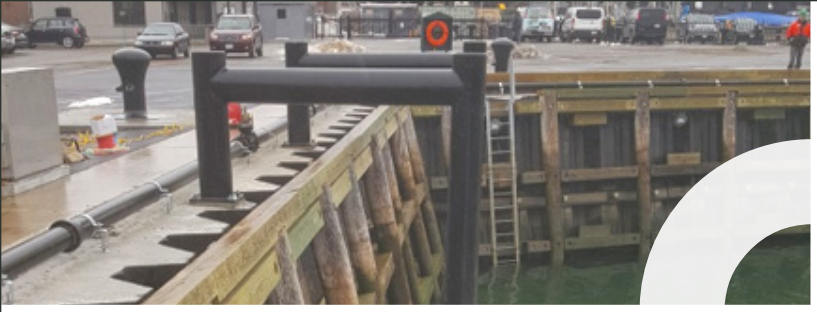


USS *Constitution* Pier 1 Structural Repairs
CHARLESTOWN, MA

The U.S. Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic contracted Jay Cashman, Inc. to undertake the renovation, repair, and reconstruction of the berth and surrounding wharf that is home to the world's oldest commissioned naval vessel afloat, the USS *Constitution*. The project, located in the Charlestown Navy Yard and part of the Boston National Historical Park, took just under two years and was completed on time and on budget.

PROJECT HIGHLIGHTS

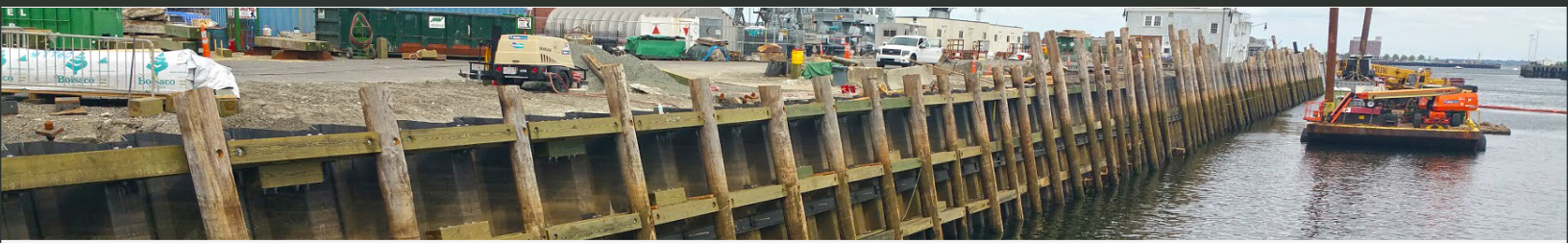
The finger pier is comprised of two sections: a steel and concrete section (walkway) and a timber and concrete section (timber pier). There is a fender system for the timber pier to protect it from wear and impact from the camels used to breast "Old Ironsides." The finger pier required rehabilitation to regain full function.

- Work included demolition, removal and disposal of existing site features, hazardous materials, waterfront structures, and utility systems.
- Pier-related work included construction of a steel sheet pile bulkhead, a pile-supported pier, fender systems, mooring hardware and dolphins.
- Site work included grading, paving and cobblestone pavement, drainage systems, utility systems (water, electric power, and lighting) landscape features, reruction of a section of historic railroad, and incidental related work.
- To comply with the *Marine Mammal Protection Act*, Cashman also provided marine mammal monitoring and data collection.

Location:	Charlestown Navy Yard, MA
Contractor:	Jay Cashman, Inc.
Contract Number:	N40085-15-C-8703
Contract Dates:	Oct. 2014 – Mar. 2017
Dollar Value:	$14.3 Million
Awarding Authority / Owner:	NAVFAC Mid-Atlantic Norfolk, VA
Owner Contact / Details:	Nathan Libby 207.438.1074 nathan.libby@navy.mil

Approximate quantities for main work items included the following:

- 42,000 SF of new coated steel sheetpile bulkhead, driven on a batter
- 44 each 12.75"-diameter coated steel pipe piles, both battered and plumb
- 108 each 13-17"-diameter Greenheart timber piles, driven on a batter
- 62,000 BF of timber fender system – 3 levels
- 2,600 CY of concrete, both structural and as backfill between new and old bulkheads
- 11 each 70-ton bollard foundations supported by 66 micropiles
- 10,000 SF of granite paver and granite cobble paving
- Cathodic protection system including 65,000 lbs. of anodes
- 3,900 SY of bituminous paving



T: 617-890-0600 | F: 617-890-0606 | 549 South Street, Quincy, MA 02169 | info@JayCashman.com