

Technical drawing of a bridge structure, likely a girder bridge, showing dimensions and components. The drawing includes the following elements:

- Dimensions:**
  - Overall length: 8.17
  - Span length: 5.15
  - Span length: 1.02
  - Span length: 1.0
  - Span length: 1.4
  - Span length: 1.0
  - Span length: 5.7
  - Span length: 1.0
  - Span length: 3.0
- Structural Components:**
  - HEB100 (Hot Rolled I-beam)
  - UPN100 (Universal Profile)
  - PD25a (Pier/Diaphragm)
  - PD25b (Pier/Diaphragm)
  - HEB60 (Hot Rolled I-beam)
  - UPN100 (Universal Profile)
  - V.B. 25x18 (Vertical Beam)
- Other Labels:**
  - 322
  - A.B. 000015
  - A.B. 000015
  - 000015/125 R.L.
  - 000015
  - NFT. 42.72

| Datos de la Losas - PASARELA   |                              |  |               |       |             |                        |                |                       |                           |   |                    |                     |                    |                              |   |
|--|------------------------------|--|---------------|-------|-------------|------------------------|----------------|-----------------------|---------------------------|---|--------------------|---------------------|--------------------|------------------------------|---|
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: left;">Cargas</th> </tr> <tr> <td style="width: 60%;">Canto de losa</td> <td style="text-align: center;">15 cm</td> </tr> <tr> <td>Peso propio</td> <td style="text-align: center;">3.75 KN/m<sup>2</sup></td> </tr> <tr> <td>Cargas muertas</td> <td style="text-align: center;">1.5 KN/m<sup>2</sup></td> </tr> <tr> <td>Sobrecargas de tabiquería</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Sobrecargas de USO</td> <td style="text-align: center;">3 KN/m<sup>2</sup></td> </tr> <tr> <td><b>Carga TOTAL</b></td> <td style="text-align: center;"><b>8.25 KN/m<sup>2</sup></b></td> </tr> </table> | Cargas                       |  | Canto de losa | 15 cm | Peso propio | 3.75 KN/m <sup>2</sup> | Cargas muertas | 1.5 KN/m <sup>2</sup> | Sobrecargas de tabiquería | 0 | Sobrecargas de USO | 3 KN/m <sup>2</sup> | <b>Carga TOTAL</b> | <b>8.25 KN/m<sup>2</sup></b> | <div style="text-align: center;"> <p>Sección tipo losa</p> </div> |
| Cargas   |                              |  |               |       |             |                        |                |                       |                           |   |                    |                     |                    |                              |   |
| Canto de losa  | 15 cm                        |  |               |       |             |                        |                |                       |                           |   |                    |                     |                    |                              |   |
| Peso propio  | 3.75 KN/m <sup>2</sup>       |  |               |       |             |                        |                |                       |                           |   |                    |                     |                    |                              |   |
| Cargas muertas   | 1.5 KN/m <sup>2</sup>        |  |               |       |             |                        |                |                       |                           |   |                    |                     |                    |                              |   |
| Sobrecargas de tabiquería  | 0                            |  |               |       |             |                        |                |                       |                           |   |                    |                     |                    |                              |   |
| Sobrecargas de USO   | 3 KN/m <sup>2</sup>          |  |               |       |             |                        |                |                       |                           |   |                    |                     |                    |                              |   |
| <b>Carga TOTAL</b>   | <b>8.25 KN/m<sup>2</sup></b> |  |               |       |             |                        |                |                       |                           |   |                    |                     |                    |                              |   |

