

Technical drawing of a structural section A-A of a bridge deck. The drawing shows a cross-section with three main girders labeled (a), (b), and (c), each with a 14x50 reinforcement bar. The top reinforcement is labeled P121, P90, P88, and P76. The bottom reinforcement is labeled 21x1N305d23, 3N1Ø8 C=1083, 8x1N305d23, 16x1N305d23, and 45N305 C=118. Dimensions include 521, 180, 367, 40, 474, 166, 346, 14, 50, 14, and 40. A scale of 1:20 is indicated.

Corte A
Escala 1:20

254
2N5ØB C=269
40
14
35
98
13N6Ø5 C=98
226
2N4ØB C=269
13x1N6Ø25x1Ø

Technical drawing of a staircase section showing a plan view and a cross-section (Corte A).

Plan View:

- Overall width: 254
- Overall depth: 2N900 C=269
- Central opening: 14x40
- Section line A-A is indicated.

Corte A (Cross-section):

- Height: 40
- Width: 14
- Depth: 35
- Scale: 1:20

Technical drawing showing a plan view and a cross-section (Corte A) of a rectangular structure.

Plan View (Left):

- Overall width: 180
- Overall height: 152
- Top and bottom horizontal dimensions: $2N1 \mid \varnothing 8 \ C=194$
- Bottom vertical dimensions: $9 \times N1 \mid 225 \times 1/8$
- Central circular feature: $\varnothing 14 \times 40$
- Section line A-A is indicated.

Corte A (Right):

- Scale: Escala 1:20
- Section dimensions: 40 (height) and 14 (width)
- Bottom horizontal dimension: 9
- Bottom vertical dimension: $9N1 \mid \varnothing 5 \ C=98$

Technical drawing of a reinforced concrete slab (Laje) showing dimensions, reinforcement details, and section A-A.

Dimensions and Reinforcement:

- Overall width: 14.00m
- Overall length: 40.00m
- Reinforcement: 2N19Ø10 C=675, 2N18Ø10 C=750, 1N17Ø8 C=715, 1N17Ø8 C=715 2ª camada, 6x1N20Ø5 d/15, 21x1N20Ø5 d/18, 8x1N20Ø5 d/18, 67N20Ø5 C=98
- Section A-A: 40x14

Technical drawing of the longitudinal section of the bridge deck (Corte A) at a scale of 1:20. The drawing shows a four-lane bridge with lanes labeled 'a', 'b', 'c', and 'd', each 14x40m wide. The total width is 58.2605m. The drawing includes various structural details such as reinforcement bars (e.g., 13x1N2605cl18, 18x1N2605cl18, 15x1N2605cl18, 12x1N2605cl18), concrete slabs (e.g., 2N2308 C=945, 2N2108 C=915, 2N2208 C=265), and vertical supports (e.g., P123, P99, P89, V3). The drawing also shows the bridge piers (V10, V3) and the bridge deck (V10, V3). The drawing is labeled 'Corte A' and 'Escala 1:20'.

Technical drawing of a staircase section (Corte A) showing a double flight with a central landing. The drawing includes dimensions for the flights (3N28Ø10 C=547 and 3N28Ø10 C=561), the landing (3N28Ø10 C=561), and the overall width (500). It also shows the number of steps (14) and the height of the flights (1500 and 1500). The drawing is labeled "Corte A" and "Escala 1:20".

Technical drawing of a door assembly showing a front elevation and a side section.

Front Elevation:

- Top frame: P124 (left), P100 (right)
- Top rail: 2N320Ø C=369
- Handle: 14x40 (diameter 14, length 40)
- Lock: A (cylinder lock)
- Bottom frame: 2N31ØB C=369
- Bottom rail: 1Øx1N33Ø5c/1Ø
- Dimensions: 374 (height), 320 (width), 14 (handle offset)

Side Section (Corte A):

- Section line: Corte A
- Scale: Escala 1:20
- Door thickness: 40
- Handle height: 35
- Bottom rail: 1ØN33Ø5 C=9Ø

Technical drawing of a staircase showing side and front elevations with dimensions and labels.

