DOCUMENT 00 91 00

ADDENDA

ADDENDUM NUMBER ONE (001)

DATE: June 6, 2024

PROJECT: **Quoddy Head State Park Lighthouse and Map Room Renovations**

PROJECT NUMBER: Artifex Project No. 2023106
BGS Project No. #3551

CLIENT: Maine Department of Agriculture, Conservation, & Forestry,
Bureau of Parks and Lands
22 State House Station
106 Hogan Road, Suite 7
Bangor, Maine 04401

ARCHITECT: ARTIFEX

TO: Prospective Bidders

This Addendum forms a part of the Contract Documents and modifies the Bidding Documents dated May 16, 2024, with amendments and additions noted below.

The Bidder is to acknowledge receipt of this Addendum in the space provided in the Bid Form of the Project Manual. Failure to do so may disqualify the Bidder.

This Addendum consists of **Five (5)** pages, plus noted attachments and specifications.

1.0 **Questions Received:**

1.01 **Question:** *This project calls for removal of plaster ceiling and alterations at a glass block portion of a wall. Has an asbestos survey been conducted as legally required by MDEP? Please issue the results of the survey prior to the bid.*

Answer: There was a "Limited Lead and Asbestos Survey" performed in 2004; a copy is attached as part of this Addendum. It is safe to assume that the interior paint of the Map Room (floor, walls, and ceiling) contains lead. Bid should be based on this assumption. Other items will need to be further tested by the winning bidder, prior to beginning removals work within the Map Room.

2.0 **Changes to General Documents:**

2.01 REVISION TO SECTION 00 31 26 Existing Hazardous Material Information
Insert 1.1B *An existing Report: "Limited Lead and Asbestos Building Survey" prepared by Air Quality Management Services, Inc. and dated September 22,*

2004, is included in this document. Bidders are to assume that interior paint on walls, floor, and ceiling of the Map Room are lead bearing paint. This report is available for viewing as appended to this Document.
Revise 1.1C. An existing lead report statement for the exterior of the Lighthouse Tower portion of this Project, prepared by Amy Cole Ives (Sutherland Conservation & Consulting), dated January 26, 2024, states that exterior paint is NOT lead-based or lead bearing. This report is available for viewing as appended to this Document.
ADD 1.1E New survey is to be procured by the winning bidder to address additional indoor conditions at the Map Room.

3.0 **Changes to the specifications:**

3.01 REVISION TO SECTION 01 10 00 SUMMARY
Add to 1.3.C line 6: ….(MHPC). *Work performed must adhere to the Secretary of the Interior's Standards for the treatment of historic properties and National Park Service Preservation Brief No.2 pursuant to the preservation easement the Maine Historic Preservation Commission (MHPC) holds on West Quoddy Light Station.*

3.02 REVISION TO SECTION 04 03 22 HISTORIC BRICK UNIT MASONRY REPAIR (?)
Add to Sectio 1.5: C. Maine Historic Preservation Commission to approve all brick, and mortar samples prior to work. Submittals made to MHPC shall be coordinated through the project Architect.

Revise PART 2 PRODUCTS:
2.2 MORTAR MATERIALS
A. As provided by Owner from US Heritage Group for MAP ROOM
B. Mason shall submit samples of the LIGHTHOUSE TOWER masonry mortar to Highbridge Materials Consulting, 404 Irvington St., Pleasantville, NY 10570 for testing and confirmation of recommended mortar for the Lighthouse.
C. Water: ASTM C270, potable.

2.3 MORTAR MIXES
A. MAP ROOM
1. Measurement and Mixing: Measure cementitious materials and sand in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.
2. Do not use admixtures in mortar unless otherwise indicated.

3. Mixes: Mix mortar materials in the following proportions:
Pointing Mortar by Proportion: 1 part Natural Hydraulic Lime (NHL) 3.5 and 2.5 parts Sand, selected from the USHG sand library. Refer to the attached Mortar Examination Report by US Heritage Group.

B. TOWER
Mortar mixing as per recommendations from Highbridge Materials Consulting.

3.03 REVISION TO SECTION 04 03 23 HISTORIC BRICK MASONRY REPOINTING

Add to Section 1.4.C Maine Historic Preservation Commission to approve all mortar samples prior to work. Submittals made to MHPC shall be coordinated through the project Architect.

Revise PART 2 – PRODUCTS
2.1 MORTAR MATERIALS (MAP ROOM 101)
A. Hydraulic Lime (NHL) 3.5.
B. Mortar Sand: ASTM C144 unless otherwise indicated.
1. Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands if necessary to achieve a suitable match.
C. Water: ASTM C270, potable.

2.2 MORTAR MATERIALS (LIGHTHOUSE TOWER)
A. Mason shall submit samples of the Lighthouse masonry mortar to Highbridge Material Consulting 404 Irvington St., Pleasantville, NY 10570, for testing and confirmation of the recommended mortar for the Lighthouse.

2.3 MORTAR MIXES (MAP ROOM 101)
A Measurement and Mixing: Measure materials and sand in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.
B. Mixing Pointing Mortar: Thoroughly mix cementitious materials and sand together before adding any water. Then mix again adding only enough water to produce a damp, unworkable mix that will retain its form when pressed into a ball. Maintain mortar in this dampened condition for 15 to 30 minutes. Add remaining water in small portions until mortar reaches desired consistency. Use mortar within one hour of final mixing; do not retemper or use partially hardened material.
C. Do not use admixtures in mortar unless otherwise indicated.
D. Mixes: Mix mortar materials in the following proportions:
Pointing Mortar by Proportion: 1 part Natural Hydraulic Lime (NHL) 3.5 and 2.5 parts Sand, selected from the USHG sand library. Refer to the attached Mortar Examination Report by US Heritage Group.

2.4 MORTAR MIXES (LIGHTHOUSE TOWER)
A. Mortar mixing as per recommendations from Highbridge Material Consulting.

3.04 REVISION TO SECTION 08 16 13 FIBERGLASS ENTRY DOOR
Revise Part 2- Products, Section 2.1.A to read: *Basis of Design: Masonite Corporation 1242 E. 5th Avenue, Tampa, Florida, 33605 (800) 895-2723*
Revise Section 2.2.A.1 *Heritage Series* Section 2.2.A.3 *Door style a. Logan 2, Heritage Collection, Two Panel, Textured, Color, white.*

3.05 REVISION TO SECTION 09 91 23 INTERIOR PAINTING

Section 2.2.C: Delete 1.Ten percent of surface area will be painted with deep tones.
Section 3.1.B.1: Delete a. Masonry: 12 percent
Section 3.2 Delete D. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceeds that permitted in the manufacturer's written instructions.

3.06 REVISION TO SECTION 09 97 26 SOL SILICATE COATINGS
Section 3.3 Add: D. Substrate: 1. All brick masonry, interior and exterior, called out to be painted shall be painted using silicate-based paint exclusively.

3.07 ADD SECTION 08 03 52 HISTORIC TREATMENT OF WOOD WINDOWS

3.08 REMOVE SECTION 09 65 19 RESILIENT TILE FLOORING

4.0 **Changes to the Plans:**

4.01 REVISIONS TO SHEETS:

AE101 - REMOVALS PLANS & SECTION
AE201 - REMOVALS ELEVATIONS
AE400 - REMOVALS INTERIOR ELEVATIONS & REFLECTED CEILING PLAN
A101 - PLANS & SECTION
A200 - EXTERIOR ELEVATIONS
A201 - EXTERIOR ELEVATIONS
A400 - INTERIOR ELEVATIONS & FINISH PLANS

5.0 **Attachments:**

5.01 Minutes of Pre-Bid Meeting
5.02 Pre-Bid Meeting Attendance Sheet

5.03 Specification Sections:
00 31 26 EXISTING HAZARDOUS MATERIAL INFORMATION
Hazardous Materials Report
04 03 22 HISTORIC BRICK UNIT MASONRY REPAIR
04 03 23 HISTORIC BRICK UNIT MASONRY REPOINTING
08 03 52 HISTORIC TREATMENT OF WOOD WINDOWS
08 16 13 FIBERGLASS ENTRY DOOR
09 91 23 INTERIOR PAINTING
09 97 26 SOL SILICATE COATINGS

5.04 Drawing Sheets:
AE101 REMOVALS PLANS & SECTION
AE201 REMOVALS ELEVATIONS
AE400 REMOVALS INTERIOR ELEVATIONS & REFLECTED CEILING PLAN

A101	PLANS & SECTION
A200	EXTERIOR ELEVATIONS
A201	EXTERIOR ELEVATIONS
A400	INTERIOR ELEVATIONS & FINISH PLANS

-- END OF DOCUMENT --

ARTIFEX
architects & engineers
128 Broadway
Bangor, ME 04401

Pre-Bid Meeting Notes

Meeting Date/Time:	**Meeting Location:**
May 29, 2024 @10:00am	West Quoddy Head Lighthouse
Bid Due Date:	**Project Number:**
June 18, 2024	2023106 BGS Project No. #3551

1. Introductions
   a. Ryan Kerr, Maine Parks and Lands
      Ryan.Kerr@maine.gov

   b. Ellen Angel, Artifex
      eangel@artifexae.com

   c. Attendance Sheet (attached)

   d. Bids Due June 18, 2024 at 2:00 PM online to
      1) BGS.Architect@Maine.gov

2. Procurement and Contracting Requirements:

   a. General Scope of Project: Refubishment of Map Room, Exterior of Light tower, and handrails at interior of tower
   b. Instructions to Bidders.
      i) There is no State Sales, Use, or excise taxes
      ii) Insurance. Section 3-A General Conditions
      Workers' Compensation $500,000
      General Liability Insurance $1,000,000/2,000,000
      Automobile Liability $1,000,000.
      Owner's Protective Liability (Owner as Insured) $1,000,000
   c. Bid Security.-
      i) Bid Bond required:
      j) Performance and Payment Bonds required
   d. Bid Form – BGS Form
   e. Notice of Award – within 10 days

3. Communication during Bidding Period:

   a. Addenda or questions: digitally through Architect.
      i)All REGISTERED Bidders
   b. Bidder's Requests for Information.
      i) Via email to architect (email address above)

c. Bidder's Substitution Request/Prior Approval Request – Substitutions must be requested in advance of bid and will be processed by architect and MHPC.
d. Addenda will be issued with these notes

4. Contracting Requirements:

a. BGS Agreement. In Project Manual
b. BGS General Conditions. In Project Manual
c. Other Owner requirements.
i)Change Orders fully transparent and documented – maximum 10% O/P

5. Construction Documents:

a. Scopes of Work.
b. Temporary Facilities.
i)Restrooms and water provided by owner
ii)Electricity provided by owner
c. Use of Site.
d. Work Restrictions: Job site work hours available : 7 a.m. to 7 p.m., 7 days per week..
e. 2 Bid Alternates: 1. Exterior Metal Painting 2. Interior metal painting
f. No Allowances, No Unit Prices.
g. Substitutions following award are inadvisable as they must be approved by Architect and MHPC and could be a problem with the schedule.

6. Schedule:

a. Project Schedule: Start Construction August 1, 2024. Construction must be complete by December 2026
b. Contract Time. Through December 2026.
c. Liquidated Damages – none

7. Bidder Questions: None

8. Site visit or walkthrough.

9. Post–Meeting Addendum.

Project:	West Quoddy Head Light
Project No:	2023106
	BGS Project No. #3551
Date:	May 29, 2024

ARTIFEX architects & engineers

ATTENDEES

	NAME	COMPANY	PHONE		E-MAIL
1	Ellen Angel	Artifex AE	745-0237		eangel@artifexae.com
2	Ryan Kerr	STATE OF MAINE, Parks and Lands	Cell: 207-974-6467		Ryan.Kerr@maine.gov
3	DAVID COLEMAN	KNOX MASONRY	207-469-2220		knoxmasonry@gmail.com
4	SHAWN GOGGIN	Maine BPL Quoddy Head	207-733-0911		Shawn.goggin@maine.gov
5	Nate Colby	Nickerson & O'Day	207-459-7400		ncolby@nickoday.com
6	DAVID McINTOSH	KING CONSTRUCTION	207 670 5278		dmcintosh@kingconstructionmaine.com
7	Brian Moores	Park Ranger QHST	207 904-9141		
8					
9					
10					
11					

DOCUMENT 00 31 26 - EXISTING HAZARDOUS MATERIAL INFORMATION

1.1 EXISTING HAZARDOUS MATERIAL INFORMATION

A. This Document with its referenced attachments is part of the Procurement and Contracting Requirements for Project. They provide Owner's information for Bidders' convenience and are intended to supplement rather than serve in lieu of Bidders' own investigations. They are made available for Bidders' convenience and information but are not a warranty of existing conditions. This Document and its attachments are not part of the Contract Documents.

B. An existing Report: "Limited Lead and Asbestos Building Survey" prepared by Air Quality Management Services, Inc. and dated September 22, 2004, is included in this document. Bidders are to assume that interior paint on walls, floor, and ceiling of the Map Room are lead bearing paint. This report is available for viewing as appended to this Document.

C. An existing lead report statement for the exterior of the Lighthouse Tower portion of this Project, prepared by Amy Cole Ives (Sutherland Conservation & Consulting), dated January 26, 2024, states that exterior paint is NOT lead-based or lead bearing. This report is available for viewing as appended to this Document.

D. Related Requirements:

1. Document 002113 "Instructions to Bidders" for the Bidder's responsibilities for examination of Project site and existing conditions.

E. New survey is to be procured by the winning bidder to address additional indoor conditions at the Map Room.

END OF DOCUMENT 00 31 26

Limited Lead & Asbestos Building Survey

Department of Conservation - Parks & Recreation

Quoddy Head State Park

Air Quality Management Services, Inc
19B Portland Road
P.O. Box 865
Gray, Maine 04039
Telephone: 207-657-7360 Fax: 207-657-7361

PREPARED FOR

Mr. Gene Kaler
Maine Bureau of General Services
77 State House Station
Augusta, Maine 04333-0077

REPORT DATE

September 22nd, 2004

AQM PROJECT #04-198

Donald M. Bickford, OHST, CIE, CMR
Principal Industrial Hygienist

TABLE OF CONTENTS

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- SURVEY LIMITATIONS
- POTENTIAL HAZARDS
- CAD DRAWINGS
- ESTIMATED ABATEMENT COSTS
- XRF LEAD SAMPLE RESULTS
- ASBESTOS SAMPLING RESULTS – (N/A)

EXECUTIVE SUMMARY

Air Quality Management Services, Inc. (AQM) was retained to conduct evaluations of seven (7) buildings located in Quoddy Head State Park in Lubec, Maine. Testing was conducted to identify asbestos and lead-based paints in the buildings to prepare for renovation and/or demolition activities in the structures. The buildings are as follows:

- Visitor's Center/Manager's Residence
- Quoddy Head Light
- Maintenance Shop
- Shop Storage Building
- Shop Vault Toilet
- Vault Toilets – (2 Total)

The objective of the facility survey was to evaluate each structure for presence of lead-based paint (LBP) and document the presence of asbestos-containing building materials (ACBM) and presumed asbestos-containing materials (PACM) within the facility, and complete facility drawings indicating location and quantity of ACBM, PACM and LBP.

The asbestos survey, limited in scope to accessible materials (see Limitations), was performed by visual evaluation of ACBM and then sampling suspect materials in accordance with applicable protocols and Maine's Chapter 425 "Asbestos Management Regulations". Suspect materials were then analyzed by a DEP-licensed laboratory with positive results (asbestos content greater than or equal to 1% asbestos) being reported on the attached summary and drawings.

The lead determination was performed utilizing a Radiation Monitoring Device Lead Paint Analyzer (RMD LPA-IB, Serial #1971), which non-destructively tests for the presence of lead in building components. The analyzer was satisfactorily pre and post calibrated in accordance with both state and federal regulations and the manufacturer's specifications. All of the calibration readings were within the designated limits. All X-ray Fluorescence Analyzer (XRF) readings for components that were tested have been included on the forms contained herein. Components, which contain Lead-Based Paint, are those with XRF readings in excess of 1.0 milligram (mg) of lead per square centimeter (cm^2) and they are detailed on the attached summary and drawings.

The field survey was conducted on August 27th, 2004 by Mr. Thomas W. Lloyd of Air Quality Management Services, Inc., certified lead & asbestos inspector in the State of Maine.

The locations and descriptions of these materials (PACM, ACBM or LBP) were recorded on the attached CAD Drawings.

OBSERVATIONS & FINDINGS

Quoddy Head State Park – Lubec, Maine

The buildings surveyed are generally constructed of similar materials and in a similar condition. The exteriors and interiors are wood. The reported ages of the buildings are as follows:

- Visitor's Center/Manager's Residence – **UK**
- Quoddy Head Light - 1858
- Maintenance Shop – 1995
- Shop Storage Building - 1990
- Shop Vault Toilet - 1995
- Vault Toilets (2)– 2000

UK = Unknown Age

ASBESTOS SURVEY RESULTS

These materials were presumed (PACM-see drawings) to contain asbestos:

Roofs: Quoddy Head Light – Chart Room Section

Transite: None Visible

No additional suspect asbestos containing materials were discovered in the structures at the Park. No bulk material samples were collected from the buildings in the Park and analyzed for asbestos.

See the Drawings and the Spreadsheets for a more detailed description of the areas and surfaces that are presumed to contain asbestos

LEAD SURVEY RESULTS

Lead-based paint (LBP) **was** identified in the following buildings:

- **Visitor's Center/Manager's Residence** – Painted wooden surfaces in the closet (old stairwell) in the Cultural Room; the basement stair components and adjacent painted wall in the basement; the painted stair trim in the stairwell to the Manager's residence portion of the building (1st floor to 2nd floor); the original painted trim in the Manager's Residence and the original doors in the Manager's Residence.
- **West Quoddy Head Light** – The interior walls, ceiling and floor in the wood frame portion of the structure Chart Room); all painted surfaces into the Head Light Tower from the Chart Room; the metal stairwell top plate and the floor in the Head Light Tower. All exterior components have been re-painted in 2000-2001.

Note: Testing combinations were utilized in the Survey. Special attention should be given to ensure that impacted materials not labeled on the spreadsheets may have been considered a testing combination. Testing combination means: building materials that were installed at the same time, appear the same, and appear to have the same paint history.

See the Drawings and the Spreadsheets for a more detailed description of the areas and surfaces that contain lead based paint

Lead-Based Paint Options

1. The LBP identified in the:

    - **Visitor's Center/Manager's Residence:** The materials which demonstrate positive tests for lead based paint are currently in good-to-excellent condition and do not appear to pose a risk. If the paint on the surfaces remains intact and in good condition then no additional activities are needed. If the paint is deemed as posing a risk (cracking, peeling, chipping, creating dust, etc.) then wet scraping with poly drop clothes should be performed to minimize lead dust and to collect the paint flakes/dust generated. Then the surfaces can be primed and painted with non-lead based paint. The surfaces should then be monitored for deterioration and resultant lead dust.
    - **Quoddy Head Light:** The materials which demonstrate positive tests for lead based paint are currently in extremely poor condition and should be considered to pose a risk. Due to the degree of the deterioration of the interior painted surfaces, the most practical method to remove the paint is the use of abrasive media blasting. The area must be isolated and placed under negative pressure to accomplish the removal of the lead-based paint. The concentrated lead waste from the blasting operation will require TCLP testing prior to disposal per EPA Method (EPA 1311).

The waste generated by the renovation work in the Visitor's Center/Manager's Residence can be addressed be disposal as typical Construction and Demolition waste as per the Toxic Substances Control Act (TSCA) and Maine Department of Environmental Protection. As noted, the waste from blasting operations must be tested to ensure compliance with Hazardous Waste sections of the regulations governing solid waste disposal.

ASBESTOS SURVEY RESULTS

Per agreements made with the client, materials presumed to contain asbestos in excess of 1% (positive for asbestos under US EPA and Maine DEP regulations) are:

1. Asphaltic Roofing Materials
2. Mastics
3. Adhesives
4. Glues
5. Thermal Systems Insulation
6. Transite Piping
7. Transite Panels

Presumed Asbestos Containing Materials (PACM) can be sampled and analyzed to confirm presence of asbestos at the request of the client.

No other Suspect Asbestos-Containing Materials (SACM) were discovered during the "limited destructive investigation" of the seven (7) buildings evaluated under this agreement. If any other SACM is found during demolition or renovation activities, Air Quality Management Services, or some other DEP-licensed consulting firm, should be contacted to accomplish sampling and analysis.

SURVEY LIMITATIONS

As with any scientific study, certain assumptions are made and certain limitations exist to the scope of information which can be derived from a limited survey. Some restrictions on the conduct of the survey are imposed by outside sources while others are established through the designed scope methodology of the study. Limitations that should be considered in the interpretation of the results of this survey include:

1. Asbestos surveys generally are not able to identify all ACBM present throughout a facility. A thorough survey should identify most of the accessible (by non-destructive methods) ACBM present, but will be unable to detect underlying materials. For example, multiple layers of materials or structural components may restrict access to suspect materials thus affecting the thoroughness of the survey. In most cases an asbestos survey is limited to accessible suspect materials with some minor demolition or destructive sampling.

2. The inspection protocols used for this project were in accordance U.S. Environmental Protection Agency (USEPA) - National Emission Standards for Hazardous Air Pollutants (NESHAP) and with the Maine Department of Environmental Protection (MEDEP) protocols specific to asbestos sampling and evaluations.

3. Due to the limited nature of this survey, AQM recommends that any suspect material not identified in this report, be sampled by a DEP-licensed consultant, for asbestos analysis and presumed to be asbestos. In some cases hidden or previously unidentified materials may be identified during renovations, general maintenance or demolition activities and they should be considered suspect unless they are wood, fiberglass, plastic, metal, laminate, exterior caulking and glazing, or gypsum board when the joint compound is used only as filler for tape seams and holes, not as a stratified layer. .

4. Materials, presumed to be asbestos (>1% asbestos content) by agreement with the client, are: roof systems, transite, and thermal insulation. Any other suspect materials were sampled by AQM and analyzed by a DEP-licensed lab using polarized light microscopy (PLM) using the EPA 600/R-93/116 method.

POTENTIAL LEAD/ASBESTOS HAZARDS

Potential Lead Hazards

1. The disturbance or dislocation of lead-based painted materials may cause lead dust to be released into the atmosphere, thereby creating a potential health hazard to workers and/or building occupants. Activities that disturb lead-based paint are subject to compliance with OSHA regulations (29 CFR 1910.1025 & 29 CFR 1926.62). Workers, supervisory personnel, subcontractors and consultants who will be at the job site should be advised of the presence of LBP and of the need to follow proper work procedures including applicable regulations.

2. When performing work in the general vicinity of LBP identified in any survey, workers, supervisory personnel, subcontractors, and/or consultants should take appropriate continuous measures as necessary to protect all building occupants from the potential hazard of exposure to lead dust. Such measures shall include the procedures and methods described herein, and compliance with regulations and guidelines of applicable federal, state and local agencies.

