

REBUILDING THE 100-YEAR-OLD-SEAWALL

By Jill Connors

AFTER A CENTURY OF HOLDING BACK THE WAVES AND TIDES, THE BULWARK AT HARBOUR COURT IS IN NEED OF SIGNIFICANT STRUCTURAL AND COSMETIC WORK

Securing Harbour Court’s waterfront has become a top priority given the reality of rising sea levels, an aging stone seawall, and the precarious perch of the early 1900s boathouse. Waves crashing on the shore make an iconic coastal image, but in the real world they spell trouble for shoreline and man-made structures like Harbour Court’s 900-foot-long stone seawall. The wall has been maintained over the years, but much of it dates from the early 1900s, and it has suffered from decades of pounding waves and frequent overtopping. Particularly challenging: The wall was built in distinct sections using varying construction techniques, so no single method of patching and repairing can ever be totally effective; some sections are even developing sinkholes.

With the deteriorating condition of the wall—coupled with the knowledge that the seawall is essential to the Club’s waterfront use and access to pier, slips, and moorings—a special committee led by Kenneth Bacco and including Rear Commodore Clare Harrington, Eli Dana and Josh Parks developed a plan of action. The historic nature of the seawall ensures that the New York Yacht Club Foundation can help fund the massive project, which will likely cost more than \$3 million in total.

The status of the Harbour Court seawall is a microcosm of what seawalls face throughout Rhode Island, Massachusetts and other East Coast states as historic stone structures threatened by storms and sea-level rise. Rhode Island’s Coastal Resources Management Council (CRMC) regularly surveys seawalls and other forms of structural shoreline protection along the state’s 420 miles of coastline to assess condition and monitor projects that will impact the coast. A recent report noted: “CRMC projections indicate that 11.5 percent of residential, 18.9 percent of commercial, and 13.8

percent of public-service structures along the state’s coast are currently exposed to the impacts of sea-level rise and storm surge. Those percentages will only increase as sea levels rise, stronger and more frequent storms roll in and coastal development continues.”

At Harbour Court, the House Committee’s first step was commissioning a condition evaluation by a coastal engineer, whose report confirmed that a large percentage of the seawall is in poor condition. Large granite blocks comprise most of the wall, unified by a granite capstone, but the crumbling leveling course and the variation in the wall’s elevation—ranging from 3.67 feet high to 5.8 feet high—render the structure unstable.

Desiring a long-term solution, the House Committee chose an engineering plan for seawall reconstruction to meet current design standards for stability and also account for an expected future rise in mean high-water level.

The engineering plan tackles the issue in two ways: rehabilitating the wall and excavating the earth on the property side of the wall to create stability and strength behind it.



A granite capstone running the length of the seawall creates a unified look, but the wall base was built over time using varied construction techniques; today, more than 40 percent of the wall is in poor condition. Inset above: The leveling course just below the capstone has deteriorated, making the wall uneven.



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Seawater has been overtopping the seawall more frequently in recent years during storms and high-water events; the boathouse, a whimsical early 1900s structure, is also inundated regularly and needs to be moved slightly inland for protection.

For the wall itself, the scope of the work includes increasing the elevation of the wall to a consistent 7.05 feet high across the entire 900 feet, raising the land grades behind the wall to achieve the same relationship of grade to wall as existing, and adding a granite capstone along the entire wall. The actual wall construction will vary by section, i.e., in some areas by repairing, pinning and adding to existing structure, and in other areas, by doing a full tear-down and rebuild. Granite blocks will be reused as much as possible and when new are needed, granite blocks will be sourced to match existing material to achieve a cohesive appearance.

The seawall restoration work will also involve adding significant support structure behind the wall (on land) with a type of soil construction known as mechanically stabilized earth (MSE). This type of soil construction was recommended because MSE will enable the seawall height to be increased an additional three feet if needed at some point in the future. Another plus of the support structure is that it would eliminate the development of sinkholes on the driveway, which has been a regular occurrence in wet conditions.

Equally important from a historic preservation point of view is the need to move the boathouse as the seawall restoration takes place. This delightful Tudor-style stucco/half-timbered structure was originally built in the early 1900s as a playhouse for John Nicholas Brown. The current boathouse location is precariously close to the water—just 13 feet away—and the structure receives frequent battering from seawater.

Noted preservation architect Martha Werenfels has designed a plan to move the boathouse inland. Once moved, the boathouse will need to meet ADA regulations for ramps and bathrooms and Werenfels has designed the requisite adjustments. Saving the boathouse is a priority in her mind. “The structure itself is very intact and that’s unique given that I don’t know of any other small whimsical building so close to the water that has survived,” says Werenfels.

The Harbour Court seawall and boathouse restoration project entails numerous types of permits from local and state agencies including Newport Historic District Commission, Rhode Island Historic Preservation and Heritage Commission and the CRMC.

Groundbreaking for the seawall and boathouse work is planned for the fall of 2023, with an anticipated completion date of May 2024.

Support from the New York Yacht Club Foundation makes projects such as the seawall restoration possible. The New York Yacht Club Foundation was created in 2007 for the sole purpose of maintaining the Club’s two historic properties: Harbour Court and the 44th Street Clubhouse. Having provided \$8.6 million in grants for preservation projects to date, the Foundation’s support continues to be essential.



Visit www.nycfoundation.org to make a charitable contribution and to learn more about the historic buildings of the New York Yacht Club. Your support is crucial in preserving our past and safeguarding our future.

MATT DELANEY