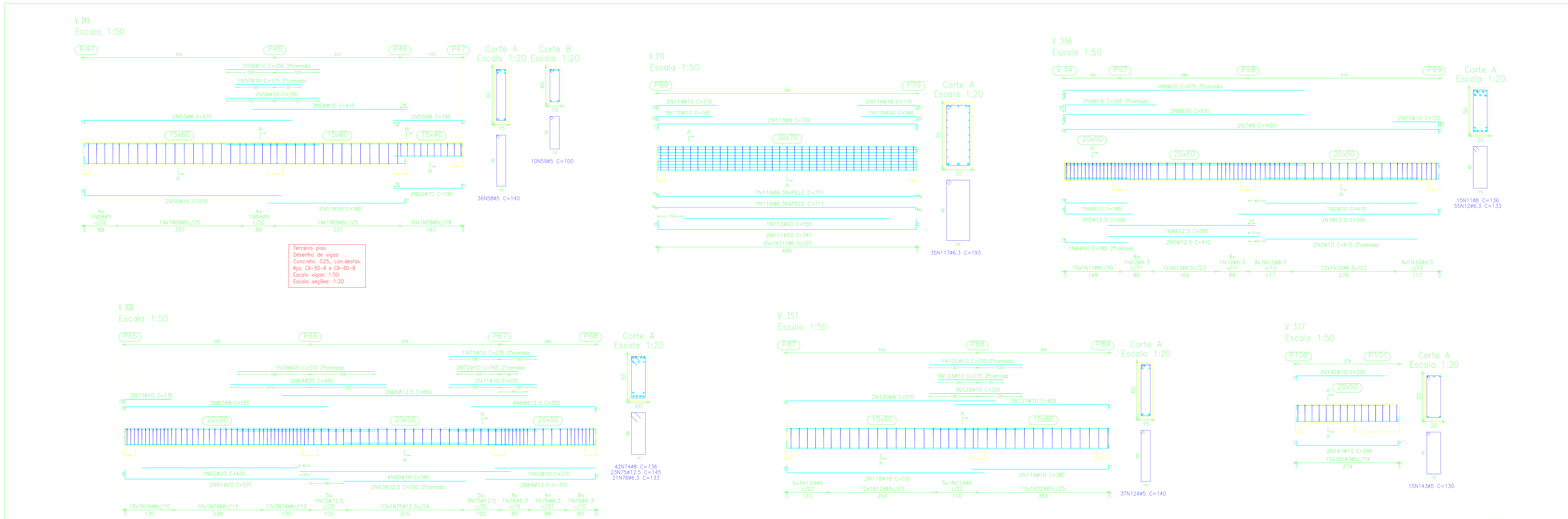


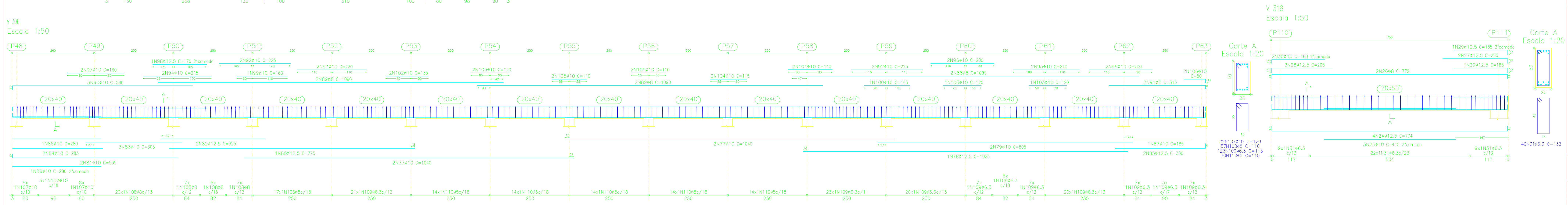


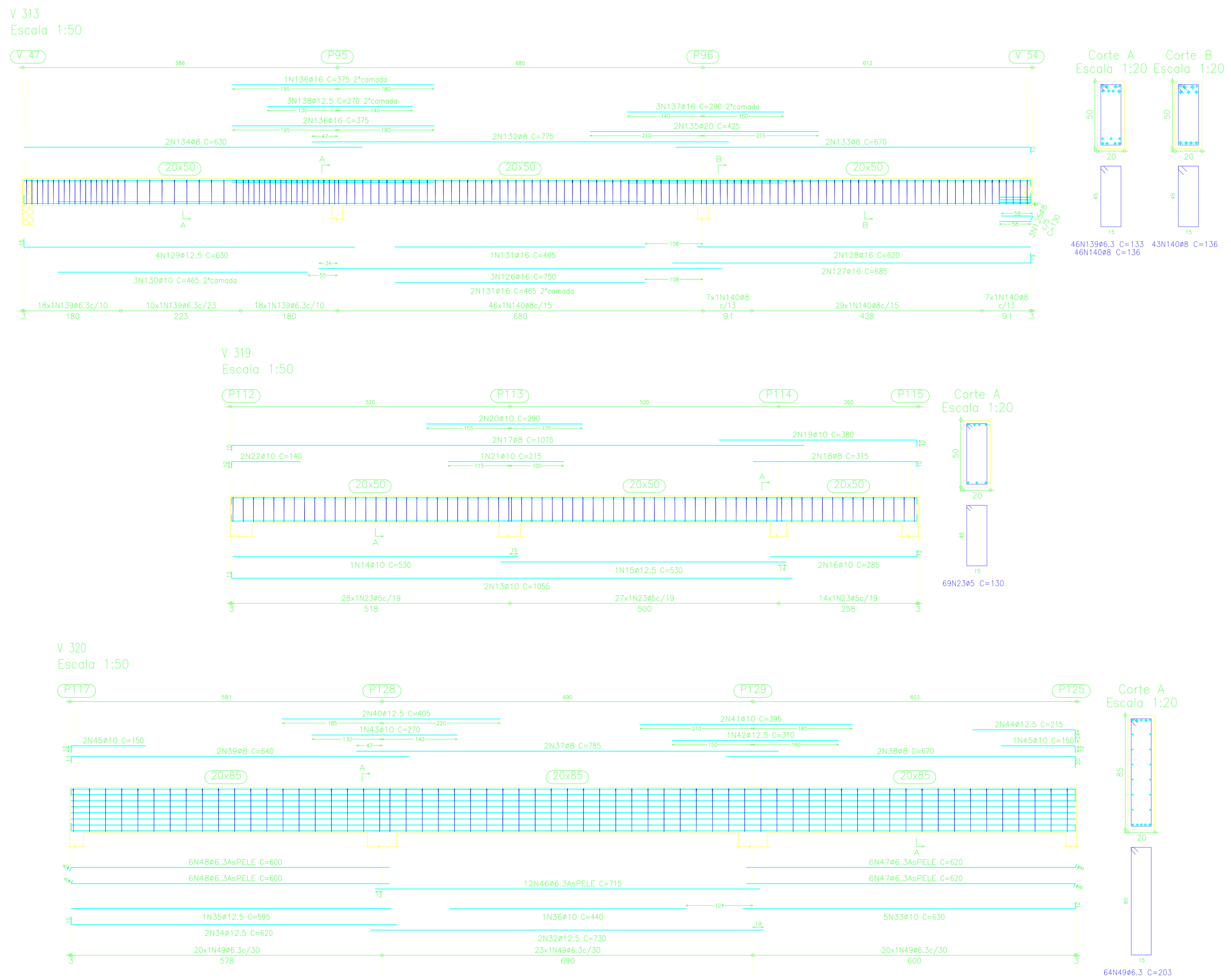


| Elemento | Pos. | Diam. | Q. | Dob. (cm) | Reta (cm) | Dob. (cm) | Comp. (cm) | Total (cm) | CA-50-A (kg) | CA-60-B (kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| V 316 | 1 | ø12.5 | 3 | | 540 | 15 | 555 | 1665 | 16.3 | |
| | 2 | ø10 | 3 | | 410 | | 410 | 1230 | 7.7 | |
| | 3 | ø12.5 | 2 | | 410 | | 410 | 820 | 8.0 | |
| | 4 | ø12.5 | 1 | | 395 | | 395 | 395 | 3.9 | |
| | 5 | ø12.5 | 3 | 24 | 181 | | 205 | 615 | 6.0 | |
| | 6 | ø10 | 2 | 12 | 168 | | 180 | 360 | 2.3 | |
| | 7 | ø8 | 2 | 10 | 1005 | 10 | 1025 | 2050 | 8.0 | |
| | 8 | ø20 | 3 | 26 | 644 | | 670 | 2010 | 49.7 | |
| | 9 | ø16 | 2 | 19 | 246 | | 265 | 530 | 8.3 | |
| | 10 | ø10 | 2 | | 123 | 12 | 135 | 270 | 1.7 | |
| | 11 | ø8 | 15 | | | | 136 | 2040 | 8.0 | |
| | 12 | ø6.3 | 53 | | | | 133 | 7049 | 17.4 | |
| | | | | | | | | Total+10%: | 151.0 | |
| V 319 | 13 | ø10 | 2 | 12 | 1043 | | 1055 | 2110 | 13.3 | |
| | 14 | ø10 | 1 | | 530 | | 530 | 530 | 3.3 | |
| | 15 | ø12.5 | 1 | | 530 | | 530 | 530 | 5.2 | |
| | 16 | ø10 | 2 | | 273 | 12 | 285 | 570 | 3.6 | |
| | 17 | ø8 | 2 | 10 | 1065 | | 1075 | 2150 | 8.4 | |
| | 18 | ø8 | 2 | | 305 | 10 | 315 | 630 | 2.5 | |
| | 19 | ø10 | 2 | | 368 | 12 | 380 | 760 | 4.8 | |
| | 20 | ø10 | 2 | | 290 | | 290 | 580 | 3.6 | |
| | 21 | ø10 | 1 | | 215 | | 215 | 215 | 1.4 | |
| | 22 | ø10 | 2 | 12 | 128 | | 140 | 280 | 1.8 | |
| | 23 | ø5 | 69 | | | | 130 | 8970 | | 14.1 |
| | | | | | | | | Total+10%: | 52.7 | 15.5 |
| V 318 | 24 | ø12.5 | 4 | 15 | 744 | 15 | 774 | 3096 | 30.4 | |
| | 25 | ø10 | 3 | | 415 | | 415 | 1245 | 7.8 | |
