

CASE STUDY

# Cape Croker Park

Ontario, Canada

## HISTORY

Cape Croker Park, located on the eastern shore of the Bruce Peninsula in Ontario, Canada, is owned and operated by the Chippewas of Nawash Unceded First Nation. The park encompasses 520 acres and is a recreational facility that includes campsites, hiking trails, and a sheltered harbor with dockage for recreational vessels of all sizes. Located on the Georgian Bay side of the Bruce Peninsula, Cape Croker Park is open for travelers from the first weekend in May through to Canadian Thanksgiving (the second Monday in October).

## PROBLEM

The current dock did not suit the needs of the community and needed to fit more vessels in the docking area. Also, aging timbers were beginning to rot and needed to be replaced.

## SOLUTION

The design work for the project was performed by the Ottawa, Ontario office of Stantec Consulting Ltd. The design consisted of two parallel sheet pile walls encapsulating an existing, L-shaped, concrete-capped timber crib wharf. The new sheet piles were driven approximately 1.0 m from the existing wharf perimeter and were connected by double-channel walers and threaded tie rods. Upon completion of the tie backs, graded clear stone was to be placed in the void between the new wall and the existing wharf, as well as up the bottom elevation of the subsequent concrete.

Dean Construction Co. Ltd. (Dean) of Windsor, Ontario, one of the foremost deep foundation and marine construction companies in the Great Lakes Region, was awarded the contract to reconstruct the wharf. Dean secured the supply of the specified steel sheet piling from



*"We have had an ongoing relationship with Skyline's Québec office for many, many years. Their service has always been key to our relationship with them. We know that Skyline's Quebec office is behind us and wants our jobs to be successes."*

—Marc Dean, Owner, Dean Construction Company, Ltd.

Nucor Skyline's Brossard, Québec office, with whom Dean has a long-standing relationship.

The wharf was built using approximately 400 NT of Z-shaped steel sheet piles coated with a polyamine epoxy on both sides to help prevent corrosion. The walls were driven using a combination of a Dawson hydraulic impact hammer and HPSI 300 and 500 vibratory hammers. Driving was primarily accomplished from spud barges.

Construction is expected to be completed in the spring of 2019, when the new, cast-in-place concrete cope is poured on top of the sheet piles, the concrete deck is poured on top of the granular fill between the walls and the ancillary safety ladders, fenders and electrical components are installed.

## PROJECT PARTNERS

### Owner

Chippewas of Nawash Unceded First Nation – Ontario, Canada

### General Contractor

Dean Construction Co., Ltd, Windsor – Ontario, Canada

## PRODUCTS

Sheet Piles: Z-shaped steel sheet pile in 40' lengths

## PROJECT TIME FRAME

July 2018 to April 2019