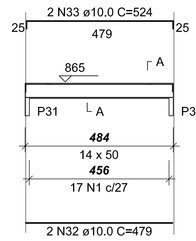
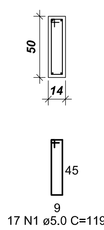
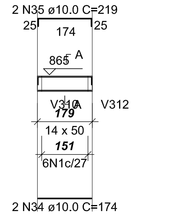
## V301 (14 x 50)
ESC: 1:100



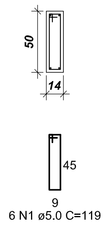

SEÇÃO A-A
ESC: 1:25



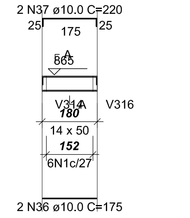

## V302 (14 x 50)
ESC: 1:100



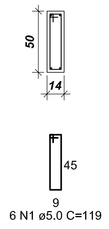

SEÇÃO A-A
ESC: 1:25



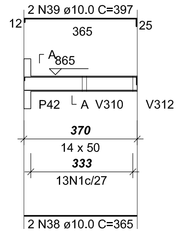

## V303 (14 x 50)
ESC: 1:100



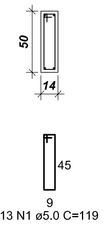

SEÇÃO A-A
ESC: 1:25



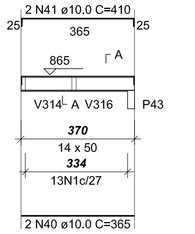

## V304 (14 x 50)
ESC: 1:100



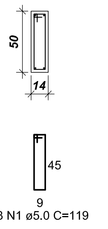

SEÇÃO A-A
ESC: 1:25



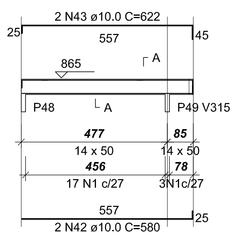

## V305 (14 x 50)
ESC: 1:100



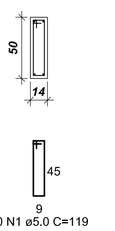

SEÇÃO A-A
ESC: 1:25



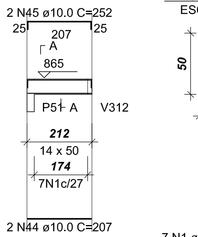

## V306 (14 x 50)
ESC: 1:100



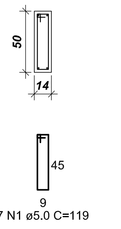

SEÇÃO A-A
ESC: 1:25



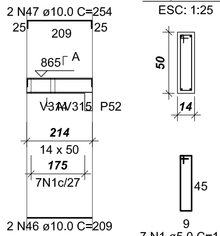

## V307 (14 x 50)
ESC: 1:100



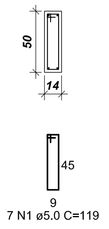

