



Project Overview

FRP REPAIR OF HILLSBORO INLET SEAWALL

Name: Seawall Repairs
Type: Reinforced Concrete Wall
Location: Pompano Beach, Florida
Completed: May 2012

PROBLEM

The seawall was cracked and exposure to the salt water had resulted in corrosion of the reinforcement in the wall. The municipality wanted a repair that would strengthen the wall and prevent future deterioration.

SOLUTION

QuakeWrap® FRP systems was selected to repair and strengthen the Hillsboro inlet seawall.

To have access to the area in need of repair coffer dams were installed and high flow diesel pumps were used to remove the sea water to gain access to the wall. Immediately scaffolding was erected and the surface prep began. Using pneumatic tools, barnacles were chipped away and the walls were grinded down. We then washed the wall with a 4000 psi pressure washer.

Two Layers of QuakeWrap® VU20G glass fabric was saturated with QuakeBond™ J300SR Saturating Resin and the bands were applied horizontally on the wall. Two Layers were also applied vertically on the beams above the wall. After a 24 hr cure, the pumps were shut off, the water filled back up, and the steel coffer dam was removed. Fifty feet long sections were completed in 48 hrs.



Technical Highlights

- FRP repair provided additional strength to compensate for the loss of strength in the walls as a result of corrosion of reinforcing steel.
- The FRP will serve as a moisture/oxygen barrier that will significantly reduce the corrosion rate in the wall.
- Repair work done with minimal disruption to the plant operations.

Credits

Structural Engineer: QuakeWrap, Inc.
Material Supplier: QuakeWrap, Inc.
Contractor: FRP Construction, LLC



"The FRP Retrofit Experts"