The Pier G ITS Terminal is one of POLB’s “mega-terminals,” occupying approximately 248 acres and containing more than 16,000 twenty-foot equivalent units of storage capacity (flat space.) The link between shipping from the Far East and internal markets in the U.S., the terminals redevelopment includes replacement of all of backlands and container loading facilities.

PROJECT RESULTS

By working closely and quickly with contractors and construction management personnel, finding ways to reuse demolition materials, and reducing new material costs, Kleinfelder resolved construction challenges in cost-effective ways. POLB renewed Kleinfelder’s services at regular intervals to complete the reconstruction.

REMEDIATING AN ACTIVE TERMINAL

In the mid-1990s, it became clear that the layout of the terminal was inefficient and unable to handle the new-generation container ships then under development. In addition, much of the port, including all of Pier G, sits on landfill that is highly susceptible to liquefaction and was created before seismic hazards were fully recognized. Furthermore, the terminal needs to remain in operation during any reconstruction.

MAINTAINING OPERATIONS THROUGHOUT CONSTRUCTION

Since 1995, Kleinfelder has worked closely with POLB’s program management team to schedule field investigations around terminal operations, as well as to develop cost-effective geotechnical designs that minimize construction time. A dynamic soil-structure modeling approach, as well as reuse of demolition materials, resulted in lower construction costs for POLB. Reconfigured in phases, Kleinfelder’s new terminal design incorporates improved efficiency, the ability to handle larger ships, and new wharf structures that resist seismic hazards and events.

Location:
Long Beach, California

Owner:
Port of Long Beach (POLB)