

# Four-track railway bridge over the river Garonne in Bordeaux



Over the Garonne, between Benauges and Saint-Jean station, Bordeaux (FR)

**Mission: deck execution studies, checking of final design**

Owner  
RFR - Réseau Ferré de France

Architect  
JP Duval

Cost of the works  
€ 50 M excl. vat

Studies  
2005 - 2009

Execution  
2008 - 2009

OA



Replacement of a two-track railway bridge with a four-track bridge.

The main construction has a total length of 467 m divided into 6 spans (4 x 77 m, 66 m, 71 m). The width of the deck is 25 m. The layout is straight in the centre, with bends at the ends.

The deck comprises three steel load-bearing box beams of varying depths. These box beams are set on either side of the two pairs of double tracks. Transverse deck beams carry the longitudinal concrete-encased filler joists.

The difference in the depths of the box beams can be seen in their soffits. They vary from 2.77 m along the spans to 4.50 m on the bearings. The filler joists are contained within the visual thickness of the box beams.

The bridge was constructed in two phases, so as to allow the first two tracks to be brought into service before the demolition of the existing construction.