Side Elevation (Left):

- Top landing: P86
- Bottom landing: P75
- Overall width: 434
- Overall depth: 2N35Ø8 C=449
- Stair flight: 14x50
- Arrow A points to the side elevation.

Front Elevation (Right):

- Overall height: 17N36Ø5 C=118
- Overall width: 380
- Overall depth: 2N34Ø10 C=453
- Stair flight: 17x1N36Ø5a23
- Arrow A points to the front elevation.

Section A (Top Right):

- Section A: Corte A
- Scale: Escala 1:20
- Dimensions: 105 (height), 14 (width), 9 (depth)

Technical drawing of a staircase (Escala 1:20) showing a plan view and a section view (Corte A-A).

Plan View Dimensions:

- Total width: 528
- Total length: 468
- Components and dimensions:
 - 1N402Ø C=135 2ª camada
 - 1N402Ø C=135
 - 2N390Ø C=543
 - 1N380Ø C=330
 - 2N370Ø C=543
 - 2x1N41Ø5c23

Section View (Corte A-A) Dimensions:

- Total height: 90
- Width: 14
- Component dimensions:
 - 21N41Ø5 C=118

| Elemento | Pos. | Diam. | Q. | Comp. (cm) | Total (cm) | CA-50-A (kg) | CA-60-B (kg) |
|------------|---------------------|-------|----|---------------|---------------|-----------------|-----------------|
| V 11 | 1 | Ø6 | 3 | 1083 | 3249 | 12.8 | |
| | 2 | Ø3 | 3 | 1083 | 3249 | 12.8 | |
| | 3 | Ø5 | 45 | 118 | 5310 | | 8.3 |
| | Total+10%: | | | | | 28.2 | 9.1 |
| V 12=V 18 | 4 | Ø6 | 2 | 269 | 538 | 2.1 | |
| | 5 | Ø6 | 2 | 269 | 538 | 2.1 | |
| | 6 | Ø5 | 13 | 98 | 1274 | | 2.0 |
| | Total+10%: (x2): | | | | | 4.6 | 2.2 |
| V 13 | 7 | Ø6 | 2 | 269 | 538 | 2.1 | |
| | 8 | Ø6 | 2 | 269 | 538 | 2.1 | |
| | 9 | Ø5 | 13 | 98 | 1274 | | 2.0 |
| | Total+10%: | | | | | 4.6 | 2.2 |
| V 14 | 10 | Ø6 | 2 | 194 | 388 | 1.5 | |
| | 11 | Ø6 | 2 | 194 | 388 | 1.5 | |
| | 12 | Ø5 | 9 | 98 | 882 | | 1.4 |
| Total+10%: | | | | | | 3.3 | 1.5 |
| V 15 | 13 | Ø6 | 2 | 201 | 402 | 1.6 | |
| | 14 | Ø5 | 2 | 201 | 402 | 1.6 | |
| | 15 | Ø5 | 9 | 98 | 882 | | 1.4 |
| Total+10%: | | | | | | 3.5 | 1.5 |
| V 16 | 16 | Ø10 | 2 | 1200 | 2400 | 15.1 | |
| | 17 | Ø8 | 2 | 715 | 1430 | 5.6 | |
| | 18 | Ø10 | 2 | 750 | 1500 | 9.4 | |
| | 19 | Ø10 | 2 | 675 | 1350 | 8.5 | |
| | 20 | Ø5 | 66 | 98 | 6468 | | 10.2 |
| Total+10%: | | | | | | 42.5 | 11.2 |
| V 17 | 21 | Ø6 | 2 | 915 | 1830 | 7.2 | |
| | 22 | Ø6 | 2 | 265 | 530 | 2.1 | |
| | 23 | Ø6 | 2 | 945 | 1890 | 7.4 | |
| | 24 | Ø6 | 2 | 290 | 580 | 2.3 | |
| | 25 | Ø6 | 2 | 135 | 270 | 1.1 | |
| | 26 | Ø5 | 58 | 98 | 5604 | | 8.9 |
| Total+10%: | | | | | | 22.1 | 9.8 |
| V 19 | 27 | Ø6.3 | 6 | 104 | 624 | 1.5 | |
| | 28 | Ø10 | 5 | 561 | 2805 | 17.6 | |
| | 29 | Ø10 | 2 | 547 | 1094 | 6.9 | |
| | 30 | Ø5 | 22 | 118 | 2596 | | 4.1 |
| Total+10%: | | | | | | 28.6 | 4.5 |
| V 20 | 31 | Ø6 | 2 | 389 | 778 | 3.1 | |
| | 32 | Ø6 | 2 | 389 | 778 | 3.1 | |
| | 33 | Ø5 | 18 | 98 | 1764 | | 2.8 |
| Total+10%: | | | | | | 6.8 | 3.1 |
| V 21 | 34 | Ø10 | 2 | 453 | 906 | 5.7 | |
| | 35 | Ø6 | 2 | 449 | 898 | 3.5 | |
| | 36 | Ø5 | 17 | 118 | 2006 | | 3.1 |
| Total+10%: | | | | | | 10.1 | 3.4 |
| V 22 | 37 | Ø6 | 2 | 543 | 1086 | 4.3 | |
| | 38 | Ø6 | 1 | 330 | 330 | 1.3 | |
| | 39 | Ø6 | 2 | 543 | 1086 | 4.3 | |
| | 40 | Ø6 | 4 | 135 | 540 | 2.1 | |
| | 41 | Ø5 | 21 | 118 | 2478 | | 3.9 |
| Total+10%: | | | | | | 13.2 | 4.3 |
| | | | | | | Ø5: | 0.0 |
| | | | | | | Ø6.3: | 1.7 |
| | | | | | | Ø6: | 100.9 |
| | | | | | | Ø10: | 69.5 |
| | | | | | | Total: | 172.1 |
| | | | | | | | 55.0 |

