

CHARLOTTETOWN MARINE EXPANSION UNDERWAY

By Stephen Clare

It's full-steam ahead for the Charlottetown Marine Expansion Project.

The project arose in order to accommodate future expansion of commercial enterprises and to continue to facilitate the growing needs of terminal operations. The attraction of new business to the Port of Charlottetown, Prince Edward Island is contingent upon the ability of the Port to provide adequate, safe facilities for the needs of potential Port users.

The undertaking by general contractor Beaver Marine Inc. includes the construction and operation of the expanded marine terminal, which will be built in two phases. Project Manager James C. Johnson Associates Inc. called the tenders for owners Charlottetown Harbour Authority Inc. back in January. The architect/engineer for this project is O'Halloran Campbell Consultants Limited.

Phase 1 of the project involves repairs to the existing marine terminal and expansion, approximately 30 meters to the south and approximately 183.4 meters to the west.

Phase 2 will involve further westward expansion of the wharf extension an additional 96.6 meters, along with construction of a western mooring dolphin.

Both phases will contain the following individual components: berth repair and extension, upgrades to the Charlottetown Marine Terminal to accommodate larger cruise ships; separation of cruise ship and industrial facilities; creation of a welcoming centre and event facility in the existing western shed; construction of a marina breakwater system; relocation of the visitor information centre with Founder's Hall; extension of Hillsboro and Prince streets to the waterfront; extension of the existing boardwalk (including seating, lighting, banners, interpretive signage); and the development of site parking and accompany landscaping.

The project also incorporates a desire from the Charlottetown Yacht Club to construct and operate a new marina in the water lot adjacent to the Charlottetown Marine Terminal and

Confederation Landing. The new marina is currently in the design phase and will include approximately 197 berths in total, using the existing floating docks from the Charlottetown Yacht Club and new floating docks, along with a new rubble mound breakwater at the southwest end of the basin, a 30 meter floating wave break, a mast lift, and a five ton lift.

Fred Horrelt is the Charlottetown plant manager for concrete supplier Schurman Concrete Limited, a division of Strescon Limited, Saint John, NB. He says that given the needs and size of the structure, the process has actually occurred very quickly.

"Usually a job of this magnitude requires a longer period, but given that we started later in the season it had to be finished quickly. In a required duration of only six weeks, we've managed to pack each of the five, 50-foot high, floating cribs with 1,800 meters of high-strength 35 MPA air entrained concrete. We got it done pretty smoothly, so we're right on target for the next phase of development."

The five cribs were poured in three separate pours per week consisting of an eight hour pour, 24 hour pour and a 72 hour pour, with all concrete being pumped. The first load of concrete was delivered on September 25.

Each crib is 117 feet long, 46 feet wide and 50 feet high. When it was poured, each crib started at the base on top of a barge, then the first 12 feet of the walls was poured before it was floated off the barge. The pour then continued for the remaining 36 feet while it was floating.

As the concrete was poured into the slip form, the cribs continued to sink. Upon completion, they were hauled to their final position and filled with sandstone.

The cribs will now be left until spring, when approximately 2,500 more metres of concrete will be needed in order to put a top on the cribs to cover them in completely.

The wharf project, requiring 11,000 cubic metres of concrete, is not scheduled to open until August 2007.



The Charlottetown Harbour Authority is expanding the city's Marine Terminal Wharf near the historic downtown. The project, scheduled to open in August 2007, required the construction and sinking of five floating concrete cribs, each measuring 35m x 14m x 15m high. The contractor is Beaver Marine Inc. Schurman Concrete Limited of Charlottetown, which will supply 11,000 cubic metres of concrete by the time the project is complete, including several continuous pours of eight, 12 and 24 hours duration.



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