

PORT FACILITIES



CONTACT:

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RACE COASTAL ENGINEERING: PORT FACILITIES

With almost 90% of all globally traded goods being transported by water, port facilities are some of the most vital infrastructures in the U.S. and are the backbone of the shipping, oil transport, wind farm support, manufacturing, and processing industries which they support. Such facilities further support the commercial fishing, ship building and repair, and ferry/transportation industries that require the same reliable infrastructure for their operations.

The crucial role of these facilities requires that robust, yet cost-effective and sustainable solutions be developed to maintain, rehabilitate and/or further develop these assets to meet the needs of the current and future fleets of vessels which may come to port.

RACE has extensive experience in the assessment, analysis, and design of complex port infrastructure, including wharves, piers, mooring structures, bulkheads, and other port facility set-ups. With headquarters in Stratford, CT, we're optimally located to address the needs of the numerous deep-water marine ports from Philadelphia, PA to Portsmouth, NH including: Port of Philadelphia, New York Harbor, Bridgeport Harbor, New Haven Harbor, New London Harbor, Port of Providence, New Bedford Harbor, Boston Harbor, and Portsmouth Harbor.

Our Port & Marine Facilities Clients

- Oil / Petrochemical Terminals
- Dry Bulk / Container Terminals
- Electric Power Generation
- Transportation / Ferry Terminals
- Ship Building / Repair Facilities
- Educational Facilities
- Wastewater / Sewerage Facilities
- Commercial Facilities

Strengths:

- · Our sole focus is on waterfront projects
- We have extensive experience working with State (NJ, NY, CT, RI, MA, etc.) and Federal regulators and understand the permitting process and compliance requirements
- We have an in depth understanding of how each project will interact with the local marine port environment
- We are highly educated in flood zone regulations, sea level rise predictions, and how such considerations may influence design elements
- We are experts in combining our marine port engineering expertise with our geotechnical and structural engineering disciplines for seamless design solutions
- Local, responsive, and excellent communicators

Our Expertise:

- Structural Inspections (Above and Below Water)
- Regulatory Permitting
- · Structural Engineering
- 3-D Structural Modeling
- · Geotechnical Engineering
- · Coastal Engineering
- · Marine Port Facility Design
- Mooring Analysis & Design (Optimoor)
- Resiliency Planning & Design
- Flood Protection Design
- · Coastal Structure Design
- Dredge Planning & Design
- Engineering Services During Construction
- · Hydrographic Surveys



RACE EXPERIENCE AND CAPABILITIES

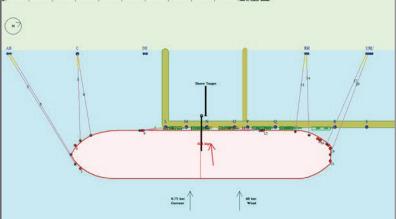
We believe that what sets RACE apart from other waterfront consulting firms is our commitment to meeting our client's goals and our consistent performance in all project phases, from planning, through permitting, design, and construction with our dedicated, in-house staff. RACE operates in a team environment and we consider the client part of that team.

At Phillips 66, we live by our values of Safety,
Honor, & Commitment. In doing so, we rely
on companies that we team with to also hold
these values. Over the past eight years, RACE
has provided Phillips 66 with the highest
standard of engineering expertise for our
port facilities while keeping these values.
RACE continues to develop technical solutions for our marine terminals to maintain
safe and effective operations. This alignment
between RACE and Phillips 66 has resulted
in successful projects that meet the Phillips
66 vision of Providing Energy and Improving
Lives."

David F. Bevill, Director of Projects,
 Phillips 66









SPOTLIGHT: STEELPOINTE, BRIDGEPORT, CT

RACE has provided ongoing waterfront engineering services to Steelpointe Harbor developers as they revitalize Bridgeport Harbor into an active, 52-acre mixed use waterfront development. RACE's services:

- addressed abandoned remnant industrial era waterfront structures
- designed, permitted and constructed a
 1570LF steel bulkhead
- prepared landfill and wetlands for resiliency and sustainability
- designed the shipyard's new lift well for a 700-ton travel lift.

RACE has been an important resource to us in the waterfront redevelopment of Bridge-port Harbor through our collaboration on the Steelpointe Harbor project. They have provided consulting services for us through the whole project lifecycle including concept development, regulatory review, detailed design and construction administration.

The RACE Team has shown, time and again through our numerous projects together, their ability to think creatively while using waterfront and coastal engineering knowledge to develop solutions to our project challenges."

Mark Summers, VP Development,
 BLD Steelpointe



