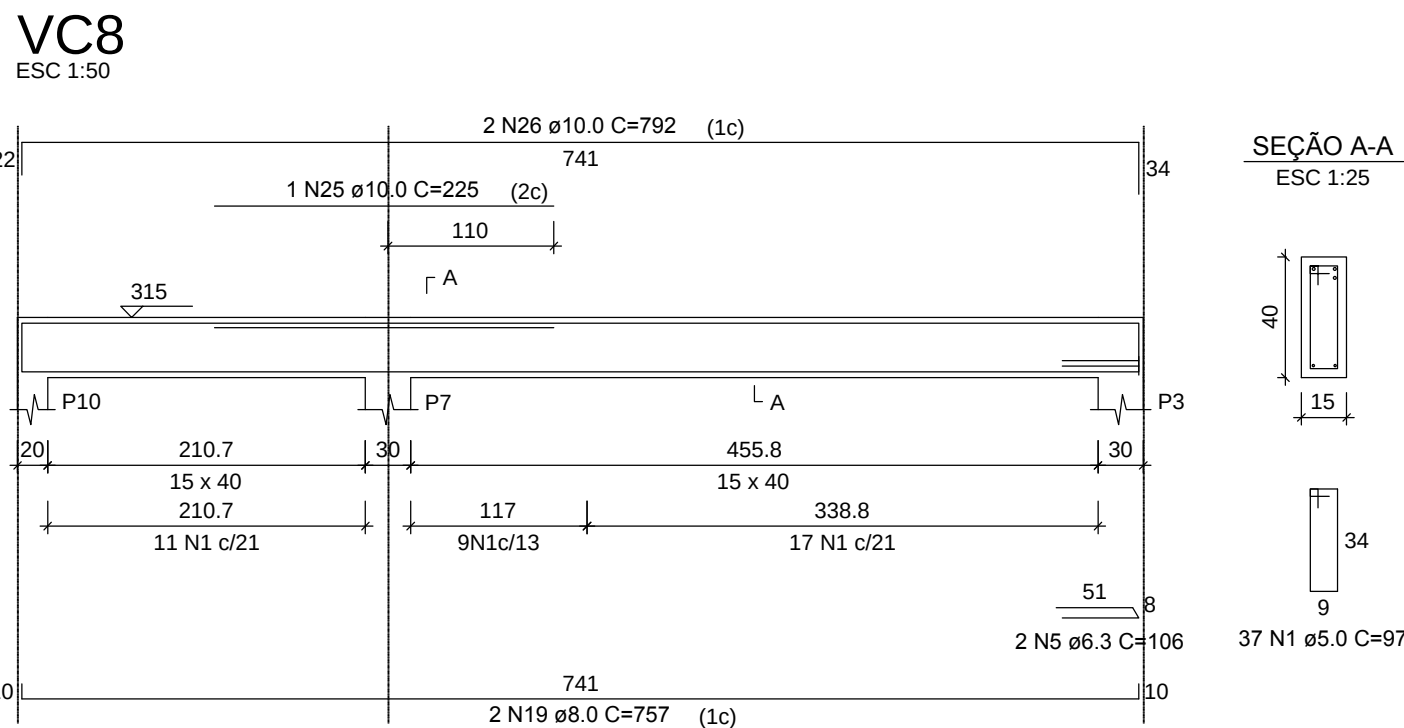
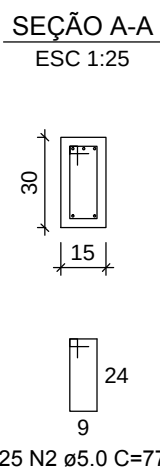
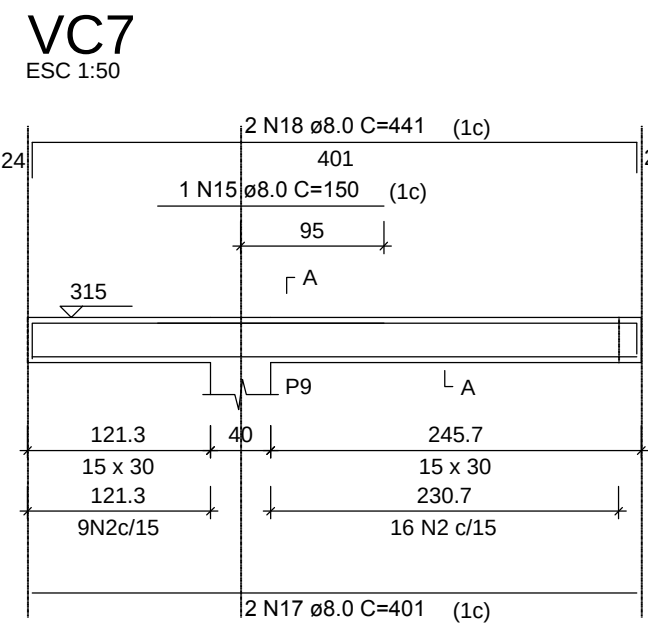
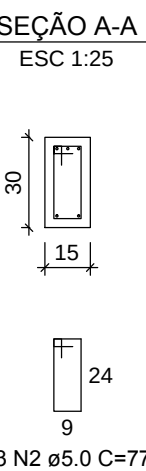
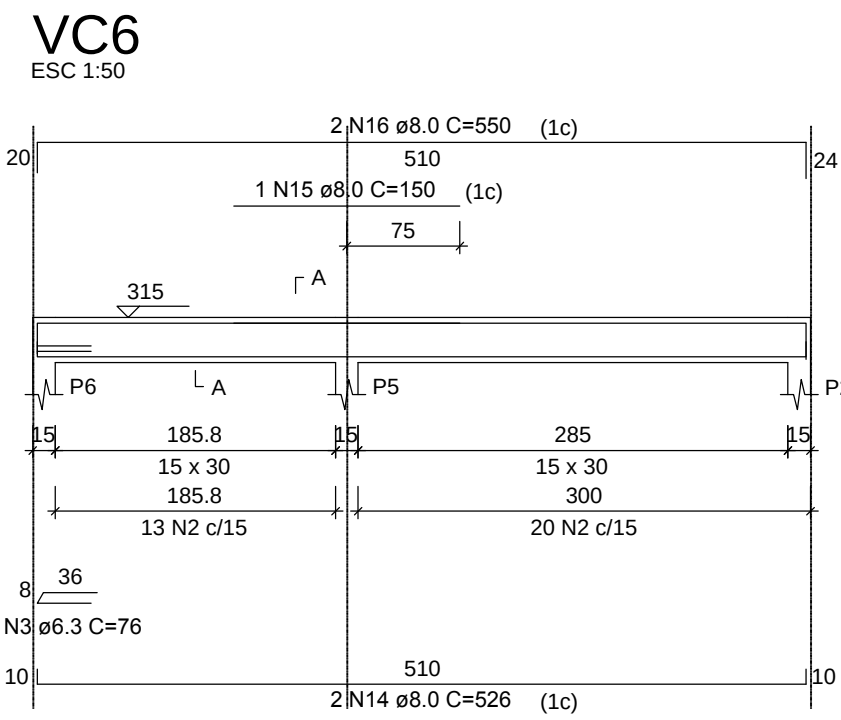
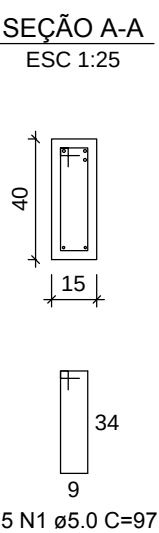
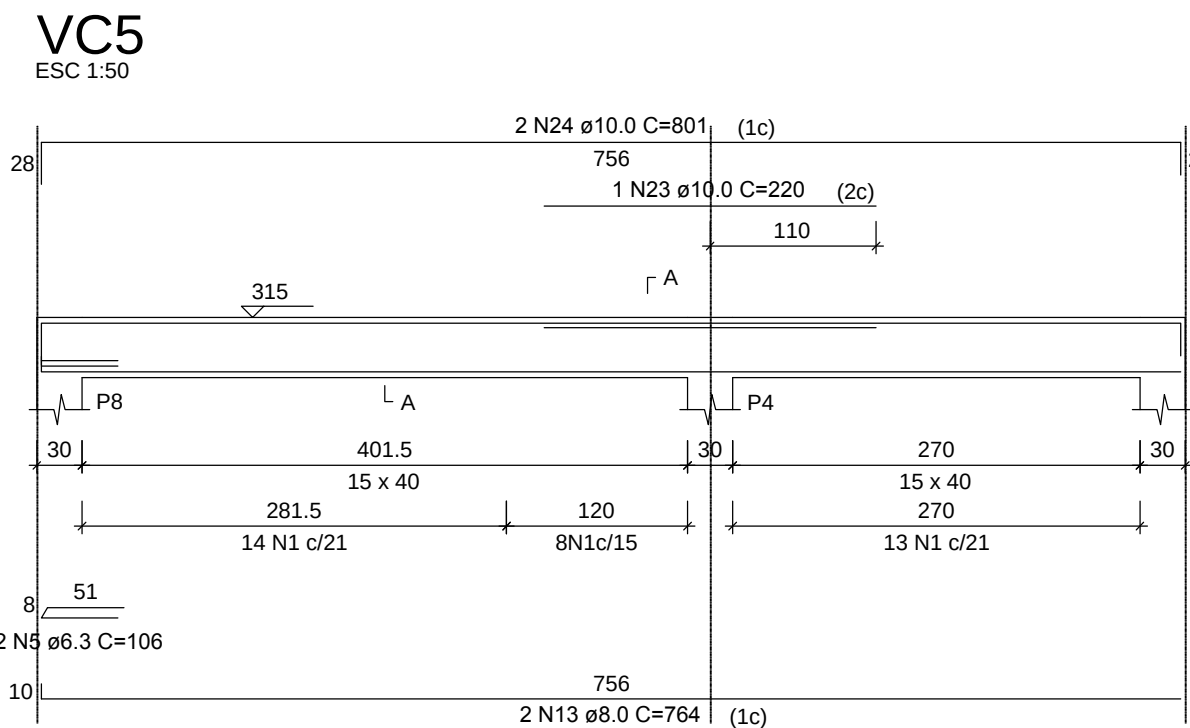
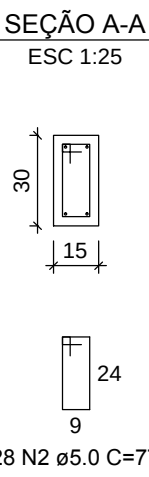
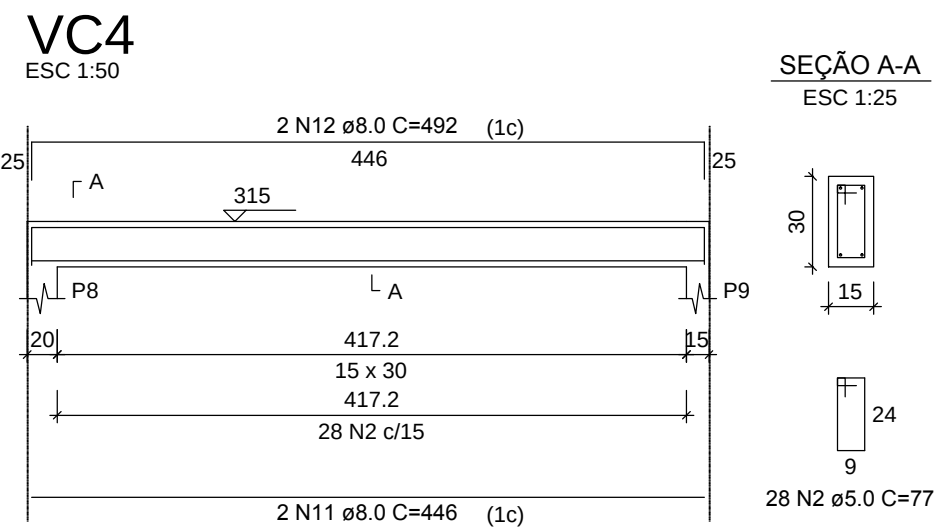
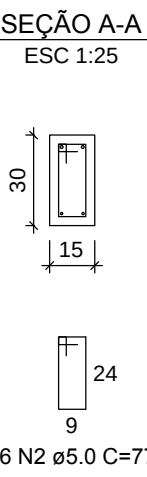
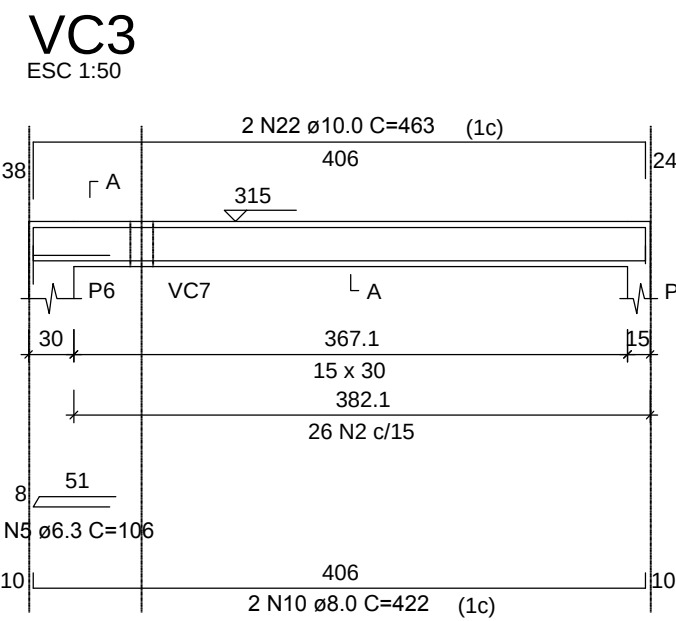
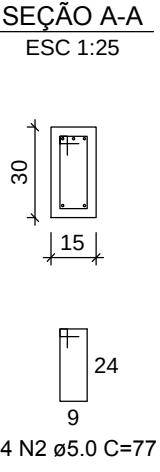
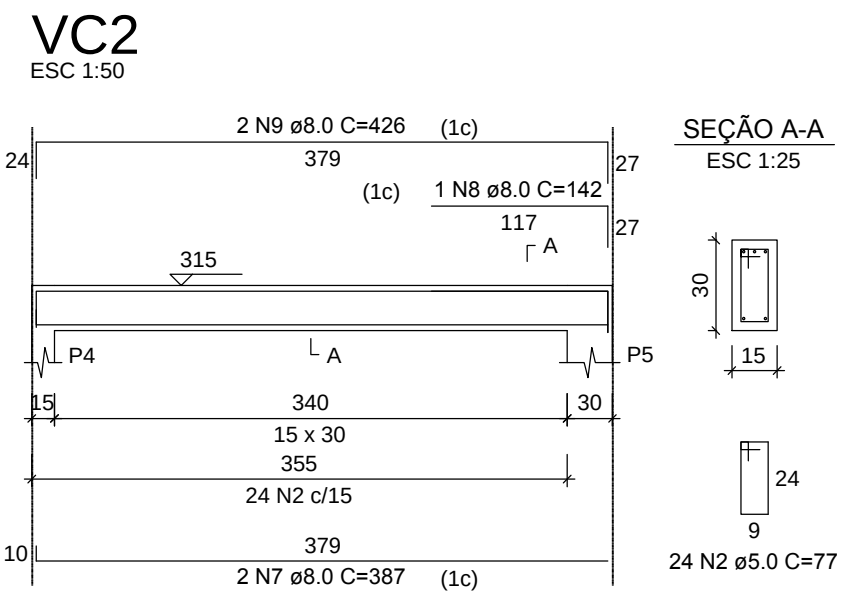
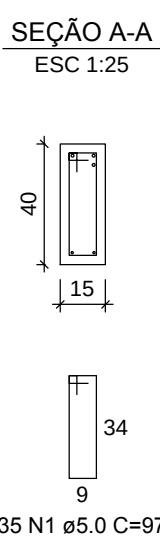
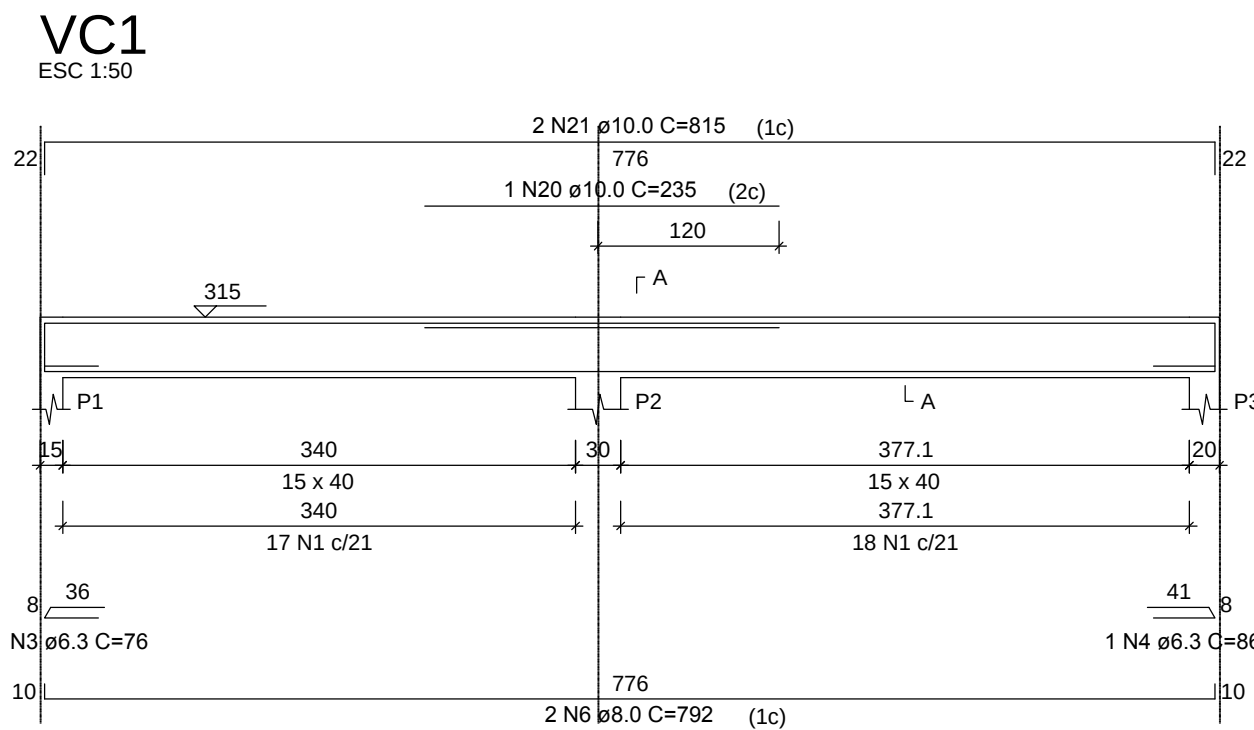
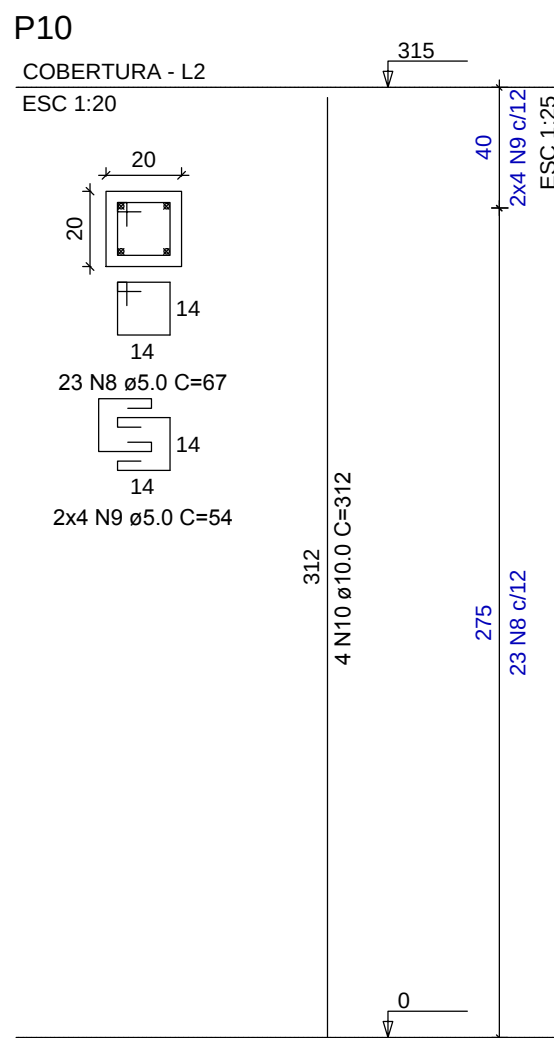
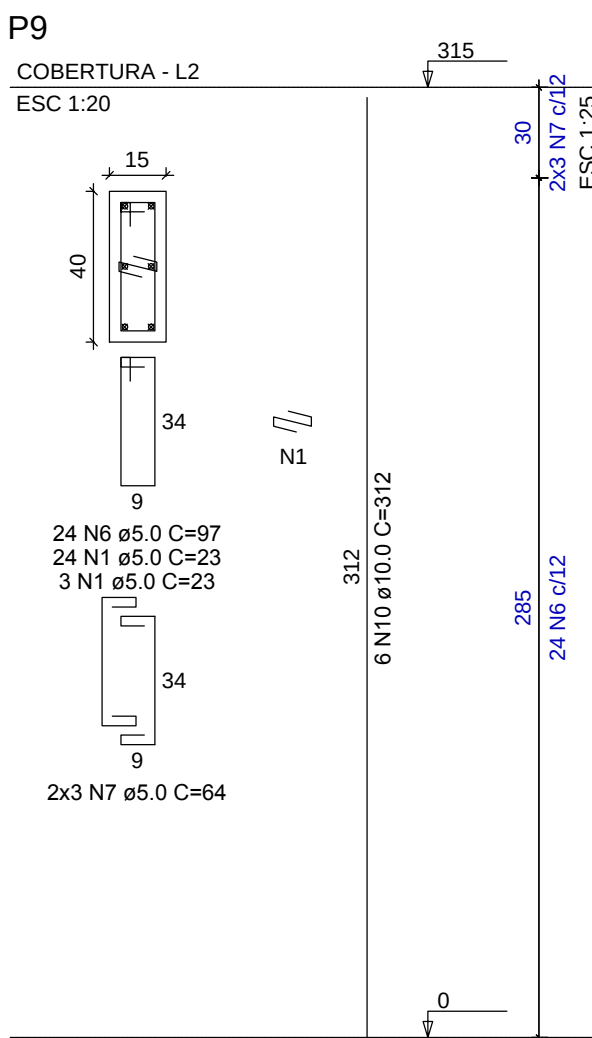
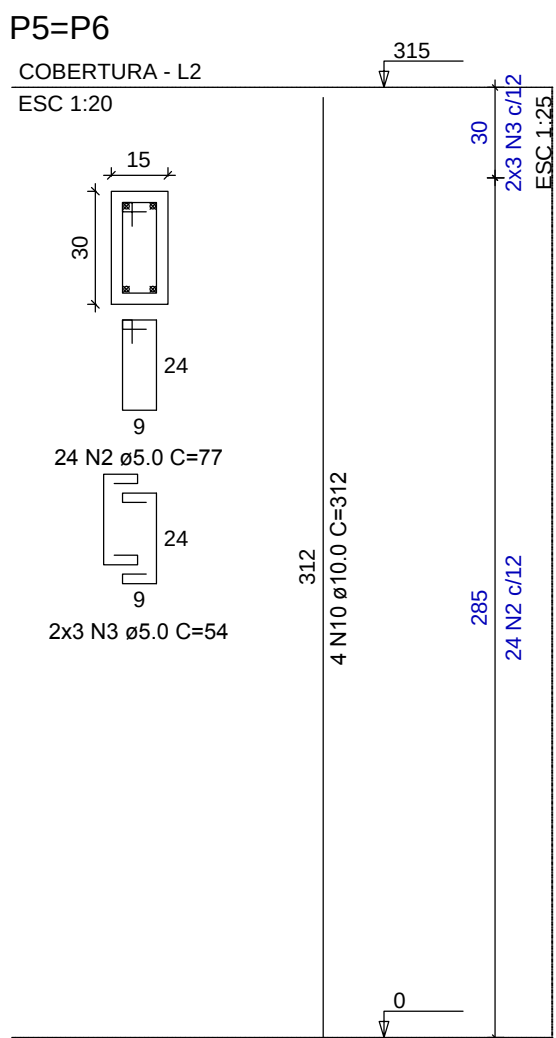
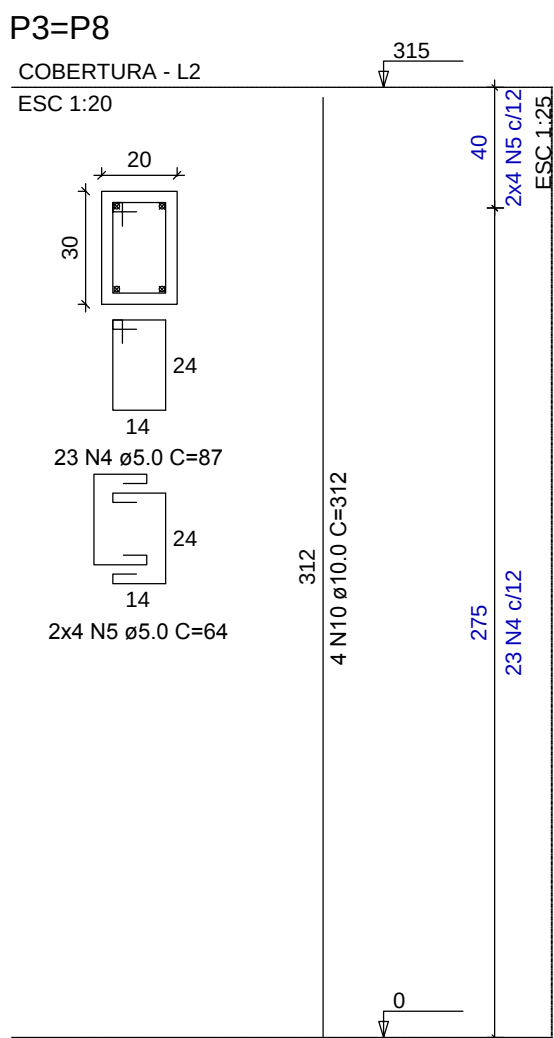
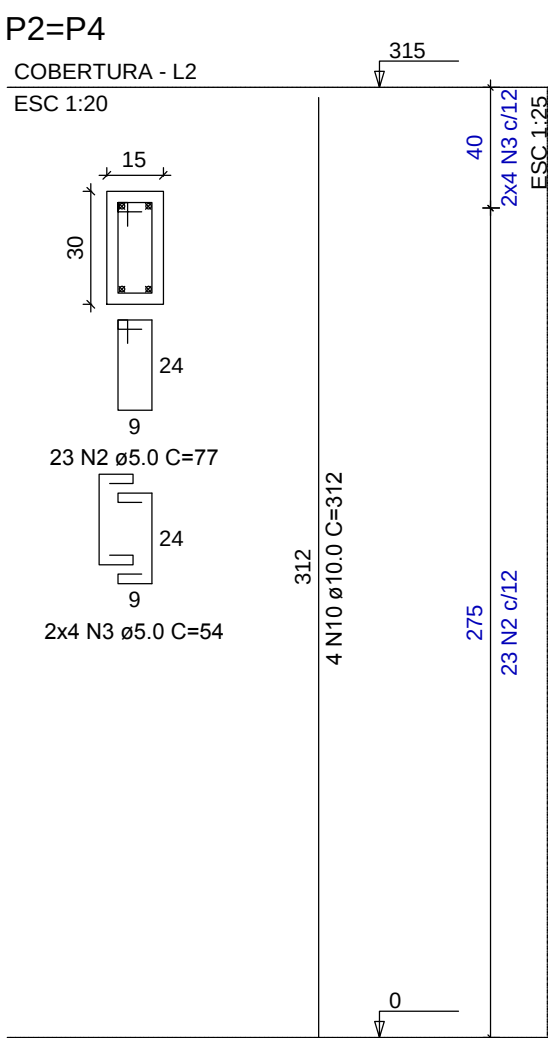
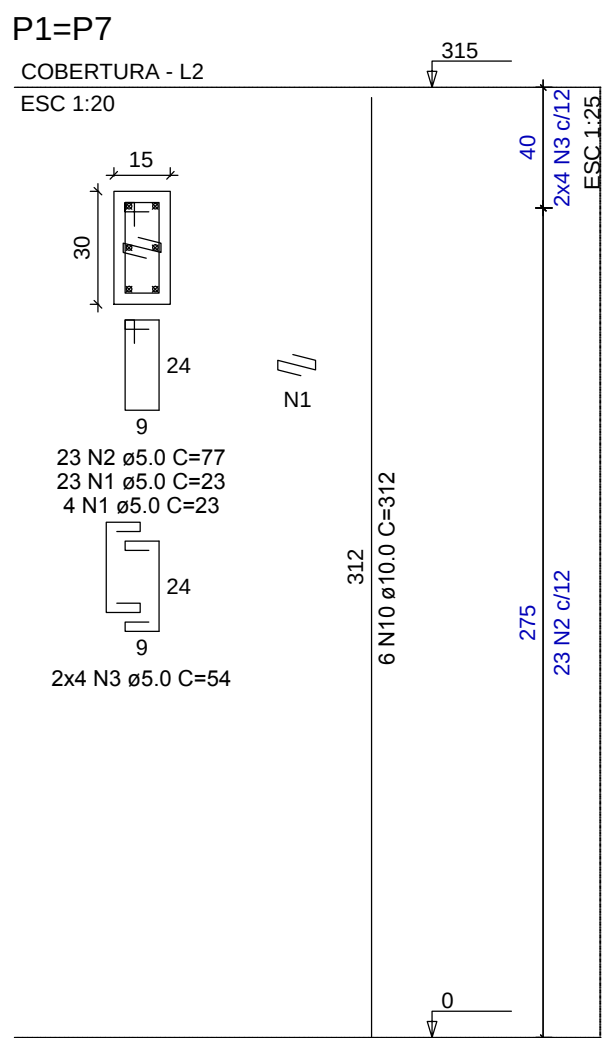


| RELAÇÃO DO AÇO |    |           |                |           |              |
|----------------|----|-----------|----------------|-----------|--------------|