| | 26 | ø8 | 2 | 14 | 744 | 14 | 772 | 1544 | 6.1 | |
| | 27 | ø12.5 | 2 | | 205 | 15 | 220 | 440 | 4.3 | |
| | 28 | ø12.5 | 3 | 15 | 190 | | 205 | 615 | 6.0 | |
| | 29 | ø12.5 | 2 | | 170 | 15 | 185 | 370 | 3.6 | |
| | 30 | ø10 | 2 | 12 | 168 | | 180 | 360 | 2.3 | |
| | 31 | ø6.3 | 40 | | | | 133 | 5320 | 13.2 | |
| | | | | | | | | Total+10%: | 81.1 | |
| V 320 | 32 | ø12.5 | 2 | | 730 | | 730 | 1460 | 14.3 | |
| | 33 | ø10 | 5 | | 618 | 12 | 630 | 3150 | 19.8 | |
| | 34 | ø12.5 | 2 | 15 | 605 | | 620 | 1240 | 12.2 | |
| | 35 | ø12.5 | 1 | | 595 | | 595 | 595 | 5.8 | |
| | 36 | ø10 | 1 | | 440 | | 440 | 440 | 2.8 | |
| | 37 | ø8 | 2 | | 785 | | 785 | 1570 | 6.2 | |
| | 38 | ø8 | 2 | | 650 | 20 | 670 | 1340 | 5.3 | |
| | 39 | ø8 | 2 | 11 | 629 | | 640 | 1280 | 5.0 | |
| | 40 | ø12.5 | 2 | | 405 | | 405 | 810 | 7.9 | |
| | 41 | ø10 | 2 | | 395 | | 395 | 790 | 5.0 | |
| | 42 | ø12.5 | 1 | | 310 | | 310 | 310 | 3.0 | |
| | 43 | ø10 | 1 | | 270 | | 270 | 270 | 1.7 | |
| | 44 | ø12.5 | 2 | | 191 | 24 | 215 | 430 | 4.2 | |
| | 45 | ø10 | 3 | 12 | 138 | | 150 | 450 | 2.8 | |
| | 46 | ø6.3 | 12 | | 715 | | 715 | 8580 | 21.2 | |
| | 47 | ø6.3 | 12 | | 612 | 8 | 620 | 7440 | 18.4 | |
| | 48 | ø6.3 | 12 | 8 | 592 | | 600 | 7200 | 17.8 | |
| | 49 | ø6.3 | 63 | | | | 203 | 12789 | 31.6 | |
| | | | | | | | | Total+10%: | 203.5 | |
| V 349 | 50 | ø16 | 2 | 19 | 531 | | 550 | 1100 | 17.3 | |
| | 51 | ø10 | 2 | | 368 | 12 | 380 | 760 | 4.8 | |
| | 52 | ø10 | 2 | | 183 | 12 | 195 | 390 | 2.4 | |
| | 53 | ø8 | 2 | 10 | 560 | | 570 | 1140 | 4.5 | |
| | 54 | ø10 | 3 | | 415 | | 415 | 1245 | 7.8 | |
| | 55 | ø8 | 2 | | 185 | 10 | 195 | 390 | 1.5 | |
| | 56 | ø10 | 2 | | 250 | | 250 | 500 | 3.1 | |