| MATERIALES, NIVEL DE CONTROL Y COEFICIENTES DE SEGURIDAD:  |                          |                         |                                  |                 |                     |                      |       |                     |       |
|--|--------------------------|-------------------------|----------------------------------|-----------------|---------------------|----------------------|-------|---------------------|-------|
| DESCRIPCIÓN  | ELEMENTO                 | TIPIFICACIÓN            | COEFICIENTE PARTIAL DE SEGURIDAD |                 |                     |                      |       |                     |       |
|  |                          |                         | Yc                               | Ys              | Yg                  | Yq                   |       |                     |       |
| HORMIGÓN   | CIMENTACIÓN, ZAPATAS     | HA-25/B/40IIa           | 1.50                             |                 |                     |                      |       |                     |       |
| HORMIGÓN   | ESTRUCTURA EXTERIOR      | HA-25/B/20IIa           | 1.50                             |                 |                     |                      |       |                     |       |
| HORMIGÓN   | ESTRUCTURA INTERIOR      | HA-25/B/20I             | 1.50                             |                 |                     |                      |       |                     |       |
| ACERO ARMAR  | TODOS                    | 8 500 S                 |                                  | 1.15            |                     |                      |       |                     |       |
| EJECUCIÓN  | TODOS                    | NIVEL DE CONTROL NORMAL |                                  |                 | 1.35                | 1.50                 |       |                     |       |
| NOTA: EL HORMIGÓN DE LIMPIEZA SERÁ DEL TIPO HM-20/B40<br>ACERO ESTRUCTURAL: S275. LÍMITE ELÁSTICO 275N/mm <sup>2</sup>   |                          |                         |                                  |                 |                     |                      |       |                     |       |
| RECURBIMIENTOS (SEGÚN CTE DB-S1 Y ANEJO 7-ART. 5):   |                          |                         |                                  |                 |                     |                      |       |                     |       |
| DESCRIPCIÓN  | CLASE DE EXPOSICIÓN      | RESISTENCIA AL FUEGO    | RECURBIMIENTO NOMINAL            | MAXIMA REL. A/C | MINIMO CEM. (kg/M3) |                      |       |                     |       |
| ENANOS CIMENTACIÓN   | Ila                      | REI 60                  | 30 mm                            | .60             | 275                 |                      |       |                     |       |
| CIMENTACIÓN  | Ila                      | REI 60                  | 50 mm                            | .60             | 275                 |                      |       |                     |       |
| MUROS DE HORMIGÓN  | Ila                      | REI 60                  | 30 mm                            | .60             | 275                 |                      |       |                     |       |
| FORJADOS Y VIGAS INTERIORES  | I                        | REI 60                  | 30 mm                            | .65             | 250                 |                      |       |                     |       |
| FORJADOS DE CUBIERTAS  | Ila                      | REI 60                  | 30 mm                            | .60             | 275                 |                      |       |                     |       |
| DISPOSICIÓN DE SEPARADORES (ART. 66.2):  |                          |                         |                                  |                 |                     |                      |       |                     |       |
| ELEMENTO   | COLOCACIÓN               |                         | DISTANCIA MÁXIMA                 |                 |                     |                      |       |                     |       |
| CIMENTACIÓN  | EN EMPARRILLADO INFERIOR |                         | 50xØ < 100cm                     |                 |                     |                      |       |                     |       |
|  | EN EMPARRILLADO SUPERIOR |                         | 50xØ < 50cm                      |                 |                     |                      |       |                     |       |
| MUROS  | EN CADA EMPARRILLADO     |                         | 50xØ < 50cm                      |                 |                     |                      |       |                     |       |
|  | ENTRE EMPARRILLADOS      |                         | 100cm                            |                 |                     |                      |       |                     |       |
| VIGAS (MÍNIMO 3 POR VANO)  | EN ESTRIBOS              |                         | 100cm                            |                 |                     |                      |       |                     |       |
| SOPORTES (MÍNIMO 3 POR TRAMO)  | EN ESTRIBOS              |                         | 100xØ < 200cm                    |                 |                     |                      |       |                     |       |
| NOTA: Ø ES EL DIÁMETRO DE LA ARMADURA A LA QUE SE ACOPLA EL SEPARADOR<br>SE HA DISEÑADO LA ESTRUCTURA PARA UNA RESISTENCIA AL FUEGO SEGÚN CTE. DB-S1, EI-I60.                      |                          |                         |                                  |                 |                     |                      |       |                     |       |
| TABLA DE LONGITUDES DE SOLAPE Y ANCLAJE.   |                          |                         |                                  |                 |                     |                      |       |                     |       |
| Ø  | ANCLAJE (Lb)<br>(cm)     |                         | SOLAPE (Ls)<br>(cm)              |                 | Ø                   | ANCLAJE (Lb)<br>(cm) |       | SOLAPE (Ls)<br>(cm) |       |
|  | Lb I                     | Lb II                   | Ls I                             | Ls II           |                     | Lb I                 | Lb II | Ls I                | Ls II |
| 6  | 15                       | 25                      | 30                               | 50              | 16                  | 40                   | 60    | 80                  | 120   |
| 8  | 20                       | 30                      | 40                               | 60              | 20                  | 60                   | 85    | 120                 | 170   |
| 10   | 25                       | 40                      | 50                               | 80              | 25                  | 95                   | 135   | 190                 | 270   |
| 12   | 30                       | 45                      | 60                               | 90              | 32                  | 155                  | 215   | 310                 | 430   |
| EL SUBÍNDICE I Y II EN LAS LONGITUDES DE SOLAPE Y ANCLAJE DE LA TABLA SE REFIERE A LA POSICIÓN DE LA BARRA, ANCLAR O SOLAPAR, EN LA PIEZA RESPECTO A LA DIRECCIÓN DEL HORMIGONADO. |                          |                         |                                  |                 |                     |                      |       |                     |       |

**PASARELA: p1 (A)**

Norma de acero laminado: CTE DB SE-A  
Acero laminado: S275  
Escala: 1:50

Technical drawing of bridge p1 (A) showing a side elevation. The drawing includes a horizontal beam labeled HE 160 B and two vertical supports labeled PS1 and PS3. The beam is supported by the vertical supports. Dimensions are indicated: a vertical dimension of 2.9 on the left, and horizontal dimensions of 1.0', 1.0', 6.2', and 8.1' along the top. The beam is labeled HE 160 B. The supports are labeled PS1 and PS3.