3. Contractors or persons performing renovation/remodeling activities, in which lead dust may be generated in excess of established regulatory norms, must wear NIOSH approved respirators (OSHA 29 CFR 1910.134) and are required to comply with the OSHA 29 C Part 1926.62; Lead Standard. Engineering controls such as wet-scraping/sanding and/or local exhaust ventilation are to be employed in order to reduce airborne lead concentrations.

4. Any lead dust generated from renovation work must be contained so that exposure is minimal for both the workers and any occupants. After any renovation work is completed the dust should immediately be cleaned up in order to prevent migration to other areas or the environment.

Potential Asbestos Hazards

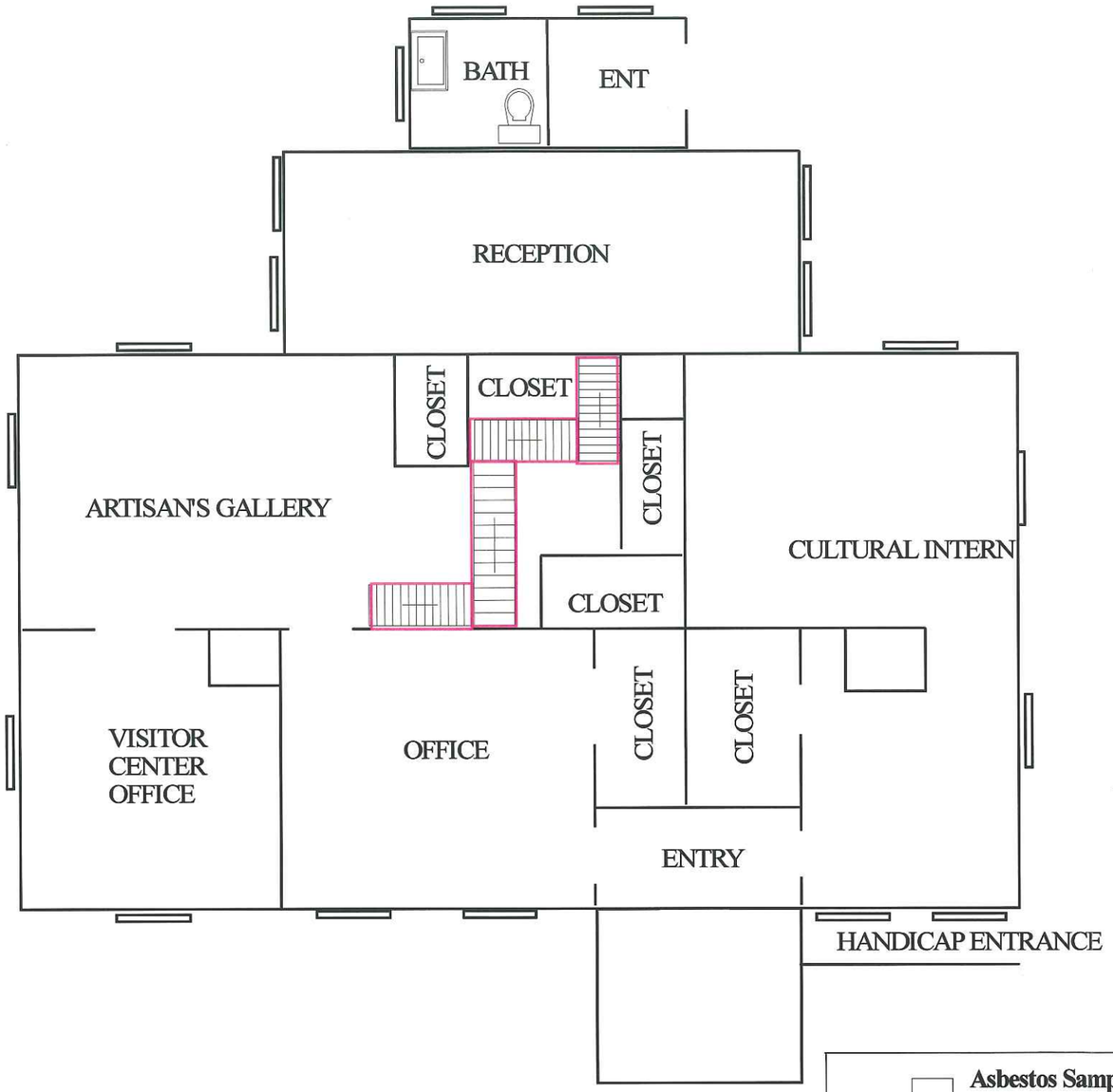
1. The disturbance or dislocation of asbestos-containing building materials (ACBM) may cause asbestos fibers to be released into the atmosphere, thereby creating a potential health hazard to workers and/or building occupants. Activities that disturb ACBM are subject to compliance with OSHA regulations (29CFR 1910.1001 & 29 CFR 1926.1101) and Maine's Chapter 425, "Asbestos Management Regulations". Workers, supervisory personnel, subcontractors and consultants who will be at the job site should be advised of the presence of identified ACBM, of the need to follow proper work procedures including applicable regulations, and of the limitations of this survey.

2. When performing work in the general vicinity of ACBM identified in any survey, workers, supervisory personnel, subcontractors, and/or consultants should take appropriate continuous measures as necessary to protect all building occupants from the potential hazard of exposure to asbestos. Such measures shall include the procedures and methods described herein, and compliance with regulations and guidelines of applicable federal, state and local agencies.

3. The locations and types of ACBM, identified in this survey or presumed to be asbestos, are detailed in this report and on the attached drawings. If any other ACBM or PACM is noted during future renovation or demolition activities, they should be sampled and analyzed by a Maine DEP-licensed consultant and lab.

CAD DRAWINGS

AQM



Lead Inspection Results (Positive Only)

Lead Paint Hazards Were Identified
consult XRF survey results

Asbestos Inspection Results (Positive Only)

No Asbestos Hazards Were Identified

Asbestos Sample Location (B# - Bulk)	Asbestos Containing Material (Confirmed by Laboratory Testing)
Presumed Asbestos Containing Transite Panel Material	Approximate Location of Wall Locations of Transite Panels
Presumed Asbestos Containing Thermal System Insulation	Lead Containing Paint on Ceilings/Floors (see Inspection Results)
Presumed Asbestos Containing Roofing Material	Approximate Location of Lead Painted Materials (not Ceilings or Floors)

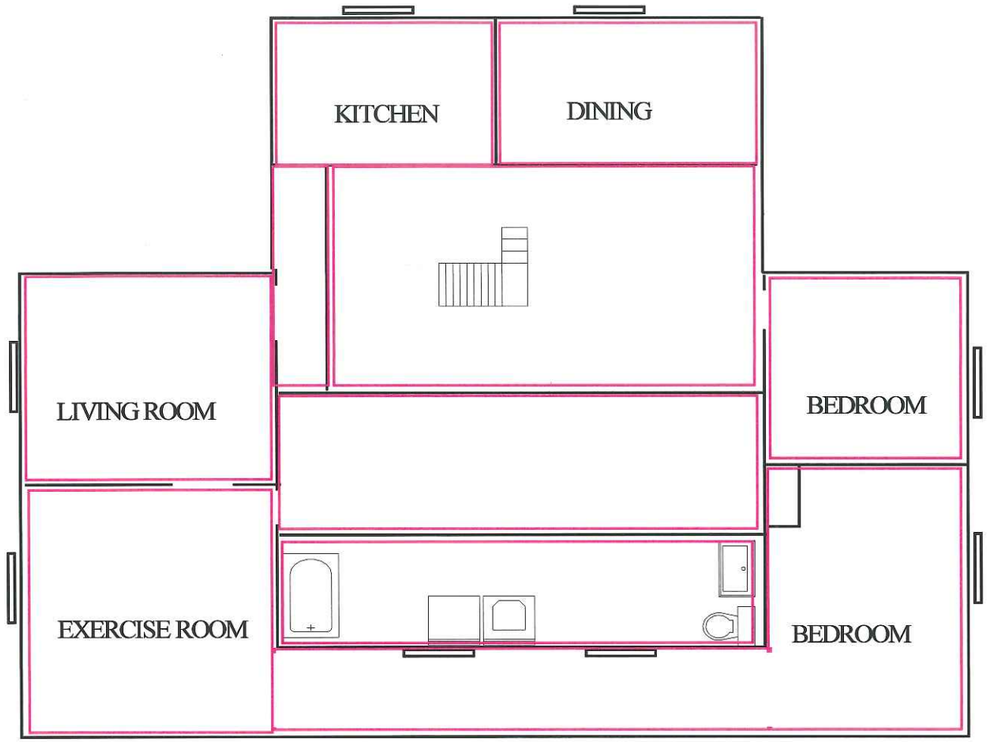
Air Quality Management Services
PO Box 865, Gray, Maine 04039
Phone: (207) 657-7360 Fax: (207) 657-7361

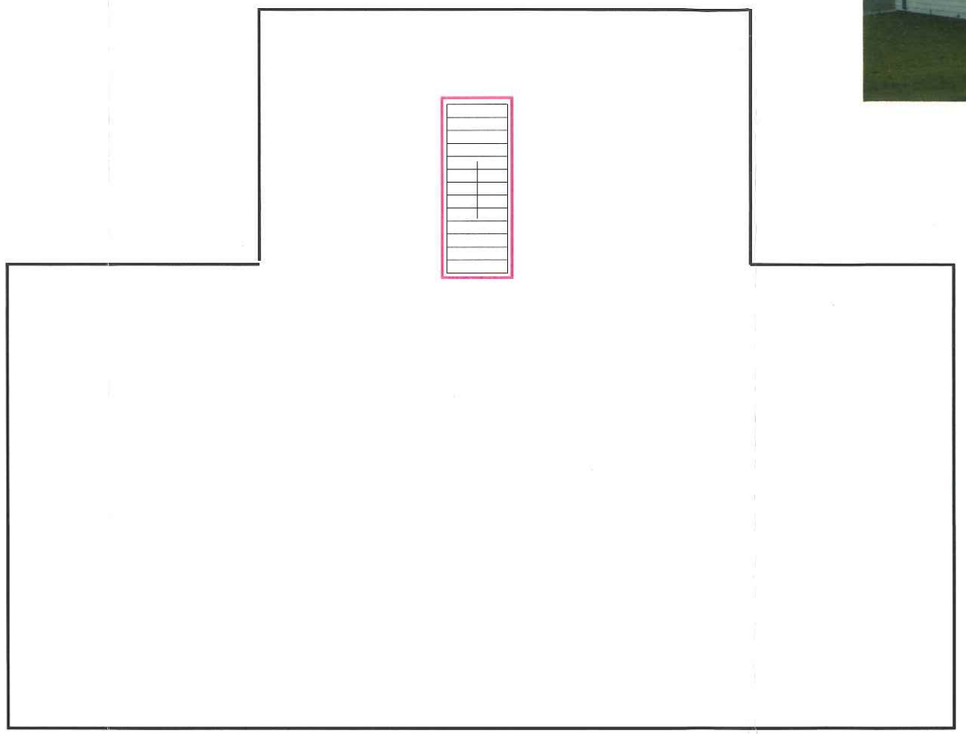
Client: **Maine Bureau of General Services**
Park & Recreation Department

Project: **Asbestos & Lead Paint Survey**

Address: **Quoddy Head State Park**
Visitor's Center - 1st Floor
Lubec, Maine

AQM Project: **04-198**	Claim/File:
Date: **8/27/2004**	Scale: **NONE**





Lead Inspection Results (Positive Only)

Lead Paint Hazards Were Identified
consult XRF survey results

Asbestos Inspection Results (Positive Only)

No Asbestos Hazards Were Identified

Asbestos Sample Location (B# - Bulk)	Asbestos Containing Material (Confirmed by Laboratory Testing)
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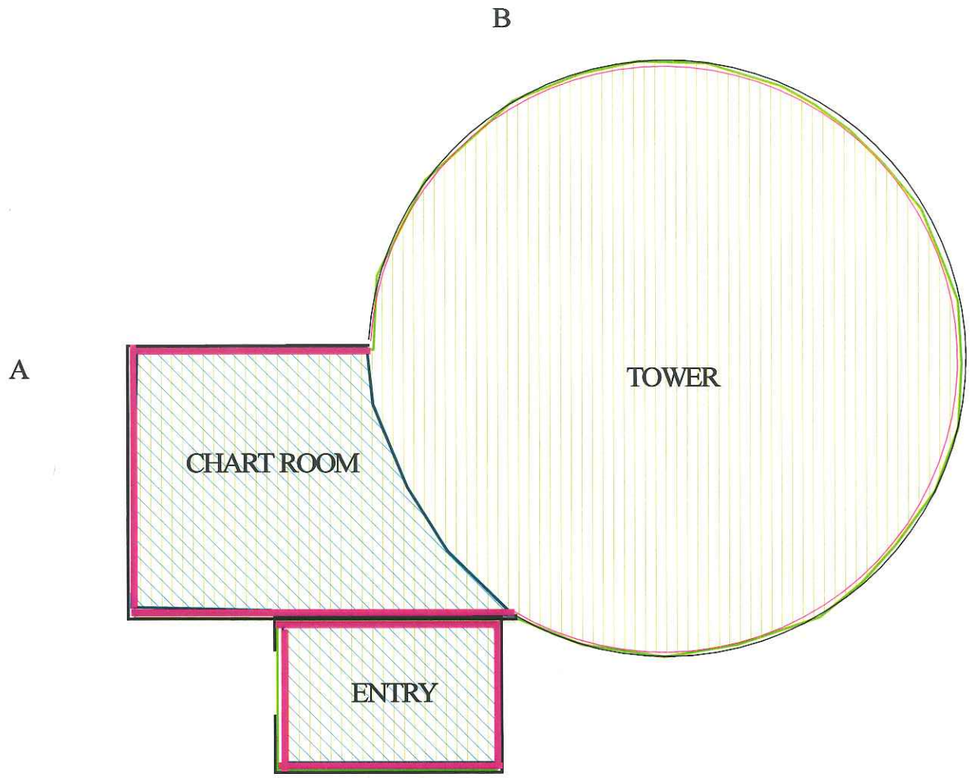
Air Quality Management Services
PO Box 865, Gray, Maine 04039
Phone: (207) 657-7360 Fax: (207) 657-7361

Client: **Maine Bureau of General Services**
Park & Recreation Department

Project: **Asbestos & Lead Paint Survey**

Address: **Quoddy Head State Park**
Visitor's Center/Park Manager's Residence
2nd Floor & Basement
Lubec, Maine

AQM Project: **04-198**	Claim/File:
Date: **8/27/2004**	Scale: **NONE**



Lead Inspection Results (Positive Only)

Lead Paint Hazards Were Identified
consult XRF survey results

Asbestos Inspection Results (Positive Only)

Room/Location	Building Item	Material	Color	Size (sqft)
Exterior	Roof System	Shingles	gray	600 sq/ft

Asbestos Sample Location (B# - Bulk)	Asbestos Containing Material (Confirmed by Laboratory Testing)
Presumed Asbestos Containing Transite Panel Material	Approximate Location of Wall Locations of Transite Panels
Presumed Asbestos Containing Thermal System Insulation	Lead Containing Paint on Ceilings/Floors (see Inspection Results)
Presumed Asbestos Containing Roofing Material	Approximate Location of Lead Painted Materials (not Ceilings or Floors)

Air Quality Management Services
PO Box 865, Gray, Maine 04039
Phone: (207) 657-7360 Fax: (207) 657-7361

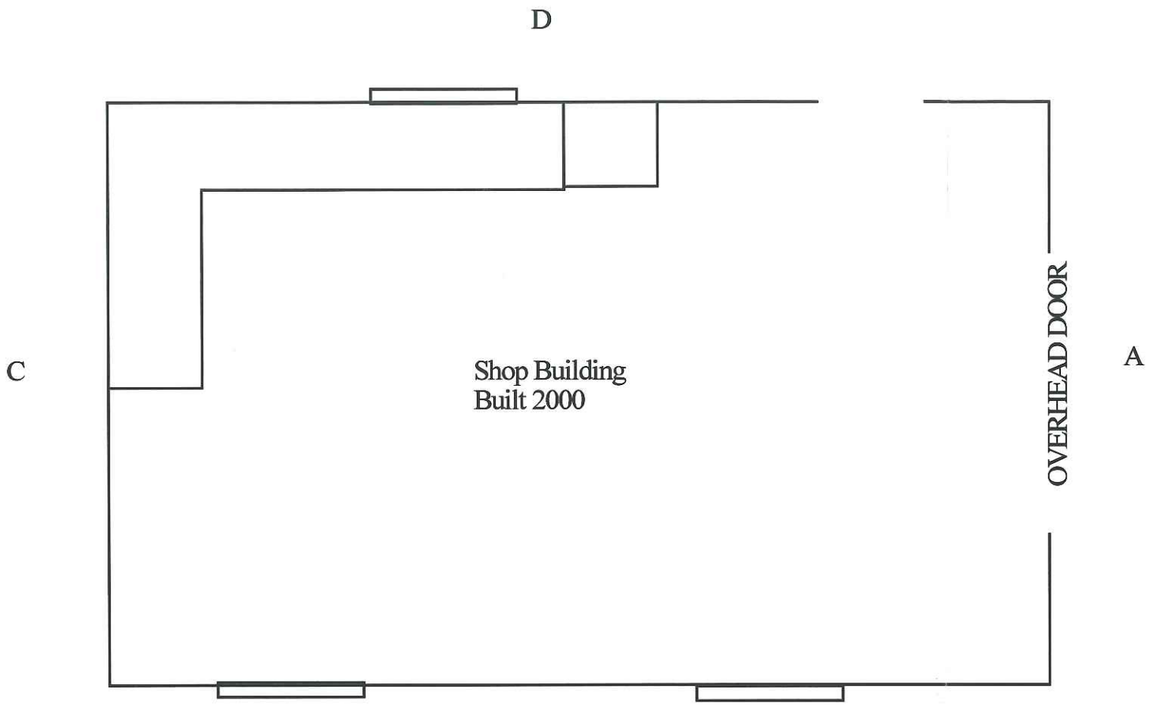
Client: **Maine Bureau of General Services**
Park & Recreation Department

Project: **Asbestos & Lead Paint Survey**

Address: **Quoddy Head State Park**
Quoddy Head Light
Lubec, Maine

AQM Project: **04-198** | Claim/File:

Date: **8/27/2004** | Scale: **NONE**



Lead Inspection Results (Positive Only)

No Lead Paint Hazards Were Identified

Asbestos Inspection Results (Positive Only)

No Asbestos Hazards Were Identified

Asbestos Sample Location (B# - Bulk)	Asbestos Containing Material (Confirmed by Laboratory Testing)
Presumed Asbestos Containing Transite Panel Material	Approximate Location of Wall Locations of Transite Panels
Presumed Asbestos Containing Thermal System Insulation	Lead Containing Paint on Ceilings/Floors (see Inspection Results)
Presumed Asbestos Containing Roofing Material	Approximate Location of Lead Painted Materials (not Ceilings or Floors)

Air Quality Management Services
PO Box 865, Gray, Maine 04039
Phone: (207) 657-7360 Fax: (207) 657-7361

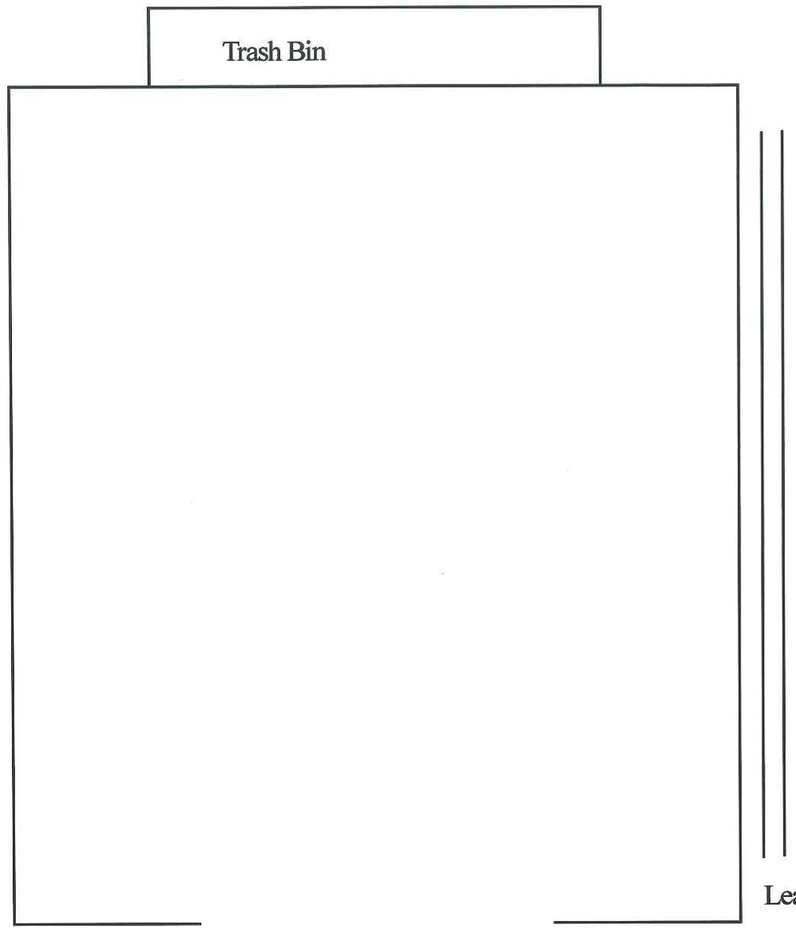
Client: **Maine Bureau of General Services**
Park & Recreation Department

Project: **Asbestos & Lead Paint Survey**

Address: **Quoddy Head State Park**
Shop Building
Lubec, Maine

AQM Project: **04-198** | Claim/File:

Date: **8/27/2004** | Scale: **NONE**



Lead Inspection Results (Positive Only)

No Lead Paint Hazards Were Identified

Asbestos Inspection Results (Positive Only)

No Asbestos Hazards Were Identified

Asbestos Sample Location (B# - Bulk)	Asbestos Containing Material (Confirmed by Laboratory Testing)
Presumed Asbestos Containing Transite Panel Material	Approximate Location of Wall Locations of Transite Panels
Presumed Asbestos Containing Thermal System Insulation	Lead Containing Paint on Ceilings/Floors (see Inspection Results)
Presumed Asbestos Containing Roofing Material	Approximate Location of Lead Painted Materials (not Ceilings or Floors)

Air Quality Management Services
PO Box 865, Gray, Maine 04039
Phone: (207) 657-7360 Fax: (207) 657-7361

