



# Engano Viaduct

Engano cove, Noia, A Coruña, Spain / 2010

Structural type  
Characteristics  
Client  
Scope

prestressed concrete box girder bridge  
typical span 70.0m  
Copasa  
detailed design and construction support



The viaduct over the Ensenada de Engano forms part of an Improvement Project on the stretch of the C-550 road between the towns of Cee and Tui. It is a viaduct which is 721.0m in length composed of spans of 41.0m + 9 x 70.0m + 50.0m.

The deck cross-section is a concrete box which is pre-tensed in-situ being 3.20m deep and 11.0m wide. The webs of the transversal section are slightly inclined, with the lower width being 5.50m and the lateral cantilevers 2.50m. The thickness of the webs varies between 0.35m and 0.50m and the lower slab between 0.20m and 0.50m. The average thickness being 0.63m.

A movable scaffolding system (MSS) has been foreseen for the construction, executing  $\frac{3}{4}$  of one span and  $\frac{1}{4}$  of the next in each phase.

The dimensions of the piers are conditioned by the support requirements of the MSS, which needs a 5.50m x 3.20m platform on its upper extreme for the support of the four legs. With this conditioning factor, the geometry projected for the piers consists of two 3.20m x 1.0m screened shafts separated 4.50m at the axis and joined at the head with a 2.0m deep lintel. The foundations are deep, consisting of two 2.0m diameter piles on each pier.



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