**PASARELA: p2 (B)**

Norma de acero laminado: CTE DB SE-A  
Acero laminado: S275  
Escala: 1:50

Technical drawing of bridge p2 (B) showing a side elevation. The drawing includes a horizontal beam labeled HE 160 B and two vertical supports labeled PS2 and PS4. The beam is supported by the vertical supports. Dimensions are indicated: a vertical dimension of 2.9 on the left, and horizontal dimensions of 1.0', 1.0', 6.2', and 7.7' along the top. The beam is labeled HE 160 B. The supports are labeled PS2 and PS4.

The image displays three technical drawings of a metal structure assembly, likely for a building or industrial application. The drawings are labeled as follows:

- Top View (Perspective):** Shows the main structure with a horizontal metal beam (Viga metálica) supported by a vertical metal pillar (Pilar metálico). A metal plate (Placa de terminación) is attached to the beam. The assembly is secured with 80x80x8 angle brackets (Angular 80x80x8 de apoyo provisional en montaje) and a rigidizer (Rigidizador). Dimensions include  $e \geq e_1$  for the plate and  $e_1$  for the beam.
- Side View (Vista B):** Shows the side profile of the structure. It highlights the metal beam (Viga metálica) and the metal pillar (Pilar metálico). The rigidizer (Rigidizador) is shown connecting the beam to the pillar. Dimensions include  $e \geq e_1$  for the plate and  $e_1$  for the beam.
- Front View (Vista A):** Shows the front profile of the structure. It highlights the metal beam (Viga metálica) and the metal pillar (Pilar metálico). The rigidizer (Rigidizador) is shown connecting the beam to the pillar. Dimensions include  $e \geq e_1$  for the plate and  $e_1$  for the beam.

The drawings include labels for various components and their connections:

- Placa de terminación #  $\geq e$
- Viga metálica
- Pilar metálico
- Rigidizador #  $\geq e_1$
- Angular 80x80x8 de apoyo provisional en montaje
- Alzado
- Vista B
- Vista A
- Soldadura

The drawing illustrates the construction of a reinforced concrete slab with a metal deck. It includes several key components and details:

- Top View (Plan):** Shows the layout of the slab with dimensions: 45 cm width, 150 mm height, and 120 mm depth. It features a central "Pilar metálico" (metal pillar) and "Rigidizadores s/Casos" (rigidizers without cases). The slab is supported by "Enano de hormigón" (concrete base) and "Enano de refuerzo" (reinforcement base). The slab is labeled "e28a15" and "e28a15".
- Section A-A:** Shows the cross-section of the slab, highlighting the "Tuerca y contratuera para nivelar alfileres e inyectadores" (nut and washer for leveling bars and injectors), "Espacio para mortero de fijación expansivo" (space for expansive fixation mortar), and "Perno de anclaje" (anchoring pin).
- Section B-B:** Shows the cross-section of the slab, highlighting the "Soldadura" (welding), "Placa de anclaje" (anchoring plate), and "Espacio para mortero de fijación expansivo" (space for expansive fixation mortar).
- Section C-C:** Shows the cross-section of the slab, highlighting the "Achafaladura en concreto del pilar" (chamfering of the pillar in concrete), "Anillo para soldar a la cara superior de la placa base" (ring for welding to the top face of the base plate), and "Perno de anclaje" (anchoring pin).
- Section D-D:** Shows the cross-section of the slab, highlighting the "Pilar metálico" (metal pillar), "Placa de apoyo y de anclaje" (support and anchoring plate), "Espacio para mortero de fijación" (space for fixation mortar), and "Rigidizadores s/Casos" (rigidizers without cases).
- Section E-E:** Shows the cross-section of the slab, highlighting the "Junta de hormigonado, rugo limpia y humedecida antes de hormigonar" (concreting joint, rough clean and moistened before concreting), "Hormigón de limpieza" (cleaning concrete), and "Calzos de apoyo de pánola 5 x 5 cm" (5 x 5 cm support chocks).

The drawing also includes a legend for the materials used:

- Enano Refuerzo
- Enano Relleno
- Armadura de concreto
- Base compactada
- Junta de hormigonado, rugo limpia y humedecida antes de hormigonar
- Hormigón de limpieza
- Calzos de apoyo de pánola 5 x 5 cm

ALINEACIONES PC01-PC22, PDxx Y ENANOS PASARELA (ENANOS 45X45; 45X40; 45X35 S/PLANTAS)

Technical drawing of a reinforced concrete slab (Losa maciza) with dimensions and reinforcement details. The slab is 16 units high and 12 units wide. It features top reinforcement (Armado superior) and bottom reinforcement (Armado inferior). The reinforcement consists of 10 bars of diameter 16 (10Ø16) spaced every 50 cm. The slab is supported by an HEB160 steel beam. A detail view shows the reinforcement bars bent around the beam flange.

