



**The Castle Group**  
Innovation in Action™

*W.J. Castle P.E. & Associates  
Hydro-Marine Construction  
Simplified Bridge Systems*

## *Sets the Standard for*

*Structural & Marine Engineering, Construction, & Design/Build Services*

### **BULKHEAD RECONSTRUCTION**



**Project:** Reconstruction of Whirlpool Channel Bridge Bulkhead

**Location:** Margate City, Atlantic County, New Jersey

**Description:** *W.J. Castle, P.E. & Associates, P.C.* performed design for a new bulkhead to replace a severely deteriorated existing timber bulkhead at the east approach to the Whirlpool Channel Bridge (County Route 563). The new design incorporated steel sheet piling approximately 100 L.F. of wall, sheet piling tie back wall and anchor system. In addition, a portion of the existing bridge was removed and replaced during the bulkhead replacement.

#### **Main Office**

*Tynddol Building  
1345 Route 38 West  
Hainesport, NJ 08036*

#### **Regional Office**

*Philadelphia, PA*

**1-800-644-4713**

**[www.wjcastlegroup.com](http://www.wjcastlegroup.com)**