| | 57 | ø10 | 1 | | 175 | | 175 | 175 | 1.1 | |
| | 58 | ø5 | 36 | | | | 140 | 5040 | | 7.9 |
| | 59 | ø5 | 10 | | | | 100 | 1000 | | 1.6 |
| | | | | | | | | Total+10%: | 46.8 | 10.5 |
| V 308 | 60 | ø16 | 4 | | 565 | | 565 | 2260 | 35.5 | |
| | 61 | ø20 | 2 | 26 | 549 | | 575 | 1150 | 28.4 | |
| | 62 | ø20 | 1 | | 420 | | 420 | 420 | 10.4 | |
| | 63 | ø12.5 | 2 | | 330 | | 330 | 660 | 6.5 | |
| | 64 | ø12.5 | 2 | | 295 | 15 | 310 | 620 | 6.1 | |
| | 65 | ø10 | 1 | | 270 | | 270 | 270 | 1.7 | |
| | 66 | ø12.5 | 2 | | 660 | | 660 | 1320 | 13.0 | |
| | 67 | ø8 | 2 | 10 | 545 | | 555 | 1110 | 4.4 | |
| | 68 | ø12.5 | 4 | | 335 | 15 | 350 | 1400 | 13.7 | |
| | 69 | ø20 | 2 | | 420 | | 420 | 840 | 20.8 | |
| | 70 | ø25 | 1 | | 370 | | 370 | 370 | 14.5 | |
| | 71 | ø10 | 3 | | 235 | | 235 | 705 | 4.4 | |
| | 72 | ø10 | 2 | | 165 | | 165 | 330 | 2.1 | |
| | 73 | ø10 | 2 | 12 | 123 | | 135 | 270 | 1.7 | |
| | 74 | ø8 | 42 | | | | 136 | 5712 | 22.4 | |
| | 75 | ø12.5 | 23 | | | | 145 | 3335 | 32.7 | |
| | 76 | ø6.3 | 20 | | | | 133 | 2660 | 6.6 | |
| | | | | | | | | Total+10%: | 247.4 | |
| V 306 | 77 | ø10 | 4 | | 1040 | | 1040 | 4160 | 26.1 | |
| | 78 | ø12.5 | 1 | | 1025 | | 1025 | 1025 | 10.1 | |
| | 79 | ø10 | 2 | | 805 | | 805 | 1610 | 10.1 | |
| | 80 | ø12.5 | 1 | | 775 | | 775 | 775 | 7.6 | |
| | 81 | ø10 | 2 | 12 | 523 | | 535 | 1070 | 6.7 | |
| | 82 | ø12.5 | 2 | | 325 | | 325 | 650 | 6.4 | |
| | 83 | ø10 | 3 | | 305 | | 305 | 915 | 5.7 | |
| | 84 | ø10 | 2 | | 285 | | 285 | 570 | 3.6 | |
| | 85 | ø12.5 | 2 | | 285 | 15 | 300 | 600 | 5.9 | |
| | 86 | ø10 | 2 | | 280 | | 280 | 560 | 3.5 | |
| | 87 | ø10 | 1 | | 185 | | 185 | 185 | 1.2 | |
| | 88 | ø8 | 2 | | 1095 | | 1095 | 2190 | 8.6 | |
