

# Warren Town Wharf

Warren, Rhode Island



## HISTORY

The town of Warren, RI sits on the east bank of the Warren River, an arm of Narraganset Bay. The waterfront there is one of the oldest in New England. A working wharf, Warren Town Wharf serves as a base for harbormaster activities, oyster farming operations, and many recreational activities. It is a hub for tourism in the area with quaint storefronts and restaurants dotting the wharf.

## PROBLEM

As a waterfront community, Warren has seen its share of nor'easters over the centuries. Wear and tear have taken their toll and the town wharf was in need of refurbishment. Shallow embedment and weak soils in the area were some of the problems that existed on this project.

## SOLUTION

Foth/CLE Engineers, located in Newport, RI, worked with the town of Warren and was awarded the contract for the new bulkhead. Foth chose Nucor Skyline as their project partner to drive a combi-wall over the existing wharf. A beam-Z combi-wall was the best choice due to shallow embedment and poor soils down to the rock.

Both NZ 26 sheet pile and W18 x 143 wide flange beams were rolled in Nucor Skyline's Armored, AR facility and then coated with coal tar epoxy to extend their life.

To maximize space at the site, the new combi-wall was tied back with rock anchors instead of using a more traditional deadman wall. This process saved time and money for the contractor, as less materials and excavation

was needed to prepare the site. The sheet pile has all been driven, and the work of anchoring the wall to the rock has begun.

The project is expected to be finished by the end of May 2019, when it will be open to the public.

## PROJECT PARTNERS

### Owner

Town of Warren, RI

### General Contractor

Foth/CLE Engineers – Newport, RI

## PRODUCTS

Combi-wall: NZ 26 sheet pile and W18 x 143 wide flange beams (135 tons)

## PROJECT TIME FRAME

January through May 2019