SEÇÃO A-A
ESC: 1:25



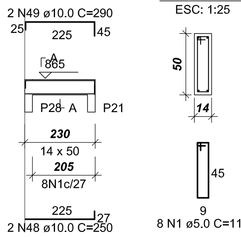

## V308 (14 x 50)
ESC: 1:100



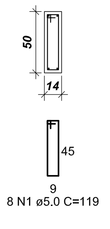

SEÇÃO A-A
ESC: 1:25



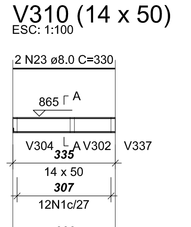

## V309 (14 x 50)
ESC: 1:100



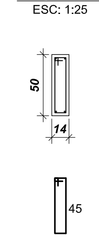

SEÇÃO A-A
ESC: 1:25



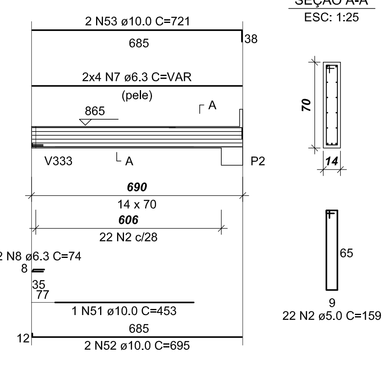

## V310 (14 x 50)
ESC: 1:100




SEÇÃO A-A
ESC: 1:25



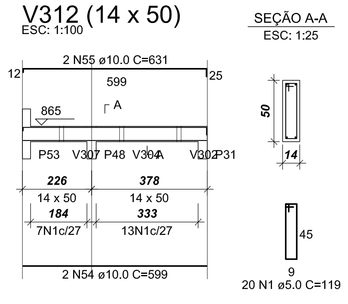

## V311 (14 x 70)
ESC: 1:100




SEÇÃO A-A
ESC: 1:25



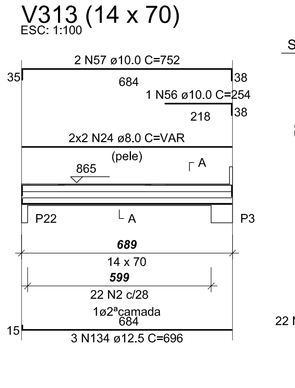

## V312 (14 x 50)
ESC: 1:100



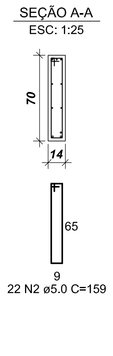

SEÇÃO A-A
ESC: 1:25



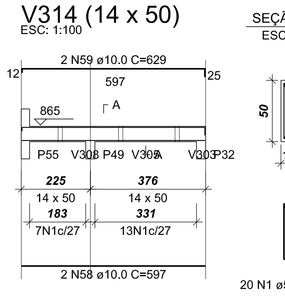

## V313 (14 x 70)
ESC: 1:100



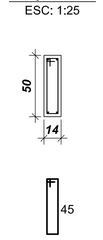

SEÇÃO A-A
ESC: 1:25



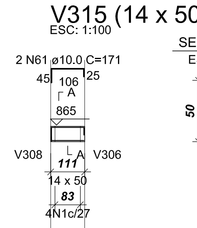

## V314 (14 x 50)
ESC: 1:100



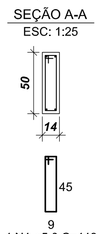

SEÇÃO A-A
ESC: 1:25



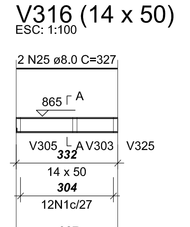

## V315 (14 x 50)
ESC: 1:100