| | 89 | ø8 | 4 | | 1090 | | 1090 | 4360 | 17.1 | |
| | 90 | ø10 | 3 | 12 | 568 | | 580 | 1740 | 10.9 | |
| | 91 | ø8 | 2 | | 305 | 10 | 315 | 630 | 2.5 | |
| | 92 | ø10 | 4 | | 225 | | 225 | 900 | 5.7 | |
| | 93 | ø10 | 2 | | 220 | | 220 | 440 | 2.8 | |
| | 94 | ø10 | 2 | | 215 | | 215 | 430 | 2.7 | |
| | 95 | ø10 | 2 | | 210 | | 210 | 420 | 2.6 | |
| | 96 | ø10 | 4 | | 200 | | 200 | 800 | 5.0 | |
| | 97 | ø10 | 2 | | 180 | | 180 | 360 | 2.3 | |
| | 98 | ø12.5 | 1 | | 170 | | 170 | 170 | 1.7 | |
| | 99 | ø10 | 1 | | 160 | | 160 | 160 | 1.0 | |
| | 100 | ø10 | 1 | | 145 | | 145 | 145 | 0.9 | |
| | 101 | ø10 | 2 | | 140 | | 140 | 280 | 1.8 | |
| | 102 | ø10 | 2 | | 135 | | 135 | 270 | 1.7 | |
| | 103 | ø10 | 4 | | 120 | | 120 | 480 | 3.0 | |
| | 104 | ø10 | 2 | | 115 | | 115 | 230 | 1.4 | |
| | 105 | ø10 | 4 | | 110 | | 110 | 440 | 2.8 | |
| | 106 | ø10 | 2 | | 68 | 12 | 80 | 160 | 1.0 | |
| | 107 | ø10 | 21 | | | | 120 | 2520 | 15.8 | |
| | 108 | ø8 | 57 | | | | 116 | 6612 | 26.0 | |
| | 109 | ø6.3 | 122 | | | | 113 | 13786 | 34.1 | |
| | 110 | ø5 | 70 | | | | 110 | 7700 | | 12.1 |
| | | | | | | | | Total+10%: | 262.1 | 13.3 |
| V 310 | 111 | ø20 | 2 | 26 | 695 | 26 | 747 | 1494 | 36.9 | |
| | 112 | ø20 | 1 | | 555 | | 555 | 555 | 13.7 | |
| | 113 | ø8 | 2 | 17 | 695 | 17 | 729 | 1458 | 5.7 | |
| | 114 | ø10 | 4 | 12 | 158 | | 170 | 680 | 4.3 | |
| | 115 | ø10 | 2 | 12 | 148 | | 160 | 320 | 2.0 | |
| | 116 | ø6.3 | 14 | 8 | 695 | 8 | 711 | 9954 | 24.6 | |
| | 117 | ø6.3 | 35 | | | | 193 | 6755 | 16.7 | |
| | | | | | | | | Total+10%: | 114.3 | |
| V 351 | 118 | ø16 | 2 | 19 | 531 | | 550 | 1100 | 17.3 | |
| | 119 | ø10 | 2 | | 368 | 12 | 380 | 760 | 4.8 | |
| | 120 | ø8 | 2 | 10 | 560 | | 570 | 1140 | 4.5 | |
