

# Hultgren-Tillis Engineers

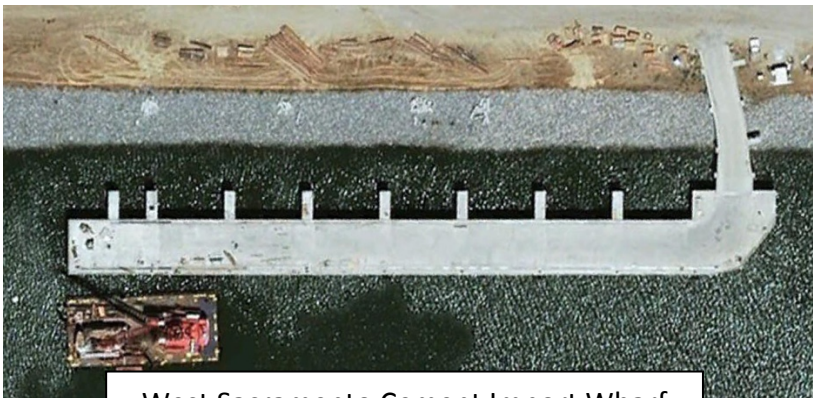
## Geotechnical Engineering For Marine Structures

**Hultgren – Tillis Engineers (HT)** is a full service geotechnical engineering firm located in Northern California, between San Francisco Bay and the Sacramento – San Joaquin Delta. The focus of our practice is heavy industry, marine structures, soft ground, and water resources projects. Most of our recent projects are in the Sacramento - San Joaquin Delta, along the Carquinez Strait and around the perimeter of the San Francisco Bay.

HT's experience with heavy marine structures includes: cantilevered, tied back and braced bulkheads, Open Cell Walls®, offshore gravity structures, cellular sheetpile structures, boat lifts, marine railways, revetments, and tidal gate structures. Recent projects include two different tidal gate projects in the Delta, one for California Department of Water Resources across Threemile Slough between Sherman and Brannan Island and a pair of tidal gates on Old River and Connection Slough for the State Water Contractors.

### Recent Marine Structures by Hultgren - Tillis Engineers

- Oyster Point Ferry Berthing Piles, South San Francisco (2011)
- Pier 9 Ferry Berthing, San Francisco (2011)
- Two Gates Fisheries and Water Quality Control Structures, Connection Slough and Old River, San Joaquin River Delta (2010)
- Threemile Slough Gate Structure, between Brannan and Sherman Islands (2010)
- Middle River Pump Station and Open-Cell bulkhead, Victoria Island (2010)
- Water Tunnel beneath Old River (2010)
- Corkscrew Slough Flow Control Structure, Redwood City (2009)
- McNear's Beach Pier Repair, San Rafael (2009)
- Isolated Conveyance Feasibility Study, including slough crossings, Sacramento – San Joaquin Delta (2008)
- Marine Oil Terminal Seismic Assessment, Benicia (2008)
- Rock Loader, Stockton (2008)
- "Super Levee" between Palm Tract and Roberts Island (2007)
- Cement Wharf, West Sacramento (2006)
- Wharf Replacement, Benicia (2005)
- Cement Import Terminal, Redwood City (2000)



West Sacramento Cement Import Wharf

HT was the geotechnical engineer for two marine terminals for bulk cement importing facilities in Redwood City and West Sacramento, a wharf replacement in Benicia, and seismic evaluation of a marine oil terminal on the Carquinez Strait.



Redwood City Cement Off-Loader

In and near the Port of Redwood City, Hultgren – Tillis Engineers were the geotechnical engineers for the Cemex Marine Terminal and its pile-supported electrical substation, Sims Metals new building, and restoration of the Bair Island marsh. For the marine terminal, HT assessed slope stability for cut slopes and developed design criteria for breasting dolphins and bearing piles. For the Bair Island marsh restoration, HT developed pile design criteria for a Bay Trail bridge, dredge spoil containment dikes and flow control structures.

#### Marinas and Small Boat Facilities by Hultgren - Tillis Engineers and Staff

- Antioch Boat Ramp
- Pittsburg Marina: bulkheads, piers
- Martinez Marina: mole, bulkhead
- Vallejo Marina: piers, shoreline slope
- Cuttings Wharf boat ramp, Napa River
- Tidewater Aquatic Center Dock, Oakland
- Oyster Point Marina and Breakwater
- Albany Marina Feasibility Study
- Rio Vista Marina Feasibility Study
- Marina Finger Piers, Hickham AFB, Oahu
- Kihei Small Boat Ramp Breakwater, Maui

#### Other Marine Structures by HT Staff

- Ammunition Pier 3 Upgrade, Weapons Station, Concord
- AMORCO Wharf Dolphins, Martinez
- Docks along Old Sacramento Waterfront
- Holland Tract Road Bulkhead, Knightsen
- Dock and Sheetpile Bulkhead, Eureka
- Relieving Platform Wharf, Galveston, Texas
- Sheetpile Bulkhead, Port Arthur, Texas
- Barge Pier, Baton Rouge, Louisiana
- Diego Garcia Deep Draft Wharf and Small Boat Harbor, Indian Ocean
- Dublon Island Pier, Chuuk, Micronesia
- Fisheries Wharf, American Samoa
- Apra Harbor Breakwater, Guam
- BRAVO Dock Fenders, Pearl Harbor
- Ford Island Bulkhead, Pearl Harbor
- Ebeye Dock, Kwajalein Atoll
- Subic Bay Ordnance Wharf, Philippines
- Saipan Wharf, Northern Marianas
- Offshore Ocean Thermal Energy Conversion Power Plant, Kahe Point, Oahu

Pittsburg Marina Bulkhead



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