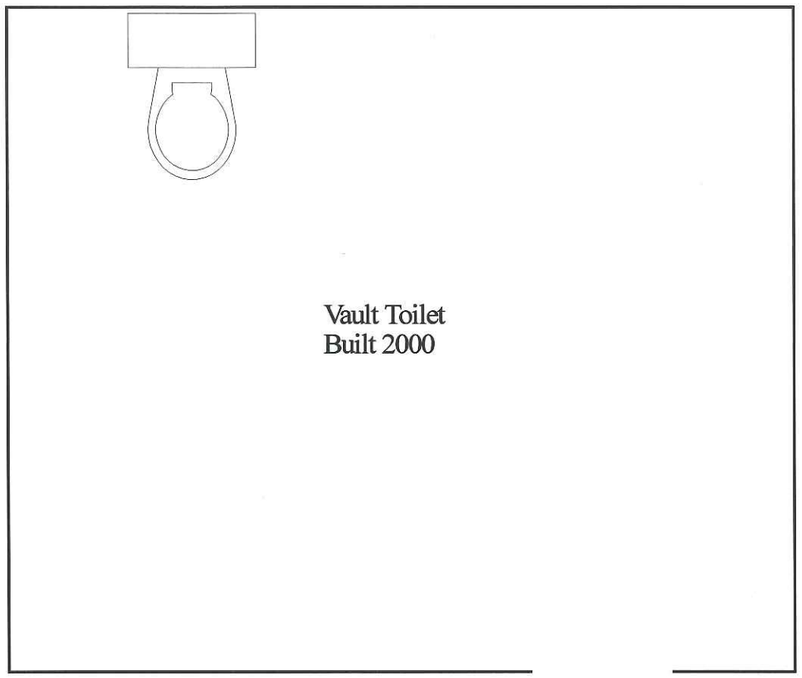
Client: Maine Bureau of General Services
Park & Recreation Department

Project: Asbestos & Lead Paint Survey

Address: Quoddy Head State Park
Shop Storage Building
Lubec, Maine

AQM Project: 04-198	Claim/File:
Date: 8/27/2004	Scale: NONE

C



D

A

A

Lead Inspection Results (Positive Only)

No Lead Paint Hazards Were Identified

Asbestos Inspection Results (Positive Only)

No Asbestos Hazards Were Identified

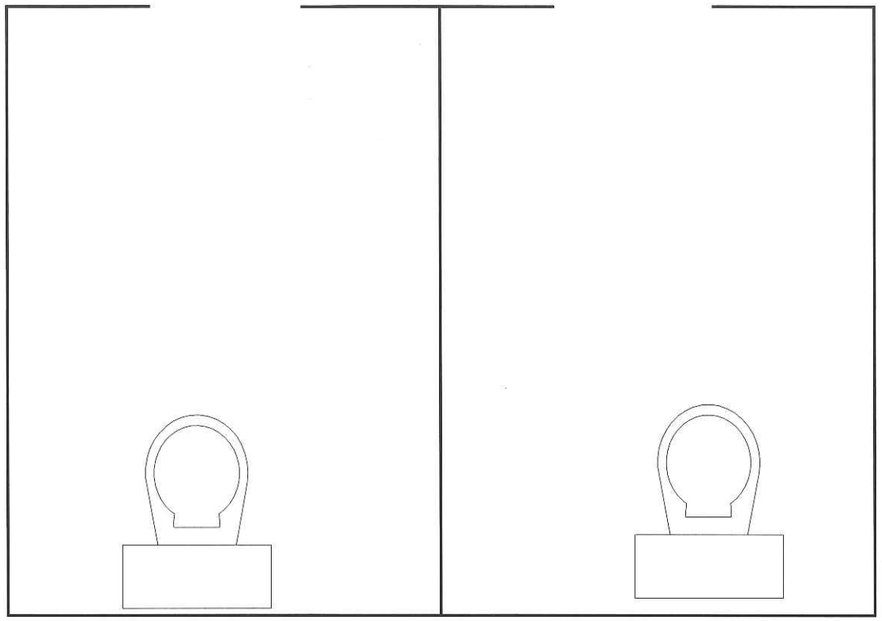
Asbestos Sample Location (B# - Bulk)	Asbestos Containing Material (Confirmed by Laboratory Testing)
Presumed Asbestos Containing Transite Panel Material	Approximate Location of Wall Locations of Transite Panels
Presumed Asbestos Containing Thermal System Insulation	Lead Containing Paint on Ceilings/Floors (see Inspection Results)
Presumed Asbestos Containing Roofing Material	Approximate Location of Lead Painted Materials (not Ceilings or Floors)

Air Quality Management Services
PO Box 865, Gray, Maine 04039
Phone: (207) 657-7360 Fax: (207) 657-7361

Client:	Maine Bureau of General Services Park & Recreation Department
Project:	Asbestos & Lead Paint Survey
Address:	Quoddy Head State Park Shop Vault Toilet Lubec, Maine
AQM Project: 04-198	Claim/File:
Date: 8/27/2004	Scale: NONE

A

D



A

Vault Toilet
Built 2000

C

Lead Inspection Results (Positive Only)

No Lead Paint Hazards Were Identified

Asbestos Inspection Results (Positive Only)

No Asbestos Hazards Were Identified

Asbestos Sample Location (B# - Bulk)	Asbestos Containing Material (Confirmed by Laboratory Testing)
Presumed Asbestos Containing Transite Panel Material	Approximate Location of Wall Locations of Transite Panels
Presumed Asbestos Containing Thermal System Insulation	Lead Containing Paint on Ceilings/Floors (see Inspection Results)
Presumed Asbestos Containing Roofing Material	Approximate Location of Lead Painted Materials (not Ceilings or Floors)

Air Quality Management Services
PO Box 865, Gray, Maine 04039
Phone: (207) 657-7360 Fax: (207) 657-7361

Client: Maine Bureau of General Services
Park & Recreation Department

Project: Asbestos & Lead Paint Survey

Address: Quoddy Head State Park
Day Use Area Vault Toilet
Lubec, Maine

AQM Project: 04-198	Claim/File:
Date: 8/27/2004	Scale: NONE

ESTIMATED ABATEMENT COSTS

AQM

Estimated Asbestos Abatement Costs

Quoddy Head Light – Chart Room Section

Roof:
- Abatement Design - $360
- Bidders Walkthrough - $250
- Visual Clearance Fee - $400

Roof Material Abatement - $1600 - $2400

Note: All Roofing should be sampled prior to any abatement to determine presence of asbestos.

Estimated LBP Abatement Costs

1. If abatement of the lead containing paint is warranted then the estimated cost for the remedial activities are as follows:

   - **Visitor's Center/Manager's Residence** - $3500 - $4500
   - **Quoddy Head Light** - $12,000- $15,000

XRF LEAD SAMPLE RESULTS

AQM

Room/Location	Level	Wall	Building Item	Material	Color	Reading	Result
Exterior		A	Siding	Aluminum	White	0.0	**Negative**
Exterior		A	Windows Casing	Wood	White	0.1	**Negative**
Exterior		A	Corner Board	Aluminum	White	0.0	**Negative**
Exterior		A	Window Sash	Wood	White	-0.4	**Negative**
Exterior		A	Cellar Window Sash	Wood	White	-0.1	**Negative**
Exterior		B	Handicap Rail	Wood	Gray	-0.4	**Negative**
Exterior		B	Handicap Entry Door	Wood	White	-0.2	**Negative**
Exterior		B	Handicap Door Trim	Wood	White	-0.1	**Negative**
Exterior		C	Siding	Aluminum	White	0.0	**Negative**
Exterior		C	Bilco door	Metal	Red	-0.4	**Negative**
Exterior		A	Entry Railing	Aluminum	Black	-0.7	**Negative**
Interior	Interior Renovated (TC Used)						**Negative**
Interior	Office	TC	Window Sash			0.1	**Negative**
Interior	Office	TC	Window Casing			0.3	**Negative**
Interior	Office	TC	Window Trim			0.1	**Negative**
Interior	Office	TC	Floor Trim			-0.3	**Negative**
Interior	Office	TC	Wall			-0.2	**Negative**
Interior	Cult. Room/Closet	A	Stair Tread	Wood	Gray	1.0	**POSITIVE**
Interior	Cult. Room/Closet	A	Stair Riser	Wood	Gray	>9.9	**POSITIVE**
Interior	Cult. Room/Closet	A	Stair Trim	Wood	Yellow	>9.9	**POSITIVE**
Interior	Cult. Room/Closet	A	Upper Wall	Plaster	Gray	-0.1	**Negative**
Interior	Cult. Room/Closet	A	Railing	Wood	Yellow	>9.9	**POSITIVE**
Interior	Cult. Room/Closet	A	Lower Wall	Plaster	Gray	0.1	**Negative**
Interior	Cult. Room/Closet	A	Wall Trim	Wood	Yellow	>9.9	**POSITIVE**
Interior	Cult. Room/Closet		Ceiling	Plaster	Gray	5.9	**POSITIVE**
Interior	Basement	A	Wall	Brick	Yellow	>9.9	**POSITIVE**
Interior	Basement	D	Tread	Wood	Blue	>9.9	**POSITIVE**
Interior	Basement	D	Riser	Wood	Blue	>9.9	**POSITIVE**
Interior	Basement		Post	Metal	Red	0.0	**Negative**
Interior	Basement	C	1/2 Door	Wood	White	0.0	**Negative**

AQM

Room/Location	Level	Wall	Building Item	Material	Color	Reading	Result
Interior	Basement	C	1/2 Door Trim	Wood	White	-0.1	**Negative**

Room/Location	Level	Wall	Building Item	Material	Color	Reading	Result
Interior	Stairwell	A	Tread	Rubber/Wood	Brown	-0.4	**Negative**
Interior	Stairwell	A	Riser	Rubber/Wood	Brown	-0.1	**Negative**
Interior	Stairwell	A	Stair Trim	Wood	Blue	>9.9	**POSITIVE**
Interior	Stairwell	A	Wall	Drywall	White	0.2	**Negative**
Interior	Stairwell	C	Wall	Plaster	White	1.5	**POSITIVE**
Interior	2nd Floor		Testing combinations used for all rooms except bath/laundry				**Negative**
Interior	2nd Floor		Floor	Carpet	Brown	0.1	**Negative**
Interior	2nd Floor	A	Floor Trim	Wood	Blue	>9.9	**POSITIVE**
Interior	2nd Floor	B	Door Trim	Wood	Blue	>9.9	**POSITIVE**
Interior	2nd Floor	D	Door Frame	Wood	Blue	>9.9	**POSITIVE**
Interior	2nd Floor	A	Landing Railing	Wood	Blue	>9.9	**POSITIVE**
Interior	2nd Floor	A	Window Sash	Wood	Blue	0.0	**Negative**
Interior	2nd Floor	A	Window Casing	Wood	Blue	0.0	**Negative**
Interior	2nd Floor	A	Window Trim	Wood	Blue	0.0	**Negative**
Interior	2nd Floor	C	Wall	Plaster	White	0.8	**Negative**
Interior	2nd Floor		Ceiling	Plaster	White	0.0	**Negative**
Interior	2nd Floor	C	Door	Wood	Cream	>9.9	**POSITIVE**

Room/Location	Level	Wall	Building Item	Material	Color	Reading	Result
Exterior	Chart Room Section	A	Wall Shingles	Cedar	White	0.0	**Negative**
Exterior	Chart Room Section	A	Corner Board	Wood	White	-0.2	**Negative**
Exterior	Chart Room Section	A	Door Trim	Wood	White	0.1	**Negative**
Exterior	Chart Room Section	A	Door	Metal	White	-0.4	**Negative**
Exterior	Head Light	D	Tower Wall	Brick	Red	0.5	**Negative**
Exterior	Head Light	D	Tower Wall	Brick	White	0.2	**Negative**
Exterior	Head Light	D	Window Stool	Wood	White	0.2	**Negative**
Exterior	Head Light	D	Window Trim	Wood	White	0.2	**Negative**
Interior	Entry		Floor	Cement	Blue	6.9	**POSITIVE**
Interior	Entry		Ceiling	Wood	White	9.9	**POSITIVE**
Interior	Entry	A	Wall	Paneling	Brown	-0.4	**Negative**
Interior	Chart Room		Floor	Cement	Blue	6.9	**POSITIVE**
Interior	Chart Room		Ceiling	Plaster	White	9.9	**POSITIVE**
Interior	Chart Room	A	Wall (above Paneling)	Brick	White	9.9	**POSITIVE**
Interior	Chart Room	C	Door Casing	Metal	White	9.9	**POSITIVE**
Interior	Passage to Light		Floor	Cement	Gray	6.1	**POSITIVE**
Interior	Passage to Light		Ceiling	Cement	White	5.3	**POSITIVE**
Interior	Passage to Light	B	Wall	Brick	White	2.1	**POSITIVE**
Interior	Light Tower		Floor	Cement	Gray	6.1	**POSITIVE**
Interior	Light Tower	C	Stairwell Post	Metal	Gray	-0.1	**Negative**
Interior	Light Tower	C	Stair Tread	Metal	Gray	0.1	**Negative**
Interior	Light Tower		Stairwell Top Plate	Metal	Gray	6.5	**POSITIVE**

AQM

Room/Location	Level	Wall	Building Item	Material	Color	Reading	Result
Exterior		A	Door	Plywood	Gray	0.2	**Negative**
Exterior		A	Door Trim	Wood	Gray	0.2	**Negative**
Exterior		A	Wall	T-111	Gray	0.2	**Negative**
Exterior		B	Corner Board	Wood	Gray	0.2	**Negative**
Exterior		B	Facia Board	Wood	Gray	0.1	**Negative**
Exterior		B	Rafter	Wood	Gray	0.1	**Negative**
Exterior		C	Trash Bin Top	Plywood	Gray	-0.2	**Negative**
Exterior		C	Trash Bin Side	Plywood	Gray	0.0	**Negative**
Exterior		C	Siding	Plywood	Gray	0.1	**Negative**
Exterior		D	Siding	Plywood	Gray	0.2	**Negative**

Emerson Jones

From: amycoleives@sutherlandcc.net
Sent: Friday, January 26, 2024 11:22 AM
To: Ellen Angel
Subject: West Quoddy Head paint

Good morning Ellen,

It was good speaking with you earlier about the West Quoddy Head Light paints that you sent me to take a look at. As I noted in our conversation, in looking at the paints that were sent, I am only seeing modern paint layers. The current red paint is on top of a gray primer and there is a partial weathered red paint under the most recent gray primer which overlaps in some places an off-white that I am assuming would be the white stripe.

None of these paints look like anything other than late 20th and early 21st century paints. Based on what I am seeing in the paint pieces sent to me, I do not see a reason to cast a sample for cross-section.

Please let me know if you have any additional questions. Amy

Amy Cole Ives
Sutherland Conservation
207-242-0618

SECTION 01 10 00 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Phased construction.
4. Contractor's use of site and premises.
5. Coordination with occupants.
6. Work restrictions.
7. Specification and Drawing conventions.

1.2 PROJECT INFORMATION

A. Project Identification: Quoddy Head State Park Lighthouse and Map Room Renovations.

1. Project Location: Quoddy Head State Park, Lubec, Maine.

B. Owner: Dept. of Agriculture, Conservation, and Forestry- Bureau of Parks and lands.

1. Owner's Representative: Mr. Ryan Kerr.

C. Architect: Artifex

1. Architect's Representative: Ellen Angel, Principal.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and consists of the following:

1. Renovations to the Lighthouse and Map Room at Quoddy Head State Park and other Work indicated in the Contract Documents.

B. Type of Contract:

1. Project will be constructed under a single prime contract.

C. The Quoddy Head State Park in Lubec, Maine is the easternmost point of the contiguous United States. The lighthouse was constructed in 1808, under orders from President Thomas Jefferson. The original wooden lighthouse was replaced by the current brick tower in 1858. This project involves the Lighthouse and the attached Map Room only, excluding the Lighthouse Keepers' Residence and the Whistle House. Historic elements will be under the review of the Owner and the Maine Historic Preservation Commission (MHPC). *Work performed must adhere to the*

Secretary of the Interior's Standards for the treatment of historic properties and National Park Service Preservation Brief no.2 pursuant to the preservation easement the Maine Historic Preservation Commission holds on West Quoddy Light Station.

1. The main issues to be addressed include:

    a. Removal of all non-period wall coverings, ceiling framework, and ceiling tiles at Map Room;

    b. Repointing and repainting of interior and exterior masonry;

    c. Replacement or refinishing of two windows and one door;

    d. Replacement of interior rope handrail with metal handrail

    e. Removal of existing, prep for, paint of Lighthouse Exterior

    f. Removal or encapsulation of interior lead-based paint, if found, at Map Room;

    g. Replacement of light fixtures with LED light fixtures;

2. Commencement of Construction:

    1) Notice to Proceed: Work of this phase shall commence within 10 days after the Notice to Proceed.
    2) Start Date: Work of this phase shall commence by TBD.

    b. Substantial Completion:
    1) By May 31, 2025.

D. Before commencing Work, submit an updated copy of Contractor's construction schedule showing the sequence, commencement and completion dates for all phases of the Work.

    a. Substantial Completion:
    1) By May 31, 2025.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 10 00

SECTION 04 03 22 - HISTORIC BRICK UNIT MASONRY REPAIR

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes historic treatment work consisting of repairing historic clay brick masonry.

B. Related Requirements:

1. Section 01 35 91 "Historic Treatment Procedures" for general historic treatment requirements.

1.2 UNIT PRICES

A. Work of this Section is affected by unit prices specified in Section 01 22 00 "Unit Prices."

1.3 DEFINITIONS

A. Rebuilding (Setting) Mortar: Mortar used to set and anchor masonry in a structure, distinct from pointing mortar installed after masonry is set in place.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Review minutes of Preliminary Historic Treatment Conference that pertain to masonry historic treatment and repair.
2. Review methods and procedures related to repairing historic brick masonry.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For each exposed product and for each product specified.

C. Maine Historic Preservation Commission to approve all brick, and mortar samples prior to work. Submittals made to MHPC shall be coordinated through the project Architect.

1.6 INFORMATIONAL SUBMITTALS

A. Preconstruction test reports.

1.7 QUALITY ASSURANCE

A. Historic Treatment Specialist Qualifications: A qualified historic brick masonry repair specialist. Experience installing standard unit masonry is insufficient experience for masonry historic treatment work.

1. Historic Treatment Worker Qualifications: When bricks are being patched, assign at least one worker per crew who is trained and certified by manufacturer of patching compound to apply its products.

B. Mockups: Prepare mockups of historic treatment to demonstrate aesthetic effects and to set quality standards for materials and execution and for fabrication and installation.

1. Masonry Repair: Prepare sample areas for each type of masonry material indicated to have repair work performed. If not otherwise indicated, size each mockup not smaller than two adjacent whole units or approximately 48 inches (1200 mm) in least dimension. Construct sample areas in locations in existing walls where directed by Architect unless otherwise indicated. Demonstrate quality of materials, workmanship, and blending with existing work. Include the following as a minimum:

a. Replacement: Four brick units replaced.
b. Patching: Three small holes at least 1 inch (25 mm) in diameter for each type of brick indicated to be patched, so as to leave no evidence of repair.

2. Prepare mortar mix from sample material provided by the Architect.

1.8 PRECONSTRUCTION TESTING

A. Preconstruction Testing Service: Engage a qualified testing agency to perform preconstruction testing on brick masonry as follows:

1. Replacement Brick: Test each proposed type of replacement brick, according to sampling and testing methods in ASTM C67 for compressive strength, 24-hour cold-water absorption, five-hour boil absorption, saturation coefficient, and initial rate of absorption (suction).

PART 2 - PRODUCTS

2.1 MASONRY MATERIALS

A. Face Brick: Units, including molded, ground, cut, or sawed shapes as required to complete masonry repair work.

1. Brick Matching Existing: Units with colors, color variation within units, surface texture, size, and shape that match existing brickwork.

2.2 MORTAR MATERIALS

A. As provided by Owner from US Heritage Group for MAP ROOM

B. Mason shall submit samples of the LIGHTHOUSE TOWER masonry mortar to Highbridge Materials Consulting, 404 Irvington St., Pleasantville, NY 10570 for testing and confirmation of recommended mortar for the Lighthouse.

C. Water: ASTM C270, potable.

2.3 MORTAR MIXES

A. MAP ROOM
1. Measurement and Mixing: Measure cementitious materials and sand in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.
2. Do not use admixtures in mortar unless otherwise indicated.
3. Mixes: Mix mortar materials in the following proportions:
Pointing Mortar by Proportion: 1 part Natural Hydraulic Lime (NHL) 3.5 and 2.5 parts Sand, selected from the USHG sand library. Refer to the attached Mortar Examination Report by US Heritage Group.

B. TOWER
1. Mortar mixing as per recommendations from Highbridge Materials Consulting.

PART 3 - EXECUTION

3.1 PROTECTION

A. Prevent mortar from staining face of surrounding masonry and other surfaces.

B. Remove gutters and downspouts and associated hardware adjacent to immediate work area, and store during masonry repair work. Reinstall when repairs are complete.

1. Provide temporary rain drainage during work to direct water away from building.

3.2 MASONRY REPAIR, GENERAL

A. Have repair work performed only by qualified historic treatment specialist.

3.3 BRICK REMOVAL AND REPLACEMENT

A. At locations indicated, remove bricks that are damaged, spalled, or deteriorated or are to be reused. Carefully remove entire units from joint to joint, without damaging surrounding masonry, in a manner that permits replacement with full-size units.

B. Support and protect remaining masonry that surrounds removal area.

C. Maintain flashing, reinforcement, lintels, and adjoining construction in an undamaged condition.

D. Notify Architect of unforeseen detrimental conditions, including voids, cracks, bulges, loose masonry units in existing backup, rotted wood, rusted metal, and other deteriorated items.

E. Remove in an undamaged condition as many whole bricks as possible. Remove mortar and sealant from surfaces of removed units.

F. Clean masonry surrounding removal areas by removing mortar, dust, and loose particles in preparation for brick replacement.

G. Replace removed damaged brick with other removed brick in good condition, where possible, matching existing brick. Do not use broken units unless they can be cut to usable size.

H. Install replacement brick into bonding and coursing pattern of existing brick. If cutting is required, use a motor-driven saw designed to cut masonry with clean, sharp, unchipped edges.

1. Maintain joint width for replacement units to match existing joints.

I. Lay replacement brick with rebuilding (setting) mortar and with completely filled bed, head, and collar joints. Butter ends with sufficient mortar to fill head joints and shove into place. Wet both replacement and surrounding bricks that have ASTM C67 initial rates of absorption (suction) of more than 30 g/30 sq. in. per min. (30 g/194 sq. cm per min.). Use wetting methods that ensure that units are nearly saturated but surface is dry when laid.

1. Tool exposed mortar joints in repaired areas to match joints of surrounding existing brickwork.
2. Rake out mortar used for laying brick before mortar sets according to Section 040323 "Historic Brick Unit Masonry Repointing." Point at same time as repointing of surrounding area.
3. When mortar is hard enough to support units, remove shims and other devices interfering with pointing of joints.

J. Curing: Cure mortar by maintaining in thoroughly damp condition for at least 72 consecutive hours, including weekends and holidays.

1. Hairline cracking within the mortar or mortar separation at edge of a joint is unacceptable. Completely remove such mortar and repoint.

