

Technical drawing of a cable tray system layout, showing three sections (A, B, C) with various cable specifications, dimensions, and annotations.

**Section A:**

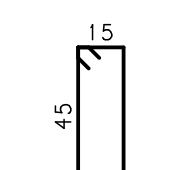
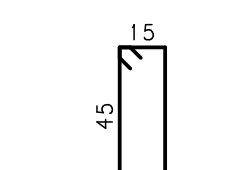
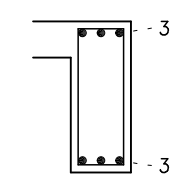
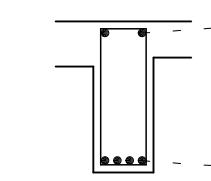
- Top left: 260, 4 N2  $\phi$  16 C=285, 164, (1  $\phi$  2aCAM), 2 N1  $\phi$  5 C=265.
- Top middle: 236, 2 N3  $\phi$  20 C=1045.
- Top right: 190, 2 N4  $\phi$  8.3 C=240, 125, 2 N5  $\phi$  20 C=290, (1  $\phi$  2aCAM).
- Right side: 200, 3 N6  $\phi$  16 C=230.
- Vertical dimensions: 20/50, 20/50, 20/50.
- Horizontal dimensions: 141, 2 N8  $\phi$  10 C=320, 41.
- Bottom: 2 N7  $\phi$  10 C=635, 163, 2 N9  $\phi$  10 C=560.
- Annotations: P25, P13, P9, P.

**Section B:**

- Top: 2 N14 C/15 36  $\phi$  5, 2  $\phi$  5, 2  $\phi$  20, 4  $\phi$  20, 2  $\phi$  8.3, 3  $\phi$  16.
- Right side: 200, 3 N6  $\phi$  16 C=230.
- Vertical dimensions: 20/50, 20/50, 20/50.
- Horizontal dimensions: 141, 2 N8  $\phi$  10 C=320, 41.
- Bottom: 2 N7  $\phi$  10 C=635, 163, 2 N9  $\phi$  10 C=560.
- Annotations: P25, P13, P9, P.

**Section C:**

- Top: 2 N14 C/15 36  $\phi$  5, 2  $\phi$  5, 2  $\phi$  20, 4  $\phi$  20, 2  $\phi$  8.3, 3  $\phi$  16.
- Right side: 200, 3 N6  $\phi$  16 C=230.
- Vertical dimensions: 20/50, 20/50, 20/50.
- Horizontal dimensions: 141, 2 N8  $\phi$  10 C=320, 41.
- Bottom: 2 N7  $\phi$  10 C=635, 163, 2 N9  $\phi$  10 C=560.
- Annotations: P25, P13, P9, P.



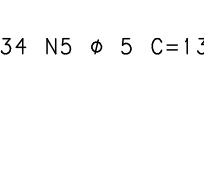
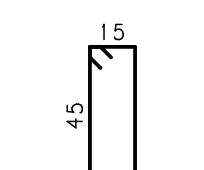
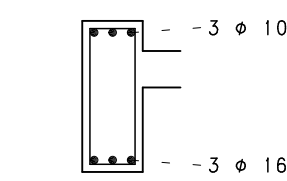
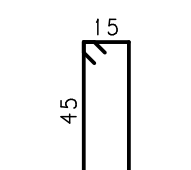
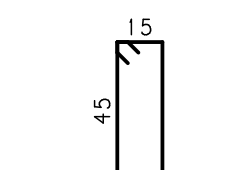
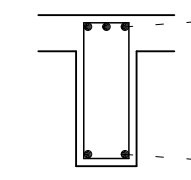
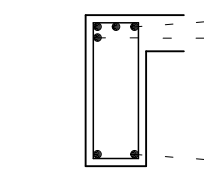
Technical drawing of a mechanical part, likely a shaft or axle, showing two views: a front view (top) and a side view (bottom).

