

Valdez, Alaska

Floating Container Wharf

CLIENT

M-K/Manson
Seattle, Washington

REFERENCE

Bob Stevens
Vice President

PROJECT FEATURES

- 700- by 100-foot floating concrete container wharf
- Provision for container crane operations
- 200-foot-span orthotropic girder approach ramps
- Four fixed mooring dolphins and walkways
- Chain anchoring to sea floor

SERVICES BY BergerABAM

- Value Engineering
- Preliminary Design
- Detailed Engineering Drawings
- Damage Stability Analysis
- Analysis for Ocean Towing
- Pontoon Fabrication Inspection
- Construction Support

CONSTRUCTION COST

\$12 million

PROJECT DATES

1980 to 1983

KEY STAFF

Bob Wallace
V.K. Kumar
Manfred Zinserling
Warren Wilson



A first of its kind in the world, the innovative floating container wharf in Valdez, Alaska, designed by BergerABAM was constructed with concrete modules fabricated off site.

BergerABAM's engineers designed a 700- by 100-foot floating concrete wharf for the Port of Valdez. The wharf, the first of its kind in the world, was designed for full-service container transfer operations in all-weather conditions. The modular structure was designed to be fabricated off site in two pieces that were post-tensioned together at the site to act as a monolithic unit. BergerABAM also designed two steel cargo transfer bridges, which link the floating wharf to a 21-acre marshaling yard.

This innovative floating design concept was chosen over a fixed structure to overcome potential liquefaction and unstable soils present in this high seismic area. Additionally, the modular/on-site assembling concept substantially aided the overall construction at this site, which is typically burdened by heavy snowstorms and 22-foot tidal fluctuations. Special design controls were kept in order to maintain project costs, which were demonstrated to be no more than the costs of a conventional fixed structure.

In addition to the design, the BergerABAM team provided on-site inspection and engineering during prefabrication of the modules, which were constructed more than 1,400 miles from the project site and supported the integration of the elements in Valdez.

BergerABAM's team of engineers, designers, and managers develop designs that are unique, innovative, and appropriate for any situation.