | 42 | 8.0 | 1 | 155 | 155 |
| | 43 | 8.0 | 1 | 180 | 180 |
| | 44 | 8.0 | 2 | 554 | 1108 |
| | 45 | 8.0 | 3 | 430 | 1290 |
| | 46 | 8.0 | 2 | 136 | 272 |
| | 47 | 8.0 | 2 | 121 | 242 |
| | 48 | 8.0 | 4 | 178 | 712 |
| | 49 | 8.0 | 4 | 182 | 728 |
| | 50 | 8.0 | 2 | 180 | 360 |
| | 51 | 8.0 | 1 | 185 | 185 |
| | 52 | 8.0 | 1 | 438 | 438 |
| | 53 | 8.0 | 2 | 558 | 1116 |
| | 54 | 8.0 | 1 | 267 | 267 |
| | 55 | 8.0 | 2 | 598 | 1196 |
| | 56 | 8.0 | 2 | 637 | 1274 |
| | 57 | 10.0 | 12 | 81 | 972 |
| | 58 | 10.0 | 1 | 105 | 105 |
| | 59 | 10.0 | 2 | 109 | 218 |
| | 60 | 10.0 | 1 | 89 | 89 |
| | 61 | 10.0 | 2 | 192 | 384 |
| | 62 | 10.0 | 2 | 336 | 672 |
| | 63 | 12.5 | 1 | 175 | 175 |
| | 64 | 12.5 | 2 | 539 | 1078 |
| | 65 | 12.5 | 2 | 230 | 460 |
| | 66 | 12.5 | 2 | 548 | 1096 |
| | 67 | 12.5 | 1 | 205 | 205 |
| | 68 | 12.5 | 4 | 572 | 2288 |

## Resumo do aço

| AÇO | DIAM | C.TOTAL (m) | PESO + 10 % (kg) |
|---|---|---|---|
| CA50 | 6.3 | 2 | 0.5 |
| | 8.0 | 295.8 | 128.4 |
| | 10.0 | 24.4 | 16.5 |
| | 12.5 | 53.1 | 56.2 |
| CA60 | 5.0 | 404.7 | 68.6 |
| PESO TOTAL | | | |
| CA50 | 201.6 | | |
| CA60 | 68.6 | | |

Vol. de concreto total (C-30) = 3.83 m³
Área de forma total = 58.41 m²

Características dos materiais

| Elemento | fck (kgf/cm²) | Ecs (kgf/cm²) | Abatimento (mm) |
|---|---|---|---|
| Vigas | 300 | 260716 | 80 |
| Pilares | 300 | 260716 | 80 |
| Lajes | 300 | 260716 | 80 |
| Sapatas\blocos | 200 | 212874 | 80 |

NOME DO PROJETO :
CENTRO DE REFERENCIA DE ASSISTÊNCIA SOCIAL
REF.:
LOCAL: PASSO DE TORRES/SC
TIPO DE PROJETO: ESTRUTURAL
CARACTERÍSTICAS: PROJETO PADRÃO - CRAS
ARMADURA DAS VIGAS
PAVIMENTO: COBERTURA
AUTOR DO PROJETO: ENG. CIVIL ROBERTO DANIEL GEVAERD CREA/SC 041750-9
AVALIUS ENGENHARIA E AVALIAÇÕES LTDA
9
14
ÁREA: 169,06 m²
ESCALA: INDICADA
DATA:OUTUBRO/2018
DES. EDVANIO PACHECO

FORMATO A1 - INTERNO: 801 x 574 mm.
EXTERNO: 841 x 594 mm.