



The Zaragoza Bridge is located in the city of Puebla, Mexico. It is a 645 m (2,116 ft) long structure that consists of a 125 m (410 ft) long north approach, a 145 m (475 ft) long cable stayed bridge, and a 375 m (1,230 ft) long south approach. The bridge will provide fast access to the historic Forts of Loreto and Guadalupe area as well as to a newly built convention center.

The cable stayed bridge has a special architectural shape. It consists of twin A-shaped inclined concrete pylons, 2.0 m (6.5 ft) deep concrete edge girders, and a composite steel beam/precast concrete slab deck passing in between the pylon legs. The inclined pylons are supported by three levels of horizontal stays that balance the horizontal forces transmitted by the inclined stays. The substructure consists of a concrete pedestal over bored pile foundations and pile caps.

The approaches are integrated by eight 62.5 m (205 ft) long spans with a 3.5 m (11.5 ft) deep precast segmental concrete box beams. The connection of the superstructure to the reinforced concrete columns is monolithic. The substructure consists of bored reinforced concrete piles and a pier cap. The approaches are built using the balanced cantilever method with ground based cranes. Half of the end spans will be cast in place. Design-Build.



ESSENTIALS:

Owner:
Gobierno del Estado de Puebla, Secretaría de Infraestructura

Design/Build Contractor:
CODESA

Year Completed: 2012

SYSTRA IBT's Role:
Detailed design and construction engineering, technical assistance on site.