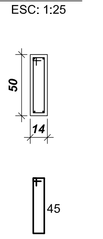

SEÇÃO A-A
ESC: 1:25



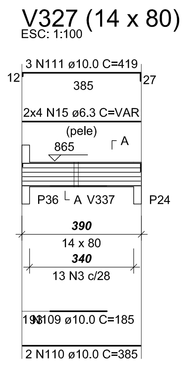

## V316 (14 x 50)
ESC: 1:100



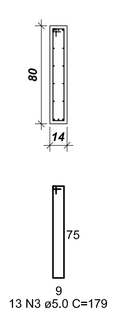

SEÇÃO A-A
ESC: 1:25



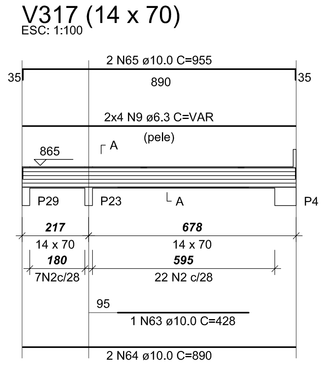

## V327 (14 x 80)
ESC: 1:100



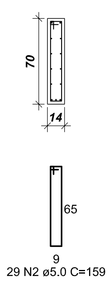

SEÇÃO A-A
ESC: 1:25



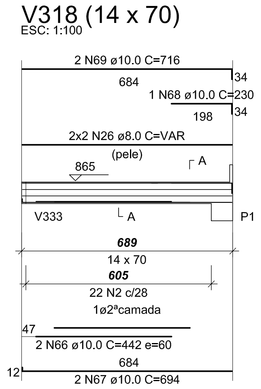

## V317 (14 x 70)
ESC: 1:100



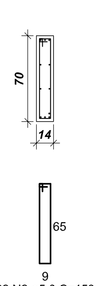

SEÇÃO A-A
ESC: 1:25



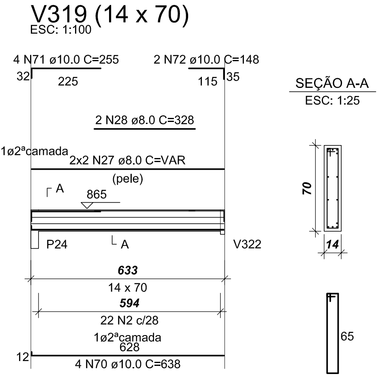

## V318 (14 x 70)
ESC: 1:100




SEÇÃO A-A
ESC: 1:25



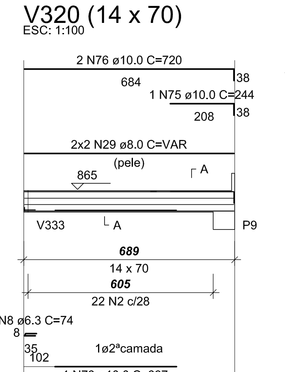

## V319 (14 x 70)
ESC: 1:100



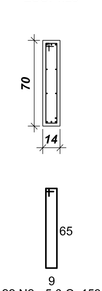

SEÇÃO A-A
ESC: 1:25



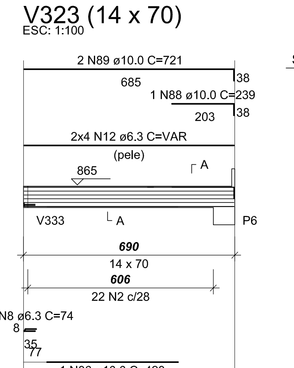

## V320 (14 x 70)
ESC: 1:100



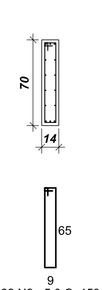

SEÇÃO A-A
ESC: 1:25



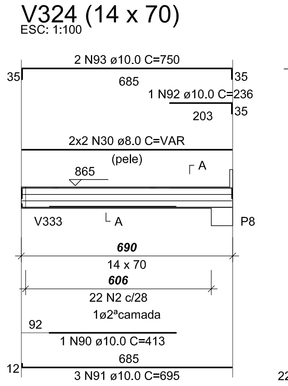

## V323 (14 x 70)
ESC: 1:100



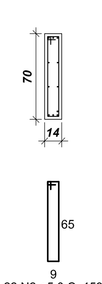

SEÇÃO A-A
ESC: 1:25



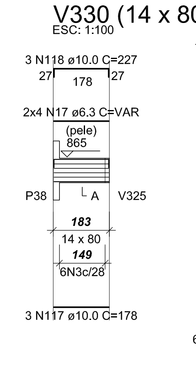

