



■ Marine Structures



DYWIDAG Systems to rebuild cruise ship pier

Reconstruction of cruise ship pier in Basseterre, St. Kitts, West Indies

In 1998, hurricane George destroyed the cruise ship pier on St. Kitts, West Indies. In the interest of further developing tourism on this Caribbean Island, the Port Authority decided to construct a new pier as well as a new port. To strengthen the new pier as well as the adjacent three new mooring dolphins against abnormal waves created by a hurricane (mainly uplift forces) additional 57 mm Ø DYWIDAG Micropiles were installed through the 846 mm dia. pipe piles. The micropiles were protected against corrosion with the standard DYWIDAG Double Corrosion Protection System.

The soil encountered was predominantly marine sand and the micropiles were installed in cased 152 mm dia. holes. The micropiles were between 37 and 42 m long. The load transfer mechanism from the micropiles to the pier superstructure was via bond.

The work was performed on schedule in October 2002 with the full appreciation of the owner, engineer, and main contractor.

Reference Details:

Owner St. Christopher Air and Sea Ports Authority, Basseterre, St. Kitts, West Indies
+++ Engineer Novaport Ltd., Halifax, Canada

+++ General Contractor Island Dredging Ltd., Kingston, Jamaica
+++ Piling Contractor DSI Canada, Western Division, Surrey, BC, Canada

DSI Services Supply, drilling, installation and grouting of fully bonded DYWIDAG Micropiles Ø 57 mm (21 pcs. vertical micropiles on approach piers and 20 pcs. battered on 3 dolphins) with a compression and tension capacity of 790 kN; Rental of equipment and technical assistance.

