



Transportation

Client

Port of Los Angeles

Location

Los Angeles, California, USA

2020 Master Plan, Container Wharf Design, Construction, and Project Delivery

Project Highlights

- Special connections to adjacent wharf structures to assure normal crane operations after moderate seismic events as well as provide for good seismic performance of the overall facility
- High seismic design criteria (a fault passes directly through the site)
- Dredging removal of compressible soils and reclamation of 24 acres using more than 500,000 cubic yards of fill
- Phased construction for continuous terminal operation, including fendering improvements for nearly 1 mile of container berths
- Permitting assistance included relocation of historic fireboat

Project Description

In 1984, CH2M HILL planned and designed a three-berth, 60-acre container terminal at the Port of Los Angeles. Services included geotechnical investigation, dredging, filling, site layout studies to optimize container and other cargo-handling operations, project delivery plan, design, and services during construction.

The facilities include lighting, water, gas, electric power, sanitary sewers, storm drainage, communications, railroad, and heavy-duty pavement. Building structures include a new 100,000-square-foot container freight station, longshoreman facilities, a container-chassis repair facility, and a relocated maintenance building. Transportation considerations include access design and internal circulation as well as phasing to minimize impact on operations while construction is underway.

This project completed the infilling of outdated finger-pier slips that formerly lined the main channel of this multi-terminal complex. Diking and filling the old slip and demolishing the outdated pier and transit sheds made it possible to rebuild the backland area, creating a continuous line of wharves, dockside cranes, and cargo yards.

This continuum of terminals provided for increased flexibility in leasing and operations. In addition, the Port's capability to tailor facility layouts was increased allowing for more rapid response to shippers' needs.

CH2M HILL provided complete engineering services, including operations and layout planning and geotechnical, civil, structural, mechanical, electrical, and architectural services.

During construction, we worked with the port and tenant to develop a construction scheduling approach that kept the terminal operational throughout redevelopment. Construction work was scheduled around a number of reefer outlets and other important terminal activities. CH2M HILL also managed to keep a container freight station operational longer than the port thought possible. Containers and autos were handled using cranes and RO/RO vessels throughout construction. Project was completed on time and under budget.