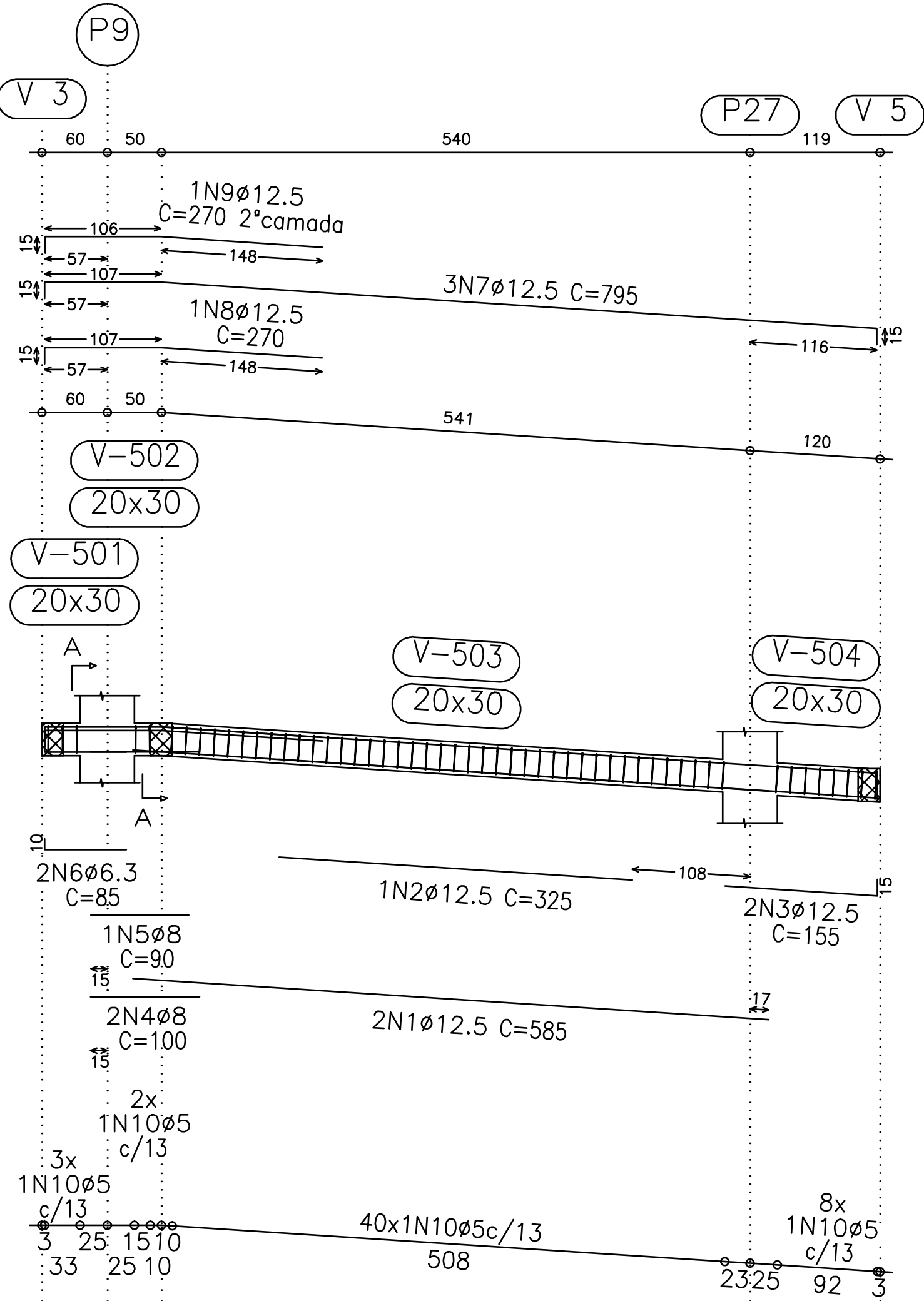