## V324 (14 x 70)
ESC: 1:100



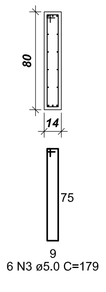

SEÇÃO A-A
ESC: 1:25



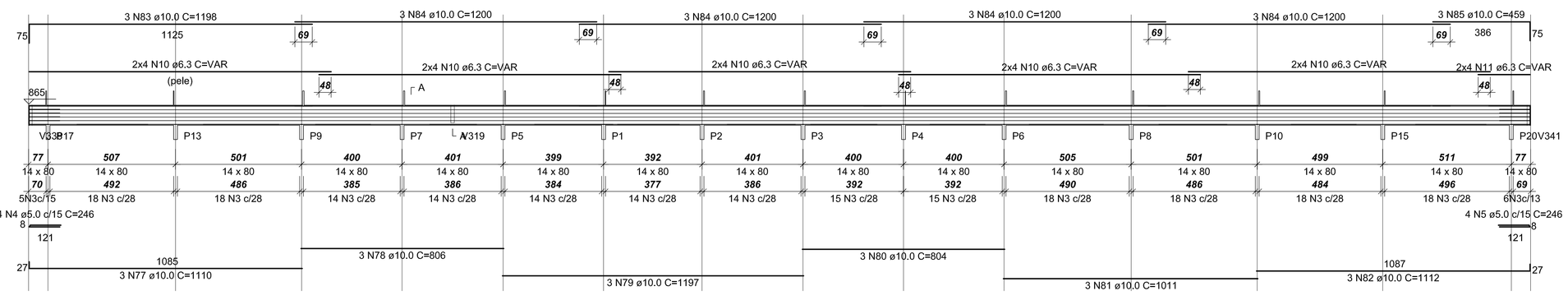

## V330 (14 x 80)
ESC: 1:100



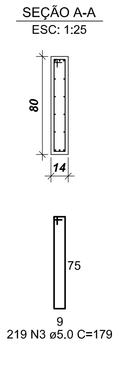

SEÇÃO A-A
ESC: 1:25



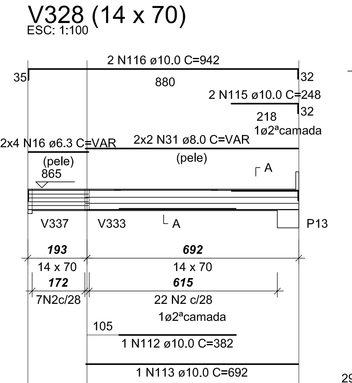

## V322 (14 x 80)
ESC: 1:100



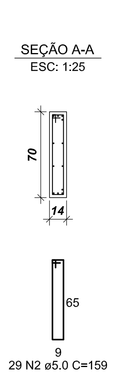

SEÇÃO A-A
ESC: 1:25



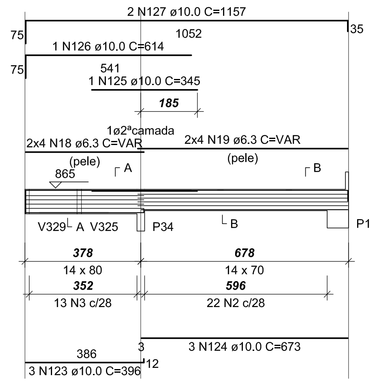

## V328 (14 x 70)
ESC: 1:100



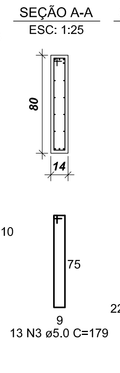

SEÇÃO A-A
ESC: 1:25



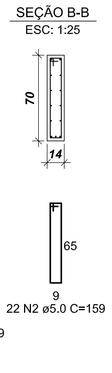

## V334 (var)
ESC: 1:100




SEÇÃO A-A
ESC: 1:25




SEÇÃO B-B
ESC: 1:25

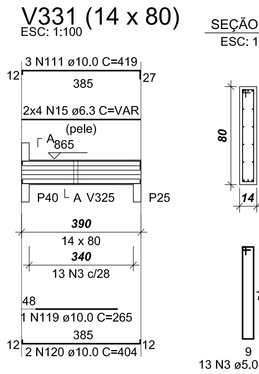



RESUMO DO AÇO

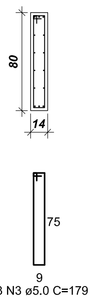
| AÇO | DIAM | C.TOTAL (m) | PESO+0% (kg) |
|---|---|---|---|
| CA50 | 6.3 | 1225.0 | 300.2 |
| | 8.0 | 182.1 | 71.9 |
| | 10.0 | 1585.9 | 978.0 |
| | 12.5 | 38.3 | 36.9 |
| CA60 | 5.0 | 1546.0 | 238.0 |
| PESO TOTAL | | | |
| CA50 | | 1387.1 | |
| CA60 | | 238.0 | |

