

## San Francisco-Oakland Bay Bridge East Span (Skyway)

A HOCHTIEF Company

### Owner

California Department of Transportation

### Location

Oakland, CA

### Value

\$1,085,000,000

### Market

Bridges

### Start - Completion Dates

4/2002 – 3/2007

- 452 (400- to 780-ton) precast segments
- 160 total piles (driven up to 300 feet deep) for 28 piers
- Largest precast segments in the world (at time of construction)
- 5,000 miles of steel cable strands to stress over 18,000 tendons

## Project Description

Flatiron was a part of the joint venture team that constructed a portion of the east span of the San Francisco-Oakland Bay Bridge known as the Skyway, the largest contract ever awarded by the California Department of Transportation. The project consisted of two precast segmental bridges that will connect a future Self-Anchored Suspension (SAS) span with the city of Oakland. The Skyway segments, erected by beam and winch method, were delivered by barge from the nearby casting yard in Stockton, California. The 480- to 780-ton precast segments were erected using a Self Launching Erection Device (SLED). These segments required 5,000 miles of strand to stress over 18,000 tendons.

Two 1,800-ton orthotropic tubs connected the Skyway portion of the bridge to the Self-Anchored Suspension span. The tie-ins involved the erection of two tubs onto two temporary towers. Two 100-ton hinge pipe beams tie each of the four frames together. The Skyway carries up to 10 lanes of traffic with four full-width shoulders on two parallel bridges. Additionally, there is a 15-foot-wide bicycle/pedestrian lane with five outcroppings for visitors to enjoy sweeping views of the Bay.

The bridge is also fitted with holes along its length to accommodate large tendons for additional support in the future, if needed. A major milestone was reached on December 7, 2006, when the team lifted final segment into place. The Skyway section has since been completed; however, the bridge will not be open to traffic until the Self-Anchored Suspension span, procured as a separate contract, is completed in 2012.

### Company Role

Flatiron was a partner in this joint venture team.

