



Erie Maritime Museum

Project Update 11/20/2025

As part of the Pennsylvania Historical and Museum Commission's strategic vision to own, operate, and maintain the U.S. Brig *Niagara*, Bristol Marine at Sample's Shipyard in Boothbay Harbor will work in partnership to meet current contract priorities. This document is meant to guide current discussions, communicate progress, and bring definition to ongoing planning and implementation.

Critical Path Line Items:

1. COR # 8 approved. Electrical Modifications drawings are under final review before USCG Submittal. Does not include possible changes after USCG Review of Drawings. Custom AC electrical panels ordered.
2. Keel bolt inspection and mast x-ray report.
3. Second truckload of Fir planking to arrive in 2 weeks.
4. Engine Bed modification review and engine bed mock ups complete. (9 total foundation modifications are needed and will be included in the next COR.) USCG to inspect early December.
5. Landing engines and generator in mid December
6. Deck and hull caulking to start 12/1/25

In Process:

- Review & Approval date of Invoice - Payment dates #011, #012 & #013
- Repairs on standing rigging.
- Waterway laminations, knighthead construction, chainplate channel, bulwarks & frame repairs, deck caulking, Aft hull planking near completion, Port side bow planking, Fwd. decking, Gunport sills. Engine and thrust bearing foundation planning. Engine room painting.
- Mock ups complete for the Engine Room mechanical and finalizing shaft lengths.
- Electrical planning. Revised electrical Naval Architect drawings completed for review. **USCG drawing submission next week.**
- COR Planning:
 1. Nine Foundation modifications for Engines, Pump, Alternator & Aquadrive. Mechanical System Modifications for Bilge Manifold, Engine Exhaust, Fuel & Raw Water. New Propeller Shafts & Bearings. Aquadrive System. Battery and genset foundation modification.
 2. Electrical System Upgrades, Genset Exhaust & Mechanical System Modifications. Naval Architect Design & USCG Submittals.
 3. Mast & Spar Repairs and Miscellaneous Carpentry. Additional Laminated Breasthooks For Stem.
 4. USCG Requested repairs throughout their inspection process. Copper sheathing, Keel bolt inspection x-ray. Two bottom plank repairs. Stern post repair and documentation. Electrical modifications after drawing review.

Priority Planning & Implementation:

Section 1: Haulout & Preparation

- Blocking & haulout. **Complete**
- Wood frame & cover design. **Scheduled for Mid September**
- Staging layout & access. **Near Completion**
- USCG mast and mast partner/deck inspection. Repairs require a Change Order Request.

Section 2: Tankage & Plumbing

- Low Priority at this time.
- USCG requirements for Inspection of internal hull structure.

Section 3: Engine & Drivetrain, Peripheral Systems

- Equipment removal planning. **Complete**
- Naval Architect & USCG requirements for new equipment and drawing approval including engine foundations & exhaust modifications. Requires Change Order Request. **Concept drawings are approved and now require change order requests for final installation design, mock ups, fabrication and installation.**
- **Engine room mechanical systems require possible modifications and final engineering. (Main Engine Exhaust has water jacketed pipe smaller than 6" Dia.; Fuel supply pipe sizes; Raw water strainer and intake piping; PTO foundations for auxiliary pump and alternator; Requires Change Order Request.**
- Remove shafts for inspection. **Complete**
Shaft replacement requires Change Order Request.

Section 4: Carpentry / Shipright Work

- Naval Architect & USCG requirements and approval for above waterline stem repair configuration and laminated/steel reinforcement. Requires Change Order Request.
- Bulwark planking & waterway laminating

Section 5: Electrical System Upgrade

- Electrical Technician reviewing potential repairs and upgrades. Possible changing to single genset. Requires Change Order Request. **Going with a single Genset. CAD Drawings and USCG Submission end of October**
- Naval Architect & USCG requirements and approval for exhaust modifications and system upgrades. Requires Change Order Request.

Section 6: Close Out

- Low priority at this time.

PHMC ACTION ITEMS

X	Delivery status of Engines, Gensets, Aquadrive units. Equipment needed on site for final mock-up of foundations. Engines and generator purchased	9/16/25
X	Gear ratio and electronic controls. From Iver C. Franzen Maritime	8/28/25
	Payment status of invoice #11, 12 & #13	
X	Review of First Change Orders	7/9/25
	USCG schedule for inspections. (Fastener pull, Internal Structural, Drydock, Mechanical and electrical system upgrade, Spars & Rigging, Stem 835)	
X	Above Waterline Stem Timber Repair Proposal. Has been reviewed by Naval Architect and will require final design and approval after demo and assessment. Laminating is an option.	6/12/25
X	Winterization of engines and systems including pump-out of black and grey water tanks and bilges	8/16/25
X	Review of lumber species and finalize initial orders. Stem Timber Lamination will require change order.	8/18/25
	Review of COR # 8	

USCG ACTION ITEMS

	Inspection Schedule - Next inspection Early December	
	Mechanical Systems Replacement Requirements	
	Electrical System Replacement/Upgrade Requirements - Existing Drawing Review & project guidance.	
	Masts & Rigging Inspection Expectations	
X	Naval Architecture & USCG Drawing Approvals - Engine & Genset Replacement, Engine Foundation Modifications, Steel Stem Fabrication, Engine & Genset Exhaust Modifications.	6/12/25
	Internal Hull Structure & Keel Bolt inspection; Possible tank and ballast removal.	
X	Stern Post inspection	10/30/25
	Through hull inspection	

SHIPYARD ACTION ITEMS

X	Lead Shipwrights inspection and planning to define the first phase of demolition for Bow & Stern above waterline repairs. Removal of 15-20 planks above waterline, Port & Stbd, Bow & Stern.	6/12/25
X	Diesel tech inspected the engine room to start planning removal.	6/17/25
X	Haul out vessel and secure.	6/25/25
X	Build staging to surround the vessel.	7/1/25
	Main engine room electrical distribution report.	
X	Downrigging and remove masts	7/10/25
X	Repower & Genset Review - Meet 7/24/25 with Cat & Twin Disc Reps. Decision to purchase equipment.	9/16/25
	Naval Architect design planning for mechanical installation and electrical modifications	