3.4 BACKUP MASONRY REMOVAL AND REPLACEMENT

A. Where backup masonry is fractured or unstable and at locations indicated, remove mortar and masonry units that are broken or deteriorated and rebuild with whole, new brick or whole salvaged backup masonry units. Carefully remove entire units from joint to joint, without damaging surrounding masonry, in a manner that permits replacement with full-size units.

B. Perform backup masonry removal and replacement according to requirements in "Brick Removal and Replacement" Article.

3.5 BRICK MASONRY PATCHING

A. Patch the following bricks unless another type of repair or replacement is indicated:

1. Units with chipped edges or corners.
2. Units with small areas of deep deterioration. Patch deep deteriorations measuring more than 3/4 inch (19 mm) in least dimension and more than 1/4 inch (6 mm) deep.

B. Patching Bricks:

1. Remove loose material from masonry surface. Carefully remove additional material so patch does not have feathered edges but has square or slightly undercut edges on area to be patched and is at least 1/4 (6) inch(es) (mm) thick, but not less than recommended in writing by patching compound manufacturer.
2. Mask adjacent mortar joint or rake out for repointing if patch extends to edge of brick.
3. Rinse surface to be patched and leave damp, but without standing water.
4. Brush-coat surfaces with slurry coat of patching compound according to manufacturer's written instructions.
5. Place patching compound in layers as recommended in writing by patching compound manufacturer, but not less than 1/4 inch (6 mm) or more than 2 inches (50 mm) thick. Roughen surface of each layer to provide a key for next layer.
6. Trowel, scrape, or carve surface of patch to match texture and surrounding surface plane or contour of the brick. Shape and finish surface before or after curing, as determined by testing, to best match existing brick.
7. Keep each layer damp for 72 hours or until patching compound has set.

3.6 FINAL CLEANING

A. surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or -fiber brushes, and clean water, applied by low-pressure spray.

1. Do not use metal scrapers or brushes.
2. Do not use acidic or alkaline cleaners.

END OF SECTION 04 03 22

SECTION 04 03 23 - HISTORIC BRICK UNIT MASONRY REPOINTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes historic treatment work consisting of repointing brick masonry joints.

B. Related Requirements:

1. Section 013591 "Historic Treatment Procedures" for general historic treatment requirements.

1.2 UNIT PRICES

A. Work of this Section is affected by unit prices specified in Section 012200 "Unit Prices."

1.3 DEFINITIONS

A. Preinstallation Conference: Conduct conference at Project site.

1. Review minutes of Preliminary Historic Treatment Conference that pertain to masonry historic treatment and repointing.
2. Review methods and procedures related to repointing historic brick masonry.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For each exposed product.

C. Maine Historic Preservation Commission to approve all mortar samples prior to work. Submittals made to MHPC shall be coordinated through the project Architect.

1.5 QUALITY ASSURANCE

A. Historic Treatment Specialist Qualifications: A qualified historic masonry repointing specialist. Experience in pointing or repointing only new or non-historic masonry is insufficient experience for masonry historic treatment work.

B. Mockups: Prepare mockups of historic treatment on existing surfaces to demonstrate aesthetic effects and to set quality standards for materials and execution.

1. Repointing: Rake out joints in two separate areas, each approximately 36 inches (900 mm) high by 48 inches (1200 mm) wide for each type of repointing required and repoint one of the areas.

2. Prepare the mortar mix from sample material provided by the Architect.

PART 2 - PRODUCTS

2.1 MORTAR MATERIALS (MAP ROOM 101)

A. Hydraulic Lime (NHL) 3.5.

B. Mortar Sand: ASTM C144 unless otherwise indicated.

1. Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands if necessary to achieve a suitable match.

C. Water: ASTM C270, potable.

2.2 MORTAR MATERIALS (LIGHTHOUSE)

A. Mason shall submit samples of the Lighthouse masonry mortar to Highbridge Material Consulting 404 Irvington St., Pleasantville, NY 10570, for testing and confirmation of the recommended mortar for the Lighthouse.

2.3 MORTAR MIXES (MAP ROOM 101)

A Measurement and Mixing: Measure materials and sand in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.

B. Mixing Pointing Mortar: Thoroughly mix cementitious materials and sand together before adding any water. Then mix again adding only enough water to produce a damp, unworkable mix that will retain its form when pressed into a ball. Maintain mortar in this dampened condition for 15 to 30 minutes. Add remaining water in small portions until mortar reaches desired consistency. Use mortar within one hour of final mixing; do not retemper or use partially hardened material.

C. Do not use admixtures in mortar unless otherwise indicated.

D. Mixes: Mix mortar materials in the following proportions:
Pointing Mortar by Proportion: 1 part Natural Hydraulic Lime (NHL) 3.5 and 2.5 parts Sand, selected from the USHG sand library. Refer to the attached Mortar Examination Report by US Heritage Group.

2.4 MORTAR MIXES (LIGHTHOUSE)

A. Mortar mixing as per recommendations from Highbridge Material Consulting.

3 EXECUTION

3.2.1.1 PROTECTION

3.2.1.1.1 Prevent mortar from staining face of surrounding masonry and other surfaces.

3.2.1.1.2 Remove gutters, downspouts, flashings and associated hardware adjacent to immediate work area and store during masonry repointing work. Reinstall when repointing is complete.

3.2.1.1.2.1 Provide temporary rain drainage during work to direct water away from building.

3.2.1.2 MASONRY REPOINTING, GENERAL

3.2.1.2.1 Have repointing work performed only by qualified historic treatment specialist.

3.2.1.3 REPOINTING

3.2.1.3.1 Rake out and repoint joints to the following extent:

3.2.1.3.1.1 Joints at locations of the following defects:

3.2.1.3.1.1.1 Holes and missing mortar.
3.2.1.3.1.1.2 Cracks that can be penetrated 1/4 inch (6 mm) or more by a knife blade 0.027 inch (0.7 mm) thick.
3.2.1.3.1.1.3 Cracks 1/16 inch(es) (mm) or more in width and of any depth.
3.2.1.3.1.1.4 Hollow-sounding joints when tapped by metal object.
3.2.1.3.1.1.5 Eroded surfaces 1/4 inch (6 mm) or more deep.
3.2.1.3.1.1.6 Deterioration to point that mortar can be easily removed by hand, without tools.
3.2.1.3.1.1.7 Joints filled with substances other than mortar.

3.2.1.3.2 Do not rake out and repoint joints where not required.

3.2.1.3.3 Rake out joints as follows, according to procedures demonstrated in approved mockup:

3.2.1.3.3.1 Remove mortar from joints to depth of 2 times joint width and not less than that required to expose sound, unweathered mortar. Do not remove unsound mortar more than 2 inches, 50(mm) deep; consult Architect for direction.
3.2.1.3.3.2 Remove mortar from masonry surfaces within raked-out joints to provide reveals with square backs and to expose masonry for contact with pointing mortar. Brush, vacuum, or flush joints to remove dirt and loose debris.
3.2.1.3.3.3 Do not spall edges of bricks or widen joints. Replace or patch damaged bricks as directed by Architect.

3.2.1.3.3.3.1 Cut out center of mortar bed joints using angle grinders with diamond-impregnated metal blades. Remove remaining mortar in bed joints and mortar in head joints by hand with chisel and resilient mallet. Strictly adhere to approved quality-control program.

3.2.1.3.4 Notify Architect of unforeseen detrimental conditions, including voids in mortar joints, cracks, loose masonry units, rotted wood, rusted metal, and other deteriorated items.

3.2.1.3.5 Pointing with Mortar:

3.2.1.3.5.1 Rinse joint surfaces with water to remove dust and mortar particles. Time rinsing application so, at time of pointing, joint surfaces are damp but free of standing water. If rinse water dries, dampen joint surfaces before pointing.

3.2.1.3.5.2 Apply pointing mortar first to areas where existing mortar was removed to depths greater than surrounding areas. Apply in layers not greater than 3/8 (9) inch(es) (mm) until a uniform depth is formed. Fully compact each layer thoroughly and allow it to become thumbprint hard before applying next layer.

3.2.1.3.5.3 After deep areas have been filled to same depth as remaining joints, point joints by placing mortar in layers not greater than 3/8 (9) inch(es) (mm). Fully compact each layer and allow it to become thumbprint hard before applying next layer. Where existing brick have worn or rounded edges, slightly recess finished mortar surface below face of masonry to avoid widened joint faces. Take care not to spread mortar beyond joint edges onto exposed masonry surfaces or to featheredge the mortar.

3.2.1.3.5.4 When mortar is thumbprint hard, tool joints to match original appearance of joints as demonstrated in approved mockup. Remove excess mortar from edge of joint by brushing.

3.2.1.3.5.5 Cure mortar by maintaining in thoroughly damp condition for at least 72 consecutive hours, including weekends and holidays.

3.2.1.3.5.5.1 Acceptable curing methods include covering with wet burlap and plastic sheeting, periodic hand misting, and periodic mist spraying using system of pipes, mist heads, and timers.

3.2.1.3.5.5.2 Adjust curing methods to ensure that pointing mortar is damp throughout its depth without eroding surface mortar.

3.2.1.3.5.6 Hairline cracking within the mortar or mortar separation at edge of a joint is unacceptable. Remove mortar and repoint.

3.2.1.3.6 Where repointing work precedes cleaning of existing masonry, allow mortar to harden at least 30 days before beginning cleaning work.

3.2.1.4 FINAL CLEANING

3.2.1.4.1 After mortar has fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or -fiber brushes, and clean water, applied by low-pressure spray.

3.2.1.4.1.1 Do not use metal scrapers or brushes.

3.2.1.4.1.2 Do not use acidic or alkaline cleaners.

END OF SECTION 040323

SECTION 080352 - HISTORIC TREATMENT OF WOOD WINDOWS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes historic treatment of wood windows in the form of the following:

1. Repairing wood windows and trim.
2. Reglazing.
3. Repairing, refinishing, and replacing hardware.

B. Related Requirements:

1. Section 013591 "Historic Treatment Procedures" for general historic treatment requirements.

1.3 DEFINITIONS

A. Glazing: Includes glass, glazing points, glazing tapes, glazing sealants, and glazing compounds.

B. Window: Includes window frame, sash, hardware, storm window, and exterior and interior shutters unless otherwise indicated by context.

C. Wood Window Component Terminology: Wood window components for historic treatment work include the following classifications:

1. Frame Components: Head, jambs, and sill.
2. Sash Components: Stiles and rails, parting bead, stop, and muntins.
3. Exterior Trim: Exterior casing, brick mold, and cornice or drip cap.
4. Interior Trim: Casing, stool, and apron.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Review minutes of Preliminary Historic Treatment Conference that pertain to historic treatment of wood windows.
2. Review methods and procedures related to historic treatment of wood windows including, but not limited to, the following:

a. Historic treatment specialist's personnel, equipment, and facilities needed to make progress and avoid delays.
b. Materials, material application, sequencing, tolerances, and required clearances.
c. Fire-protection plan.
d. Wood window historic treatment program.
e. Coordination with building occupants.

1.5 SEQUENCING AND SCHEDULING

A. Perform historic treatment of wood windows in the following sequence, which includes work specified in this and other Sections:

1. Label each window frame with permanent opening-identification number in inconspicuous location.
2. Tag existing window sash, storm windows, and shutters with opening-identification numbers and remove for on-site or off-site repair. Indicate on tags the locations on window of each component, such as "top sash," "bottom sash," "left shutter," and "right shutter."
3. Remove window, dismantle hardware, and tag hardware with opening-identification numbers.
4. Install temporary protection and security at window openings.
5. In the shop, label each sash, storm window, shutter, and louvered blind unit with permanent opening-identification number in inconspicuous location and remove site-applied tags.
6. Sort units by condition, separating those that need extensive repair.
7. Clean surfaces.
8. General Wood-Repair Sequence:

    a. Remove paint to bare wood.
    b. Rack frames slightly to inject adhesive into mortise and tenon joints; square frames to proper fit before adhesive sets.
    c. If thicker than original glass is required, rout existing muntins to required rebate size.
    d. Repair wood by consolidation, member replacement, partial member replacement, and patching.
    e. Sand, prime, fill, sand again, and prime surfaces again for refinishing.

9. Repair, refinish, and replace hardware if required. Reinstall operating hardware.
10. Install glazing.
11. Remove temporary protection and security at window openings.
12. Reinstall units.
13. Apply finish coats.
14. Install remaining hardware and weather stripping.

1.6 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include recommendations for product application and use. Include test data substantiating that products comply with requirements.

B. Shop Drawings:

1. Include plans, elevations, and sections showing locations and extent of repair and replacement work, with enlarged details of replacement parts indicating materials, profiles, joinery, reinforcing, method of splicing into or attaching to existing wood window, accessory items, and finishes.
2. Include field-verified dimensions and the following:

    a. Full-size shapes and profiles with complete dimensions for replacement components and their jointing, showing relation of existing to new components.
    b. Templates and directions for installing hardware and anchorages.
    c. Identification of each new unit and its corresponding window locations in the building on annotated plans and elevations.
    d. Provisions for sealant joints and flashing as required for location.

C. Samples for Initial Selection: For each type of exposed wood and finish.

1. Identify wood species, cut, and other features.
2. Include Samples of hardware and accessories involving color selection.

D. Samples for Verification: For the following products in manufacturer's standard sizes unless otherwise indicated, finished as required for use in the Work:

1. Replacement Units: 12-inch- (300-mm-) long, full-size sash sections with applied finish.
2. Replacement Members: 12 inches (300 mm) long for each replacement member, including parts of frame, sash, exterior trim, and interior trim.

    a. Additional Samples of replacement members that show fabrication techniques, materials, and finishes as requested by Architect.

3. Repaired Wood Window Members: Prepare Samples using existing wood window members removed from site, repaired, and prepared for refinishing.
4. Refinished Wood Window Members: Prepare Samples using existing wood window members removed from site, repaired, and refinished.
5. Hardware: Full-size units with each factory-applied or restored finish.
6. Weather Stripping: 12-inch- (300-mm-) long sections.

1.7 INFORMATIONAL SUBMITTALS

A. Qualification Data: For historic treatment specialist and wood-repair-material manufacturer.

B. Wood Window Historic Treatment Program: Submit before work begins.

C. Preconstruction Test Reports: For historic treatment of wood windows.

1.8 QUALITY ASSURANCE

A. Historic Treatment Specialist Qualifications: A qualified historic wood window specialist, experienced in repairing, refinishing, and replacing wood windows in whole and in part. Experience only in fabricating and installing new wood windows is insufficient experience for wood-window historic treatment work.

B. Wood-Repair-Material Manufacturer Qualifications: A firm regularly engaged in producing wood consolidant and wood-patching compound that have been used for similar historic wood-treatment applications with successful results, and with factory-authorized service representatives who are available for consultation and Project-site inspection and on-site assistance.

C. Wood Window Historic Treatment Program: Prepare a written, detailed description of materials, methods, equipment, and sequence of operations to be used for historic treatment work, including protection of surrounding materials and Project site.

1. If materials and methods other than those indicated are proposed for any phase of historic treatment work, add a written description of such materials and methods, including evidence of successful use on comparable projects, and demonstrations to show their effectiveness for this Project.

D. Mockups: Prepare mockups of historic treatment repair processes to demonstrate aesthetic effects and to set quality standards for materials and execution and for fabrication and installation. Prepare mockups so they are as inconspicuous as practicable.

1. Locate mockups on existing windows where directed by Architect.
2. Wood Window Repair: Prepare one entire window unit to serve as mockup to demonstrate samples of each type of repair of wood window members including frame, sash, glazing, and hardware.
3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.9 PRECONSTRUCTION TESTING

A. Preconstruction Testing Service: Engage a qualified historic treatment specialist to perform preconstruction testing on historic wood windows.

1. Provide test specimens representative of proposed materials and existing construction.
2. Test historic treatment products and methods for effectiveness and compliance with specified requirements.

1.10 DELIVERY, STORAGE, AND HANDLING

A. Pack, deliver, and store products in suitable packs, heavy-duty cartons, or wooden crates; surround with sufficient packing material to ensure that products are not deformed, broken, or otherwise damaged.

B. Store products inside a well-ventilated area and protect from weather, moisture, soiling, abrasion, extreme temperatures, and humidity, and where environmental conditions comply with manufacturer's requirements.

1.11 FIELD CONDITIONS

A. Weather Limitations: Proceed with historic treatment of wood windows only when existing and forecasted weather conditions are within the environmental limits set by each manufacturer's written instructions and specified requirements.

PART 2 - PRODUCTS

2.1 HISTORIC TREATMENT OF WOOD WINDOWS, GENERAL

A. Quality Standard: Comply with applicable requirements in Section 12, "Historic Restoration Work," and related requirements in AWI/AWMAC/WI's "Architectural Woodwork Standards" for construction, finishes, grades of wood windows, and other requirements unless otherwise indicated.

1. Exception: Industry practices cited in Section 12, Article 1.5, Industry Practices, of the Architectural Woodwork Standards do not apply to the work of this Section.

2.2 REPLICATED WOOD WINDOW UNITS

A. Replicated Wood Window Sash: Custom-fabricated replacement wood units and trim, with operating and latching hardware.

1. Joint Construction: Mortise and tenon joints.
2. Wood Species: White Oak.
3. Wood Window Members and Trim: Match profiles and detail of existing window members and trim. Sash components shall be fabricated from solid, continuous wood members; engineered, laminated, composite, or finger-joined wood members shall not be used.
4. Glazing Stops: Provide replacement glazing stops coordinated with glazing system indicated.
5. Exposed Hardware: Reuse existing exposed window hardware.
6. Weather Stripping: Full-perimeter weather stripping for each sash.
7. Date Identification: Emboss on a concealed surface of each replaced window frame and sash, in easily read characters, "SASH MADE <**Insert year**>." Manufacturer's name may also be embossed.
8. be embossed.

2.3 WOOD-REPLACEMENT MATERIALS

A. Wood, General: Clear fine-grained lumber; kiln dried to a moisture content of 6 to 12 percent at time of fabrication; free of visible finger joints, blue stain, knots, pitch pockets, and surface checks larger than 1/32 inch (0.8 mm) deep by 2 inches (51 mm) wide.

1. Species: Match species of each existing type of wood component or assembly unless otherwise indicated.

B. Frame Heads and Jambs and Exterior Trim: Match existing species.

2.4 WOOD-REPAIR MATERIALS

A. Source Limitations: Obtain wood consolidant and wood-patching compound from single source from single manufacturer.

B. Wood Consolidant: Ready-to-use product designed to penetrate, consolidate, and strengthen soft fibers of wood materials that have deteriorated due to weathering and decay and designed specifically to enhance the bond of wood-patching compound to existing wood.

C. Wood-Patching Compound: Two-part epoxy-resin wood-patching compound; knife-grade formulation as recommended in writing by manufacturer for type of wood repair indicated, tooling time required for the detail of work, and site conditions. Compound shall be designed for filling voids in damaged wood materials that have deteriorated due to weathering and decay. Compound shall be capable of filling deep holes and spreading to feather edge.

2.5 GLAZING MATERIALS

A. Glass: Retain and reuse existing historic stained-glass glazing.

B. Glazing Systems:

1. Traditional Glazing Products: Glazing points and oil-based glazing putty or latex glazing compound. Tint to required color according to manufacturer's written instructions.
2. Primers and Cleaners for Glazing: As recommended in writing by glazing material manufacturer.

2.6 WEATHER STRIPPING

A. Metal Weather Stripping: Zinc weather stripping; designed either as one piece to seal by sliding into a groove in the sash or as two pieces that interlock; and completely concealed when window is closed.

2.7 MISCELLANEOUS MATERIALS

A. Cleaning Materials:

1. Detergent Solution: Solution prepared by mixing 2 cups (0.5 L) of tetrasodium pyrophosphate (TSPP), 1/2 cup (125 mL) of laundry detergent that contains no ammonia, 5 quarts (5 L) of 5 percent sodium hypochlorite bleach, and 15 quarts (15 L) of warm water for each 5 gal. (20 L) of solution required.
2. Mildewcide: Commercial, proprietary mildewcide or a solution prepared by mixing 1/3 cup (80 mL) of household detergent that contains no ammonia, 1 quart (1 L) of 5 percent sodium hypochlorite bleach, and 3 quarts (3 L) of warm water.

B. Adhesives: Wood adhesives for exterior exposure, with minimum 15- to 45-minute cure at 70 deg F (21 deg C), in gunnable and liquid formulations as recommended in writing by adhesive manufacturer for each type of repair.

C. Fasteners: Use fastener metals that are noncorrosive and compatible with each material joined.

1. Match existing fasteners in material and type of fastener unless otherwise indicated.
2. Use concealed fasteners for interconnecting wood components.
3. Use concealed fasteners for attaching items to other work unless exposed fasteners are unavoidable or the existing fastening method.
4. For fastening metals, use fasteners of same basic metal as fastened metal unless otherwise indicated.
5. For exposed fasteners, use Phillips-type machine screws of head profile flush with metal surface unless otherwise indicated.
6. Finish exposed fasteners to match finish of metal fastened unless otherwise indicated.

D. Anchors, Clips, and Accessories: Fabricate anchors, clips, and window accessories of aluminum, nonmagnetic stainless steel, or hot-dip zinc-coated steel complying with requirements in ASTM B633 for SC 3 (Severe) service condition.

2.8 WOOD WINDOW FINISHES

A. Shop-Finished Units: Alkyd finish system consisting of primer and two finish coats on exposed exterior and interior wood surfaces.

1. Color and Gloss: Match colors of wood windows as specified in Section 085200 “Wood Windows”.

PART 3 - EXECUTION

3.1 HISTORIC TREATMENT SPECIALIST

A. Historic Treatment Specialist Firms: Subject to compliance with requirements, provide historic treatment of wood windows by qualified preservation specialist.

3.2 PREPARATION

A. Protect adjacent materials from damage by historic treatment of wood windows.

B. Clean wood windows of mildew, algae, moss, plant material, loose paint, grease, dirt, and other debris by scrubbing with bristle brush or sponge and detergent solution. Scrub mildewed areas with mildewcide. After cleaning, rinse thoroughly with fresh water. Allow to dry before repairing or painting.

C. Condition replacement wood members and replacement units to prevailing conditions at installation areas before installing.

3.3 HISTORIC TREATMENT OF WOOD WINDOWS, GENERAL

A. Historic Treatment Appearance Standard: Completed work is to have a uniform appearance as viewed by Architect from the window interior at 5 feet (1.5 m) away and from the window exterior at 20 feet (6 m) away.

B. General: In treating historic items, disturb them as minimally as possible and as follows:

1. Stabilize and repair wood windows to reestablish structural integrity and weather resistance while maintaining the existing form of each item.
2. Remove coatings and apply borate preservative treatment before repair. Remove coatings according to Section 090391 "Historic Treatment of Plain Painting" unless otherwise indicated.
3. Repair items in place where possible.
4. Install temporary protective measures to protect wood window work that is indicated to be completed later.
5. Refinish historic wood windows according to Section 090391 "Historic Treatment of Plain Painting" unless otherwise indicated.