Escala 1:50

| | | | |
|---------------------|--------------|------------------------------|--|
| REVISÃO: | 03 | | |
| REVISÃO: | 02 | | |
| REVISÃO: | 01 | | |
| EMISSIONAL INICIAL: | * 24/05/2013 | 1ª ENTREGA PARA A PREFEITURA | |

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|---|--|--------------------------------------|--|
|  | PREFEITURA MUNICIPAL DE JOINVILLE END.: Av. Herman August Lepper, nº10, Centro TEL.: (47)3431-3233 – Joinville – Santa Catarina CNPJ: 83.169.623/0001-10 | | COORDENAÇÃO DE PROJETOS:  SOLAR ENGENHARIA SOLAR CONSTRUÇÕES, PROJETOS E CONSULTORIA LTDA. CNPJ: 13.411.864/0001-48 TEL.: (31)3568-2814 BH/MG eken@solarengenharia.eng.br |
| | <div style="text-align: center;"> CEI LOT. NOVA VILA </div> | | |
| PREFEITURA MUNICIPAL DE JOINVILLE CNPJ: 83.169.623/0001-10 CONTRATANTE | EDUARDO KEN MIZUTA CREA: 139067/D RESPONSÁVEL TÉCNICO | | ÁREA DO TERRENO: 5.049,00 m² |
| | | | ÁREA CONSTRUÍDA: |
| | | | ÁREA PERMEÁVEL: |
| ENDEREÇO: RUA ROLANDO GURSKE, (449) – VILA NOVA – CEP 89237 – JOINVILLE | | ARQUIVO: 001-0003-2013-EXE-EST-15 | |
| DETALHAMENTO VIGAS BALDRAME PARTE 2 | PROJETO: ESTRUTURAL DESENHISTA: ISABELLA TEOTONIO DIAS | DATA: MAIO/2013 | FOLHA: <div style="text-align: right;"> 15 / 15 </div> |