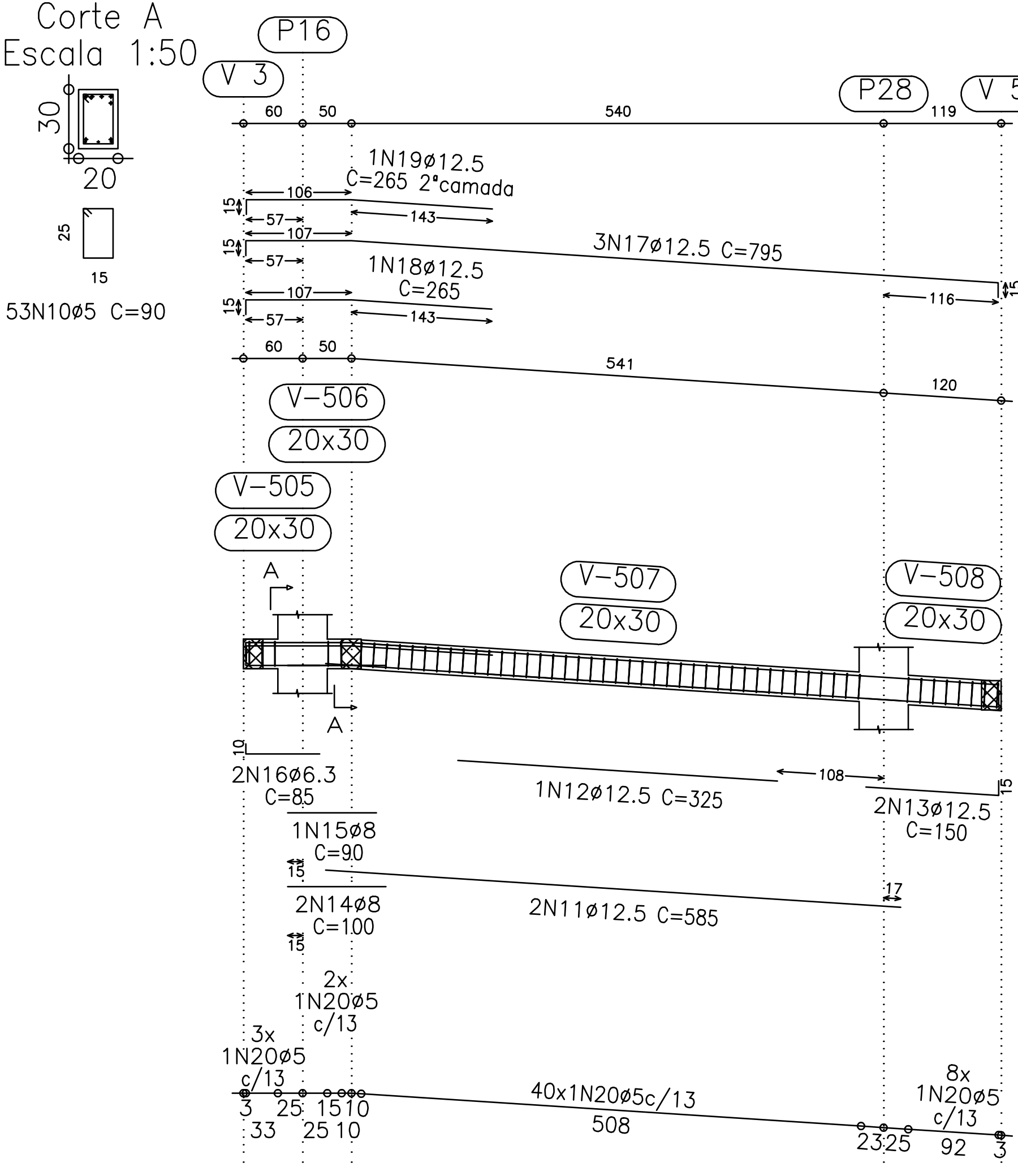