| AÇO            | N  | DIAM (mm) | QUANT (Barras) | UNIT (cm) | C.TOTAL (cm) |
| CA60           | 1  | 5.0       | 107            | 97        | 10379        |
|                | 2  | 5.0       | 136            | 77        | 10472        |
|                | 3  | 6.3       | 3              | 76        | 228          |
|                | 4  | 6.3       | 1              | 86        | 86           |
|                | 5  | 6.3       | 5              | 106       | 530          |
|                | 6  | 8.0       | 2              | 792       | 1584         |
|                | 7  | 8.0       | 2              | 387       | 774          |
|                | 8  | 8.0       | 1              | 142       | 142          |
|                | 9  | 8.0       | 2              | 426       | 852          |
|                | 10 | 8.0       | 2              | 422       | 844          |
| VC5            | 11 | 8.0       | 2              | 446       | 892          |
|                | 12 | 8.0       | 2              | 402       | 804          |
|                | 13 | 8.0       | 2              | 764       | 1528         |
|                | 14 | 8.0       | 2              | 526       | 1052         |
|                | 15 | 8.0       | 2              | 150       | 300          |
|                | 16 | 8.0       | 2              | 550       | 1100         |
|                | 17 | 8.0       | 2              | 401       | 802          |
|                | 18 | 8.0       | 2              | 441       | 882          |
|                | 19 | 8.0       | 2              | 757       | 1514         |
|                | 20 | 10.0      | 1              | 235       | 235          |
| VC6            | 21 | 10.0      | 2              | 815       | 1630         |
|                | 22 | 10.0      | 2              | 463       | 926          |
|                | 23 | 10.0      | 1              | 220       | 220          |
|                | 24 | 10.0      | 2              | 801       | 1602         |
|                | 25 | 10.0      | 1              | 225       | 225          |