**Front View (Top):**

- Overall length: 135
- Central section length: 112
- Central section diameter:  $\phi 10$
- Outer section diameter:  $\phi 6.3$
- Section 1 (left): Length 88, diameter  $\phi 10$ , C=165
- Section 2 (right): Length 15, diameter  $\phi 10$ , C=165
- Section 3 (center): Length 112, diameter  $\phi 6.3$ , C=330
- Scale: 20/50

**Side View (Bottom):**

- Overall length: 135
- Central section length: 112
- Central section diameter:  $\phi 10$
- Outer section diameter:  $\phi 6.3$
- Section 1 (left): Length 88, diameter  $\phi 10$ , C=165
- Section 2 (right): Length 15, diameter  $\phi 10$ , C=165
- Section 3 (center): Length 112, diameter  $\phi 6.3$ , C=330
- Scale: 20/50

[illegible]

Technical drawing of a reinforced concrete slab (P26) showing dimensions and reinforcement details.

**Plan View Dimensions:**

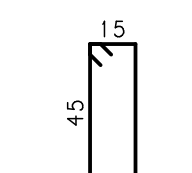
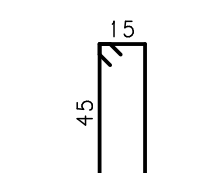
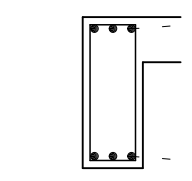
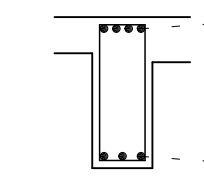
- Width: 180
- Length: 240

**Reinforcement Details:**

- Top Reinforcement (N1, N2, N3, N4):**
  - N1: 3 bars, spacing C=210
  - N2: 2 bars, spacing C=510
  - N3: 2 bars, spacing C=175
  - N4: 1 bar, spacing C=160
- Bottom Reinforcement (N5, N6, N7, N8):**
  - N5: 2 bars, spacing C=510
  - N6: 1 bar, spacing C=255
  - N7: 1 bar, spacing C=185
  - N8: 2 bars, spacing C=15

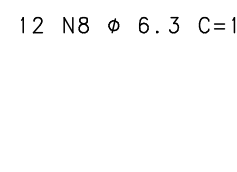
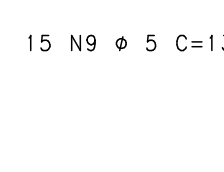
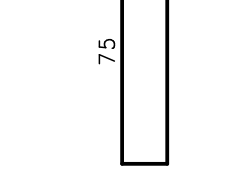
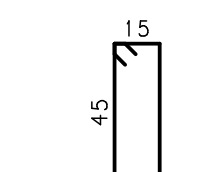
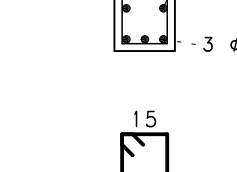
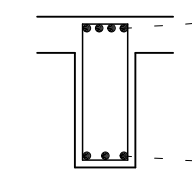
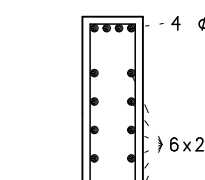
**Other Dimensions:**

- Slab thickness: 20
- Clearance from wall: 48
- Clearance from wall: 46
- Clearance from wall: 77
- Clearance from wall: 20/50
- Clearance from wall: 20/50



Technical drawing showing a cross-section of a mechanical assembly. The drawing includes the following components and dimensions:

- Top Section:**
  - Shaft 1: 3 N1  $\phi$  10 C=215, length 185.
  - Shaft 2: 2 N2  $\phi$  10 C=500, length 468.
  - Shaft 3: 2 N3  $\phi$  10 C=430, length 399.
- Left Section:**
  - Shaft 4: 3  $\phi$  10, length 5.
  - Shaft 5: 5  $\phi$  10, length 6.3.
  - Shaft 6: 4  $\phi$  10, length 288.
  - Shaft 7: 3  $\phi$  10, length 6.3.
- Right Section:**
  - Shaft 8: N9 C/15, length 15.
  - Shaft 9: 4  $\phi$  10, length 5.
  - Shaft 10: 3  $\phi$  10, length 3.
- Dimensions and Labels:**
  - Overall length: 320.
  - Section A-A: 20/80.
  - Section B-B: 20/50.
  - Section C-C: 20/50.
  - Section D-D: 20/50.
  - Section E-E: 20/50.
  - Section F-F: 20/50.
  - Section G-G: 20/50.
  - Section H-H: 20/50.
  - Section I-I: 20/50.
  - Section J-J: 20/50.
  - Section K-K: 20/50.
  - Section L-L: 20/50.
  - Section M-M: 20/50.
  - Section N-N: 20/50.
  - Section O-O: 20/50.
  - Section P-P: 20/50.
  - Section Q-Q: 20/50.
  - Section R-R: 20/50.
  - Section S-S: 20/50.
  - Section T-T: 20/50.
  - Section U-U: 20/50.
  - Section V-V: 20/50.
  - Section W-W: 20/50.
  - Section X-X: 20/50.
  - Section Y-Y: 20/50.
  - Section Z-Z: 20/50.



