INFRASTRUCTURE SOLUTIONS

OCIS 60GPA FIBERGLAS™ REBAR BUILT FOR HARSH ENVIRONMENTS

LOW BATTERY SEAWALL, CHARLESTON, SC

Project Overview

In order to reinforce new concrete, concrete rail posts, and shotcrete repairs in the most corrosive areas of a seawall repair project, 250,000 linear feet of Owens Corning Infrastructure Solutions (OCIS) 60GPa Fiberglas™ Rebar was used.

In the early 1900s, a concrete seawall was constructed along Charleston's southernmost peninsula at White Point Garden. The wall land reclamation project serves as a waterfront promenade with unobstructed views of the Ashley River. Cast on top of timber pilings, the seawall was showing deterioration of the concrete face and timber piling connections. Settlement behind the wall caused a severe slope in the promenade, making it difficult for the public to enjoy its full use, and made accessibility a challenge for disabled residents and visitors. With an increase in sea levels, higher tides, and more intense storms, the existing wall frequently floods the peninsula.

Project Results

Engineers, architects, and specifiers are building smarter with next-level materials. OCIS 60GPa Fiberglas™ Rebar was selected to construct a more durable, corrosion-resistant structure for a harsh environment.

The low battery seawall repairs included raising the height of the wall, underpinning the wall with micropiles, constructing a new concrete pile cap tied to the existing wall, replacing lost fill material, reconstructing the face, and supporting the new ADA-compliant promenade on the pile caps to prevent future settlement. In order to reinforce the new concrete promenade, concrete rail posts, and the shotcrete repairs to the walls facing the river — since these elements would be exposed to the most corrosive environments — 250,000 linear feet of OCIS 60GPa was used.

2X STRONGER*

Exceptional strength

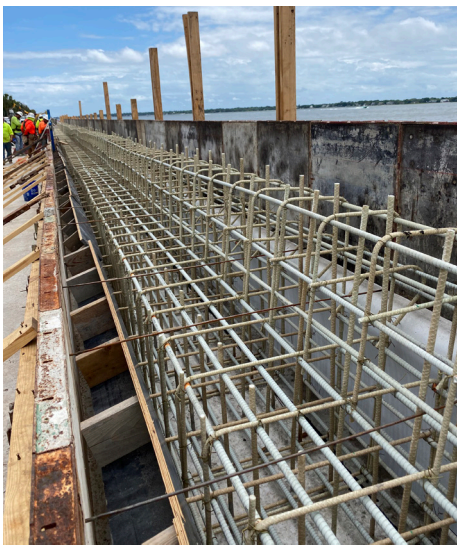
4X LIGHTER*

Faster install and increased productivity

MORE DURABLE

Extended service life of structures

*Based on sample testing of #5 rebar, fiberglass rebar exhibits linear-elastic behavior to increase ultimate tensile strength.



Project designed by Johnson, Mirmiran & Thompson (JMT), with repairs completed by Gulfstream Construction (general contractor) and Palmetto Gunite (subcontractor).

"Due to the harsh environmental conditions, using OCIS 60GPa for this project was the natural choice."

– Gregg B., P.E., Coastline Composite

HOW WE BUILD NOW™

INFRASTRUCTURE SOLUTIONS

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