

PHOTO REPORT ON PHASE 1 OF THE RESTORATION OF THE LIGHT TOWER OF THE BURNT COAT HARBOR LIGHT STATION, SWAN'S ISLAND, MAINE

A. THE STAIRS



The 34 metal stairs leading to the top of the tower were badly rusted and contaminated with lead paint. There was lots of rust where the stairs were set into the masonry.



Rust and lead paint were removed from the stairs and other metal surfaces using SpongeJet equipment and a specialized blasting material. Where the stairs were set into the masonry, rust was removed up to a half inch into the masonry. Amburg was punctilious about using lead safe procedures, and disposing appropriately of all blasting debris.



After the stairs were cleaned down to the metal, they were painted top and bottom using high quality paints in the historic reddish-brown color that was used on these stairs in the 1930s. Amburg built wooden staging inside the tower in order to reach the underside of each stair.

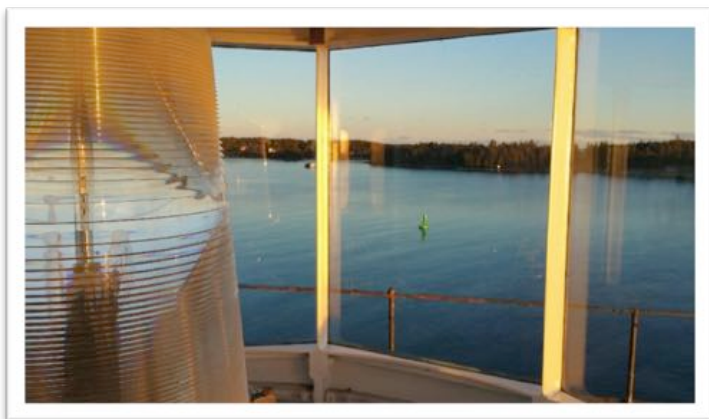
B. THE CUPOLA WINDOWS



The glass window panes were removed from the cupola by Portland Glass, to allow for repair to the frames and astragals. The original glass was carefully stored.



The glass panes were temporarily replaced with plexiglass panes, braced with wooden battens and wrapped with a ratchet strap.



Portland Glass returned the original glass panes and installed them with professional quality glazing.

C. RESTORING THE INTERIOR OF THE CUPOLA



The wall below the windows in the cupola was lined with wooden wainscoting. The wainscoting had to be removed and repaired. The metal wall behind the wainscoting had serious rust. All was contaminated with lead paint.

Detail at base of wainscoting showing damaged wood and rusted metal



Once the wainscoting was removed, the inner face of the exterior metal wall was revealed. Rust and paint were stripped and necessary repairs were made to the metal.



The brass covers for the vents were removed and repaired.

Missing parts were fabricated by a Pennsylvania brass foundry -- exact replicas of the originals.





Once the interior metal wall had been stripped of rust and lead paint, Amburg made necessary repairs to the metal.

Meantime (see below) the wooden wainscoting had been painstakingly repaired. In some instances, decayed ends had to be rebuilt with epoxy paste, then shaped and sanded to replicate the original. Then each piece was primed and painted, and stored for future reinstallation. The first top coat of paint was done by volunteers.



Finally, the wooden wainscoting was reinstalled. A thick caulk of beeswax was applied at the base of the wainscot to prevent future water damage. Last of all, the wood was given a final coat of paint.

D. METALWORK

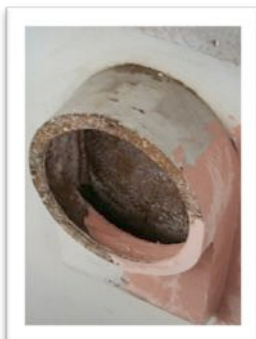
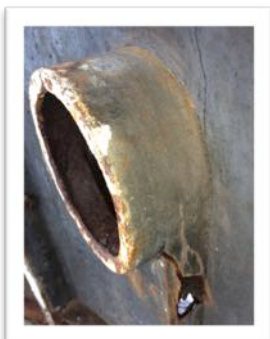


Repairing the metal work around the windows was demanding and technically difficult. The photo on the left shows corrosion on the astragals (vertical metal strips on the exterior used to secure the glass panes). Inappropriate caulking is also visible in this photo. The photo on the right shows an astragal improperly installed, leaving an air gap that allowed water intrusion, causing corrosion and failure of the framing.

