



## TIEBACKS

### WEST PIER FRONTING REDEVELOPMENT - GULFPORT, MISSISSIPPI

In the early 1960's, the Port of Gulfport, MS, expanded their facilities by constructing a new set of docks using a system of tangent sheet pile cellular cofferdams filled with sand. After 40+ years of service in the harsh and corrosive waterfront environment at the port, the sheet piles were starting to deteriorate and were in need of repair. The design solution developed by the Port Authority's consulting engineering staff required installation of a new row of sheet piles in front of the original cofferdam sheets supported by 100 kip tiebacks spaced at 4 foot on center.

Schnabel was awarded the contract to install 580 tieback anchors along with the structural steel waler system. This project proved to be very challenging due to the inherent difficulties of working out over the water, including having to work around fluctuating tides and severe weather conditions at times. Most of Schnabel's work was staged off of barges and temporary work platforms erected along the waterfront bulkhead. The majority of the tiebacks were installed using a rotary drill, mounted in a set of swinging leads approximately 70 feet in length. The leads were hoisted by a crane sitting on a barge positioned in front of the bulkhead. The work was complicated by the difficulty of having to penetrate the existing steel sheet pile cofferdam below the waterline, and at the same time, prevent the beach sand backfill from escaping the cofferdam. Schnabel's crews were able to meet all of the challenges presented on this project and complete the work on time, while allowing the port to remain in service throughout the duration of the project.

Not long after completion of the fronting redevelopment work on the West Pier, the city of Gulfport was hit hard by the destructive forces of Hurricane Katrina. Although most of the surrounding area was devastated by the awesome power of the hurricane, the newly renovated docks stood strong and remained in tact.

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Owner: **Mississippi State Park Authority**  
General Contractor: **Continental Construction**  
Design/Build Specialty Contractor:  
**Schnabel Geotechnical Design & Construction**



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For more information on this project or any other of our projects please contact Schnabel at:

**(703) 742-0020 or visit our website at [www.schnabel.com](http://www.schnabel.com)**



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