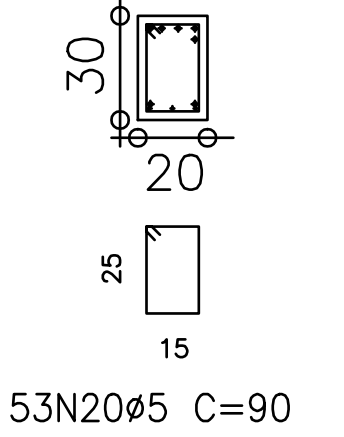
V 1  
Escala 1:100



V 2  
Escala 1:100

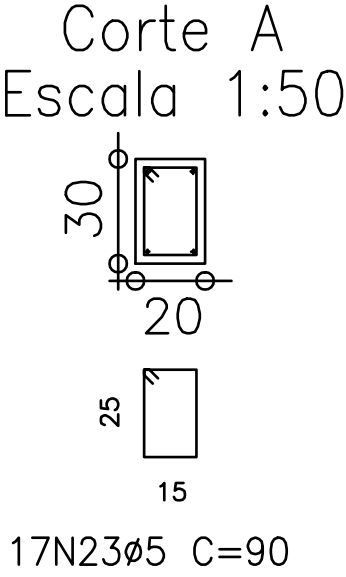
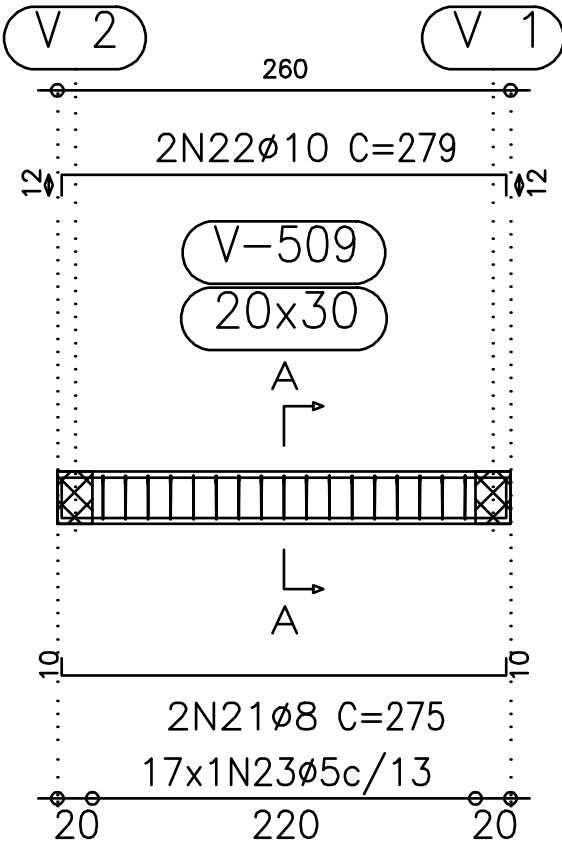


Corte A  
Escala 1:50

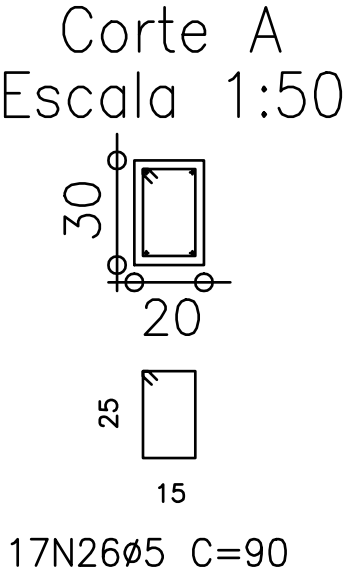
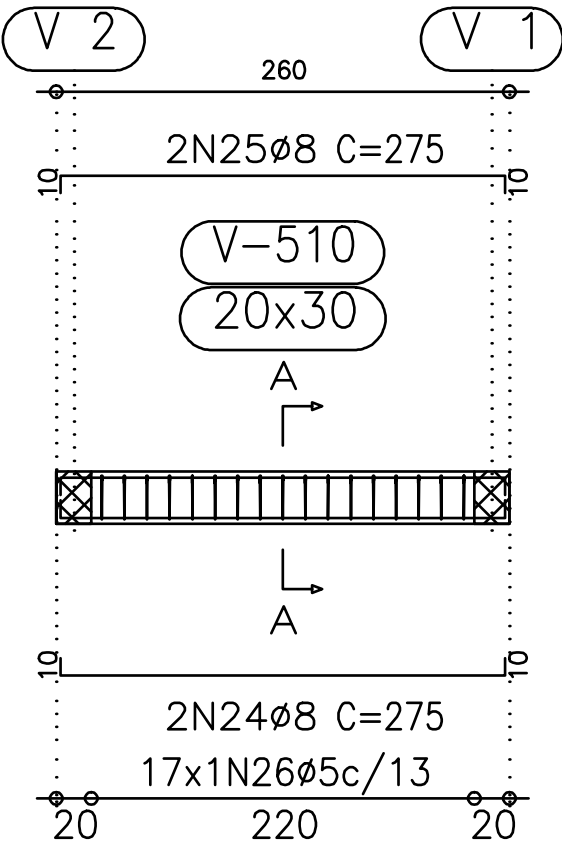


| Resumo Aço<br>Piso 4<br>Vigas | Comp. total<br>(m) | Peso+10%<br>(kg) | Total |
|-------------------------------|--------------------|------------------|-------|
| CA-50-A Ø6.3                  | 3.4                | 1                | 121   |
| Ø8                            | 33.3               | 14               |       |
| Ø10                           | 5.6                | 4                |       |
| Ø12.5                         | 94.4               | 102              |       |
| CA-60-B Ø5                    | 141.3              | 24               | 24    |
| Total                         |                    |                  | 145   |