C. Mechanical Abrasion: Where mechanical abrasion is needed for the work, use only the gentlest mechanical methods, such as scraping and natural-fiber bristle brushing, that will not abrade wood substrate, reducing clarity of detail. Do not use abrasive methods such as sanding, wire brushing, or power tools except as indicated as part of the historic treatment program and as approved by Architect.

D. Repair and Refinish Existing Hardware: Dismantle window hardware; strip paint, repair, and refinish it to match finish samples; and lubricate moving parts just enough to function smoothly.

E. Repair Wood Windows: Match existing materials and features, retaining as much original material as possible to perform repairs.

1. Unless otherwise indicated, repair wood windows by consolidating, patching, splicing, or otherwise reinforcing wood with new wood matching existing wood or with salvaged, sound, original wood.
2. Where indicated, repair wood windows by limited replacement matching existing material.
3. Sash Balance: Repair sash balances to function according to type as specified in "Hardware" Article" above. Provide missing sash balances.

F. Replace Wood Units: Where indicated, duplicate and replace units with units made from new wood. Use surviving prototypes to create patterns for duplicate replacements.

G. Protection of Openings: Where sash or windows are indicated for removal, cover resultant openings with temporary enclosures so that openings are weathertight during repair period.

H. Identify removed windows, frames, sash, and members with numbering system corresponding to window locations to ensure reinstallation in same location. Key windows, sash, and members to Drawings showing location of each removed unit. Permanently label units in a location that will be concealed after reinstallation.

3.4 WOOD WINDOW PATCH-TYPE REPAIR

A. General: Patch wood members that exhibit depressions, holes, or similar voids, and that have limited amounts of rotted or decayed wood.

1. Remove sash from windows before performing patch-type repairs at meeting or sliding surfaces unless otherwise indicated. Reglaze units before reinstallation.
2. Verify that surfaces are sufficiently clean and free of paint residue before patching.
3. Treat wood members with wood consolidant before applying patching compound. Coat wood surfaces by brushing, applying multiple coats until wood is saturated and unable to absorb more. Allow treatment to harden before filling void with patching compound.
4. Remove rotted or decayed wood down to sound wood.

B. Apply borate preservative treatment to accessible surfaces either before applying wood consolidant or after removing rotted or decayed wood. Apply treatment liberally by brush to joints, edges, and ends; top, sides, and bottom. Allow treatment to dry.

C. Apply wood-patching compound to fill depressions, nicks, cracks, and other voids created by removed or missing wood.

1. Prime patch area with application of wood consolidant or manufacturer's recommended primer.
2. Mix only as much patching compound as can be applied according to manufacturer's written instructions.
3. Apply patching compound in layers as recommended in writing by manufacturer until the void is completely filled.
4. Sand patch surface smooth and flush with adjacent wood, without voids in patch material, and matching contour of wood member.
5. Clean spilled compound from adjacent materials immediately.

3.5 WOOD WINDOW MEMBER-REPLACEMENT REPAIR

A. General: Replace parts of or entire wood window members at locations where damage is too extensive to patch.

1. Remove sash from windows before performing member-replacement repairs unless otherwise indicated.
2. Verify that surfaces are sufficiently clean and free of paint residue before repair.
3. Remove broken, rotted, and decayed wood down to sound wood.
4. Custom fabricate new wood to replace missing wood; either replace entire wood member or splice new wood part into existing member.

5. Secure new wood using finger joints, multiple dowels, or splines with adhesive and nailing to ensure maximum structural integrity at each splice. Use only concealed fasteners. Fill nail holes and patch surface to match surrounding sound wood.

B. Apply borate preservative treatment to accessible surfaces after replacements are made. Apply treatment liberally by brush to joints, edges, and ends; top, sides, and bottom.

C. Repair remaining depressions, holes, or similar voids with patch-type repairs.

D. Clean spilled materials from adjacent surfaces immediately.

E. Glazing: Reglaze units before reinstallation.

1. Provide replacement glazing stops coordinated with glazing system indicated.
2. Provide glazing stops to match contour of sash frames.

F. Reinstall units removed for repair into original openings.

G. Weather Stripping: Install weather stripping to ensure full-perimeter weather stripping for each sash.

3.6 GLAZING

A. Comply with combined written instructions of manufacturers of glass, glazing systems, and glazing materials, unless more stringent requirements are indicated.

B. Remove existing glass and glazing where indicated on Drawings, and prepare surfaces for reglazing.

C. Size glass as required by Project conditions to provide necessary bite on glass, minimum edge and face clearances, with reasonable tolerances.

D. Apply primers to joint surfaces where required for adhesion of glazing system, as determined by preconstruction testing.

E. Install setting bead, side beads, and back bead against stop in glazing rabbets before setting glass.

F. Install glass so that historic stained-glass retains proper historic placement and orientation.

G. Install glazing points.

3.7 ADJUSTING

A. Adjust existing and replacement operating sash, weather stripping, and accessories for a tight fit at contact points and weather stripping for weathertight closure.

3.8 CLEANING AND PROTECTION

A. Protect window surfaces from contact with contaminating substances resulting from construction operations. Monitor window surfaces adjacent to and below exterior concrete and masonry during construction for presence of dirt, scum, alkaline deposits, stains, or other contaminants. If contaminating substances contact window surfaces, remove contaminants immediately.

B. Clean exposed surfaces immediately after historic treatment of wood windows. Avoid damage to coatings and finishes. Remove excess sealants, glazing and patching materials, dirt, and other substances.

C. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction.

3.9 HISTORIC WOOD WINDOW SCHEDULE

A. Historic Wood Windows “A”: Single-hung window.

1. General: Repair existing wood using indicated treatments. Repair frames and sills on-site.
2. Window Frame Member Repair: Repair head, jambs, and sill with wood consolidant, patch-type repairs, and whole or partial member-replacement repairs.

END OF SECTION 080352

DIVISION 08 16 13 - FIBERGLASS ENTRY DOOR

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Impact Resistant Fiberglass Entry Door

1.2 RELATED SECTIONS

A. 07 92 00 – Joint Sealants

B. 08 71 00 – Door Hardware

1.3 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM E 330 – Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
2. ASTM E 331 – Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
3. ASTM E 1886 – Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missiles and Exposed to Cyclic Pressure Differentials.
4. ASTM E 1996 – Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes.

B. National Accreditation & Management Institute (NAMI)

1.4 PERFORMANCE REQUIREMENTS

A. Doors shall have a structural design pressure rating of DP 50.

B. Door Unit Air Leakage, NFRC 400, 1.57 psf (25 mph): 0.50 cfm per square foot of frame or less.

C. Door Unit Water Penetration: No water penetration through door unit when tested in accordance with ASTM E 331or ASTM E 547 with water applied at rate of 5 gallons per hour per square foot at 0 psf.

D. Doors shall have a minimum/maximum U-Value of 0.17.

E. Doors shall qualify for Energy Star Rating.

1.5 SUBMITTALS

A. Refer to Division 01 33 00 Submittal Procedures.

B. Product Data: Submit door manufacturer current product literature, including installation instructions.

C. Shop Drawings: Submit manufacturer's shop drawings, indicating dimensions, construction, component connections, anchorage methods and locations, accessories, hardware locations, and installation details.

D. Samples: Submit a verification sample of door illustrating quality of construction, texture, and color of finish.

1.6 QUALITY ASSURANCE

A. Quality Assurance Submittals:

1. Provide documentation for specified performance as required.
2. Manufacturers' installation instructions.

B. Manufacturer Qualifications: Manufacturer shall have successful experience in producing the type of product required for project applications equivalent to the requirements for this project.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Refer to Division 01 60 00 Product Requirements.

B. Delivery: Deliver materials to site undamaged with labels clearly identifying manufacturer, product name, and installation instructions

C. Storage: Store materials in an upright position, off ground, under cover, and protected from weather, direct sunlight, and construction activities.

D. Handling: protect materials and finish during handling and installation to prevent damage.

1.8 WARRANTY

A. Refer to Division 01 78 36 Warranties

B. Standard limited warranty for fiberglass door product and components, including rot-resistant frames, mullions, and brickmould sourced from the manufacturer. Projects will be free from material and workmanship defects for a period of three years subject to certain limitations and restrictions.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Basis of Design:
Masonite Corporation
1242 E. 5th Avenue
Tampa, FL 33605
(800) 895-2723

B. Substitutions: Permitted
C. Requests for substitutions will be considered in accordance with the provisions of Division 01 25 00.

2.2 FIBERGLASS ENTRY DOORS

A. Fiberglass Entry Doors:

1. Heritage series
2. Construction:
   a. 3/32" minimum thickness proprietary fiberglass reinforced thermoset composite, textured to duplicate hand-crafted hardwood master. Door edges are machinable kiln-dried hardwood, flush and square with door faces, lock edge reinforced with full-length integrated 3-1/2-inch wide engineered lumber core. Door bottom edge is moisture- and decay-resistant composite. Core is foamed in-place polyurethane, with a minimum density of 1.9 pcf.

3. Door Style
   a. Logan 2
      1. Heritage Collection
      2. Two panel
      3. Textured
      4. Sticking: Square
      5. Color: White

B. Frame and Trim

1. Pre-hung Frame: Basis of Design is Masonite Corporation
2. Jamb Width Standard 4 9/16"
3. Exterior trim: Brickmold
4. Color: White

C. Sills

1. Inswing: Composite Adjustable.
2. Public Access Sill
3. Finish: Satin nickel

2.3 HARDWARE

A. Hinges: Steel, ball bearing 4 x 4 x 0.098 inches finished to match hardware, plated screws to match

1. Finish: US26 polished chrome.

B. Locking Hardware

1. Multi-point lock system handle set hardware: Venture, as manuf. by REEB Millwork, LLC..
2. Finish: Brushed Nickel.

2.5 INSTALLATION ACCESSORIES

A. Sill pan.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas to receive doors. Notify Architect in writing any unacceptable conditions that would adversely affect installation or subsequent performance of the product. Do not proceed with installation until unsatisfactory conditions are corrected.

3.2 INSTALLATION

A. Install fiberglass doors in full compliance with the manufacturers written instructions and approved shop drawings.
B. Maintain alignment and compatibility with adjacent work.

3.3 FINISHING

A. Finish in compliance with manufacturers written recommendations.

3.3 PROTECTION

A. Protect installed products until completion of project.
B. Touch-up, repair or replace damaged products prior to Substantial Completion.

END OF SECTION 08 16 13

SECTION 09 91 23 - INTERIOR PAINTING

1.1 SUMMARY

A. Section Includes:

1. Primers.
2. Water-based finish coatings.

B. Related Requirements:

1. Section 099113 "Exterior Painting" for surface preparation and the application of paint systems on exterior substrates.
2. Section 099726 “Sol Silicate Coatings”.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product. Include preparation requirements and application instructions.

1. Include preparation requirements and application instructions.
2. Indicate VOC content.

B. Samples: For each type of topcoat product.

C. Samples for Verification: For each type of paint system and each color and gloss of topcoat.

1. Submit Samples on rigid backing, 8 inches (200 mm) square.
2. Label each coat of each Sample.
3. Label each Sample for location and application area.

D. Product Schedule. For each product indicated, include the following:

1. Use same designations indicated on Drawings and in the Interior Painting Schedule to cross-reference paint systems specified in this Section.
2. Indicate VOC content.

1.3 CLOSEOUT SUBMITTALS

A. Coating Maintenance Manual: Provide coating maintenance manual including area summary with finish schedule; area detail designating location where each product/color/finish was used; product data pages; material safety data sheets; care and cleaning instructions; touch-up procedures; and color samples of each color and finish used.

1.4 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Paint Products: 5 percent, but not less than 1 gal. (3.8 L) of each material and color applied.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Delivery and Handling: Deliver products to Project site in undamaged condition in manufacturer's original sealed containers, complete with labels and instructions for handling, storing, unpacking, protecting, and installing. Packaging shall bear the manufacturer's label with the following information:

1. Product name and type (description).
2. Batch date.
3. Color number.
4. VOC content.
5. Environmental handling requirements.
6. Surface preparation requirements.
7. Application instructions.

B. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.6 FIELD CONDITIONS

A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).

B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures of less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

C. Lead Paint: Lead paint does not appear to be present in buildings and structures to be painted. A report on the presence of lead paint is on file for review and use. Examine report to become aware of locations where lead paint is present.

1. Do not disturb lead paint or items suspected of containing hazardous materials except under procedures specified.
2. Perform preparation for painting of substrates known to include lead paint in accordance with EPA Renovation, Repair and Painting Rule and additional requirements of authorities having jurisdiction.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Sherwin-Williams Company (The); products indicated below or comparable product by one of the following:

1. Benjamin Moore & Co.
2. Pratt & Lambert.
3. Valspar Corporation (The).

B. Source Limitations: Obtain each paint product from single source from single manufacturer.

1. Manufacturer's designations listed on a separate color schedule are for color reference only and do not indicate prior approval.

C. Comparable Products: Comparable products of approved manufacturers will be considered in accordance with Section 016000 "Product Requirements," and the following:

1. Products are approved by manufacturer in writing for application specified.
2. Products meet performance and physical characteristics of basis-of-design product including published ratio of solids by volume, plus or minus two percent.

2.2 PAINT, GENERAL

A. Material Compatibility:

1. Materials for use within each paint system to be compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, products to be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.

B. VOC Content: For field applications that are inside the weatherproofing system, paints and coatings shall comply with VOC content limits of authorities having jurisdiction and the following VOC content limits exclusive of colorants added to a tint base, when calculated in accordance with 40 CFR 59, Subpart D (EPA Method 24):

1. Nonflat Paints and Coatings: 150 g/L.
2. Primers and Undercoaters: 200 g/L.
3. Anticorrosive and Antirust Paints Applied to Ferrous Metals: 250 g/L.

C. Colors: As selected by Architect from manufacturer's full range.

~~1. Ten percent of surface area will be painted with deep tones.~~

2.3 PRIMERS

A. Interior, Institutional Low-Odor/VOC Primer Sealer: Water-based primer sealer with low-odor characteristics and a VOC of less than 10 grams per liter for use on new interior plaster, concrete, and gypsum wallboard surfaces that are subsequently to be painted with latex finish coats.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Sherwin-Williams Company (The); ProMar 200 Zero VOC Latex Primer, B28W2600 Series or comparable product.

B. Interior Latex Primer for Wood: Waterborne-emulsion primer formulated for resistance to extractive bleeding, mold, and microbials; for hiding stains; and for use on interior wood subject to extractive bleeding.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Sherwin-Williams Company (The); PrepRite ProBlock Primer Sealer, B51-620 Series or comparable product.

2.4 WATER-BASED FINISH COATS

A. Interior, Latex, High-Performance Architectural Coating, Eggshell: High-performance architectural latex coating providing a significantly higher level of performance than conventional latex paints in the areas of scrub resistance, burnish resistance, and ease of stain removal.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Sherwin-Williams Company (The); ProMar 200 HP Zero VOC Latex Eg-Shel, B20-1900 Series or comparable product.
2. Gloss and Sheen Level: Manufacturer's standard eggshell finish.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers. Where acceptability of substrate conditions is in question, apply samples and perform in-situ testing to verify compatibility, adhesion, and film integrity of new paint application.

1. Report, in writing, conditions that may affect application, appearance, or performance of paint.

B. Substrate Conditions:

1. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:

~~a. Masonry: 12 percent.~~
b. Wood: 15 percent.

C. Proceed with coating application only after unsatisfactory conditions have been corrected; application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions and recommendations applicable to substrates indicated.

B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.

C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.

1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

~~D. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceeds that permitted in manufacturer's written instructions.~~

E. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer, but not less than the following:

1. SSPC-SP 3, "Power Tool Cleaning."

F. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.

G. Wood Substrates:

1. Scrape and clean knots, and apply coat of knot sealer before applying primer.
2. Sand surfaces that will be exposed to view, and dust off.
3. Prime edges, ends, faces, undersides, and backsides of wood.
4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.

3.3 INSTALLATION

A. Apply paints in accordance with manufacturer's written instructions.

1. Use applicators and techniques suited for paint and substrate indicated.
2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.

B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.

C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.

D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

1. Do not clean equipment with free-draining water and prevent solvents, thinners, cleaners, and other contaminants from entering into waterways, sanitary and storm drain systems, and ground.
2. Dispose of contaminants in accordance with requirements of authorities having jurisdiction.
3. Allow empty paint cans to dry before disposal.
4. Collect waste paint by type and deliver to recycling or collection facility.

B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.5 INTERIOR PAINTING SCHEDULE

A. Gypsum Board Substrates:

1. Latex System:

a. Prime Coat: Alkali-resistant, water-based primer.
b. Intermediate Coat: Matching topcoat.
c. Topcoat: Interior, latex, eggshell.

B. Steel Substrates:

1. High-Performance Architectural Latex System:

a. Prime Coat: Alkyd quick-dry primer for metal.
b. Intermediate Coat: Matching topcoat.
c. Topcoat: Topcoat: Interior, latex, high-performance architectural coating: semigloss.

C. Galvanized-Metal Substrates:

1. High-Performance Architectural Latex System:

a. Prime Coat: Water-based galvanized primer.
b. Intermediate Coat: Matching topcoat.
c. Topcoat: Interior, latex, high-performance architectural coating: semigloss.

D. Finish Carpentry: Wood trim.

1. Institutional Low-Odor/VOC Latex System:

a. Prime Coat: Interior latex primer for wood.
b. Intermediate Coat: Matching topcoat.
c. Topcoat: Interior, latex, institutional low odor/VOC, semigloss.

E. Fiberglass Substrates:

1. Latex System:

a. Prime Coat: Water-based bonding primer.
b. Intermediate Coat: Matching topcoat.
c. Topcoat: Interior, latex, semigloss.

END OF SECTION 09 91 23

SECTION 09 97 26 - SOL SILICATE COATINGS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions, Division 01 - GENERAL REQUIREMENTS, and other applicable specification sections in the Project Manual apply to the work specified in this Section.

1.2 SUMMARY

A. Section Includes: The work specified in this Section includes an application of a long-lasting decorative coating system for mineral-based surfaces providing strong weathering protection on prepared exterior masonry surfaces. The application comprises a sol silicate base coat followed with a sol silicate top coat. Coating may be sprayed, rolled, or brushed in good weather before surfaces are heated up by direct sunlight. Specification does not include surface preparation.

B. Related Sections: Related sections include the following:

1. Section 040322 Historic Brick Unit Masonry Repair
2. Section 040323 Historic Brick Unit Masonry Repointing

1.3 REFERENCES

A. General: The publications listed below form a part of this Specification to the extent referenced. The publications are referred to in the text by the basic designation only.

B. ASTM (ASTM):

1. ASTM E 96, "Standard Test Methods for Water Vapor Transmission of Materials."
2. ASTM E 514, "Standard Test Method for Water Penetration and Leakage Through Masonry."
3. ASTM G 154, “Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials.”
4. ASTM E84-05, “Standard Test Method for Surface Burning Characteristics of Building Materials.”

C. Deutsches Institut für Normung (DIN), European Standard (EN), and International Organization for Standardization (ISO):

1. DIN 18 363 2.4.1, manufacturing standard for silicate dispersion paint.
2. DIN EN 13 300, manufacturing standard for interior silicate dispersion paint.
3. DIN EN 1062, manufacturing standard for sol silicate dispersion paint.
4. ISO 11998, “Paints and varnishes - Determination of wet-scrub resistance and cleanability of coatings.”
5. ISO 6504-3, “Paints and varnishes - Determination of hiding power - Part 3: Determination of contrast ratio of light-coloured paints at a fixed spreading rate.”
6. ISO 2813, “Paints and varnishes - Determination of specular gloss of non-metallic paint films at 20 degrees, 60 degrees and 85 degrees.”
7. EN 1062-3, “Paints and varnishes - Coating materials and coating systems for exterior masonry and concrete - Part 3: Determination of liquid water permeability.”

8. DIN EN 1504-2, “Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 2: Surface protection systems for concrete.”
9. DIN EN ISO 7783-2, “Coating materials and coating systems for exterior masonry and concrete - Part 2: Determination and classification of water-vapour transmission rate (permeability).”
10. DIN 4102-A2, “Fire Behaviour of Building Materials and Building Components - Part 2: Building Components; Definitions, Requirements and Tests.”
11. DIN 18363, “Construction Contract Procedures (VOB) Part C: General Technical Specifications in Construction Contracts (ATV) Painting and Varnishing.”

1.4 DEFINITIONS

A. Silicate coating base coat: The first applied coat of the sol silicate coating.

B. Silicate coating, topcoat: The second applied coat of the sol silicate coating.

C. Dilution: A sol silicate-based diluent used to thin the silicate base coat.

1.5 SYSTEM DESCRIPTION

A. A materials-compatible highly vapor permeable decorative coating system offering severe weathering protection for exterior exposure. Install over mineral surfaces.

1. Sol Silicate Coating: An incombustible two coat system with UV and alkaline resistant inorganic pigments in the specified color. Coatings penetrate the surface to chemically react with the substrate, resulting in both covalent and mechanical bonds with a hard amorphous microporous structure with extremely high vapor permeability that is unaffected by acids, UV exposure, or air-borne pollutants. Provides weathering protection without reducing substrate vapor permeability.

1.6 SUBMITTALS

A. General: Submit under provisions of Section 01 33 00 - SUBMITTAL PROCEDURES.

B. Product Data: Submit product data showing material proposed. Submit sufficient information to determine compliance with the Drawings and Specifications. Provide published documentation describing materials, characteristics, and limitations.

C. Samples:

1. Submit samples for initial color selection. Submit samples of each specified finish. Submit samples in form of manufacturer’s color charts showing full range of colors and finishes available. Where finishes involve normal color variations, include samples showing the full range of variations expected.
2. Submit samples for verification purposes. Additional samples may be required to show fabrication techniques and workmanship.

D. Manufacturer’s Instructions: Submit manufacturer’s instructions including technical data sheets, material safety data sheets, mixing instructions, application requirements, special procedures, and conditions requiring special attention.

1.7 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer Qualifications: Provide evidence that Manufacturer is a firm engaged in the manufacture of silicate coatings of types required, and whose products have been in satisfactory use in similar service for a minimum of thirty years.

2. Applicator Qualifications: Provide evidence Applicator is a firm having a minimum of three years of successful application experience with projects similar in type and scope to that required for this Project and approved by the manufacturer.

B. Regulatory Requirements: Comply with applicable requirements of the laws, codes, ordinances, and regulations of Federal, State, and local authorities having jurisdiction. Obtain necessary approvals from such authorities.

C. Mock-Ups: Prior to application of the work, fabricate and erect mock-ups for each type of finish and application required to verify selections made under sample submittals and to demonstrate aesthetic effects as well as qualities of materials and execution. Build mock-ups to comply with the following requirements, using materials indicated for final unit of work. Locate mock-ups on site in location and of size indicated or, if not indicated, as directed by the Architect. Demonstrate the proposed range of aesthetic effects and workmanship to be expected in the completed work. Obtain the Architect's acceptance of mock-ups before start of final unit of work.