Technical drawing of a building floor plan showing structural elements and reinforcement details.

**Top Section:**

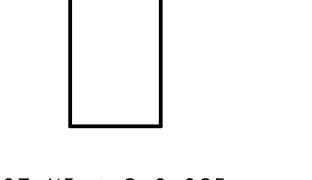
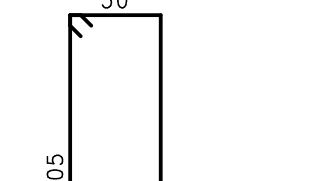
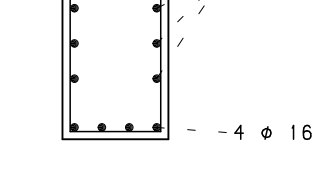
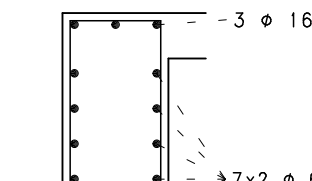
- Top edge: 388
- Left corner: 102
- Top-left reinforcement: 2 N1  $\phi$  20 C=490
- Top-right reinforcement: 3 N2  $\phi$  16 C=435
- Right edge: 80
- Top-right corner: 355
- Top-right corner: 35 / 110
- Top-right corner: A

**Central Section:**

- Central reinforcement: N5 C/20 27  $\phi$  8
- Central reinforcement: 2  $\phi$  20
- Central reinforcement: 2  $\phi$  20 + 3  $\phi$  16
- Central reinforcement: 3  $\phi$  16
- Central reinforcement: 2x7  $\phi$  6.3
- Central reinforcement: 4  $\phi$  16

**Bottom Section:**

- Bottom-left corner: 81
- Bottom-left corner: P14
- Bottom-left corner: A
- Bottom-left corner: A
- Bottom-left corner: 38
- Bottom-left corner: (costela)
- Bottom-left corner: 2x7 N6  $\phi$  6.3 C=605
- Bottom-left corner: 2 N4  $\phi$  16 C=630
- Bottom-left corner: 643
- Bottom-left corner: 2 N3  $\phi$  18 C=805
- Bottom-right corner: 81
- Bottom-right corner: P10



- NOTAS

1. DIMENSÕES EM CENTÍMETROS, ELEVAÇÕES EM METROS
2. CONCRETO ESTRUTURAL:  
Fck>= 30 MPa  
CONSUMO DE CIMENTO >=520,0kg/m3.
3. FATOR ÁGUA/CIMENTO MÁXIMO: 0,60
4. CLASSE DE AGRESSIVIDADE II - URBANA
5. MÓDULO DE ELASTICIDADE INICIAL A 28 DIAS IGUAL A 30670 MPa
6. REALIZAR OS PROCEDIMENTOS DE CURA, RETIRADA DE FORMAS E DO ESCORAMENTO CONFORME NBR 14931:2004:  
PROCEDER COM A CURA ÚMIDA POR NO MÍNIMO 07 (SETE) DIAS OU UTILIZAR A CURA QUÍMICA DOS ELEMENTOS DE CONCRETO.
7. A EXECUÇÃO DA ESTRUTURA DEVERÁ CONTAR COM O ACOMPANHAMENTO DE UM TECNÓLOGO DE CONCRETO
8. O ENGENHEIRO RESPONSÁVEL PELA OBRA DEVERÁ OBEDECER AS RECOMENDAÇÕES DAS NORMAS TÉCNICAS APLICÁVEIS, DEDICANDO ESPECIAL ATENÇÃO ÀS SEGUINTE ATIVIDADES:
  - 8.1. CONCRETO: PREPARO, CONTROLE, RECEBIMENTO, TRANSPORTE, LANÇAMENTO, ADENSAMENTO E CURA
  - 8.2. FORMA: CONFERÊNCIA DAS MEDIDAS E POSIÇÕES, LIMPEZA, ESTANQUEIDADE, SATURAÇÃO DAS FORMAS ABSORVENTES (RETIRAR EXCESSO DE ÁGUA), CUIDADO COM O USO DOS DESMOLDANTES E RETIRADA DAS FORMAS
  - 8.3. ARMADO: LIMPEZA, MONTAGEM, COBRIMENTO (USO DE ESPAÇADORES PLÁSTICOS ADEQUADOS), E GARANTIA DA POSIÇÃO DAS ARMADURAS ANTES E DURANTE A CONCRETAGEM
9. COBRIMENTO MÍNIMO DA ARMADURA:  
LAJES=2,0cm; VIGAS E PILARES=2,5cm; BLOCOS=5,0CM; ESTACAS=4,0cm.
10. RECOMENDA-SE QUE OS MATERIAIS (ACO E CONCRETO) UTILIZADOS NESTE PROJETO SEJAM SUBMETIDOS A ENSAIOS TECNOLÓGICOS
11. PREVER DRENAGEM E/OU IMPERMEABILIZAÇÃO PARA AS CORTINAS (CONTENÇÕES).
12. CONFERIR MEDIDAS NO LOCAL.