Vol. de concreto total (C-25) =27.03 m³
Área de forma total = 409.78 m²

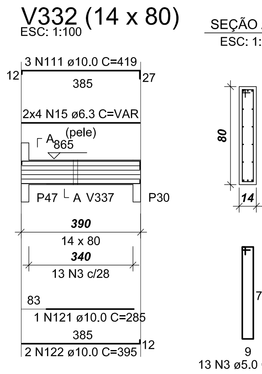
## V331 (14 x 80)
ESC: 1:100



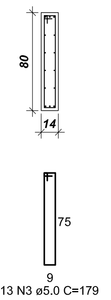

SEÇÃO A-A
ESC: 1:25



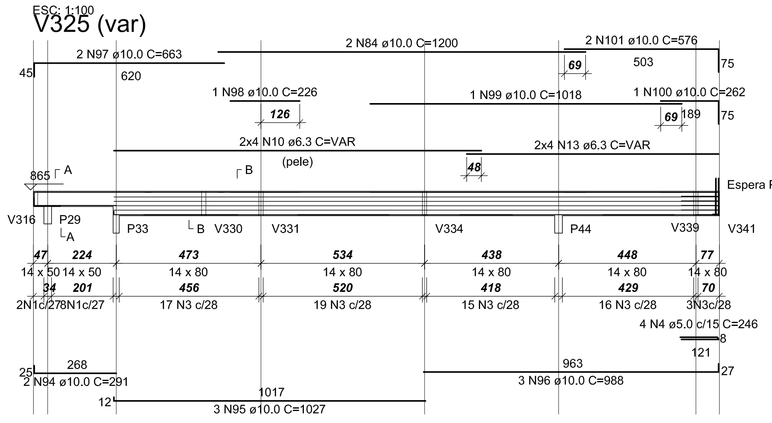

## V332 (14 x 80)
ESC: 1:100



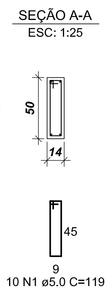

SEÇÃO A-A
ESC: 1:25



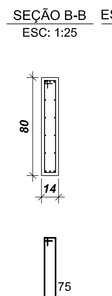

## V325 (var)
ESC: 1:100




SEÇÃO A-A
ESC: 1:25

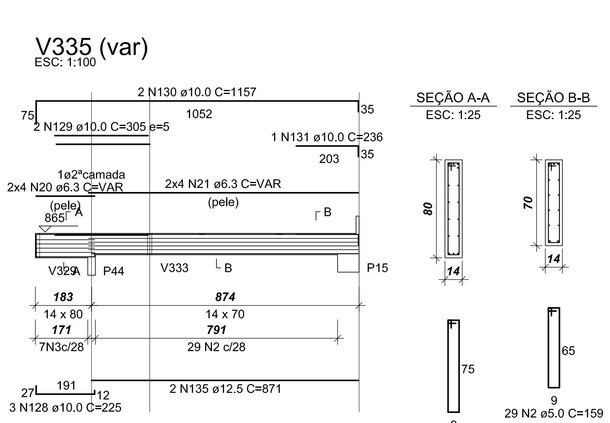



SEÇÃO B-B
ESC: 1:25




ESPERA P101
ESC: 1:25

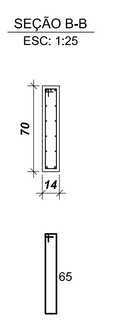
## V335 (var)
ESC: 1:100



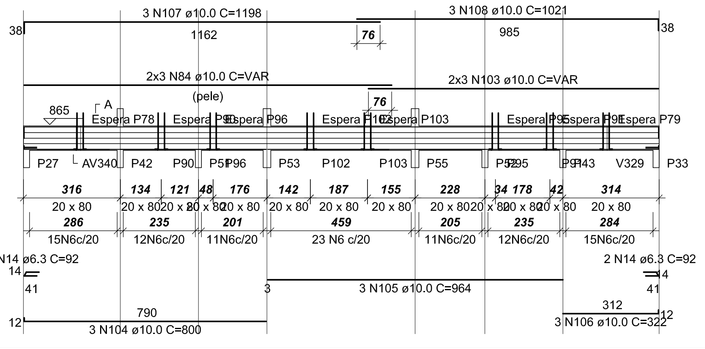

SEÇÃO A-A
ESC: 1:25



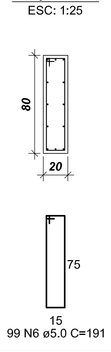

SEÇÃO B-B
ESC: 1:25




## V326 (20 x 80)
ESC: 1:100




SEÇÃO A-A
ESC: 1:25




ESPERA P78
ESC: 1:25

ESPERA P90
ESC: 1:25

ESPERA P96
ESC: 1:25

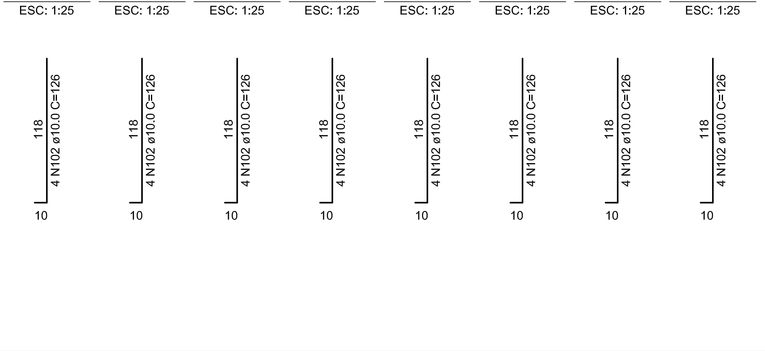
ESPERA P102
ESC: 1:25

ESPERA P103
ESC: 1:25

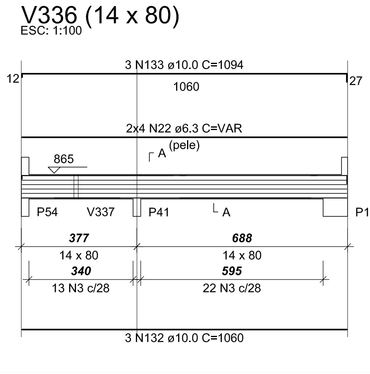
ESPERA P95
ESC: 1:25

ESPERA P91
ESC: 1:25

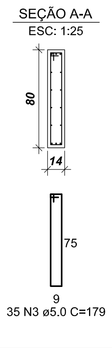
ESPERA P79
ESC: 1:25




## V336 (14 x 80)
ESC: 1:100




SEÇÃO A-A
ESC: 1:25




RELAÇÃO DO AÇO

| AÇO | N | DIAM | Q | UNIT (cm) | C.TOTAL (cm) |
|---|---|---|---|---|---|
| 60 | 1 | 5.0 | 175 | 119 | 20825 |
| | 2 | 5.0 | 263 | 159 | 41817 |
| | 3 | 5.0 | 389 | 179 | 69631 |
| | 4 | 5.0 | 8 | 246 | 1968 |
| | 5 | 5.0 | 4 | 246 | 984 |
| | 6 | 5.0 | 99 | 191 | 18909 |
| 50 | 7 | 6.3 | 8 | corr | 5480 |
| | 8 | 6.3 | 5 | 74 | 370 |
| | 9 | 6.3 | 8 | corr | 7120 |
| | 10 | 6.3 | 48 | corr | 57600 |
| | 11 | 6.3 | 8 | corr | 1648 |
| | 12 | 6.3 | 8 | corr | 5480 |
| | 13 | 6.3 | 8 | corr | 6576 |
| | 14 | 6.3 | 4 | 92 | 368 |
| | 15 | 6.3 | 24 | corr | 9240 |
| | 16 | 6.3 | 8 | corr | 1560 |
| | 17 | 6.3 | 8 | corr | 1424 |
| | 18 | 6.3 | 8 | corr | 3088 |
| | 19 | 6.3 | 8 | corr | 5488 |
| | 20 | 6.3 | 8 | corr | 1528 |