1. Retain and maintain mock-ups during construction in undisturbed condition as a standard for judging completed unit of work.

a. Accepted mock-ups in undisturbed condition at time of Substantial Completion may become part of completed unit of work.

D. Pre-Application Conference: Conduct pre-application conference in accordance with Section 013100. Prior to commencing the application, meet at the Project site to review the material selections, application procedures, and coordination with other trades. Review mock-ups during the pre-application conference. Coordinate with the Owner and the Architect to establish the date and time of the pre-application conference with the Contractor, the Applicator, manufacturer's representatives, and any trade that requires coordination with the work.

E. Coordination: Conform to Section 013100 for coordination with work of other Sections.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Conform to provisions of Section 01 65 00 - PRODUCT DELIVERY REQUIREMENTS and manufacturer's instructions.

B. Deliver materials to the Project site in supplier's or manufacturer's original wrappings and containers, labeled with supplier's or manufacturer's name, material or product brand name, and lot number, if any.

C. Store materials in their original, undamaged packages and containers, inside a well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.

1.9 PROJECT CONDITIONS

A. Environmental Requirements: Do not apply silicate coating until surfaces are cleaned, substrate repairs are complete and cured, and wet work is completed and nominally dry.

1. Substrate and ambient air temperature must be between 41 °F (5 °C) and 86 °F (30 °C). Maintain temperature during and after application.

2. Do not apply silicate coating over damp substrate, when rain is expected, in high winds, or on sun-heated substrate during application.

1.10 WARRANTY

A. General: See Section 01 77 00 - CLOSEOUT PROCEDURES.

B. Special Warranty: Contractor warrants the work of this Section to be in accordance with the Contract Documents and free from faults and defects in materials and workmanship for the period

indicated below. Provide a special warranty extending the one-year period of limitations contained in the General Conditions countersigned by the Applicator and the manufacturer.

1. Warranty Period: Warranty period from date of Substantial Completion is 10 years.

C. Additional Owner Rights: The warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to and run concurrent with other warranties made by the Contractor under requirements of the Contract Documents.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design: Items specified are to establish a standard of quality for design, function, materials, compatibility, warranty, and appearance. Equivalent products by listed manufacturers are acceptable. The Architect is the sole judge of the basis of what is equivalent.

B. KEIM Mineral Coatings of America, Inc., 10616 Texland Blvd. #600, Charlotte, North Carolina 28273. Telephone 704-588-2811. Email Keith.Faxon@keim.com.

2.2 MATERIALS

A. Silicate Coating, Base Coat: Provide sol silicate based opaque coating conforming to DIN EN 1504-2/2.2 and DIN 18.363/2.4.1, without biocides, and less than 1g/l VOC. Meets Non-flammable standard DIN 4102-A2. ASTM E 96 Vapor Permeability – 77 perms, ASTM G 154 Accelerated Weathering – no fading, cracking, peeling, ASTM E 514 62-MPH Wind-Driven Rain Test – no water penetration.

1. Basis of Design: “KEIM Soldalit”, KEIM Mineral Coatings of America, Inc.

B. Silicate Coating, Topcoat: Provide sol silicate based opaque coating conforming to DIN EN 1504-2/2.2 and DIN 18.363/2.4.1, without biocides, and less than 1g/l VOC. Meets Non-flammable standard DIN 4102-A2. ASTM E 96 Vapor Permeability – 77 perms, ASTM G 154 Accelerated Weathering – no fading, cracking, peeling, ASTM E 514 62-MPH Wind-Driven Rain Test – no water penetration.

1. Basis of Design: “KEIM Soldalit”, KEIM Mineral Coatings of America, Inc.

C. Dilution for Silicate Coating: Provide sol silicate dilution that is designed for the sol silicate coating system. Meets Non-flammable standard DIN 4102-A2. Less than 1g/l VOC.

1. Basis of Design: “KEIM Soldalit Dilution”, KEIM Mineral Coatings of America, Inc.

2.3 EQUIPMENT

A. Tools:

1. Silicate Coating, Base Coat: Apply by natural bristle façade brush, professional roller, or professional airless spray equipment and back-roll as required for even distribution.

2. Silicate Coating, Topcoat: Apply by natural bristle façade brush, professional roller, or professional airless spray equipment and back-roll as required for even distribution.

2.4 FINISHES

A. Silicate Coating; Base and Topcoats: Apply evenly to a smooth mineral matte finish without voids, “holidays”, or drips.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verification of Conditions: Examine areas and conditions under which the work is to be applied, and notify the Contractor in writing, with a copy to the Owner and the Architect, of any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.

1. Verify substrate is secure, sound, dry, and absorbent, and free of dirt, grease, salts, oil-based paints, release agents, curing agents, and other bond breakers.
2. Verify substrate has no pretreatments or priming materials applied.
3. Verify materials to be coated are fully cured to manufacturer recommendations.
4. Beginning of the work shall indicate acceptance of the areas and conditions as satisfactory by the Applicator.

3.2 PREPARATION

A. Protection: Lay ground cloths and take measures as necessary to protect surfaces subject to contact by products specified by this Section.

B. Substrate: Prepare using products or materials described in the MATERIALS Article.

3.3 APPLICATION

A. Conform to reviewed product data, manufacturer's written instructions, and provisions of the Contract Documents.

B. Plan the work properly.

1. Work ahead of the sun on shaded façades.
2. Work to logical stopping points (corners, seams, architectural features, etc.).
3. Apply coatings maintaining a wet edge to desired finish as indicated in FINISHES Article.
4. Protect from wind and rain prior to, during, and for a minimum 24 hours after application.

C. Silicate Coating:

1. Base Coat: Dilute sol silicate coating with 5 percent dilution (25kg with 1.25 liters dilution). Stir well by hand or 600-800 RPM mixing equipment.
   a. Apply base coat of diluted silicate coating.
   b. Allow minimum 12 hours drying time.
2. Topcoat: Apply sol silicate coating undiluted. Stir well by hand or 600-800 RPM mixing equipment.
   a. Apply topcoat of undiluted silicate coating.

D. *Substrate:*

1. *All brick masonry, interior and exterior, called out to be painted shall be painted using silicate-based paint exclusively.*

3.4 FIELD QUALITY CONTROL

A. General: See Section 01 45 23 - INSPECTING AND TESTING SERVICES.

B. Testing: The Owner reserves the right to invoke test procedures at any time and as often as the Owner deems necessary during the period when coatings are being applied. Tests include, but are not limited to, material analysis and coating thickness.

1. The Owner may engage the services of an independent inspecting and testing agency to sample the material being used. Samples of material delivered to the Project may be taken, identified, sealed, and certified in the presence of the Contractor.
2. The inspection and testing agency will perform appropriate tests for listed characteristics as required by the Owner.
3. The Owner may direct the Contractor to stop the work if test results show material being used does not comply with specified requirements. The Contractor is responsible to remove non-complying product from the site, pay for testing, and recoat surfaces previously coated with the rejected material. If necessary, the Contractor may be required to remove rejected material from previously coated surfaces if, on recoating with specified material, the two coatings are incompatible.

C. Repairs: Correct deficiencies in or remove work that does not comply with requirements, repair substrates, and reapply coating.

D. Additional Testing: Additional testing performed to determine compliance of corrected work with requirements shall be at the Contractor's expense.

3.5 CLEANING

A. Clean tools, spills, and accidental drips immediately with plenty of water.

B. Leave applications clean and premises free from residue and debris from work of this Section.

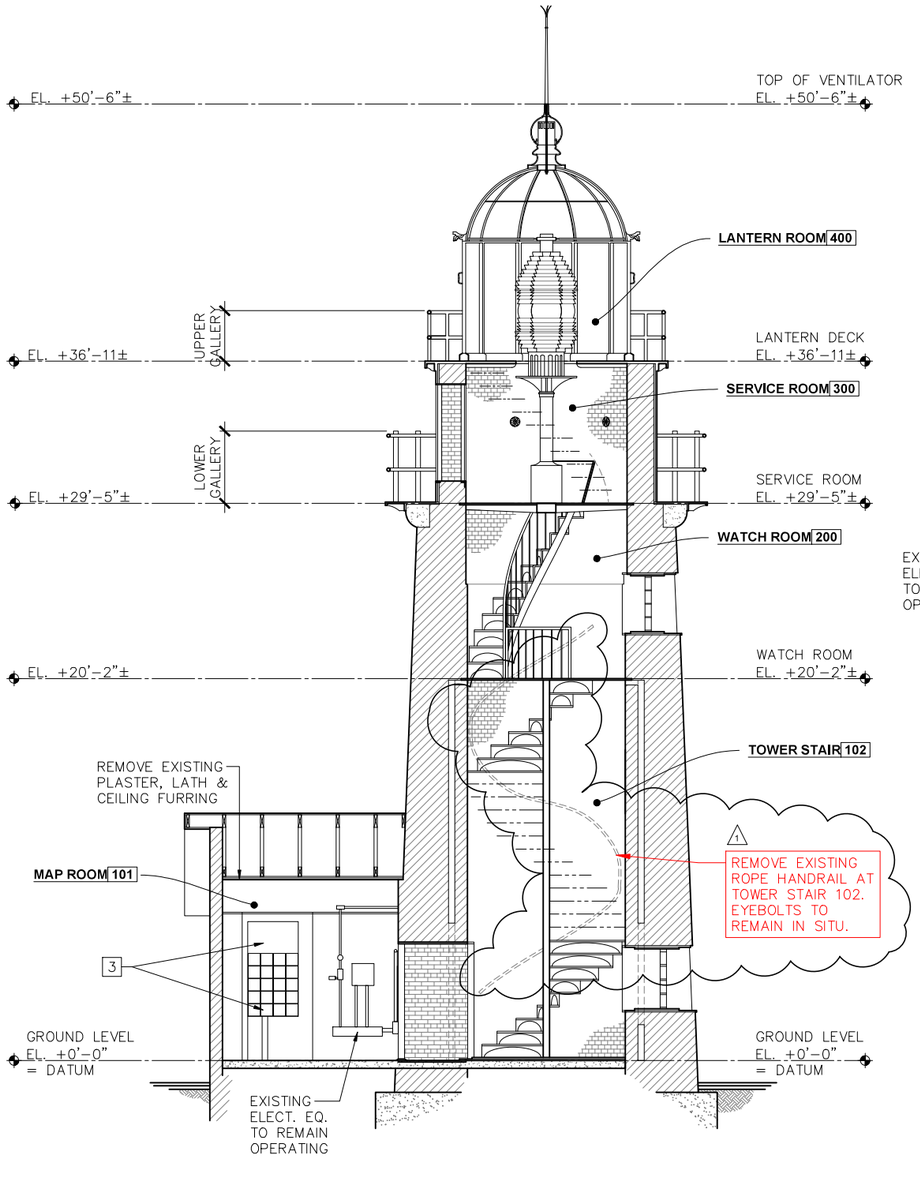
3.6 PROTECTION

A. Provide final protection and maintain conditions in a manner acceptable to the Applicator to ensure silicate coatings are without damage at time of Substantial Completion.

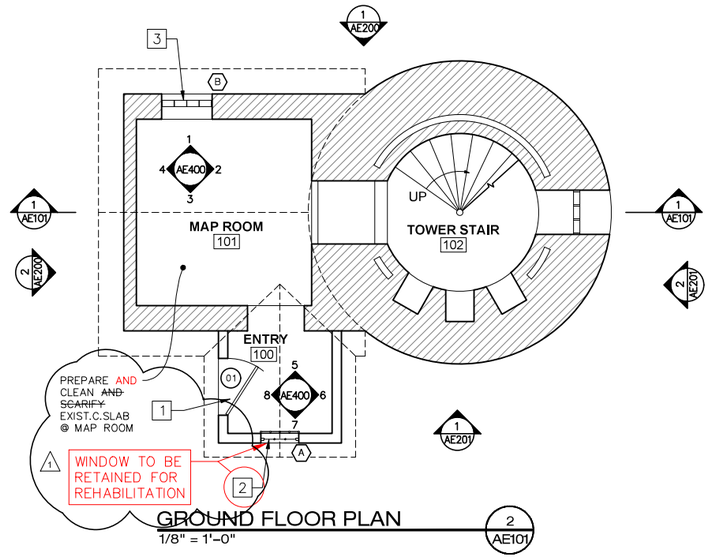
END OF SECTION 09 97 26

REMOVALS SCHEDULE:

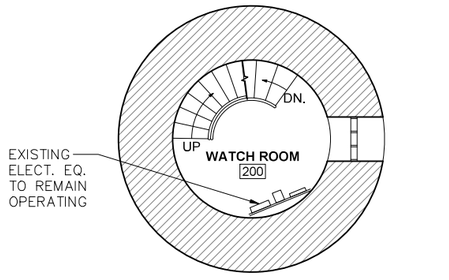
1	REMOVE EXISTING DOOR & FRAME
2	REMOVE EXISTING WINDOW & FRAME
3	REMOVE EXISTING GLASS BLOCK & INFILL PANEL
4	REMOVE LEAD FLASHINGS



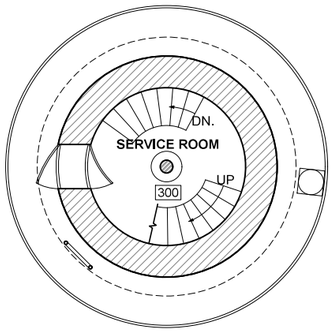
SECTION
1/8" = 1'-0"
1 AE101



GROUND FLOOR PLAN
1/8" = 1'-0"
2 AE101



WATCH ROOM PLAN
1/8" = 1'-0"
3 AE101



SERVICE ROOM PLAN
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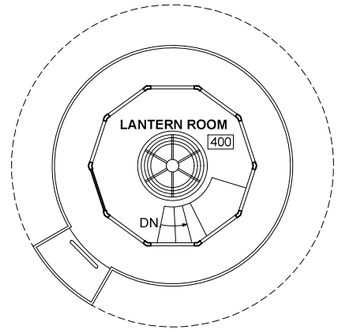
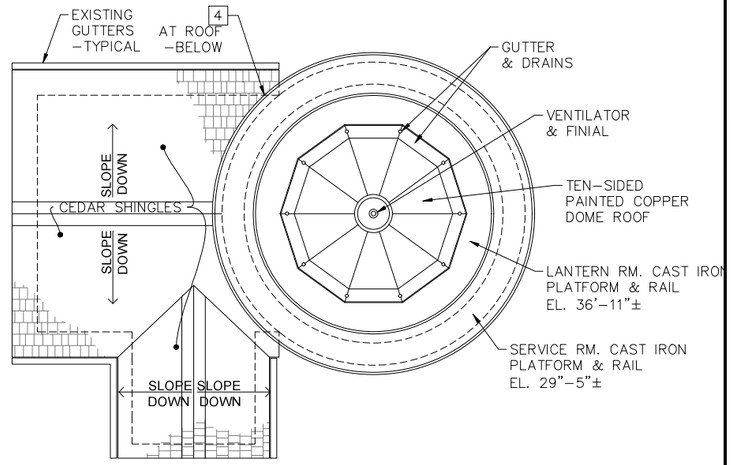
4 AE101



LANTERN ROOM PLAN
1/8" = 1'-0"
5 AE101



ROOF PLAN
1/8" = 1'-0"
6 AE101

0' 2' 4' 8'

NORTH

ARTIFEX
architects & engineers
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REMOVALS PLANS & SECTION

PROJ. NUMBER: 2023106 | DRAWN BY: EDJ

REV.	DATE	DESCRIPTION
1	05-31-2024	ADDENDUM 1 REVISIONS

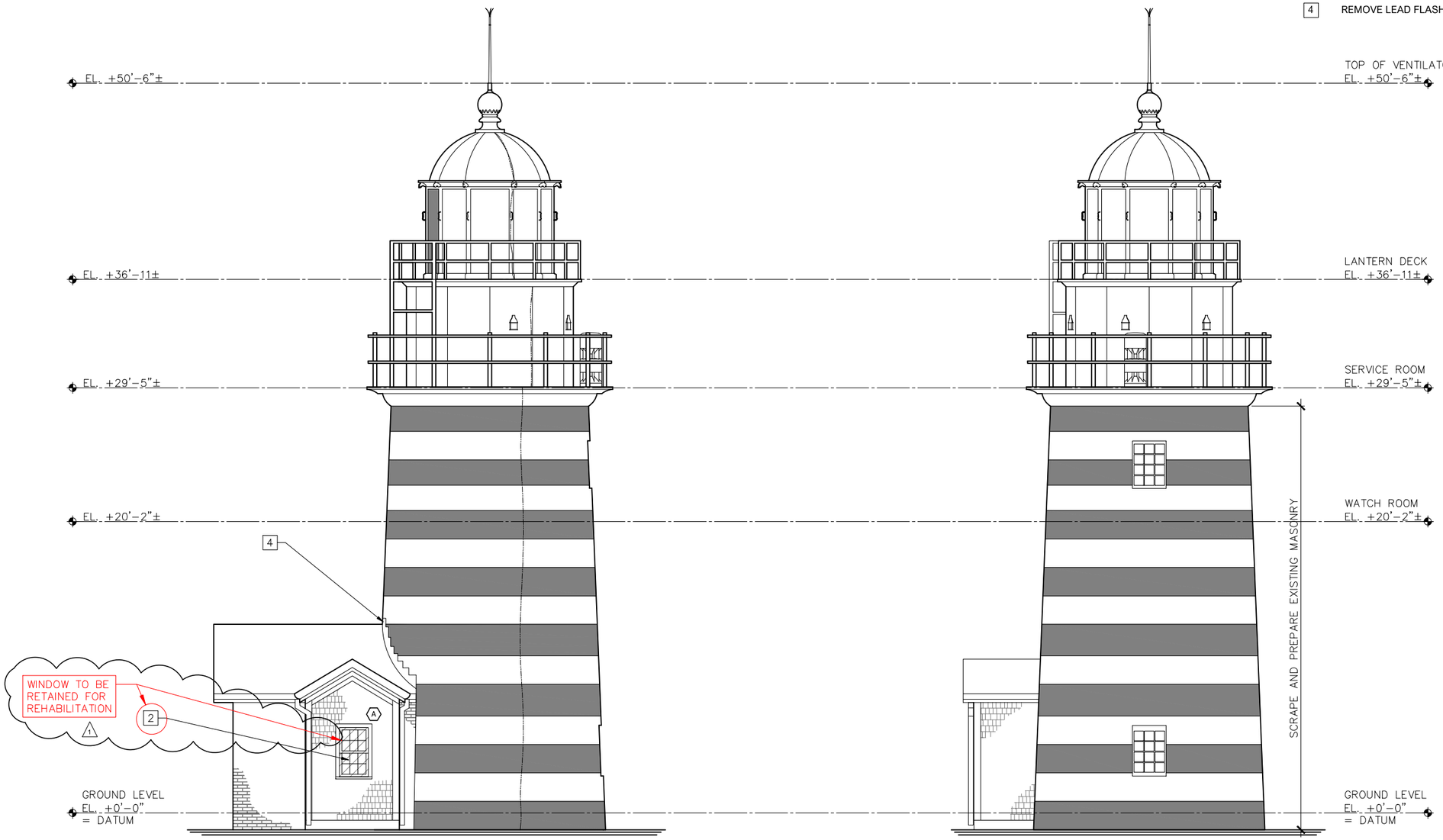
MAINE BUREAU OF PARKS & LANDS
LIGHTHOUSE & MAP ROOM RENOVATIONS
QUODDY HEAD STATE PARK, LUBEC, ME

DATE:
MAY 16, 2024

AE101

REMOVALS SCHEDULE:

1. REMOVE EXISTING DOOR & FRAME
2. REMOVE EXISTING WINDOW & FRAME
3. REMOVE EXISTING GLASS BLOCK & INFILL PANEL
4. REMOVE LEAD FLASHINGS



SOUTH ELEVATION — 1/8" = 1'-0" — 1 AE201

EAST ELEVATION — 1/8" = 1'-0" — 2 AE201

0' 2' 4' 8'

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REMOVALS ELEVATIONS

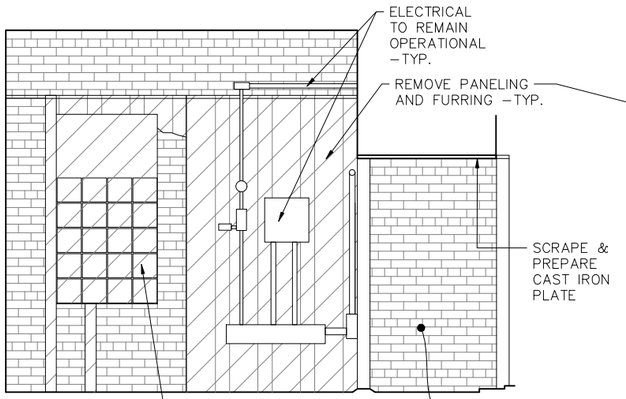
PROJ. NUMBER: 2023106 | DRAWN BY: EDJ

REV.	DATE	DESCRIPTION
1	05-31-2024	ADDENDUM 1 REVISIONS

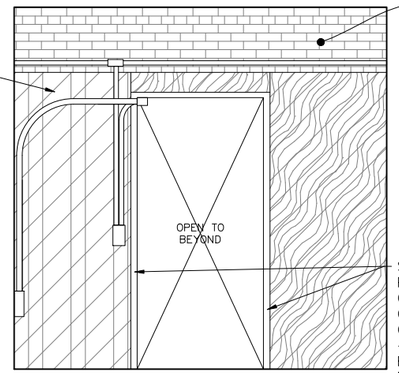
MAINE BUREAU OF PARKS & LANDS
LIGHTHOUSE & MAP ROOM RENOVATIONS
QUODDY HEAD STATE PARK, LUBEC, ME

DATE:
MAY 16, 2024

AE201



MAP RM. 1 AE400
1/4" = 1'–0"



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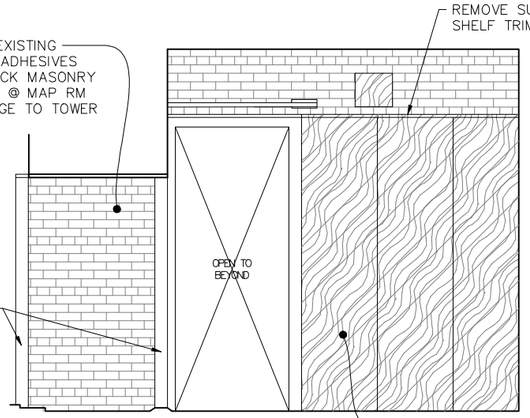

MAP RM. 3 AE400
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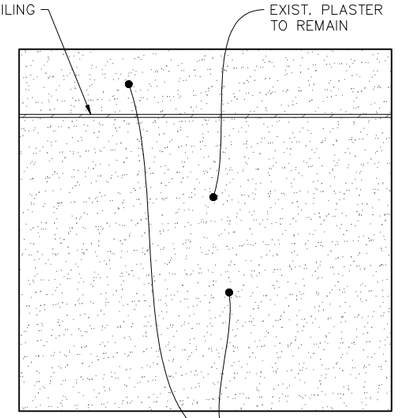