|                | 26 | 10.0      | 2              | 792       | 1584         |

| RESUMO DO AÇO   |           |             |               |
|-----------------|-----------|-------------|---------------|
| AÇO             | DIAM (mm) | C.TOTAL (m) | PESO+10% (kg) |
| CA50            | 6.3       | 8.4         | 2.3           |
| CA50            | 8.0       | 132.6       | 57.6          |
| CA50            | 10.0      | 64.3        | 43.6          |
| CA60            | 5.0       | 209.7       | 35.5          |
| PESO TOTAL (kg) |           |             |               |
| CA50            | 103.5     |             |               |
| CA60            | 35.5      |             |               |

Volume de concreto (C-25) = 2.35 m³  
Área de forma = 38.05 m²



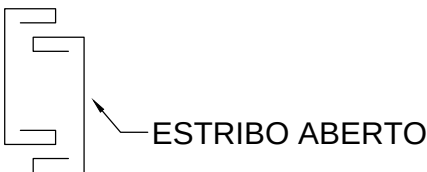
| RELAÇÃO DO AÇO |    |           |                |           |              |
|----------------|----|-----------|----------------|-----------|--------------|
| AÇO            | N  | DIAM (mm) | QUANT (Barras) | UNIT (cm) | C.TOTAL (cm) |