| | 121 | ø10 | 3 | | 413 | 12 | 425 | 1275 | 8.0 | |
| | 122 | ø10 | 2 | | 250 | | 250 | 500 | 3.1 | |
| | 123 | ø10 | 1 | | 175 | | 175 | 175 | 1.1 | |
| | 124 | ø5 | 37 | | | | 140 | 5180 | | 8.1 |
| | | | | | | | | Total+10%: | 42.7 | 8.9 |
| V 313 | 125 | ø8 | 3 | 58 | 14 | 58 | 130 | 390 | 1.5 | |
| | 126 | ø16 | 3 | | 750 | | 750 | 2250 | 35.3 | |
| | 127 | ø16 | 2 | | 666 | 19 | 685 | 1370 | 21.5 | |
| | 128 | ø16 | 2 | | 620 | | 620 | 1240 | 19.5 | |
| | 129 | ø12.5 | 4 | 15 | 615 | | 630 | 2520 | 24.7 | |
| | 130 | ø10 | 3 | | 465 | | 465 | 1395 | 8.8 | |
| | 131 | ø16 | 3 | | 465 | | 465 | 1395 | 21.9 | |
| | 132 | ø8 | 2 | | 775 | | 775 | 1550 | 6.1 | |
| | 133 | ø8 | 2 | | 660 | 10 | 670 | 1340 | 5.3 | |
| | 134 | ø8 | 2 | | 630 | | 630 | 1260 | 4.9 | |
| | 135 | ø20 | 2 | | 425 | | 425 | 850 | 21.0 | |
| | 136 | ø16 | 3 | | 375 | | 375 | 1125 | 17.7 | |
| | 137 | ø16 | 3 | | 290 | | 290 | 870 | 13.7 | |
| | 138 | ø12.5 | 3 | | 270 | | 270 | 810 | 7.9 | |
| | 139 | ø6.3 | 46 | | | | 133 | 6118 | 15.1 | |
| | 140 | ø8 | 89 | | | | 136 | 12104 | 47.5 | |
| | | | | | | | | Total+10%: | 299.6 | |
| V 317 | 141 | ø10 | 2 | 12 | 274 | 12 | 298 | 596 | 3.7 | |
| | 142 | ø10 | 3 | 12 | 238 | | 250 | 750 | 4.7 | |
| | 143 | ø5 | 15 | | | | 130 | 1950 | | 3.1 |
| | | | | | | | | Total+10%: | 9.2 | 3.4 |
| | | | | | | | | ø5: | 0.0 | 51.6 |
| | | | | | | | | ø6.3: | 238.3 | 0.0 |
| | | | | | | | | ø8: | 233.2 | 0.0 |
| | | | | | | | | ø10: | 301.1 | 0.0 |
| | | | | | | | | ø12.5: | 294.1 | 0.0 |
| | | | | | | | | ø16: | 228.8 | 0.0 |
| | | | | | | | | ø20: | 199.0 | 0.0 |
| | | | | | | | | ø25: | 15.9 | 0.0 |
| | | | | | | | | Total: | 1510.4 | 51.6 |