| | 21 | 6.3 | 8 | corr | 7048 |
| | 22 | 6.3 | 8 | corr | 8480 |
| | 23 | 8.0 | 2 | 330 | 660 |
| | 24 | 8.0 | 4 | corr | 2736 |
| | 25 | 8.0 | 2 | 327 | 654 |
| | 26 | 8.0 | 4 | corr | 2736 |
| | 27 | 8.0 | 4 | corr | 2512 |
| | 28 | 8.0 | 2 | 328 | 656 |
| | 29 | 8.0 | 4 | corr | 2736 |
| | 30 | 8.0 | 4 | corr | 2740 |
| | 31 | 8.0 | 4 | corr | 2776 |
| | 32 | 10.0 | 2 | 479 | 958 |
| | 33 | 10.0 | 2 | 524 | 1048 |
| | 34 | 10.0 | 2 | 174 | 348 |
| | 35 | 10.0 | 2 | 219 | 438 |
| | 36 | 10.0 | 2 | 175 | 350 |
| | 37 | 10.0 | 2 | 220 | 440 |
| | 38 | 10.0 | 2 | 365 | 730 |
| | 39 | 10.0 | 2 | 397 | 794 |
| | 40 | 10.0 | 2 | 365 | 730 |
| | 41 | 10.0 | 2 | 410 | 820 |
| | 42 | 10.0 | 2 | 580 | 1160 |
| | 43 | 10.0 | 2 | 622 | 1244 |
| | 44 | 10.0 | 2 | 207 | 414 |
| | 45 | 10.0 | 2 | 252 | 504 |
| | 46 | 10.0 | 2 | 209 | 418 |
| | 47 | 10.0 | 2 | 254 | 508 |
| | 48 | 10.0 | 2 | 250 | 500 |
| | 49 | 10.0 | 2 | 290 | 580 |
| | 50 | 10.0 | 2 | 340 | 680 |
| | 51 | 10.0 | 1 | 453 | 453 |
| | 52 | 10.0 | 2 | 695 | 1390 |
| | 53 | 10.0 | 2 | 721 | 1442 |
| | 54 | 10.0 | 2 | 599 | 1198 |
| | 55 | 10.0 | 2 | 631 | 1262 |
| | 56 | 10.0 | 1 | 254 | 254 |
| | 57 | 10.0 | 2 | 752 | 1504 |
| | 58 | 10.0 | 2 | 597 | 1194 |
| | 59 | 10.0 | 2 | 629 | 1258 |
| | 60 | 10.0 | 2 | 116 | 232 |
| | 61 | 10.0 | 2 | 171 | 342 |
| | 62 | 10.0 | 2 | 337 | 674 |
| | 63 | 10.0 | 1 | 428 | 428 |
| | 64 | 10.0 | 2 | 890 | 1780 |
| | 65 | 10.0 | 2 | 955 | 1910 |
| | 66 | 10.0 | 2 | 442 | 884 |
| | 67 | 10.0 | 2 | 694 | 1388 |
| | 68 | 10.0 | 1 | 230 | 230 |
| | 69 | 10.0 | 2 | 716 | 1432 |
| | 70 | 10.0 | 4 | 636 | 2552 |
| | 71 | 10.0 | 4 | 255 | 1020 |
| | 72 | 10.0 | 2 | 148 | 296 |
| | 73 | 10.0 | 1 | 397 | 397 |
| | 74 | 10.0 | 3 | 694 | 2082 |
| | 75 | 10.0 | 1 | 244 | 244 |
| | 76 | 10.0 | 2 | 720 | 1440 |
| | 77 | 10.0 | 3 | 1110 | 3330 |
| | 78 | 10.0 | 3 | 806 | 2418 |
