

OLD NORTH WHARF BULKHEAD

Nantucket Harbor, MA

Coastal Engineering Co. was retained by Old North Wharf Cooperative, Inc. to provide professional engineering and environmental permitting services for the replacement of about 210 l.f. of a bulkhead along a section of Old North Wharf fronting on Nantucket Harbor, which had been in place for more than 40 years and had corroded to the extent that large void areas in the face above the mud line were allowing soil fill material to migrate into the harbor. Due to the existence of buried utilities located behind the bulkhead that might prove to be problematic for the installation of a bulkhead tieback system, CEC designed the replacement as a steel sheet pile cantilever bulkhead to be located just outside the face of the existing bulkhead. The design included a request by the client that the new bulkhead be completely sheathed with a timber façade for aesthetic purposes in this historically significant location. The Nantucket Conservation Commission included a condition in their approval that no CCA treated timber could be used for the proposed timber façade. Consequently, greenheart timber was selected as the façade material because of its durability characteristics without the use of any chemical preservatives. The bulkhead was constructed during winter by working from a large barge berthed adjacent to the site in Nantucket Harbor. CEC helped to maintain a high level of quality control during the sheet pile installation to ensure the face maintained as linear an alignment as possible to facilitate the successful installation of the timber façade.

SERVICES

- Data accumulation
- Preliminary engineering and design development
- Environmental and regulatory permitting at local, regional, state, and federal levels
- Bulkhead design
- Construction bid administration
- Construction contract administration