OBSERVAÇÕES

. Medidas das cotas em cm (exceto onde indicado)

. Verificar medidas na obra

. Molhar as formas antes da concretagem

. Usar espaçadores para garantir recobrimento do aço

. Nas armações negativas das lajes – usar "caranguejos"

. Cura minima = 7 dias

. Descimbramento(formas) = mínimo de 28 dias

. Todas as peças de concreto em contato com o solo devem ser executadas sobre lastro de concreto magro c/ e=5cm

. Em caso de dúvidas, contactar o Calculista

| | | | | | |
|---|---|---|---|---|---|
| Classe de Agresiv.: | C II | Ec(5600 fck): √ | | Agreg. Graudo: | Brita 01 |
| CONCRETO( Fck): | 25 MPa | AÇO: | CA 50 | SLUMP (mm): | 100+-10 |
| Fator A/C (max.): | < 0.60 | FORMAS: | C. Res. | ADITIVO: | |

| N° | DATA | DESCRIÇÃO | VISTO |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

QUADRO DE REVISÕES

FASE:

PROJETO EXECUTIVO DE ESTRUTURAL

# PAVILHÃO DE SALAS DE AULA II

CAMPUS JK / DIAMANTINA

RODOVIA MG 367, KM 583, N° 5000 – ALTO DA JACUBA – DIAMANTINA/MG

PROPRIETÁRIO: UNIVERSIDADE FEDERAL DOS VALES DO JEQUITINHONHA E MUCURI

CNPJ 16.888.315/0001-57

TÍTULO

ARMAÇÃO DE VIGAS – TERCEIRO PISO – 02


AUTOR PROJETO ARQUITETÔNICO / RT:

ALESSANDRO DE OLIVEIRA ALVES
RT: ENG. CIVIL: ALESSANDRO DE OLIVEIRA ALVES – CREA: 107.372–D/MG
RUA H N°15, VILA ARRAIOLOS , DIAMANTINA/MG
FONES: (38) 3532–1257 / 8823–8034


VERSÃO: VERSÃO 1 | DATA: 17.10.2012 | AUTOCAD: | FOLHA: 32