| V3.34 | AÇO | POS | BIT  | QUANT | COMPRIMENTO |             |
|-------|-----|-----|------|-------|-------------|-------------|
|       |     |     |      |       | UNIT<br>cm  | TOTAL<br>cm |
|       | 60A | 1   | 5    | 2     | 265         | 530         |
|       | 50A | 2   | 16   | 4     | 285         | 1140        |
|       | 30A | 3   | 20   | 2     | 1045        | 2090        |
|       | 50A | 4   | 6,3  | 2     | 240         | 480         |
|       | 50A | 5   | 20   | 2     | 290         | 580         |
|       | 50A | 6   | 16   | 3     | 320         | 690         |
|       | 50A | 7   | 10   | 2     | 635         | 1270        |
|       | 50A | 8   | 10   | 2     | 320         | 640         |
|       | 50A | 9   | 10   | 2     | 560         | 1120        |
|       | 50A | 10  | 10   | 2     | 285         | 570         |
|       | 50A | 11  | 12,5 | 2     | 186         | 372         |
|       | 50A | 12  | 16   | 2     | 650         | 1300        |
|       | 50A | 13  | 16   | 1     | 270         | 270         |
|       | 60A | 14  | 5    | 122   | 133         | 16226       |
| V3.35 | 50A | 1   | 16   | 2     | 620         | 1240        |
|       | 50A | 2   | 16   | 2     | 425         | 850         |
|       | 50A | 3   | 12,5 | 2     | 525         | 1050        |
|       | 50A | 4   | 12,5 | 1     | 395         | 395         |
|       | 50A | 5   | 12,5 | 2     | 175         | 350         |
|       | 50A | 6   | 8    | 2     | 280         | 560         |
|       | 50A | 7   | 12,5 | 2     | 525         | 1050        |
|       | 50A | 8   | 10   | 2     | 285         | 570         |
|       | 50A | 9   | 10   | 1     | 125         | 125         |
|       | 50A | 10  | 8    | 13    | 135         | 1755        |
|       | 60A | 11  | 5    | 47    | 133         | 6251        |
| V3.36 | 50A | 1   | 10   | 3     | 210         | 630         |
|       | 50A | 2   | 10   | 2     | 510         | 1020        |
|       | 50A | 3   | 10   | 2     | 175         | 350         |
|       | 50A | 4   | 10   | 1     | 160         | 160         |
|       | 50A | 5   | 10   | 2     | 655         | 1310        |
|       | 50A | 6   | 10   | 1     | 255         | 255         |
|       | 50A | 7   | 10   | 1     | 185         | 185         |
|       | 60A | 8   | 5    | 38    | 133         | 5054        |
| V3.37 | 50A | 1   | 20   | 2     | 490         | 980         |
|       | 50A | 2   | 16   | 3     | 435         | 1305        |
|       | 50A | 3   | 16   | 2     | 805         | 1610        |
|       | 50A | 4   | 16   | 2     | 630         | 1260        |
|       | 50A | 5   | 8    | 27    | 285         | 7695        |
|       | 50A | 6   | 6,3  | 14    | 605         | 8470        |
| V3.38 | 50A | 1   | 10   | 3     | 215         | 645         |
|       | 50A | 2   | 10   | 2     | 500         | 1000        |
|       | 50A | 3   | 10   | 2     | 430         | 860         |
|       | 50A | 4   | 10   | 2     | 365         | 730         |
|       | 50A | 5   | 10   | 1     | 315         | 315         |
|       | 50A | 6   | 10   | 2     | 270         | 540         |
|       | 50A | 7   | 10   | 1     | 145         | 145         |
|       | 50A | 8   | 6,3  | 12    | 194         | 2328        |
|       | 60A | 9   | 5    | 15    | 133         | 1995        |
|       | 50A | 10  | 6,3  | 12    | 324         | 3888        |
| V3.39 | 50A | 1   | 6,3  | 2     | 330         | 660         |
|       | 50A | 2   | 10   | 7     | 165         | 1155        |
|       | 50A | 3   | 16   | 2     | 585         | 1170        |
|       | 50A | 4   | 16   | 1     | 290         | 290         |
|       | 50A | 5   | 5    | 34    | 33          | 4522        |