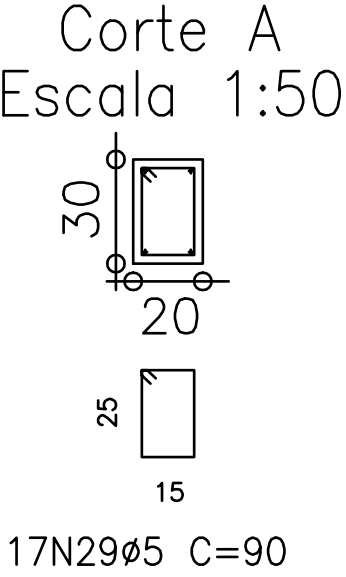
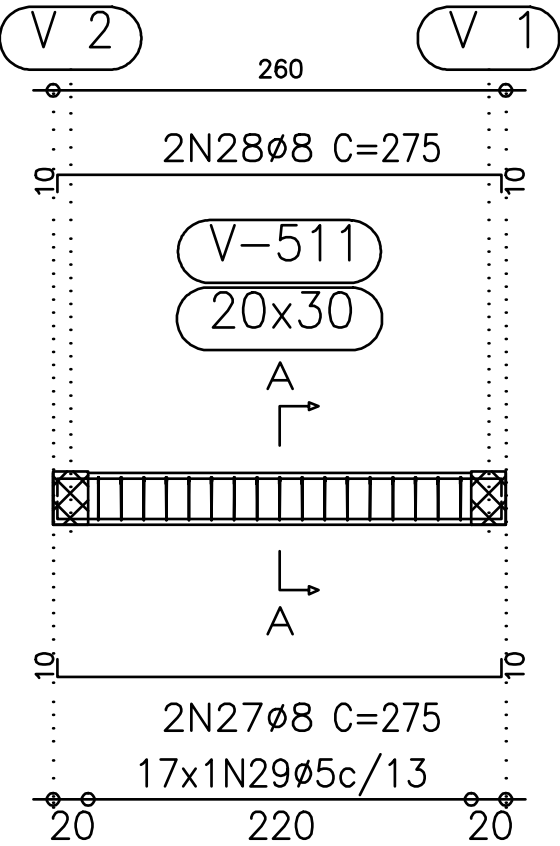
V 3  
Escala 1:100



