Magellan Terminal Holdings operates a major petroleum storage terminal in New Haven, Connecticut, with 17 existing storage tanks with a combined capacity of 1.9 million barrels. Magellan forecasted an expanding market for petroleum product storage in New England and sought to substantially increase the terminal’s petroleum storage capacity and transport capabilities.

PROJECT RESULTS
Kleinfelder’s proposed site plan will maximize the terminal’s storage capacity and significantly increase shipping throughput. In addition, the proposed ground improvement system under the proposed new storage tanks was significantly more cost-effective than a more conventional pile-supported foundation.

SIGNIFICANT SITE CONSTRAINTS
Kleinfelder was tasked with developing a site plan that maximized the storage capacity of the site and expanded the terminal’s ship docking facilities. Site constraints included: existing tanks and piping throughout the facility; poor soil conditions in the tank area; abandoned docking facilities; an existing pier head; a bulkhead line beyond which structures could not be constructed; and the existing federal channel limit beyond which ships could not protrude while docked.

PLANNING FOR EXPANSION
Kleinfelder’s preliminary site plan included: 10 new storage tanks; a new ship dock to accommodate ships up to 700 feet long; and a separate barge dock for barges up to 250 feet long. Docking facilities included: breasting and mooring dolphins; separate ship and barge dock platforms to accommodate loading; pedestrian bridges to connect docks and mooring dolphins; pipe bridges to transport petroleum from docks to land; and steel sheet pile bulkheads to retain the shoreline.

Location:
New Haven, Connecticut

Owner:
Magellan Terminal Holding

An Employee-Owned Company | © 2013 Kleinfelder. All rights reserved.