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Scituate Lighthouse Restoration Project - Project Update

July 11, 2023

Project Status Report

1. **Demolition/Existing Conditions –** The demolition/rebuild process has been delayed due to the poor condition of the masonry infill within the tower. The original design intent was to remove the existing cap structure, leave the existing brick "2 wythe" veneer installed in 2005 and re-build the inner wall assembly down approximately 4'-6" with cast in place concrete. When the cap assembly was removed, it was obvious that the internal/core masonry conditions and the construction of the 2005 brick veneer were not suitable to support the intended re-build. Therefore, the contractor was directed to remove the top 4'-6" +/- of masonry tower in its entirety to just above the internal platform section of the lighthouse for further evaluation with the hopes that the condition of the internal/core masonry improved. This additional demolition was completed the week of June 25th and the contractor installed several helical type ties into masonry internal/core for testing purposes which were not favorable. The structural engineer and architect reviewed the results and existing conditions and recommend continuing removal down an additional 4'-0" +/- to the level of the existing window heads for future evaluation and it may be necessary to continue the removal down an additional 5'-3" +/- down to the point where the granite base transitions into the brick tower. Attached is a diagram which better illustrates the condition.

   The contractor is currently assembling the costs for the additional demolition aspect and the team recommends proceeding with the demolition/exploration while the architect develops the drawings for the reconstruction of the brick tower and for contractor pricing.

2. **Lantern Room** – The lantern room structural frame fabrication is complete, and the contractor will be erecting the frame in his shop for test fitting and verification before the frame is deconstructed and sent out for galvanization. The frame will be ready for inspection in the contractor's shop as early as next Tuesday and the Team is scheduling a meeting at the contractor's shop to inspect the frame.

3. **Schedule** – The schedule has been impacted by the discovery of the unforeseen conditions of the internal/core masonry. We are attempting to move forward as efficiently as possible with the additional demolition and investigations and as soon as the team has a better handle on the solution the overall schedule will be updated.

SCITUATE LIGHTHOUSE:
JULY 07, 2023 CONDITIONS UPDATE

Loose masonry (expected from 2005 Core #1) at the top of the brick tower was verified and demolished in anticipation of interior concrete dome. Brick was removed down 4'-6" to "current demo line".

Semi-loose masonry below the "current demo line" (suggested by 2005 core #2) was found more deteriorated than expected, and is unsuitable for use as a base for dome and lantern. At minimum, brick should be demolished an additional 4 feet down and rebuilt back up to the same point.

2005 Cores #3 and #4 suggest solid brick below this point, at the 4 sides of the granite openings. In the event that brick here is also poor, the 4 brick walls should also be demolished and rebuilt back up to the same point.