V 4  
Escala 1:100



V 5  
Escala 1:100



| Elemento   | Pos.       | Diam. | Q. | Dob.<br>(cm) | Reta<br>(cm) | Dob.<br>(cm) | Comp.<br>(cm) | Total<br>(cm) | CA-50-A<br>(kg) | CA-60-B<br>(kg) |
|------------|------------|-------|----|--------------|--------------|--------------|---------------|---------------|-----------------|-----------------|
| V 1        | 1          | ø12.5 | 2  |              | 585          |              | 585           | 1170          | 11.5            |                 |
|            | 2          | ø12.5 | 1  |              | 325          |              | 325           | 325           | 3.2             |                 |
|            | 3          | ø12.5 | 2  |              | 140          | 15           | 155           | 310           | 3.0             |                 |
|            | 4          | ø8    | 2  |              | 100          |              | 100           | 200           | 0.8             |                 |
|            | 5          | ø8    | 1  |              | 90           |              | 90            | 90            | 0.4             |                 |
|            | 6          | ø6.3  | 2  | 10           | 75           |              | 85            | 170           | 0.4             |                 |
|            | 7          | ø12.5 | 3  | 15           | 765          | 15           | 795           | 2385          | 23.4            |                 |
|            | 8          | ø12.5 | 1  | 15           | 255          |              | 270           | 270           | 2.6             |                 |
|            | 9          | ø12.5 | 1  | 15           | 255          |              | 270           | 270           | 2.6             |                 |
|            | 10         | ø5    | 53 |              |              |              | 90            | 4770          |                 |                 |
|            | Total+10%: |       |    |              |              |              |               |               |                 | 52.7            |
| V 2        | 11         | ø12.5 | 2  |              | 585          |              | 585           | 1170          | 11.5            |                 |
|            | 12         | ø12.5 | 1  |              | 325          |              | 325           | 325           | 3.2             |                 |
|            | 13         | ø12.5 | 2  |              | 135          | 15           | 150           | 300           | 2.9             |                 |
|            | 14         | ø8    | 2  |              | 100          |              | 100           | 200           | 0.8             |                 |
|            | 15         | ø8    | 1  |              | 90           |              | 90            | 90            | 0.4             |                 |
|            | 16         | ø6.3  | 2  | 10           | 75           |              | 85            | 170           | 0.4             |                 |
|            | 17         | ø12.5 | 3  | 15           | 765          | 15           | 795           | 2385          | 23.4            |                 |
|            | 18         | ø12.5 | 1  | 15           | 250          |              | 265           | 265           | 2.6             |                 |
|            | 19         | ø12.5 | 1  | 15           | 250          |              | 265           | 265           | 2.6             |                 |
|            | 20         | ø5    | 53 |              |              |              | 90            | 4770          |                 |                 |
|            | Total+10%: |       |    |              |              |              |               |               |                 | 52.6            |
| V 3        | 21         | ø8    | 2  | 10           | 255          | 10           | 275           | 550           | 2.2             | 2.4             |
|            | 22         | ø10   | 2  | 12           | 255          | 12           | 279           | 558           | 3.5             |                 |
|            | 23         | ø5    | 17 |              |              |              | 90            | 1530          |                 |                 |
| Total+10%: |            |       |    |              |              |              |               |               | 6.3             | 2.6             |
| V 4        | 24         | ø8    | 2  | 10           | 255          | 10           | 275           | 550           | 2.2             | 2.4             |
|            | 25         | ø8    | 2  | 10           | 255          | 10           | 275           | 550           | 2.2             |                 |
|            | 26         | ø5    | 17 |              |              |              | 90            | 1530          |                 |                 |
| Total+10%: |            |       |    |              |              |              |               |               | 4.8             | 2.6             |
| V 5        | 27         | ø8    | 2  | 10           | 255          | 10           | 275           | 550           | 2.2             | 2.4             |
|            | 28         | ø8    | 2  | 10           | 255          | 10           | 275           | 550           | 2.2             |                 |
|            | 29         | ø5    | 17 |              |              |              | 90            | 1530          |                 |                 |
| Total+10%: |            |       |    |              |              |              |               |               | 4.8             | 2.6             |
| ø5:        |            |       |    |              |              |              |               | 0.0           | 24.4            |                 |
| ø6.3:      |            |       |    |              |              |              |               | 0.9           | 0.0             |                 |
| ø8:        |            |       |    |              |              |              |               | 14.7          | 0.0             |                 |
| ø10:       |            |       |    |              |              |              |               | 3.9           | 0.0             |                 |
| ø12.5:     |            |       |    |              |              |              |               | 101.7         | 0.0             |                 |
| Total:     |            |       |    |              |              |              |               | 121.2         | 24.4            |                 |

Piso 4  
Desenho de vigas  
Concreto: C20, em geral  
Aço: CA-50-A e CA-60-B  
Escala vigas: 1:100  
Escala seções: 1:50

|                                                                                                                               |                                                             |                             |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------|
| RAMPA DO RESTAURANTE<br>CAMPUS TÓFILO OTONI<br>AVENIDA DR. LUIS BOALI PORTO SALMAN, S/Nº - BAIRRO IPIRANGA - TEÓFILO OTONI/MG |                                                             |                             |
| PROPRIETÁRIO:                                                                                                                 | UNIVERSIDADE FEDERAL DOS VALES DO<br>JEQUITINHONHA E MUCURI | CNPJ<br>16.888.315/0001-57  |
| OBSERVAÇÕES<br>CONFERIR MEDIDAS NA OBRA                                                                                       |                                                             |                             |
| TÍTULO<br>PROJETO DA RAMPA DO RESTAURANTE                                                                                     |                                                             |                             |
| AUTOR PROJETO:<br>ROBSON NOGUEIRA GOMES - CREA 111839/D                                                                       |                                                             |                             |
| VERSÃO:<br>VERSAO 1                                                                                                           | DATA:<br>22.05.2013                                         | AUTOCAD:<br>FOLHA:<br>41/66 |