MAP RM. 4 AE400
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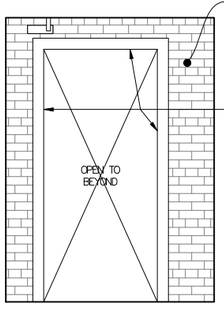
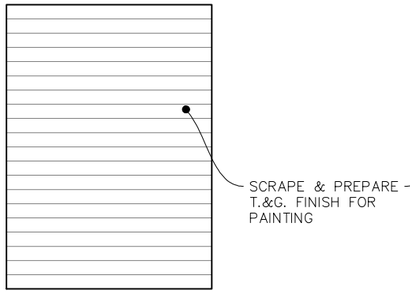
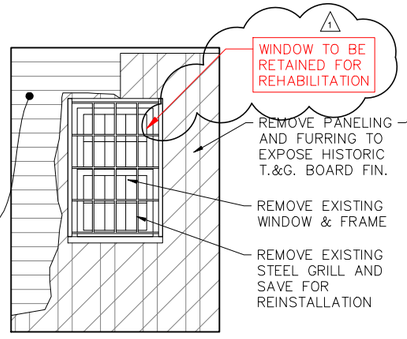


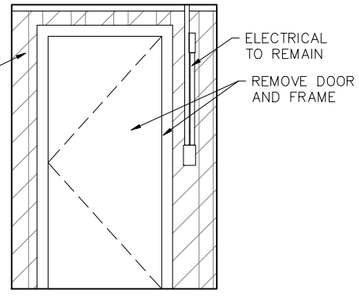
ENTRY 5 AE400
1/4" = 1'–0"



ENTRY 6 AE400
1/4" = 1'–0"

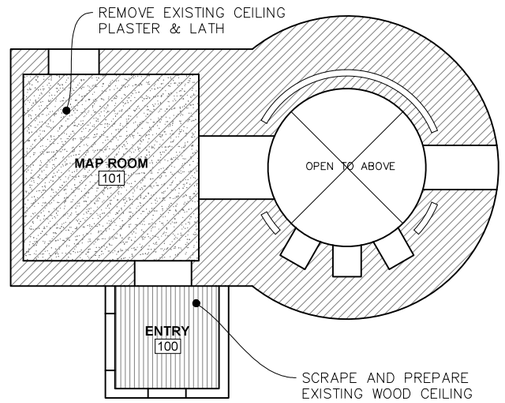


ENTRY 7 AE400
1/4" = 1'–0"



ENTRY 8 AE400
1/4" = 1'–0"

MATERIALS LEGEND
BRICK MASONRY
PLYWOOD PANELING
PLYWOOD
PLASTER/GYPSUM
MATCHED/ BEADBOARD
REMOVAL



REFLECTED CEILING PLAN 9 AE400
1/8" = 1'–0"

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REMOVALS INTERIOR ELEVATIONS & REFLECTED CEILING PLANS

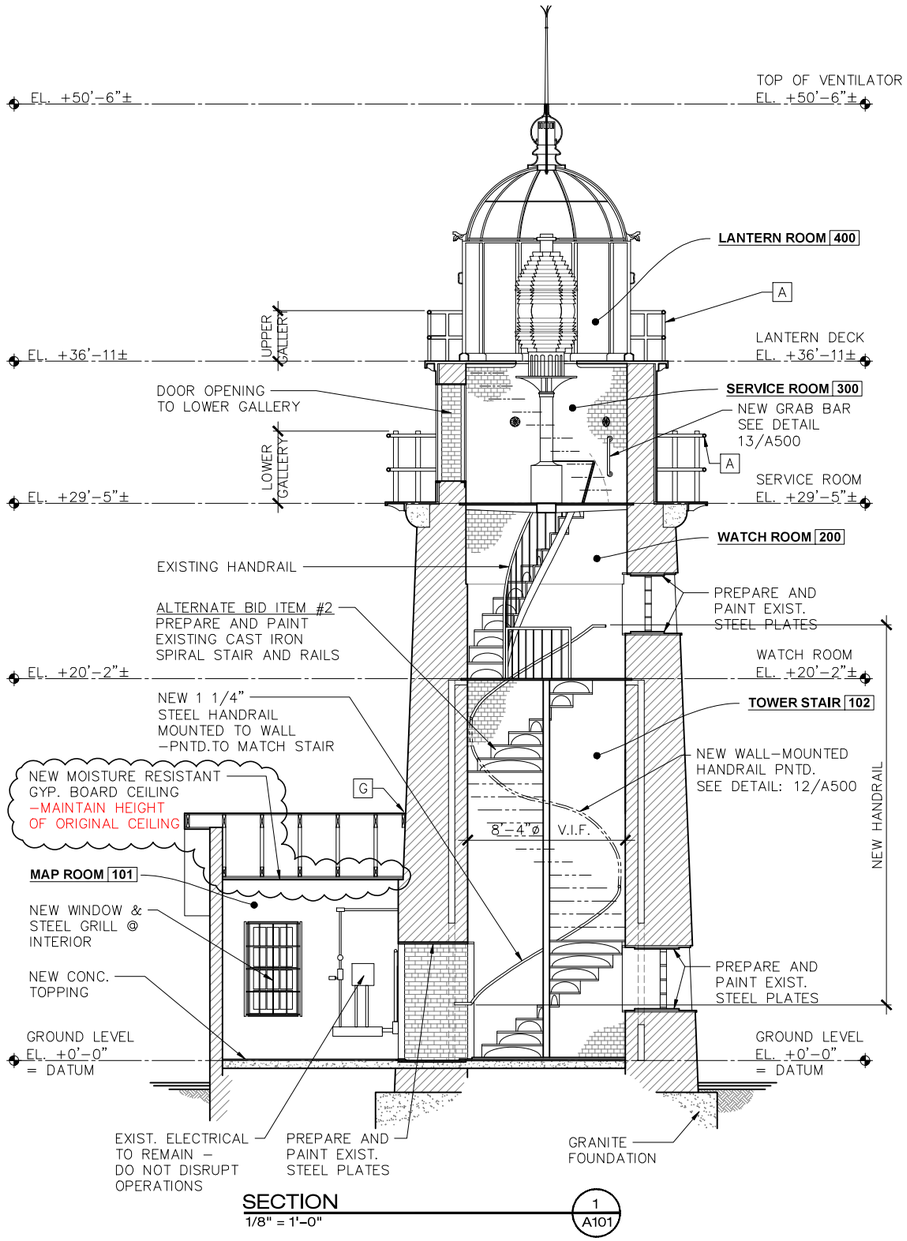
PROJ. NUMBER: 2023106 | DRAWN BY: EDJ

REV.	DATE	DESCRIPTION
1	05-31-2024	ADDENDUM 1 REVISIONS

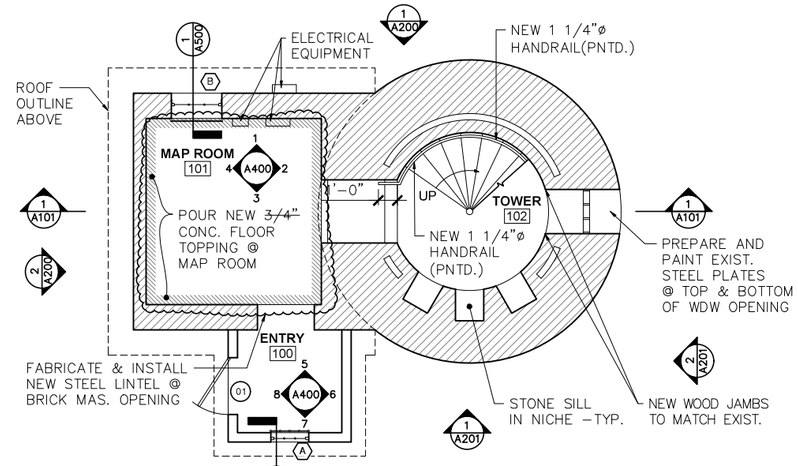
MAINE BUREAU OF PARKS & LANDS
LIGHTHOUSE & MAP ROOM RENOVATIONS
QUODDY HEAD STATE PARK, LUBEC, ME

DATE:
MAY 16, 2024

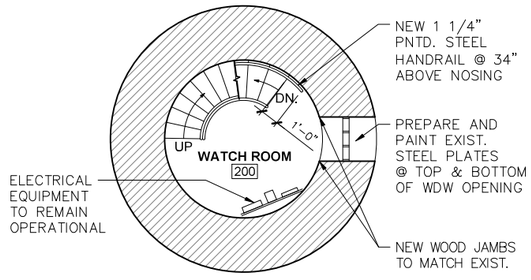
AE400



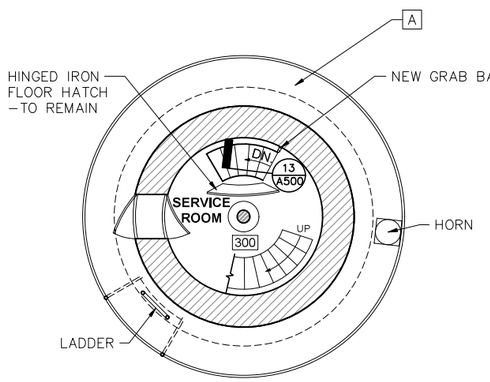
SECTION
1/8" = 1'-0"
1 A101



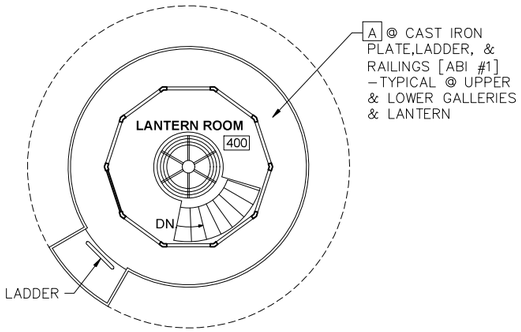
FLOOR PLAN - 1
1/8" = 1'-0"
2 A101



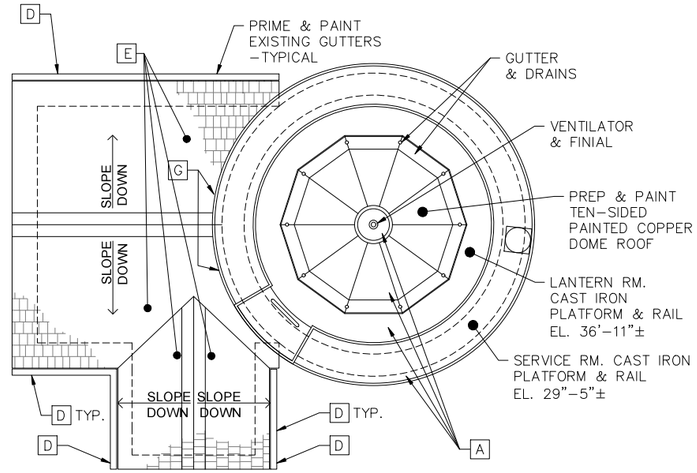
WATCH ROOM PLAN - 2
1/8" = 1'-0"
3 A101



SERVICE ROOM PLAN - 3
1/8" = 1'-0"
4 A101



LANTERN ROOM PLAN - 4
1/8" = 1'-0"
5 A101



ROOF PLAN
1/8" = 1'-0"
6 A101

REHABILITATION SCHEDULE:

- A — PREPARE AND PAINT PER SPECIFICATIONS ALL EXISTING EXPOSED METAL AT UPPER AND LOWER GALLERIES AND LANTERN [ABI #1]
- B — REPOINT & PAINT EXISTING MASONRY
- C — REPLACE & PAINT BRICK MASONRY
- D — RECONNECT GUTTERS TO DOWNSPOUTS AND PAINT
- E — PREPARE AND STAIN EXISTING ROOF SHINGLES
- F — PREPARE AND STAIN EXISTING WALL SHINGLES
- G — INSTALL NEW LEAD COATED COPPER STEP FLASHING

0' 2' 4' 8'

NORTH

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PLANS & SECTION

PROJ. NUMBER: 2023106 | DRAWN BY: EDJ

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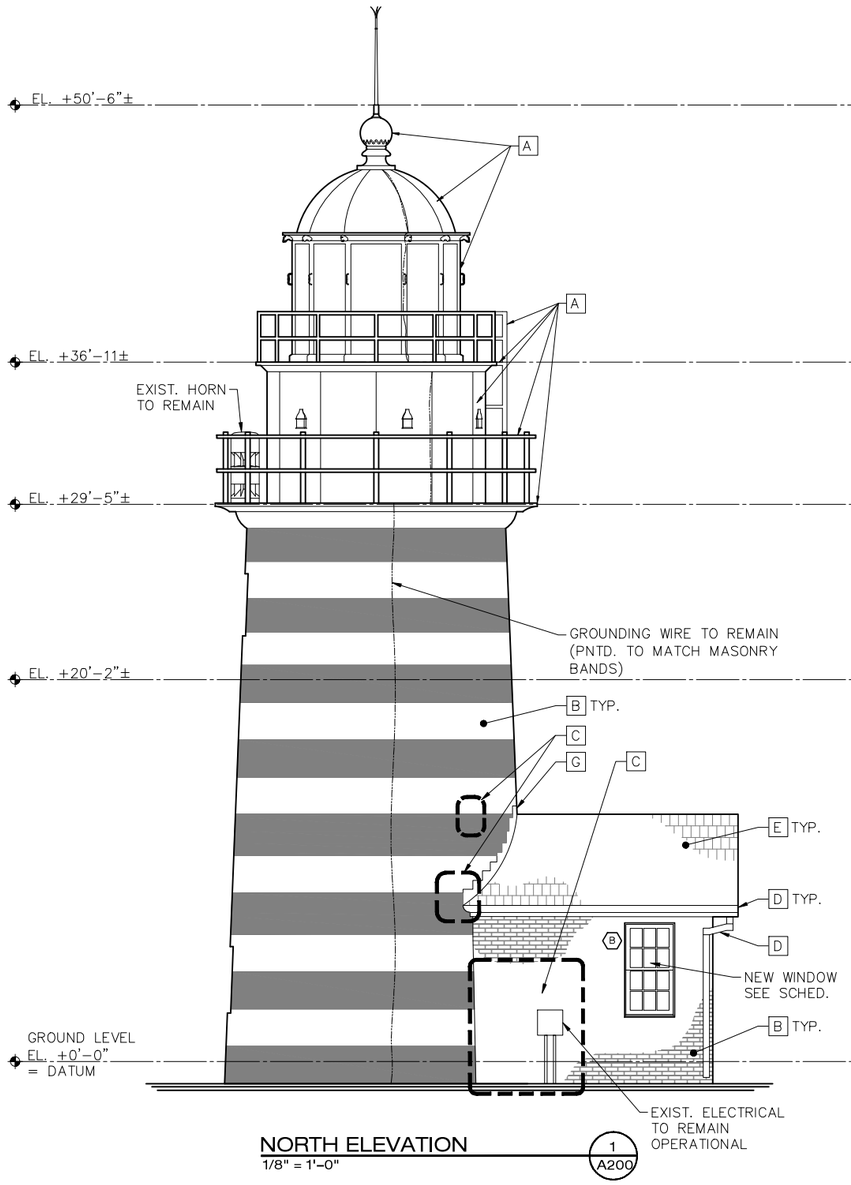
MAINE BUREAU OF PARKS & LANDS
LIGHTHOUSE & MAP ROOM RENOVATIONS
QUODDY HEAD STATE PARK, LUBEC, ME

DATE:
MAY 16, 2024

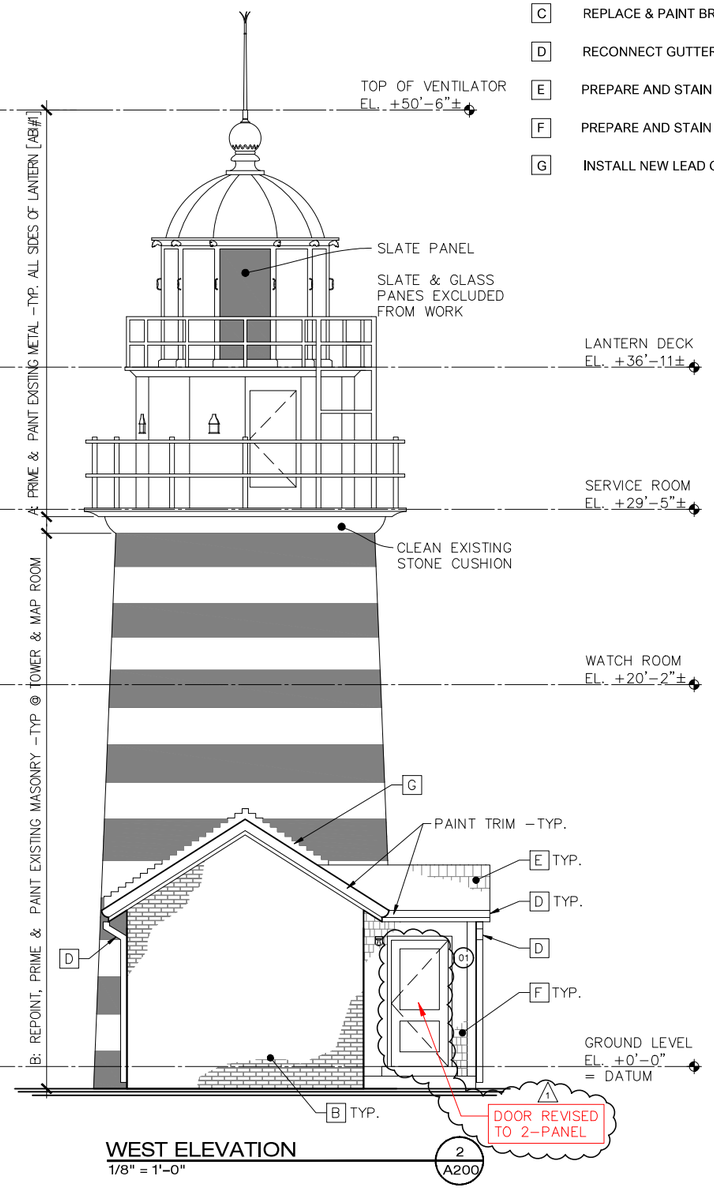
A101

REHABILITATION SCHEDULE:

- A — PREPARE AND PAINT PER SPECIFICATIONS ALL EXISTING EXPOSED METAL AT UPPER AND LOWER GALLERIES AND LANTERN [ABI #1]
- B — REPOINT & PAINT EXISTING MASONRY
- C — REPLACE & PAINT BRICK MASONRY
- D — RECONNECT GUTTERS TO DOWNSPOUTS AND PAINT
- E — PREPARE AND STAIN EXISTING ROOF SHINGLES
- F — PREPARE AND STAIN EXISTING WALL SHINGLES
- G — INSTALL NEW LEAD COATED COPPER STEP FLASHING



NORTH ELEVATION (1 / A200)
1/8" = 1'-0"



WEST ELEVATION (2 / A200)
1/8" = 1'-0"

SEE A201 FOR HEIGHT AND SPACING OF PAINTED BRICK MASONRY BANDS

0' 2' 4' 8'

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EXTERIOR ELEVATIONS

PROJ. NUMBER: 2023106 | DRAWN BY: EDJ

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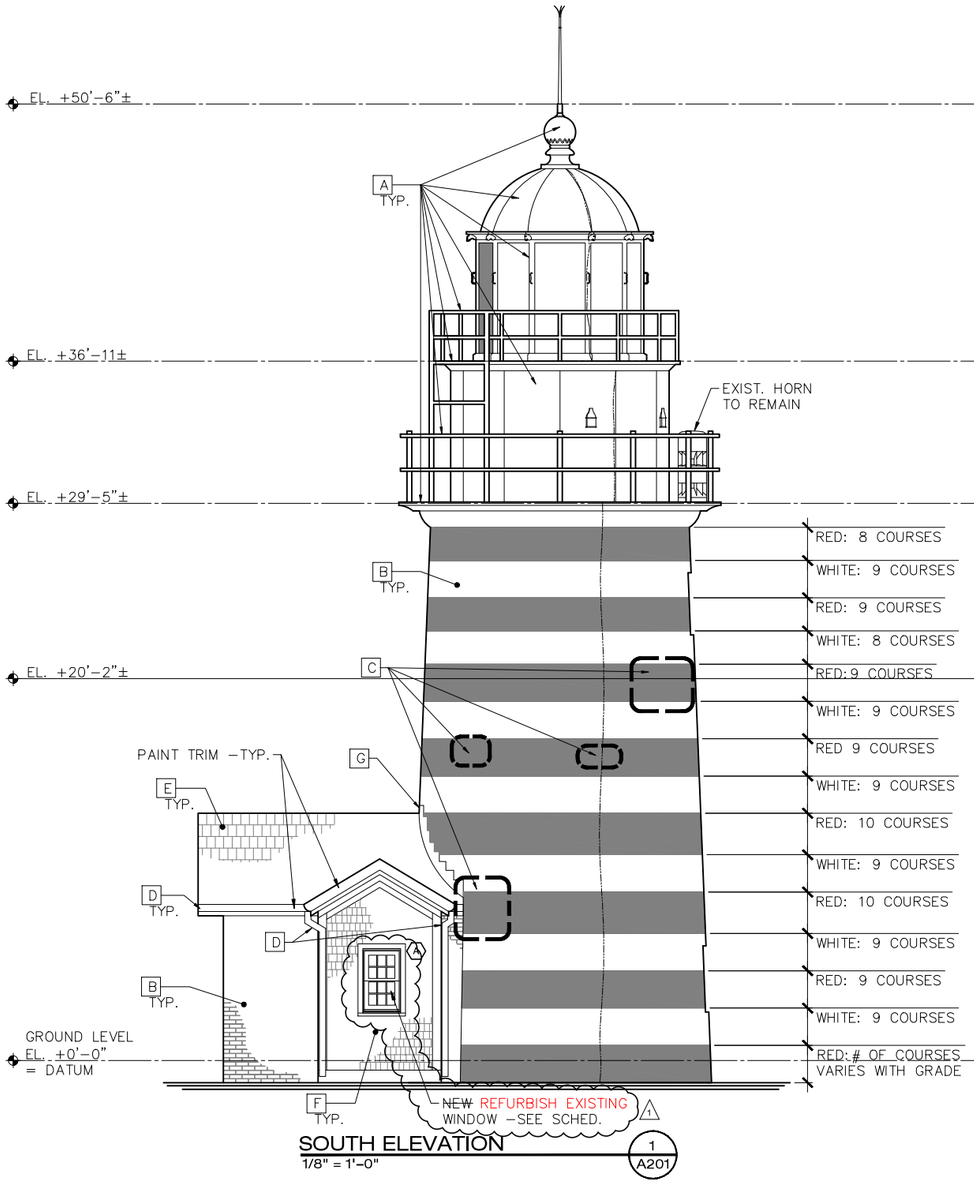
MAINE BUREAU OF PARKS & LANDS
LIGHTHOUSE & MAP ROOM RENOVATIONS
QUODDY HEAD STATE PARK, LUBEC, ME

