

Castle Engineers Philadelphia Pier Rehab Project

Philadelphia Mayor, Michael Nutter, along with City and State Officials, visited the construction site at Race Street Pier on Tuesday, November 9th, for a groundbreaking ceremony. Race Street Pier, formerly known as Pier 11, is presently being reconstructed into a one-acre public park for Philadelphia residents and tourists.

Built circa 1900 at the foot of the Benjamin Franklin Bridge, Pier 11 was once used by national and international steamships carrying fruit, salt, and cargo. Tom Corcoran, President of the Delaware River Waterfront Corporation, says “the new Race Street Pier is an early action project of the Civic Vision which will set new standards of excellence in design and public input and will have far reaching impact beyond this new park.”

W.J. Castle & Associates, P.C. began engineering and design work on the Race Street Pier rehabilitation in 2009. A veteran port, pier, and harbor engineering firm, this project was much different from previous Castle projects. “Typically, our rehabilitation projects are for the purpose of a structure regaining its original function. The Race Street Pier rehabilitation is unique in that the function of the structure will be changing completely,” said Castle’s Richard Parisi, P.E. In the first stage of the project, Castle performed an inspection of the entire 80’ x 540’ pier, both above and below the water’s surface. Some of the findings included deteriorated steel trusses, timber splitting among the piles, and spalling on the concrete decks which needed patching.

After Castle’s rehabilitation design was submitted, Hydro-Marine Construction cleaned the debris from the pier and demolished the unused fender system. Once these were completed, Hydro then rehabilitated the steel support trusses, timber piles, pile caps, and concrete decks, followed by prep work for the upcoming landscaping.

Civil engineers Langan Engineering & Environmental Services and landscape architects James Corner Field Operations were contracted by DRWC and the City of Philadelphia for park designs and planning. Castle helped with the pier structure modification in order to accommodate the park designs. This included designing the support in the deck for 12 tree boxes, reshaping of the decking and pier nose, and the support for the edges of the pier for the walkway pavers. For more on the project, visit www.wjcastlegroup.com. **IP**