| CA60           | 1  | 5.0       | 81             | 23        | 1863         |
|                | 2  | 5.0       | 140            | 77        | 10780        |
|                | 3  | 5.0       | 44             | 54        | 2376         |
|                | 4  | 5.0       | 46             | 87        | 4002         |
|                | 5  | 5.0       | 16             | 64        | 1024         |
|                | 6  | 5.0       | 24             | 87        | 2328         |
|                | 7  | 5.0       | 6              | 64        | 384          |
|                | 8  | 5.0       | 23             | 67        | 1541         |
|                | 9  | 5.0       | 8              | 54        | 432          |
|                | 10 | 10.0      | 46             | 312       | 14352        |

| RESUMO DO AÇO   |           |             |               |
|-----------------|-----------|-------------|---------------|
| AÇO             | DIAM (mm) | C.TOTAL (m) | PESO+10% (kg) |
| CA50            | 10.0      | 143.5       | 97.4          |
| CA60            | 5.0       | 248.4       | 42.1          |
| PESO TOTAL (kg) |           |             |               |
| CA50            | 97.4      |             |               |
| CA60            | 42.1      |             |               |

Volume de concreto (C-25) = 1.54 m³  
Área de forma = 29.30 m²

## NOTA

Adotado estribo aberto na região de cruzamento com vigas, para facilitar a montagem da armadura.



ESTRIBO ABERTO

|           |           |
|-----------|-----------|
| APROVAÇÃO | APROVAÇÃO |
|-----------|-----------|

|                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>GOVERNO DO ESTADO DO TOCANTINS</b><br><b>SECRETARIA DE ESTADO DA SAÚDE</b><br><br>Diretoria de Arquitetura e Engenharia<br>dos Estabelecimentos de Saúde |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|            |                                                                                 |
|------------|---------------------------------------------------------------------------------|
