

Gerald Desmond Bridge

Long Beach, CA

Project Description

The new Gerald Desmond Bridge replaced the existing through arch structure built in 1968 with a six-lane, cabled-stayed, signature structure connecting the 710 Freeway to Terminal Island in Long Beach. Additional improvements included reconstruction of the Terminal Island East Interchange, construction of a new interchange with the 710 Freeway and increased vertical clearance over Back Channel to allow larger container ships passage through the Port of Long Beach.

Owner

Caltrans/Port of Long Beach

Contractor

Shimmick/FCC/Impregilo (SFI JV)

Designer

Arup

Our Role

McB provided construction engineering services, including temporary works design and development of the erection procedures required to complete the heavy lifting/lowering of a 1200 ton movable scaffolding system, a specialized piece of construction equipment used to build the CIP approach spans. We also designed dual-purpose, modular steel falsework towers for the construction of the 2000-foot cable-stayed mainspan. The 200-foot towers functioned both as an elevated work platform during heavy lifting of the 500-ton section of structural steel framing erected initially and as stability towers, to anchor the cantilevered backspans during subsequent portions of the construction sequence. McB also provided specialized never-before-seen equipment to assist in manipulating the bridge geometry and allowed for the completion of the deck system.

Total Contract Value

\$1 Billion +

Timeline

2013 - 2016

Construction Method and Specifications

Approaches were built using a Mobile Scoffold System (MSS). Main span built using deck-mounted derricks, and heavy lift system to lift the steel pier table at the pylon.