(Photo credit: HBA Historic Preservation Plan)



The photo to the left shows part of the window framing stripped of rust and failing paint, ready for repair and closing up of unneeded drill holes. The photo below shows damaged and broken astragals awaiting repair.



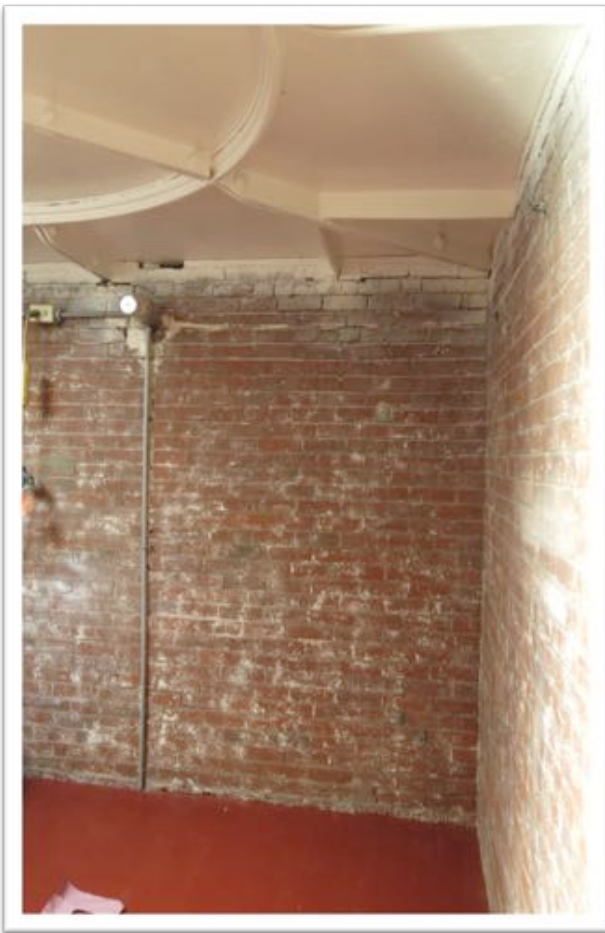
The photo on the left shows a metal vent in the cupola wall with a hole below and to the right through which daylight is visible. The photo on the right shows the same vent, after repair.

E. THE WATCH ROOM



The Watch Room is immediately below the lantern room. The base of the cupola forms the ceiling of the watch room. It is the circular structure seen in this photo. It was contaminated with rust and lead paint.

(The ladder in the lower center of the photo leads to a hatchway that gives access to the lantern room.)



The wooden floor (see photo below) had suffered extensive water damage and was contaminated with lead paint.



The photo to the left shows part of the watch room after restoration. Rust and paint have been removed from the cupola base/ceiling, and it is painted with historically correct white paint. The floor has been repaired, and repainted with the same reddish-brown paint used on the stairs and other floor areas.

The masonry will be repaired and repainted in Phase 2 of the light tower restoration. Damage to the masonry (mostly caused by rust jacking) is visible at the top of the masonry wall in this photo. (Rust jacking is displacement of the bricks caused by expansion of the metal components of the tower as the metal rusts, becomes iron oxide and increases in volume.)

F. THE INTERIOR OF THE LANTERN ROOM



When all repairs were complete, new paint, in historically accurate colors, transformed the lantern room. The floor is now reddish-brown, the light pedestal spruce green, all interior walls – both wood and metal – are white, and the brass is clean and bright. The light shines again!