| OBRA:      | Ampliação da Ambiência dos Serviços de Parto do Hospital Regional de Dianópolis |
| ENDEREÇO:  | Rua 10, lote 01, Quadra 34, Setor Nova Cidade - Dianópolis – TO.                |
| PROJETO:   | CONTEÚDO:                                                                       |
| ESTRUTURAL | DETALHAMENTO VIGAS DE COBERTURA E PILARES, RELAÇÃO DO AÇO.                      |

|                                                                                                                           |                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| AUTOR DO PROJETO:                                                                                                         | DIRETORIA:                                                                                                            |
| <b>PAULO CHIANCA SILVA</b><br>ANALISTA DE PROJETOS DE OBRAS CÍVIS E ARQUITETÔNICAS<br>MAT.: 12428-1<br>CREA 21143860 - TO | <b>MARCELO LUIS GRATÃO CASTRO</b><br>DIRETOR DE ARG. E ENG. DOS ESTAB. DE SAÚDE<br>MAT.: 11503840<br>CAU. TO 452176-0 |
| SECRETARIA:                                                                                                               |                                                                                                                       |

|                           |                           |                           |                                |       |
|---------------------------|---------------------------|---------------------------|--------------------------------|-------|
| ÁREA EXISTENTE:           | ÁREA A AMPLIAR:           | ÁREA A ADEQUAR:           | ÁREA TOTAL:                    | 04/04 |
| VER PROJETO ARQUITETÔNICO | VER PROJETO ARQUITETÔNICO | VER PROJETO ARQUITETÔNICO | VER PROJETO ARQUITETÔNICO      |       |
| TERRENO:                  | NOME DO ARQUIVO:          | DATA:                     | DESENHISTA:                    | A1    |
| VER PROJETO ARQUITETÔNICO | ECA-HOR-PPP-DNP-PE-00     | 24/02/2018                | Engº Civil Paulo Chianca Silva |       |