



“Puente de los Poetas” (Poets Bridge) over the Duero River in the City of Zamora (Spain)

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Summary

This new crossing over the Duero river in the city of Zamora was built to shift the traffic from the mediaeval bridge. This called for a new road network to connect the crossing with the urban fabric, which turned the new bridge in an axis marking the westward expansion of the city. The total length of the bridge is 424.5 m. It consists of 6 spans, with three 92 m long spans over the river. The deck is a 14.7 m wide box section girder with variable depth, made of prestressed concrete, using white structural concrete. It was built by balanced cantilevers. On the left riverbank, a roundabout connection was built to connect the bridge with road network. The proximity of the historic hull and the mediaeval bridge were strong conditioning factors in the design, which looks like a multiple archway with large voids over the piers, resembling relieving arches.

Keywords: Balanced cantilever, white structural concrete, elevated roundabout.

1. Background

The inhabitants of Zamora had long been demanding a new crossing over the river in the historical part of the city in order to both shift vehicle traffic from the mediaeval Stone Bridge, and at the same time improve road traffic conditions.



Fig. 1. Aerial view of the bridge

the traffic and town-planning as well as the need to respect the surrounding historical heritage. This stage was particularly important given the intense debate amongst the citizens on account of the new bridge, which proved to be a controversial subject in the city.

The location that was eventually approved following these studies involved a consensual agreement between all project stakeholders, and determined the location of the new bridge approximately 1 km downstream from the old Stone Bridge, by-passing the Olivares District without affecting it. It was situated far enough from the historical elements of the area and thus avoided interfering with them.

In 2004, the municipal initiative was backed by the regional government of Castilla y Leon by issuing a public invitation to tender for the study of a new crossing.

The first stage of the study focused on determining the most appropriate location for the new bridge, taking into account