| RESUMO DE AÇO |      |       |         |
|---------------|------|-------|---------|
| AÇO           | BIT  | COMPR | PESO    |
|               | mm   | m     | kgf     |
| 60A           | 5    | 346   | 53      |
| 50A           | 6.3  | 158   | 39      |
| 50A           | 8    | 100   | 40      |
| 50A           | 10   | 136   | 84      |
| 50A           | 12.5 | 32    | 31      |
| 50A           | 16   | 111   | 176     |
| 50A           | 20   | 37    | 90      |
| Peso Total    |      | 60A = | 53 kgf  |
| Peso Total    |      | 50A = | 459 kgf |

|   |     |                                    |   |                        |
|---|-----|------------------------------------|---|------------------------|
|   |     |                                    |   |                        |
|   |     |                                    |   |                        |
|   |     |                                    |   |                        |
|   |     |                                    |   |                        |
| EXE   | 00  | PROJETO EXECUTIVO - LICITAÇÃO OBRA | EFICÁCIA  | 25/11/20               |
| TIPO  | REV | DESCRIÇÃO                          | DESENHO   |                        |
| REVISÕES  |     |                                    |   |                        |
| <b>MINISTÉRIO PÚBLICO DO ESTADO DE MINAS GERAIS</b>   |     |                                    |   |                        |
| <b>SEDE DAS PROMOTORIAS DE JUSTIÇA DA COMARCA DE RIBEIRÃO DAS NEVES</b>                           |     |                                    |   |                        |
| ENDEREÇO:<br>RUA VERA LÚCIA DE OLIVEIRA ANDRADE, S/N,<br>BAIRRO VILA ESPANADA, RIBEIRÃO DAS NEVES |     |                                    | ÁREA TERRENO:<br><b>3.235,71m<sup>2</sup></b>   |                        |
|   |     |                                    | ÁREA CONSTRUÍDA:<br><b>3.915,46m<sup>2</sup></b>                                      |                        |
| PROPRIETÁRIO:   |     |                                    | CNPJ:   |                        |
|   |     |                                    | <b>20.971.057/0001-45</b>   |                        |
| <b>PROCURADORIA GERAL DE JUSTIÇA DO ESTADO DE MINAS GERAIS</b>                                    |     |                                    |   |                        |
| <b>PROJETO DE ESTRUTURA DE CONCRETO ARMADO</b>  |     |                                    |   |                        |
| EMPRESA:  |     |                                    | CNPJ:   |                        |
|   |     |                                    | <b>06.301.115/0001-00</b>   |                        |
| ENGENHEIRO FABRÍCIO SILVA LIMA<br>CREA: 80.082/D-MG<br>EFICÁCIA PROJETOS E CONSULTORIA LTDA       |     |                                    |  |                        |
| RESPONSÁVEL TÉCNICO:  |     |                                    | CREA:   |                        |
| NELSON URIAS PINTO GARIGLIO DA SILVA  |     |                                    | <b>82.624/D</b>   |                        |
| CONTEÚDO:<br>ARMACAÇÃO DE VIGAS 3o PAVIMENTO - 07/09  |     |                                    | DATA:<br><b>25/11/20</b><br>ESCALA:<br>INDICAÇÃO                                      | FOLHA:<br><b>52/90</b> |