| | 79 | 10.0 | 3 | 1197 | 3591 |
| | 80 | 10.0 | 3 | 804 | 2412 |
| | 81 | 10.0 | 3 | 1011 | 3033 |
| | 82 | 10.0 | 3 | 1112 | 3336 |
| | 83 | 10.0 | 3 | 1198 | 3594 |
| | 84 | 10.0 | 20 | 1200 | 24000 |
| | 85 | 10.0 | 3 | 459 | 1377 |
| | 86 | 10.0 | 1 | 428 | 428 |
| | 87 | 10.0 | 2 | 695 | 1390 |
| | 88 | 10.0 | 1 | 239 | 239 |
| | 89 | 10.0 | 2 | 721 | 1442 |
| | 90 | 10.0 | 1 | 413 | 413 |
| | 91 | 10.0 | 3 | 695 | 2085 |
| | 92 | 10.0 | 1 | 236 | 236 |
| | 93 | 10.0 | 2 | 750 | 1500 |
| | 94 | 10.0 | 2 | 291 | 582 |
| | 95 | 10.0 | 3 | 1027 | 3081 |
| | 96 | 10.0 | 3 | 988 | 2964 |
| | 97 | 10.0 | 2 | 663 | 1326 |
| | 98 | 10.0 | 1 | 226 | 226 |
| | 99 | 10.0 | 1 | 1018 | 1018 |
| | 100 | 10.0 | 1 | 262 | 262 |
| | 101 | 10.0 | 2 | 576 | 1152 |
| | 102 | 10.0 | 36 | 126 | 4536 |
| | 103 | 10.0 | 6 | corr | 5682 |
| | 104 | 10.0 | 3 | 800 | 2400 |
| | 105 | 10.0 | 3 | 964 | 2892 |
| | 106 | 10.0 | 3 | 322 | 966 |
| | 107 | 10.0 | 3 | 1198 | 3594 |
| | 108 | 10.0 | 3 | 1021 | 3063 |
| | 109 | 10.0 | 1 | 185 | 185 |
| | 110 | 10.0 | 2 | 385 | 770 |
| | 111 | 10.0 | 9 | 419 | 3771 |
| | 112 | 10.0 | 1 | 382 | 382 |
| | 113 | 10.0 | 1 | 692 | 692 |
| | 114 | 10.0 | 2 | 880 | 1760 |
| | 115 | 10.0 | 2 | 248 | 496 |
| | 116 | 10.0 | 2 | 942 | 1884 |
| | 117 | 10.0 | 3 | 178 | 534 |
| | 118 | 10.0 | 3 | 227 | 681 |
| | 119 | 10.0 | 1 | 265 | 265 |
| | 120 | 10.0 | 2 | 404 | 808 |
| | 121 | 10.0 | 1 | 285 | 285 |
| | 122 | 10.0 | 2 | 395 | 790 |
| | 123 | 10.0 | 3 | 396 | 1188 |
| | 124 | 10.0 | 3 | 673 | 2019 |
| | 125 | 10.0 | 1 | 345 | 345 |
| | 126 | 10.0 | 1 | 614 | 614 |
| | 127 | 10.0 | 2 | 1157 | 2314 |
| | 128 | 10.0 | 3 | 225 | 675 |
| | 129 | 10.0 | 2 | 305 | 610 |
| | 130 | 10.0 | 2 | 1157 | 2314 |
| | 131 | 10.0 | 1 | 236 | 236 |
| | 132 | 10.0 | 3 | 1060 | 3180 |
| | 133 | 10.0 | 3 | 1094 | 3282 |
| | 134 | 12.5 | 3 | 696 | 2088 |
| | 135 | 12.5 | 2 | 871 | 1742 |

