

# The Otay River Bridge

**Location:** San Diego / Chula Vista, California

**Submitted by:** DSI; International Bridge Technologies, Inc.

**Owner:** South Bay Expressway / Caltrans

**Engineer(s):** International Bridge Technologies, Inc.

**Contractor:** Otay River Constructions, a Joint Venture of Washington Group Intl. and Fluor, JV

**P/T Supplier:** DSI

**Other Contributors:** Pomeroy Corp.



## Overview:

A precast, concrete segmental bridge design for the Otay River Bridge in southern San Diego County allowed construction to progress within budget and time constraints, yet without disrupting the environmentally sensitive area. The 3,320-foot-long bridge consists of dual, precast segmental box girder structures. The cast-in-place pier caps were post-tensioned transversely with eight Type 27 by 0.6-inch and 4 by 0.6-inch post-tensioning tendons each. To address seismic issues, post-tensioning steel was added across otherwise unreinforced joints. A gantry truss lifted each of the precast concrete segments in place, and 1.5- and 1.8-inch-diameter threadbars temporarily post-tensioned each segment before final longitudinal post-tensioning with 12 by 0.6-inch and 10 by 0.6-inch post-tensioning tendons.