Intercoastal Waterway Seawall and Pier Cap Project

Naples, FL





Project Summary

The previous seawall on this property was in need of replacement after 30 years of salt water attack which took its toll on the concrete. Due to extensive cracking in the concrete, severe corrosion of the steel in the wall and pier caps led to spalling. The soil behind the wall was then able to erode through the cracks and spalled areas, leading to further issues and repair costs.

When considering options for a replacement walls, the owner wanted to ensure that the new structure would be able to withstand the salt water attack, which meant trying to keep the salt water out of the concrete as much as possible. This meant eliminating the shrinkage cracks in the precast 12' x 5' x 5" wall panels and the 150' cast-in-place pier cap. Since the owner did not want any joints in the pier cap due to aesthetic concerns, this presented an additional challenge.

Based on PREVent-C500's extensive history with water structures, the owner was confident that this product would give the structure the best chance at a long lifecycle. The structure was observed 3 months after placement. There were no shrinkage cracks in the precast wall panels. And there were 2 hairline cracks in the pier cap, which was remarkable considering that normally the pier cap would crack every 5-10'. The contractor, Greg Orick, stated that this is the very first time he has ever seen this type of project with such minor cracking. The very minimal shrinkage cracks will help keep out the deteriorating salt water, which will lead to less corrosion, spalling, repair cost, and soil erosion, not to mention a very long life before the structure will need to be replaced again.

Owner: Edson Robertson (Private) Concrete Contractor: Greg Orick Marine Construction, Inc. Ready-Mix Producer: Drake Ready Mix Concrete Products: PREVent-C®500 Shrinkage-Reducing/Compensating Admixture



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