

Cantabria Highway Viaduct. Stretch: Trubia-Llera

Viaduct 2 over the River Nora is a composite twin-girder structure with a total length of 246m and a width of 12m. The structure is conditioned by the presence of tunnels at each end as well as the river itself, which has a pronounced bend underneath the viaduct. Another condition for the structural layout is determined by the environmental impact study which requires the bridge piers to be placed at a minimum distance of 10m from the riverside vegetation. These conditions resulted in a span length distribution of 68.0m + 81.0m + 58.0m + 39.0m.

The deck is 3.10m deep with a span/depth ratio of L/26. The piers are relatively slender, with a hollow box cross section of 2.0m in depth, 4.0m in width and a maximum height of 36m.

The deck is composed of two steel compound profile beams, connected transversally by means of a concrete slab of variable depth, from 0.30m to 0.15m, and by transversal beams placed every 3.00m. The quantity of structural steel in the deck, including diaphragms, braces and longitudinal stiffeners amounts to 207kg/m².

The deep foundations for the pylons corresponding to the main span consist of six 1.5m piles which are approximately 12.0m in length. The third pylon is directly foundationed on the limestone rock, at such a depth, in order to avoid the Karstic cavities which were detected through the soil analyses.



Spain /2006
Project data

Structural type:
Composite twin-girder viaduct
Location:
Highway Viaduct (CN 634) over River Nora
The Province of Asturias
Proprietor:
Spanish Ministry of Public Works
Construction:
UTE TRUBIA-LLERA
Opening Date:
April 2006
Scope of Works:
Construction Project