DATE:
MAY 16, 2024

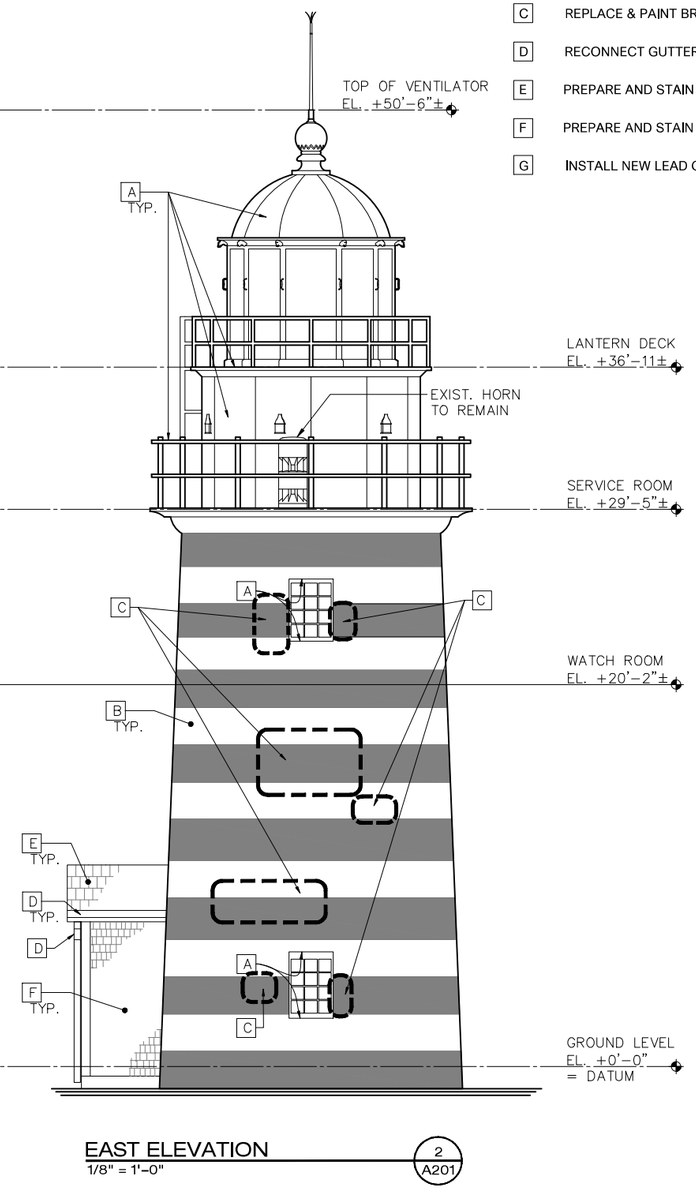
A200

REHABILITATION SCHEDULE:

- [A] PREPARE AND PAINT PER SPECIFICATIONS ALL EXISTING EXPOSED METAL AT UPPER AND LOWER GALLERIES AND LANTERN [ABI #1]
- [B] REPOINT & PAINT EXISTING MASONRY
- [C] REPLACE & PAINT BRICK MASONRY
- [D] RECONNECT GUTTERS TO DOWNSPOUTS AND PAINT
- [E] PREPARE AND STAIN EXISTING ROOF SHINGLES
- [F] PREPARE AND STAIN EXISTING WALL SHINGLES
- [G] INSTALL NEW LEAD COATED COPPER STEP FLASHING



SOUTH ELEVATION
1/8" = 1'-0"
1 A201



EAST ELEVATION
1/8" = 1'-0"
2 A201

0' 2' 4' 8'

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EXTERIOR ELEVATIONS

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MAINE BUREAU OF PARKS & LANDS
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QUODDY HEAD STATE PARK, LUBEC, ME

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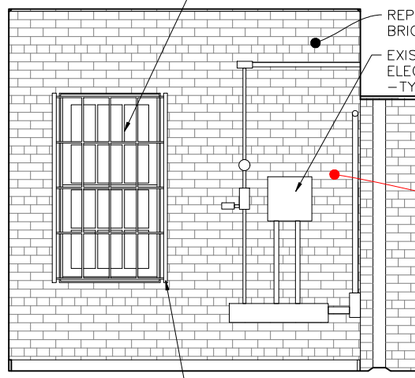
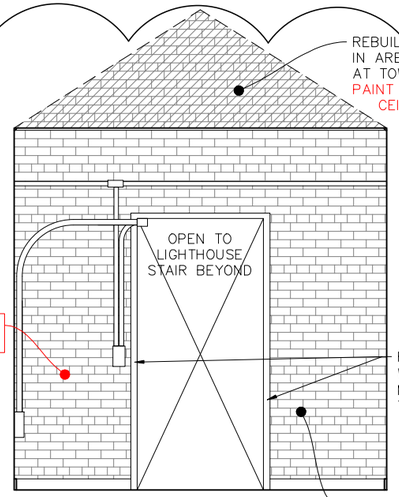
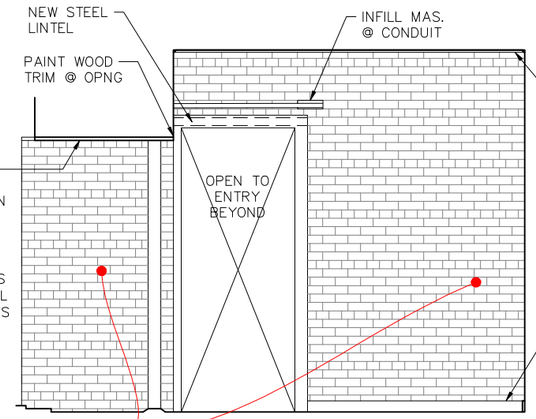
A201



MAP RM. 1 / A400
1/4" = 1'–0"



MAP RM. 2 / A400
1/4" = 1'–0"



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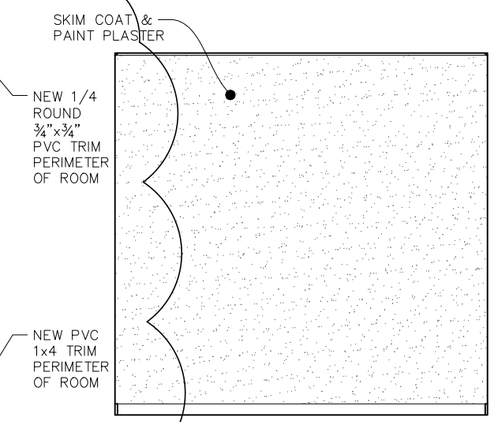
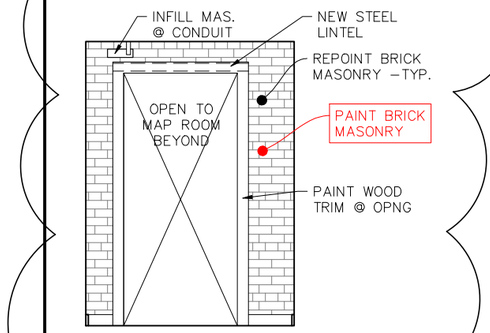
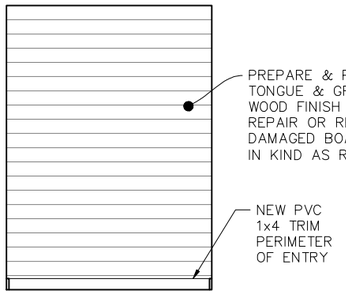
1/4" = 1'–0"



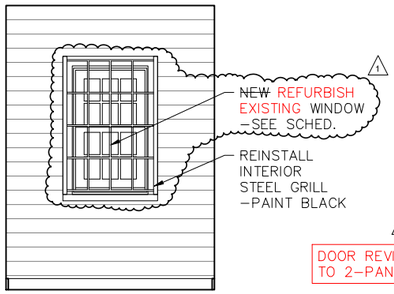
MAP RM. 4 / A400
1/4" = 1'–0"



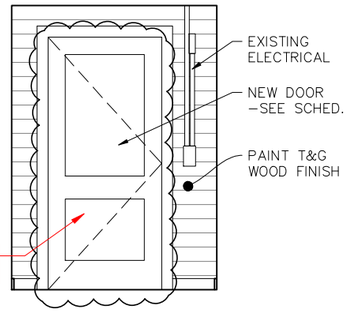
ENTRY 5 / A400
1/4" = 1'–0"



ENTRY 6 / A400
1/4" = 1'–0"



ENTRY 7 / A400
1/4" = 1'–0"



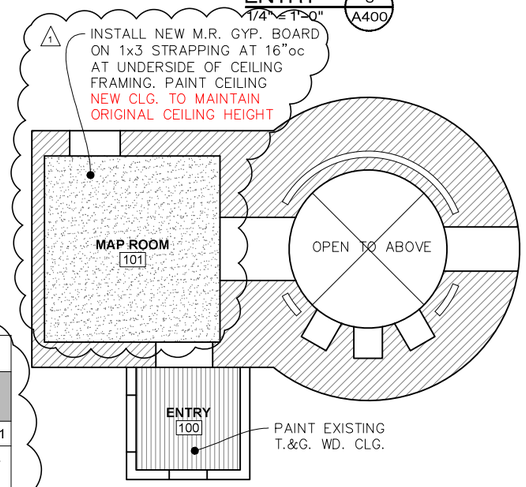
ENTRY 8 / A400
1/4" = 1'–0"

MATERIALS LEGEND
BRICK MASONRY
PLYWOOD PANELING
PLYWOOD
PLASTER/GYPSUM
MATCHED/ BEADBOARD
NON–SLIP CONC. TOPPING

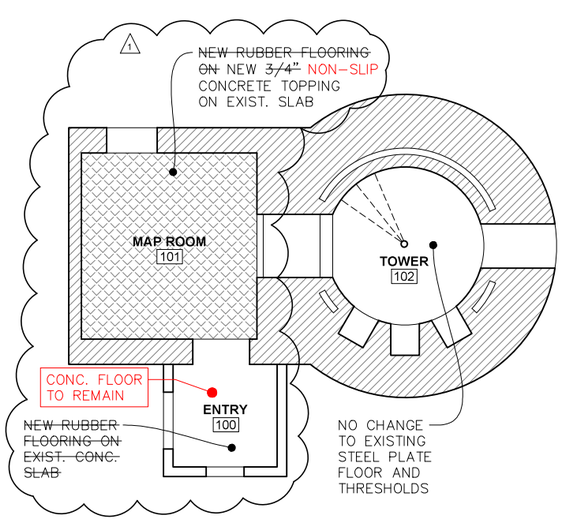
1

FINISH SCHEDULE

SPACE	SPACE NAME	FLOOR	FINISH	BASE	WALLS	FINISH	CEILING			NOTES
							MATERIAL	HEIGHT	FINISH	
100	ENTRY	~~RUBBER~~	-	PVC TRIM	WOOD (MATCHBOARD)	PAINT	EXIST. WOOD	7'-6"±	PAINT	PAINT BRICKS AT DOOR JAMBS TO RM101
101	MAP ROOM	~~RUBBER~~	-	PVC TRIM	EXIST BRICK (UNLESS NOTED)	PAINTED	M.R. GYP. BD	MATCH EXISTING	PAINT	CLEAN BRICKS AT PASSAGE TO TOWER. PAINT BRICKS AT PASSAGE. DO NOT PAINT BRICK IN TOWER.
WORK DESCRIBED BELOW IS PART OF ALTERNATE BID ITEM #1										
102	TOWER	-	-	-	-	REPOINT	IRON		PAINT	REPOINT BRICK MASONRY - DO NOT PAINT BRICK MASONRY. PAINT STEEL PLATES, COLUMNS, STAIRS AND STEEL WINDOW SILLS & LINTELS
200	WATCH RM	-	-	-	-	REPOINT	IRON		PAINT	
300	SERVICE RM	-	-	-	-	REPOINT	IRON		PAINT	
400	LANTERN RM	-	-	-	-	REPOINT	IRON		PAINT	



REFLECTED CEILING PLAN 9 / A400
1/8" = 1'–0"



FINISHES PLAN 10 / A400
1/8" = 1'–0"

0' 2' 4' 8'

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INTERIOR ELEVATIONS & FINISH PLANS

PROJ. NUMBER: 2023106 | DRAWN BY: EDJ

REV.	DATE	DESCRIPTION
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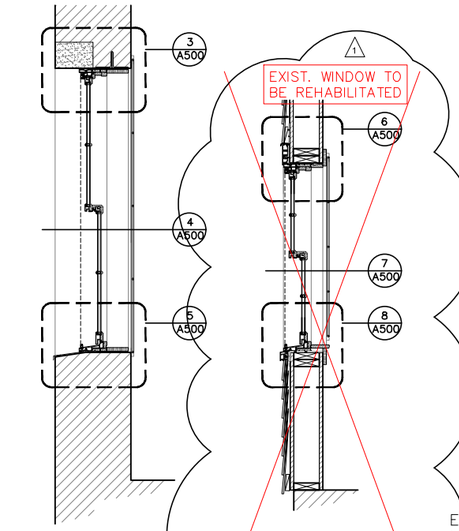
MAINE BUREAU OF PARKS & LANDS
LIGHTHOUSE & MAP ROOM RENOVATIONS
QUODDY HEAD STATE PARK, LUBEC, ME

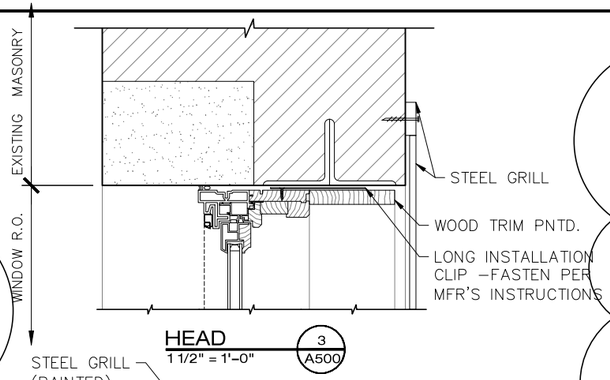
DATE:
MAY 16, 2024

A400

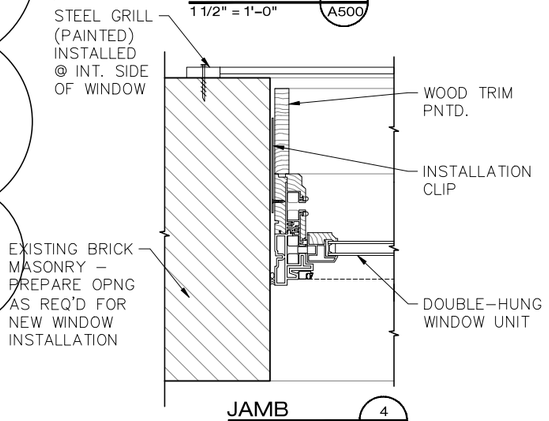


SECTION 1 — 3/8" = 1'-0" — A500

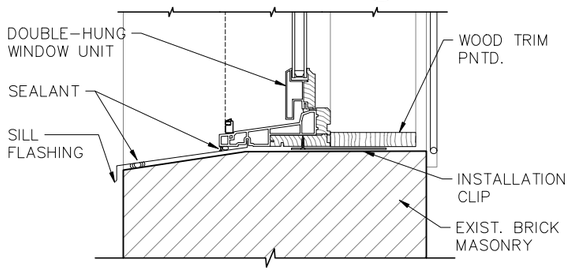
SECTION 2 — 3/8" = 1'-0" — A500



HEAD — 1 1/2" = 1'-0" — 3 A500

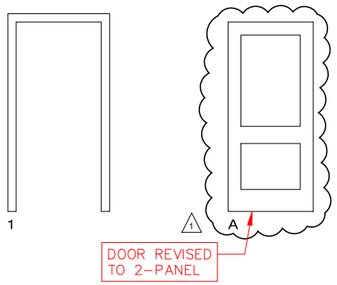


JAMB — 1 1/2" = 1'-0" — 4 A500



SILL — 1 1/2" = 1'-0" — 5 A500

DOOR & FRAME ELEVATIONS



DOOR AND FRAME SCHEDULE

DOOR						FRAME					CLOSER	HARDWARE	NOTES
#	EL.	GLAZING	MATL.	WD.	HGT.	EL.	MATL.	DETAIL HEAD	DETAIL JAMB	DETAIL SILL			
01	A	NONE	FIBERGLASS	3'-0"	6'-8"	1	MTL	9/A500	10/A500	11/A500	N	LVR LOCKSET	WEATHERSTRIPPED

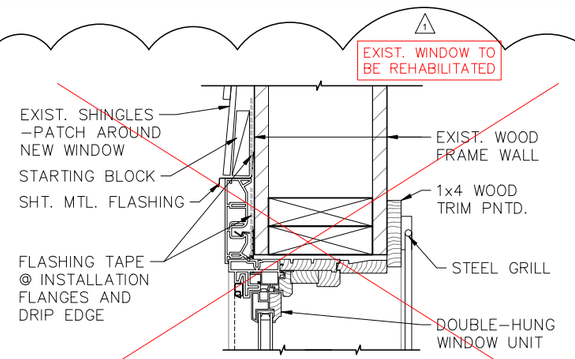
NOTE:
EXISTING CONDITIONS MAY VARY. CONTRACTOR TO VERIFY IN FIELD.

WINDOW SCHEDULE

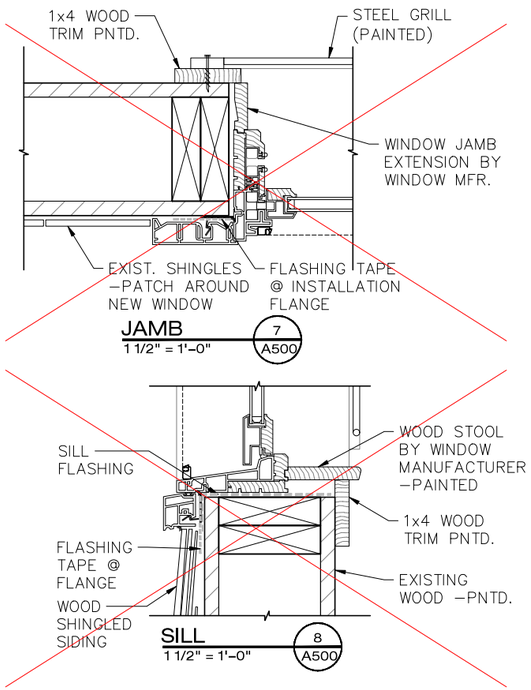
WINDOW										
MARK	TYPE	WIDTH R.O.	HEIGHT R.O.	GLASS	MATL.	SCREEN	DETAIL HEAD	DETAIL JAMB	DETAIL SILL	NOTES
A	SH	24"	40"	INSUL.	COMP.	Y	6/A500	7/A500	8/A500	REUSE EXISTING STEEL GRILL
B	SH	32"	60"	INSUL.	COMP.	Y	3/A500	4/A500	5/A500	FABRICATE & INSTALL STEEL GRILL

NOTE:
EXISTING CONDITIONS MAY VARY. CONTRACTOR TO VERIFY IN FIELD.

1 EXISTING WINDOW "A" TO BE REHABILITATED

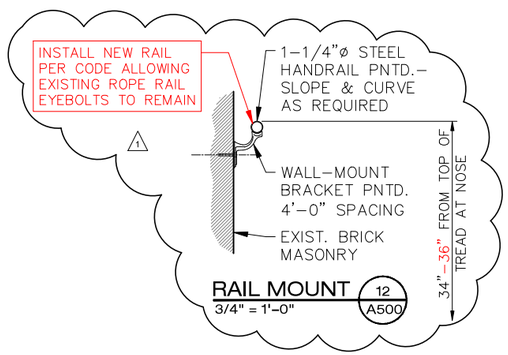


HEAD — 1 1/2" = 1'-0" — 6 A500

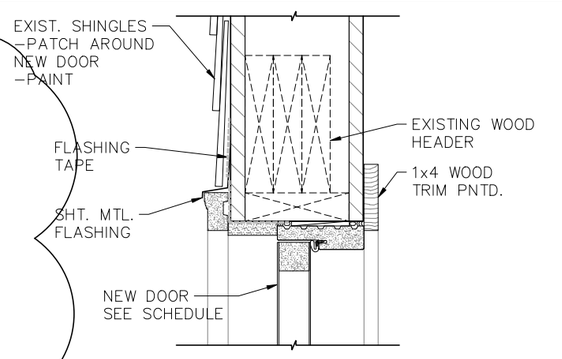


JAMB — 1 1/2" = 1'-0" — 7 A500

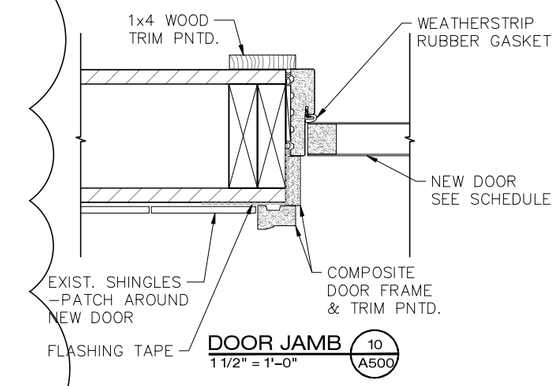
SILL — 1 1/2" = 1'-0" — 8 A500



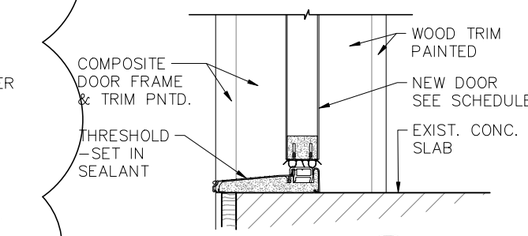
RAIL MOUNT — 3/4" = 1'-0" — 12 A500



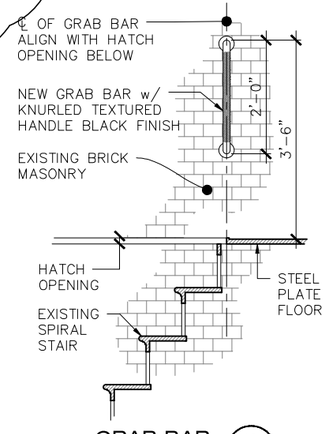
DOOR HEAD — 1 1/2" = 1'-0" — 9 A500



DOOR JAMB — 1 1/2" = 1'-0" — 10 A500



THRESHOLD — 1 1/2" = 1'-0" — 11 A500



GRAB BAR — 3/8" = 1'-0" — 13 A500

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DETAILS & SCHEDULES

PROJ. NUMBER: 2023106	DRAWN BY: EDJ
REV.	DATE	DESCRIPTION
1	05-31-2024	ADDENDUM 1 REVISIONS

MAINE BUREAU OF PARKS & LANDS
LIGHTHOUSE & MAP ROOM RENOVATIONS
QUODDY HEAD STATE PARK, LUBEC, ME

DATE:
MAY 16, 2024

A500