



# Erie Maritime Museum

## *Project Update 10/16/2025*

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. 10/20/25 Final Aquadrive specification and COR # 7 submission. Preliminary lead time estimate 10 -12 weeks.
2. 10/30/25 USCG inspection and requirements of keel bolts, watertight bulkheads & through hulls.
3. Rigging repairs to start next week.
4. Second truckload of Fir planking to arrive in 3-6 weeks.
5. 10/16/25 Meeting with electrical technician to review battery & Genset location
6. 10/17/25 Meeting with fabricator, engine technician and Naval Architect drawings to review preliminary engine and generator foundations drawings and shaft specifications.

### In Process:

- Review & Approval date of Invoice - Payment dates #009 & #010
- COR #07 final Aquadrive Specifications.
- Waterway laminations, knighthead construction, chainplate channel, bulwarks & frame repairs, deck caulking, Aft hull planking.
- Preliminary drawings started for the Engine Room mechanical by Naval Architect.
- Electrical planning. Preliminary electrical Naval Architect drawings near completion for review. **USCG drawing submission 10/27/25**
- COR Planning: Budget estimates complete.
  1. COR #07 final Aquadrive Specifications next week.
  2. Two Foundation Construction 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.
  3. Electrical System Upgrades, Genset Exhaust & Mechanical System Modifications. Naval Architect Design & USCG Submittals.
  4. Mast & Spar Repairs and Miscellaneous Carpentry. Additional Laminated Breasthooks For Stem.
  5. USCG Requested repairs throughout their inspection process. Copper sheathing, Keel bolt inspection & other.

## 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. <b>Engines and generator purchased</b>                          | 9/16/25 |
| X | Gear ratio and electronic controls. From Iver C. Franzen Maritime                                                                                                                | 8/28/25 |
|   | Payment status of invoice #9 & #10                                                                                                                                               |         |
| 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 |
| X | Review of COR # 4, #5, #6                                                                                                                                                        | 9/25/25 |

### USCG ACTION ITEMS

|   |                                                                                                                                                                            |         |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|   | Inspection Schedule - Next inspection <b>10/30/25</b>                                                                                                                      |         |
|   | Mechanical Systems Replacement Requirements                                                                                                                                |         |
|   | Electrical System Replacement/Upgrade Requirements - <b>Existing Drawing Review &amp; project guidance.</b>                                                                |         |
|   | 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.                                                                                         |         |
|   | Stern Post inspection                                                                                                                                                      |         |
|   | 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                                                                                                     |         |