

Viaduct Over Llobregat River – Barcelona, Spain



**Type:** Highway

**Location:** Puig Reig, Barcelona, Spain

**Completion Date:** December 2007

**Owner:** GISA

**Architecture:** Cesma Ingenieros SL

**Engineering:** Cesma Ingenieros SL

**Steel Fabricator:** ITURMO

- Continuous nine-span system, total length of 568 m
- Seven inner spans: 64m; Outer spans: 60m
- Bridge girder: composite member consisting in an open, 6000 mm wide steel box and a concrete slab
- Composite bottom flange of the box girder
- Steel section height of 2550 mm
- Inner spans with a slenderness ratio of 25
- The slenderness effect is heightened by cantilevering the concrete slab 8.9 m on both sides of the steel box
- The cantilevers are supported at 3.5 m from the edge by longitudinal chords attached to spatial truss girders in turn connected laterally to the steel box
- In addition to the chord, each truss consists in inclined diagonals and horizontal ties