| | | | |
|---|---|---|---|
| V301 | V302 | V303 | V304 |
| V305 | V306 | V307 | V308 |
| V309 | V310 | V311 | V312 |
| V313 | V314 | V315 | V316 |
| V317 | V318 | V319 | V320 |
| V322 | V323 | V324 | V325 |
| V326 | V327 | V328 | V330 |
| V331 | V332 | V334 | V335 V336 |

| Nº | DATA | RESPONSÁVEL | DESCRIÇÃO DA REVISÃO: |
|---|---|---|---|
| 01 | 26.03.2013 | | PROJETO ESTRUTURAL |


AS BUILT ENGENHARIA DE PROJETOS LTDA
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CEP 82560-435 - Curitiba - Paraná
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FASE: PROJETO ESTRUTURAL

CONFERIR MEDIDAS NA OBRA

OBRA: PRÉDIO EAD
CAMPUS DIAMANTINA

UFVJM

PRANCHA: FERRAGEM DAS VIGAS: COBERTURA (1)


AUTOR PROJETO: CARLOS HENRIQUE DE SOUZA GONÇALVES
CREA 79620/D - Pr


ESCALA: INDICADA

DESENHO: EQUIPE

| VERSÃO: | DATA: | | ÁREA CONSTRUÍDA: | FOLHA: |
|---|---|---|---|---|
| VERSAO 1 | 26/03/2013 | | 1.139,26 m² | EST 13/18 |

ARQUIVO: