MONTGOMERY COUNTY HISTORIC PRESERVATION COMMISSION STAFF REPORT

Address: 12535 Milestone Manor Lane, Germantown Meeting Date: 5/24/2023

Resource: Master Plan Site #19/1 **Report Date:** 5/17/2023

Pleasant Fields (Basil Waters House)

Public Notice: 5/10/2023

Applicant: M-NCPPC

(Eileen Emmet, Montgomery Parks) Tax Credit: N/A

Review: HAWP Staff: John Liebertz

Permit Number: 1030740

PROPOSAL: Alteration of columns, fenestration alteration, hardscape alteration and addition of

mechanical units.

STAFF RECOMMENDATION

Staff recommends that the Historic Preservation Commission (HPC) <u>approve with one (1) condition</u> the HAWP application.

1. The drawing of the upper gable window on the west elevation—where the proposed lower sash would be removed for a metal louvered vent—shall be amended to reflect existing conditions with final review and approval delegated to staff.

ARCHITECTURAL DESCRIPTION

SIGNIFICANCE: Master Plan Historic Site STYLE: Vernacular Farmhouse DATE: ca. 1797 to 1900



Figure 1: The subject house at 12535 Milestone Manor Lane (noted with the yellow star). The red outline is the boundary of the Master Plan Historic Site.

PROPOSAL

The applicant proposes the following exterior alterations:

- 1) The installation of 2-inch diameter, aluminum louvered, screened vents near the base and capital of each porch column/post.
 - a. There are three (3) posts on the ca. 1797 section and four (4) posts on the early twentieth century section.
 - b. The vents would be placed on the backside of each post (facing the house);
- 2) The addition of two 3'x3' concrete pads supporting condenser units approximately 29"x29"x33" near the west elevation of the 1797 section of the house; and
- 3) The removal of the lower wood-sash of the six-over-six, double-hung, wood-sash window in the upper gable end of the west elevation of the mid-nineteenth century addition. The sash would be replaced with a metal louvered intake panel.

APPLICABLE GUIDELINES

In accordance with section 1.5 of the Historic Preservation Commission Rules, Guidelines, and Procedures (Regulation No. 27-97) ("Regulations"), in developing its decision when reviewing a Historic Area Work Permit application for an undertaking at a Master Plan site, the Commission uses the *Montgomery County Code ("Chapter 24A")*, the *Secretary of the Interior's Standards and Guidelines for Rehabilitation (Standards)*, and pertinent guidance in applicable master plans. [Note: where guidance in an applicable master plan is inconsistent with the Standards, the master plan guidance shall take precedence (section 1.5(b) of the Regulations).] The pertinent information in these documents, incorporated in their entirety by reference herein, is outlined below.

Montgomery County Code, Chapter 24A-8

The following guidance which pertains to this project are as follows:

- (b) The commission shall instruct the director to issue a permit, or issue a permit subject to such conditions as are found to be necessary to ensure conformity with the purposes and requirements of this chapter, if it finds that:
 - (1) The proposal will not substantially alter the exterior features of an historic site or historic resource within an historic district; or
 - (2) The proposal is compatible in character and nature with the historical, archeological, architectural or cultural features of the historic site or the historic district in which an historic resource is located and would not be detrimental thereto or to the achievement of the purposes of this chapter; or
 - (3) The proposal would enhance or aid in the protection, preservation and public or private utilization of the historic site or historic resource located within an historic district in a manner compatible with the historical, archeological, architectural or cultural value of the historic site or historic district in which an historic resource is located; or
 - (5) The proposal is necessary in order that the owner of the subject property not be deprived of reasonable use of the property or suffer undue hardship; or
- (c) In the case of an application for work on an historic resource located within an historic district, the commission shall be lenient in its judgment of plans for structures of little historical or design significance or for plans involving new construction, unless such plans would seriously impair the

historic or architectural value of surrounding historic resources or would impair the character of the historic district. (Ord. No. 9-4, § 1; Ord. No. 11-59.)

Secretary of the Interior's Standards for Rehabilitation

The Secretary of the Interior defines rehabilitation as "the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features, which convey its historical, cultural, or architectural values." The applicable *Standards* are as follows:

- 2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
- 5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
- 6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
- 9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
- 10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

STAFF DISCUSSION

The Maryland-National Capital Park and Planning Commission (M-NCPPC) owns Pleasant Fields (also known as Pleasant Fields and Basil Waters House). The property consists of an 18th and 19th century farm complex located northwest of Neelsville, east of Route 270 in Montgomery County. The subject house was built in three distinct phases. The oldest section is a two-story, three-bay brick structure covered with a gable roof and erected ca. 1797. The middle section, built in the mid-19th century, is a somewhat larger, two-story, two-bay brick structure with paired end chimneys. A semi-hexagonal bay with round arched windows is located on the first story of the façade. The most recent section, the east end section, was built in the early twentieth century and is a large, three-bay-wide, front-gable frame structure. A bracketed cornice ornaments the front gable as does a bracketed porch. The previous owners renovated the property prior to its acquisition by M-NCPPC. Several HAWPs approved by the HPC are available online but none are relevant to this application. In addition, the Maryland Historical Trust (MHT) holds a preservation easement on the property.

3

¹ For more information, https://mcatlas.org/tiles/06 HistoricPreservation PhotoArchives/Padlock/HAR60640007/Box057/19-1-99A Waters%20(Dr.%20William%20A.)%20House 12535%20Milestone%20Manor 02-24-1998.pdf.





Figure 2: The subject house at 12535 Milestone Manor Lane, 1974 (left), and current aerial photograph showing the house and associated outbuildings, 2022 (right).

Source: Montgomery Planning and ConnectExplorer.

The applicant proposes a substantial rehabilitation of the interior and exterior of the house. Most of the proposal consists of either the repair or in-kind replacement of deteriorated elements and do not require a HAWP. There are three exterior alterations that require review and approval by the HPC including the installation of vents on seven porch posts, addition of two concrete pads and condenser units, and replacement of a lower-sash of a window with a louvered vent.

Ventilation of the Porch Posts

Staff finds the proposed installation of 2-inch diameter, aluminum louvered, screened vents near the base and capital of each porch column/post to be consistent with the applicable guidelines and recommends approval. The applicant noted that the plinth (base) of the posts have started to rot due to water infiltration. Internal ventilation of posts and columns is extremely important to prevent rot. This is accomplished with ventilation near the base and capital of the columns. Many post and columns feature gaps or grooves cut along the bottom edges of their plinths which permits the drainage of any collected water. The design of the base of these posts, however, rests flush with the porch flooring and provide no drainage. Ventilation near the capital often occurs on the interior of the posts and columns via a two-inch vent hole through the capital and soffit if there is a hollow entablature. Another non-visible option is a hole drilled diagonally through the top of the capital which is protected from weather on the inside of the porch. This option negatively affects any flashing over the capital. None of these options at the plinth or capital of the subject posts is appropriate due to the design of the porch or scope of the rehabilitation. The last option (proposed by the applicant) is the installation of vents through the face of the posts or columns at the base and capital. The vents would be placed on the backside of the posts (facing the house) to limit any affect to the facade (Figure 3). While these vents would not be hidden, this simple alteration supports the long-term preservation and maintenance of a character defining feature of the house per Standard #5 of the Secretary of the Interior's Standards for Rehabilitation.



Figure 3: The subject porch posts, 2023 (left and center), and proposed location (blue circles) of vents on each column.

Source: Montgomery Parks.

Installation of Concrete Pads and Condensers

Staff finds the proposed installation of two 3'x3' concrete pads supporting condenser units approximately 29"x29"x33" in size to be consistent with the applicable guidelines and recommends approval. The applicant proposes to place the units near the west (side) elevation of the ca. 1797 section of the house (*Figure 4*). This area, however, lacks any fenestration and visibility from the public rights-of-way due to the siting of the house relative to Millhouse Manor Lane. Furthermore, an existing condenser unit (to be removed) is currently in this location.

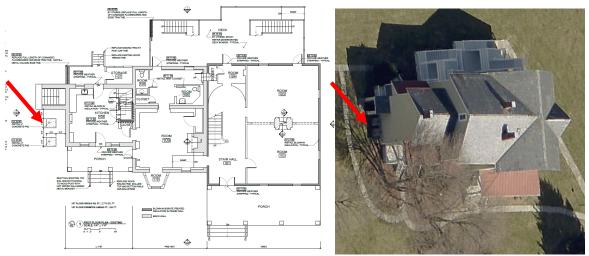


Figure 4: The proposed location of the two concrete pads and condenser units (red arrows). Source: Montgomery Parks and Connect Explorer.

Replacement of Lower-Sash of Window with Louvered Intake Vent

Staff finds the replacement of the lower-sash of the window in the upper gable end of the west elevation of the mid-nineteenth century addition with a metal louvered intake vent to be consistent with the applicable guidelines and recommends approval. The window—particularly the lower-sash— has less visibility due to its placement directly above the ridge of the ca. 1797 section and is not a primary character defining feature of the property. The applicant proposes to retain the more visible six-light, upper-sash and paint the louvered vent to match the color of the window. The removal of the lower sash would have minimal adverse effect to the character of the historic site. Furthermore, the proposal would permit the reinstallation of the lower-sash (which will be returned to the applicant upon removal) in the future as the integrity of the opening remains intact. The proposal, however, incorrectly documents a nine-light upper sash instead of the existing six-light upper sash. Staff recommends the applicant amend the drawing to reflect this condition.



Figure 5: View of the west elevation showing the subject window (red arrows) and the proposed louvered intake vent to replace the lower-sash of the window. Source: Montgomery Parks, Connect Explorer, and Ruskin.

STAFF RECOMMENDATION

Staff recommends that the Historic Preservation Commission (HPC) <u>approve with one (1) condition</u> the HAWP application with final approval of all details delegated to staff:

1. The drawing of the upper gable window on the west elevation—where the proposed lower sash would be removed for a metal louvered vent—shall be amended to reflect existing conditions with final review and approval delegated to staff.

under the Criteria for Issuance in Chapter 24A-8(b), (1), (2), (3), and (5), and (c), having found that the proposal will not substantially alter the exterior features of the historic resource and is compatible in character with the district and the purposes of Chapter 24A;

and with the Secretary of the Interior's Standards for Rehabilitation #2, #5, #6, #9, and #10;

and with the general condition that the applicant shall present an electronic set of drawings, if applicable, to Historic Preservation Commission (HPC) staff for review and stamping prior to submission for the Montgomery County Department of Permitting Services (DPS) building permits;

and with the general condition that final project design details, not specifically delineated by the Commission, shall be approved by HPC staff or brought back to the Commission as a revised HAWP application at staff's discretion;

and with the general condition that the applicant shall notify the Historic Preservation Staff if they propose to make any alterations to the approved plans. Once the work is completed the applicant will contact the staff person assigned to this application at 301-563-3400 or john.liebertz@montgomeryplanning.org to schedule a follow-up site visit.



APPLICATION FOR HISTORIC AREA WORK PERMIT HISTORIC PRESERVATION COMMISSION 301.563.3400

DATE ASSIGNED____

FOR STAFF ONLY:

HAWP#_

APPLICANT:

Name:	E-mail: _	
Address:	City:	Zip:
Daytime Phone:	Tax Acce	count No.:
AGENT/CONTACT (if applicab	le):	
Name:	E-mail: _	
Address:	City:	Zip:
Daytime Phone:	Contrac	ctor Registration No.:
LOCATION OF BUILDING/PRE	MISE: MIHP # of Historic Propert	ty
map of the easement, and docu Are other Planning and/or Hear	umentation from the Easement H	ement on the Property? If YES, include a Holder supporting this application. Is Required as part of this Application? Tormation on these reviews as
Building Number:	Street:	
Town/City:	Nearest Cross Street:	
Lot: Block:	Subdivision: F	Parcel:
	itted with this application. Inc	verify that all supporting items complete Applications will not Shed/Garage/Accessory Structure Solar Tree removal/planting Window/Door Other:
and accurate and that the cons	struction will comply with plans re	application, that the application is corrective eviewed and approved by all necessary dition for the issuance of this permit.

Adjacent and Confronting Properties:

Germantown, MD 20876

12615 Royal Crown Drive

12604 Milestone Manor Lane

12602 Milestone Manor Lane

12600 Milestone Manor Lane

12523 Eagle View Way

12532 Milestone Manor Lane

Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:
Description of Work Proposed: Please give an overview of the work to be undertaken:



April 25, 2023

Ms. Rebeccah Ballo, Historic Preservation Supervisor Montgomery County Planning Department 2425 Reedie Drive Wheaton, MD 21032

Copy via email to: HAWP@montgomeryplanning.org

Dear Ms. Ballo,

Re: M-19-1 Pleasant Fields (Waters House), 12535 Milestone Manor Lane, Germantown, MD

Please find attached HAWP application materials to complete exterior repairs at the above-mentioned property. A copy of our April 10 application to the Maryland Historical Trust for interior and exterior repairs is attached plus a supplemental application to MHT April 25. A building permit will not be obtained due to the repair nature of the work and Park staff occupancy. If you have any questions, I can be reached at 301.495.2550.

Thank you.

Sincerely,

Eileen Emmet, RA, AIA

Architectural and Special Projects Section

M-NCPPC | Montgomery Parks | Park Development Division

2425 Reedie Drive, 11th Floor | Wheaton, MD 20902

Office: 301.495.2550 | Fax: 301.585.1921

Attachments:

- A. HAWP Application
- B. HAWP Written Description
- C. April 10, 2023, MHT Application Materials
 - 1. Transmittal Letter
 - 2. MHT Applications, Work Description and Photos
 - 3. Drawings
 - 4. Specifications
- D. April 25, 2023, MHT Additional Information Application

Written Description of Project—M-19-1, Waters House Building Envelop Repairs

1a. Description of existing structure, environmental setting, including their historical features and significance

The Waters House (also known as Pleasant Fields/Basil Waters House, M19/001-000A) is a M-NCPPC, Montgomery Parks historic site located at 12535 Milestone Manor Lane, Germantown, Md 20876. The house resides in a 3.69-acre environmental setting with other farmhouse outbuildings, locally designated as a Montgomery County Historic Resource (c. 1797). The Maryland Historical Trust holds an easement on the property.

Waters House is illustrative of a late 18th to early 20th Century vernacular farmhouse. The house is two and three stories, built in three distinct phases. The western most block consists of the original 2-story farmhouse constructed in 1797 with two later additions added to the east. The first addition, the central 3-story block, was constructed pre-1857 and a second larger 3-story addition was constructed in the 1890's. The house was renovated in the 1990s prior to M-NCPPC ownership.

1b. General description of the project and its effect on the resource.

The project has interior and exterior work governed by the MHT Easement. Exterior repairs specific to this HPC review include: Replacement Wood Shutters; Louver Repair; Porch Column, Floorboards and Railing Repairs; Door Repairs; Wood Clapboard Repairs, Stone Foundation Repairs.

Interior repairs requiring MHT review include energy efficiency improvements such as installation of HVAC equipment and ductwork on the 3rd floor, and wall, floor, and ceiling insulation throughout. To improve the building's functionality and longevity, additional interior repairs will be made: structural, carpentry, masonry, electrical, plaster repairs and painting. Specific work items are listed in the MHT Detailed Work Description Form for our MHT Easement Committee Submission dated April 10 and April 25, attached.

A building permit will not be obtained due to the repair nature of the work and Park staff occupancy. All work will be completed according to the *Secretary of the Interior's Standards for Rehabilitation* and according to the attached plans and specifications. The repairs will have no adverse effect on the building or site and will not mar the integrity of the location, design, setting, materials, workmanship, feeling or association.

There is no adverse effect to the environmental setting.

2. Site Plan: See site plan in architectural plans in MHT Submission

3. Plans and Elevations: See architectural plans in MHT Submission

4. Materials Specification: See compiled specs in MHT Submissions

5. Photographs: See photos in MHT Submissions

6. Tree Survey: N/A

7. Addresses of Adjacent and Confronting Property Owners: Will provide if project is required to have HPC review.

Detailed Work Description Form

(Include all construction, reconstruction, improvement, enlargement, painting and decorating, alteration, demolition, maintenance or repair, and excavation)

Work Item # 23

Architectural/Landscape feature: 1797 Block and 1890s Block - Front Porch Column Bases Approximate date of feature: The wood porch framing, flooring and columns are late 20 th c. or early	Describe, in detail, the proposed work and impact on existing feature: Be sure to include details and specifications on proposed products	
21st c. Describe existing feature and its condition:	Photo no. 23- 1,2,3	Drawing no. A101, Illustration A
The column bases (at free-standing locations at the front edge of the porch deck) are beginning to rot due to water infiltration that is not drying out properly.	As a preventive m small, 2" diameter vents be installed column on the fror locations, 1890s B These vents will all away excess mois this historic feature Although small, the	easure, we recommend that aluminum louvered and screened near the base and tops of each at porches. 1797 Block – 3 Block – 4 locations (see photos). Blow convective air flow to carry sture, thereby prolonging the life of e which has a unique profile. The vents shall be installed on the lumns so that they cannot be t of the building.

Work Item # 24

Architectural/Landscape feature: 1st Floor, Front Door Hinges	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: Mid-19 th C.	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 24- 1,2,3	Drawing no. A101
The main door at the south elevation is a step up from the porch floor. A decorative trim surrounds the pair of doors and two-lite transom. The doors have a single panel with raised trim and a single pane of glass above. The active leaf of the door has a mortise lock with a knob.	larger than the exi cast-iron. Larger s hinges are recomr because we don't	s, as shown in the photos, were sting ones and likely made of olid-brass, rectangular butt mended as replacement hinges know what the originals looked crew holes will be filled so the ip the jambs.
The door hinges are solid brass (Meant for light weight doors) holding up solid wood/glass doors. It has caused the hinges to mushroom out and separate/space apart.		

Work Item # 25

Architectural/Landscape feature: 1st Floor, Rear Door Hinges	Describe, in deta impact on existir	il, the proposed work and ng feature:
Approximate date of feature: Mid-19 th C.	Be sure to include proposed product	le details and specifications on cts
Describe existing feature and its condition:	Photo no. 25-1,2,3	Drawing no. A101
The rear exterior doors are typically single-leaf paneled doors with a transom. Possibly replaced with the 1990s renovation and non-contributing. This door opens onto the deck. It has cabinet hinges holding up the door. They are not rated for door use and are quite small. You can see that there were two other sets of hinges on the frame at one point or another in time.	larger than the exicast-iron. Larger shinges are recommended because we don't	s, as shown in the photos, were sting ones and likely made of solid-brass, rectangular butt mended as replacement hinges know what the originals looked screw holes will be filled so the rip the jambs.

Work Item # 26

Architectural/Landscape feature: 2 nd Floor, Rear Deck Door Repair	Describe, in det impact on existi	ail, the proposed work and ng feature:
Approximate date of feature: Unknown. Non-contributing.	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 26- 1,2,3	Drawing no. A101
The rear exterior doors are typically single-leaf paneled doors with a transom. Possibly replaced with the 1990s renovation and non-contributing.	Patch with wood	consolidating material and paint.
Rotting is occurring at mid-point of door. Approximately 4-in long x ¾-in deep.		

PHOTOGRAPHS:



Photo 23-1: 1797 Block 3 Free-standing columns



Photo 23-2: 1890s Block 4 Free-standing columns



Photo 23-3: 1797 Block Proposed Vent Locations

Approximate location vents, top and bottom of column



24-1 1890's Block, Front Door



Photo 24-2: 1890s Block, Front Door Hinge



Photo 24-3: 1890s Block, Front Door Hinge

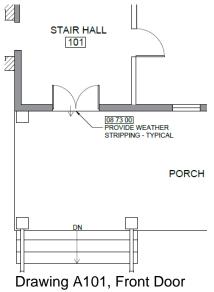




Photo 25-1 1850s Block, Rear Door

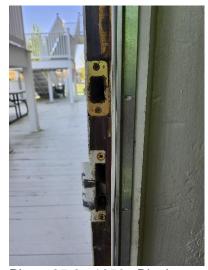
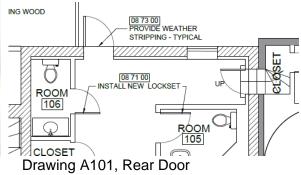


Photo 25-2: 1850s Block Door Jamb, Adjacent Rm 106



Photo 25-3: 1850s Block Hinge



5

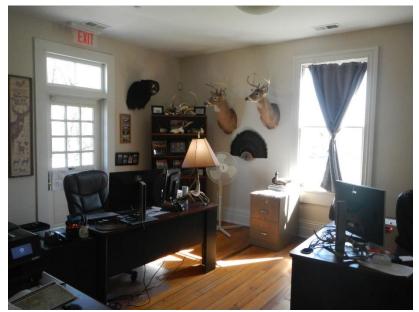
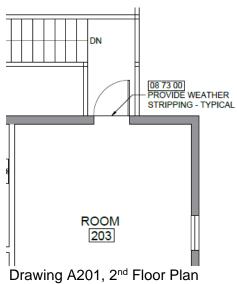


Photo 26-1 1890s 2nd Floor Rear Door



PLEASE Do NOT OPEN

Photo 26-2: 1890s Block Rear Door, Rm. 203



Photo 26-3: 1890s Block Rear Door, Rm. 203

Detailed Work Description Form

(Include all construction, reconstruction, improvement, enlargement, painting and decorating, alteration, demolition, maintenance or repair, and excavation)

Work Item # 1

Architectural/Landscape feature: Rear Porch Floor	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: Although the stone piers supporting the porch appear to be original from 1797, the wood porch framing, flooring and columns are late 20 th c. or early 21 st c.	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 01A, 01B	Drawing no. A101
Five fir floorboards and edge trim below the corner 4 x 4 column are severely rotted; the stair treads are worn and cracked.		

Work Item # 2

Architectural/Landscape feature: Rear Deck Floorboards	Describe, in deta impact on existir	il, the proposed work and ng feature:
Approximate date of feature: 1994	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 02A, 02B	Drawing no. A101
In the 1994 rear deck addition there are small areas of rot at approximately 20 wood floorboards and severe floorboard rot at five floorboards below one railing post.	with epoxy wood f disconnected, the replaced to match resistant wood of the existing, and the	reas will be cut out and patched filler. The railing post will be severely rotted flooring will be the existing with naturally rot same size, shape and profile as he post reconnected. The new e painted to match the existing

Work Item #3

Architectural/Landscape feature: Wood Clapboards	Describe, in deta impact on existin	il, the proposed work and g feature:
Approximate date of feature: 19 th c.	Be sure to include details and specifications of proposed products	
Describe existing feature and its condition:	Photo nos. 03A, 03B, 03C	Drawing no. A202, A203
Clapboards at the bottom of the east elevation of the 1890's block and the bottom of the north porch enclosure at the 1797 block are severely deteriorated by dry rot. Two clapboards at the top of the electric meter on the east elevation of the 1890's block are partially deteriorated.	electric meter will I wood filler. The se will be replaced to	iorated areas of clapboards at the be cut out and patched with epoxy verely deteriorated clapboards match the existing with naturally of same size, shape and profile

Work Item #4

Architectural/Landscape feature: Porch Railing	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: 1994	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition: The east side railing of the 1797 block front porch steps is severely deteriorated.	Photo no. 04 Drawing no. A101 The railing will be replaced with naturally rot resistant wood top and bottom rails and square balusters matching the existing in size, shape and profile. Connectors will be galvanized steel.	

Work Item #5

Work Rolli #6		
Architectural/Landscape feature: Wood Louver	Describe, in detail, the proposed work and	
	impact on existing feature:	
Approximate date of feature: 19th c.	Be sure to include details and specifications on	
	proposed products	
Describe existing feature and its condition:	Photo no. 05 Drawing no. A200	
The wood louver in the front basement opening has	The louver will be removed, new slats installed to	
two broken slats.	match the existing size and profile, and the louver	
	reinstalled.	

Work Item #6

Architectural/Landscape feature: Window Shutters	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: 20 th c.	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 06A, 06B, 06C Drawing no. A200	
The wood louvered shutters have cast-iron pintle hinges and fasters, and hinges. The shutters are in poor condition and falling off the building.	The hardware will be salvaged, stripped, painted and reinstalled on new naturally rot resistant woo shutters matching the existing in size, shape, pro and construction method.	

Work Item #7

Architectural/Landscape feature: Stone foundations	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: 1797	Be sure to include details and specifications of proposed products	
Describe existing feature and its condition:	Photo no. 7A, 7B, 7C	Drawing no. A100, A201
Although the foundations are in generally good condition, there are voids at two locations in the 1797 block due to missing stones and mortar is missing at some locations.	Mortar analysis will be performed. New stones matching the existing will be installed and limited repointing with mortar matching the original will left performed.	



April 25, 2023

Administrator, Easement Program Maryland Historical Trust Maryland Department of Planning 100 Community Place Crownsville, MD 21032

Copy via email to: mht.easements@maryland.gov

To Whom It Concerns,

Re: M-19-1 Pleasant Fields (Waters House), 12535 Milestone Manor Lane, Germantown, MD

This letter transmits documentation required for Easement Committee Review of additional building envelop repairs being planned for the house. A Detailed Work Description and Photographs are provided for these items:

Work Item #23: Front Porch Column Vents

Work Item #24: Front, 1st Floor, Door Hinge Replacement

Work Item #25: Rear, 1st Floor, Door Hinge Replacement

Work Item #26: Rear, 2nd Floor, Door Repair

A response by mid-May would be greatly appreciated so we can stay on schedule to bid the work.

Thank you.

Sincerely,

Eileen Emmet, RA, AIA

Ein Funt

Architectural and Special Projects Section

M-NCPPC | Montgomery Parks | Park Development Division

2425 Reedie Drive, 11th Floor | Wheaton, MD 20902

Office: 301.495.2550 | Fax: 301.585.1921 | Cell: 301.275.2550

GENERAL NOTES

- ALL WORK SHALL COMPLY WITH ALL FEDERAL. STATE AND LOCAL LAWS. ORDINANCES RULES, REGULATIONS, CODES, AND GUIDELINES.
- 2. DO NOT SCALE DRAWINGS.
- 3. CONTRACTOR SHALL VERIFY IN FIELD (VIF) ALL SITE CONDITIONS, UTILITIES, ELEVATIONS, SECTIONS, AND DIMENSIONS PRIOR TO THE START OF WORK. CONTRACTOR IS RESPONSIBLE FOR SURVEY, LAYOUT, AND COORDINATION OF ALL WORK. ANY DISCREPANCIES IN DIMENSIONS AND CONDITIONS. OR DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE M-NCPPC IMMEDIATELY.
- 4. ALL DIMENSIONS SHOWN ON DRAWINGS ARE NOTED FROM FINISH MATERIAL TO FINISH MATERIAL, UNLESS OTHERWISE NOTED.
- 5. FLOOR ELEVATIONS ARE TO THE TOP OF FINISHED FLOOR UNLESS OTHERWISE NOTED. 6. CEILING HEIGHT DIMENSIONS ARE TO FINISHED SURFACE OF CEILING UNLESS OTHERWISE
- 7. ALL FIRE RATED CONSTRUCTION, IF INDICATED, SHALL CONFORM WITH UL TESTED STANDARDS AND/OR LOCAL REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION
- CONTRACTOR TO VERIFY THAT ALL EXISTING RATED WALLS (INCLUDING PENETRATIONS) WERE CONSTRUCTED TO MEET CURRENT REQUIREMENTS FOR A RATED WALL ASSEMBLY, IF DISTURBED, ASSOCIATED OR ADJACENT TO PROJECT SCOPE. CONTRACTOR SHALL NOTIFY THE M-NCPPC OF ANY NON-CONFORMANCE THAT DO NOT APPLY.
- ABBREVIATIONS THROUGHOUT THE PLANS ARE THOSE IN COMMON USE. IF THE MEANING OF AN ABBREVIATION IS UNCLEAR, NOTIFY THE M-NCPPC FOR CLARIFICATION.
- 10. CONTRACTOR SHALL COORDINATE AND PROVIDE ALL NECESSARY BLOCKING, BRACING STIFFENERS, AND CARRIERS WITHIN WALLS AND CEILINGS AS REQUIRED TO SUPPORT ITEMS TO BE ATTACHED OR HUNG FROM WALLS OR CEILINGS TO MAKE THE WORK COMPLETE 11. PROVIDE SEALANT AT ALL FIXTURES AND CHANGE IN MATERIAL - TYPICAL
- 12. ALL WORK SHALL BE DONE IN A WORKMAN LIKE MANNER AND IN CONFORMANCE WITH MANUFACTURER'S INSTALLATION AND GUARANTEE REQUIREMENTS
- 13. THE CONTRACTOR IS SPECIFICALLY RESPONSIBLE FOR ALL MEANS AND METHODS OF JOB SITE SAFETY.
- 14. PROVIDE SAMPLES OF ALL FINISHES FOR APPROVAL PRIOR TO ORDERING OR INSTALLATION 15. ALL ITEMS, EQUIPMENT, APPLIANCES, AND APPARATUS SHALL REMAIN THE PROPERTY OF THE M-NCPPC. VERIFY THOSE ITEMS TO REMAIN AND CAREFULLY REMOVE AND/OR STORE ON SITE AS DIRECTED BY THE M-NCPPC. DO NOT DISPOSE OF ANY ITEMS WITHOUT
- 16. REMOVE ALL DEBRIS PROPERLY FROM SITE, EXCEPT THAT LISTED OR MARKED FOR RETENTION. DISPOSE OF DEBRIS LEGALLY AND DO NOT BURN ON SITE NOR ALLOW DEBRIS TO ENTER SEWER OR STORMWATER SYSTEMS. DO NOT LET PILED DEBRIS ENDANGER STRUCTURE, BLOCK EXITS, OR ROADWAYS. UPON DISCOVERY OF ANY HAZARDOUS MATERIAL, NOTIFY THE M-NCPPC OF THE TYPE, LOCATION, AND EXTENT OF SAME.
- 17.REMOVAL OF A PARTICULAR ITEM, I.E. WALLS, DOORS, ETC. IS TO INCLUDE RELATED ITEMS SUCH AS ELECTRICAL, MECHANICAL, PLUMBING, AND HARDWARE. CARE SHOULD BE TAKEN NOT TO REMOVE MORE THAN IS NECESSARY TO ACCOMMODATE NEW CONSTRUCTION. ANY SURFACES DISTURBED BY REMOVAL ARE TO BE RETURNED TO LIKE-NEW CONDITION WITH NEW MATERIAL TO MATCH SURROUNDING SURFACES
- 18. UNLESS NOTED OTHERWISE, ALL WORK SHALL BE NEW AND THE M-NCPPC WILL NOT PROVIDE ANY EQUIPMENT, MATERIALS, OR LABOR FOR THE WORK
- 19. ONLY APPROVED PLANS THAT HAVE BEEN SIGNED BY THE APPROPRIATE AUTHORITIES SHALL
- 20.REFER TO M-NCPPC CONSTRUCTION GENERAL CONDITIONS CONTRACT DOCUMENT FOR
- 21.INTERIOR WORK AREAS SHALL BE LIMITED TO THOSE APPROVED BY THE M-NCPPC AND PROTECTED FROM DUST, ABRASION OR OTHER DETERIORATION, AND SEPARATED FROM OTHER INTERIOR SPACES BY DUST SHIELDS.

CODE ANALYSIS

APPLICABLE CODES

BUILDING CODES

2018 INTERNATIONAL BUILDING CODE 2018 INTERNATIONAL EXISTING BUILDING CODE 2015 NFPA 101 LIFE SAFETY CODE

PARCEL DATA

DISTRICT: 02, MAP: EV51, SUBDIVISION: 0020, BLOCK: N

CODE ANALYSIS (EXISTING BUILDING) IBC OCCUPANCY CLASSIFICATIONS

TYPE OF CONSTRUCTION: NUMBER OF STORIES ABOVE GRADE: **FULLY SPRINKLERED:** YES

FIRE ALARM: NO - NOT REQUIRED UNLESS LEVEL II RENOVATION

SMOKE DETECTORS: YES OCCUPANT LOAD: N/A N/A **ENERGY COMPLIANCE PATH:**

HISTORIC STRUCTURE: LISTED ON MONTGOMERY COUNTY MASTER PLAN FOR

EXPOSED INSULATION PER IBC 720.3:

HISTORIC PRESERVATION (REFER TO PROJECT DESCRIPTION) FLAME SPREAD RATING NO MORE THAN 25 SMOKE DEVELOPED INDEX NO MORE THAN 450

DRAWING CHECKED BY:

Submission Name 1200 ARCHITECTURAL ENGINEERS MHT SUBMISSION 210 NORTH LEE ST. SUITE 210 ALEXANDRIA, VA 22314 703-350-4151 **SPECTRUM**

WB/JW 4/10/2023

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

VICINITY MAP

12535 MILESTONE MANOR LANE

North Germantown reenway SVP

LICENSE NO. 12/25/2023 **EXPIRATION DATE:**



THE MARYLAND - NATIONAL CAPITAL PARK AND PLANNING COMMISSION

HISTORIC WATERS HOUSE

BUILDING ENVELOPE REPAIRS

12535 MILESTONE MANOR LANE, GERMANTOWN, MD 20876

PARK CODE: N30-B04

LOCATION MAP

Montgomery County Department of Parks 9500 Brunett Avenue

Silver Spring, Maryland 20901 (301) 495-2535

GERMANTOWN, MD 20876 SCALE: N/A

12535 MILESTONE MANOR LANE

EAGLE VIEW WAY

HAWKS NEST LANE

STAIR AND CHIMNEY DETAILS STRUCTURAL GENERAL NOTES BASEMENT / FOUNDATION PLAN 1ST FLOOR FRAMING PLAN BASEMENT STAIR DETAILS BASEMENT FIREPLACE DETAILS ROOM 002 FRAMING REPAIRS 19 ROOM 002 STONE WALL REPAIRS **NEWEL POST DETAILS** 21 MAIN STAIR RAILING DETAILS 22 MECHANICAL COVER SHEET MECHANICAL GENERAL NOTES 24 MECHANICAL DEMOLITION PLANS 25 MECHANICAL PLANS PLUMING COVER SHEET 27 PLUMBING PLANS ELECTRICAL COVER SHEET ELECTRICAL DETAILS ELECTRICAL DETAILS | ELECTRICAL SCHEDULE BASEMENT POWER PLAN 1ST FLOOR POWER PLAN 2ND FLOOR POWER PLAN 3RD FLOOR POWER PLAN BASEMENT LIGHTING PLAN 1ST FLOOR LIGHTING PLAN EL103 2ND FLOOR LIGHTING PLAN

DRAWING INDEX

COVER SHEET

ABBREVIATIONS AND SYMBOLS

PROPOSED BASEMENT PLAN

PROPOSED 1ST FLOOR PLAN

PROPOSED 2ND FLOOR PLAN

PROPOSED 3RD FLOOR PLAN

PROPOSED SOUTH ELEVATION

PROPOSED NORTH ELEVATION

PROPOSED WEST ELEVATION

PROPOSED EAST ELEVATION

BASEMENT STAIR DETAILS

SHT. NO DWG NO. TITLE

PROJECT DESCRIPTION/SUMMARY

THE WATERS HOUSE IS A MONTGOMERY PARKS, MARYLAND NATIONAL CAPITAL PARK AND PLANNING (M-NCPPC) OWNED HISTORIC SITE LOCATED AT 12535 MILESTONE MANOR LANE, GERMANTOWN, MD 20876. CONSTRUCTED IN THREE DISTINCT PHASES, WATERS HOUSE IS ILLUSTRATIVE OF A LATE 18TH TO THE EARLY 20TH CENTURY VERNACULAR FARMHOUSE. THE WESTERN MOST BLOCK CONSIST OF THE ORIGINAL FARMHOUSE CONSTRUCTED IN 1797 WITH TWO LATER ADDITIONS ADDED TO THE EAST. THE FIRST ADDITION WAS CONSTRUCTED PRE-1857 AND A SECOND LARGER ADDITION WAS CONSTRUCTED IN THE 1890'S. IT IS LOCALLY DESIGNATED AS A MONTGOMERY COUNTY HISTORIC RESOURCE (c.1797), RESOURCE NO. MP19/001. ALL WORK SHALL CONFORM WITH THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE PRESERVATION OF HISTORIC PROPERTIES (1995) AND ITS RELATED PRESERVATION BRIEFS.

THE MARYLAND HISTORICAL TRUST (MHT) HOLDS A PRESERVATION EASEMENT ON THIS PROPERTY. ALL WORK DESCRIBED IN THESE DRAWINGS HAS RECEIVED MHT APPROVAL TO PROCEED. DEVIATIONS FROM THESE DRAWINGS COULD TRIGGER A DELAY UNTIL THE DEVIATION IS APPROVED BY THE M-NCPPC AND THE MHT.

SCOPE OF WORK: REPLACE SHUTTERS, INSULATE FRAME WALLS, MISCELLANEOUS ARCHITECTURAL, STRUCTURAL, AND MEP REPAIRS.

SUBMISSION / REVISION **COVER SHEET** The Maryland-National Capital Rev. No. | Date | Description Park and Planning Commission 04.10.2023 MHT SUBMISSION HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE

BUILDING ENVELOPE REPAIRS G000

DWG.#

ENCORE SUSTAINABLE ARCHITECTS ARCHITECTURE PRESERVATION (410) 624-5461

ENGINEERS

9520 BERGER ROAD SHITE 212 COLLIMBIA MD 21046 (410) 381-8010

BUILDING IMAGE

DEFINITIONS REFERENCE SYMBOLS DISASSEMBLE: CAREFULLY TAKE APART MATERIALS (OR COMPONENTS) THAT ARE TO BE SALVAGED AND STORED. **EXISTING/ DEMOLISHED NEW CONSTRUCTION REMOVE:** TAKE AWAY MATERIALS THAT ARE NOT TO BE SALVAGED, AND DISPOSE OF THEM IN A PROPER AND LEGAL MANNER. NEW WALL EXISTING WALL TO REMAIN **REFINISH:** MAKE SURFACE REPAIRS AND APPLY A NEW PERMANENT FINISH. EXISTING WALL TO BE DEMOLISHED ROOM DESIGNATION: **REFURBISH: REPAIR SURFACE AND FUNCTIONALITY OF ITEM TO ASSURE PERMANENT** -ROOM NAME OFFICE • INTEGRITY, OPERATION AND FINISH APPEARANCE. EXISTING WALL TO BE SALVAGED 101• -ROOM NUMBER REPLACE: REMOVE MATERIAL OR ITEM AND DISPOSE OF IN A PROPER AND LEGAL 150 SF € – AREA MANNER. MANUFACTURER REPLACEMENT THAT MATCHES THE EXISTING IN KIND. SECTIONS / DETAILS / ENLARGED PLANS **REPAIR:** FIX OR MEND EXISTING TO ASSURE PERMANENT INTEGRITY, OPERATION, PLAN REFERENCE SYMBOLS AND FINISH APPEARANCE. REFERENCE NUMBER DOOR DESIGNATION: **RESTORE:** REMOVE FINISHES AS NECESSARY, AS WELL AS MATERIAL DAMAGE, IF ANY. MAKE REPAIRS TO BASE MATERIALS AND REFINISH MATERIAL. —DOOR NUMBER **SALVAGE:** RETAIN MATERIAL OR ITEM FOR REPAIR AND REINSTALLATION IN PLACE. SHEET NUMBER TME: TO MATCH EXISTING IN LIKE/KIND MATERIAL, FINISH AND COLOR. 1 REFERENCE NUMBER WINDOW DESIGNATION: SHEET NUMBER WINDOW NUMBER HISTORICAL NOTES AREA OF DETAIL AN ARCHEOLOGICAL MONITOR WILL BE REQUIRED TO BE ON-SITE DURING ANY PARTITION DESIGNATION: GROUND DISTURBING ACTIVITY OR WORK IN ARCHEOLOGICALLY SENSITIVE PARTITION NUMBER AREAS, INCLUDING REMOVAL OF LARGE PLANTS, GRADING, ETC. IF ARTIFACTS **ELEVATION REFERENCE SYMBOLS** SURFACE. WORK WILL BE HALTED WHILE THE MONITOR ASSESSES THE SITUATION. **EQUIPMENT DESIGNATION:** INTERIOR ELEVATION: EQUIPMENT NUMBER 2. PRIOR TO REMOVAL OF ANY HISTORICAL BUILDING FEATURE OR MATERIAL FOR 1 ● ELEVATION NUMBER THE PURPOSE OF SALVAGE OR DEMOLITION, THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 72-HOURS WRITTEN ADVANCE NOTICE TO THE M-NCPPC. — SHEET REFERENCE KEY NOTE: 3. IF THE CONTRACTOR PROPOSES CHANGES TO HISTORIC FEATURES OR **EXTERIOR ELEVATION:** MATERIALS THAT RESULT IN DEVIATION FROM THESE APPROVED PLANS, THE — DEMOLITION REFERENCE NUMBER CONTRACTOR SHALL NOTIFY THE M-NCPPC IN ADVANCE. THE PROPOSED KEY NOTE NUMBER CHANGE MAY REQUIRE APPROVAL OF THE HISTORIC AUTHORITIES HAVING JURISDICTION BEFORE ANY CHANGE IS ALLOWED TO PROCEED. SHEET NUMBER KEY NOTE NUMBER 1. WHERE DRAWINGS INDICATE "REPAIR" OR "REPLACE", UNLESS NOTED OTHERWISE DO SO WITH IN-KIND MATERIALS THAT MATCHES THE EXISTING CONDITION WITH RESPECT TO MATERIAL TYPE, THICKNESS, FINISH AND/OR REVISION REFERENCE SYMBOLS TEXTURE. 5. THE M-NCPPC SHALL BE THE JUDGE OF THE RELATIVE HISTORIC SIGNIFICANCE - REVISION CLOUD / AREA OF ANY FEATURE. NO ELEMENT SHALL BE ALTERED, REMOVED, REUSED OR OF DRAWING REVISIONS TAKEN FROM THE PREMISES WITHOUT PRIOR APPROVAL OF THE M-NCPPC. 01 REVISION DELTA & NUMBER MATERIAL SYMBOLS STEEL GLASS- CROSS SECTION BATT INSULATION WATER BARRIER **BRICK** GROUT WOOD - ROUGH GYPSUM OR SAND CONCRETE WOOD - FINISH CONCRETE MASONRY UNIT RIGID INSULATION WOOD BLOCKING EARTH WOOD - SUBSTRATE SEMI-RIGID INSULATION PLYWOOD DWG.# SUBMISSION / REVISION ABBREVIATIONS AND SYMBOLS The Maryland-National Capital Rev. No. Date Description Park and Planning Commission **BUILDING ENVELOPE REPAIRS** 04.10.2023 MHT SUBMISSION G001 Montgomery County Department of Parks HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876

SCALE: N/A

ENCORE SUSTAINABLE ARCHITECTS ARCHITECTURE PRESERVATION (410) 624-5461

MCC≡1200 1200 ARCHITECTURAL ENGINEERS 210 NORTH LEE ST. SUITE 210 ALEXANDRIA, VA 22314 703-350-4151

SPECTRUM

ENGINEERS

9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

Submission Name WB/JW 4/10/2023 MHT SUBMISSION

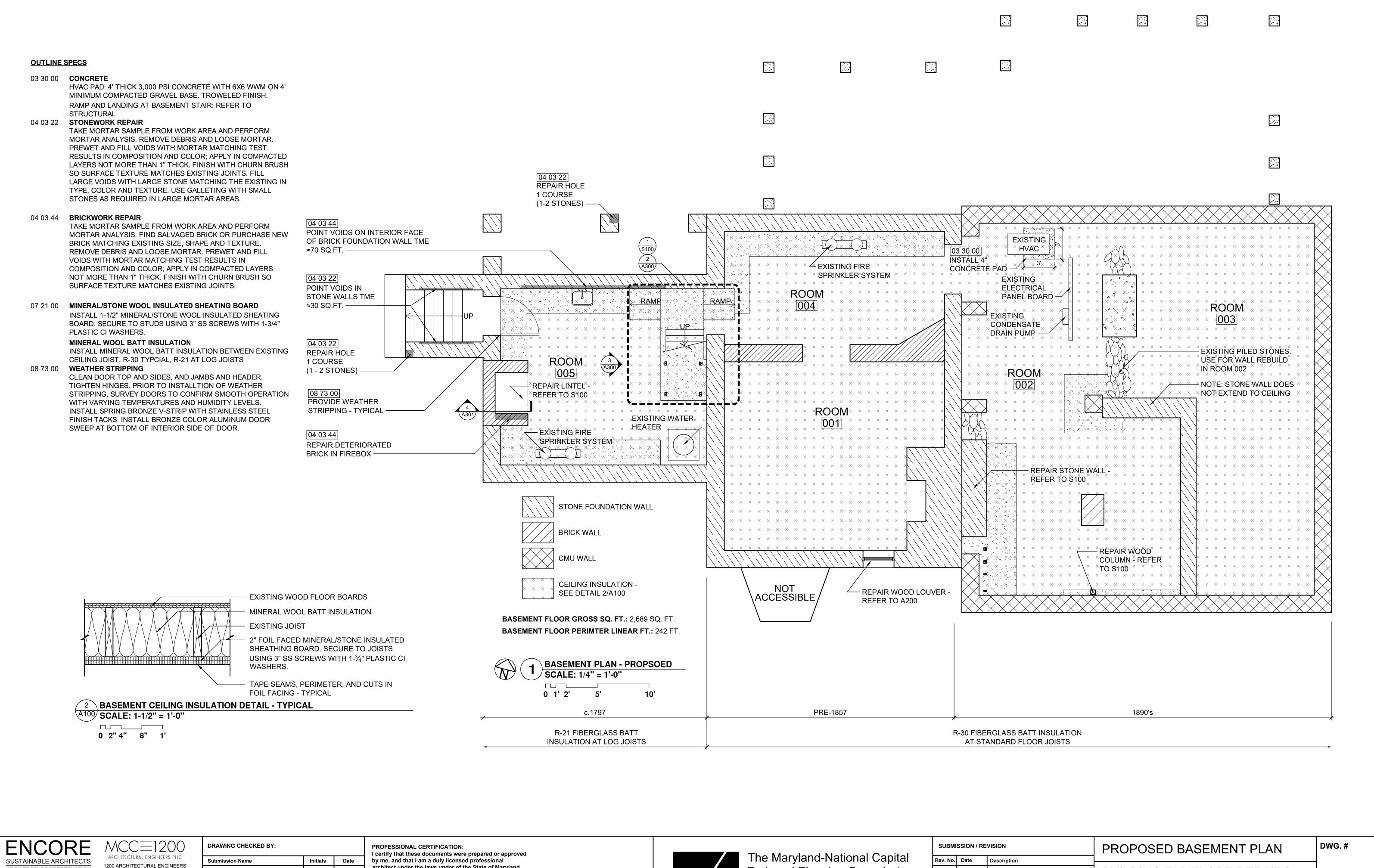
DRAWING CHECKED BY:

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

LICENSE NO. 12/25/2023 EXPIRATION DATE:



9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535



ARCHITECTURE PRESERVATION (410) 624-5461

210 NORTH LEE ST. SUITE 210 ALEXANDRIA, VA 22314

703-350-4151 **SPECTRUM** ENGINEERS 9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

WB/JW 4/10/2023 MHT SUBMISSION

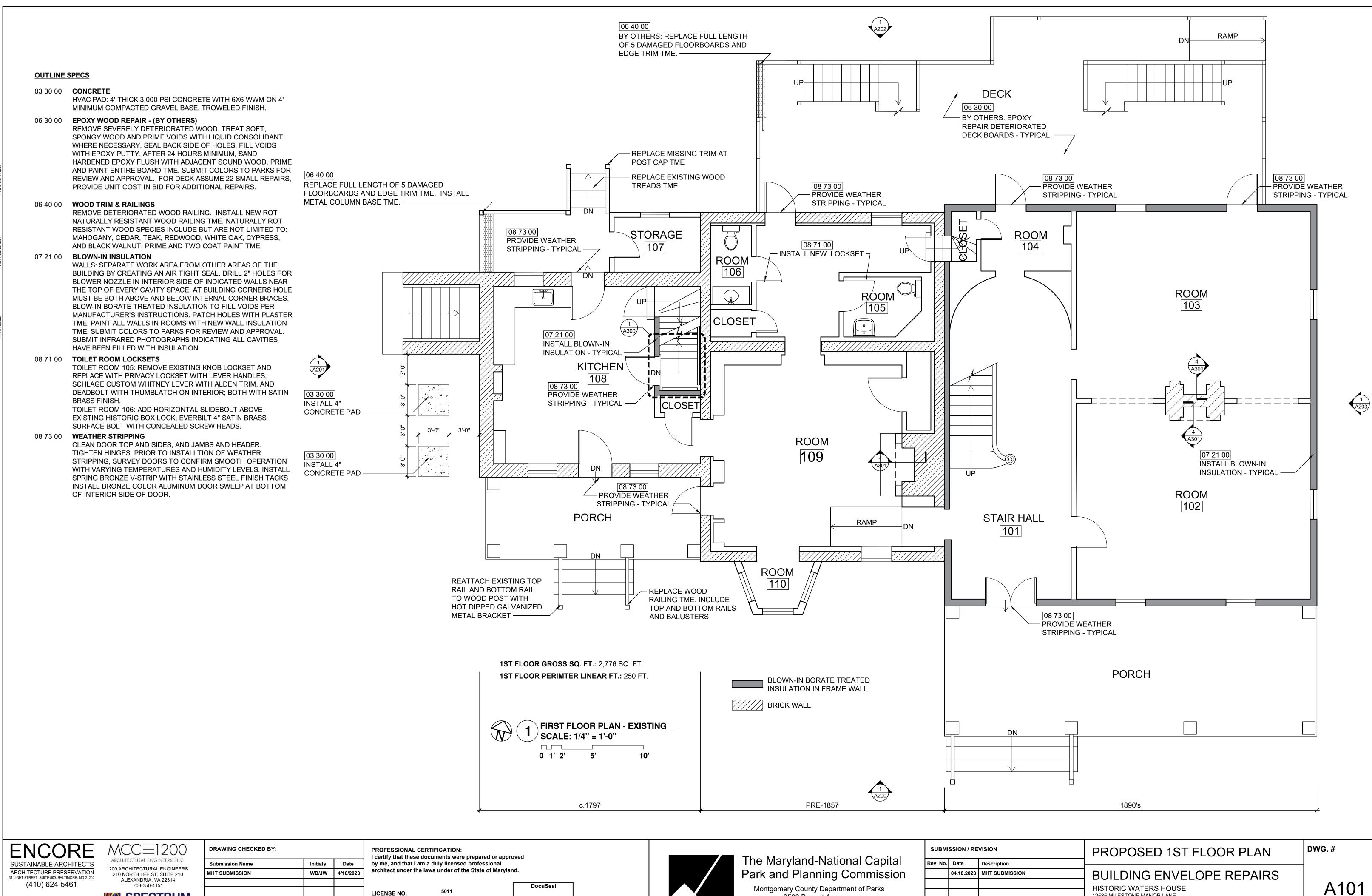
architect under the laws under of the State of Maryland.

LICENSE NO. 12/25/2023 EXPIRATION DATE:__



Park and Planning Commission Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

JBMISSION / REVISION		VISION	PROPOSED BASEMENT PLAN
. No.	Date	Description	
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS
			HISTORIC WATERS HOUSE
			12535 MILESTONE MANOR LANE
			GERMANTOWN, MD 20876
			SCALE: ½" = 1' - 0"
			/4 - 1 - 0



(410) 624-5461

SPECTRUM

ENGINEERS 9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

LICENSE NO.

EXPIRATION DATE:___

12/25/2023



Montgomery County Department of Parks 9500 Brunett Avenue

Silver Spring, Maryland 20901 (301) 495-2535

ВМІ	SSION / RE	VISION	PROPOSED 1ST FLOOR PLAN	D۱
١o.	Date	Description		
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS	
				ĺ
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE	
			GERMANTOWN, MD 20876	
			SCALE: ½" = 1' - 0"	
			/4 - 1 - 0	

OUTLINE SPECS 06 10 00 WOOD WALL FRAMING 08 10 00 **GLASS REPAIR**

INSTALL #2 FIR STUDS AND PLATES WITH 3" CONSTRUCTION GRADE DRIVE SCREWS. NEW STUD WALL SHOULD BE INSTALLED TO PROVIDE 1/2" CLEANACE TO EXISTING SHOE MOLDING. PRIME AND TWO COAT PAINT WALL TME.

06 40 23 WOOD BASEBOARD & PICTURE RAIL

INSTALL NEW CUSTOM BASEBOARD, SHOE MOLD, & PICTURE RAIL TME SIZE AND PROFILE; CLEAR PINE OR POPLAR. COPE ENDS OF NEW BASEBOARD TO OVERLAP EXISTING BASEBOARD. PRIME AND TWO COAT PAINT TME. SUBMIT COLORS TO PARKS FOR REVIEW AND APPROVAL.

07 21 00 BLOWN-IN INSULATION

WALLS: SEPARATE WORK AREA FROM OTHER AREAS OF THE BUILDING BY CREATING AN AIR TIGHT SEAL. DRILL HOLES FOR BLOWER NOZZLE IN INTERIOR SIDE OF INDICATED WALLS NEAR THE TOP OF EVERY CAVITY SPACE; AT BUILDING CORNERS HOLE MUST BE BOTH ABOVE AND BELOW INTERNAL CORNER BRACES. BLOW-IN BORATE TREATED INSULATION TO FILL VOIDS PER MANUFACTURER'S INSTRUCTIONS. PATCH HOLES TME. PAINT ALL WALLS IN ROOMS WITH NEW WALL INSULATION TME. SUBMIT COLORS TO PARKS FOR REVIEW AND APPROVAL. SUBMIT INFRARED PHOTOGRAPHS INDICATING ALL CAVITIES HAVE BEEN FILLED WITH INSULATION.

FLOOR: SEPARATE WORK AREA FROM OTHER AREAS OF THE BUILDING BY CREATING AN AIR TIGHT SEAL. CARFULLY REMOVE SELECT FLOOR BOARDS AS NEEDED TO ACCESS VOIDS BETWEEN FLOOR JOISTS. BLOW-IN BORATE TREATED INSULATION TO FILL VOIDS PER MANUFACTURER'S INSTRUCTIONS. REINSTALL FLOOR BOARDS PREVIOUSLY REMOVED. SUBMIT INFRARED PHOTOGRAPHS INDICATING ALL CAVITIES HAVE BEEN FILLED WITH INSULATION.

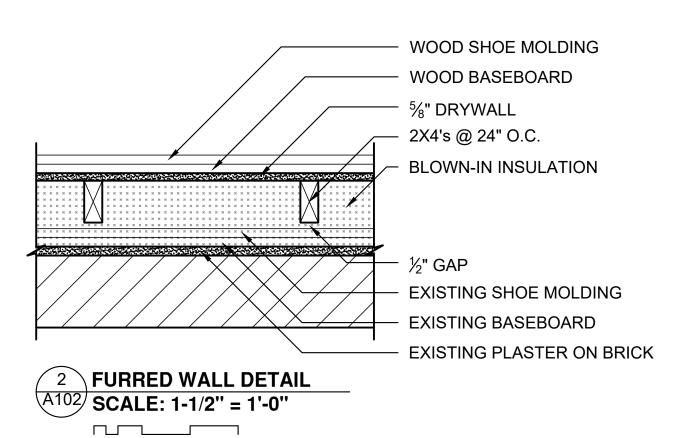
SOFTEN EXISTING PUTTY WITH INFRA RED HEATER, REMOVE PUTTY, PUSH POINTS AND GLASS. INSTALL NEW DOUBLE-STRENGTH FLOAT GLASS PANE, WITH CRL PUSH POINTS AND DAP GLAZING PUTTY. PAINT ENTIRE FRAME AND PUTTY TME. SUBMIT COLORS TO PARKS FOR REVIEW AND APPROVAL.

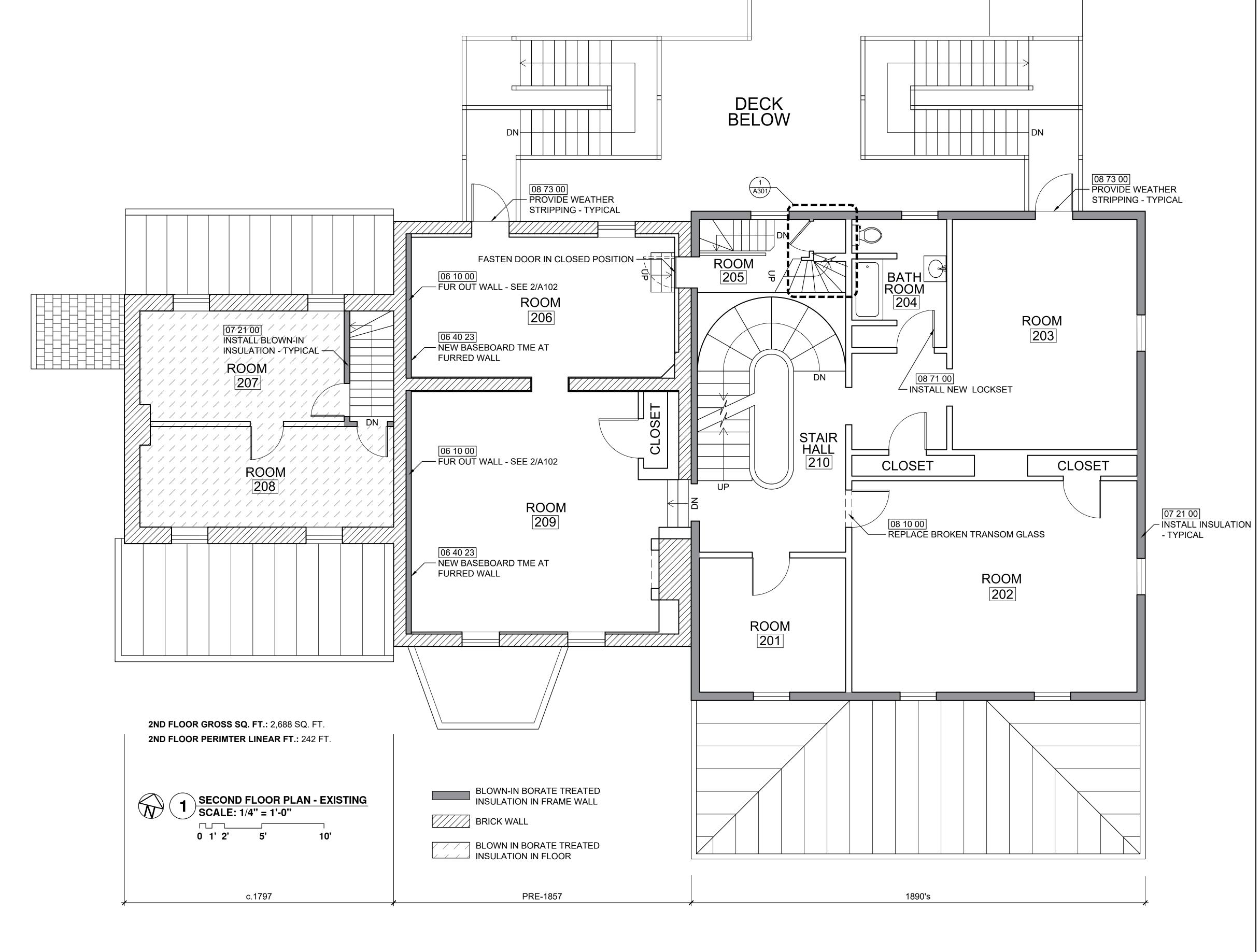
08 71 00 TOILET ROOM LOCKSETS

TOILET ROOM 204: REMOVE EXISTING KNOB LOCKSET AND REPLACE WITH PRIVACY LOCKSET WITH LEVER HANDLES; SCHLAGE CUSTOM WHITNEY LEVER WITH ALDEN TRIM, AND DEADBOLT WITH THUMBLATCH ON INTERIOR; BOTH WITH SATIN BRASS FINISH.

08 73 00 **WEATHER STRIPPING**

CLEAN DOOR TOP AND SIDES, AND JAMBS AND HEADER. TIGHTEN HINGES. INSTALL SPRING BRONZE V-STRIP WITH STAINLESS STEEL FINISH TACKS INSTALL BRONZE COLOR ALUMINUM DOOR SWEEP AT BOTTOM OF INTERIOR SIDE OF





ENCORE SUSTAINABLE ARCHITECTS ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202 (410) 624-5461

1200 ARCHITECTURAL ENGINEERS 210 NORTH LEE ST. SUITE 210 ALEXANDRIA, VA 22314

0 2" 4" 8" 1'

703-350-4151 **SPECTRUM** ENGINEERS 9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

DRAWING CHECKED BY:			
Submission Name	Initials	Date	
MHT SUBMISSION	WB/JW	4/10/2023	
•	_		

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

LICENSE NO._ 12/25/2023 EXPIRATION DATE:___



The Maryland-National Capital Park and Planning Commission Montgomery County Department of Parks 9500 Brunett Avenue

Silver Spring, Maryland 20901 (301) 495-2535

BMISSION / REVISION		VISION	PROPOSED 2ND FLOOR PLAN
No.	Date	Description	
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE
			GERMANTOWN, MD 20876
			SCALE: 1/2" = 1' - 0"
			74 - 1 - 0

A102

DWG.#

07 21 00 BLOWN-IN INSULATION

WALLS & CEILING: SEPARATE WORK AREA FROM OTHER AREAS OF THE BUILDING BY CREATING AN AIR TIGHT SEAL. DRILL HOLES FOR BLOWER NOZZLE IN INTERIOR SIDE OF INDICATED WALLS NEAR THE TOP OF EVERY CAVITY SPACE; AT BUILDING CORNERS HOLE MUST BE BOTH ABOVE AND BELOW INTERNAL CORNER BRACES. BLOW-IN BORATE TREATED INSULATION TO FILL VOIDS PER MANUFACTURER'S INSTRUCTIONS. PATCH HOLES TME. PAINT ALL WALLS AND CEILING IN ROOMS WITH NEW WALL INSULATION TME. SUBMIT COLORS TO PARKS FOR REVIEW AND APPROVAL. SUBMIT INFRARED PHOTOGRAPHS INDICATING ALL CAVITIES HAVE BEEN FILLED WITH INSULATION.

FLOOR: SEPARATE WORK AREA FROM OTHER AREAS OF THE BUILDING BY CREATING AN AIR TIGHT SEAL. CARFULLY REMOVE SELECT FLOOR BOARDS AS NEEDED TO ACCESS VOIDS BETWEEN FLOOR JOISTS. BLOW-IN BORATE TREATED INSULATION TO FILL VOIDS PER MANUFACTURER'S INSTRUCTIONS. REINSTALL FLOOR BOARDS PREVIOUSLY REMOVED. SUBMIT INFRARED PHOTOGRAPHS INDICATING ALL CAVITIES HAVE BEEN FILLED WITH INSULATION.

MINERAL/STONE WOOL INSULATED SHEATING BOARD INSTALL 2" FOIL FACED MINERAL/STONE WOOL INSULATED SHEATING BOARD. SECURE TO STUDS USING 3" SS SCREWS WITH 1-3/4" PLASTIC CI WASHERS. TAPE SEAMS, PERIMTER AND CUTS IN FOIL FACING

MINERAL WOOL BATT INSULATION

REMOVE EXISTING DAMAGED BATT INSULATION. INSTALL MINERAL WOOL BATT INSULATION BETWEEN EXISTING CEILING JOIST. R-30 TYPCIAL AT CEILING JOISTS, R-21 TYPICAL AT ROOF RAFTERS

08 10 00 **GLASS REPAIR**

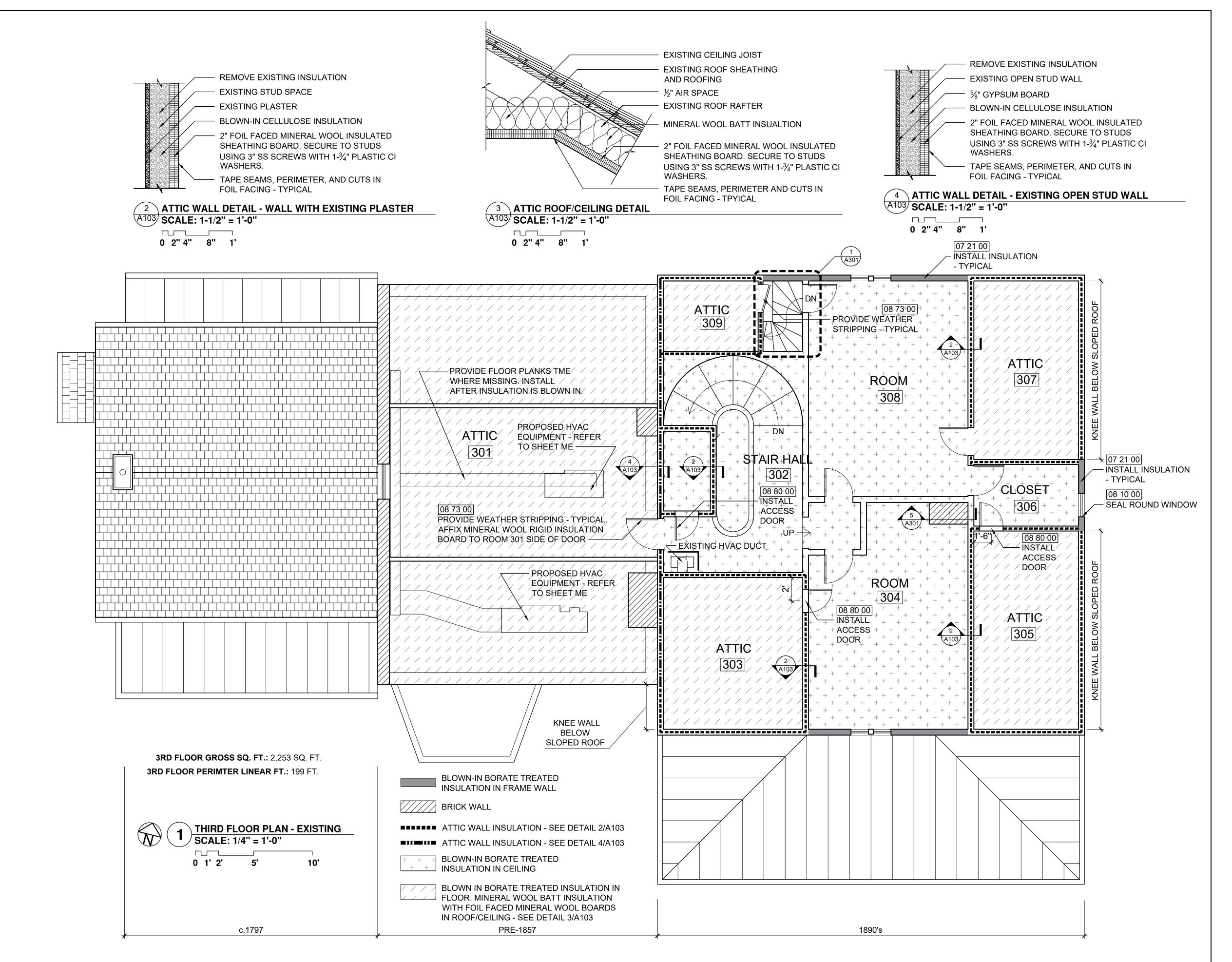
SOFTEN EXISTING PUTTY WITH INFRA RED HEATER, REMOVE PUTTY, PUSH POINTS AND GLASS. INSTALL NEW DOUBLE-STRENGTH FLOAT GLASS PANE, WITH CRL PUSH POINTS AND DAP GLAZING PUTTY. PAINT ENTIRE FRAME AND PUTTY TME.

08 73 00 **WEATHER STRIPPING**

CLEAN DOOR TOP AND SIDES, AND JAMBS AND HEADER.
TIGHTEN HINGES.INSTALL SPRING BRONZE V-STRIP WITH
STAINLESS STEEL FINISH TACKS INSTALL BRONZE COLOR
ALUMINUM DOOR SWEEP AT BOTTOM OF INTERIOR SIDE OF
DOOR.

08 80 00 ACCESS DOOR

24' WIDE X 36" HIGH ACCESS DOOR AND FRAME SHALL BE FABRICATED FROM 16 GAUGE, GALVANNEALED STEEL WITH WHITE PRIME COAT FINISH. HINGE SHALLBE CONCEALED TYPE. DOOR SHALL HAVE HEAVY DUTY SPRING FOR POSITIVE LATCHING WHEN CLOSED AND INTERIOR RELEASE SLIDE LATCH. EXTERIOR LATCH SHALL BE RECESSED AND OPERATED WITH RING ATTACHED TO THE SLIDING BOLT. REFRAME PERIMETER OF DOOR WITH 2X4'S. ELMDOOR OR APPROVED EQUAL. PAINT EXTERIOR TME TRIM. SUBMIT





ARCHITECTURAL ENGINEERS PLLC

1200 ARCHITECTURAL ENGINEERS
210 NORTH LEE ST. SUITE 210
ALEXANDRIA, VA 22314
702 350 4151

SPECTRUM
ENGINEERS

9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046
(410) 381-8010

DRAWING CHECKED BY:

Submission Name Initials Date

MHT SUBMISSION WB/JW 4/10/2023

PROFESSIONAL CERTIFICATION:
I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

LICENSE NO. 5011

EXPIRATION DATE: 12/25/2023



The Maryland-National Capital Park and Planning Commission

Montgomery County Department of Parks

9500 Brunett Avenue

Silver Spring, Maryland 20901 (301) 495-2535

SUBMI	SSION / RE		PROPOSED 3RD FLOOR PLAN
		Description	
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE
			GERMANTOWN, MD 20876
			SCALE: _{½" = 1' - 0"}
			74 1 0

DWG.#



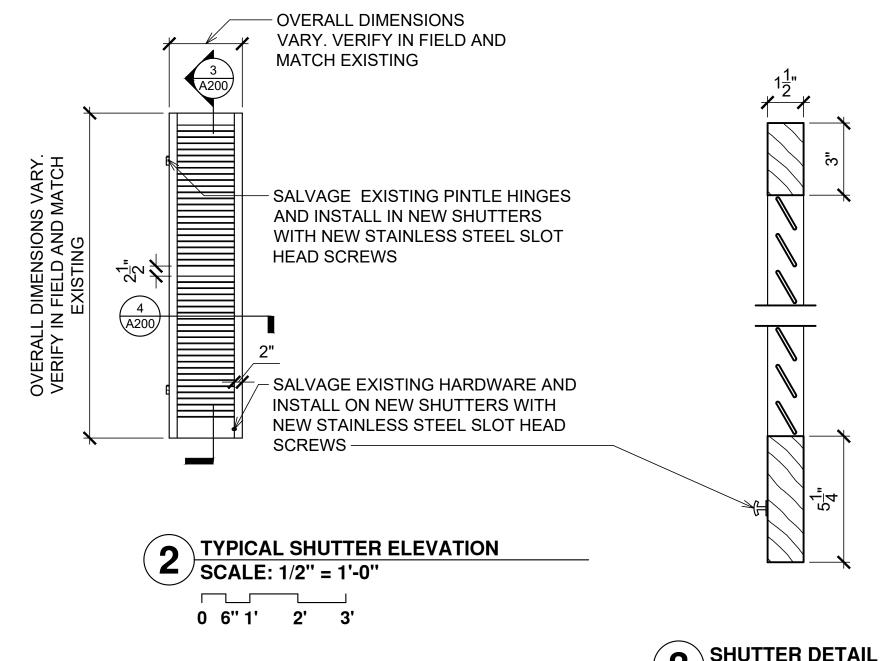
04 03 22 **STONEWORK REPAIR** TAKE SAMPLE FROM WORK AREA AND PERFORM MORTAR ANALYSIS. REMOVE DEBRIS AND LOOSE MORTAR. PREWET AND FILL VOIDS WITH MORTAR MATCHING TEST RESULTS IN COMPOSITION AND COLOR; APPLY IN COMPACTED LAYERS NOT MORE THAN 1" THICK. FINISH WITH CHURN BRUSH SO SURFACE TEXTURE MATCHES EXISTING JOINTS. FILL LARGE VOIDS WITH LARGESTONE MATCHING THE EXISTING IN TYPE, COLOR AND TEXTURE. USE GALLETING WITH SMALL STONES AS REQUIRED IN LARGE MORTAR AREAS.

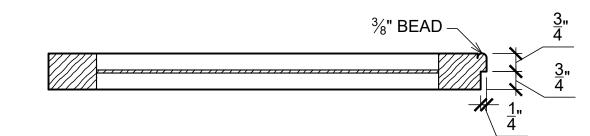
06 40 00 **WOOD SHUTTERS**

PREPARE SHOP DRAWINGS FOR EACH PAIR OF SHUTTERS FOR APPROVAL. REMOVE EXISTING SHUTTERS BY LIFTING OFF PINTLES. SALVAGE ALL HARDWARE AND STRIP OFF PAINT. FABRICATE NEW SHUTTERS TME WITH SOLID KILN DRIED MAHOGANY TME INCLUDING PEGGED MORTISE AND TENON JOINTS. PRIME AND TWO COATS PAINT WOOD AND HARDWARE (INCLUDING PINTLES ATTACHED TO WINDOW JAMBS) TME TYPE, COLOR AND TEXTURE.

WOOD LOUVER REPAIR

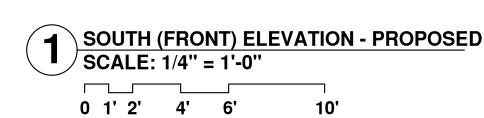
REMOVE EXISTING WOOD LOUVER AND DIASSEMBLE, REPLACE BROKEN SLATS WITH NEW WOOD SLATS TME IN SIZE, PROFILE AND TEXTURE, REASSEMBLE LOUVER AND REINSTALL. PRIME AND TWO COAT PAINT TME. SUBMIT COLORS TO PARKS FOR REVIEW AND APPROVAL.





4) DETAIL FLO...
SCALE: 3" = 1'-0" **│ DETAIL PLAN - RIGHT SHUTTER MEETING EDGE** 0 1" 2" 4" 6"





ENCORE SUSTAINABLE ARCHITECTS ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202 (410) 624-5461

MCC≡1200 1200 ARCHITECTURAL ENGINEERS 210 NORTH LEE ST. SUITE 210 ALEXANDRIA, VA 22314

703-350-4151 SPECTRUM ENGINEERS 9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

Submission Name	Initials	Date
MHT SUBMISSION	WB/JW	4/10/2023

DRAWING CHECKED BY:

06 40 00

LICENSE NO._

EXPIRATION DATE:___

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

12/25/2023



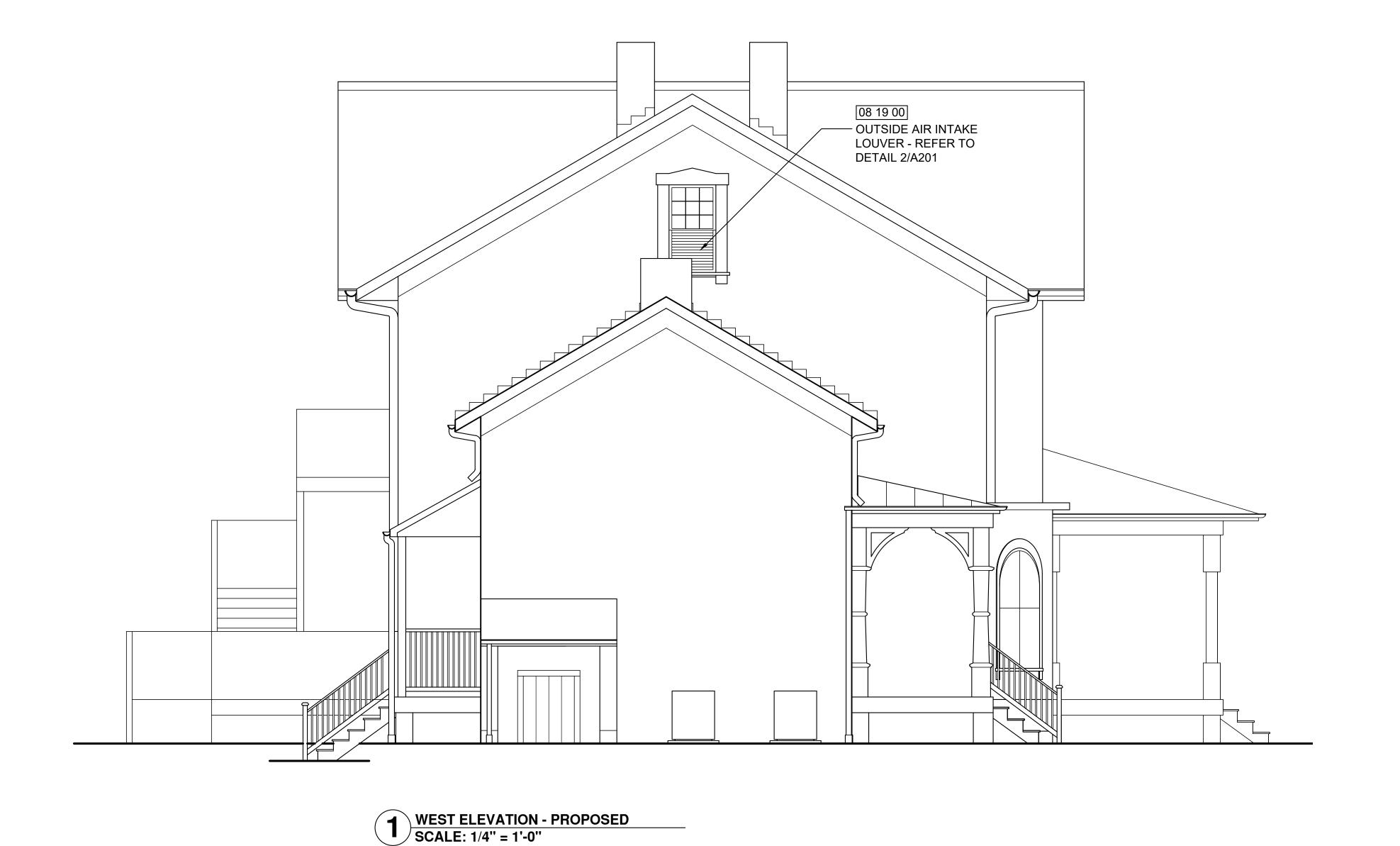
The Maryland-National Capital Park and Planning Commission Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

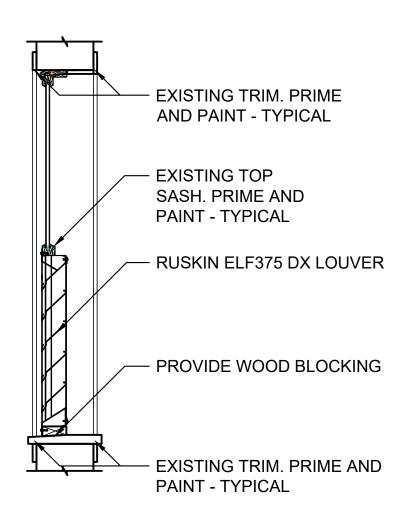
SUBM	ISSION / RE	VISION	PROPOSED SOUTH ELEVATION
Rev. No.	Date	Description	
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876
			SCALE: 1/4" = 1' - 0"

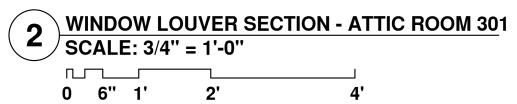
DWG.#

08 19 00 HVAC INTAKE LOUVERS

REMOVE LOWER SASH OF EXISTING WOOD WINDOW AND RETURN TO OWNER. PROVIDE RUSKIN ELF 375 DX METAL INTAKE LOUVER WITH INSECT SCREEN SIZED TO FIT AREA OF REMOVED LOWER SASH. LOUVER COLOR TO MATCH EXISTING WINDOW.









ARCHITECTURAL ENGINEERS PLLC

1200 ARCHITECTURAL ENGINEERS
210 NORTH LEE ST. SUITE 210
ALEXANDRIA, VA 22314
703-350-4151

ENCORE

SUSTAINABLE ARCHITECTS

ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202
(410) 624-5461

703-350-4151

SPECTRUM
ENGINEERS

9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046
(410) 381-8010

DRAWING CHECKED BY:			ı
Submission Name	Initials	Date	k
MHT SUBMISSION	WB/JW	4/10/2023	6
			ı
			ľ

PROFESSIONAL CERTIFICATION:
I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

0 1' 2' 4' 6'

LICENSE NO. 5011

EXPIRATION DATE: 12/25/2023



The Maryland-National Capital Park and Planning Commission	
Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535	

	SSION / RE		PROPOSED WEST ELEVATION
ev. No.	Date	Description	
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS
			HISTORIC WATERS HOUSE
			12535 MILESTONE MANOR LANE
			GERMANTOWN, MD 20876
			SCALE: ½" = 1' - 0"
			• •

DWG.#

06 40 00 WOOD WINDOW MUNTIN

SOFTEN EXISTING PUTTY WITH INFRA RED HEATER, REMOVE PUTTY, PUSH POINTS AND GLASS. REPAIR DETERIORATED WOOD WITH EPOXY. PAINT TO MATCH EXISTING. REINSTALL GLASS PANE, WITH CRL PUSH POINTS AND DAP GLAZING PUTTY. PAINT ENTIRE FRAME AND PUTTY TME. SUBMIT COLORS TO PARKS FOR REVIEW AND APPROVAL.

07 21 00 **WOOD SIDING**

REMOVE DETERIORATED WOOD SIDING BOARDS AND REPLACE WITH NEW NATURALY ROT-RESISTANT WOOD SIDING BOARDS TME IN SIZE AND SHAPE. PRIME AND TWO COAT PAINT TME. SUBMIT COLORS TO PARKS FOR REVIEW AND APPROVAL. NATURALLY ROT RESISTANT WOOD SPECIES INCLUDE BUT ARE NOT LIMITED TO: MAHOGANY, CEDAR, TEAK, REDWOOD, WHITE OAK, CYPRESS, AND BLACK WALNUT.



NORTH (REAR) ELEVATION - PROPOSED

SCALE: 1/4" = 1'-0"

0 1' 2' 4' 6' 10'

ENCORE
SUSTAINABLE ARCHITECTS
ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202
(410) 624-5461

ARCHITECTURAL ENGINEERS PLLC

1200 ARCHITECTURAL ENGINEERS
210 NORTH LEE ST. SUITE 210
ALEXANDRIA, VA 22314
703-350-4151

703-350-4151

SPECTRUM
ENGINEERS

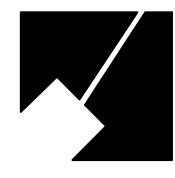
9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046
(410) 381-8010

DRAWING CHECKED BY:		
Submission Name	Initials	Date
MHT SUBMISSION	WB/JW	4/10/2023

PROFESSIONAL CERTIFICATION:
I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

LICENSE NO. 5011

EXPIRATION DATE: 12/25/2023



The Maryland-National Capital Park and Planning Commission

Montgomery County Department of Parks
9500 Brunett Avenue
Silver Spring, Maryland 20901
(301) 495-2535

IBMISSION / REVISION			PROPOSED NORTH ELEVATION
No.	Date	Description	
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS
			LUCTORIC WATERS HOUSE
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE
			GERMANTOWN, MD 20876
			SCALE: ½" = 1' - 0"

DWG.#

06 30 00 **EPOXY WOOD REPAIR**

REMOVE SEVERELY DETERIORATED WOOD. TREAT SOFT, SPONGY WOOD AND PRIME VOIDS WITH LIQUID CONSOLIDANT. WHERE NECESSARY, SEAL BACK SIDE OF HOLES. FILL VOIDS WITH EPOXY PUTTY. AFTER 24 HOURS MINIMUM, SAND HARDENED EPOXY FLUSH WITH ADJACENT SOUND WOOD. PRIME AND PAINT ENTIRE BOARD TME. SUBMIT COLORS TO PARKS FOR REVIEW AND APPROVAL.

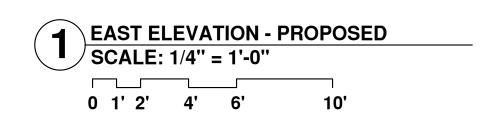
06 40 00 **WOOD SIDING**

REMOVE DETERIORATED WOOD SIDING BOARDS AND REPLACE WITH NEW NATURALY ROT-RESISTANT WOOD SIDING BOARDS TME IN SIZE AND SHAPE. PRIME AND TWO COAT PAINT TME. SUBMIT COLORS TO PARKS FOR REVIEW AND APPROVAL. NATURALLY ROT RESISTANT WOOD SPECIES INCLUDE BUT ARE NOT LIMITED TO: MAHOGANY, CEDAR, TEAK, REDWOOD, WHITE OAK, CYPRESS, AND BLACK WALNUT.

08 10 00 **SEAL WINDOW**

INSTAL JOINT SEALANT ON INTERIOR SIDE OF OCULOUS WINDOW JAMB. PROVIDE BACKER ROD IN GAPS LARGER THAN 1/4 INCH.





ENCORE
SUSTAINABLE ARCHITECTS
ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202
(410) 624-5461

ARCHITECTURAL ENGINEERS PLLC

1200 ARCHITECTURAL ENGINEERS
210 NORTH LEE ST. SUITE 210
ALEXANDRIA, VA 22314

703-350-4151

SPECTRUM
ENGINEERS

9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046
(410) 381-8010

DRAWING CHECKED BY:

Submission Name Initials Date

MHT SUBMISSION WB/JW 4/10/2023

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

LICENSE NO. 5011

EXPIRATION DATE: 12/25/2023



The Maryland-National Capital Park and Planning Commission

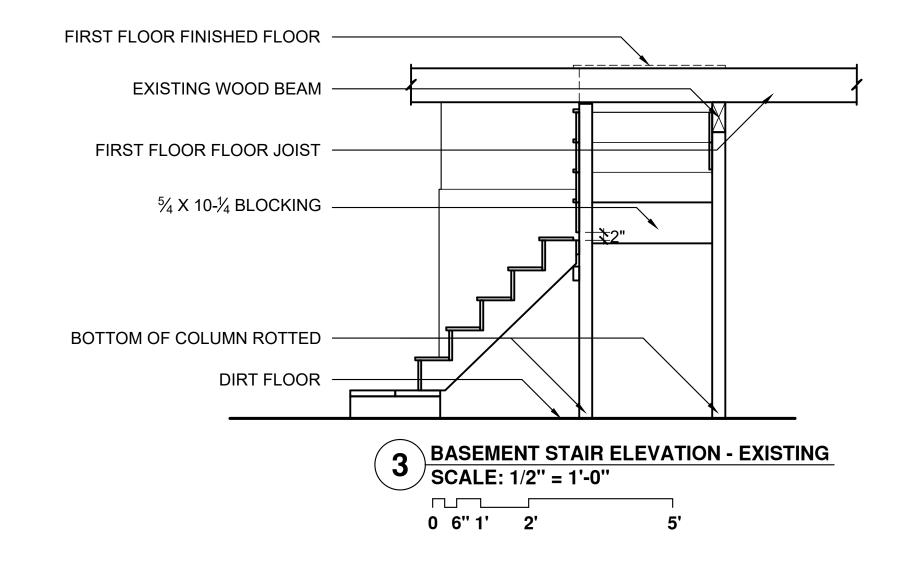
Montgomery County Department of Parks
9500 Brunett Avenue
Silver Spring, Maryland 20901
(301) 495-2535

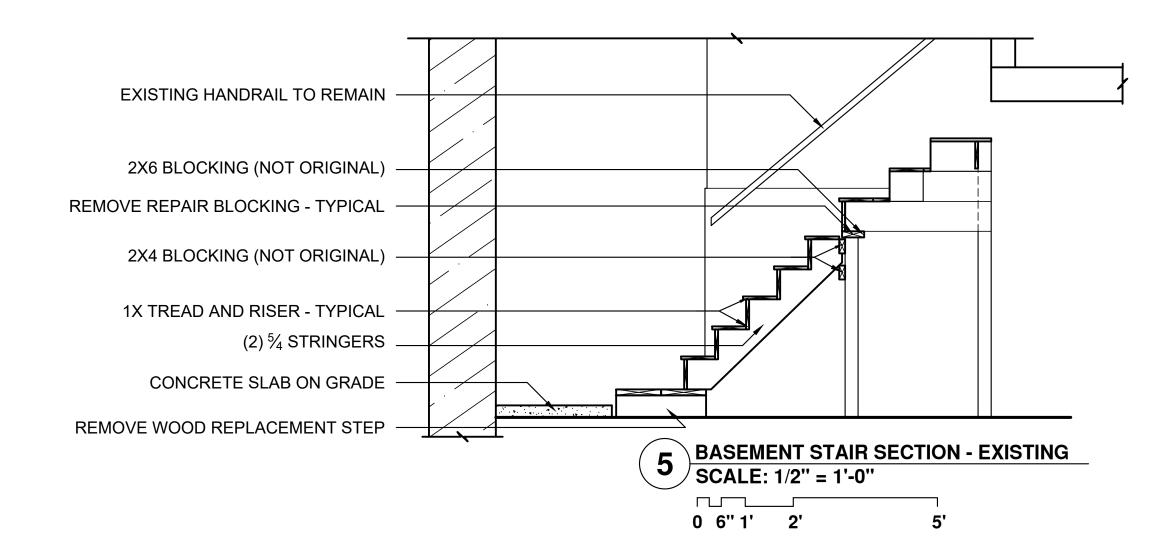
UBMISSION / REVISION			PROPOSED EAST ELEVATION
v. No.	Date	Description	
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE
			GERMANTOWN, MD 20876
			SCALE: 1/4" = 1' - 0"

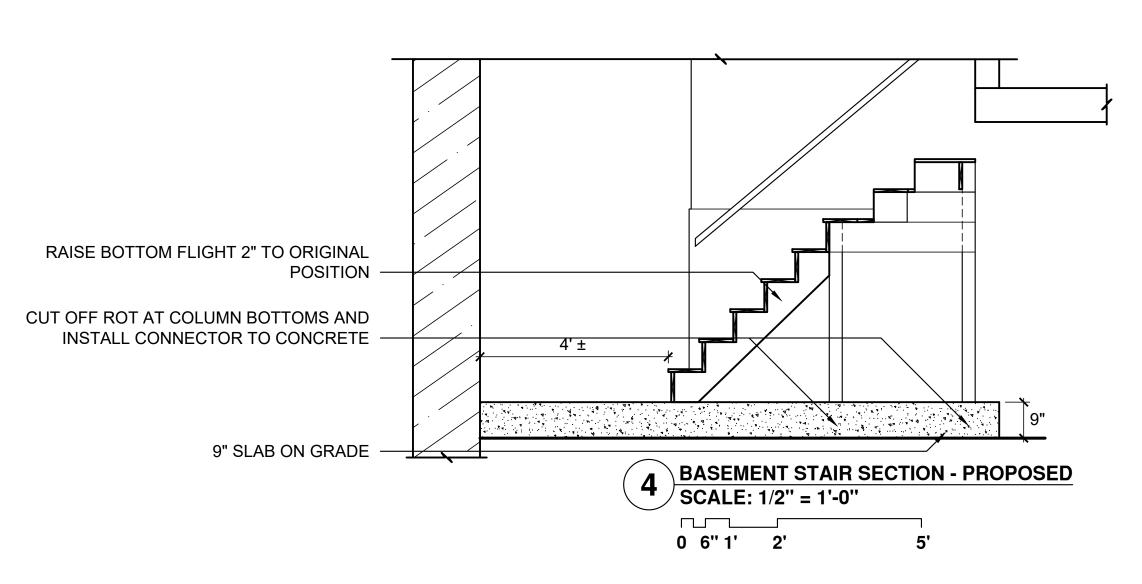
DWG.#

06 40 00 **WOOD STAIR**

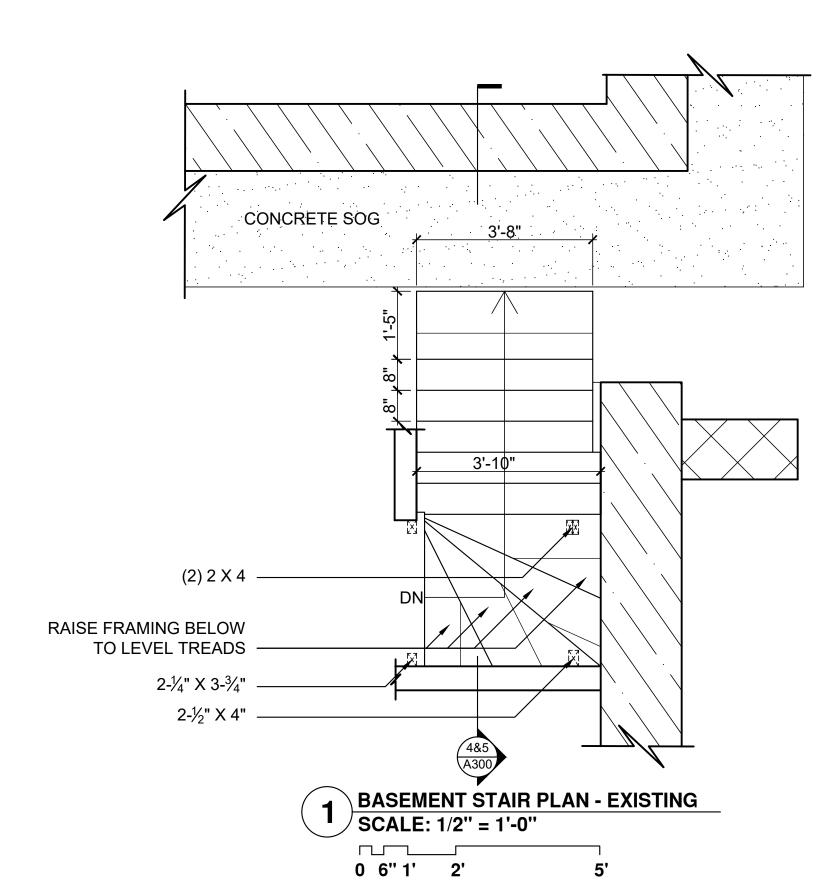
ALL EXISTING AND NEW STAIR COMPONENTS TO BE PRIMED AND TWO COATS SEMI-GLOSS PAINT.

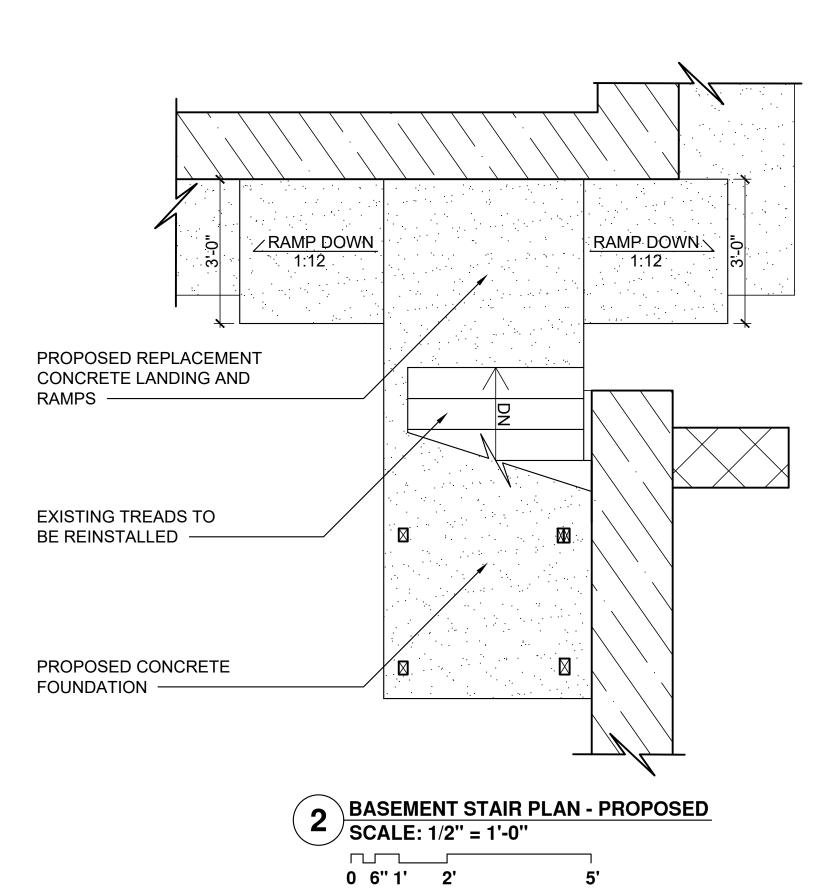






NOTE: REFER TO ADDITIONAL DRAWINGS ON SHEET S301





ENCORE SUSTAINABLE ARCHITECTS ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202 (410) 624-5461

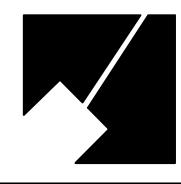
MCC≡1200 1200 ARCHITECTURAL ENGINEERS 210 NORTH LEE ST. SUITE 210 ALEXANDRIA, VA 22314

703-350-4151 SPECTRUM ENGINEERS 9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

DRAWING CHECKED BY: Submission Name WB/JW 4/10/2023 MHT SUBMISSION

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

LICENSE NO._ 12/25/2023 EXPIRATION DATE:___

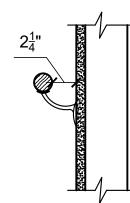


The Maryland-National Capital Park and Planning Commission Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

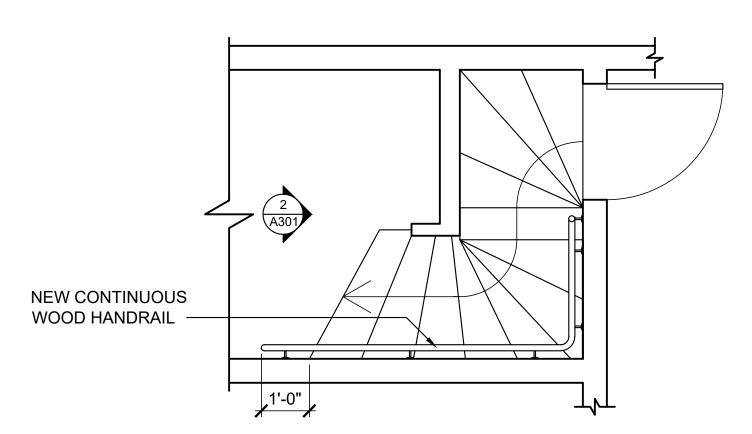
JBMISSION / REVISION			BASEMENT STAIR DETAILS	DWG.#	
. No.	Date	Description			
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS		
				Λ -	
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE	A3	
			GERMANTOWN, MD 20876		
			SCALE: AS NOTED		
_					

06 43 00 STAIR HANDRAIL

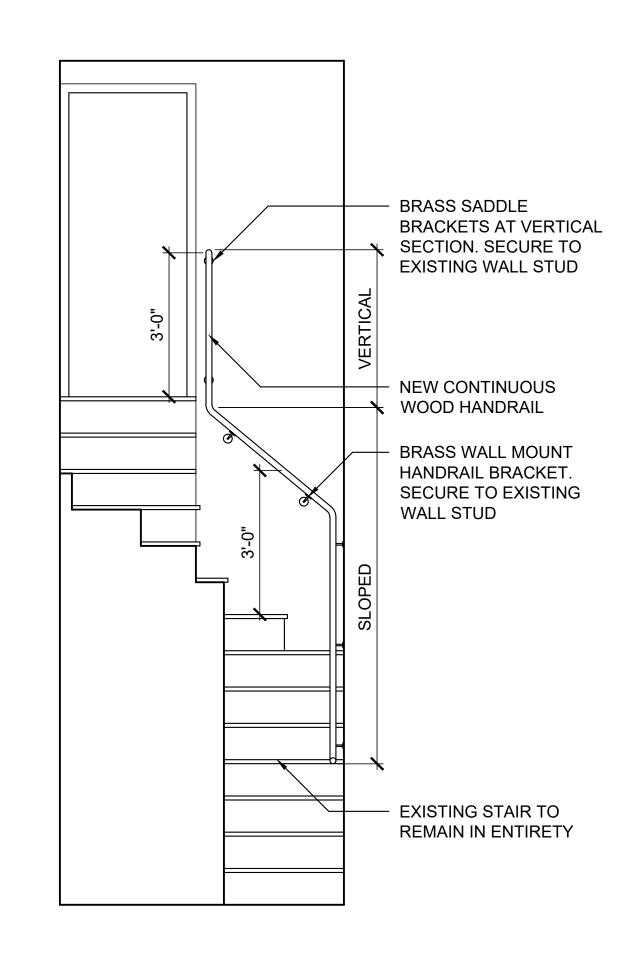
INSTALL CONTINUOUS 1-1/2" ROUND HANDRAIL WHITE OAK OR APPROVED EQUAL, ON CURVED BRASS FINISH METAL BRACKETS; HARDWARE ESSENTIALS OR APPROVED EQUAL. TWO COATS OF CLEAR POLYURETHANE VARNISH ON WOOD.



3 HANDRAIL DETAIL
SCALE: 1-1/2" = 1'-0"
0 2" 4" 8" 1'



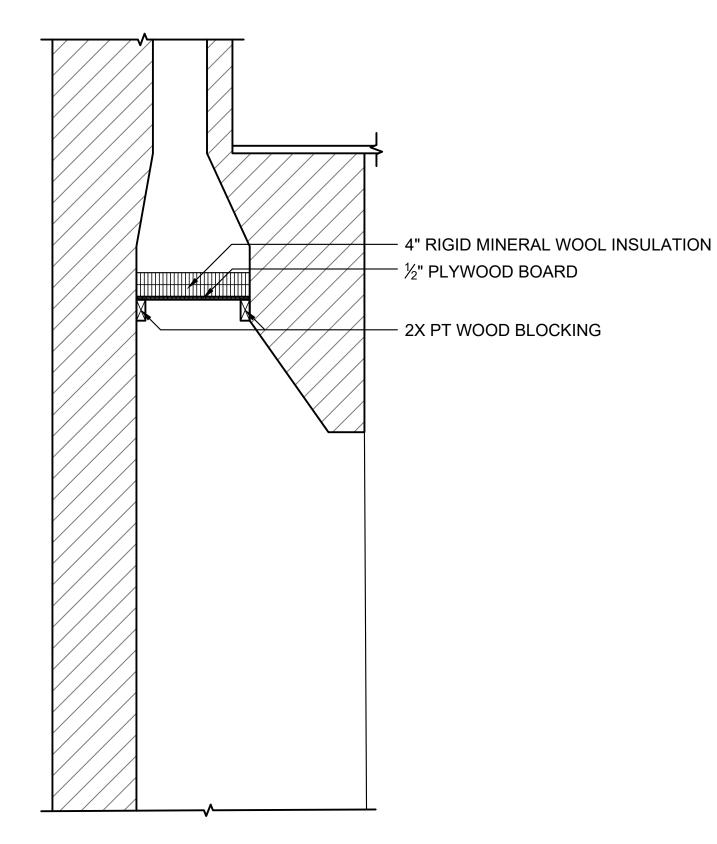
1 REAR STAIR PLAN - 2ND/3RD FLOOR
SCALE: 1/2" = 1'-0"
0 6" 1' 2' 5'



REAR STAIR ELEVATION - 2ND/3RD FLOOR

SCALE: 1/2" = 1'-0"

0 6" 1' 2' 5'

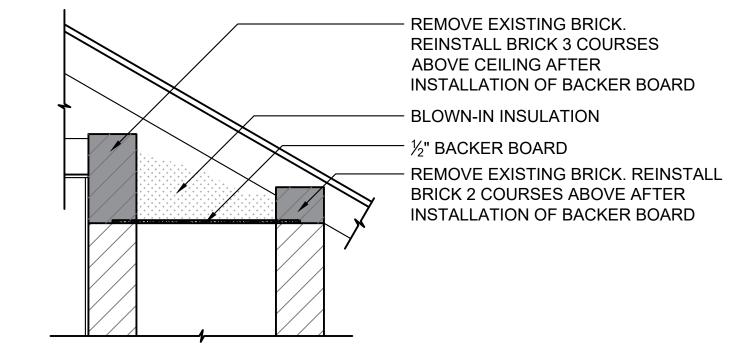


NOTE: ATTACH BLOCKING INTO BRICK JOINTS ONLY.

TYPICAL FIREBOX SEAL SECTION DETAIL - PROPOSED

SCALE: 3/4" = 1'-0"

0 6" 1' 2' 4'



FOOM 304 CHIMNEY CAP SECTION DETAIL - PROPOSED

SCALE: 3/4" = 1'-0"

0 6" 1' 2' 4'

ENCORE
SUSTAINABLE ARCHITECTS
ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202

(410) 624-5461

ARCHITECTURAL ENGINEERS PLIC

1200 ARCHITECTURAL ENGINEERS
210 NORTH LEE ST. SUITE 210
ALEXANDRIA, VA 22314

703-350-4151

SPECTRUM
ENGINEERS

9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046
(410) 381-8010

DRAWING CHECKED BY:						
Submission Name	Initials	Date				
MHT SUBMISSION	WB/JW	4/10/2023				
	i	i i				

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

LICENSE NO. 5011

EXPIRATION DATE: 12/25/2023



The Maryland-National Capital Park and Planning Commission

Montgomery County Department of Parks
9500 Brunett Avenue
Silver Spring, Maryland 20901
(301) 495-2535

SUBMISSION / REVISION			STAIR AND CHIMNEY DETAILS
ev. No.	Date	Description	
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS
			HISTORIC WATERS HOUSE
			12535 MILESTONE MANOR LANE
			GERMANTOWN, MD 20876
			SCALE: AS NOTED

DWG. #

GENERAL NOTES

- 1. ALL STRUCTURAL WORK SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND SHALL CONFORM TO THE PROJECT SPECIFICATIONS, INCLUDING THE 2018 INTERNATIONAL BUILDING CODE AND 2018 INTERNATIONAL EXISTING BUILDING CODE, LOCALLY APPROVED EDITION.
- 2. CONTRACTOR SHALL PROVIDE TEMPORARY SHORING, BRACING, SHEETING AND MAKE SAFE ALL FLOORS, ROOFS, WALLS AND ADJACENT PROPERTY AS PROJECT CONDITIONS REQUIRE. SHORING AND SHEETING SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE PROJECT JURISDICTION HIRED BY THE CONTRACTOR WHO SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR THE OWNER'S REVIEW.
- 3. DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION GIVEN IN STRUCTURAL DRAWINGS ARE BASED ON INFORMATION CONTAINED IN VARIOUS ORIGINAL DESIGN AND CONSTRUCTION DOCUMENTS PROVIDED BY THE OWNER, AND LIMITED FIELD OBSERVATIONS AND MEASUREMENTS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO EXISTING CONDITIONS BY ACTUAL MEASUREMENT AND OBSERVATION AT THE SITE. ALL DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN IN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE ENGINEER OF RECORD FOR HIS EVALUATION BEFORE THE AFFECTED CONSTRUCTION IS PUT IN PLACE.
- 4. THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. THESE NOTES HIGHLIGHT RATHER THAN REPLACE THE SPECIFICATIONS CONTAINED IN THE PROJECT MANUAL. PLEASE NOTIFY THE ENGINEER OF ANY CONFLICTS. REFER TO THE SPECIFICATION FOR WORK NOT SHOWN ON THE DRAWINGS.
- 5. THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS REPRESENTS THE DESIGN INTENT OF THE PROPOSED CONSTRUCTION. ELECTRONIC VERSIONS (PDF, DWG) OF THESE DRAWINGS SHOULD NOT BE USED TO DETERMINE DIMENSIONS OR GATHER ANY INFORMATION THAT IS NOT SPECIFICALLY LABELED OR OTHERWISE DENOTED IN PLAN, SECTION, OR DETAIL. DUPLICATION OF THESE DRAWINGS FOR USE IN THE PREPARATION OF SHOP DRAWINGS IS NOT ACCEPTABLE. THIS INCLUDES ANNOTATED HARD-COPIES AND DIRECT REUSE OF ELECTRONIC FILES.

<u>FOUNDATIONS</u>

- 1. BUILDING FOUNDATIONS SHALL BEAR ON UNDISTURBED SOIL HAVING MINIMUM BEARING CAPACITY OF 1500 PSF. AS SPECIFIED BY THE IBC WHEN NO GEOTECHNICAL INVESTIGATION HAS BEEN PERFORMED. ADEQUACY OF BEARING STRATUM SHALL BE VERIFIED IN FIELD PRIOR TO PLACING CONCRETE. ADJUST BOTTOM OF FOOTING ELEVATIONS AS REQUIRED.
- 2. DO NOT PLACE BACKFILL AGAINST BASEMENT WALLS UNTIL ALL FLOORS BRACING THESE WALLS ARE IN PLACE AND HAVE ATTAINED
- 3. ALL EXTERIOR FOOTINGS SHALL BE PLACED A MINIMUM OF 2'-6" BELOW FINAL GRADE.
- 4. CONCRETE SHALL BE POURED IN DRY EXCAVATIONS. CONTRACTOR SHALL NOTE SOIL AND WATER CONDITIONS AS SHOWN BY BORINGS AND DEPTHS OF FOOTING AS SHOWN ON FOUNDATION PLANS.

<u>CONCRETE</u>

- 1. ALL CONCRETE WORK SHALL CONFORM TO THE ACI FOLLOWING GOVERNING STANDARDS. A. AMERICAN CONCRETE INSTITUTE (ACI) "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
 - (ACI 318), LOCALLY APPROVED EDITION. B. ACI "MANUAL OF CONCRETE PRACTICE" LOCALLY APPROVED EDITION
 - C. CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE" LOCALLY APPROVED EDITION
- 2. ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED.
- 3. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 OR A775 EPOXY COATED WHEN CALLED OUT ON PLAN. REINFORCING STEEL SHALL BE DETAILED ACCORDING TO THE ACI "DETAILS AND DETAILING OF REINFORCEMENT", (ACI 315), LOCALLY APPROVED EDITION.
- 4. WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185, WITH A MINIMUM YIELD STRENGTH OF 65,000 PSI.
- 5. PROVIDE MINIMUM SHRINKAGE AND TEMPERATURE REINFORCEMENT, AS REQUIRED BY ACI 318, IN ALL SLABS AND WALLS WHERE REINFORCEMENT IS NOT INDICATED ON DRAWINGS.
- COORDINATE SIZE AND LOCATION OF ALL OPENINGS AND PIPE SLEEVES WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. MINIMUM CONCRETE BETWEEN SLEEVES SHALL BE 6". CORE DRILLING OF WALLS AND SLABS SHALL NOT BE PERMITTED.
- 7. ALL GROUT SHALL BE NONSHRINK WITH A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI.
- 8. PROVIDE CLEARANCE FROM FACE OF CONCRETE TO REINFORCEMENT AS FOLLOWS: SLABS" 3/4"
 - BEAMS, COLUMNS: 1 1/2"
 - FOOTINGS: 3" EXTERIOR WALLS: 2" FOR #6 OR LARGER, 1 1/2" FOR #5 OF SMALLER
 - INTERIOR WALLS: 3/4"
- 9. SHOP DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. NO CONCRETE WORK SHALL COMMENCE WITHOUT APPROVED SHOP DRAWINGS.
- 10. SEE OTHER DRAWINGS IN THIS PROJECT FOR SIZE AND LOCATIONS OF EQUIPMENT PADS, INSERT AND EMBED ITEMS.
- 11. REINFORCING DOWELS, WATERSTOPS AND OTHER EMBED ITEMS SHALL BE INSTALLED AND SECURED PRIOR TO CONCRETE
- PLACEMENT. "WET-SETTING" OF EMBEDDED ITEMS IS NOT PERMITTED.
- 12. WHERE CONCRETE IS PLACED AGAINST AND DOWELED TO HARDENED CONCRETE AND/OR WHERE A ROUGHENED SURFACE IS INDICATED IN THE STRUCTURAL DRAWINGS, THE HARDENED CONCRETE SURFACE SHALL BE CLEAN AND FREE OF LAITANCE AND SHALL BE ROUGHENED TO A FULL AMPLITUDE OF APPROXIMATELY 1/4".

EXISTING BRICK AND STONE MASONRY

- 1. MASONRY REPAIRS SHALL BE COMPLETED USING BRICK UNITS AND MORTAR THAT HAVE MATERIAL PROPERTIES CONSISTENT WITH EXISTING MASONRY. SAMPLES OF EXISTING MORTAR SHALL BE TAKEN AND TESTED FOR COMPOSITION BY THE CONTRACTOR'S TESTING AGENCY. THE DESIGN OF THE MORTAR MIX SHALL BE BASED ON THIS EVALUATION.
- 2. REPAIR OF MASONRY: IF MORTAR CAN BE REMOVED EASILY WITH HAND TOOLS BY SCRAPING, REMOVE SOFT OR CRACKED MORTAR TO SOUND MATERIAL. LIMIT DEPTH OF REMOVAL TO A MAXIMUM OF 2" (51 MM). ALSO REPOINT AREAS WHERE MORTAR DOES NOT EXIST. FOR BRICKS LOOSE ENOUGH TO BE REMOVED BY HAND, REMOVE, CLEAN AND REINSTALL IN A FULL BED OF MORTAR.
- 3. INFILL EXISTING UNUSED OR NEWLY ABANDONED PENETRATIONS, JOIST AND BEAM POCKETS, UTILITY CHASES AND ELECTRICAL BOX RECESSES WITH SOLID MASONRY OR GROUT.

STRUCTURAL STEEL

- 1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE FOLLOWING GOVERNING STANDARDS: A. AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES," LOCALLY APPROVED EDITIONS.
 - B. AMERICAN WELDING SOCIETY (AWS) D1.1 "STRUCTURAL WELDING CODE——STEEL", LOCALLY APPROVED EDITION.
- 2. ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS: A. CHANNELS, ANGLES AND PLATES: ASTM A36 UNLESS OTHERWISE NOTED.
 - B. STANDARD BOLTED CONNECTIONS ARE TO USE A325 OR A490 BEARING TYPE BOLTS (3/4" DIAMETER MINIMUM). C. ANCHOR BOLTS: ASTM F1554, GRADE 36. FURNISHED COMPLETE WITH NUTS AND WASHERS. ANCHOR BOLTS SHALL HAVE HEADED ENDS OR NUTS WELDED (TACK AT BOTTOM SIDE OF NUT) AT EMBEDDED END.
 - D. STRUCTURAL STEEL NOTED TO BE STAINLESS STEEL SHALL BE ASTM A276 STAINLESS STEEL GRADE 304.
- E. ALL STAINLESS STEEL BOLTS SHALL CONFORM TO ASTM F593 ALLOY 304.
- F. ALL STAINLESS STEEL NUTS SHALL CONFORM TO ASTM F594 ALLOY 304.
- STEEL CONNECTIONS: A. PROVIDE MECHANICALLY GALVANIZED BOLTS FOR EXTERIOR APPLICATIONS OR FOR BOLTS EMBEDDED IN EXTERIOR OR BASEMENT WALLS. B. MINIMUM SIZE WELD, UNLESS NOTED OTHERWISE, IS 1/4" FILLET.
- 4. SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. NO FABRICATION OF STEEL SHALL COMMENCE WITHOUT APPROVED SHOP DRAWINGS.
- WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS LICENSED BY THE GOVERNING LOCALITY AND CERTIFIED IN ACCORDANCE WITH AWS D1.1. WELDING ELECTRODES SHALL BE ASTM A233, CLASS E70XX (USE LOW HYDROGEN ELECTRODES FOR A992, GRADE 50 STEEL).
- STRUCTURAL STEEL MEMBERS SHALL BE FINISHED PER THE FOLLOWING SPECIFICATIONS:
- A. GALVANIZE ALL STRUCTURAL STEEL EXPOSED TO WEATHER, AND STEEL SUPPORTING EXTERIOR ELEMENTS. a. HOT-DIP GALVANIZING SHALL CONFORM TO ASTM A123. REPAIR SCRATCHED OR ABRADED GALVANIZED SURFACES WITH COLD GALVANIZING ZINC-RICH PAINT.
- B. WHERE SHOP PAINTING IS REQUIRED BY PROJECT SPECIFICATION, PROVIDE MODIFIED ALKYD PER MANUFACTURER REQUIREMENTS. ALL FIELD PAINTING SHALL BE PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
- C. FACES OF STRUCTURAL STEEL MEMBERS SUPPORTING METAL DECK WITH WELDED FASTENING, OR RECEIVING WELDED SHEAR STUDS, SHALL REMAIN FREE OF ALL PAINT AND PRIMER.
- 7. ALL BEAMS, EXCEPT CANTILEVER BEAMS, SHALL BE FABRICATED WITH NATURAL CAMBER UP. CANTILEVER BEAMS SHALL BE FABRICATED SO THAT NATURAL CAMBER RAISES CANTILEVER END, U.N.O.
- LINTELS SHALL BE INSTALLED OVER ALL OPENINGS IN MASONRY WALLS AS FOLLOWS:
 - MASONRY OPENING 4'-0" OR LESS L4x3 1/2x5/16"
 - 4'-1" TO 7'-0" L6x3 1/2x5/16"
- A. 3 1/2" LEGS ARE HORIZONTAL. B. PROVIDE ONE ANGLE FOR EACH 4" OF WALL THICKNESS.
- C. PROVIDE L5x5x5/16" ANGLES FOR 6" THICK WALLS AND PARTITIONS.
- D. PROVIDE MINIMUM 6" BEARING ON EACH END, U.N.O.
- 9. FIELD CUTTING OR BURNING OF STRUCTURAL STEEL IS PROHIBITED EXCEPT WHEN APPROVED BY THE ENGINEER OF RECORD.
- 10. SEE ARCHITECTURAL DRAWINGS FOR MISCELLANEOUS STEEL NOT SHOWN ON STRUCTURAL DRAWINGS. STEEL EXPOSED AS AN ARCHITECTURAL FINISH ELEMENT IS TO BE CLASSIFIED AS ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) PER AISC, U.N.O. REDUCED TOLERANCES SHALL BE MAINTAINED.

POST INSTALLED ADHESIVE AND MECHANICAL ANCHORS

- 1. POST INSTALLED ANCHORAGE SHALL BE INSTALLED PER MANUFACTURER TECHNICAL DATA TO INTACT BASE MATERIAL. NOTIFY ENGINEER OF RECORD PRIOR TO INSTALLATION IF BASE MATERIAL CONDITION DEVIATES FROM STRUCTURAL DRAWINGS OR MANUFACTURER TECHNICAL DATA.
- MANUFACTURER DATA FOR ALTERNATE ANCHORAGE PROPOSED BY CONTRACTOR SHALL BE SUBMITTED TO ENGINEER OF RECORD FOR REVIEW AND APPROVAL. SUBMITTAL SHALL INCLUDE THE ICC EVALUATION SERVICE REPORT WITH ICC TESTED CAPACITY MEETING OR EXCEEDING CAPACITY OF ANCHORAGE SPECIFIED IN CONTRACT DOCUMENTS.
- 3. UNLESS OTHERWISE INDICATED, POST INSTALLED ANCHORAGE SHALL BE ADHESIVE TYPE HILTI HIT-HY200 INTO CONCRETE OR STONE BASE MATERIAL OR HY-270 INTO BRICK MASONRY BASE MATERIAL.

ENGINEERED WOOD PRODUCTS

- 1 MICROLLAM BEAMS PROVIDE ENGINEERED BEAMS SIZES AS SHOWN MICROLLAM LVI OR PARALLAM PSI AS MANUFACTURED BY WEYERHAEUSER OR APPROVED EQUAL. INSTALL IN STRICT COMPLIANCE WITH THE MANUFACTURER'S STANDARD RECOMMENDATIONS
- 2. GLUED LAMINATED TIMBER (SOFTWOOD): PROVIDE ENGINEERED BEAMS, SIZES AS SHOWN, IN ACCORDANCE WITH AITC 117-84 DESIGN STANDARD SPECIFICATIONS FOR STRUCTURAL GLUED LAMINATED TIMBER OF SOFTWOOD SPECIES. UNLESS NOTED OTHERWISE. ALL
- LAMINATIONS SHALL BE SOUTHERN PINE. A. ANTHONY POWER COLUMNS: COMBINATION 50 SOUTHERN PINE N1D14
- B. ANTHONY POWER PRESERVED COLUMNS: COMBINATION 50 SOUTHERN PINE N1D14 C. ANTHONY POWER BEAMS: 3000 Fb - 2.1E - 300 Fv
- D. ANTHONY POWER PRESERVED BEAMS: 24F-V5M1/SP (2400 Fb 1.8E 300 Fv)

FRAMING LUMBER

- 1. ALL FRAMING LUMBER WORK SHALL CONFORM TO THE FOLLOWING GOVERNING STANDARDS A. AMERICAN INSTITUTE OF TIMBER CONSTRUCTION, "TIMBER CONSTRUCTION MANUAL" LOCALLY APPROVED EDITION.
 - B. NATIONAL FOREST PRODUCTS ASSOCIATION "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION," LOCALLY
- 2. FRAMING LUMBER SHALL HAVE EACH PIECE GRADE STAMPED, SHALL BE SURFACED DRY (EXCEPT STUDS, WHICH SHALL BE KILN DRIED) AND SHALL CONFORM TO THE FOLLOWING SPECIES AND GRADE: RAFTERS AND JOISTS: DOUGLAS FIR-LARCH #2 OR HEM FIR #2 BEAMS, GIRDERS AND HEADERS: DOUGLAS FIR-LARCH #1 OR HEM FIR #1 STUDS AND PLATES: DOUGLAS FIR-LARCH STUD GRADE OR HEM FIR STUD GRADE
- TIMBER LUMBER SHALL CONFORM TO THE FOLLOWING SPECIES AND GRADE: POST AND TIMBER: DOUGLAS FIR-LARCH #1 OR HEM FIR #1 BEAMS AND STRINGERS: DOUGLAS FIR-LARCH #1 OR HEM FIR #1
- 4. PRESERVATIVE-TREATED WOOD: PROVIDE TREATED DOUG-FIR #2 LUMBER COMPLYING WITH ACQ-D (CARBONATE). COPPER AZOLE (CA-B), OR SODIUM BORATE (SBX (DOT) WITH NaS10/2) AT ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY, OR AS OTHERWISE INDICATED ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. ACZA TREATMENT IS NOT PERMITTED. TREATED LUMBER AND/OR PLYWOOD SHALL BEAR THE LABEL OF AN ACCREDITED AGENCY SHOWING 0.40 PCF RETENTION. WHERE LUMBER AND/OR PLYWOOD IS CUT OR DRILLED AFTER TREATMENT, THE TREATED SURFACE SHALL BE FIELD-TREATED WITH COPPER NAPTHENATE (THE CONCENTRATION OF WHICH SHALL CONTAIN A MINIMUM OF 2% COPPER METAL) BY REPEATED BRUSHING, DIPPING, OR SOAKING UNTIL THE WOOD ABSORBS NO MORE PRESERVATIVE.
- 5. ALL WOOD FRAMING INCLUDING DETAILS FOR BRIDGING, BLOCKING, FIRE STOPPING, ETC., SHALL CONFORM TO THE LOCALLY APPROVED EDITION OF THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" AND ITS SUPPLEMENTS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE NFPA "MANUAL FOR HOUSE FRAMING" OR THE GOVERNING LOCAL/STATE BUILDING CODE.
- 6. FASTENING SHALL BE IN ACCORDANCE WITH THE MOST RESTRICTIVE OF: THE GOVERNING LOCAL/STATE BUILDING CODE, (LOCALLY APPROVED EDITION), OR THE MANUFACTURER'S RECOMMENDED FASTENING SCHEDULES.
- 7. ALL FLUSH FRAMED CONNECTIONS SHALL BE MADE WITH APPROVED GALVANIZED STEEL JOIST OR BEAM HANGERS, MINIMUM 18 GAUGE, INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- 8. WHERE FRAMING LUMBER IS FLUSH FRAMED TO MICROLLAM, STEEL OR FLITCH-PLATE GIRDER, SET THESE GIRDERS 1/2" CLEAR (MIN.) BELOW TOP OF FRAMING LUMBER, TO ALLOW FOR SHRINKAGE.
- 9. BUILT UP BEAMS LESS THAN 8" DEEP SHALL BE SPIKED TOGETHER WITH 2 16D NAILS @16"o/c. BUILT UP BEAMS GREATER THAN 8" DEEP SHALL BE SPIKED TOGETHER WITH 3 - 16D NAILS @16" O/C.
- 10. WHERE CANTILEVERED BEAMS ARE INDICATED, THE FAR CONNECTOR SHALL BE CAPABLE OF RESISTING AN UPLIFT OF 1000 LBS.
- 11. NO NEW OR EXISTING JOISTS SHALL BE CUT OR NOTCHED WITHOUT APPROVAL.
- 12. ALL LIGHT-GAUGE HANGERS SUPPORTING PRESERVATIVE TREATED WOOD SHALL MEET OR EXCEED G185 (1.85 OZ OF ZINC PER SQUARE FOOT). ALTERNATIVELY, STAINLESS STEEL CONNECTIONS MAY BE USED. FASTENERS SHALL MATCH THE HANGER FINISH AND

SPECIAL INSPECTIONS

- 1. INSPECTIONS REQUIRED BY THE LOCAL JURISDICTION SHALL BE PERFORMED BY A TESTING AGENCY PROVIDED BY THE OWNER FOR
- THE FOLLOWING ITEMS:
- A. INSPECTION OF FABRICATORS (IBC 1704.2.5) B. STEEL CONSTRUCTION (IBC 1705.2)
- a. STRUCTURAL STEEL (IBC 1705.2.1)
- b. STRUCTURAL STEEL WELDING (AISC 360, AWS D1.1)
- c. HIGH STRENGTH BOLTS (AISC 360)
- C. CONCRETE CONSTRUCTION (IBC 1705.3, TABLE 1705.3) a. WELDING OF REINFORCING BARS (IBC 1705.3.1, TABLE 1705.3)
- b. MATERIALS (IBC 1705.3.1) c. POST-INSTALLED ANCHORS (IBC TABLE 1705.3)
- D. MASONRY CONSTRUCTION (IBC 1705.4, ACI 530 AND ACI 530.1 LEVEL B QUALITY ASSURANCE)
- E. WOOD CONSTRUCTION (IBC 1705.5) F. SOILS (IBC 1705.6, TABLE 1705.6)
- 2. STRUCTURAL OBSERVATIONS REQUIRED BY THE LOCAL JURISDICTION AND IBC 1704.5 SHALL BE PERFORMED BY A REGISTERED DESIGN PROFESSIONAL PROVIDED BY THE OWNER. STRUCTURAL OBSERVATIONS SHALL BE THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS.
- 3. TESTING AGENCY FOR THE INSPECTIONS SHALL FILE ALL APPROPRIATE FORMS WITH THE BUILDING DEPARTMENT.

LIVE LOADS		SNOW LOADS		WIND DESIGN PARAMETERS		SEISMIC DESIGN PARAMETERS	
FLOOR OR ROOF AREA	LOAD (PSF)	LOAD TYPE	LOAD (PSF)	PARAMETER	VALUE	PARAMETER	VALUE
FIRST FLOOR CORRIDORS	100	SNOW	30	BASIC WIND SPEED	110 MPH	SEISMIC DESIGN CATEGORY	В
ASSEMBLY	100	DRIFT	N/A	WIND EXPOSURE	В	RISK CATEGORY	
OFFICES	50					SITE CLASS (ASSUMED)	D
RESIDENTIAL AREAS	40					SHORT PERIOD DESIGN VALUE (Sps)	0.144g
CORRIDORS ABOVE FIRST FLOOR	80					1.0 SEC. PERIOD DESIGN VALUE (S _{D1})	0.069g
ROOF	20	PARAMETER	VALUE			RESPONSE MODIFICATION (R)	1.5
		GROUND SNOW LOAD (Pg)	25			* PER GEOTECHNICAL REPORT DETAILED FOUNDATION NOTES.	
		SNOW EXPOSURE FACTOR (Ce)	1.0				
		SNOW LOAD IMPORTANCE FACTOR (I)	1.0				
		TERRAIN EXPOSURE	В				
SPECIAL CONSIDERATIONS:		SPECIAL CONSIDERATIONS:		SPECIAL CONSIDERATIONS:		SPECIAL CONSIDERATIONS:	

DECION LOADS AND EASTORS

NOT FOR CONSTRUCTION



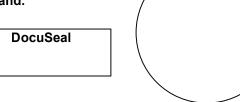
ARCHITECTURAL ENGINEERS PLLC 210 N. Lee St., Suite 210 Alexandria, VA 22314 T: 703.350.4151 1200ae.com

DRAWING CHECKED BY: Submission Name Initials Date MHT SUBMISSION NF / JM 4/10/2023 PROFESSIONAL CERTIFICATION: I, John A. Matteo, hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

57428

LICENSE NO.___

EXPIRATION DATE: 04/05/2025





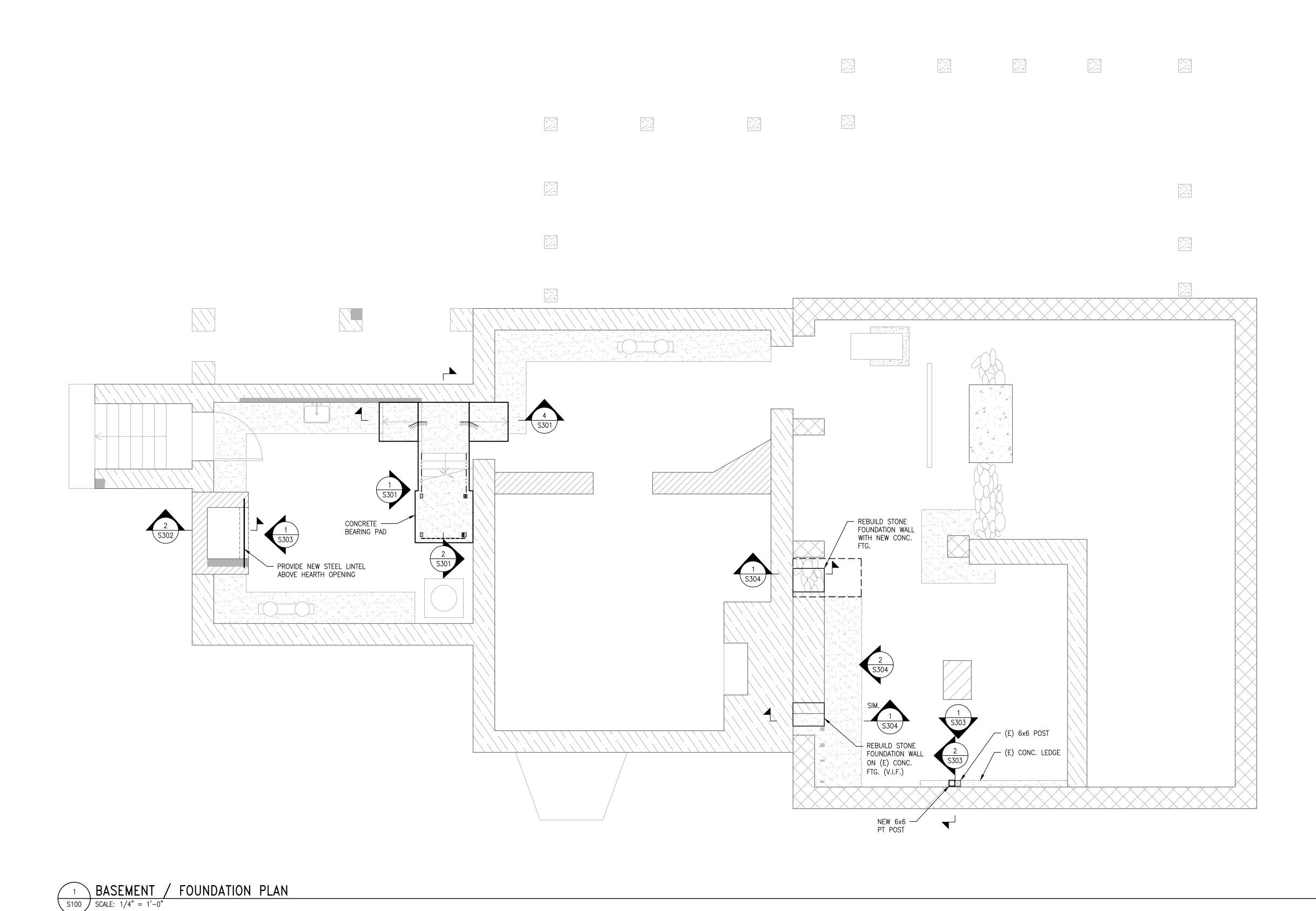
The Maryland-National Capital Park and Planning Commission Montgomery County Department of Parks 9500 Brunett Avenue

Silver Spring, Maryland 20901

(301) 495-2535

SUBMISSION / REVISION Rev. No. Date Description			STRUCTURAL GENERAL NOTES
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876 SCALE:

DWG.#



NOT FOR CONSTRUCTION

ENCORE
SUSTAINABLE ARCHITECTS
ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202
(410) 624-5461

ARCHITECTURAL ENGINEERS PLLC

210 N. Lee St., Suite 210
Alexandria, VA 22314
T: 703.350.4151
1200 ae.com

DRAWING CHECKED BY:

Submission Name Initials Date

MHT SUBMISSION NF / JM 4/10/2023



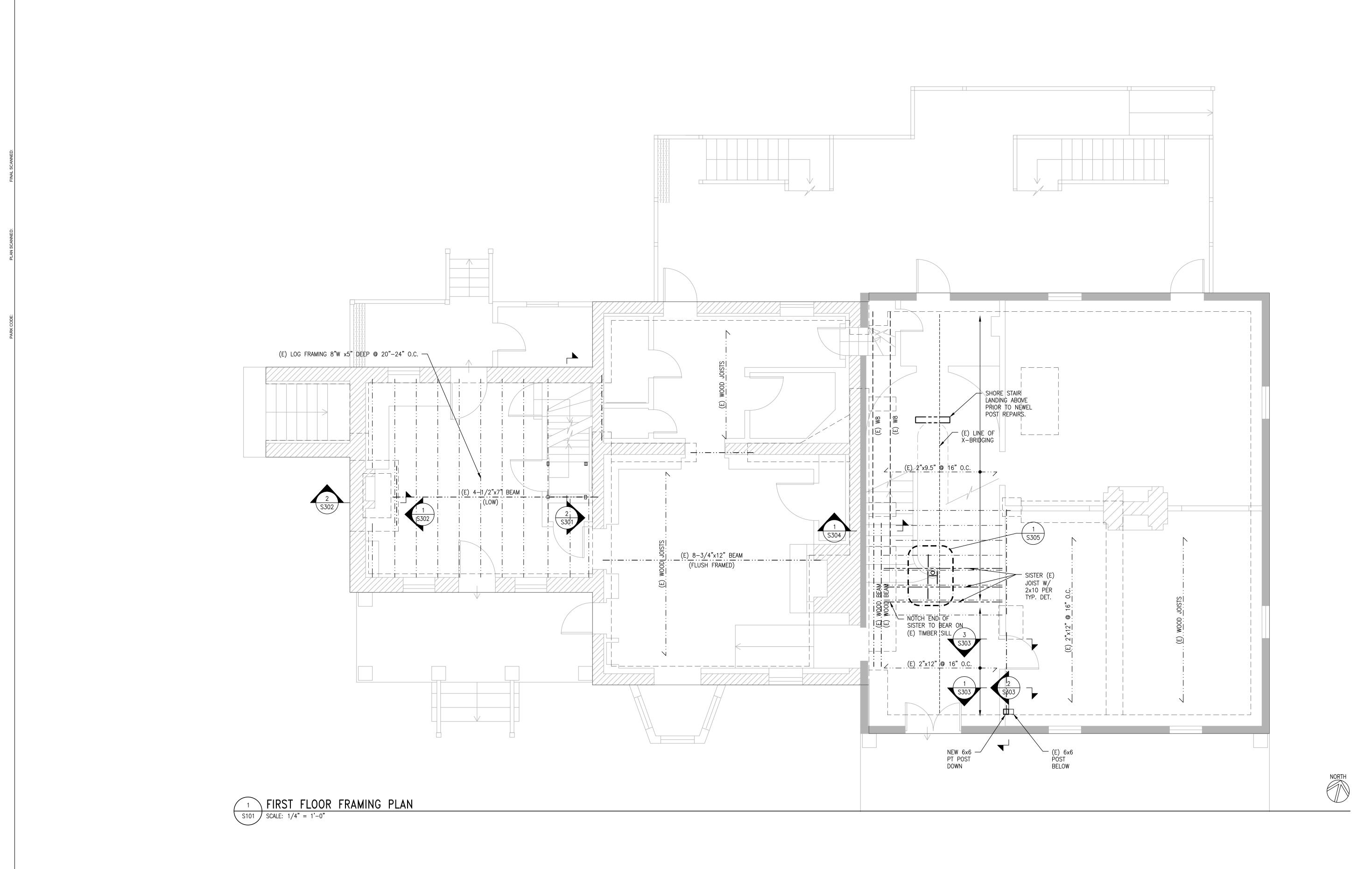
The Maryland-National Capital Park and Planning Commission

Montgomery County Department of Parks
9500 Brunett Avenue
Silver Spring, Maryland 20901
(301) 495-2535

SUBMISSION / REVISION			BASEMENT / FOUNDATION PLAN	
Rev. No.	Date	Description		
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS	
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE	
			GERMANTOWN, MD 20876 SCALE:	

DWG. #

S100



NOT FOR CONSTRUCTION

ENCORE
SUSTAINABLE ARCHITECTS
ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202
(410) 624-5461

ARCHITECTURAL ENGINEERS PLLC

210 N. Lee St., Suite 210

Alexandria, VA 22314

T: 703.350.4151

1200ae.com

DRAWING CHECKED BY:

Submission Name Initials Date

MHT SUBMISSION NF / JM 4/10/2023

PROFESSIONAL CERTIFICATION:
I, John A. Matteo, hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

| DocuSeal | LICENSE NO. 57428 | EXPIRATION DATE: 04/05/2025



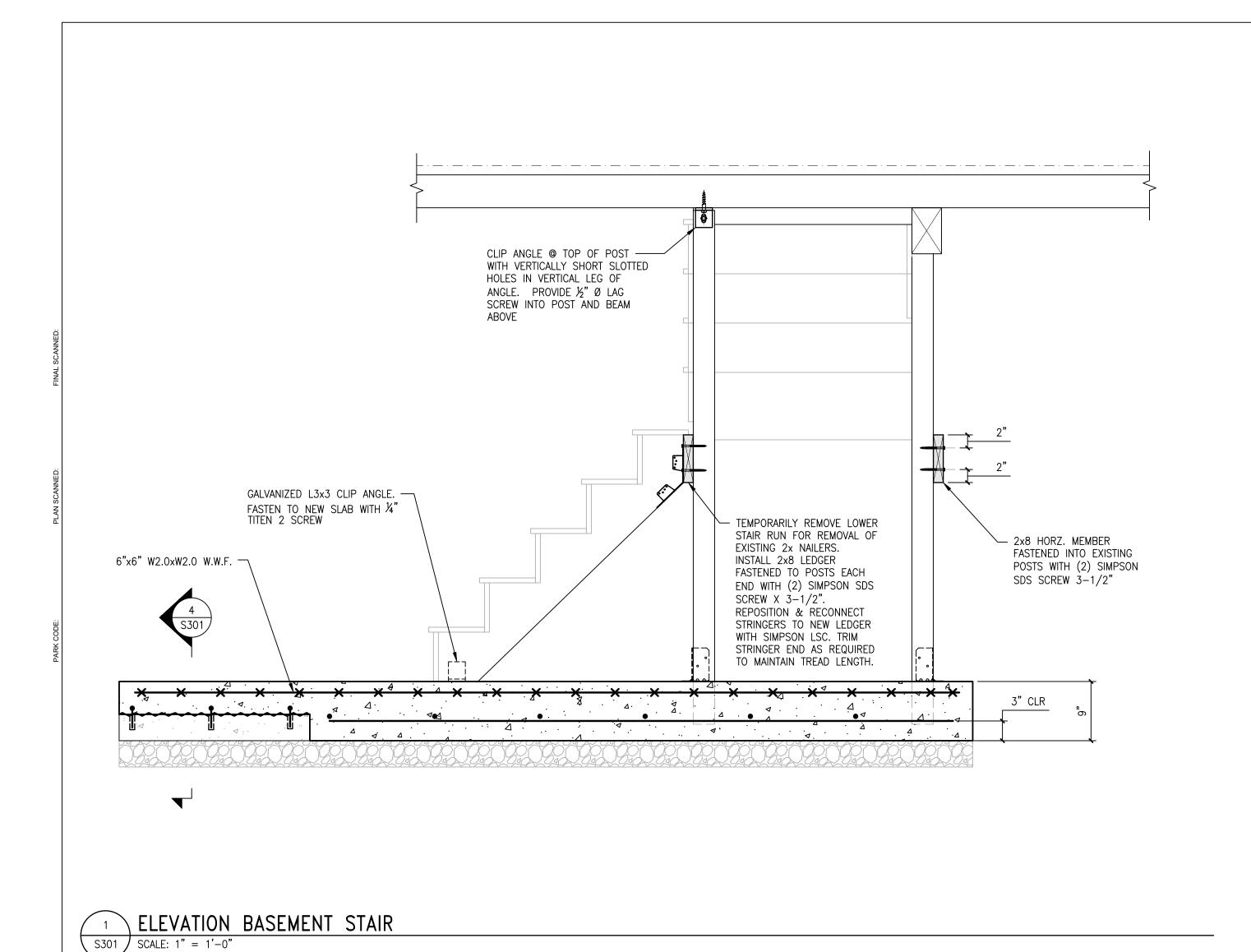
The Maryland-National Capital Park and Planning Commission

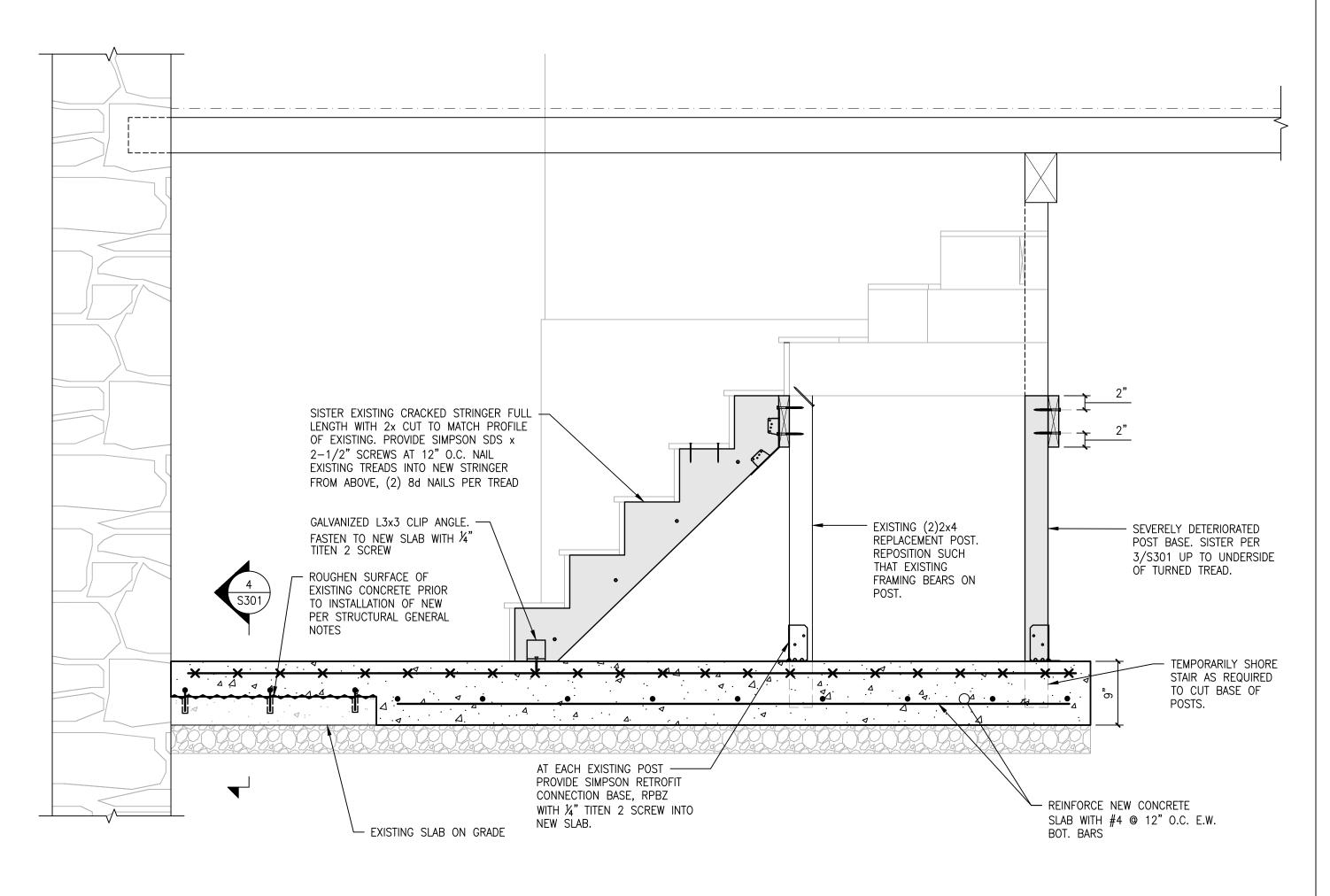
Montgomery County Department of Parks
9500 Brunett Avenue
Silver Spring, Maryland 20901
(301) 495-2535

SUBMISSION / REVISION			1ST FLOOR FRAMING PLAN	
ev. No.	Date	Description		
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS	
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876	
			SCALE:	

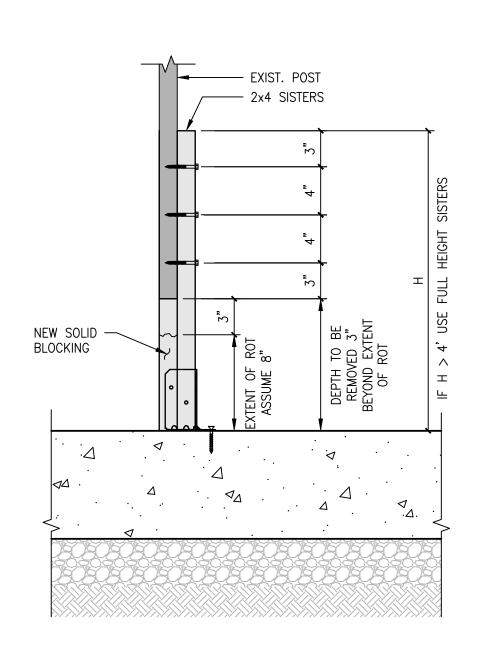
DWG.#

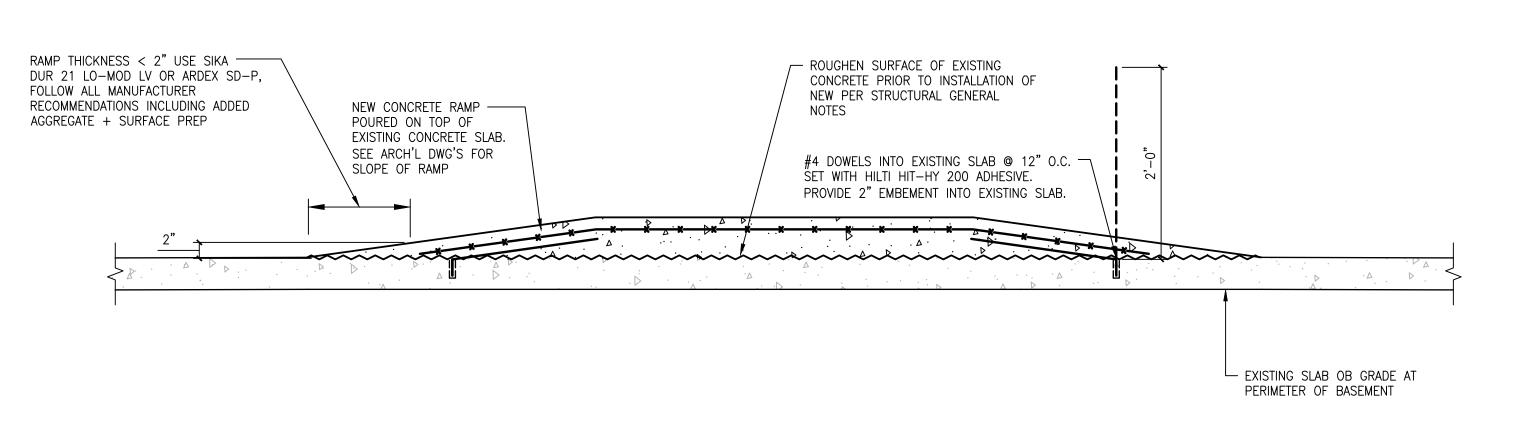
S101

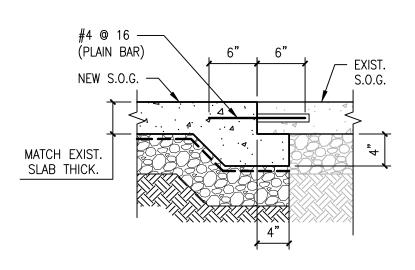




SECTION THROUGH BASEMENT STAIR S301 | SCALE: 1" = 1'-0"







WOOD POST BEARING REPAIR S301 SCALE: 1-1/2" = 1'-0"

CONCRETE RAMP OVERBUILD \setminus S301 \int SCALE: 1" = 1'-0"

\ CONNECTION OF NEW TO EXISTING S.O.G. S301 SCALE: NTS

NOT FOR CONSTRUCTION

ENCORE	MCC
SUSTAINABLE ARCHITECTS	ARCHITECTUR
ARCHITECTURE PRESERVATION 31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202 (410) 624-5461	210 N. L Alexand T: <i>7</i> 0

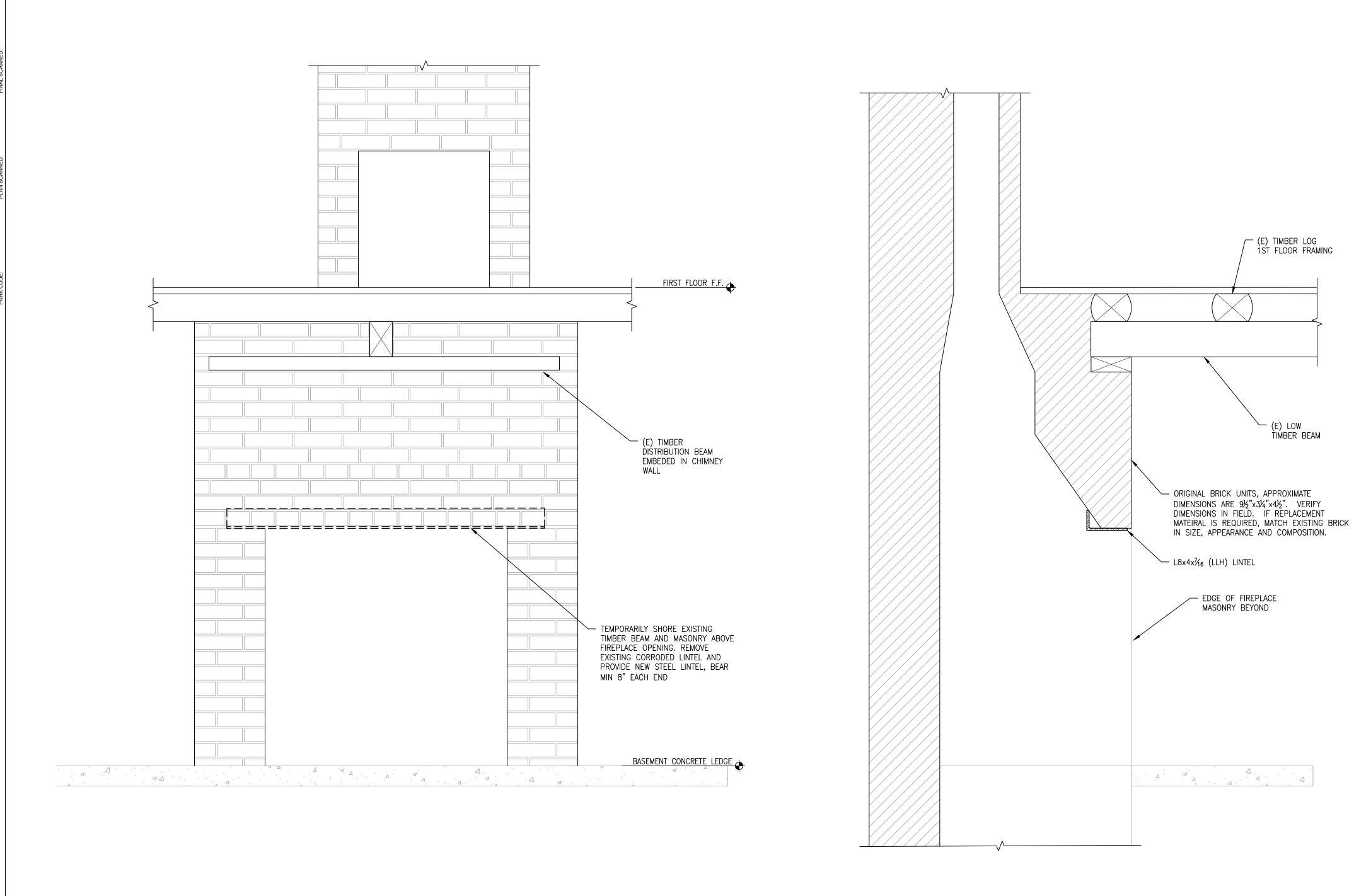
Alexandria, V T: 703.35 1200ae

	DRAWING CHECKED BY:		
-1000	Submission Name	Initials	Date
	MHT SUBMISSION	NF/JM	4/10/20
ENGINEERS PLLC			
St., Suite 210			
. VA 22314 350.4151			
1e.com			
		 	

PROFESSIONAL CER	TIFICATION:				
I, John A. Matteo, here prepared or approved					
	professional engineer under the laws of the State of Maryland.				
		DocuSeal	7 (
LICENSE NO	57428				
EXPIRATION DATE:_	04/05/2025				

The Maryland-National Capital Park and Planning Commission	-
Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535	-

JBMISSION / REVISION		VISION	BASEMENT STAIR DETAILS	
. No.	Date	Description		
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS	
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE	53
			GERMANTOWN, MD 20876	
			SCALE:	



\ ELEVATION OF BASEMENT FIREPLACE S302 SCALE: 1" = 1'-0"

SECTION THROUGH BASEMENT FIREPLACE S302 SCALE: 1'' = 1'-0''

NOT FOR CONSTRUCTION

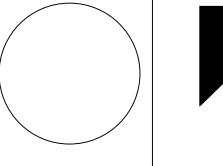
ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202
(410) 624-5461

ARCHITECTURAL ENGINEERS PLLC 210 N. Lee St., Suite 210 Alexandria, VA 22314 T: 703.350.4151 1200ae.com

DRAWING CHECKED BY: **Submission Name** MHT SUBMISSION NF / JM 4/10/2023

PROFESSIONAL CERTIFICATION: I, John A. Matteo, hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. LICENSE NO.____ 57428

EXPIRATION DATE: 04/05/2025

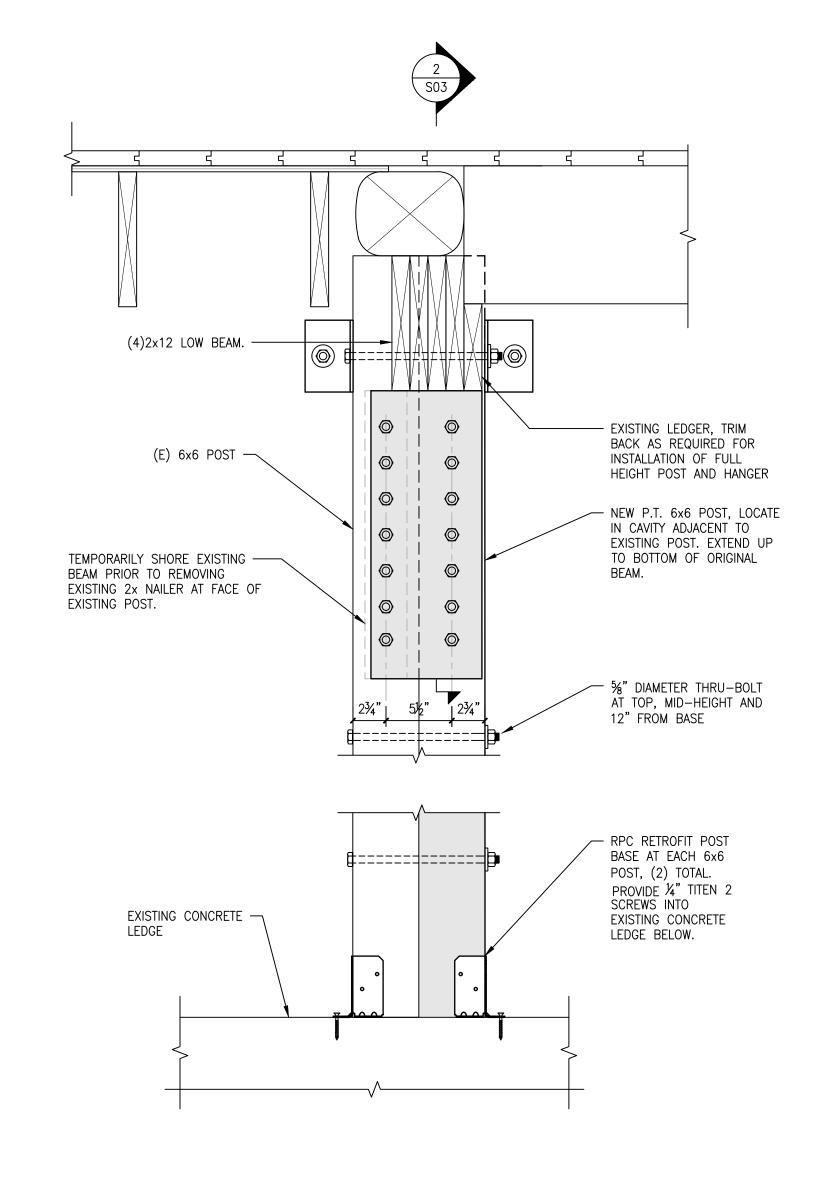




SUBMI	SSION / RE	VISION	BASEMENT FIREPLACE DETAILS						
v. No.	Date	Description							
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS						
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876						
			SCALE:						

DWG.#

S302



LAX4-5% x 55," CLIP ANGLE WITH \$6" @ X 4" HILTI KWIK
HUS SCREW ANCHOR NTO EXISTING CAUL WALL & (1) %"
@ THRU-BOLT INTO NEW & EXISTING POSTS

NEW 6x6 PT POST

PROVIDE FULL BEARING ON VERTICAL LEDGER.

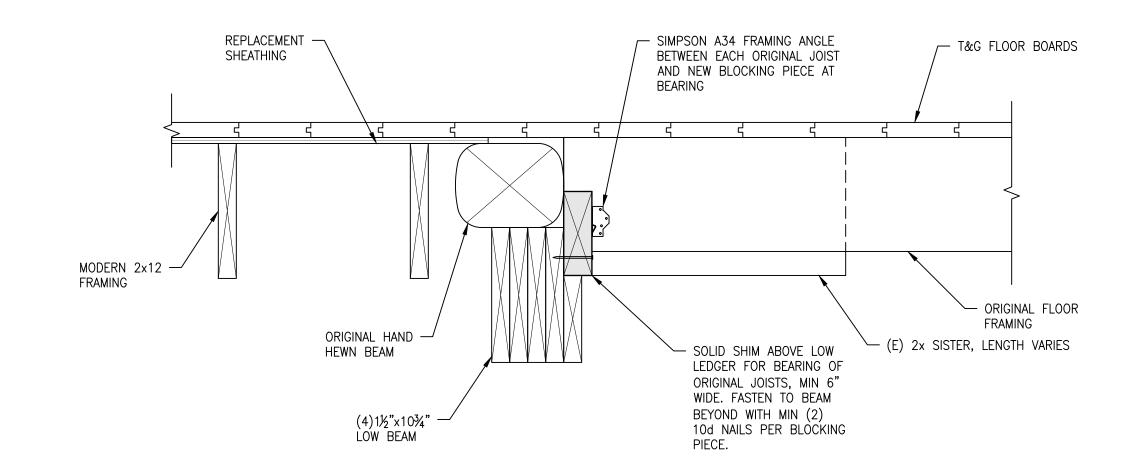
EXISTING (2)2x BEAM (LOW)

X"x8" LAG SCREWS AT 3" O.C TYP.

(2) PT 2x10 VERTICAL LEDGER

REINFORCED POST SECTION

S303 SCALE: 1-1/2" = 1'-0"



MODIFIED CONNECTION OF EXISTING FIRST FLOOR FRAMING

S303 SCALE: 1-1/2" = 1'-0"

NOT FOR CONSTRUCTION

REINFORCED POST ELEVATION

S303 SCALE: 1-1/2" = 1'-0"

ENCORE
SUSTAINABLE ARCHITECTS
ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202
(410) 624-5461

ARCHITECTURAL ENGINEERS PLLC

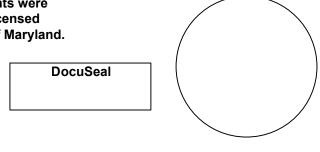
210 N. lee St., Suite 210
Alexandria, VA 22314
T: 703.350.4151
1200ae.com

DRAWING CHECKED BY:												
Submission Name	Initials	Date										
MHT SUBMISSION	NF/JM	4/10/2023										

PROFESSIONAL CERTIFICATION:
I, John A. Matteo, hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

LICENSE NO.____

EXPIRATION DATE: 04/05/2025



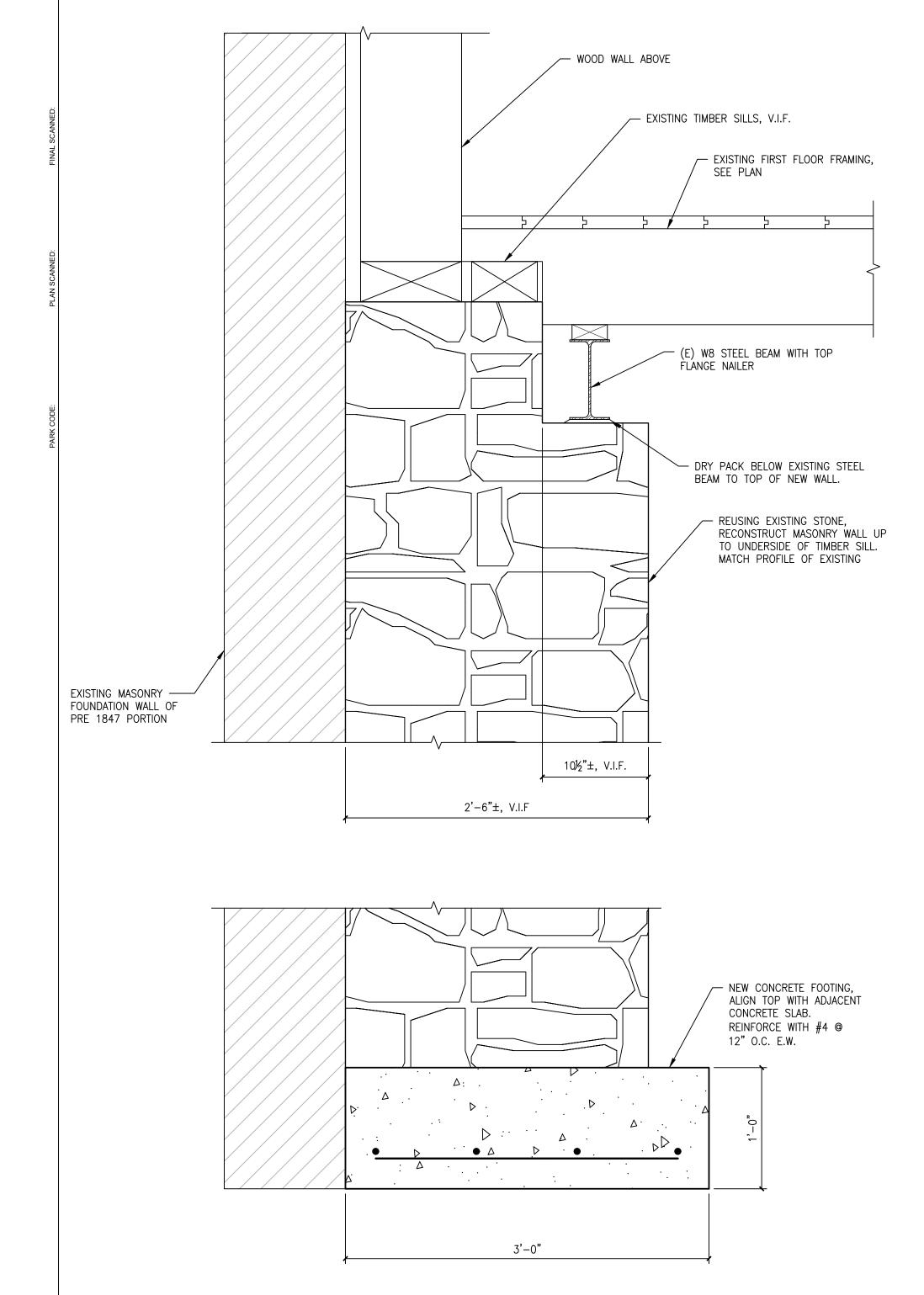


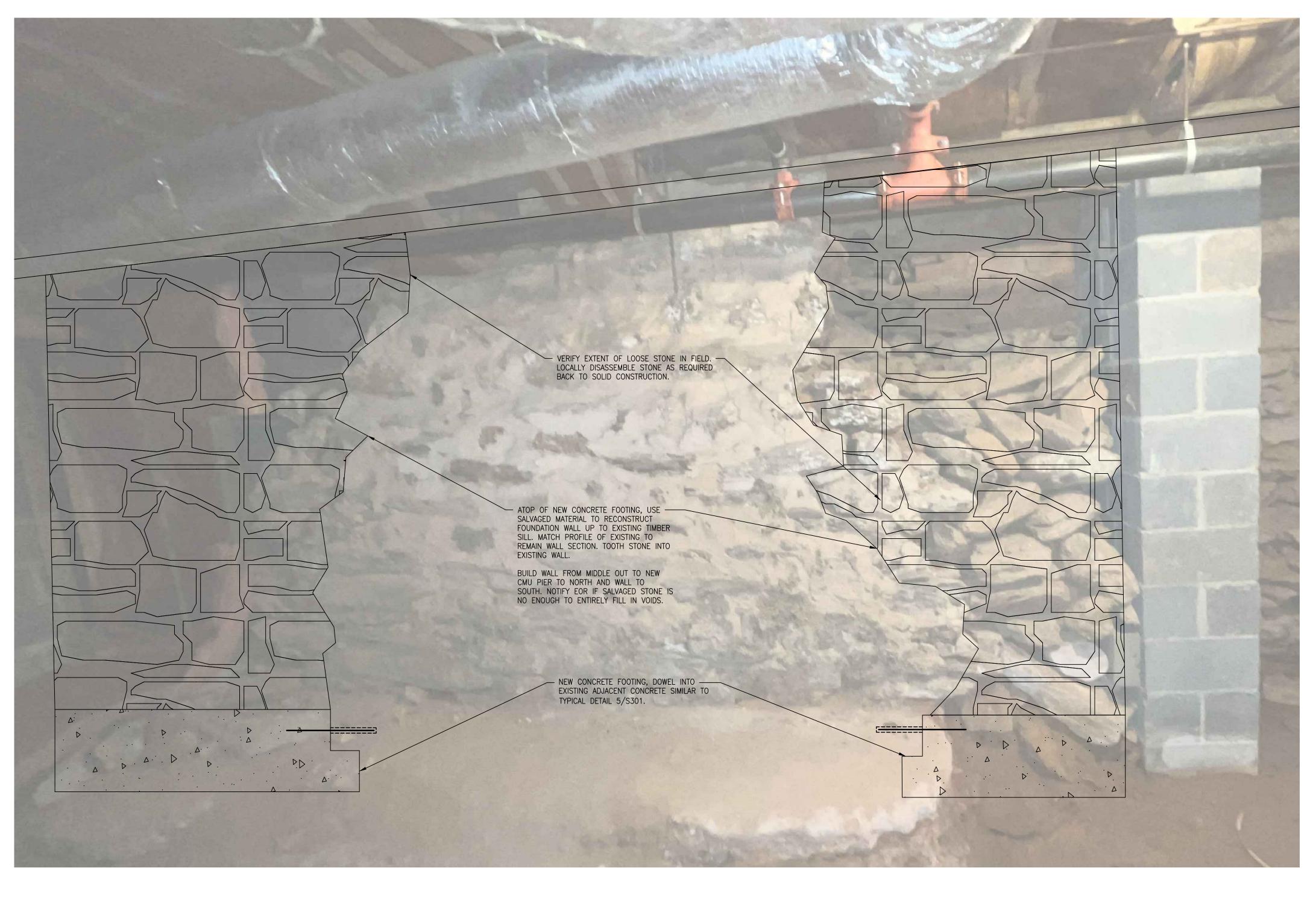
The Maryland-National Capital Park and Planning Commission Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

SUBMI	SSION / RE	VISION	ROOM 002 FRAMING REPAIRS
Rev. No.	Date	Description	
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE
			GERMANTOWN, MD 20876
			SCALE:

S303

DWG.#





2 WALL ELEVATION
SCALE: NTS

SECTION THROUGH RECONSTRUCTED WALL

S304 SCALE: 1-1/2" = 1'-0"

NOT FOR CONSTRUCTION

ENCORE
SUSTAINABLE ARCHITECTS
ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202
(410) 624-5461

ARCHITECTURAL ENGINEERS PLLC

210 N. Lee St., Suite 210

Alexandria, VA 22314

T: 703.350.4151

1200ae.com

DRAWING CHECKED BY:

Submission Name Initials Date

MHT SUBMISSION NF / JM 4/10/2023

PROFESSIONAL CERTIFICATION:
I, John A. Matteo, hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

LICENSE NO.____

EXPIRATION DATE: 04/05/2025

n a duly licensed ne State of Maryland.

DocuSeal



The Maryland-National Capital Park and Planning Commission

Montgomery County Department of Parks
9500 Brunett Avenue
Silver Spring, Maryland 20901
(301) 495-2535

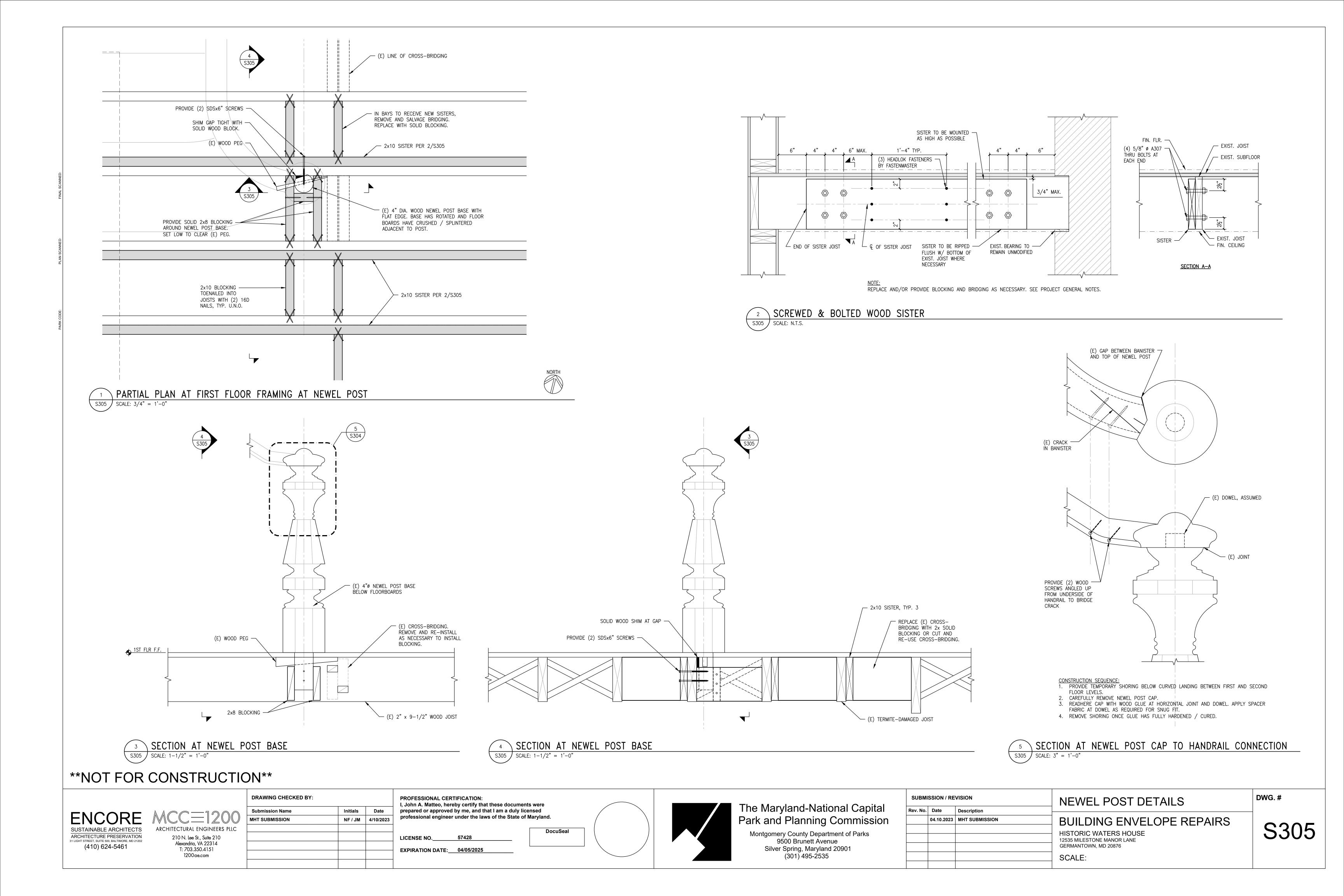
ev. No.	Date	Description	
	04.10.2023	MHT SUBMISSION	BUILDING ENVE
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876
			SCALE:

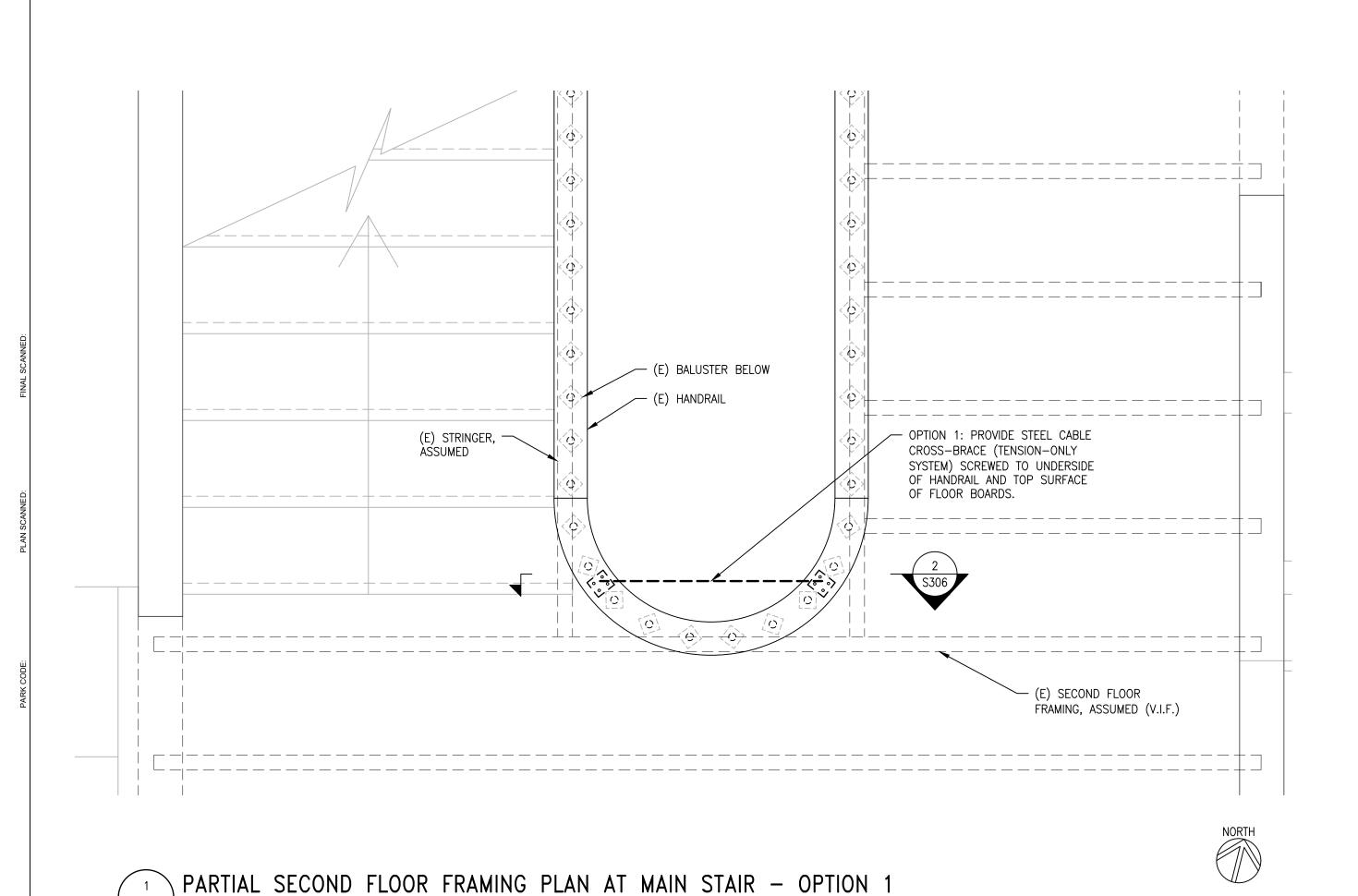
SUBMISSION / REVISION

ROOM 002 STONE WALL REPAIRS DWG

G ENVELOPE REPAIRS

S304



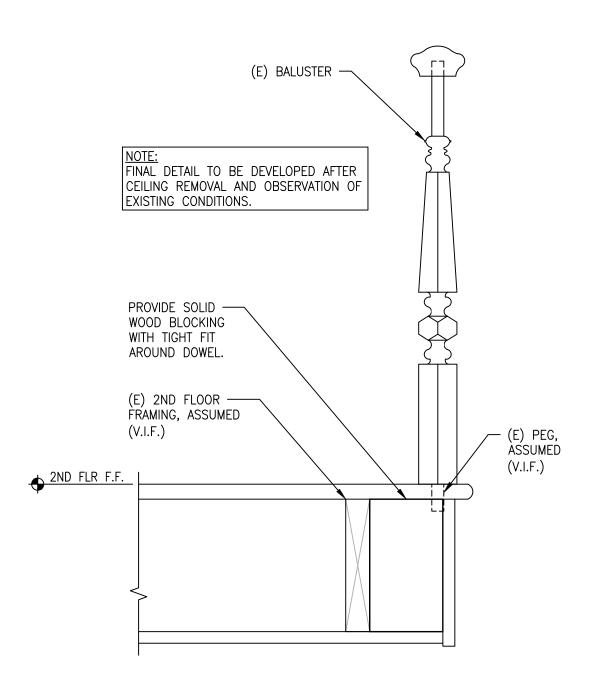


— (E) BALUSTER BELOW (E) STRINGER, ÀŚSUMED CEILING BELOW TO EXPOSE (E) SECOND FLOOR FRAMING AND BALUSTER BASE FRAMING, ASSUMED (V.I.F.) DOWELING CONDITION. REINFORCE BASE CONNECTION FROM BELOW.

STEEL WIRE ROPE WITH COMPRESSION SLEEVES WELDED STEEL — PLATES SCREWED INTO UNDERSIDE OF (E) HANDRAIL WELDED STEEL —— PLATES SCREWED INTO TOP FACE OF (E) FLOORBOARDS 2ND FLR F.F. L

OPTION 1: EXTERNAL X-BRACING (REVERSIBLE)

SCALE: 1-1/2" = 1'-0"



OPTION 2: BALUSTER BASE CONNECTION REINFORCEMENT S306 SCALE: 1-1/2" = 1'-0"

NOT FOR CONSTRUCTION

ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202
(410) 624-5461 210 N. Lee St., Suite 210 Alexandria, VA 22314

S306 SCALE: 1" = 1'-0"

S306 | SCALE: 1" = 1'-0"

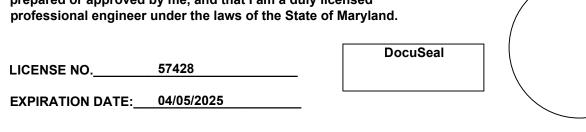
Submission Name MHT SUBMISSION T: 703.350.4151 1200ae.com

PARTIAL SECOND FLOOR FRAMING PLAN AT MAIN STAIR - OPTION 2

DRAWING CHECKED BY: NF / JM 4/10/2023

PROFESSIONAL CERTIFICATION: I, John A. Matteo, hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

LICENSE NO.____





The Maryland-National Capital Park and Planning Commission Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

SUBMI	SSION / RE	VISION	MAIN STAIR RAILING DETAILS
Rev. No.	Date	Description	
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876
			SCALE:

DWG.#

SYMBOL	DESCRIPTION
\bowtie	SHUT OFF VALVE
\mathbb{X}	GATE VALVE
$\stackrel{\wedge}{\triangleright}$	CHECK VALVE
\mathbb{Z}	AUTOMATIC 2-WAY VALVE
Į	AUTOMATIC 3-WAY VALVE
	GLOBE VALVE
lack	BALL VALVE
	RELIEF VALVE
	PRESSURE REDUCING VALVE
	BUTTERFLY VALVE
S	SOLENOID VALVE
	ANGLE VALVE
1	VENTURI VALVE
\otimes	BALANCING OR PLUG COCK
\boxtimes	FLOW SETTER
\otimes	EXPANSION VALVE
$\overline{\Diamond}$	GAS COCK
∑MAV	MANUAL AIR VENT
\	STRAINER
07	GAUGE COCK
	FLEXIBLE CONNECTION
9	PRESSURE GAUGE
	THERMOMETER
>	PIPE REDUCER
<u></u>	REFRIGERANT SITE GLASS
	REFRIGERANT STRAINER
1	REFRIGERANT FILTER DRIER
	90 DEGREE ELBOW UP
———э	90 DEGREE ELBOW DOWN
	90 DEGREE TEE UP
	90 DEGREE TEE DOWN
	PIPE UNION
———	PIPE CAP
	PIPE ANCHOR

FIONS MAY NOT BE USED.	NOTE	: ALL ABBREVIATIONS MAY NOT BE
DECODIDATION		
DESCRIPTION	ABBREVIATION	DESCRIPTION
RECTANGULAR SUPPLY DUCT UP		CHILLED WATER RETURN
	CHWS	CHILLED WATER SUPPLY
RECTANGULAR SUPPLY DUCT DOWN	CA	COMPRESSED AIR
	CD	CONDENSATE DRAIN
RECTANGULAR RETURN DUCT UP	C02	CARBON DIOXIDE
		CONDENSER WATER RETURN
RECTANGULAR RETURN DUCT DOWN	CWS	CONDENSER WATER SUPPLY
	———FP———	FIRE PROTECTION
RECTANGULAR EXHAUST DUCT UP	——FOR——	FUEL OIL RETURN
	——FOS——	FUEL OIL SUPPLY
RECTANGUI AR EXHAUST DUCT DOWN	——FOV——	FUEL OIL VENT
NEO MINOCENIC EMINOCI DOCI DOWN	———GR———	GLYCOL RETURN
DOLIND CLIDDI V DUCT LID	GS	GLYCOL SUPPLY
ROUND SUPPLY DUCT UP	——HPC——	HIGH PRESSURE CONDENSATE
DOLING CURRING ROUNG	MPC	MEDIUM PRESSURE CONDENSA
ROUND SUPPLY DUCT DOWN	LPC	LOW PRESSURE CONDENSATE
DOUND DETUDN DUOT UD	——HPS——	HIGH PRESSURE STEAM
ROUND RETURN DUCT UP	MPS	MEDIUM PRESSURE STEAM
DOLIND DETUDNI DUOT DOMINI	LPS	LOW PRESSURE STEAM
ROUND RETURN DUCT DOWN	HHWR	HEATING HOT WATER RETURN
	HHWS	HEATING HOT WATER SUPPLY
ROUND EXHAUST DUCT UP	——LPG——	LIQUID PROPANE GAS
DOUND EVILABLET DUCT DOWN	——LPS——	LOW PRESSURE STEAM
ROUND EXHAUST DUCT DOWN	MA	MEDICAL AIR
	NG	NATURAL GAS
OVAL SUPPLY DUCT UP	NO	NITROUS OXIDE
	o	OXYGEN
OVAL SUPPLY DUCT DOWN	———PC———	PUMPED CONDENSATE
	RG	REFRIGERANT GAS
OVAL RETURN DUCT UP	———RL———	REFRIGERANT LIQUID
OVAL PETURNICUS SCIENCE	SMR	SNOW MELT RETURN
OVAL RETURN DUCT DOWN	SMS	SNOW MELT SUPPLY
	VAC	VACUUM
OVAL EXHAUST DUCT UP		
OVAL EXHAUST DUCT DOWN		BOL LEGEND
	RECTANGULAR SUPPLY DUCT DOWN RECTANGULAR RETURN DUCT UP RECTANGULAR EXHAUST DUCT UP RECTANGULAR EXHAUST DUCT DOWN ROUND SUPPLY DUCT UP ROUND RETURN DUCT DOWN ROUND RETURN DUCT DOWN ROUND EXHAUST DUCT DOWN OVAL SUPPLY DUCT UP OVAL SUPPLY DUCT DOWN OVAL RETURN DUCT UP OVAL RETURN DUCT DOWN OVAL RETURN DUCT DOWN	RECTANGULAR SUPPLY DUCT DOWN RECTANGULAR RETURN DUCT UP RECTANGULAR RETURN DUCT DOWN RECTANGULAR EXHAUST DUCT UP RECTANGULAR EXHAUST DUCT DOWN RECTANGULAR EXHAUST DUCT DOWN ROUND SUPPLY DUCT UP ROUND SUPPLY DUCT UP ROUND RETURN DUCT DOWN ROUND RETURN DUCT DOWN ROUND RETURN DUCT UP ROUND EXHAUST DUCT DOWN ROUND EXHAUST DUCT DOWN ROUND EXHAUST DUCT UP ROUND EXHAUST DUCT DOWN OVAL SUPPLY DUCT DOWN OVAL SUPPLY DUCT DOWN OVAL SUPPLY DUCT DOWN OVAL RETURN DUCT DOWN OVAL RETURN DUCT DOWN OVAL RETURN DUCT DOWN OVAL RETURN DUCT DOWN OVAL EXHAUST DUCT DOWN SMR OVAL SMR OVAL EXHAUST DUCT UP

SYMBOL LEG	SEND - MECH				
NOTE: ALL ABBREVIATION	IS MAY NOT BE USED.				
SYMBOL	DESCRIPTION				
	SQUARE OR RECTANGULAR SUPPLY DIFFUSER				
	SQUARE OR RECTANGULAR RETURN DIFFUSER				
	SQUARE OR RECTANGULAR EXHAUST DIFFUSER				
	ROUND DIFFUSER				
	LINEAR SLOT GRILLE OR DIFFUSER				
	FLEXIBLE DUCT				
	SIDEWALL GRILLE OR REGISTER				
	DUCT HIGH EFFICIENCY TAKE OFF WITH BALANCING DAMPER				

NOTE: ALL ABBREVIATIONS MAY NOT BE USED.

AIR CONDITION(-ING,-ED) APD AIR PRESSURE DROP BD BALANCING DAMPER BHP **BRAKE HORSE POWER** BTU BRITISH THERMAL UNIT BTUH BTU/HOUR CFH CUBIC FEET PER HOUR CFM CUBIC FEET PER MINUTE CONTROL VALVE CV DRY BULB TEMPERATURE DCW DOMESTIC COLD WATER DHW DOMESTIC HOT WATER DHWR DOMESTIC HOT WATER RECIRC DP EA EXHAUST AIR EER **ENERGY EFFICIENCY RATIO** EFF **EFFICIENCY** ELEC ELECTRIC ELEV **ELEVATION**

ENTERING EVAPORAT(-E, -ING, -ED, -OR) **ENTERING WATER TEMPERATURE EXTERNAL** FIRE DAMPER FULL LOAD AMPS FINS PER INCH

FD FLA FEET PER MINUTE FPS FEET PER SECOND FSD FIRE SMOKE DAMPER GE GREASE EXHAUST GPH GALLONS PER HOUR GPM **GALLONS PER MINUTE** HD

HG MERCURY **HORSEPOWER** HOUR HTG HEATING HZ HERTZ (FREQUENCY) INCH KW KILOWATT

LBS POUNDS LATENT HEAT LOCKED ROTOR AMPS LEAVING LEAVING WATER TEMPERATURE THOUSAND BTU PER HOUR

MANUFACTUR(-ER, -ED) NOT IN CONTRACT NORMALLY OPEN

NET POSITIVE SUCTION HEAD NOT TO SCALE OUTSIDE AIR OUTSIDE DIAMETER OUNCE

PROPOLENE GLYCOL PHASE PARTS PER MILLION POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH

PSI GAUGE RETURN AIR RECIRC RECIRCULATE (-ER, -ED, -ING) REFR REFRIGERATION REQD REQUIRED RLA RATED LOAD AMPS

RPM REVOLUTIONS PER MINUTE SUPPLY AIR SCFM SCW SOFT COLD WATER

SENSIBLE HEAT STATIC PRESSURE SPEC(S) SPECIFICATION(S) SQUARE STD STANDARD SOIL, WASTE TA(S)

TOTAL TSTAT THERMOSTAT VOLT, VOLTAGE OR VENT VACUUM VAV VELOCITY VENT

VERT VFD VARIABLE FREQUENCY DRIVE VOL VOLUME VTR WET BULB TEMP WATER COLUMN WATER GAUGE

ABBREVIATIONS

EXISTING FUTURE DEPTH, DEEP, OR DROP IN PRESSURE ENT EVAP EWT EXT

LAT LEAVING AIR TEMPERATURE

LRA LVG LWT MBH MCA

MFR

NC

NIC

NO

NPSH

NTS

OA

OD

OZ

PD

MINIMUM CIRCUIT AMPS NORMALLY CLOSED OR NOISE CRITERIA

PRESSURE DROP OR DIFFERENCE

PPM PSIA PSI ABSOLUTE PSIG

STANDARD CUBIC FEET PER MINUTE

TRANSFER AIR (RETURN) TRANSFER AIR (SUPPLY) TD TEMP. DROP OR DIFF. TEMP TEMPERATURE TOT

> VARIABLE AIR VOLUME VENT, VENTILATION VERTICAL

VENT THROUGH ROOF WATER PRESSURE DROP WPD WTR WATER

1. THE MECHANICAL DRAWINGS SHOW THE GENERAL DESIGN, ARRANGEMENT & EXTENT OF THE MECHANICAL SYSTEM. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, THESE DRAWINGS DO NOT SHOW ALL OFFSETS, BENDS, OR ELBOWS NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE

PROVIDED. CONTRACTOR SHALL MAKE ALTERATIONS AS MAY BE NECESSARY TO MAKE THE SYSTEM COMPLETE & OPERATIONAL IN ACCORDANCE WITH THE DESIGN INTENT.

MECHANICAL GENERAL NOTES

MAJOR DEVIATIONS SUCH AS CHANGES IN SIZES, WEIGHTS, QUANTITIES, OR MATERIAL REQUIRE PRIOR APPROVAL BY THE DESIGN ENGINEER. 3. THE DRAWINGS & SPECIFICATIONS HAVE BEEN PREPARED TO SUPPLEMENT EACH OTHER & SHALL BE INTERPRETED AS AN INTEGRAL UNIT WITH THE

ITEMS SHOWN ON ONE & NOT THE OTHER BEING FURNISHED & INSTALLED AS THOUGH SHOWN AND CALLED OUT IN BOTH DOCUMENTS. 4. THE ENTIRE MECHANICAL INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE MOST RECENTLY ADOPTED BUILDING CODES, MECHANICAL CODE, PLUMBING CODE, ELECTRICAL CODE, & ALL OTHER APPLICABLE CITY, COUNTY, STATE, & FEDERAL CODES & REGULATIONS IN EFFECT.

. THE ENTIRE MECHANICAL INSTALLATION SHALL CONFORM TO ALL CODES, RULES, REGULATIONS, & REQUIREMENTS OF THE BUILDING OWNER. 6. ALL MECHANICAL COMPONENTS AND EQUIPMENT SHALL BE INSTALLED TO CONFORM WITH ANY APPLICABLE LOCAL SEISMIC REQUIREMENTS. PRIOR TO FABRICATION & INSTALLATION OF ANY MECHANICAL COMPONENT

THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL WORK WITH ALL OTHER BUILDING TRADES, INCLUDING BUILDING TRADES HIRED DIRECTLY BY THE OWNER. WHERE CONFLICTS MAY OCCUR, THEY SHALL BE RESOLVED PRIOR TO INSTALLATION. 8. VERIFY ALL REQUIRED SERVICE CONNECTIONS, INCLUDING ELECTRICAL

CHARACTERISTICS, FOR ALL EQUIPMENT PRIOR TO ORDERING OR FABRICATING MECHANICAL EQUIPMENT AND COMPONENTS. 9. THE SPACE ABOVE CEILINGS IS LIMITED. CAREFUL COORDINATION IS REQUIRED WITH ALL TRADES BEFORE ANY PIPE, DUCT, OR EQUIPMENT IS ORDERED &/OR INSTALLED. ANY CONFLICTS &/OR CHANGES FOUND DURING INSTALLATION THAT RESULTS FROM THE LACK OF COORDINATION BY THE

CONTRACTORS DURING THE SHOP DRAWING PROCESS ARE THE RESPONSIBILITY OF THE CONTRACTOR. 10. ALL MECHANICAL INFORMATION IS NOT SHOWN ON THE MECHANICAL DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL INFORMATION ON ALL OTHER CONSTRUCTION DOCUMENTS. 11. THE CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW & USE, WHERE APROPRIATE, ALL THE MECHANICAL DETAILS SHOWN ON THE DRAWINGS. DETAILS MAY OR MAY NOT BE CALLED OUT ON THE DRAWINGS WITH

INSTALL THE MECHANICAL SYSTEM WITHOUT USING THE INCLUDED DETAILS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. 12. ALL EQUIPMENT SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURAL MEMBERS. STRUCTURAL ELEMENTS SHOWN IN DETAILS MAY OR MAY NOT PERTAIN TO ANY PORTION OF THE BUILDING. COORDINATE ALL MOUNTING REQUIREMENTS WITH ARCHITECTURAL & STRUCTURAL

SYMBOLS OR KEYED NOTES. ANY CHANGES RESULTING FROM FAILURE TO

DRAWINGS AND SPECIFICATIONS. 13. ALL MECHANICAL COMPONENTS AND EQUIPMENT SHALL BE INSTALLED IN

ACCORDANCE WITH ALL MANUFACTURER RECOMMENDATIONS. 14. ALL SIMILAR EQUIPMENT SHALL BE OF THE SAME MANUFACTURER. AIR INLETS & OUTLETS OF SIMILAR TYPES SHALL BE OF THE SAME MANUFACTURER.

15. ANY PART OF THE MECHANICAL INSTALLATION THAT FAILS, IS DEEMED UNFIT, OR BECOMES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EQUIPMENT CHECK-IN, SAFEKEEPING, & DAMAGE.

16. COORDINATE WITH ARCHITECT FOR EXACT LOCATION OF ALL CEILING DIFFUSERS & GRILLES.

17. CONTRACTOR SHALL OPERATE INSTALLED &/OR MODIFIED SYSTEMS & DEMONSTRATE ALL ASPECTS OF THE SYSTEM TO THE ENGINEER &/OR OWNER TO PROVE ALL ASSOCIATED SYSTEMS ARE OPERATIONAL. 18. DURING CONSTRUCTION THE CONTRACTOR SHALL MAINTAIN A SET OF AS-BUILT REDLINED RECORD DRAWINGS AT THE PROJECT SITE. ALL CHANGES OR DEVIATIONS IN LAYOUT, ROUTING, EQUIPMENT, COMPONENTS, &

ACCORDANCE WITH PROJECT SPECIFICATIONS.

DEFINITIONS

ACCESSORIES SHALL BE RECORDED. THESE REDLINED DRAWINGS SHALL BE GIVEN TO THE ARCHITECT / ENGINEER AFTER THE FINAL INSPECTION IN

NOTE: ALL DEFINITIONS MAY NOT BE USED.

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER". "REQUESTED BY THE ENGINEER". AND SIMILAR PHRASES.

APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

MECHANICAL SHEET INDEX

MECHANICAL COVER SHEET MECHANICAL SCHEDULES MECHANICAL DEMO PLANS MECHANICAL PLANS

ENCORE SUSTAINABLE ARCHITECTS ARCHITECTURE PRESERVATION (410) 624-5461



9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046

(410) 381-8010

DRAWING CHECKED BY: Submission Name Initials CG/JH 4/10/2023 MHT SUBMISSION

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

SPIRAL OVAL DUCT

SPIRAL ROUND DUCT

DUCT INSULATION

90° RECTANGULAR ELBOW

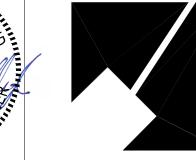
90° ROUND RADIUS ELBOW

WITH TURNING VANES

DUCT LINING

49263 LICENSE NO.___ **EXPIRATION DATE:** 2024-05-08







he Maryland-National Capital	
Park and Planning Commission	
Montgomery County Department of Parks	

Silver Spring, Maryland 20901

(301) 495-2535

Rev. No.	Date	Description
	04.10.2023	MHT SUBMISSION

MECHANICAL COVER SHEET
BUILDING ENVELOPE REPAIRS

DUILDING ENVELOPE REPAIRS HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876

SCALE: AS SHOWN

DWG.#

								CON	DEN	ISINC	G UN	IT SCH	IEDUL	.E						
ACCEPTABL	E MANUFACTI	URERS:	AMBIENT OPERAT	TING CONDITION	DNS:				REMARK	S:								SCHEDULE KEY		
ACCEPTABLE MANUFACTURERS: BOSCH CARRIER YORK TRANE LENNOX			AMBIENT OPERATING CONDITIONS: (A) NOMINAL COOLING CONDITIONS: • INDOOR: 75°F DB/ 60°F WB • OUTDOOR: 98.3°F DB (B) NOMINAL HEATING CONDITIONS: • INDOOR: 70°F DB • OUTDOOR: 11.4°F DB / 10°F WB						(2) PROV (3) PROV (4) PROV RECOMM (5) COOR EQUIVAL LOSS. (6) PROV	(1) PROVIDE WITH HAIL GUARDS. (2) PROVIDE WITH MIRO INDUSTRIES LD SUPPORT/MOUNTING FRAME. (3) PROVIDE WITH NEOPRENE PADS AT ALL MOUNTING CONNECTION POINTS. (4) PROVIDE REFRIGERANT PIPING SIZED AS PER MANUFACTURER'S RECOMMENDATIONS. "ACR" COPPER ONLY. (5) COORDINATE REFRIGERANT CHARGE AND PIPING SIZES WITH EQUIVALENT LINE LENGTH TO MINIMIZE PRESSURE DROP AND CAPACITY (7) PROVIDE CRANKCASE HEATER. *(needed anytime it may be colder outside than inside)* (8) PROVIDE WITH WIND BAFFLE FOR COOLING (9) INDOOR UNIT POWERED FROM OUTDOOR UNIT. (10) ACCEPTABLE MANUFACTURERS: TRANE, CARRIER, LENNOX OR PRIOR APPROVED EQUAL. (11) PROVIDE FACTORY AUTHORIZED STARTUP OF EQUIPMENT								MECH = DIVISION 23 ELEC = DIVISION 26 MNFR = MANUFACTU	PLUMB = DIVISION 22 MECH = DIVISION 23 ELEC = DIVISION 26 MNFR = MANUFACTURER	
										ELECT	RICAL									
LABEL	Count	SERVES	NOMINAL COOLING (BTUH)	EER	HEAT PUMP CAPACITY (BTUH)	REFRIGERANT TYPE	VOLTS	PHASE	Hz	MCA (EACH)	MOCP (EACH)	BASE PAN HEATER (Y / N)	EMERG POWER	DISCONNECT PROVIDED BY (MECH/ ELEC)		_	MANUFACTURER	MODEL	REMARKS	
CU-4 2		HP-4	47,500.0	13.5	48,000.0	410A	208	1	60	39	60	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			79	230	BOSCH	BOVA-60HDN1-M20G ALL		

				RE	GISTE	R - GRILLE	- DIFFUS	ER SCH	EDU	JLE			
ACCEPTAB	LE MANUFACTU	JRERS:	REMARKS:										
KRUEGER TUTTLE & E TITUS PRICE	BAILEY		(2) NC VALUES ARE B	ASED ON OCTAV	E BAND SOUND	CCORDANCE WITH ANSI/ASHR DPOWER LEVELS MINUS A RO VNER AND ARCHITECT.		0 dB, RE 10(-12) WAT	ITS.				
	*approx		MAX AIR FLOW		NECK		PD	THROW(S)	MAX				
LABEL	count	TYPE	(CFM)	FACE SIZE	SIZE	BLOW PATTERN	(IN-WG)	(FT)	NC	MANUFACTURER	MODEL		REMARKS
-1	1	EXTERIOR LOUVER	450	36x24		NA	0.000	NA	30	Ruskin	ELF375DX	ALL	
-1	1	RETURN GRILLE	1630	32 X 32	32 X 32	N/A	0.100	N/A	30	PRICE INDUSTRIES	535	ALL	
-1	5	SQUARE PLAQUE DIFFUSER	315	12" X 12"	8" Ø	4-WAY	0.343	6-9-14	30	PRICE INDUSTRIES	SPD	ALL	
6-2	1	SQUARE PLAQUE DIFFUSER	545	20" X 20"	10" Ø	4-WAY	0.203	5-7-10	30	PRICE INDUSTRIES	SPD	ALL	
-1	4	TRANSFER GRILLE	1630	14" X 8"	14" X 8"	N/A	0.100	N/A	30	PRICE INDUSTRIES	535	ALL	
Γ-2	2	LOUVERED SIDEWALL RETURN	1630	16" X 12"	16" X 12"	N/A	0.100	N/A	30	PRICE INDUSTRIES	535	ALL	

	DUOT LOCATION			THERMAL NCE ("R")	FIELD ADDITED LACKET	
DUCT SYSTEM	DUCT LOCATION	INSULATION MATERIALS	CLIMATE ZONES 1-4	CLIMATE ZONES 5-8	FIELD APPLIED JACKET	
	BUILDING INTERIOR, CONCEALED	MINERAL-FIBER BLANKET	6.0	6.0	NONE	
SUPPLY AIR	BUILDING INTERIOR, EXPOSED, OUTSIDE CONDITIONED SPACE	MINERAL-FIBER BLANKET	6.0	6.0	NONE	
	BUILDING EXTERIOR (OUTSIDE BUILDING INSULATION)	MINERAL-FIBER BLANKET	8.0	12.0	ALUMINUM	
	BUILDING INTERIOR, CONCEALED	MINERAL-FIBER BLANKET	6.0	6.0	NONE	
RETURN AIR	BUILDING INTERIOR, EXPOSED, OUTSIDE CONDITIONED SPACE	MINERAL-FIBER BLANKET	6.0	6.0	NONE	
	BUILDING EXTERIOR (OUTSIDE BUILDING INSULATION)	MINERAL-FIBER BLANKET	8.0	12.0	ALUMINUM	
EXHAUST AIR	ALL	NONE				
OUTSIDE AIR	BUILDING INTERIOR, CONCEALED OR EXPOSED	MINERAL-FIBER BLANKET	6.0	6.0	NONE	
OUTSIDE AIR	BUILDING EXTERIOR (OUTSIDE BUILDING INSULATION)	MINERAL-FIBER BLANKET	8.0	12.0	NONE	
FLEXIBLE DUCT	BUILDING INTERIOR	MINERAL-FIBER BLANKER POLYETHYLENE INNER AND OUTER JACKET	6.0	6.0	NONE	

ENCORE SUSTAINABLE ARCHITECTS ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202

(410) 624-5461



(410) 381-8010

10. ALL DUCT CHANGES IN DIRECTION SHALL BE MADE WITH RIGID ELBOWS OR OTHER RIGID METAL FITTINGS.

9. OFFSET OF FLEXIBLE DUCT SHALL NOT EXCEED ONE HALF OF THE DUCT DIAMETER.

3. ALL DUCT INSULATION SHALL HAVE ALL SERVICE JACKET MANUFACTURER FROM KRAFT PAPER, REINFORCED SCRIM, ALUMINUM FOIL, OR VINYL FILM.

8. TOTAL LENGTH OF FLEXIBLE DUCT SHALL NOT EXCEED 3'-0". EXTEND SHEET METAL DUCT TO WITHIN 3'-0" OF THE AIR INLET OR AIR OUTLET DEVICE.

6. DUCT LINER SHALL NOT BE SUBSTITUTED FOR DUCT WRAP UNLESS THE MINIMUM "R" VALUE OF THE DUCT LINER IS INCREASED TO VALUE NEEDED PER TABLE ABOVE.

7. DUCT DIMENSIONS SHOWN ON THE DRAWINGS ARE NET FREE AREA. WHERE DUCT LINER IS SHOWN, INCREASE METAL DUCT SIZE TO ALLOW FOR THICKNESS OF DUCT LINER.

14. ALL MATERIALS USED AS INTERNAL INSULATION AND EXPOSED TO THE AIR STREAM IN DUCTS SHALL BE SHOWN TO BE DURABLE WHEN TESTED IN ACCORDANCE WITH UL 181.

11. INDOOR DUCT INSULATION AND RELATED MATERIALS SHALL HAVE A FLAME-SPREAD INDEX OF 25 OR LESS, AND SMOKE-DEVELOPED INDEX OF 50 OR LESS WHEN TESTED TO ASTM 84. 12. OUTDOOR DUCT INSULATION AND RELATED MATERIALS SHALL HAVE A FLAME-SPREAD INDEX OF 75 OR LESS, AND SMOKE-DEVELOPED INDEX OF 150 OR LESS WHEN TESTED TO ASTM 84.

5. DUCT LINER, WHERE SHOWN ON DRAWINGS, SHALL BE A MINIMUM OF 1" THICK AND SHALL HAVE A MINIMUM "R" VALUE OF 3.8.

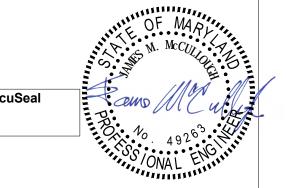
13. ALL DUCT COVERINGS AND LININGS SHALL NOT FLAME, GLOW, SMOLDER, OR SMOKE WHEN TESTED IN ACCORDANCE WITH ASTM 411.

DRAWING CHECKED BY:					
Submission Name	Initials	Date			
HT SUBMISSION	CG/JH	4/10/2023			

4. DUCT INSULATION SHALL BE MECHANICALLY FASTENED TO DUCTS WIDER THAN 24" AND SHALL BE AFFIXED TO BOTTOM OF DUCT WITH WELDED METAL PINS AND 2" WASHERS AT 18" MAXIMUM SPACING.

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

LICENSE NO. 49263 **EXPIRATION DATE:** 2024-05-08





The Maryland-National Capital Park and Planning Commission Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

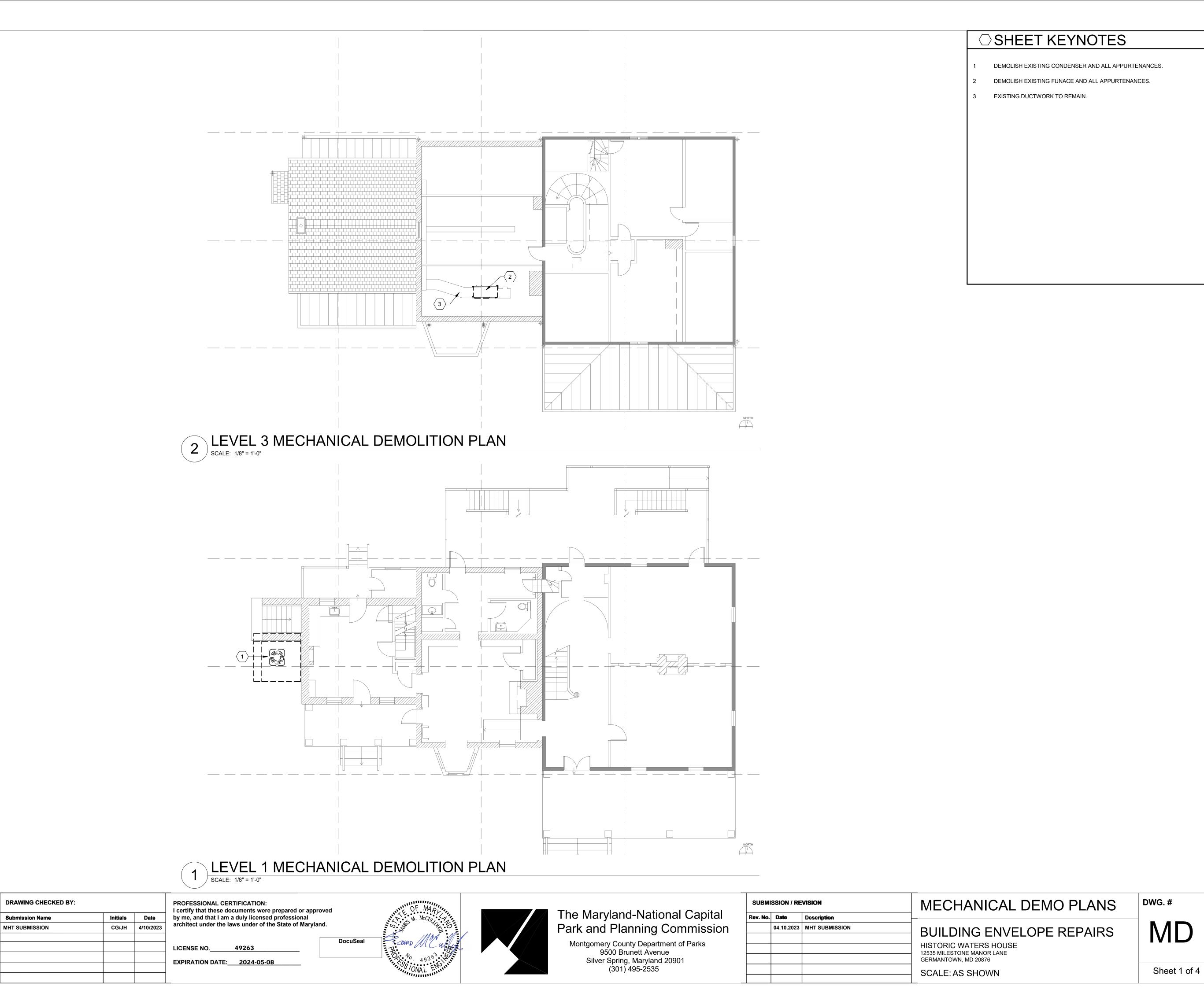
SUBMI	SSION / RE	VISION	MECHANICA
Rev. No.	Date	Description	
	04.10.2023	MHT SUBMISSION	BUILDING EN
			HISTORIC WATERS HO
			GERMANTOWN, MD 20876
			SCALE: AS SHOWN

MECHANICAL SCHEDULES

BUILDING ENVELOPE REPAIRS HISTORIC WATERS HOUSE 2535 MILESTONE MANOR LANE BERMANTOWN, MD 20876

Sheet 1 of 4

DWG.#



ENCORE

SUSTAINABLE ARCHITECTS

ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202
(410) 624-5461

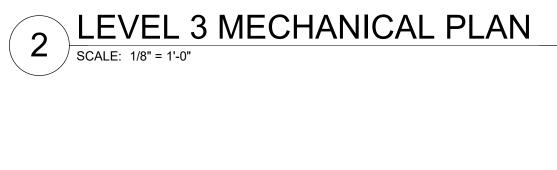
MCC≡1200

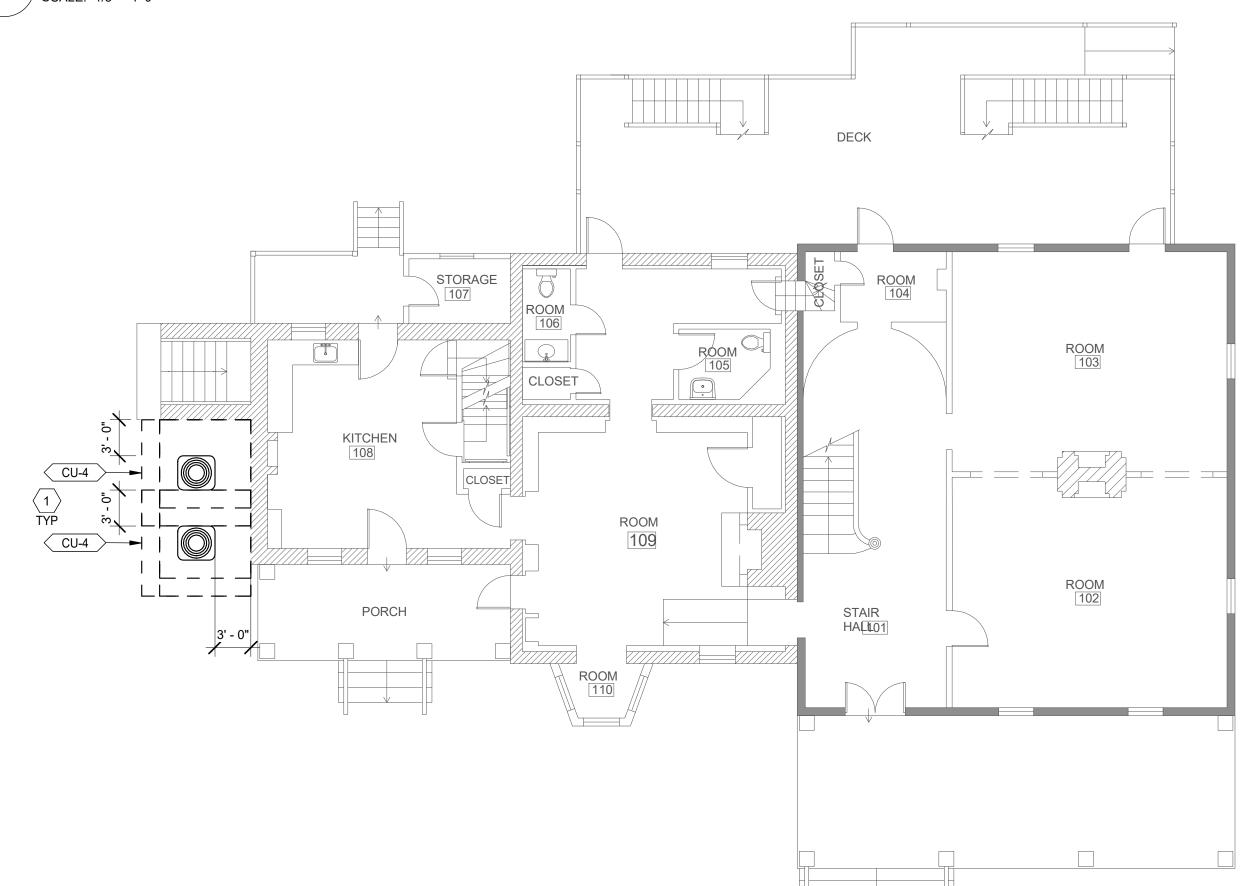
1200 ARCHITECTURAL ENGINEERS 210 NORTH LEE ST. SUITE 210 ALEXANDRIA, VA 22314 703-350-4151

SPECTRUM ENGINEERS

9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

MHT SUBMISSION



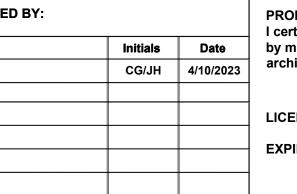


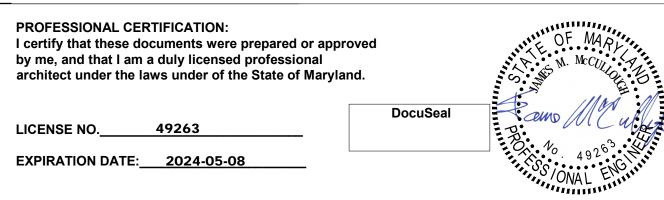
ENCORE ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202
(410) 624-5461



9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

Initials	Date
CG/JH	4/10/2023





LEVEL 1 MECHANICAL PLAN

SCALE: 1/8" = 1'-0"



The Maryland-National Capital Park and Planning Commission

Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

SUBMISSION / REVISION				
Rev. No.	Date	Description	_	
	04.10.2023	MHT SUBMISSION		
		 		

MECHANICAL PLANS

BUILDING ENVELOPE REPAIRS

○ SHEET KEYNOTES

HI/LOW TRANSFER GRILLE FOR RETURN AIR.

DUCTWORK IN ATTIC, TYP.

TRANSFER GRILLE ABOVE DOOR.

CONDENSERS SHALL BE PLACED ON 4" X 3' X 3' HOUSEKEEPING PADS, TYPICAL.

INSTALL NEW HORIZONTAL HEAT PUMP, NEW DUCTWORK AS SHOWN.

AIR INTAKE LOUVER THROUGH WINDOW IN PLACE OF LOWER SASH.

CONTRACTOR TO COORDINATE EXACT LOCATION WITH EXISTING CONDITIONS IN THE FIELD, TYPICAL.

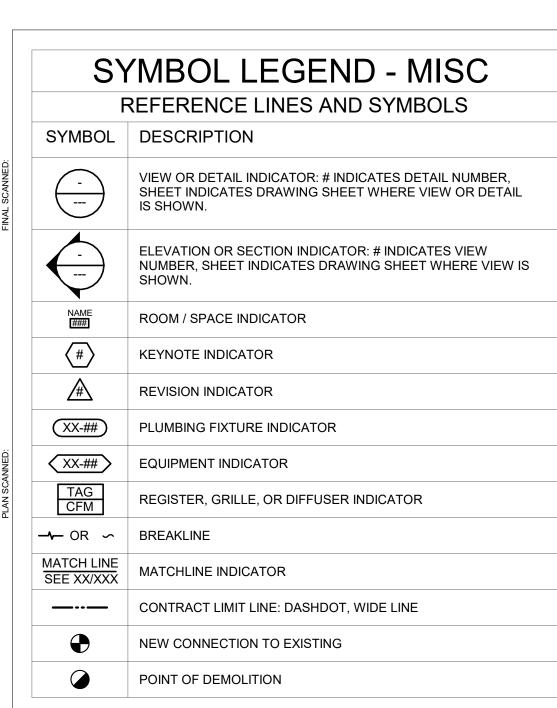
INSTALL NEW HORIZONTAL HEAT PUMP, CONNECT TO EXISTING DUCTWORK.

HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876

SCALE: AS SHOWN

ME

DWG.#



SYMBOL LEGEND - PIPING

NOTE: ALL ABBREVIATIONS MAY NOT BE USED. SYMBOL **DESCRIPTION** HOSE BIBB / WALL HYDRANT CLEANOUT TO GRADE FLOOR CLEANOUT \rightarrow WALL CLEANOUT

FLOOR DRAIN

FLOOR SINK

DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED. INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS,

NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN". "NOTED". "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED", "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS. IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM.

PIPING LEGEND NOTE: ALL ABBREVIATIONS MAY NOT BE USED.			
ABBREVIATION	DESCRIPTION		
160	160°F HOT WATER		
160R·	160°F HOT WATER RETURN / CIRCULATION		
180	180°F HOT WATER		
180R·	180°F HOT WATER RETURN / CIRCULATION		
—— -AW- ——	ACID WASTE		
AV	ACID VENT		
C02	CARBON DIOXIDE		
	COMBINATION WASTE AND VENT		
——СА——	COMPRESSED AIR		
CD	CONDENSATE DRAIN		
DCW	DOMESTIC COLD WATER		
DHW	DOMESTIC HOT WATER		
—DHWR—	DOMESTIC HOT WATER RECIRCULATION		
DI	DEIONIZED WATER		
———DSW———	DOMESTIC SOFT WATER		
	DEMOLISHED PIPING		
——FP——	FIRE PROTECTION		
——FOR——	FUEL OIL RETURN		
——FOS——	FUEL OIL SUPPLY		
FOV	FUEL OIL VENT		
—— -GW- ——	GREASE WASTE		
HPC	HIGH PRESSURE CONDENSATE		
MPC	MEDIUM PRESSURE CONDENSATE		
——LPC——	LOW PRESSURE CONDENSATE		
ICW	INDUSTRIAL COLD WATER		
IHW	INDUSTRIAL HOT WATER		
IW	IRRIGATION WATER		
LPG	LIQUID PROPANE GAS		
MA	MEDICAL AIR		
NG	NATURAL GAS		
NO	NITROUS OXIDE		
 0	OXYGEN		
——PC——	PUMPED CONDENSATE		
RW	RAINWATER / STORM DRAIN		
SRW	SECONDARY RAINWATER / STORM DRAIN		
— -ss- —	SANITARY SEWER		
——VAC——	VACUUM		
V	VENT		

SYMBOL LEGEND - PIPING NOTE: ALL ABBREVIATIONS MAY NOT BE USED. SYMBOL **DESCRIPTION** SHUT OFF VALVE GATE VALVE CHECK VALVE **AUTOMATIC 2-WAY VALVE AUTOMATIC 3-WAY VALVE** GLOBE VALVE BALL VALVE RELIEF VALVE PRESSURE REDUCING VALVE **BUTTERFLY VALVE** SOLENOID VALVE ANGLE VALVE VENTURI VALVE BALANCING OR PLUG COCK FLOW SETTER EXPANSION VALVE GAS COCK MANUAL AIR VENT STRAINER \bigcirc **GAUGE COCK** FLEXIBLE CONNECTION PRESSURE GAUGE **THERMOMETER** PIPE REDUCER REFRIGERANT SITE GLASS REFRIGERANT STRAINER REFRIGERANT FILTER DRIER 90 DEGREE ELBOW UP 90 DEGREE ELBOW DOWN 90 DEGREE TEE UP 90 DEGREE TEE DOWN PIPE UNION PIPE CAP _____ PIPE ANCHOR \rightarrow FLOAT AND THERMOSTATIC TRAP

ABBREVIATIONS

NOTE: ALL ABBREVIATIONS MAY NOT BE USED **EXISTING FUTURE** (F) AIR CONDITION(-ING,-ED) APD AIR PRESSURE DROP BD BALANCING DAMPER BHP **BRAKE HORSE POWER** BTU **BRITISH THERMAL UNIT** BTUH BTU/HOUR CFH CUBIC FEET PER HOUR CFM **CUBIC FEET PER MINUTE** CV CONTROL VALVE DB DRY BULB TEMPERATURE DCW DOMESTIC COLD WATER DHW DOMESTIC HOT WATER DHWR DOMESTIC HOT WATER RECIRC DP DEPTH, DEEP, OR DROP IN PRESSURE EA EXHAUST AIR EER **ENERGY EFFICIENCY RATIO** EFF **EFFICIENCY** ELEC **ELECTRIC** ELEV **ELEVATION** ENT ENTERING EVAPORAT(-E. -ING. -ED. -OR) EVAP EWT **ENTERING WATER TEMPERATURE** EXT **EXTERNAL** FD FIRE DAMPER FULL LOAD AMPS FINS PER INCH FPM FEET PER MINUTE FPS FEET PER SECOND FSD FIRE SMOKE DAMPER GE **GREASE EXHAUST** GPH **GALLONS PER HOUR** GPM **GALLONS PER MINUTE** HD HEAD HG MERCURY HP **HORSEPOWER** HOUR HTG HEATING HZ HERTZ (FREQUENCY) INCH KW KILOWATT LAT LEAVING AIR TEMPERATURE LBS POUNDS LATENT HEAT LH LRA LOCKED ROTOR AMPS LVG LEAVING LWT LEAVING WATER TEMPERATURE MBH THOUSAND BTU PER HOUR MCA MINIMUM CIRCUIT AMPS MFR MANUFACTUR(-ER, -ED) NORMALLY CLOSED OR NOISE CRITERIA **NOT IN CONTRACT** NO NORMALLY OPEN NPSH NET POSITIVE SUCTION HEAD NTS NOT TO SCALE OA OUTSIDE AIR OD **OUTSIDE DIAMETER** ΟZ OUNCE PD PRESSURE DROP OR DIFFERENCE PPM PARTS PER MILLION POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH PSIA PSI ABSOLUTE PSIG PSI GAUGE RA RETURN AIR RECIRC RECIRCULATE (-ER, -ED, -ING) REFR REFRIGERATION REQD REQUIRED RLA RATED LOAD AMPS RPM **REVOLUTIONS PER MINUTE** SUPPLY AIR SCFM STANDARD CUBIC FEET PER MINUTE SCW SOFT COLD WATER SENSIBLE HEAT SP STATIC PRESSURE SPEC(S SPECIFICATION(S) SQ SQUARE STD STANDARD SW SOIL, WASTE TA(R) TRANSFER AIR (RETURN) TA(S) TRANSFER AIR (SUPPLY) TEMP. DROP OR DIFF TEMP **TEMPERATURE** TOT TOTAL TSTAT THERMOSTAT VOLT, VOLTAGE OR VENT VAC VACUUM VARIABLE AIR VOLUME

PLUMBING GENERAL NOTES

THE PLUMBING DRAWINGS SHOW THE GENERAL DESIGN, ARRANGEMENT AND EXTENT OF THE PLUMBING SYSTEM. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, THESE DRAWINGS DO NOT SHOW ALL OFFSETS, BENDS OR ELBOWS NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. CONTRACTOR SHALL MAKE SUCH SLIGHT ALTERATIONS AS MAY BE NECESSARY TO MAKE THE SYSTEM COMPLETE AND OPERATIONAL IN ACCORDANCE WITH THE DESIGN INTENT. MAJOR DEVIATIONS SUCH AS CHANGES IN COMPONENT SIZES, WEIGHTS, QUANTITIES OR MATERIAL

REQUIRE PRIOR APPROVAL BY THE DESIGN ENGINEER. THE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED TO SUPPLEMENT EACH OTHER AND SHALL BE INTERPRETED AS AN INTEGRAL UNIT WITH THE ITEMS SHOWN ON ONE AND NOT THE OTHER BEING

FURNISHED AND INSTALLED AS THOUGH SHOWN AND CALLED OUT IN BOTH 3. THE ENTIRE PLUMBING INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE MOST RECENTLY ADOPTED BUILDING CODES, MECHANICAL CODE, PLUMBING CODE, ELECTRICAL CODE, AND ALL OTHER APPLICABLE CITY, COUNTY, STATE, AND FEDERAL CODES AND REGULATIONS IN EFFECT.

THE ENTIRE PLUMBING INSTALLATION SHALL CONFORM TO ANY CODES. RULES, REGULATIONS AND REQUIREMENTS OF THE BUILDING OWNER. PRIOR TO FABRICATION AND INSTALLATION OF ANY PLUMBING COMPONENT THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL PLUMBING WORK WITH ALL OTHER BUILDING TRADES, INCLUDING BUILDING

TRADES HIRED DIRECTLY BY THE OWNER. WHERE CONFLICTS MAY OCCUR THEY SHALL BE RESOLVED PRIOR TO INSTALLATION. ALL PLUMBING INFORMATION IS NOT SHOWN ON THE PLUMBING DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL

INFORMATION ON ALL OTHER CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW AND USE, WHERE APPROPRIATE, ALL THE PLUMBING DETAILS SHOWN ON THE DRAWINGS. DETAILS MAY OR MAY NOT BE CALLED OUT ON THE DRAWINGS WITH SYMBOLS OR KEYED NOTES. ANY CHANGES RESULTING FROM FAILURE TO INSTALL THE PLUMBING SYSTEM WITHOUT USING THE INCLUDED DETAILS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

8. ANY PART OF THE PLUMBING INSTALLATION THAT FAILS, IS UNFIT, OR BECOMES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

9. PROVIDE PROPER PROVISIONS FOR EXPANSION, CONTRACTION, OR MOVEMENT OF ALL PIPING. 10. PROVIDE LARGE ENOUGH PIPE SLEEVES THROUGH WALL OR FLOOR TO

ALLOW FOR ANTICIPATED DIFFERENTIAL MOVEMENT. 11. ALL PIPING SHALL BE SUPPORT WITH CLEVIS HANGERS (MSS TYPE 1). PERFORATED METAL STRAPS OR PLASTIC STRAPPING (PLUMBER TAPE) SHALL NOT BE USED TO SUPPORT OR BRACE ANY PIPE.

12. PROVIDE PIPE HANGERS WITHIN 18-INCHES OF ALL CHANGES OF

13. PROVIDE SWAY BRACING FOR ALL PIPING 4" AND LARGER AT ALL CHANGES IN DIRECTION GREATER THAN 45-DEGREES. 14. ALL STEEL CLEVIS HANGERS USED TO SUPPORT COPPER PIPING SHALL BE

COPPER OR PLASTIC COATED. 15. COPPER PIPING SHALL NOT COME IN CONTACT WITH FIRE TREATED LUMBER. PROVIDE 1/2" THICK SLIP-ON CLOSED CELL INSULATION WHERE COPPER PIPING IS ADJACENT TO FIRE TREATED LUMBER. CLOSED CELL INSULATION SHALL EXTEND A MINIMUM OF 1-1/2" PAST LUMBER.

16. ALL EXPOSED PIPING SHALL BE INSTALLED IN A NEATLY ARRANGED MANNER PARALLEL TO THE BUILDING STRUCTURE. 17. ALL EXPOSED DOMESTIC WATER PIPE IN OCCUPIED SPACES SHALL BE POLISHED CHROME PLATED.

18. ALL EXPOSED DRAINAGE PIPING IN OCCUPIED SPACES INCLUDING TRAPS UNDER SINKS SHALL BE POLISHED CHROME PLATED.

19. DRAWINGS SHOW GENERAL ARRANGEMENT OF THE DRAIN WASTE AND VENT SYSTEM WITH THE REQUIRED CLEANOUTS. CONTRACTOR SHALL PROVIDE ALL ADDITIONAL CLEANOUTS AS REQUIRED BY THE PLUMBING

20. ALL SANITARY DRAINAGE SYSTEM PIPING 3" AND LARGER SHALL BE SLOPED IN DIRECTION OF FLOW AT A MINIMUM OF 1/8" PER FOOT.

21. ALL SANITARY DRAINAGE SYSTEM PIPING SMALLER THAN 3" SHALL BE SLOPED IN DIRECTION OF FLOW AT A MINIMUM OF 1/4" PER FOOT. 22. SLOPE VENT SYSTEM TOWARDS DRAINAGE SYSTEM.

23. SIMILAR EQUIPMENT SHALL BE OF THE SAME MANUFACTURER. 24. ALL EQUIPMENT SHALL PROVIDE THE SCHEDULED PERFORMANCE AT THE

25. FIXTURE AND EQUIPMENT MODEL NUMBERS SHOWN IN PLUMBING FIXTURE SCHEDULE AND PLUMBING EQUIPMENT SCHEDULE ARE SHOWN TO ESTABLISH THE TYPE OF PRODUCT THAT SHALL BE USED. THE SELECTED PRODUCT SHALL MEET THE SCHEDULED PERFORMANCE DATA SHOWN ON THE SCHEDULE EVEN IF A DIFFERENT MODEL IS SUPPLIED THAT IS DIFFERENT THAN THAT SCHEDULED.

26. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE ALL NECESSARY FITTINGS, TRANSITIONS, VALVES AND OTHER DEVICES AND ACCESSORIES REQUIRED FOR A COMPLETE, WORKABLE INSTALLATION. 27. SEE "PLUMBING FIXTURE SCHEDULE" FOR INDIVIDUAL TRAPS, WASTE, VENT

AND DOMESTIC WATER PIPING FOR INDIVIDUAL FIXTURES. 28. ALL PLUMBING EQUIPMENT SHALL BE LISTED AND LABELED BY AN APPROVED TESTING AGENCY.

29. FIXTURES, EQUIPMENT AND PIPING INSTALLATION SHALL MEET NSF STANDARDS.

PLUMBING SHEET INDEX

PLUMBING COVER SHEET

PLUMBING PLANS

ENCORE SUSTAINABLE ARCHITECTS ARCHITECTURE PRESERVATION (410) 624-5461



9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046

(410) 381-8010

DRAWING CHECKED BY: Submission Name Initials MHT SUBMISSION CG/JH 4/10/2023

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

49263 LICENSE NO. **EXPIRATION DATE:** 2024-05-08



DocuSeal



VEL

VENT

VERT

VFD

VOL

VTR

WTR

The Maryland-National Capital Park and Planning Commission

VELOCITY

VERTICAL

VOLUME

WATER

VENT, VENTILATION

VENT THROUGH ROOF WET BULB TEMP WATER COLUMN WATER GAUGE

WATER PRESSURE DROP

VARIABLE FREQUENCY DRIVE

Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

SUBMISSION / REVISION				
Rev. No.	Date	Description		
	04.10.2023	MHT SUBMISSION		
	ı	1		

PLUMBING COVER SHEET

BUILDING ENVELOPE REPAIRS

HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876

SCALE: AS SHOWN

DWG.#

10_01 ROOM 003 ROOM 001

NOT ACCESSIBLE

BASEMENT PLUMBING PLAN SCALE: 1/8" = 1'-0"

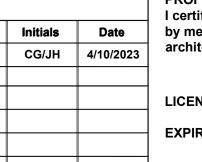
2 LEVEL 3 PLUMBING PLAN
SCALE: 1/8" = 1'-0"

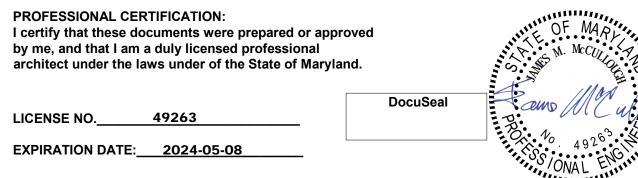
ENCORE SUSTAINABLE ARCHITECTS ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202
(410) 624-5461



9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

DRAWING CHECKED BY: Submission Name MHT SUBMISSION CG/JH 4/10/2023







The Maryland-National Capital Park and Planning Commission

ark and realiting Commiss) [
Montgomery County Department of Parks	
9500 Brunett Avenue	
Silver Spring, Maryland 20901	
(301) 495-2535	

SUBMISSION / REVISION			PLUMBING I
Rev. No.	Date	Description	
	04.10.2023	MHT SUBMISSION	BUILDING EN
			HISTORIC WATERS HO
			GERMANTOWN, MD 20876
			SCALE: AS SHOWN

PLUMBING PLANS

BUILDING ENVELOPE REPAIRS

HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876

PE

○ SHEET KEYNOTES

CONDENSER LINESETS DOWN TO BASEMENT CEILING.

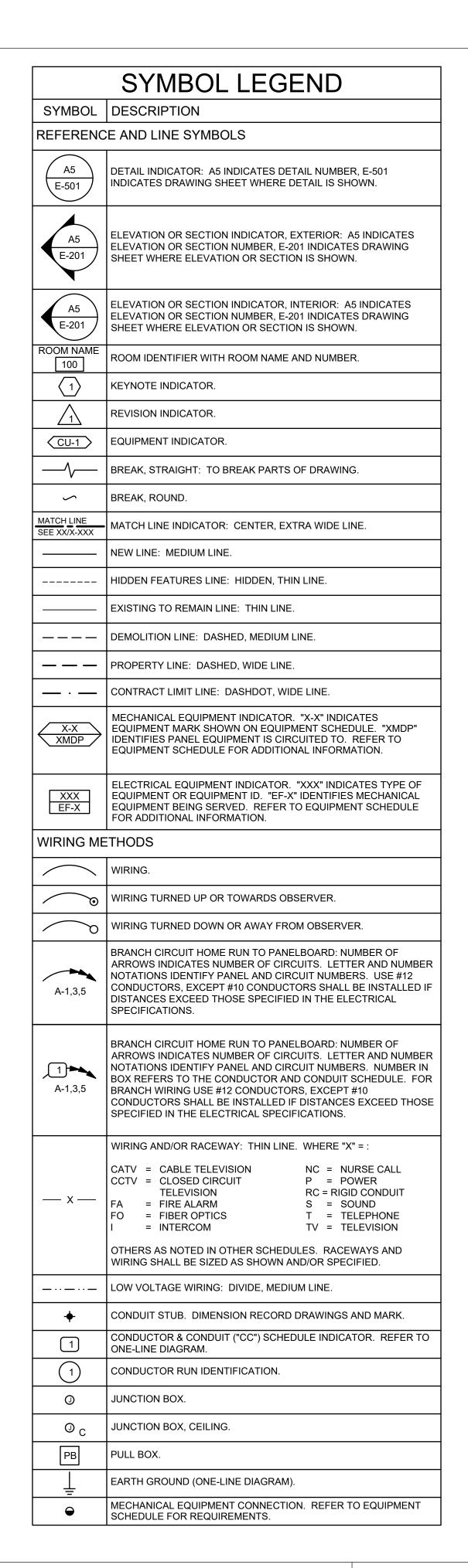
4 CONDENSER LINESETS UP TO ATTIC.

5 CONDENSER LINESETS TO CONDENSERS.

FIELD ROUTE CONDENSATE FROM HP'S TO NEAREST FD, LAV TAILPIECE, OR TO 12" ABOVE GRADE.

RUN CONDENSATE LINE FROM EXISTING CONDENSATE PUMP TO DISCHARGE INTO EXISTING DOWNSPOUT.

DWG.#



	SYMBOL LEGEND
SYMBOL	DESCRIPTION
WIRING DE	EVICES
ф	RECEPTACLE, SINGLE: NEMA 5-20R.
b	RECEPTACLE, DUPLEX: NEMA 5-20R.
₩А	RECEPTACLE, DUPLEX, ABOVE COUNTER: NEMA 5-20R.
₩ _с	RECEPTACLE, DUPLEX, CEILING: NEMA 5-20R.
∯s	RECEPTACLE, DUPLEX, SWITCHED: NEMA 5-20R.
₩ _{WP}	RECEPTACLE, DUPLEX, WEATHERPROOF: NEMA 5-20R.
#	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
₩w	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WET LABEL, "WEATHERPROOF IN USE": NEMA 5-20R.
₩ _{WP}	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER, WEATHERPROOF: NEMA 5-20R.
<u></u>	RECEPTACLE, DUPLEX, RECESSED: NEMA 5-20R.
<u></u>	RECEPTACLE, DUPLEX, SWITCHED, RECESSED: NEMA 5-20R.
₩	RECEPTACLE, QUADRAPLEX: NEMA 5-20R.
#	RECEPTACLE, QUADRAPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER: NEMA 5-20R.
φ	RECEPTACLE, SPECIAL PURPOSE. PROVIDE RECEPTACLE TO MATCH EQUIPMENT PLUG.
₿	RECEPTACLE, SINGLE PLEX, WITH USB OUTLET
LIGHTING	CONTROL
Þ	SWITCH, DIMMER.
* \$	SWITCH, SINGLE POLE ("x" INDICATES FIXTURES CONTROLLED)
X \$3	SWITCH, THREE-WAY ("x" INDICATES FIXTURES CONTROLLED).
× \$4	SWITCH, FOUR-WAY ("x" INDICATES FIXTURES CONTROLLED).
*	SWITCH/VACANCY SENSOR COMBO, DUAL TECHNOLOGY, WALL
* \$	SWITCH/OCCUPANCY SENSOR COMBO, DUAL TECHNOLOGY, W

DEFINITIONS

NOTE: ALL DEFINITIONS MAY NOT BE USED

INDICATED: THE TERM "INDICATED" REFERS TO GRAPHIC REPRESENTATIONS, NOTES, OR SCHEDULES ON THE DRAWINGS, OTHER PARAGRAPHS OR SCHEDULES IN THE SPECIFICATIONS, AND SIMILAR REQUIREMENTS IN THE CONTRACT DOCUMENTS. WHERE TERMS SUCH AS "SHOWN", "NOTED", "SCHEDULED", AND "SPECIFIED" ARE USED, IT IS TO HELP THE READER LOCATE THE REFERENCE, NO LIMITATION ON LOCATION IS INTENDED.

DIRECTED: TERMS SUCH AS "DIRECTED", "REQUESTED", AUTHORIZED" "SELECTED", "APPROVED", "REQUIRED", AND "PERMITTED" MEAN "DIRECTED BY THE ENGINEER", "REQUESTED BY THE ENGINEER", AND SIMILAR PHRASES.

APPROVED: THE TERM "APPROVED", WHERE USED IN CONJUNCTION WITH THE ENGINEER'S ACTION ON THE CONTRACTOR'S SUBMITTALS, APPLICATIONS, AND REQUESTS, IS LIMITED TO THE ENGINEER'S DUTIES AND RESPONSIBILITIES AS STATED IN GENERAL AND SUPPLEMENTARY CONDITIONS.

FURNISH: THE TERM "FURNISH" IS USED TO MEAN "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

INSTALLER: AN "INSTALLER" IS THE CONTRACTOR OR AN ENTITY ENGAGED BY THE CONTRACTOR, EITHER AS AN EMPLOYEE, SUBCONTRACTOR, OR SUB-SUBCONTRACTOR, FOR PERFORMANCE OF A PARTICULAR CONSTRUCTION ACTIVITY, INCLUDING INSTALLATION, ERECTION, APPLICATION, AND SIMILAR OPERATIONS. INSTALLERS ARE REQUIRED TO BE EXPERIENCED IN THE OPERATIONS THEY ARE ENGAGED TO PERFORM

TECHNOLOGY SYSTEMS: THE TERM "TECHNOLOGY SYSTEMS" IS USED TO DESCRIBE ALL LOW VOLTAGE SYSTEMS GENERALLY REFERRED TO AS "SPECIAL SYSTEMS". THESE SYSTEMS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO ALL SYSTEMS WHICH UTILIZE VOLTAGES OF LESS THAN 71 VOLTS SUCH AS SOUND SYSTEMS, VIDEO SYSTEMS, TV SYSTEMS, SECURITY SYSTEMS, VOICE AND DATA CABLING SYSTEMS, ETC..

SYMBOL LEGEND SYMBOL DESCRIPTION ELECTRICAL POWER AND DISTRIBUTION DISCONNECT, FUSED (ONE-LINE DIAGRAM). DISCONNECT, NONFUSED (ONE-LINE DIAGRAM). CIRCUIT BREAKER, MOLDED CASE (ONE-LINE DIAGRAM). CIRCUIT BREAKER, MOTOR CIRCUIT PROTECTION (ONE-LINE DIAGRAM) MOTOR. PANELBOARD WITH MAIN LUGS ONLY. BUS SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM). 225/3 PANELBOARD WITH MAIN CIRCUIT BREAKER. SIZE AND PHASE AS SHOWN (ONE-LINE DIAGRAM).)225/3 PANELBOARD WITH MAIN AND SUB FEED CIRCUIT BREAKER (ONE-LINE DIAGRAM) 225/3 PANELBOARD WITH MAIN LUGS ONLY AND SURGE PROTECTION WITH CIRCUIT BREAKER (ONE-LINE DIAGRAM). CT CABINET PER UTILITY'S REQUIREMENTS (ONE-LINE DIAGRAM). SERVICE ENTRANCE SURGE PROTECTION (ONE-LINE DIAGRAM). METER. DISCONNECT SWITCH, FUSED DISCONNECT SWITCH, UNFUSED. PUSHBUTTON. PUSHBUTTONS, MOTOR CONTROL. PANELBOARD CABINET, FLUSH MOUNTED. PANELBOARD CABINET, SURFACE MOUNTED, 1 SECTION. PANELBOARD CABINET, SURFACE MOUNTED, 2 SECTION. DISTRIBUTION PANEL OR SWITCHBOARD. IGHTING RELAY, CONTACTOR PANEL, OR DIMMING ENCLOSURE.

ABBREVIATIONS NOTE: ALL ABBREVIATIONS MAY NOT BE USED. KILOVOLT SINGLE POLE KILOVOLT AMPERE SINGLE-PHASE kVAR KILOVOLT AMPERE 1WAY ONE-WAY TWO-CONDUCTOR REACTIVE **KILOWATT** 2WAY TWO-WAY kWh KILOWATT HOUR THREE-CONDUCTOR LIGHT EMITTING DIODE THREE-PHASE LFMC LIQUID TIGHT FLEXIBLE THREE-WAY METAL CONDUIT QUADRUPLE RECEPTACLE 40UT LIQUID TIGHT FLEXIBLE OUTLET NONMETALLIC CONDUIT FOUR-POLE DOUBLE THROW FOUR-POLE SINGLE THROW LPS LOW PRESSURE SODIUM LOCKED ROTOR AMPS **FOUR-WIRE** LTG LIGHTING 4WAY **FOUR-WAY** LOW VOLTAGE ABOVE COUNTER MATV MASTER ANTENNA ARMORED CABLE TELEVISION SYSTEM AMERICANS WITH MAXIMUM DISABILITIES ACT METAL CLAD ADJACENT MCA MINIMUM CIRCUIT AMPS ABOVE FINISHED FLOOR MCB MAIN CIRCUIT BREAKER ABOVE FINISHED GRADE MCC MOTOR CONTROL CENTER AMPERE INTERRUPTING MCP MOTOR CIRCUIT CAPACITY ALUMINUM PROTECTION MDP MAIN DISTRIBUTION PANEL AMP AMPERE MOTOR GENERATOR **ANNUNCIATOR** ANN MANHOLE **ACCESS POINT** MIN MINIMUM (WIRELESS DATA) MLO MAIN LUGS ONLY AS REQUIRED MOCP MAXIMUM OVERCURRENT AMPS SHORT CIRCUIT **PROTECTION** AUTOMATIC TRANSFER **NOT APPLICABLE** SWITCH NORMALLY CLOSED **AUDIO VISUAL** NEC NATIONAL ELECTRICAL AMERICAN WIRE GAGE LAWG BB XFMR **BUCK-BOOST** NEMA NATIONAL ELECTRICAL **TRANSFORMER** MANUFACTURERS **CEILING MOUNTED** ASSOCIATION CATV **COMMUNITY ANTENNA** NATIONAL FIRE CODE TELEVISION NFPA NATIONAL FIRE PROTECTION CIRCUIT BREAKER ASSOCIATION CCBA CUSTOM COLOR AS **NOT IN CONTRACT** SELECTED BY ARCHITECT NIGHT LIGHT CCTV **CLOSED CIRCUIT** NORMALLY OPEN TELEVISION NTS NOT TO SCALE CFBA CUSTOM FINISH AS ОС ON CENTER SELECTED BY ARCHITECT **OVER CURRENT** CONTRACTOR FURNISHED/ PROTECTION CONTRACTOR INSTALLED OF/CI OWNER FURNISHED/ CF/OI CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED OWNER INSTALLED OWNER FURNISHED/ CIRCUIT OWNER INSTALLED CONSTRUCTION MANAGER **OBTAIN FROM PLANS** CND CONDUIT OVERHEAD (COILING) DOOR OH DR CONVENIENCE OUTLET OL OVERLOAD COR CONTRACTING OFFICER'S **PUSHBUTTON** REPRESENTATIVE POWER FACTOR CONTROL PANEL PHASE **CURRENT TRANSFORMER** PANEL CABLE TELEVISION POTENTIAL TRANSFORMER COPPER PTZ PAN/TILT/ZOOM UNIT OF SOUND LEVEL QTY QUANTITY DPDT DOUBLE POLE DOUBLE REMOVE **THROW** RCP REFLECTED CEILING PLAN DISCONNECT SWITCH RIGID METAL CONDUIT **EACH** RIGID NONMETALLIC **EMERGENCY** CONDUIT ELECTRICAL METALLIC RPM REVOLUTIONS PER MINUTE TUBING ELECTRICAL NONMETALLIC REMOVE AND RELOCATE SHORT CIRCUIT AMPS TUBING STANDARD COLOR AS SCBA EMERGENCY POWER OFF SELECTED BY ARCHITECT **EQUIPMENT** SQUARE FOOT (FEET) **EXISTING** SFBA STANDARD FINISH AS FURNITURE MOUNTED SELECTED BY ARCHITECT FIRE ALARM SPDT SINGLE POLE, DOUBLE FIRE ALARM CONTROL

PANEL

FVNR

GFCI

FULL LOAD AMPS

FULL VOLTAGE

GROUND

GENERATOR

INTERRUPTER

PROTECTION

HEAVY DUTY

GROUND FAULT

HORSE POWER

HIGH VOLTAGE

INPUT/OUTPUT

JUNCTION BOX

ISOLATED GROUND

INTERMEDIATE METAL

INSULATED/ISOLATED

HERTZ

CONDUIT

INFRARED

NON-REVERSING

FREIGHT ON BOARD

FLEXIBLE METALCONDUIT

FULL VOLTAGE REVERSING

GROUND FAULT CIRCUIT

HAND-OFF-AUTOMATIC

HIGH POWER FACTOR

HIGH PRESSURE SODIUM

HIGH INTENSITY DISCHARGE | TVSS

THROW

THROW

START/STOP

SINGLE THROW

SWITCHBOARD

SWITCHGEAR

TWISTED PAIR

TELEPHONE POLE

TELEPHONE TERMINAL

TRANSIENT VOLTAGE

SURGE SUPPRESSER

UNINTERRUPTIBLE POWER

VARIABLE FREQUENCY

MOTOR CONTROLLER

TWIST LOCK

TELEVISION

UNDERFLOOR

VOLT AMPERE

WEATHERPROOF

TRANSFORMER

UNDERGROUND

BOARD

TYPICAL

SUPPLY

WITHOUT

VOLTS

SPECIFICATION

SINGLE POLE, SINGLE

SPEC

SWGR

TTB

UGND

UPS

VFC/VFD

XFMR

SPST

GENERAL ELECTRICAL NOTES

- CLARIFICATION METHODS: AT THE TIME OF BIDDING, BIDDERS SHALL FAMILIARIZE THEMSELVES WITH THE DRAWINGS AND SPECIFICATIONS. ANY QUESTIONS. MISUNDERSTANDINGS, CONFLICTS, DELETIONS, DISCONTINUED PRODUCTS, CATALOG NUMBER DISCREPANCIES, DISCREPANCIES BETWEEN THE EQUIPMENT SUPPLIED AND THE INTENT OR FUNCTION OF THE EQUIPMENT, ETC, SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER IN WRITING FOR CLARIFICATION PRIOR TO ISSUANCE OF THE FINAL ADDENDUM AND BIDDING OF THE PROJECT. WHERE DISCREPANCIES OR MULTIPLE INTERPRETATIONS OCCUR, THE MOST STRINGENT (WHICH IS GENERALLY RECOGNIZED AS THE MOST COSTLY) THAT MEETS THE INTENT OF THE DOCUMENTS SHALL BE
- OWNER FURNISHED ITEMS: THE OWNER WILL FURNISH MATERIAL AND EQUIPMENT AS INDICATED IN THE CONTRACT DOCUMENTS TO BE INCORPORATED INTO THE WORK. THESE ITEMS ARE ASSIGNED TO THE INSTALLER AND COSTS FOR RECEIVING, HANDLING, STORAGE, IF REQUIRED, AND INSTALLATION ARE INCLUDED IN THE CONTRACT SUM.
- A. THE INSTALLER'S RESPONSIBILITIES ARE THE SAME AS IF THE INSTALLER FURNISHED THE MATERIALS OR EQUIPMENT.
- B. THE OWNER WILL ARRANGE AND PAY FOR DELIVERY OF OWNER FURNISHED ITEMS FREIGHT ON BOARD JOB SITE AND THE INSTALLER WILL INSPECT DELIVERIES FOR DAMAGE. IF OWNER FURNISHED ITEMS ARE DAMAGED, DEFECTIVE OR MISSING. DOCUMENT DAMAGED ITEMS WITH THE TRANSPORT COMPANY AND THE OWNER WILL ARRANGE FOR REPLACEMENT. THE OWNER WILL ALSO ARRANGE FOR MANUFACTURER'S FIELD SERVICES, AND THE DELIVERY OF MANUFACTURER'S WARRANTIES AND BONDS TO THE INSTALLER.
- C. THE INSTALLER IS RESPONSIBLE FOR DESIGNATING THE DELIVERY DATES OF OWNER FURNISHED ITEMS AND FOR RECEIVING, UNLOADING AND HANDLING OWNER FURNISHED ITEMS AT THE SITE. THE INSTALLER IS RESPONSIBLE FOR PROTECTING OWNER FURNISHED ITEMS FROM DAMAGE, INCLUDING DAMAGE FROM EXPOSURE TO THE ELEMENTS, AND TO REPAIR OR REPLACE ITEMS DAMAGED AS A RESULT OF HIS OPERATIONS.
- 3. EXPOSED STRUCTURE AREAS (EXCLUDING MECHANICAL, ELECTRICAL, AND COMMUNICATION SPACES): INSTALL RACEWAYS BETWEEN DECK AND STRUCTURE WHEREVER POSSIBLE IN EXPOSED STRUCTURE CEILING AREAS. ROUTE RACEWAYS IN CONCEALED AREAS WHEREVER POSSIBLE. REFER ALL CONDITIONS WHERE RACEWAYS MUST BE INSTALLED WHICH CANNOT COMPLY WITH THESE REQUIREMENTS TO THE
- 4. SUBMITTALS: PROVIDE ORIGINAL ELECTRONIC PDF FORMAT, BOUND, BOOKMARKED (EACH SECTION AND PRODUCT), AND HIGHLIGHTED. JOB NAME AND SUBCONTRACTOR SHALL BE ON THE FRONT COVER. PREPARE INDEX OF EQUIPMENT SUBMITTED IN EACH
- REFLECTED CEILING PLANS: COORDINATE THE LOCATION OF LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. REFER ALL DISCREPANCIES TO THE ARCHITECT AND ENGINEER.
- 6. ALL WORK SHALL BE DONE ACCORDING TO THE CURRENT NATIONAL ELECTRIC CODE (NEC), IBC, NFPA, AND IFC. COMPLIANCE AND FINAL APPROVAL IS SUBJECT TO THE ON SITE FIELD INSPECTION OF THE AHJ

ELECTRICAL SHEET INDEX				
SHEET NO	SHEET TITLE			
EE001	GENERAL ELECTRICAL			
EE501	ELECTRICAL SPECIFICATIONS			
EE502	ELECTRICAL DETAILS			
EE601	ELECTRICAL SCHEDULES			
EP101	BASEMENT POWER PLAN			
EP102	LEVEL 1 POWER PLAN			
EP103	LEVEL 2 POWER PLAN			
EP104	LEVEL 3 POWER PLAN			
EL101	BASEMENT LIGHTING PLAN			
EL102	LEVEL 1 LIGHTING PLAN			
EL103	LEVEL 2 LIGHTING PLAN			

ENCORE SUSTAINABLE ARCHITECTS ARCHITECTURE PRESERVATION (410) 624-5461

1200 ARCHITECTURAL ENGINEERS 210 NORTH LEE ST. SUITE 210 ALEXANDRIA, VA 22314 SPECTRUM

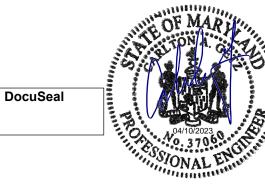
(410) 381-8010

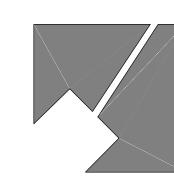
Submission Name MHT SUBMISSION ENGINEERS 9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046

DRAWING CHECKED BY: Initials Date CG/JH 4/10/2023

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

LICENSE NO. 2025-04-20 EXPIRATION DATE:_





SWITCH, TOGGLE MOTOR STARTER WITH OVERLOAD PROTECTION.

The Maryland-National Capital Park and Planning Commission Montgomery County Department of Parks

9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

ЗМІ	SSION / RE	VISION	ELECTRICAL COVER SHEET				
No.	Date	Description					
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS				
			HISTORIC WATERS HOUSE				
			12535 MILESTONE MANOR LANE				

GERMANTOWN, MD 20876

SCALE: AS SHOWN

DWG.#

EE001

ELECTRICAL SPECIFICATIONS

SECTION 16050 - BASIC ELECTRICAL MATERIALS AND METHODS

GENERAL

AND PRACTICES.

MATERIALS AND INSTALLATION SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE, OTHER APPLICABLE NFPA SECTIONS, STATE AND LOCAL CODES, AND RECOGNIZED INDUSTRY STANDARDS

LISTING AND LABELING: PROVIDE PRODUCTS THAT ARE UL LISTED AND LABELED.

NEMA COMPLIANCE: COMPLY WITH CONSTRUCTION AND INSTALLATION REQUIREMENTS OF APPLICABLE NEMA STANDARDS.

MAINTAIN A SET OF REDLINED AS-BUILT DRAWINGS AND DELIVER TO OWNER UPON COMPLETION OF PROJECT.

PATCH AND REPAIR SURFACES THAT ARE DISTURBED OR DAMAGED AS A RESULT OF ELECTRICAL INSTALLATION. RESTORE SURFACES TO ORIGINAL CONDITION.

INSTALLATION OF FIRE-STOPPING SEALANT: INSTALL UL-LISTED SEALANT, INCLUDING FORMING, PACKING, AND OTHER ACCESSORY MATERIALS, TO FILL OPENINGS AROUND ELECTRICAL SERVICES PENETRATING FLOORS AND WALLS, TO PROVIDE FIRE-STOPS WITH FIRE-RESISTANCE RATINGS INDICATED FOR FLOOR OR WALL ASSEMBLY IN WHICH PENETRATION OCCURS. COMPLY WITH INSTALLATION REQUIREMENTS ESTABLISHED BY TESTING AND INSPECTING AGENCY.

SECTION 16100 - RACEWAYS, BOXES, AND CABINETS

PRODUCTS

ELECTRICAL METALLIC TUBING AND FITTINGS: ANSI C80.3 WITH SET-SCREW OR COMPRESSION-TYPE FITTINGS. CAST FITTINGS ARE NOT ALLOWED.

FLEXIBLE METAL CONDUIT: ZINC-COATED STEEL

FITTINGS: NEMA FB 1, COMPATIBLE WITH CONDUIT/TUBING MATERIALS AND SUITABLE FOR USE AND LOCATION

SHEET METAL BOXES: NEMA OS 1

EXECUTION

INDOORS WIRING METHODS: USE THE FOLLOWING WIRING METHODS:

CONNECTION TO VIBRATING EQUIPMENT, INCLUDING EXHAUST FANS: FLEXIBLE METAL CONDUIT (MAXIMUM OF 6

EXPOSED: ELECTRICAL METALLIC TUBING. CONCEALED: ELECTRICAL METALLIC TUBING.

CONCEAL CONDUIT AND EMT, UNLESS OTHERWISE INDICATED, WITHIN FINISHED WALLS, CEILINGS, AND FLOORS

INSTALL RACEWAYS LEVEL AND SQUARE AND AT PROPER ELEVATIONS. RUN PERPENDICULAR AND AT RIGHT ANGLES TO BUILDING AND STRUCTURAL ELEMENTS. RUN PARALLEL OR BANKED RACEWAYS TOGETHER, ON COMMON SUPPORTS WHERE PRACTICAL. MAKE BENDS IN PARALLEL OR BANKED RUNS FROM SAME CENTER LINE TO MAKE BENDS PARALLEL.

SUPPORT RACEWAYS AS FOLLOWS, IN COMPLIANCE WITH DIVISION 16 SECTION "SUPPORTING DEVICES": TWO SUPPORTS PER 10' RUN, WITHIN 12" OF A COUPLING, FITTING OR BEND GREATER THAN 45 DEGREES, AND WITHIN 12" OF EVERY BOX WHICH THE RACEWAY IS ENTERING OR EXITING.

RUN CONCEALED RACEWAYS WITH A MINIMUM OF BENDS IN THE SHORTEST PRACTICAL DISTANCE CONSIDERING THE TYPE OF BUILDING CONSTRUCTION AND OBSTRUCTIONS, EXCEPT AS OTHERWISE INDICATED.

JOINTS AND TERMINATIONS: JOIN RACEWAYS WITH FITTINGS DESIGNED AND APPROVED FOR THE PURPOSE AND MAKE JOINTS AND TERMINATIONS TIGHT.

MAKE RACEWAY TERMINATIONS TIGHT. USE BONDING BUSHINGS OR WEDGES AT CONNECTIONS SUBJECT TO VIBRATION. USE BONDING JUMPERS WHERE JOINTS CANNOT BE MADE TIGHT. USE INSULATING BUSHINGS TO PROTECT CONDUCTORS.

INSTALL PULL CORDS IN ALL EMPTY RACEWAYS.

PROVIDE GROUNDING CONNECTIONS FOR RACEWAY, BOXES, AND COMPONENTS AS INDICATED AND INSTRUCTED BY MANUFACTURER. TIGHTEN CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, ACCORDING TO EQUIPMENT MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES FOR EQUIPMENT CONNECTORS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTORS AND TERMINALS ACCORDING TO TIGHTENING TORQUES SPECIFIED IN UL STANDARD 486A.

SECTION 16120 - WIRES AND CABLES

PRODUCTS

WIRES AND CABLES: TYPE THHN/THWN COPPER CONDUCTOR.

SOLID CONDUCTOR FOR 10 AWG AND SMALLER; STRANDED CONDUCTOR FOR LARGER THAN 10 AWG.

CONNECTORS AND SPLICES: UL-LISTED FACTORY-FABRICATED WIRING CONNECTORS OF SIZE, AMPACITY RATING, MATERIAL, AND TYPE AND CLASS FOR APPLICATION AND FOR SERVICE INDICATED. SELECT TO COMPLY WITH PROJECT'S INSTALLATION REQUIREMENTS AND AS SPECIFIED IN THE "EXECUTION" SECTION BELOW.

EXECUTION

INSTALL WIRES AND CABLES AS INDICATED, ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND THE NECA "STANDARD OF INSTALLATION."

PULL CONDUCTORS INTO RACEWAY SIMULTANEOUSLY WHERE MORE THAN ONE IS BEING INSTALLED IN THE SAME

CONDUCTOR SPLICES: KEEP TO A MINIMUM.

INSTALL SPLICES AND TAPES THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN CONDUCTORS BEING SPLICED. USE SPLICE AND TAP CONNECTORS THAT ARE COMPATIBLE WITH CONDUCTOR MATERIAL

WIRING AT OUTLETS: INSTALL WITH AT LEAST 12 INCHES (300 MM) OF SLACK CONDUCTOR AT EACH OUTLET.

CONNECT OUTLETS AND COMPONENTS TO WIRING AND TO GROUND AS INDICATED AND INSTRUCTED BY MANUFACTURER. TIGHTEN CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, ACCORDING TO EQUIPMENT MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES FOR EQUIPMENT CONNECTORS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTORS AND TERMINALS ACCORDING TO TIGHTENING TORQUES SPECIFIED IN UL STANDARD 486A.

ELECTRICAL SPECIFICATIONS

SECTION 16140 - WIRING DEVICES (CONT.)

WALL PLATES: SINGLE AND COMBINATION TYPES THAT MATE AND MATCH WITH CORRESPONDING WIRING DEVICES. FEATURES INCLUDE THE FOLLOWING:

COLOR: MATCHES WIRING DEVICE EXCEPT AS OTHERWISE INDICATED. PLATE-SECURING SCREWS: METAL WITH HEADS COLORED TO MATCH PLATE FINISH. MATERIAL FOR FINISHED SPACES: LEXAN OR NYLON EXCEPT AS OTHERWISE INDICATED. MATERIAL FOR UNFINISHED SPACES: GALVANIZED STEEL.

EXECUTION

INSTALL DEVICES AND ASSEMBLIES PLUMB AND SECURE. PROTECT DEVICES AND ASSEMBLIES DURING PAINTING AND INSTALL RECEPTACLES ON THE SAME CIRCUIT. DESIGN UNITS FOR INSTALLATION IN A 2-3/4-INCH (70-MM) DEEP OUTLET BOX WITHOUT WALL PLATES WHEN PAINTING IS COMPLETE.

ARRANGEMENT OF DEVICES: EXCEPT AS OTHERWISE INDICATED, MOUNT FLUSH, WITH LONG DIMENSION VERTICAL, AND GROUNDING TERMINAL OF RECEPTACLES ON TOP. GROUP ADJACENT SWITCHES UNDER SINGLE, MULTIGANG WALL PLATES.

SECTION 16190 - SUPPORTING DEVICES

PRODUCTS

MANUFACTURED SUPPORTING DEVICES:

RACEWAY SUPPORTS: CLEVIS HANGERS, RISER CLAMPS, CONDUIT STRAPS, THREADED C-CLAMPS WITH RETAINERS. CEILING TRAPEZE HANGERS, WALL BRACKETS, AND SPRING STEEL CLAMPS.

FASTENERS: TYPES, MATERIALS, AND CONSTRUCTION FEATURES AS FOLLOWS:

EXPANSION ANCHORS: CARBON STEEL WEDGE OR SLEEVE TYPE, TOGGLE BOLTS: ALL STEEL SPRINGHEAD TYPE. POWDER-DRIVEN THREADED STUDS: HEAT-TREATED STEEL. DESIGNED SPECIFICALLY FOR THE INTENDED SERVICE.

FABRICATED SUPPORTING DEVICES: SHOP- OR FIELD-FABRICATED SUPPORTS OR MANUFACTURED SUPPORTS ASSEMBLED FROM U-CHANNEL COMPONENTS.

STEEL BRACKETS: FABRICATED OF ANGLES, CHANNELS, AND OTHER STANDARD STRUCTURAL SHAPES. CONNECT WITH WELDS AND MACHINE BOLTS TO FORM RIGID SUPPORTS

EXECUTION

SUPPORT.

INSTALL SUPPORTING DEVICES TO FASTEN ELECTRICAL COMPONENTS SECURELY AND PERMANENTLY IN ACCORDANCE WITH NEC REQUIREMENTS. COORDINATE WITH THE BUILDING STRUCTURAL SYSTEM AND WITH OTHER ELECTRICAL INSTALLATION.

RACEWAY SUPPORTS: COMPLY WITH THE NEC AND THE FOLLOWING REQUIREMENTS:

CONFORM TO MANUFACTURER'S RECOMMENDATIONS FOR SELECTION AND INSTALLATION OF SUPPORTS.

STRENGTH OF EACH SUPPORT SHALL BE ADEQUATE TO CARRY PRESENT AND FUTURE LOAD MULTIPLIED BY A SAFETY FACTOR OF AT LEAST FOUR, BUT IN NO CASE SHALL BE LESS THAN 200 LBS IN THE STRENGTH OF EACH

INSTALL INDIVIDUAL AND MULTIPLE (TRAPEZE) RACEWAY HANGERS AND RISER CLAMPS AS NECESSARY TO SUPPORT RACEWAYS. PROVIDE U-BOLTS, CLAMPS, ATTACHMENTS, AND OTHER HARDWARE NECESSARY FOR HANGER ASSEMBLY AND FOR SECURING HANGER RODS AND CONDUITS.

MISCELLANEOUS SUPPORTS: SUPPORT MISCELLANEOUS ELECTRICAL COMPONENTS AS REQUIRED TO PRODUCE THE SAME STRUCTURAL SAFETY FACTORS AS SPECIFIED FOR RACEWAY SUPPORTS. INSTALL METAL CHANNEL RACKS FOR MOUNTING PANELBOARDS, DISCONNECTS, PULL BOXES, JUNCTION BOXES, TRANSFORMERS, AND OTHER DEVICES.

IN OPEN OVERHEAD SPACES, CAST BOXES THREADED TO RACEWAYS NEED NOT BE SUPPORTED SEPARATELY EXCEPT WHERE USED FOR FIXTURE SUPPORT: SUPPORT SHEET METAL BOXES DIRECTLY FROM THE BUILDING STRUCTURE OR BY BAR HANGERS. WHERE BAR HANGERS ARE USED, ATTACH THE BAR TO RACEWAYS ON OPPOSITE SIDES OF THE BOX AND SUPPORT THE RACEWAY WITH AN APPROVED TYPE OF FASTENER NOT MORE THAN 24 INCHES FROM THE BOX.

FASTENING: UNLESS OTHERWISE INDICATED, FASTEN ELECTRICAL ITEMS AND THEIR SUPPORTING HARDWARE SECURELY TO THE BUILDING STRUCTURE, INCLUDING BUT NOT LIMITED TO CONDUITS, RACEWAYS, CABLES, CABLE TRAYS, BUSWAYS, CABINETS, PANELBOARDS, TRANSFORMERS, BOXES, DISCONNECT SWITCHES, AND CONTROL COMPONENTS IN ACCORDANCE WITH THE FOLLOWING:

FASTEN BY MEANS OF TOGGLE BOLTS ON HOLLOW MASONRY UNITS, CONCRETE INSERTS OR EXPANSION BOLTS ON SOLID MASONRY, AND MACHINE SCREWS, WELDED THREADED STUDS, OR SPRING-TENSION CLAMPS ON STEEL. THREADED STUDS DRIVEN BY A POWDER CHARGE AND PROVIDED WITH LOCK WASHERS AND NUTS MAY BE USED INSTEAD OF EXPANSION BOLTS AND MACHINE SCREWS. DO NOT WELD CONDUIT, PIPE STRAPS, OR ITEMS OTHER THAN THREADED STUDS TO STEEL STRUCTURES. IN PARTITIONS OF LIGHT STEEL CONSTRUCTION, USE SHEET METAL SCREWS.

ENSURE THAT THE LOAD APPLIED TO ANY FASTENER DOES NOT EXCEED 25 PERCENT OF THE PROOF TEST LOAD.

SECTION 16452 - GROUNDING

PRODUCTS

GROUNDING AND BONDING PRODUCTS: TYPES AS INDICATED. WHERE TYPES, SIZES, RATINGS, AND QUANTITIES INDICATED DIFFER FROM NEC REQUIREMENTS, THE MORE STRINGENT REQUIREMENTS AND THE GREATER SIZE, RATING, AND QUANTITY INDICATIONS GOVERN.

CONDUCTOR MATERIALS: COPPER.

EQUIPMENT GROUNDING CONDUCTOR: GREEN INSULATED

SOLID CONDUCTORS: ASTM B-3. ASSEMBLY OF STRANDED CONDUCTORS: ASTM B-8. TINNED CONDUCTORS: ASTM B-33.

EXECUTION

EQUIPMENT GROUNDING CONDUCTOR APPLICATION: COMPLY WITH NEC ARTICLE 250 FOR SIZES AND QUANTITIES OF EQUIPMENT GROUNDING CONDUCTORS, EXCEPT WHERE LARGER SIZES OR MORE CONDUCTORS ARE INDICATED. INSTALL EQUIPMENT GROUNDING CONDUCTORS IN ALL FEEDER AND BRANCH CIRCUIT RACEWAYS.

INSTALLATION, GENERAL: GROUND ELECTRICAL SYSTEMS AND EQUIPMENT IN ACCORDANCE WITH NEC EXCEPT WHERE GROUNDING IN EXCESS OF NEC REQUIREMENTS IS INDICATED.

CONNECTIONS: MAKE CONNECTIONS IN SUCH A MANNER AS TO MINIMIZE POSSIBILITY OF GALVANIC ACTION OR ELECTROLYSIS. SELECT CONNECTORS, CONNECTION HARDWARE, CONDUCTORS, AND CONNECTION METHODS SO METALS IN DIRECT CONTACT WILL BE GALVANICALLY COMPATIBLE.

TIGHTEN GROUNDING AND BONDING CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR CONNECTORS AND BOLTS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUES SPECIFIED IN UL 486A AND UL 486B.

COMPRESSION-TYPE CONNECTIONS: USE HYDRAULIC COMPRESSION TOOLS TO PROVIDE THE CORRECT CIRCUMFERENTIAL PRESSURE FOR COMPRESSION CONNECTORS. USE TOOLS AND DIES RECOMMENDED BY THE MANUFACTURER OF THE CONNECTORS. PROVIDE EMBOSSING DIE CODE OR OTHER STANDARD METHOD TO MAKE A VISIBLE INDICATION THAT A CONNECTOR HAS BEEN ADEQUATELY COMPRESSED ON THE CONDUCTOR.

ELECTRICAL SPECIFICATIONS

SECTION 16470 - PANELBOARDS

CUTLER HAMMER

PRODUCTS

MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY THE FOLLOWING:

GENERAL ELECTRIC CO. SIEMENS SQUARE D CO.

PANELBOARDS: CONFORM TO THE FOLLOWING GENERAL REQUIREMENTS

ENCLOSURES: CABINETS, FLUSH OR SURFACE MOUNTED AS INDICATED. NEMA TYPE 1 ENCLOSURE FOR INDOOR UNITS.

BUS: HARD DRAWN COPPER OF 98 PERCENT CONDUCTIVITY.

EQUIPMENT GROUND BUS: ADEQUATE FOR FEEDER AND BRANCH CIRCUIT EQUIPMENT GROUND CONDUCTORS. BONDED TO BOX.

SERVICE EQUIPMENT APPROVAL: LISTED FOR USE AS SERVICE EQUIPMENT FOR PANELBOARDS HAVING MAIN SERVICE DISCONNECT.

CIRCUIT BREAKERS: BOLT-ON TYPE.

MAIN AND NEUTRAL LUGS: COMPRESSION TYPE.

PROVISION FOR FUTURE DEVICES: EQUIP WITH MOUNTING BRACKETS, BUS CONNECTIONS, AND NECESSARY APPURTENANCES FOR THE OCPD AMPERE RATINGS INDICATED FOR FUTURE INSTALLATION OF DEVICES.

IDENTIFICATION: PANELBOARD NAMEPLATES: ENGRAVED LAMINATED PLASTIC OR METAL NAMEPLATE FOR EACH PANELBOARD MOUNTED WITH EPOXY. INDUSTRIAL CEMENT, OR INDUSTRIAL ADHESIVE. TYPED CIRCUIT DIRECTORY INDICATING CORRECT LOAD DESIGNATION OF EACH CIRCUIT.

EXECUTION

INSTALLATION, GENERAL: INSTALL PANELBOARDS AND ACCESSORY ITEMS IN ACCORDANCE WITH NEMA PB 1.1. "GENERAL INSTRUCTIONS FOR PROPER INSTALLATION, OPERATION AND MAINTENANCE OF PANELBOARDS RATED 600 VOLTS OR LESS," AND MANUFACTURERS' WRITTEN INSTALLATION INSTRUCTIONS.

MOUNTING HEIGHTS: TOP OF TRIM 6'-2" ABOVE FINISHED FLOOR, EXCEPT AS INDICATED.

MOUNTING: PLUMB AND RIGID WITHOUT DISTORTION OF BOX. INSTALL FILLER PLATES IN UNUSED SPACES.

WIRING IN PANEL GUTTERS: TRAIN CONDUCTORS NEATLY IN GROUPS; BUNDLE AND WRAP WITH WIRE TIES AFTER COMPLETION OF LOAD BALANCING. TIGHTEN ELECTRICAL CONNECTORS AND TERMINALS INCLUDING GROUNDING CONNECTIONS IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. WHERE MANUFACTURER'S TORQUE VALUES ARE NOT INDICATED, USE THOSE SPECIFIED IN UL 486A AND UL 486B.

VISUAL AND MECHANICAL INSPECTION: INCLUDE THE FOLLOWING INSPECTIONS AND RELATED WORK:

INSPECT FOR DEFECTS AND PHYSICAL DAMAGE, LABELING, AND NAMEPLATE COMPLIANCE WITH REQUIREMENTS OF UP-TO-DATE DRAWINGS AND PANELBOARD SCHEDULES.

CHECK PANELBOARD MOUNTING, AREA CLEARANCES, AND ALIGNMENT AND FIT OF COMPONENTS

CHECK TIGHTNESS OF BOLTED ELECTRICAL CONNECTIONS WITH CALIBRATED TORQUE WRENCH. REFER TO MANUFACTURER'S INSTRUCTIONS FOR PROPER TORQUE VALUES.

SECTION 16476 - DISCONNECTS, CIRCUIT BREAKERS, AND FUSES PRODUCTS

ENCLOSED NONFUSIBLE SWITCH: NEMA KS 1, HEAVY DUTY TYPE, HANDLE LOCKABLE WITH 2 PADLOCKS, ENCLOSURE CONSISTENT WITH ENVIRONMENT WHERE LOCATED, MINIMUM FAULT CURRENT RATING OF 200,000 SYMMETRICAL RMS AMPERES

CHARACTERISTICS: FRAME SIZE, TRIP RATING, NUMBER OF POLES, AND AUXILIARY DEVICES AS INDICATED; INTERRUPTING CAPACITY RATING TO MEET AVAILABLE FAULT CURRENT, 10,000 SYMMETRICAL RMS AMPERES MINIMUM; WITH APPROPRIATE APPLICATION LISTING FOR SWITCHING HEATING, AIR CONDITIONING, AND REFRIGERATION EQUIPMENT

LUGS: MECHANICAL LUGS AND POWER-DISTRIBUTION CONNECTORS FOR NUMBER, SIZE, AND MATERIAL OF CONDUCTORS INDICATED.

EXECUTION

CONNECT ENCLOSED SWITCHES AND COMPONENTS TO WIRING SYSTEM AND TO GROUND AS INDICATED AND INSTRUCTED BY MANUFACTURER. TIGHTEN CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS ACCORDING TO EQUIPMENT MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR EQUIPMENT CONNECTORS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTORS AND TERMINALS ACCORDING TO TIGHTENING TORQUES SPECIFIED IN UL STANDARD 486A.

ELECTRICAL SPECIFICATIONS

SECTION 16140 - WIRING DEVICES

VERIFY THESE COMPLIANCES.

PRODUCTS

WIRING DEVICES: COMPLY WITH NEMA STANDARD WD 1. "GENERAL PURPOSE WIRING DEVICES."

STANDARD TAMPER RESISTANT DUPLEX RECEPTACLES: 20A TAMPER RESISTANT DEVICES; PROVIDE NYLON OR LEXAN FACE, BACK AND SIDE WIRING. COMPLY WITH FEDERAL SPECIFICATION W-C-596 AND HEAVY-DUTY GRADE OF UL STANDARD 498, "ELECTRICAL ATTACHMENT PLUGS AND RECEPTACLES." PROVIDE NRTL LABELING OF DEVICES TO

COLOR: AS SELECTED BY ARCHITECT/OWNER, EXCEPT AS OTHERWISE INDICATED OR REQUIRED BY CODE.

GROUND-FAULT CIRCUIT INTERRUPTER (GFCI) TAMPER RESISTANT RECEPTACLES: UL STANDARD 943, "GROUND FAULT CIRCUIT INTERRUPTERS," FEED-THROUGH TYPE, WITH INTEGRAL NEMA 5-20R TAMPER RESISTANT DUPLEX RECEPTACLE ARRANGED TO PROTECT CONNECTED DOWNSTREAM RECEPTACLES ON THE SAME CIRCUIT. DESIGN UNITS FOR INSTALLATION IN A 2-3/4-INCH (70-MM) DEEP OUTLET BOX WITHOUT AN ADAPTER.

SNAP SWITCHES: QUIET-TYPE A.C. SWITCHES, NRTL LISTED AND LABELED AS COMPLYING WITH UL STANDARD 20

TELEPHONE JACK: RJ-45, 8-POSITION, MODULAR, LATCHING-PLUG TYPE, FLUSH IN FACE OF WALL PLATED.

SECTION 16515 - LIGHTING

PRODUCTS

COMPLY WITH THE REQUIREMENTS SPECIFIED BELOW AND IN THE LIGHTING FIXTURE SCHEDULE.

"GENERAL USE SNAP SWITCHES," AND WITH FEDERAL SPECIFICATION W-S-896.

METAL PARTS: FREE FROM BURRS AND SHARP CORNERS AND EDGES.

SHEET METAL COMPONENTS: STEEL, EXCEPT AS INDICATED. COMPONENTS ARE FORMED AND SUPPORTED TO PREVENT WARPING AND SAGGING.

DOORS, FRAMES, AND OTHER INTERNAL ACCESS: SMOOTH OPERATING AND FREE FROM LIGHT LEAKAGE UNDER OPERATING CONDITIONS. ARRANGE TO PERMIT RELAMPING WITHOUT USE OF TOOLS. ARRANGE DOORS, FRAMES, LENSES, DIFFUSERS, AND OTHER PIECES TO PREVENT ACCIDENTAL FALLING DURING RELAMPING AND WHEN SECURED IN THE OPERATING POSITION.

REFLECTING SURFACES: MINIMUM REFLECTANCES AS FOLLOWS, EXCEPT AS OTHERWISE INDICATED:

WHITE SURFACES: 85 PERCENT.

DIFFUSING SPECULAR SURFACES: 75 PERCENT.

LENSES: 100 PERCENT VIRGIN ACRYLIC PLASTIC.

PLASTIC: HIGHLY RESISTANT TO YELLOWING AND OTHER CHANGES DUE TO AGING, EXPOSURE TO HEAT AND UV RADIATION. LENS THICKNESS: 0.125 INCHES, MINIMUM.

MINIMUM POWER FACTOR: .70

MINIMUM OPERATING FREQUENCY: 20,000 HZ.

THIRD HARMONIC CONTENT OF BALLAST CURRENT: LESS THAN 20 PERCENT. AVERAGE INPUT: THE FOLLOWING IS THE AVERAGE REQUIRED WATTAGE WHEN TESTED ACCORDING TO ANSI C82.2, "FLUORESCENT LAMP BALLASTS, METHODS OF MEASUREMENT."

LAMPS: PROVIDE LAMPS FOR EACH FIXTURE INDICATED. CONFORM TO ANSI STANDARDS, C78 SERIES APPLICABLE TO EACH TYPE OF LAMP. LAMPS SHALL BE TCLIP COMPLIANT.

STEEL PARTS FINISH: MANUFACTURER'S STANDARD FINISH APPLIED OVER CORROSION-RESISTANT PRIMER, FREE OF STREAKS, RUNS, HOLIDAYS, STAINS, BLISTERS, AND DEFECTS. REMOVE FIXTURES SHOWING EVIDENCE OF CORROSION DURING PROJECT WARRANTY PERIOD AND REPLACE WITH NEW FIXTURES.

EXECUTION

INSTALLATION: UNLESS OTHERWISE INDICATED, INSTALL LIGHTING FIXTURES AS FOLLOWS:

SETTING AND SECURING: SET UNITS PLUMB, SQUARE, AND LEVEL WITH CEILING AND WALLS, AND SECURE ACCORDING TO MANUFACTURER'S PRINTED INSTRUCTIONS AND APPROVED SHOP DRAWINGS.

LAMPING: LAMP UNITS ACCORDING TO MANUFACTURER'S INSTRUCTIONS

ADJUSTING AND CLEANING: CLEAN FIXTURES UPON COMPLETION OF INSTALLATION. USE METHODS AND MATERIALS RECOMMENDED BY MANUFACTURER.

ENCORE SUSTAINABLE ARCHITECTS ARCHITECTURE PRESERVATION (410) 624-5461

1200 ARCHITECTURAL ENGINEERS 210 NORTH LEE ST. SUITE 210 ALEXANDRIA. VA 22314 703-350-4151 **SPECTRUM**

ENGINEERS

9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

Submission Name Initials MHT SUBMISSION

DRAWING CHECKED BY:

Date CG/JH 4/10/2023

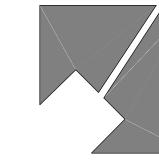
LICENSE NO.

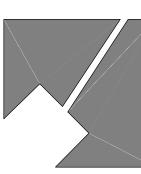
EXPIRATION DATE:

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

2025-04-20

DocuSeal





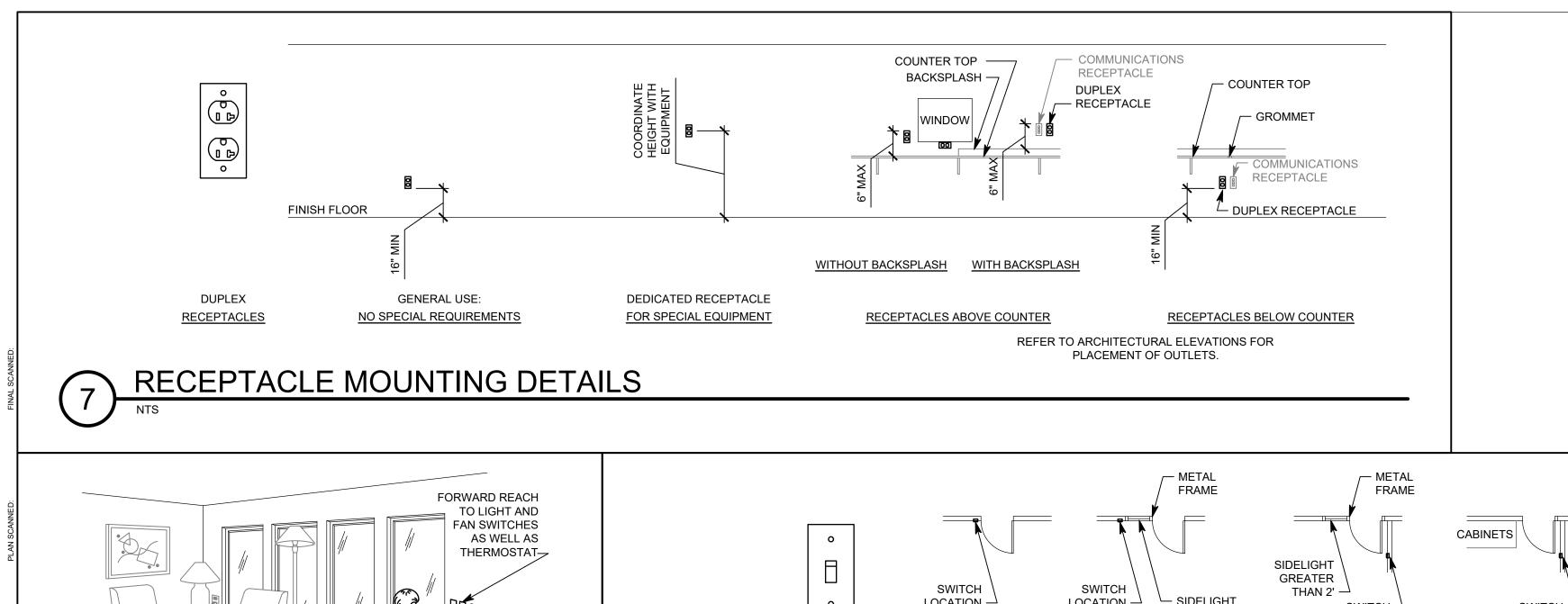
The Maryland-National Capital Park and Planning Commission Montgomery County Department of Parks 9500 Brunett Avenue

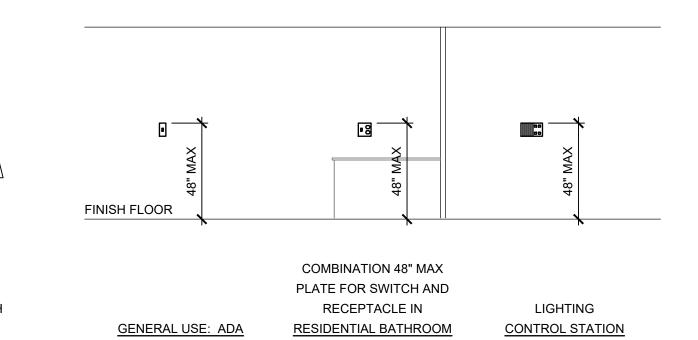
Silver Spring, Maryland 20901

(301) 495-2535

ELECTRICAL DETAILS SUBMISSION / REVISION **BUILDING ENVELOPE REPAIRS** 04.10.2023 | MHT SUBMISSION HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876 SCALE: AS SHOWN

DWG.# EE501





ADDITIONAL OUTLET IN \

ACCESSIBLE LOCATION $^{\perp}$

INACCESSIBLE OUTLET LESS THAN 15" ABOVE

FLOOR PERMISSIBLE

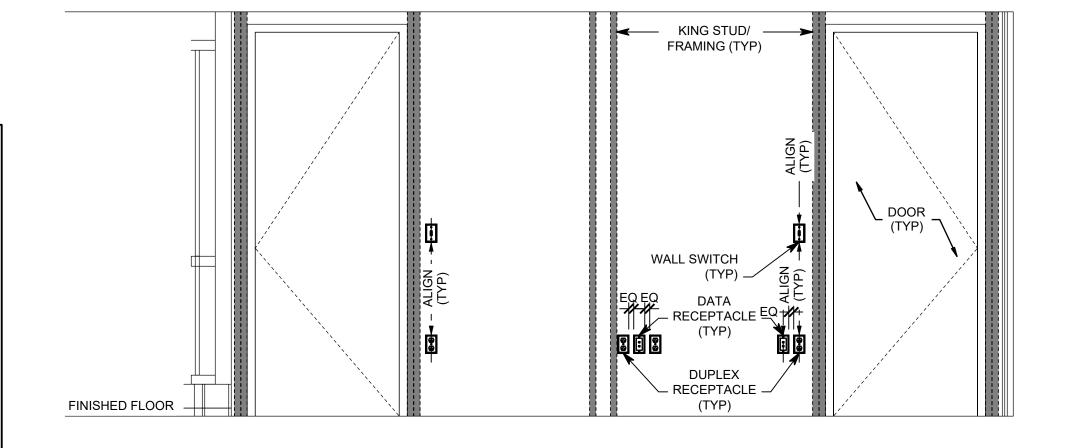
30" X 48" CLEAR FLOOR

REACH TO CONTROLS -

SPACE PERPENDICULAR TO

THE WALL FOR A FORWARD

5 SWITCH MOUNTING DETAILS



TYPICAL WALL MOUNTED DEVICES ALIGNMENT DETAIL

ENCORE SUSTAINABLE ARCHITECTS ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202 (410) 624-5461

FINISH FLOOR

WALL MOUNTED

LIGHT FIXTURE

1200 ARCHITECTURAL ENGINEERS 210 NORTH LEE ST. SUITE 210 ALEXANDRIA, VA 22314 703-350-4151 SPECTRUM ENGINEERS

9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

PENDANT

LIGHT FIXTURE

LIGHTING MOUNTING DETAILS

PENDANT EXIT SIGNS

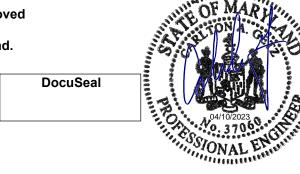
DRAWING CHECKED BY: Submission Name

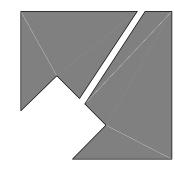
PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

2025-04-20

LICENSE NO.

EXPIRATION DATE:





The Maryland-National Capital Park and Planning Commission Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

SUBM	ISSION / RE	VISION	EL	.ECTRIC
Rev. No.	Date	Description		
	04.10.2023	MHT SUBMISSION	BU	ILDING E
				ORIC WATERS H
			1	IANTOWN, MD 20876

BOX MOUNTING DETAILS

STUD IN

NOTE: FOR LESS THAN 24" SEPARATION, PROVIDE LISTED SOUND

AND FIRE PUTTY PADS.

BOXES ON OPPOSITE SIDES OF WALL

BETWEEN -

ELECTRICAL DETAILS

SCALE: AS SHOWN

DWG.#

UILDING ENVELOPE REPAIRS

STORIC WATERS HOUSE 535 MILESTONE MANOR LANE

EE502

LOCATION -LOCATION — - SIDELIGHT SWITCH LESS THAN 2' LOCATION -LOCATION DOOR WITH NO DOOR WITH SIDELIGHT DOOR WITH SIDELIGHT PLACE FOR SWITCH AT LATCH SIDE **SWITCHES** STANDARD DOOR LESS THAN 2' **GREATER THAN 2'**

4. LOCATE DETECTOR ANYWHERE IN SHADED AREA BUT NOT IN TOP 4" OF PEAK.

POCKET. FOR D > 4 REDUCE SPACING .33 PERPENDICULAR TO BEAMS.

5. LOCATE AT BOTTOM OF BEAMS IF D/H < .1 OR W/H < .4; OTHERWISE, LOCATE IN BEAM

GENERAL SHEET NOTES

DEVICE VERTICAL UNLESS OTHERWISE INDICATED.

○SHEET KEYNOTES

1. LOCATE RECEPTACLES BEHIND DRINKING FOUNTAINS.

2. REFER TO ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF OUTLETS.

5. SET BOXES WITH PLASTER RINGS FLUSH WITH FINISHED SURFACE.

BUILDING FINISHES EITHER VERTICALLY OR HORIZONTALLY.

1 - ELEVATIONS (ARCHITECTURAL, ELECTRICAL, MECHANICAL, ETC).

FOLLOWING ORDER OF PRIORITY:

2 - EQUIPMENT SHOP DRAWINGS.

3 - FIELD INSTRUCTIONS.

DIRECTED OTHERWISE.

ILLUMINATION.

PLATE.

DETERMINE MOUNTING HEIGHTS OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN THE

LOCATE RECEPTACLES SERVING THE SAME TYPE OF USE AT A UNIFORM HEIGHT UNLESS

MECHANICAL, ELECTRICAL, AND COMMUNICATION ROOMS: COORDINATE LOCATION OF

LIGHTING AND POWER RECEPTACLES WITH EQUIPMENT, PIPING, AND DUCTWORK. DO NOT INSTALL RECEPTACLES BEHIND EQUIPMENT OR WHERE OTHERWISE INACCESSIBLE. POSITION LIGHTING REGARDLESS OF WHERE SHOWN ON DRAWING TO PROVIDE PROPER

MOUNT RECEPTACLE BOXES FOR SWITCHES AND RECEPTACLES WITH LONG AXIS OF THE

6. LOCATE BOX COVERS OR DEVICE PLATES SO THEY WILL NOT SPAN DIFFERENT TYPES OF

VERIFY ALL DOOR CONDITIONS ON ARCHITECTURAL DRAWINGS PRIOR TO INSTALLING

8. LOCATE WIRING DEVICES WHICH ARE ADJACENT AND ARE COMPATIBLE VOLTAGES IN ONE

LOCATE AT BOTTOM OF BEAMS (OR JOISTS) OR AT CEILING. (REDUCE SPACING BY .5

PERPENDICULAR TO BEAM OR JOIST DIRECTION.) FOR OTHER CONDITIONS, REFER TO

9. COORDINATE WITH ARCHITECTURAL SPECIFICATIONS FOR WALL FINISH REPAIRS.

						PAN	1EL	",A	,, (ΈΧ	(ISTING)						
VOLT:	VOLTS/PHASE/WIRE: PANEL SIZE & TYPE:							SIZE &	TYPE:		LOCATION:	CABI	NET:		NOTE	S:	
120/	2 4 0 \	/, 1 PI	1 3 W	/IRE		22" W x 6" D, BOLT-ON	200	AMPERE	MAIN L	UGS	ELEC./MECH. EQUIP. RM.	SURF	ACE				
ACCE	SSOR	IES:	PANE	L DIRE	CTOF	RY, IDENTIFICATION, GROUNDING BAR, INSULA	ATED GR	OUND B	AR, SUE	FEED	LUGS						
СКТ	O			D (kV		DESCRIPTION	LCL	PHASEO	AD	LCL	DESCRIPTION	LOAD (kVA)		VA)	OCP		СКТ
NO	AMP	POLE	LTG	СО	PWR		kVA	Α	В	kVA		LTG	СО	PWR	AMP	POLE	NO
1	15	1				(EX) 2ND FL LIGHTS	0.0	0.0		0.0	(EX) 2ND FL ROOM 2&3 RECEPT				20	1	2
3	20	1				(EX) 2ND FL BATHROOM	0.0		0.0	0.0	(EX) BASEMENT DEHUMIDIFIER				20	1	4
5	20	1				(EX) 2ND FL BEHIND ROOM 1	0.0	0.0		0.0	(EX) BASEMENT SUMP PUMP				15	1	6
7	15	1				(EX) 1ST FL LIGHTS	0.0		0.0	0.0	(EX) 1ST FL BATHROM GFI				15	1	8
9	30	2				(EX) ATTIC FURNACE	0.0	0.0		0.0	(EX) GARBAGE DISPOSAL				15	1	10
11	0	-				_	0.0		0.0	0.0	(EX) HEATERS ROOM ABOVE KITCHEN				20	1	12
13	20	1				(EX) RECEPT. 1ST FL BATHROOM	0.0	0.0		0.0	(EX) HEATERS ROOM ABOVE KITCHEN				20	1	14
15	20	1				(EX) ROOM BEHIND ROOM 4	0.0		0.0	0.0	(EX) BASEMENT FURNACE				15	1	16
17	20	1				(EX) 2ND FL ROOM 3	0.0	0.0		0.0	(EX) BASEMENT LIGHTS				15	1	18
19	20	1				(EX) 1ST FL LIBRARY	0.0		0.4	0.4	CO BASEMENT		0.4		15	1	20
21	20	1				(EX) 1ST FL GALLERY	0.0	0.0		0.0	(EX) BACK A/C				60	2	22
23	20	1				(EX) ATTIC LIGHTS + RECEPT	0.0		0.0	0.0	ı				_	1	24
25	20	1		1.1		CO LEVEL 1 (NOTE 1)	1.1	2.5		1.4	CO LEVEL 1 (NOTE 1)		1.4		20	1	26
27	20	1		1.4		CO LEVEL 1 (NOTE 1)	1.4		1.6	0.2	CO EXTERIOR (NOTE 1)		0.2		20	1	28
29	20	1				(EX) 1ST FL	0.0	6.5		6.5	CU-4 (NOTE 1)			6.5	45	2	30
31	60	2				(EX) FURNACE HEAT PACK A	0.0		0.0	0.0	-				_	_	32
33	_	_				_	0.0	1.4		1.4	CO LEVEL 2 (NOTE 1)		1.4		20	1	34
35	20	1		1.4		CO LEVEL 2 (NOTE 1)	1.4		1.4	0.0	(EX) ITT REC 1ST FL				20	1	36
37	20	1		0.2		CO EXTERIOR (NOTE 1)	0.2	0.2		0.0	(EX) FLOW ALARM				20	1	38
39	_	_				(EX) SPACE	0.0		0.0	0.0	EXISTING				20	1	40
41	_	_				(EX) SPACE	0.0	0.0		0.0	(EX) IT LIGHTS				20	1	42
TOTA	LS:					kVA PER		11	3			CONNE					ļ
						AMPS PER	PHASE	89	29		CONNECTED AVER	RAGE A	MPS F	PER P	HASE	59	
	NEC DIVERSIFIED LOAD CALCULATIONS LIGHTING OKVA @125% = 0 kVA ALL OTHER LOADS @100% = 7 kVA DIVERSIFIED TOTAL kVA = 14 RECEPTACLES 8kVA @100% = 8 kVA 25% OF LARGEST MOTOR = 0 kVA AVERAGE AMPS PER PHASE = 59																
	RECEPTACLES 8kVA @100% = 8 kVA 25% OF LARGEST MOTOR = 0 kVA AVERAGE AMPS PER PHASE = 59 REMAINDER 0kVA @ 50% = 0 kVA																

NOTES LEGEND: 1. PROVIDE NEW CIRCUIT BREAKER. MATCH EXISTING BREAKER TYPE AND A.I.C. RATING.

	PANEL "B" (EXISTING)																
VOLT	VOLTS/PHASE/WIRE: PANEL SIZE & TYPE: MAIN SIZE & TYPE: LOCATION: CABINET: NOTE								NOTE	S:	$\overline{}$						
	•	, 1 P		/IRE		22" W x 6" D, BOLT-ON					ELEC./MECH. EQUIP. RM.	SURF			110123.		
	SSOR					RY, IDENTIFICATION, GROUNDING BAR, INSUL.					•	100					$\neg \neg$
СКТ	00			D (k		DESCRIPTION		PHASEO		LCL	DESCRIPTION	LO	AD (k	VA)	OC	P	СКТ
NO		POLE					kVA	Α	В	kVA				PWR			
1	20	1				(EX) RECEPT ROOM ABOVE KITCHEN	0.0	0.0		0.0	(EX) FRONT PORCH GFI; REAR GFI				20	1	2
3	20	1				(EX) KITCHEN RECETACLES	0.0		0.0	0.0	EXISTING				20	1	4
5	20	1				(EX) 1ST FL GALLERY #2	0.0	0.0		0.0	(EX) DISH WASHER				15	1	6
7	15	1				(EX) GALLERY LTS	0.0		0.0	0.0	(EX) 1ST FLOOR HEAT PACK B				30	2	8
9	20	1				(EX) ATTIC FURNACE	0.0	0.0		0.0	-				_	_	10
11	15	1				EXISTING	0.0		0.0	0.0	(EX) HEATERS ABOVE KITCHEN				40	2	12
13	20	1				EXISTING	0.0	0.0		0.0	-				_	_	14
15	20	1		1.1		CO LEVEL 2 (NOTE 1)	1.1		1.1	0.0	(EX) WATER HEATER				30	2	16
17	20	1		1.4		CO LEVEL 2 (NOTE 1)	1.4	1.4		0.0	-				-	_	18
19	20	2				(EX) OUTSIDE PANEL	0.0		0.0	0.0	EXISTING				20	1	20
21	_	-				_	0.0	0.0		0.0	EXISTING				20	1	22
23	20	1				(EX) COPPER	0.0		0.0	0.0	(EX) HALL PLUGS				15	1	24
25	45	2			6.5	CU-4 (NOTE 1)	6.5	7.5		1.0	HP-4 (NOTE 1)			1.0	20	2	26
27	_	_				_	0.0		0.0	0.0	-				_	_	28
29	_	_				(EX) SPACE	0.0	1.0		1.0	HP-4 (NOTE 1)			1.0	20	2	30
31	_	_				(EX) SPACE	0.0		0.0	0.0	-				_	_	32
33	_	_				(EX) SPACE	0.0	0.0		0.0	(EX) SPACE				_	_	34
35	_	_				(EX) SPACE	0.0		0.0	0.0	(EX) SPACE				_	_	36
37		_				(EX) SPACE	0.0	0.0		0.0	(EX) SPACE				-	_	38
39	_	_				(EX) SPACE	0.0		0.0	0.0	(EX) SPACE				_	_	40
41	_	_				(EX) SPACE	0.0	0.0		0.0	(EX) SPACE				-	-	42
TOTA	LS:					kVA PER			1			CONNE					
						AMPS PER	PHASE	83	9		CONNECTED AVE	RAGE A	MPS I	PER P	HASE	46	
NEC						TIONS											
						11											
	RECEPTACLES 3kVA @100% = 3 kVA 25% OF LARGEST MOTOR = 0 kVA AVERAGE AMPS PER PHASE = 46							46									
		NDER	0kVA	@ 5	0% =	0 kVA											
NOTE	NOTES LEGEND:																

^{1.} PROVIDE NEW CIRCUIT BREAKER. MATCH EXISTING BREAKER TYPE AND A.I.C. RATING.

ENCORE
SUSTAINABLE ARCHITECTS
ARCHITECTURE PRESERVATION 31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202
(410) 624-5461

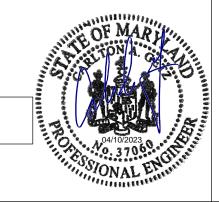


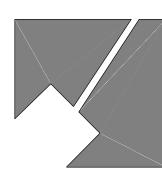


RAWING CHECKED BY:						
ubmission Name	Initials	Date				
IT SUBMISSION	CG/JH	4/10/2023				

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

LICENSE NO.___ EXPIRATION DATE: 2025-04-20





The Maryland-National Capital Park and Planning Commission Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

MARK QTY ITEM DESCRIPTION

CONDENSING

INDOOR HEAT

PUMP UNIT

CU-4

HP-4 2

SUBMI	SSION / RE	VISION	ELECTRICAL SCHEDULES				
Rev. No.	Description						
	04.10.2023	MHT SUBMISSION	BUILDING ENVELOPE REPAIRS				
			HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876				
			SCALE: AS SHOWN				

20A C/B E TOGGLE ADJ. TO SWITCH

DISCONNECT

ADJ. TO

FURN DEVICE LOCATION FURN DEVICE LOCATION

NOTES MARK

CU-4

EQUIPMENT SCHEDULE

WIRE AND

CONDUIT SIZE

CC#8

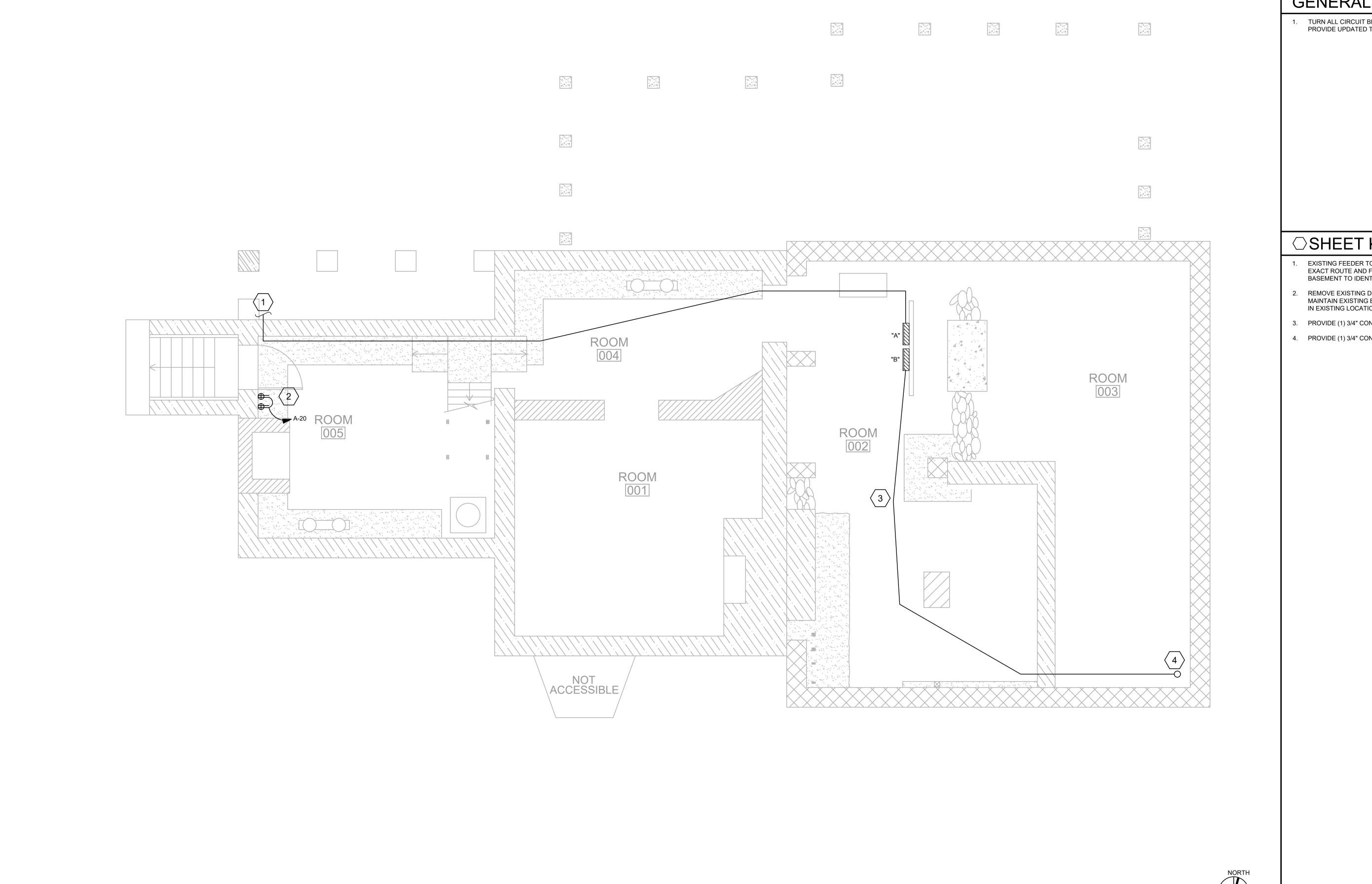
LOAD DATA

HP kW MCA FLA VOLT PH Hz

6.5 | 39 | 31.2 | 208 | 1 | 60 |

DWG.#

EE601



GENERAL SHEET NOTES

TURN ALL CIRCUIT BREAKERS MADE SPARE DURING DEMOLITION TO THE "OFF" POSITION. PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULE IN EACH ELECTRICAL PANEL.

○SHEET KEYNOTES

- EXISTING FEEDER TO ADJACENT STRUCTURES. TRACE EXISTING FEEDER TO DETERMINE EXACT ROUTE AND FINAL TERMINATION POINT. PROVIDE NEW IDENTIFICATION LABEL IN BASEMENT TO IDENTIFY PATHWAY AND TERMINATION POINT.
- REMOVE EXISTING DUPLEX AND SIMPLEX RECEPTACLES SERVING EXISTING SUMP PUMP. MAINTAIN EXISTING BRANCH CIRCUITING. PROVIDE (2) NEW DUPLEX GFCI RECEPTACLES IN EXISTING LOCATIONS AND RECONNECT TO EXISTING RESPECTIVE BRANCH CIRCUITS.
- 3. PROVIDE (1) 3/4" CONDUIT AND PULL STRING IN CEILING TO ELECTRICAL PANEL.
- 4. PROVIDE (1) 3/4" CONDUIT AND PULL STRING TO FIRST FLOOR CEILING.

ENCORE ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202 (410) 624-5461

1200 ARCHITECTURAL ENGINEERS 210 NORTH LEE ST. SUITE 210 ALEXANDRIA, VA 22314

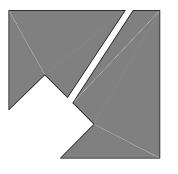
BASEMENT POWER PLAN

DRAWING CHECKED BY: **Submission Name** SPECTRUM ENGINEERS 9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

LICENSE NO._

EXPIRATION DATE:___



The Maryland-National Capital Park and Planning Commission Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

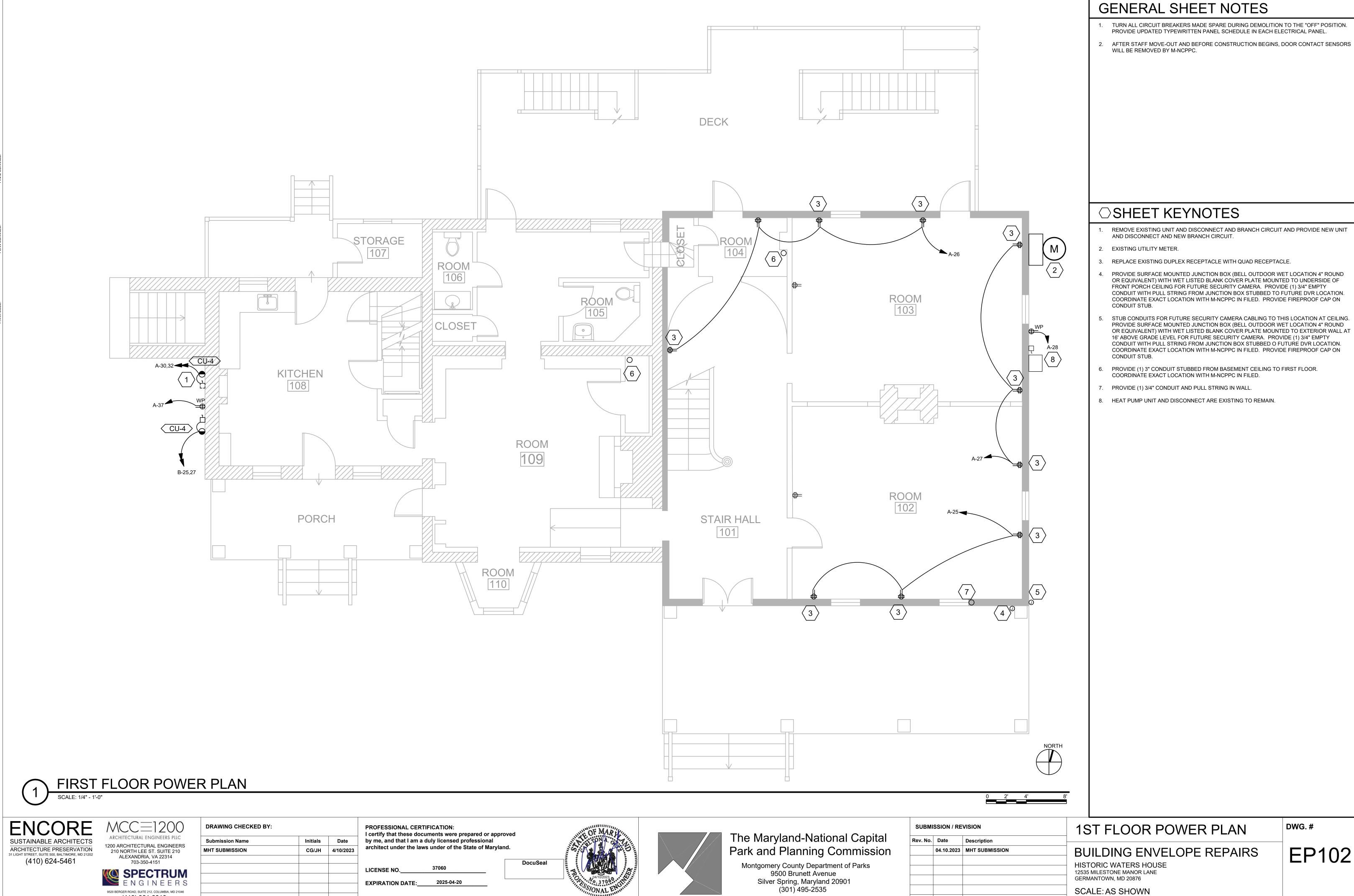
BASEMENT POWER PLAN SUBMISSION / REVISION 04.10.2023 MHT SUBMISSION

BUILDING ENVELOPE REPAIRS

HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876

SCALE: AS SHOWN

DWG.# **EP101**



2025-04-20

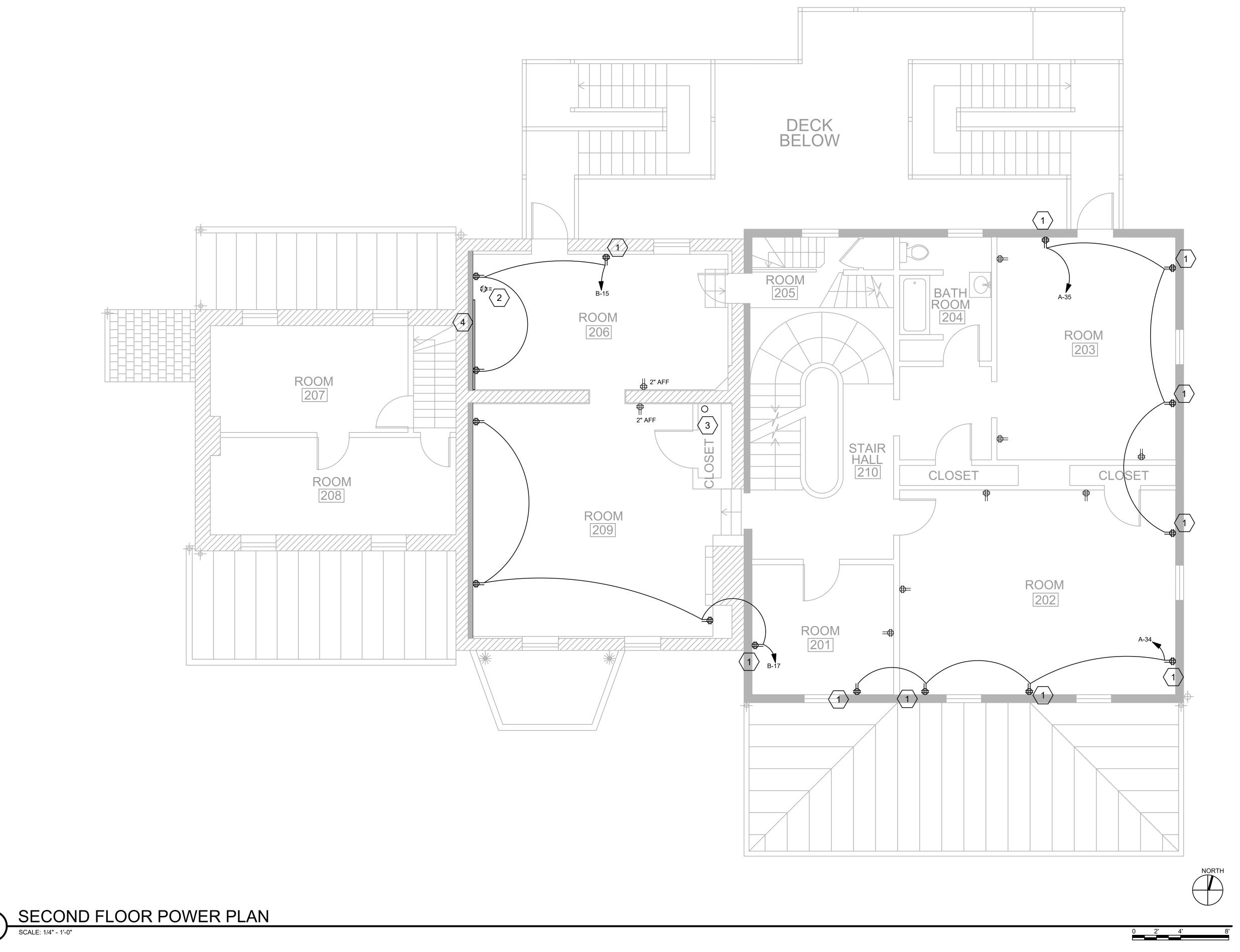
EXPIRATION DATE:___

9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

EP102

GERMANTOWN, MD 20876

SCALE: AS SHOWN



GENERAL SHEET NOTES

TURN ALL CIRCUIT BREAKERS MADE SPARE DURING DEMOLITION TO THE "OFF" POSITION. PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULE IN EACH ELECTRICAL PANEL.

2. INSTALL COVER PLATE TYPICAL FOR ALL FLOOR OUTLETS IN CONFLICT WITH NEW FURRED

○SHEET KEYNOTES

- 1. REPLACE EXISTING DUPLEX RECEPTACLE WITH QUAD RECEPTACLE.
- 2. DUPLEX FLOOR OUTLET TO BE REMOVED.
- PROVIDE (1) 3" CONDUIT STUBBED FROM FIRST FLOOR CEILING TO SECOND FLOOR. COORDINATE EXACT LOCATION WITH M-NCPPC IN FILED.
- 4. CAREFULLY REMOVE AND SALVAGE EXISTING PANDUIT AND JACK FOR REINSTALLATION. REINSTALL BY M-NCPPC. DO NOT CUT.

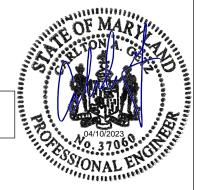
SUSTAINABLE ARCHITECTS ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202 (410) 624-5461

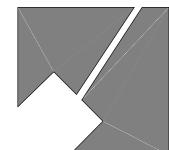
1200 ARCHITECTURAL ENGINEERS 210 NORTH LEE ST. SUITE 210 ALEXANDRIA, VA 22314

DRAWING CHECKED BY: **Submission Name** CG/JH 4/10/2023 SPECTRUM ENGINEERS 9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

LICENSE NO._ 2025-04-20 EXPIRATION DATE:___





The Maryland-National Capital Park and Planning Commission Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

	04.10.2023	MHT SUBMISSION

SUBMISSION / REVISION

2ND FLOOR POWER PLAN

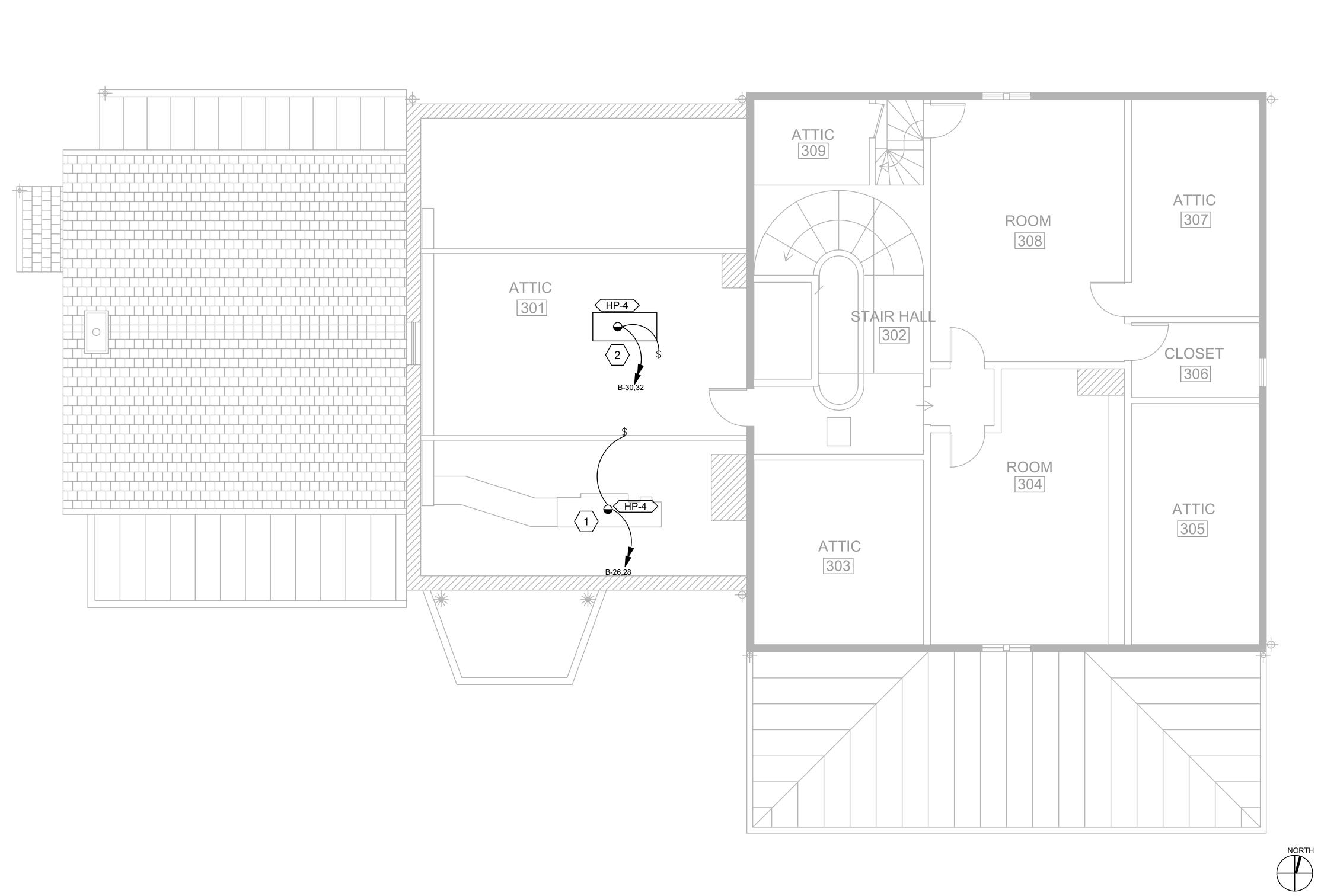
DWG.#

BUILDING ENVELOPE REPAIRS

HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876

SCALE: AS SHOWN

EP103



GENERAL SHEET NOTES

TURN ALL CIRCUIT BREAKERS MADE SPARE DURING DEMOLITION TO THE "OFF" POSITION. PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULE IN EACH ELECTRICAL PANEL.

○SHEET KEYNOTES

DISCONNECT EXISTING BRANCH CIRCUIT FROM EXISTING FURNACE TO BE REMOVED DURING DEMOLITION. MAINTAIN EXISTING BRANCH CIRCUIT FOR CONTROL POWER.

2. PROVIDE NEW DISCONNECT SWITCH AND BRANCH CIRCUIT FOR NEW INDOOR HEAT PUMP

THIRD FLOOR POWER PLAN

ENCORE ARCHITECTURE PRESERVATION
31 LIGHT STREET, SUITE 500, BALTIMORE, MD 21202 (410) 624-5461

1200 ARCHITECTURAL ENGINEERS 210 NORTH LEE ST. SUITE 210 ALEXANDRIA, VA 22314

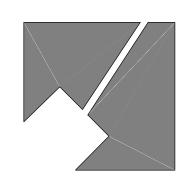
SPECTRUM ENGINEERS 9520 BERGER ROAD, SUITE 212, COLUMBIA, MD 21046 (410) 381-8010

DRAWING CHECKED BY: **Submission Name**

PROFESSIONAL CERTIFICATION: I certify that these documents were prepared or approved by me, and that I am a duly licensed professional architect under the laws under of the State of Maryland.

LICENSE NO._ 2025-04-20 EXPIRATION DATE:___





The Maryland-National Capital Park and Planning Commission Montgomery County Department of Parks 9500 Brunett Avenue Silver Spring, Maryland 20901 (301) 495-2535

3RD FLOOR				
BUILDING EN'				
HISTORIC WATERS HOU 12535 MILESTONE MANOR LANI				
GERMANTOWN, MD 20876				
SCALE: AS SHOWN				

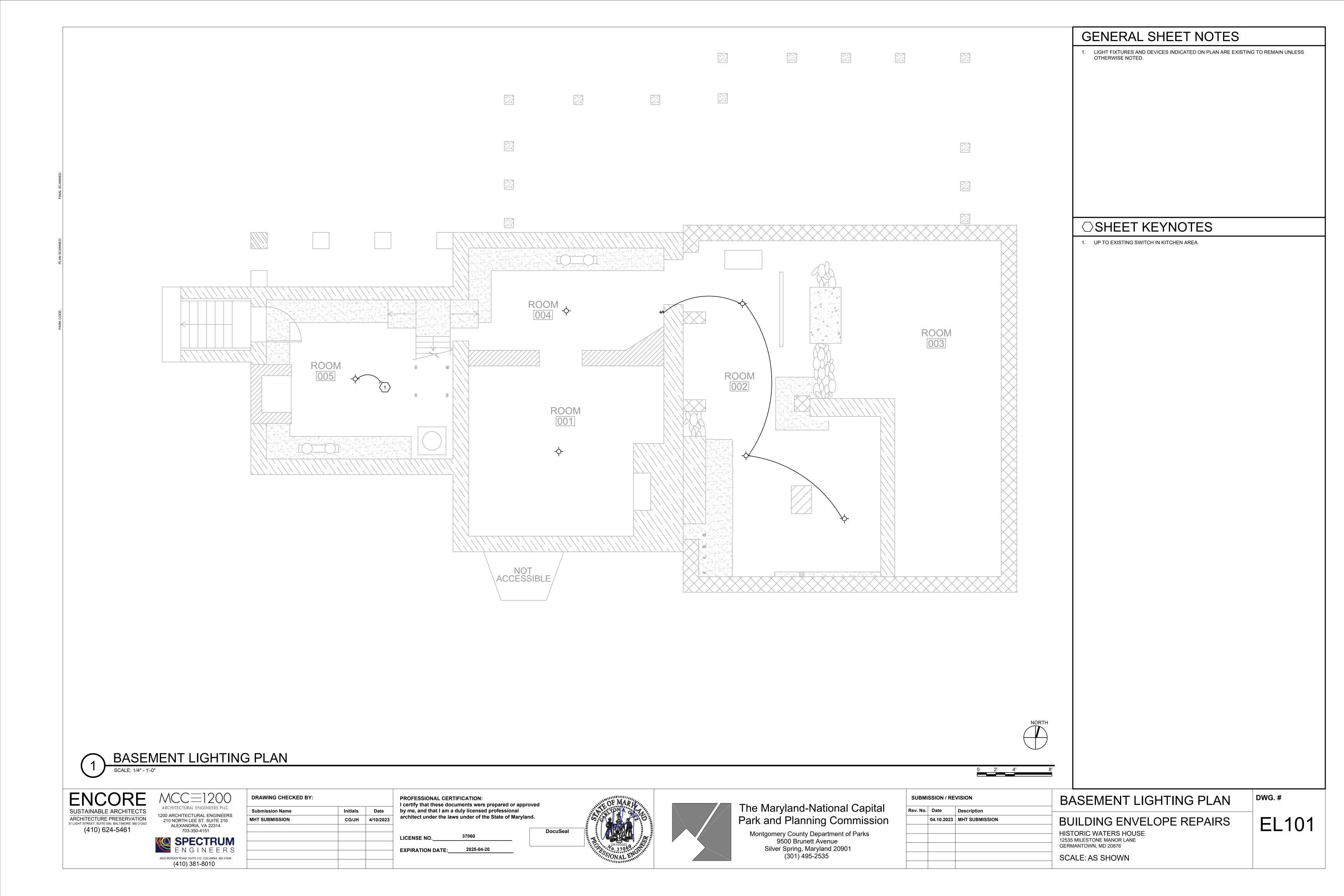
3RD FLOOR POWER PLAN

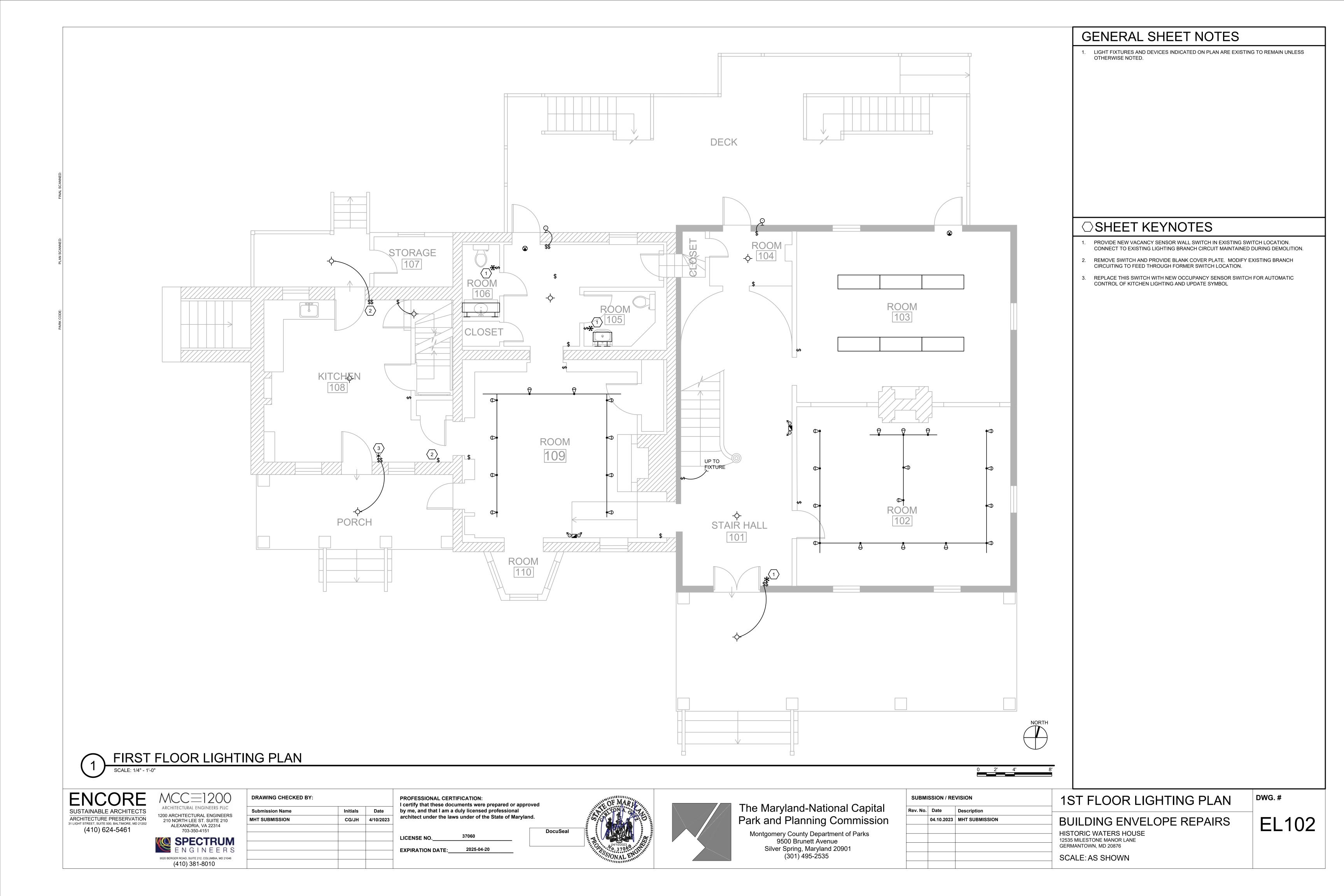
DWG.#

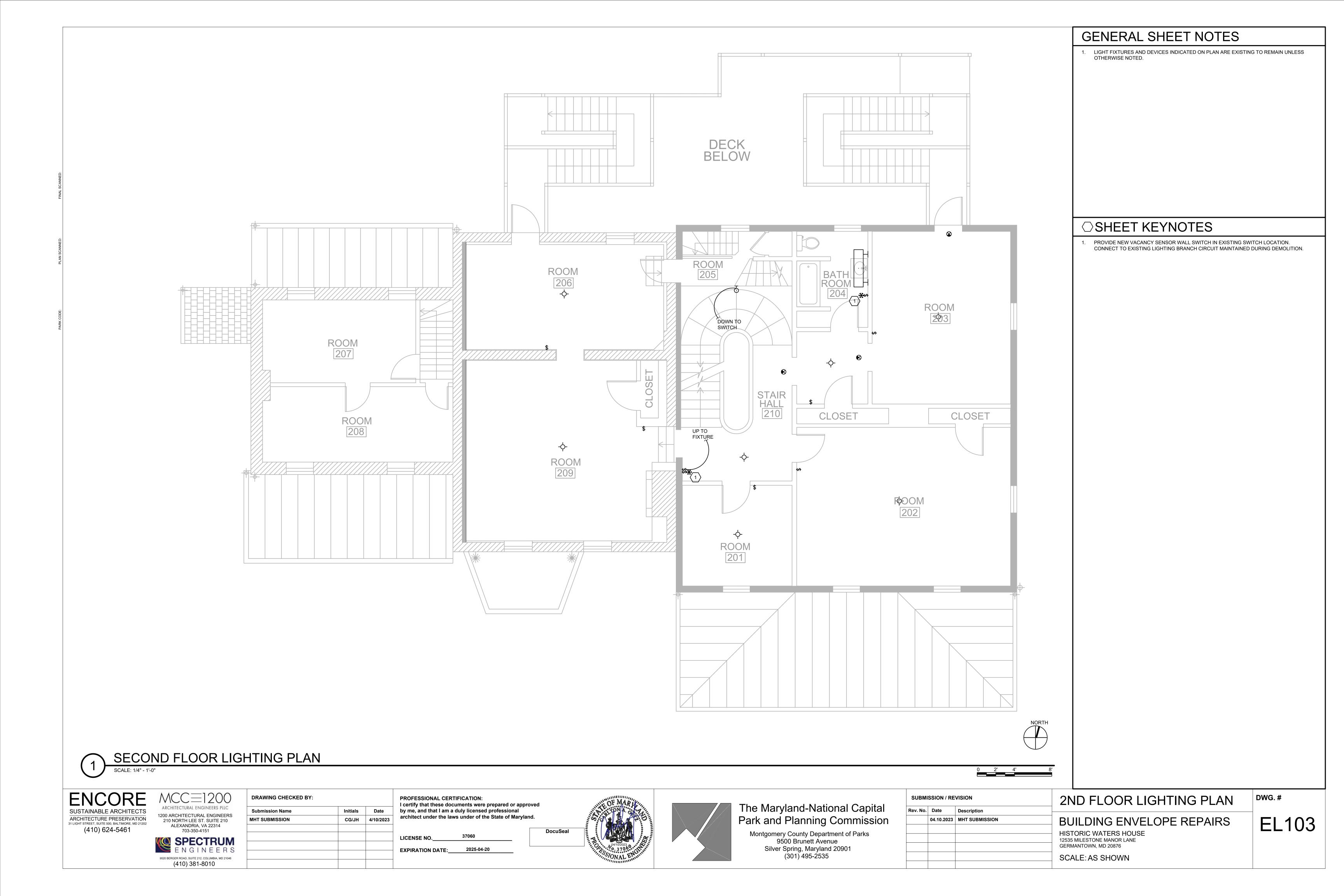
BUILDING ENVELOPE REPAIRS

HISTORIC WATERS HOUSE 12535 MILESTONE MANOR LANE GERMANTOWN, MD 20876

EP104









April 10, 2023

Administrator, Easement Program Maryland Historical Trust Maryland Department of Planning 100 Community Place Crownsville, MD 21032

Copy via email to: mht.easements@maryland.gov

To Whom It Concerns,

Re: M-19-1 Pleasant Fields (Waters House), 12535 Milestone Manor Lane, Germantown, MD

This letter transmits documents required for Easement Committee Review of building envelop repairs being planned for the house. These documents are included:

A – Application Form with Detailed Work Description and Photographs

B - Specifications

C - Plans

I understand the timing of our application will allow it to be included on the April 18 agenda. A response by mid-May would be greatly appreciated so we can stay on schedule to bid the work.

Thank you.

Sincerely,

Eileen Emmet, RA, AIA

Ein Fmt

Architectural and Special Projects Section

M-NCPPC | Montgomery Parks | Park Development Division

2425 Reedie Drive, 11th Floor | Wheaton, MD 20902

Office: 301.495.2550 | Fax: 301.585.1921 | Cell: 301.275.2550

Historic Waters House Envelope Repairs

12535 Milestone Manor Lane, Germantown, MD 20876

Technical Specifications for

Building Envelope Repairs
April 10, 2023

OWNER:

The Maryland-National Capital Park and Planning Commission

M-NCPPC, Montgomery Parks

2425 Reedie Drive Wheaton, Maryland 20902 (301) 495-2535

ARCHITECT:

Encore Sustainable Architects

31 Light Street, Suite 500 Baltimore, MD 21202 (410) 624-5461

Contact: Ward Bucher, AIA, ADP Ward@EncoreSustainableArchitects.com

STRUCTURAL ENGINEER:

1200 Architectural Engineers

210 North Lee Street, Suite 210 Alexandria, VA 22314 (703) 350-4151

MECHANICAL, ELECTRICAL & PLUMBING ENGINEERS

Spectrum Engineers

9520 Berger Road, Suite 212 Columbia, Maryland 21046 800-678-7077

TABLE OF CONTENTS

Division 01: GENERAL REQUIREMENTS

Scope of Work
Salvaged Materials
Special Processes for Historic Preservation
As-Built Drawings (Record Drawings)
Price and Payment Procedures
Administrative Requirements
Submittal Procedures
Quality Requirements
Temporary Facilities and Controls
Product Requirements
Execution Requirements
Closeout Procedures
Closeout Submittals

Division 02: SITEWORK - Not Used

Division 03: CONCRETE- See Structural Plans

Division 04: MASONRY

04 03 22 Historic Brick Unit Masonry Repair

04 03 44 Historic Masonry Repointing

Division 04: METALS - Not Used

Division 06: WOOD

06 10 00 Rough Carpentry – See Structural Plans

06 40 00 Architectural Millwork

Division 07: THERMAL & MOISTURE PROTECTION

07 21 00 Thermal Insulation 07 92 00 Joint Sealants

Division 08: OPENINGS

08 73 00 Weatherstripping

Division 09: FINISHES

09 29 00 Drywall 09 90 00 Painting

END OF TABLE OF CONTENTS

Historic Waters House, Building Envelope Repairs 10 April 2023

SECTION 01 01 00

SCOPE OF WORK

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. Work of this section shall be governed by the Contract Documents. Provide materials, labor, equipment, and services necessary to furnish, deliver, and install the work of this section as shown on the drawings, as specified herein, and/or as required by job conditions.
- B. The Waters house is a Montgomery Parks, Maryland National Capital Park and Planning (M-NCPPC) owned historic site located at 12535 Milestone Manor Lane, Germantown, MD 20876. Constructed in three distinct phases, waters house is illustrative of a late 18th to the early 20th century vernacular farmhouse. The western most block consist of the original farmhouse constructed in 1797 with two later additions added to the east. The first addition was constructed pre-1857 and a second larger addition was constructed in the 1890's. It is locally designated as a Montgomery County historic resource (c.1797), resource no. MP 19/001. All work shall conform with the Secretary of The Interior's Standards for the Preservation of Historic Properties (1995) and its related preservation briefs.
- C. The "Owner" is the Maryland National Capital Park and Planning Commission "M-NCPPC". The "M-NCPPC Construction Manager" is their on-site representative.
- D. All work must be approved by the M-NCPPC Construction Manager.
- E. All ground disturbance is needed, all excavation or subsurface work must be monitored and approved by the M-NCPPC Archaeologist.

1.2 DESCRIPTION OF WORK

- A. Work of this section applies to other sections where noted and shall include, but is not limited to the following general notes:
 - 1. All labor, materials, equipment, and service for the work of this Section as shown on the drawings or specified herein or necessary for the completion of the work.
 - 2. Contract Documents including:
 - a. Technical Specifications.
 - b. Drawings.
- B. Work Summary (provided for general guidance only, see drawings and specifications for full description).
 - 1. Historic masonry repairs
 - 2. Replacement of deteriorated wood trim
 - 3. Replacement of louvered wood shutters

- 4. Installation of multiple types of thermal insulation
- 5. Weatherstripping of existing doors
- 6. Miscellaneous repairs
- 7. Electric convenience outlets
- 8. Two heat pump units and related work
- 9. Patching and painting.

1.3 SUBMITTALS

- A. Provide equipment and materials storage staging plan needed during the course of work.
- B. Refer to all technical specification sections and drawings for specific submittal requirements

1.4 QUALITY ASSURANCE AND REFERENCE STANDARDS

- A. The Contractor will comply with all security rules and policies of the M-NCPPC and hasincluded all costs associated with compliance.
- B. The Contractor shall comply with OSHA's latest standards.
- C. Job Conditions The Contractor shall be aware of and shall formulate with the M-NCPPC Construction Manager the following:
 - 1. Areas which will be offlimits to personnel.
 - 2. The use of temporary services shall be as described in Section 01 50 00 Temporary Facility and Controls.

D. Existing Conditions

- 1. During construction, limited storage of smaller items can be allowed, coordinatewith M-NCPPC Construction Manager.
- 2. The Contractor shall provide all protection to prevent damage to exterior buildingfinishes and site elements.

E. Protection

- 1. Section 01 70 00 Execution Requirements
- 2. Take every precaution to protect all existing buildings and exterior spaces. Provide proper and adequate cushioning and padding materials whenever a device or piece of equipment comes in contact or may come in contact with the existing buildings or structures. These materials must be non-staining, non-bleeding, non-abrasive materials.
- 3. Contractor is to provide proper protection for adjacent roofs, window and doors, including glass, frames and louvers; all existing masonry surfaces; all interior furnishings and finishes.

F. Traffic

- 1. Section 01 50 00 Temporary Facility and Controls for requirements
- 2. The Contractor shall ensure that interference with sidewalks, roads, driveways and adjacent facilities is kept to a minimum. No streets or sidewalk areas are to

be closed or obstructed without permission from the M-NCPPC Construction Manager.

PART 2 - PRODUCTS N/A

PART 3 - EXECUTION

3.1 VERIFYING CONDITIONS

- A. Visit the site to determine by inspection all existing conditions, including access to the site, the nature of structures, objects and materials to be encountered, and all other facts concerning or affecting the Work. Information on the drawings shows existing conditions for information only and does not constitute a guarantee that other items may not be found or encountered.
- B. Before starting work, make a thorough examination of those portions of the site in which the work is to be performed. Check the work adjoining or at underlying locations, in which the work is to be performed. Report to the M-NCPPC any and all conditions which may interfere with or otherwise affect or prevent the proper execution and completion of the work. Do not start the work until such conditions have been examined and a course of action mutually agreed upon.
- C. Failure to notify the M-NCPPC of unsatisfactory conditions will be construed as an acceptance of the conditions to properly perform the required work.
- D. The execution of work constitutes acceptance of the conditions. Later claims will not constitute relief from the requirements of the Specifications under this Section, nor will extra compensation be paid by the M-NCPPC.

3.2 SCHEDULING OF THE WORK

- A. Execute the work as indicated. In case of discrepancy between the plans and the actual conditions, report the conditions to the M-NCPPC Construction Manager.
- B. See Section 01 30 00 Administrative Requirements for work hours.
- C. Schedule shall be submitted to the M-NCPPC Construction Manager at the time of the notice to proceed.
- D. If there are any deviations from the agreed upon schedule, such deviations shall be reported to all parties, a minimum of 72 hours before deviation takes effect, to allow the other parties to adjust their schedules accordingly, or as mutually agreed upon by all parties.
- E. Schedule work so as to impose a minimum of hardship on the M-NCPPC's operation of the facilities and the performance of the work of other trades. Identify any work, which shall involve loudnoise (such as drilling) and shall create excessive dirt or dust. This work shall only be performed when approved by the M-

- NCPPC, or as agreed to at the Pre-Construction conference.
- F. The M-NCPPC or the Architect may require any schedule to be modified so that changes in the Work, delays, or acceleration of any segment of the Work, shall be reflected in such schedule. The Contractor shall cooperate with the M-NCPPC in providing data for such changes in or modifications of schedules.

3.3 WORKMANSHIP

- A. Employ only competent workers thoroughly skilled in their respective trades to perform the work. The work shall be carried through to completion with due regard to the safety of the public and the employees of the Contractor and with as little nuisance as possible.
- B. Special care shall be taken to assure that no unnecessary damage is done to the building and/orsite. When erecting/installing equipment, care must be taken that no damage be done to surrounding building surfaces. Equipment shall be secured at all times.
- C. Perform the work in accordance with the highest standards and established practices in the trade and conform to all the rules and regulations of all city, state and federal authorities having jurisdiction over this work.
- D. Protect and be responsible for the existing structures, facilities, property, and improvements within the areas of operations under this Contract. Any disturbance or damage to the work, the existing improvements, property, or any impairments of facilities resulting directly or indirectly from the Contractor's operations shall be promptly restored, repaired, or replaced to the satisfaction of the M-NCPPC at no additional cost.
- E. Furnish and maintain temporary types of protection as necessary to adequately protect and prevent accidental injury to the public, M-NCPPC's personnel, Architect's personnel and personnel employed at the work site. Take all necessary precautions to keep trespassers out of work areas. Properly secure work areas from entry when work is not in progress.

3.4 MANUFACTURER'S DIRECTIONS

A. Where manufactured articles, materials of equipment are specified, but specific installation instructions are provided, they shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the manufacturer's latest printed instructions.

3.5 FINAL CLEANUP

A. At completion of the work, the site and premises shall be left in a neat, unobstructed condition, and all work in perfect repair and order. All tools, appliances, materials and equipment belonging to the Contractor and trade contractors shall be removed from the premises upon completion of the work.

SECTION 01 01 20

SALVAGE MATERIALS

PART 1 – GENERAL

1.1 GENERAL REQUIREMENTS

- A. Contractor shall supervise removal and salvage of components as described on Drawings and in the Specification Sections.
- B. The protection of historic materials and structures is a critical component of this Contract. Each protected item shall be treated with care and handled accordingly.
- C. Contractor shall make no assumption as to the significance of site structures and components. Prior to removal of any materials, Contractor shall receive written approval from Owner.
- D. Every effort must be made to use and reuse materials that are original to the structure.

PART 2 - PRODUCTS N/A

PART 3 - EXECUTION

3.1 EXISTING HARDWARE

- A. Remove existing shutters from the facades by hand lifting the shutters off the pintles on the window jambs. Hand unscrew the pintles from the jambs and the pintle sleeves from the shutters. Bag each set of pintle hinges and label with location for reinstallation.
- B. Store salvaged hinges on site.
- C. Coordinate security and storage including location with M-NCPPC Construction Manager.

3.2 BRICKS

A. Hand remove and clean the existing bricks, and stack above the basement floor level for reuse. Do not use hammers or similar implements to loosen or remove the bricks.

END OF SECTION

SECTION 01 10 10

SPECIAL PROCESSES FOR HISTORIC PRESERVATION

PART 1 GENERAL

1.1 DESCRIPTION

- A. This Project has been designed in compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (revised 1995) and must be completed consistent with the design.
- B. General contractor and relevant sub-contractors should have at least five years of experience working on historic buildings, or five significant historic preservation projects, and work must follow the procedures outlined in the National Park Service's Technical Preservation Briefs, which are included in their entirety by their reference here and referred to specifically in the relevant specification sections.
- C. The contractor shall recognize that all aspects and elements of the property may potentially contribute to the historic significance of the property, and the contractor shall not be the judge of the relative significance of any feature. This judgment is entirely the responsibility of the owner. Consequently, no element shall be altered, removed, refused or taken from the premises without the approval of the owner or the owner's representative as being consistent with the requirements of the contract documents.

1.2 RELATED WORK

- A. Sections relevant to the preservation of historic elements
 - 1. Section 01 00 00, General Requirements
 - 2. Section 04 03 22, Historic Brick Unit Masonry Repair
 - 3. Section 04 03 44, Historic Masonry Repointing
 - 4. Section 06 40 00 Millwork

1.3 QUALITY ASSURANCE/FIRE SAFETY

A. The following safeguards shall be observed in performing hot work, such as welding, cutting, soldering, brazing, and other operations where open flames or implements utilizing heat are used.

B. Regulatory Requirements

- 1. The contractor shall ensure that operations involving the use of open-flame or electrical ARC equipment, if any, are not conducted until a GSA Form 1755; Permit for Welding, Cutting, and Burning has been completed and signed by the Project Manager each day such activity is to occur.
- 2. Prior to commencing operations, a positive determination shall be made if it is impractical to conduct the hot work in a shop area or outside of the building. This determination shall be made by the Owner and Architect, in consultation with the Construction Project Manager.

- 3. Prior to operations, if hot-work is judged necessary, the job site shall be visited and suitable locations established for the portable equipment during actual operations and storage during non-working hours. The responsible supervisor for the Contractor, the Owner and the Architect shall confer and decide upon such locations with the Owner's decision being final in event of disagreement.
- 4. The Contractor shall notify the Owner and the Architect of the area of operations for each day and of all subsequent changes that occur. This is necessary to assure inspection of all areas.
- 5. The Contractor shall notify the Owner and the Architect of all locations where hot work is to be performed no later than the morning the work is to be performed.
- 6. Before operations commence, the Contractor shall furnish personnel to serve as a fire watch (or watches) for location(s) where hot work is to be done. (One fire watcher may observe several locations in a relatively small contiguous area if approved by the Owner and Architect.) Each fire watch shall have a Contractor-furnished, suitable type, fully charged, operable fire extinguisher. The Contractor is responsible that the fire watcher knows how to operate the fire extinguisher and how to turn on a fire alarm and/or summon the fire department.
 - a. Check the opposite side of walls, floors, ceilings, or roofs before starting operations and take suitable precautions to minimize the hazard for a fire starting or communicating to the opposite side from operations.

C. COMBUSTIBLE MATERIALS

1. Hot work shall not be done in or near rooms or in areas where flammable liquids or explosive vapors are present or thought to be present. In the latter case, a combustible gas indicator

(explosimeter) test shall be made to assure that the area is safe. The Contractor is responsible for arranging for such test and he shall bear such charges as may be incurred.

- 2. Insofar as possible, the Contractor shall remove and keep the area free from all Combustibles, i.e., rubbish, paper, waste, etc., within a twenty-five (25) foot radius from operations.
- 3. If combustible material cannot be removed, the Contractor shall furnish fireproof blankets and cover such materials with them, insuring that no openings exist into which sparks can penetrate. At the direction of the Owner, wood floors, walls, and ceiling shall be wet down thoroughly with water before, during, and after operations to afford adequate protection. NOTE: TAKE SPECIAL CARE NOT TO DAMAGE HISTORIC WOOD FABRIC DURING THIS PROCESS. CONSULT FIRE PROTECTION ENGINEER FOR TECHNICAL ADVICE AND SHPO ON HISTORIC PRESERVATION MATTERS BEFORE PERFORMING THIS WORK
- 4. Where possible, the Contractor shall furnish and use baffles of metal or gypsum board to prevent the spraying of sparks, hot slag, etc., into surrounding combustible material.

D. SAFETY MEASURES

- 1. The Contractor shall prevent the extension of sparks and particles of hot metal through open windows, doors, holes, and cracks in floors, walls, ceilings, roofs, and the like.
- 2. Where cylinders of gas are used in hot work, they shall be placed a safe distance from work. The Contractor shall check hoses and equipment for deterioration, malfunction, and leaks prior to starting operations. He shall provide suitable supports to prevent accidental overturning of cylinders. All cylinder control valves shall be shut off while the equipment is unattended. Acetylene cylinders shall be in an upright position while in use with the gas pressure regulator set at 15 psi or less.
- 3. When hot work operations are completed or ended for the day, each location of the day's work shall be inspected by the supervisor representative of the Contractor not sooner than thirty (30) minutes after completion of operations to detect hidden or smoldering fires and to insure that proper housekeeping is maintained.
- 4. If any of the above safeguards are not employed, or are violated, the Owner may by verbal command, followed by written notice, stop the work until compliance is obtained. Such stoppage shall not relieve the Contractor from performing his work within the contract period for the contract price.

PART 2 PRODUCTS Not Used.

PART 3 EXECUTION Not Used.

END OF SECTION

SECTION 01 11 00

AS-BUILT DOCUMENTS

PART 1 - GENERAL

1.1 DESCRIPTION

The Contractor will be responsible for providing final redlined as-built markups of the original project documents for mechanical and electrical work, signed and dated by an authorized representative of the Contractor. The Contractor will submit documents to the Architect & M-NCPPC. As-built markups are subject to review and approval by the Architect & M-NCPPC to confirm the redline documents represent the final, complete as-built work.

1.2 REFERENCE STANDARDS

Not applicable.

1.3 DEFINITIONS

Not applicable.

1.4 MATERIALS

Not applicable.

1.5 SUBMITTALS

- A. The Contractor shall provide M-NCPPC with electronic versions of all submittals, shop drawings, correspondence, material certifications, delivery tickets, operating manuals, inspections, and testing results related to completed project at the time of as-built submission.
- B. The Contractor shall submit signed and dated As-Built plans and support documents directly to the M-NCPPC Construction Manager.

1.6 QUALITY ASSURANCE

The markup documents should be delivered as electronic markup copies in PDF format or may be scanned copies of by-hand redline markups. In all cases, the markups must be clear and legible with text size not smaller than 3/32 or 1/8-inch. The markup color may be red or any other color in strong contrast to the original documentation.

1.7 CONSTRUCTION

- A. Throughout construction, the Contractor shall maintain all pertinent records of construction materials, testing, and inspections required to document that the actual construction is in conformance with the Contract Documents and regulatory permits, if any.
- B. At the completion of the project, the contractor shall develop final redlined as-built drawings of the project and obtain approval and closeout of all permits, if any.

1.8 MEASUREMENT AND PAYMENT

Payment will be full compensation for all material, labor, equipment, tools and incidental items necessary to complete the work. Payment shall be made on a unit rate or lump sum basis as shown in the bid proposal.

END OF SECTION

SECTION 01 20 00

PRICE AND PAYMENT PROCEDURES

PART 1 - GENERAL

- 1.1 SECTION INCLUDES:
 - A. M-NCPPC General Conditions.
 - B. Unit prices.
 - C. Alternates.
- 1.2 M-NCPPC GENERAL CONDITIONS
 - A. M-NCPPC General Conditions for information regarding payment procedures.
- 1.3 UNIT PRICES
 - A. Authority: Measurement methods are delineated in individual specification sections.
 - B. Measurement methods delineated in individual specification sections complement criteria of this section. In event of conflict, requirements of individual specification section govern.
 - C. Take measurements and compute quantities. M-NCPPC will verify measurements and quantities.
 - D. Unit Quantities: Actual quantities provided shall determine payment.
 - 1. When actual Work requires more or fewer quantities than those quantities indicated, provide required quantities at unit sum/prices contracted.
 - When actual Work requires 10 percent or greater change in quantity than those quantities indicated, Owner or Contractor may claim for Contract Price adjustment.
 - E. Payment Includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services and incidentals; erection, application or installation of item of the Work; overhead and profit.
 - F. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by Architect/Engineer multiplied by unit sum/price.
 - G. Measurement of Quantities:
 - Measurement by Weight: Reinforcing steel, rolled, or formed steel or other metal shapes will be measured by handbook weights. Welded assemblies will be measured by handbook or scale weight.
 - 2. Measurement by Volume: Measured by cubic dimension using mean length, width and height or thickness.

- 3. Measurement by Area: Measured by square dimension using mean length, width or radius.
- 4. Linear Measurement: Measured by linear dimension, at item centerline or mean chord
- 5. Stipulated Sum/Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as completed item or unit of the Work.
- H. Unit Prices Required
 - 1. Painting (square foot)

1.4 ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work. Include related costs in cost of alternative.
- C. Schedule of Alternates Not Used

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

SECTION 01 30 00

ADMINISTRATIVE REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Coordination and project conditions.
- B. Field engineering.
- C. Work Hours
- D. Limits of Disturbance
- E. Preconstruction and site mobilization meeting.
- F. Progress meetings.
- G. Pre-installation meetings.
- H. Special procedures.

1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of various sections of Technical Specifications to ensure efficient and orderly sequence of installation of interdependent construction elements.
- B. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion.
- C. Coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.3 FIELD ENGINEERING

A. Project designed to minimize site disturbance work. All necessary digging to be itemized and presented to M-NCPPC for approval prior to proceeding.

1.4 WORK HOURS

A. Monday - Friday, 7:00 am - 3:00 pm. or as otherwise approved by the M-NCPPC Construction Manager.

1.5 LIMITS OF DISTURBANCE

A. The Limits of Disturbance around the building shall be established by the M-NCPPC Construction Manager at the start of work. Any special requirements shall be requested by the Contractor and if deemed satisfactory to the M-NCPPC, approved by the M-NCPPC Construction Manager during Preconstruction and Site Mobilization.

1.6 PRECONSTRUCTION AND SITE MOBILIZATION MEETING

- A. M-NCPPC will schedule meeting after Notice of Award.
- B. Attendance Required: M-NCPPC Construction Manager, Tenant, Architect, Contractor, Contractor's Superintendent, and major Subcontractors.
- C. Agenda:
 - 1. Pre-Construction Items
 - a. Execution of Owner-Contractor Agreement.
 - b. Submission of executed bonds and insurance certificates.
 - c. Distribution of Contract Documents.
 - d. Submission of list of Subcontractors, list of products, schedule of values, and progress schedule.
 - e. Designation of personnel representing parties in Contract.
 - f. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 - g. Scheduling.
 - 2. Site Mobilization Items
 - a. Use of premises by Owner and Contractor.
 - b. Staging
 - c. Tenant Operation
 - d. Owner's requirements and occupancy.
 - e. Construction facilities and controls provided by Owner.
 - f. Temporary utilities provided by Contractor.
 - g. Survey and layout of project work.
 - h. Security and housekeeping procedures.
 - i. Schedules.
 - j. Application for payment procedures.
 - k. Procedures for testing.
 - I. Procedures for maintaining record documents.
 - m. Requirements for start-up of equipment.
 - n. Inspection and acceptance of equipment put into service during construction period.
- D. Contractor to record minutes and distribute copies within two days after meeting to participants by e-mail, to all in attendance, Architect, Owner, and those affected by decisions made.

1.7 PROGRESS MEETINGS

A. Regular job meetings shall be held by the Contractor and M-NCPPC at a designated place, at which time representatives of the various primary trades employed on the

- project shall be present to discuss all details relative to the progress of the Work.
- B. The M-NCPPC Construction Manager shall schedule and administer meetings throughout progress of the Work at two-week intervals, maximum.
- C. Contractor shall arrange for meetings, prepare agenda with copies for participants, preside at meetings.
- D. Attendance Required: Job superintendent, M-NCPPC Construction Manager, Tenant, Architect, major subcontractors, and suppliers, as appropriate to agenda topics for each meeting.

E. Agenda:

- 1. Review minutes of previous meetings.
- 2. Review of Work progress.
- 3. Field observations, problems, and decisions.
- 4. Identification of problems impeding planned progress.
- 5. Review of submittals schedule and status of submittals.
- 6. Review of off-site fabrication and delivery schedules.
- 7. Maintenance of progress schedule.
- 8. Corrective measures to regain projected schedules.
- 9. Planned progress during succeeding work period.
- 10. Coordination of projected progress.
- 11. Maintenance of quality and work standards.
- 12. Effect of proposed changes on progress schedule and coordination.
- 13. Other business relating to Work.
- F. Record minutes and distribute copies within two days after meeting to participants by e-mail, to all in attendance, Architect, Owner, and those affected by decisions made.

1.8 PRE-INSTALLATION MEETINGS

- A. When required in individual specification sections, convene pre-installation meetings prior to commencing work of specific section.
- B. Require attendance of parties directly affecting, or affected by, Work of specific section.
- C. Notify M-NCPPC one week in advance of meeting date. Try to schedule to immediately precede or follow scheduled progress meetings.
- D. Prepare agenda and preside at meeting:
 - 1. Review conditions of installation, preparation and installation procedures.
 - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants by e-mail, to all in attendance, Architect, M-NCPPC Construction Manager, and those affected by decisions made.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION

3.1 SPECIAL PROCEDURES

- A. Materials: As specified in product sections to match existing with new products and salvaged products for patching and extending work.
- B. Cutting and Patching See Section 01 70 00 Execution Requirements
- C. Protection of Installed Work See Section 01 70 00 Execution Requirements
- D. Progress Cleaning See Section 01 70 00 Execution Requirements
- E. Preparation See Section 01 70 00 Execution Requirements

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- Submittal procedures.
- B. Construction progress schedules.
- C. Proposed products list.
- D. Product data.
- E. Shop drawings.
- F. Samples.
- G. Test reports.
- H. Certificates.
- I. Manufacturer's instructions.
- J. Construction photographs.

1.2 SUBMITTAL PROCEDURES

- A. Within ten (10) days after the Notice to Proceed, the Contractor shall submit to the M-NCPPC Construction Manager a preliminary Schedule of Submittals.
- B. All submissions must be submitted in Portable Document Format (PDF)
- C. Transmit each submittal with M-NCPPC-accepted cover page form via email or other method approved by the M-NCPPC Construction Manager.
- D. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.
- E. Identify Project, Contractor, subcontractor and supplier, pertinent drawing and detail number, and specification section number, appropriate to submittal.
- F. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
- G. Schedule submittals to expedite Project and deliver to Architect at business address. Coordinate submission of related items.
- H. For each submittal for review, allow 15 days excluding delivery time to and from Contractor.

- I. Identify variations from Contract Documents and product or system limitations, which may be detrimental to successful performance of completed Work.
- J. Allow space on submittals for Contractor and Architect review stamps.
- K. When revised for resubmission, identify changes made since previous submission.
- L. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly reportinability to comply with requirements.
- M. Submittals not requested will not be recognized or processed.
- N. Refer to all technical specification sections and drawings for specific submittal requirements.

1.3 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedules within ten (10) days after date of Notice to Proceed to M-NCPPC Construction Manager. After review, resubmit required revised data within ten days.
- B. Submit revised Progress Schedules with each Application for Payment.
- C. Distribute copies of reviewed schedules to Project site file, subcontractors, suppliers, and other concerned parties.
- D. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.
- E. Submit computer generated horizontal bar chart with separate line for each major portion of Work or operation, identifying first workday of each week.
- F. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate early and late start, early and late finish, float dates, and duration.
- G. Submit separate schedule of submittal dates for shop drawings, product data, and samples, including dates reviewed submittals will be required from Architect/Engineer. Indicate decision dates for selection of finishes.

H. Revisions To Schedules:

- Indicate progress of each activity to date of submittal, and projected completion date of each activity.
- 2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
- I. Execute the work as indicated. In case of discrepancy between the plans and the actual conditions, report the conditions to the Owner.

- J. If there are any deviations from the agreed upon schedule, such deviations shall be reported to all parties, a minimum of 72 hours before deviation takes effect, to allow the other parties to adjust their schedules accordingly, or as mutually agreed upon by all parties.
- K. See Section 01 30 00 Administrative Requirements for working hours.
- L. The Owner or the Architect may require any schedule to be modified so that changes in the Work, delays, or acceleration of any segment of the Work, shall be reflected in such schedule. The Contractor shall cooperate with the Owner in providing data for such changes in or modifications of schedules.

1.4 PROPOSED PRODUCTS LIST

- A. Within ten days after date of Notice to Proceed, submit a list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.5 PRODUCT DATA

- A. Product Data: Submit to Architect for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Submit two electronic copies, or the number of copies Contract requires, one which the Owner will retain and other which the Architect will retain.
- C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01 70 00 Execution Requirements.

1.6 SHOP DRAWINGS

- A. Shop Drawings: Submit to Architect for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. When required by individual specification sections, provide shop drawings signed and sealed by professional engineer responsible for designing components shown on shop drawings.
 - 1. Include signed and sealed calculations to support design.
 - 2. Submit drawings and calculations in form suitable for submission to and

- approval by authorities having jurisdiction.
- 3. Make revisions and provide additional information when required by authorities having jurisdiction.
- C. Submit two electronic copies, or the number of copies Contract required, one that the Owner willretain and other, which the Architect will retain.
- D. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article and for record documents described in Section 01 70 00 Execution Requirements.

1.7 SAMPLES

- A. Samples: Submit to Architect for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Samples For Selection as Specified in Product Sections:
 - 1. Submit to Architect for aesthetic, color, or finish selection.
 - 2. Submit samples of finishes from full range of manufacturers' standard colors or in custom colors, if specified textures, and patterns for Architect selection.
- C. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- D. Include identification on each sample, with full Project information.
- E. Submit number of samples specified in individual specification sections; Architect will retain one sample and Owner will retain one sample.
- F. Reviewed samples, which may be used in the Work, are indicated in individual specification sections.

1.8 TEST REPORTS

- A. Submit to M-NCPPC Construction Manager. Manager to forward to appropriate parties for review.
- B. Submit test reports for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.9 CERTIFICATES

- A. When specified in individual specification sections, submit certification by manufacturer, installation/application subcontractor, or Contractor to M-NCPPC, in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product but must be

acceptableto M-NCPPC.

1.10 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, adjusting, and finishing, to Architect for delivery to Owner in quantities specified for Product Data.
- B. Indicate special procedures, perimeter conditions requiring special attention, and specialenvironmental criteria required for application or installation.

1.11 CONSTRUCTION PHOTOGRAPHS

- A. Provide photographs of site and construction throughout progress of Work.
- B. Submit photographs with each Application for Payment and with Closeout Documents.
- C. Photographs:
 - Digital color images in jpg format submitted on electronic submittal platform.
 Minimum resolution 300 DPI.
 - 2. Infrared digital enhanced color images in jpg format submitted on electronic submittal platform of completed insulated walls.
- D. Take photographs as evidence of existing project conditions prior to the start of work as follows:
 - 1. Interior views: Each room, views of all surfaces to be disturbed by the work.
 - 2. Exterior views: Each side and relevant details. Exterior pre-construction views shall include detailed photos of all areas to be repaired or painted. Include any add alternate areas of workif selected by Owner.
- E. Take exterior photographs from differing directions and interior photographs indicating relative progress of the Work, for the time period applicable, five days maximum prior to submitting withApplication for Payment.
- F. Take exterior or interior infrared views of insulated walls that show temperature differentials between insulated and possible uninsulated cavities and framing.
- G. Upload to electronic submittal platform. Identify name of Project, view, location and date photos were taken.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

SECTION 01 40 00

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 QUALITY CONTROL AND CONTROL OF INSTALLATION

- A. The Contractor shall recognize that all aspects and elements of the property may contribute to the historic significance, and the Contractor shall not be the judge of the relative significance of any feature. This judgement is entirely the responsibility of the Owner. Consequently, no element shall be altered, removed, reused, or taken from the premises without the approval of the Owner and Architect as being consistent with the requirements of the Contract Documents.
- B. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- C. Comply with manufacturers' instructions, including each step-in sequence.
- D. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- E. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- F. Verify that field measurements are as indicated on Shop Drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.2 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.3 REFERENCES

A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

- B. Conform to reference standard by date of issue current on date of Contract Documents, except where a specific date is established by code. Obtain copies of standards where required by product specification sections.
- C. Should specified reference standards conflict with Contract Documents, request clarification from the Architect before proceeding. Neither the contractual relationships, duties, nor the responsibilities of the parties in the Contract, nor those of the Architect shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.4 MOCK-UP REQUIREMENTS

- A. Prepare mockups of historic treatment on existing surfaces to demonstrate aesthetic effects and to set quality standards for materials and execution, and for fabrication and installation. Refer to the following Specification sections for specific mockup requirements.
 - 1. Section 04 03 44, Historic Masonry Repointing (stone and brick repointing)
 - 2. Section 07 21 00: Thermal Insulation (wall patching)
- B. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
- C. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

PART 2 - MATERIALS - NOT USED

PART 3 - EXECUTION

3.1 SEE SECTION 01 70 00 – EXECUTION REQUIREMENTS

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities:
 - 1. Temporary electricity.
 - 2. Temporary lighting for construction purposes.
 - 3. Temporary heating.
 - 4. Temporary ventilation.
 - 5. Mobile Telephone service.
 - 6. Internet service.
 - 7. Temporary water service.
 - 8. Temporary sanitary facilities.

B. Construction Facilities:

- 1. Field offices, sheds or storage units.
- 2. Vehicular access.
- 3. Parking.
- 4. Progress cleaning and waste removal.
- 5. Project identification.
- 6. Traffic regulation.
- 7. Fire safety procedures at the historic site.

C. Temporary Controls:

- 1. Barriers.
- 2. Water control.
- Dust control.
- 4. Erosion and sediment control.
- 5. Noise control.
- 6. Pest control.
- 7. Pollution control.
- 8. Rodent control.
- D. Removal of utilities, facilities, and controls.

1.2 TEMPORARY ELECTRICITY

- A. The Contractor shall furnish temporary electricity as required to complete work.
- B. The Contractor will provide, install, and maintain temporary wiring and outlets required by him/her, from the sources made available to the points of use; and such wiring shall conform with requirements of all governing electrical codes and regulations.
- C. All costs related to installation and maintenance of temporary light and power, including any required stand-by personnel shall be included in the BASIC PROPOSAL Lump Sum Amount. There is no electrical work included in the design scope.

- D. Complement existing power service capacity and characteristics as required for construction operations.
- E. Provide power outlets, with branch wiring and distribution boxes located as required for construction operations. Provide flexible power cords as required for portable construction toolsand equipment.
- F. Provide main service disconnect and over-current protection at convenient location.
- G. There is no new electrical work in the scope of this project.
- H. Provide distribution equipment, wiring, and outlets to provide single phase branch circuits for power and lighting.
 - 1. Provide 20 ampere duplex outlets, single phase circuits for power tools for every active work area.
 - 2. Provide 20 ampere, single phase branch circuits for construction lighting.

1.3 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide and maintain lighting for construction operations to achieve minimum lighting level of 2 watt/sq ft.
- B. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps for specified lighting levels.
- C. Maintain lighting and provide routine repairs.
- D. There is no existing or new lighting in the project's scope of work.

1.4 TEMPORARY HEATING

- A. Provide and pay for heating devices and heat as needed to maintain specified conditions for construction operations.
- B. Prior to use of temporary heating devices submit a use plan to the M-NCPPC indicating:
 - 1. Areas to be heated.
 - 2. Type of equipment to be used.
 - 3. Hours of equipment use.
 - 4. Equipment monitoring measures.
- C. Prior to operation of permanent equipment for temporary heating purposes, verify installation is approved for operation, equipment is lubricated, and filters are in place. Provide and pay for operation, maintenance, and regular replacement of filters and worn or consumed parts.
- D. Maintain minimum ambient temperature of 50 degrees F in areas where construction is in progress and procedures or materials require a minimum temperature, unless indicated otherwise in product sections.

1.5 TEMPORARY VENTILATION

A. Ventilate enclosed areas to achieve curing of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

1.6 TELEPHONE SERVICE

A. Provide, maintain, and pay for cellular telephone service while on the site.

1.7 INTERNET SERVICE

A. Contractor's Site Staff should be able to access electronic mail while on the site.

1.8 TEMPORARY WATER SERVICE

- A. Contractor shall furnish temporary water service if needed. Exercise measures to conserve water.
- B. Extend branch piping with outlets located so water is available by hoses with threaded connections. Provide temporary pipe insulation if required to prevent freezing.

1.9 TEMPORARY SANITARY FACILITIES

A. Not required. Interior, first floor building restrooms are available for use by the Contractor.

1.10 FIELD OFFICES AND SHEDS

- A. Project meetings may be held inside the building or at nearby M-NCPPC meeting facilities.
- B. Locate storage and staging in a M-NCPPC approved location that will not disturb public activity. Minimize vibration and traffic adjacent to the building.
 - 1. Materials may be stored and staged at agreed locations on site only with prior approval from the M-NCPPC Construction Manager.
- C. Storage Areas and Sheds: Size to storage requirements for products of individual Sections, allowing for access and orderly provision for maintenance and for inspection of products to requirements of Section 01 60 00 Product Requirements. Coordinate storage areas with M-NCPPC Construction Manager.
- Preparation: Fill and grade sites for temporary structures sloped for drainage away from buildings. No excavation to occur on site without approval by M-NCPPC archaeologist.
- E. Maintenance And Cleaning:
 - 1. Provide periodic cleaning of Contractor offices and storage
 - 2. Maintain approach walks free of mud, water, and snow.
- F. Removal: At completion of Work remove Contractor's temporary buildings, utility services, and debris. Restore areas.

1.11 ACCESS

- A. Use designated existing on-site roads for construction traffic.
- B. Access the site through existing drivewar.
- C. Contractor may utilize the grass field along north side of the property when necessary and approved by the M-NCPPC Construction Manager.
- D. Provide unimpeded access for emergency vehicles.
- E. Provide means of removing mud from vehicle wheels before entering streets.
- F. Site circulation shall remain accessible by Tenant staff, and visitors.
- G. See Section 01 30 00 Administrative Requirements for work hours.

1.12 PARKING

- A. Use the existing parking areas along facility (near dumpsters) to accommodate construction personnel.
- B. Use of designated existing on-site driveways may be permitted. Coordinate construction parking with M-NCPPC Construction Manager.

C. Maintenance:

- 1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, mud, snow, and ice.
- 2. Maintain existing graveled parking areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain drainage in original condition.

D. Removal, Repair:

1. Repair facilities damaged by use, to original condition.

1.13 PROGRESS CLEANING AND WASTE REMOVAL

- A. See Section 01 70 00 Execution Requirements for protection requirements.
- B. Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition. No storage or accumulation of debris or materials will take place in or around the buildings.
- C. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed orremote spaces, prior to enclosing spaces.
- D. Broom clean any interior areas impacted by work.
- E. Collect and remove waste materials, debris, and rubbish from site weekly, maximum, and dispose off-site.

1.14 PROJECT IDENTIFICATION

A. Project Identification Sign: M-NCPPC will provide and install construction sign(s).

1.15 TRAFFIC REGULATION

A. The Contractor shall ensure that interference with sidewalks, roads, driveways, and adjacent facilities is kept to a minimum. No streets or sidewalk areas are to be closed or obstructed without permission from authorities having jurisdiction and the Owner.

1.16 FIRE SAFETY PROCEDURES AT THE HISTORIC SITE

- A. Comply with NFPA 241: Safeguarding Construction, Alteration and Demolition Operations, 2000 edition or most current. The contractor's on-site supervisor will be designated as the fire prevention program manager in accordance with NFPA 241.
- B. Provide and maintain a fire prevention program, fire extinguishers, and other fire prevention and protection measures for compliance with NFPA 241. Ensure that the proper number of fire protection and extinguishing devices are available within required distances and in working order throughout construction work.
- C. Provide proper containers for storage of flammable materials and disposal of waste. Do not allow soiled rags to accumulate in the buildings or on the site.
- D. Hot work operations are anticipated for this work. If any welding, sweating, soldering, brazing, burning or flame cutting are required, alert Owner, Architect, and Tenant prior to commencing work. Perform any hot work on the ground at a safe distance away from the building, and people. Request the Owner's permission in writing if any hot work operations must be conducted within or on the building. If permission is granted, appoint a fire watchman in hot work areas to protect combustible materials and watch for fires during and after hot work. Cease using heat devices at <u>least two hours</u> before the end of the workday to increase chances of early detection of fire.
- E. Do not use tobacco products at the project site. Smoking is not allowed on Park property.
- F. Paint removal is anticipated in the base scope of work. Do not use heat guns or open flame devices for paint removal on site under any circumstances.
- G. Do not allow open flame heating devices unless approved by Architect and Owner.

1.17 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.

- B. Protect Tenant's work and office from contamination by nails and other construction debris. See Section 01 70 00 Execution Requirements for Progress Cleaning and Protection requirements.
- C. Provide barriers on the ground adjacent to the building when repairs are under way.
- D. Provide protection for plants and grass. Replace any damaged plants and grass.
- E. Protect all vehicular traffic, stored materials, site, and structures from damage.

1.18 WATER CONTROL

A. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

1.19 DUST CONTROL

- A. Execute Work by methods to minimize raising dust from construction operations.
- B. Provide positive means to prevent air-borne dust from dispersing into atmosphere and into the interior of the structure.

1.20 EROSION AND SEDIMENT CONTROL

- A. Plan and execute construction by methods to control surface drainage. Prevent erosion and sedimentation. Project designed to eliminate any ground disturbance. Notify M-NCPPC if work will cause erosion.
- B. Provide temporary measures including berms, dikes, and drains, and other devices to prevent water flow around or near building.
- C. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.

1.21 NOISE CONTROL

A. Provide methods, means, and facilities to minimize noise from and noise produced by construction operations. Coordinate with M-NCPPC Construction Manager and Tenant.

1.22 PEST CONTROL

A. Provide methods, means, and facilities to prevent pests and insects from damaging the Work and entering facility.

1.23 POLLUTION CONTROL

A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.

B. Comply with pollution and environmental control requirements of authorities having jurisdiction.

1.24 RODENT CONTROL

A. Provide methods, means, and facilities to prevent rodents from accessing or invading premises.

1.25 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, and materials prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing and permanent facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Product delivery requirements.
- C. Product storage and handling requirements.
- D. Product options.
- E. Product substitution procedures.

1.2 PRODUCTS

- A. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise.
- B. Do not use materials and equipment removed from existing premises, except as specifically required or permitted by Contract Documents.
- C. Furnish interchangeable components from same manufacturer for components being replaced.

1.3 PRODUCT DELIVERY REQUIREMENTS

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Store and protect products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive products in weather tight, climate-controlled enclosures in an environment favorable to product.
- D. For exterior storage of fabricated products, place on sloped supports above ground.

- E. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- G. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.
- J. Prevent contact with material that may cause corrosion, discoloration, or staining.
- K. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.

1.5 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit request for substitution for any manufacturer not named in accordance with the following article.

1.6 PRODUCT SUBSTITUTION PROCEDURES

- A. M-NCPPC will consider requests for Substitutions only within 15 days after date of Notice to Proceed.
- B. Substitutions may be considered when a product becomes unavailable through no fault of Contractor.
- C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- D. A request constitutes a representation that the Contractor:
 - 1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
 - 2. Will provide same warranty for Substitution as for specified product.
 - 3. Will coordinate installation and make changes to other Work, which may be

- required for the Work to be complete with no additional cost to Owner.
- 4. Waives claims for additional costs or time extension which may subsequently become apparent.
- E. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals, without separate written request, or when acceptance will require revision to Contract Documents.
- F. Substitution Submittal Procedure:
 - 1. Submit request for Substitution for consideration. Limit each request to one proposed Substitution.
 - 2. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalence. Burden of proof is on proposer.
 - 3. M-NCPPC will notify Contractor in writing of decision to accept or reject request.

PART 2 - PRODUCTS

2.1 EXISTING PRODUCTS

- A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by the Contract Documents.
- B. Unforeseen historic items encountered remain the property of the Owner; notify Owner promptly upon discovery; protect, remove, handle, and store as directed by Owner.
- C. Existing materials and equipment indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to the Owner, or otherwise indicated as to remain the property of the Owner, become the property of the Contractor; remove from site.

PART 3 - EXECUTION

3.1 SUBSTITUTION PROCEDURES

- A. Instructions to Bidders specify time restrictions for submitting requests for substitutions during the bidding period. Comply with requirements specified in this section.
- B. Timing: M-NCPPC will not consider requests for substitution after 15 days of Notice-to-proceed, except for extenuating circumstances described below. Requests may be considered or rejected at discretion of Architect.
 - 1. The specification permits "Or Equal."
 - 2. The product is no longer manufactured.
 - 3. The product is not available due to a strike.
 - 4. The specified product is identified as incompatible or inappropriate for the project.
 - 5. The specified item fails to comply with building code requirements.
 - 6. The manufacturer or fabricator declares a specified product to be

unsuitable for the use intended and refuses to warrant its installation.

- 7. Significant cost savings to the Owner.
- C. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
 - Statement indicating why specified material or product cannot be provided.
 - 2. Coordination information, including a list of changes or modifications needed toother parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
 - 3. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - 4. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - 5. Samples, where applicable or requested.
 - 6. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - 7. Material test reports from a qualified testing agency indicating and interpreting testresults for compliance with requirements indicated.
 - 8. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
 - Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time.
 - If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
 - 10. Cost information, including a proposal of change, if any, in the Contract Sum.
 - 11. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
 - 12. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- D. A request for substitution constitutes a representation that the submitter:
 - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 - 2. Will provide the same warranty for the substitution as for the specified product.
 - 3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
 - 5. Will reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.

- E. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- F. Substitution Submittal Procedure:
 - 1. Substitution Request Form: Format to be approved by M-NCPPC Construction Manager.
 - 2. Submit three copies of request for substitution for consideration. Limit each request to one proposed substitution.
 - 3. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
 - 4. M-NCPPC will consider Contractor's request for substitution when the following conditions are met. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - Substitution requested must meet or exceed specified material, product or equipment items appearance, function and quality level as determined by the Architect and Owner.
 - b. Requests for substitution must include clear identification of the material, product or equipment item and complete description including drawings, cuts, performance, and test data, along with any other information necessary for a complete evaluation.
 - c. Requested substitution shall not require extensive revisions to the Contract Documents or changes to any other materials, products, or equipment items.
 - d. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - e. Substitution request is fully documented and properly submitted.
 - f. Requested substitution will not adversely affect Contractor's Construction Schedule.
 - g. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - h. Requested substitution is compatible with other portions of the Work.
 - i. Requested substitution provides specified warranty.
 - i. Requested substitution will not delay the Work.
 - k. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
 - 1) The Architect's/Owner's decision to accept or reject the proposed substitution shall be final and will be set forth in writing
- G. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within 7 days of receipt of a request for substitution. M-NCPPC will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.

SECTION 01 70 00

EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition, except removal, disposal, and/or remediation of hazardous materials and toxic substances.
- C. Pre-installation meetings.
- D. Cutting and patching.
- E. Surveying for laying out the work.
- F. Cleaning and protection.

1.2 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate Contractor.
 - 6. Include in request:
 - a. Identification of Project.
 - b. Location and description of affected work.
 - c. Necessity for cutting or alteration.
 - d. Description of proposed work and products to be used.
 - e. Alternatives to cutting and patching.
 - f. Effect on work of Owner or separate Contractor.
 - g. Written permission of affected separate Contractor.
 - h. Date and time work will be executed.
- C. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.3 PROJECT CONDITIONS

- A. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.
- B. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

PART 2 - PRODUCTS

2.1 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work forpatching and extending work in-kind.
- B. Type and Quality of Existing Products: Determine by inspecting and testing productswhere necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request forsubstitution described in Section 01 60 00- Product Requirements.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new workbeing applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, tominimize waste due to over-ordering or mis-fabrication.
- E. Identify existing electric in work area. Protect electric equipment as required to complete work. Notify M-NCPPC Construction Manager of any work.
- F. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- G. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. The beginning of cutting or patching means acceptance of existing conditions.

3.2 PREPARATION

- A. Protect the building, staff office/work areas, and grounds from construction debris. Coordinate protection with M- NCPPC Construction Manager.
 - 1. Provide dustproof barriers between areas where dust will be produced and other parts of the building during construction.
 - Secure canvas drop cloths over impacted areas as determined by the M-NCPPC

- Construction Manager before work begins in each respective area
- 3. Keep cloths and barriers in-place until work has been completed. Once approved by M-NCPPC Construction Manager, the Contractor shall remove all construction debris and cloths.
- B. Clean substrate surfaces prior to applying next material or substance.
- C. Seal cracks or openings of substrate prior to applying next material or substance.
- D. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.3 LAYING OUT THE WORK

- A. Contractor is responsible for laying out the work.
- B. Promptly notify M-NCPPC of any discrepancies discovered.
- C. Promptly report to M-NCPPC the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.

3.4 GENERAL INSTALLATION REQUIREMENTS

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.5 CUTTING AND PATCHING

- A. Refer to requirements in Section 01 40 00 Quality Requirements.
- B. Waters House is a Historic Building, cutting and patching shall be minimized and only completed in-kind.
 - Remove, cut, and patch Work in manner to minimize damage and loss of historic fabric, and to permit restoring products and finishes to original or specified condition.
- C. Employ skilled and experienced installer to perform cutting and patching
- D. Submit written request in advance of cutting or altering elements affecting:
 - 1. Structural integrity of element.
 - 2. Integrity of weather-exposed or moisture-resistant elements

- 3. Efficiency, maintenance, or safety of element.
- 4. Visual qualities of sight exposed elements.
- 5. Work of Owner or separate contractor.
- E. Perform cutting and patching if necessary to:
 - 1. Complete the work, including holes for blown-in insulation...
 - 2. Fit products together to integrate with other work.
 - 3. Provide openings for penetration of mechanical, electrical, and other services.
 - 4. Match work that has been cut to adjacent work.
 - 5. Repair areas adjacent to cuts to required condition.
 - 6. Repair new work damaged by subsequent work.
 - 7. Remove samples of installed work for testing when requested.
 - 8. Remove and replace defective and non-conforming work.
- F. Execute cutting and patching to uncover work in order to install sequenced work, to remove and replace defective or non-conforming work, to remove samples of installed work for testing when requested, to provide openings in the work for penetration of mechanical and electrical work, to execute patching to complement adjacent work, and to fit products together to integrate with other work.
- G. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore tooriginal condition.
- H. Remove unsuitable material not marked for salvage, including but not limited to rotted wood and corroded metals. Replace materials as specified for finished Work.
- I. Restore work with new products in accordance with requirements of Contract Documents.
- J. Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- K. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- L. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for assembly, refinish entire unit.
- M. Identify hazardous substances or conditions exposed during the Work to M-NCPPC and Architect for decision or remedy.
- N. Make neat transitions. Patch work to match adjacent work in texture and appearance. Where new work abuts or aligns with existing, perform a smooth and even transition.
- O. When finished surfaces are cut so that smooth transition with new Work is not possible, terminate existing surface along straight line at natural line of division and submit recommendation to Architect/Engineer for review.
- P. Where change of plane of ¼ inch or more occurs, submit recommendation for providing smooth transition to Architect for review.
- Q. Replace at no cost to the Owners existing surfaces and materials which are damaged, lifted, discolored, or showing other imperfections. Materials may be patched or repaired

3.6 PROGRESS CLEANING

- A. Waters House is an actively used office building. Safety is critical. Ensure all nails and sharp metal objects are collected daily. Utilize a magnetic sweeper or similar.
- В
- C. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- D. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- E. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
- F. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.7 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.
- F. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- G. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- H. Prohibit traffic from landscaped areas.
- I. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.

3.8 ADJUSTING

A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.9 FINAL CLEANING

- A. Employ experienced workers or professional cleaners for final cleaning; clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program.
- B. Use cleaning materials that are nonhazardous.
- C. Remove debris and abandoned items from area and from concealed spaces, turnover to M-NCPPC Construction Manager.
- D. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.
- E. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
- F. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
- G. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
- H. Remove tools, construction equipment, machinery, and surplus material from Project site.
- Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
- J. Sweep floors broom clean in interior and exterior spaces.
- K. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
- L. Remove labels that are not permanent.
- M. Touch-up and otherwise repair and restore marred, exposed finishes and surfaces.
 - 1. Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 - For all historic surfaces and finishes, the Architect with the concurrence of M-NCPPC Construction Manager will determine the extent of touch up and repair work.
- N. Clean light fixtures, lamps, globes, reflectors, and window air-conditioning units to function with full efficiency.
- O. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures.
- P. Leave Building clean and ready for occupancy.

SECTION 01 77 00

CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Inspection procedures.

1.2 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and certificates of final inspections, and similar documents.
 - Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include operating certificates, and similar releases
 - 5. Prepare and submit project record documents (as-builts), operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
 - 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 - 7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 - 8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 - 9. Submit change-over information related to Owner's occupancy, use, operation, and maintenance.
 - 10. Complete final cleaning requirements, including touchup painting.
 - 11. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, M-NCPPC will either proceed with inspection or notify Contractor of unfulfilled requirements. M-NCPPC will prepare the Certificate of Substantial Completion after inspectionor will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

2. Results of completed inspection will form the basis of requirements for Final Completion.

1.3 FINAL COMPLETION

- A. Preliminary Procedures: See M-NCPPC General Conditions.
- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, M-NCPPC will either proceed with inspection or notify Contractor of unfulfilled requirements. M- NCPPC will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.4 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Preparation: Submit Contractor's Punch to M-NCPPC. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. Use form agreed upon by all parties. Use Submittal Exchange or approved equal as an electronic submittal platform.
 - 1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
 - 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 - 3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Owner.
 - d. Name of Contractor.
 - e. Page number.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

SECTION 01 78 00 CLOSEOUT SUBMITTALS

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Project Record Documents.
- B. Operation and Maintenance Data.
- C. Warranties and bonds.

1.2 RELATED REQUIREMENTS

- A. Section 01 30 00 Administrative Requirements: Submittals procedures, shop drawings, product data, and samples
- B. Individual Product Sections: Specific requirements for operation and maintenance data.
- C. Individual Product Sections: Warranties required for specific products or Work.

1.3 SUBMITTALS

- A. Project Record Documents: Submit documents to M-NCPPC.
- B. Operation and Maintenance Data:
 - Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect will review draft and return one copy with comments.
 - Submit one copy of completed documents 15 days prior to final inspection.
 This copy will be reviewed and returned after final inspection, with Architect comments. Revise content of all document sets as required prior to final submission.
 - Submit two sets of revised final documents in final form within 10 days after final inspection as well as electronic version in PDF format.

C. Warranties:

- 1. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
- 2. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptanceas the beginning of the warranty period.

PART 2 - PRODUCTS - NOT USE

PART 3 - EXECUTION

3.1 PROJECT RECORD DOCUMENTS

A. Maintain on site one set of the following record documents; record actual revisions to the Work:

- 1. Drawings.
- 2. Specifications.
- Addenda.
- 4. Change Orders and other modifications to the Contract.
- 5. Reviewed shop drawings, product data, and samples.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Field changes of dimension and detail.
 - 2. Details not on original Contract drawings.

3.2 OPERATION AND MAINTENANCE DATA FOR PRODUCTS, EQUIPMENT MATERIALS AND FINISHES

A. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.

3.3 OPERATION AND MAINTENANCE MANUALS

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- B. Prepare data in the form of an instructional manual in .pdf format.
- C. Cover: Identify with printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- D. Provide cover pages with item tittle for each separate product and system, with typed description of product and major component parts of equipment.
- E. Drawings and Technical Specifications: Submit M-NCPPC approved redline markup drawings required in Section 01 11 00. Format drawings to be viewable and legible printed at 24" x 36" sheets.
- F. Arrange content by systems under section numbers and sequence of Table of Contents of this Technical Specification.
- G. Contents: Prepare a Table of Contents: with each productor system

description identified, in three parts as follows:

- 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect, Contractor, Subcontractors, and major equipment suppliers.
- Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. M-NCPPC Approved Submittal
 - b. Significant design criteria.
 - c. List of equipment.
 - d. Parts list for each component.
 - e. Operating instructions.
 - f. Maintenance instructions for equipment and systems.
 - g. Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
- 3. Part 3: Project documents and certificates, including the following:
 - a. Shop drawings and product data.
- H. Provide a listing in Table of Contents for design data, with tabbed dividers and space for insertion of data.
- I. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Architect, Consultants, and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.

3.6 WARRANTIES

- A. Obtain warranties, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Exceptfor items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Manual: Compile all warranties in one .pdf document, organized with a Table of Contents followed by subsequent sub-section cover pages for each item, inserted behind the sub-section cover page.
- F. Cover: Identify with typed or printed title WARRANTIES, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
- G. Table of Contents: Neatly typed, in the sequence of the Table of Contents of

- the Technical Specifications, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
- H. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

END OF SECTION

SECTION 04 03 22

HISTORIC BRICK UNIT MASONRY REPAIR

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 work consisting of repairing historic clay brick masonry as indicated on the Structural Plans and as follows:
 - 1. Repairing unit masonry, including replacing units.
 - 2. Removing abandoned iron lintels
 - 3. Painting new steel lintels.

B. Related Requirements:

- 1. Section 040344 "Historic Masonry Repointing"
- 1.3 UNIT PRICES Not used.

1.4 DEFINITIONS

- A. Low-Pressure Spray: 100 to 400 psi; 4 to 6 gpm.
- B. Rebuilding (Setting) Mortar: Mortar used to set and anchor masonry in a structure, distinct from pointing mortar installed after masonry is set in place.
- C. Saturation Coefficient: Ratio of the weight of water absorbed during immersion in cold water to weight absorbed during immersion in boiling water; used as an indication of resistance of masonry units to freezing and thawing.

1.5 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference on historic masonry repair and repointing at Project site.
 - 1. Review methods and procedures related to repairing historic brick masonry,

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. Quality-control program.
- d. Fire-protection plan.
- e. Unit masonry historic treatment program.

1.6 SEQUENCING AND SCHEDULING

- A. Order sand for colored mortar immediately after approval of mockups. Take delivery of and store at Project site a sufficient quantity to complete Project.
- B. Work Sequence: Perform masonry historic treatment work in the following sequence, which includes work specified in this and other Sections:
 - 1. Rake out mortar from joints surrounding masonry to be replaced and from joints adjacent to masonry repairs along joints.
 - 2. Repair masonry, including replacing existing masonry with new masonry materials.
 - 3. Rake out mortar from joints to be repointed.
 - 4. Point mortar and sealant joints.
 - 5. After repairs and repointing have been completed and cured, perform a final cleaning to remove residues from this work.
- C. Patch holes in mortar joints according to Section 040323 "Historic Brick Unit Masonry Repointing."

1.7 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
 - 2. Include recommendations for product application and use. Include test data substantiating that products comply with requirements.
- B. Shop Drawings:
 - 1. Submit shop drawings of steel lintel indicated on the Structural Plans.
- C. Photographic Documentation:
 - 1. Digitally photograph all surfaces where brick repairs will be performed and submit jpg files to M-NCPPC Construction Manager and Architect.
 - 2. After completion on masonry work, submit digital photographs of all brick work surfaces to M-NCPPC Construction Manager and Architect.

- D. Samples for Verification: For the following:
 - 1. Accessories: Each type of anchor, accessory, and miscellaneous support.
 - 2. Replacement bricks.

1.8 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For historic treatment specialists including field supervisors and workers and testing service.
- B. Quality-control program.
- C. Unit masonry historic treatment program.

1.9 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 masonry units 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. Quality-Control Program: Prepare a written quality-control program for this Project to systematically demonstrate the ability of personnel to properly follow methods and use materials and tools without damaging masonry. Include provisions for supervising worker performance and preventing damage.
- C. Unit Masonry Historic Treatment Program: Prepare a written, detailed description of materials, methods, equipment, and sequence of operations to be used for each phase of historic treatment work, including protection of surrounding materials and Project site.
 - 1. Include methods for keeping exposed mortar damp during curing period.
 - If materials and methods other than those indicated are proposed for any phase
 of historic treatment work, add to the quality-control program 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.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Deliver masonry units to Project site strapped together in suitable packs or pallets or in heavy- duty cartons and protected against impact and chipping.
- B. Deliver packaged materials to Project site in manufacturer's original and unopened containers, labeled with manufacturer's name and type of products.
- C. Store cementitious materials on elevated platforms, under cover, and in a dry location.

Do not use cementitious materials that have become damp.

- D. Store hydrated lime in manufacturer's original and unopened containers. Discard lime if containers have been damaged or have been opened for more than two days.
- E. Store lime putty covered with water in sealed containers.
- F. Store sand where grading and other required characteristics can be maintained and contamination avoided.
- G. Handle masonry units to prevent overstressing, chipping, defacement, and other damage.

1.11 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit repair work to be performed according to product manufacturers' written instructions and specified requirements.
- B. Temperature Limits, General: Repair masonry units only when air temperature is between 40 and 90 deg F and is predicted to remain so for at least seven days after completion of the Work unless otherwise indicated.
- C. Cold-Weather Requirements: Comply with the following procedures for masonry repair unless otherwise indicated:
 - 1. When air temperature is below 40 deg F, heat mortar ingredients, masonry repair materials, and existing masonry walls to produce temperatures between 40 and 120 deg F.
 - 2. When mean daily air temperature is below 40 deg F, provide enclosure and heat to maintain temperatures above 32 deg F within the enclosure for seven days after repair.
- D. Hot-Weather Requirements: Protect masonry repair when temperature and humidity conditions produce excessive evaporation of water from mortar and repair materials. Provide artificial shade and wind breaks, and use cooled materials as required to minimize evaporation. Do not apply mortar to substrates with temperatures of 90 deg F and above unless otherwise indicated.
- E. For manufactured repair materials, perform work within the environmental limits set by each manufacturer.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Source Limitations: Obtain each type of material for repairing historic masonry (face brick, cement, sand, etc.) from single source with resources to provide materials of consistent quality in appearance and physical properties.

B. Salvaged brick: wherever possible, reuse salvaged existing brick for surfaces exposed to view.

2.2 MASONRY MATERIALS

- A. Face Brick: Provide face brick, including molded, ground, cut, or sawed shapes where required to complete masonry repair work.
 - Brick Matching Existing: Provide units with colors, color variation within units, surface texture, size, and shape to match existing brickwork and with physical properties within
 percent of those determined from preconstruction testing of selected existing
 - a. For existing brickwork that exhibits a range of colors or color variation within units, provide brick that proportionally matches that range and variation rather than brick that matches an individual color within that range.

2. Special Shapes:

units.

- a. Provide molded, 100 percent solid shapes for applications where core holes or "frogs" could be exposed to view or weather when in final position, and where shapes produced by sawing would result in sawed surfaces being exposed to view.
- b. Provide specially ground units, shaped to match patterns, for arches and where indicated.
- c. Mechanically chopping or breaking brick, or bonding pieces of brick together by adhesive, are unacceptable procedures for fabricating special shapes.
- B. Building Brick: Provide building brick according to ASTM C 62, of same vertical dimension as face brick, for masonry work concealed from view.
 - Grade MW or SW.
- C. Salvaged Brick: Obtain salvaged brick from existing fireplace. Clean offresidual mortar.

2.3 MORTAR MATERIALS

- A. Portland Cement: ASTM C 150/C 150M, Type I or Type II; white or gray or both where required for color matching of mortar.
 - 1. Provide cement containing not more than 0.60 percent total alkali when tested according to ASTM C 114.
- B. Air Lime (Lime Putty): St. Astier Décorchaux CL90 lime putty as supplied by LimeWorks.us, www.limeworks.us of 3145 State Road, Telford, PA 18969. Tel: (215)

536-6706, E-mail: info@limeworks.us.

- C. Mortar Sand: ASTM C 144 unless otherwise indicated.
 - 1. Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands if necessary to achieve suitable match.
 - 2. Colored Mortar: Provide natural sand [or ground marble, granite, or other sound stone] of color necessary to produce required mortar color.
 - 3. For exposed mortar, provide sand with rounded edges.
- D. Mortar Pigments: ASTM C 979/C 979M, compounded for use in mortar mixes, and having a record of satisfactory performance in masonry mortars.
 - 1. <u>Manufacturers:</u> Subject to compliance with requirements, provide products by one of the following:
 - a. Davis Colors.
 - b. <u>Lanxess Corporation</u>.
 - c. Solomon Colors, Inc.
- E. Water: Potable.
- 2.4 MANUFACTURED REPAIR MATERIALS Not Used.

2.5 ACCESSORY MATERIALS

- A. Masonry Repair Anchors, Spiral Type: Driven-in, Type 304 stainless-steel spiral rods designed to be installed in drilled holes and relying on screw effect rather than adhesive to secure them to backup and veneer. Anchors are flexible in plane of veneer but rigid perpendicular to it.
- B. Setting Buttons and Shims: Resilient plastic, nonstaining to masonry, sized to suit joint thicknesses and bed depths of masonry units, less the required depth of pointing materials unless removed before pointing.
- C. Masking Tape: Nonstaining, nonabsorbent material; compatible with mortar, joint primers, sealants, and surfaces adjacent to joints; and that easily comes off entirely, including adhesive.
- D. Antirust Coating: Fast-curing, lead- and chromate-free, self-curing, universal modified-alkyd primer according to SSPC-Paint 20 or SSPC-Paint 29 zinc-rich coating.
 - 1. Surface Preparation: Use coating requiring no better than SSPC-SP 3, "Power Tool Cleaning" surface preparation according to manufacturer's literature or certified statement.
 - 2. VOC Limit: Use coating with a VOC content of 400 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

- E. Other Products: Select materials and methods of use based on the following, subject to approval of a mockup:
 - 1. Previous effectiveness in performing the work involved.
 - 2. Minimal possibility of damaging exposed surfaces.
 - 3. Consistency of each application.
 - 4. Uniformity of the resulting overall appearance.
 - 5. Do not use products or tools that could do the following:
 - a. Remove, alter, or harm the present condition or future preservation of existing surfaces, including surrounding surfaces not in Contract.
 - b. Leave residue on surfaces.

2.6 MORTAR MIXES

- A. Interior: Type O
 - 1) Portland Cement: 1 part.
 - 2) Air Lime (Lime Putty): 3 part
 - 3) Aggregate to ASTM C144: 9 parts.
- B. Exterior: Type N
 - 1) Portland Cement: 1 part.
 - 2) Air Lime (Lime Putty): 1 part
 - 3) Aggregate to ASTM C144: 6 parts

PART 3 - EXECUTION

3.1 PROTECTION

- A. Prevent mortar from staining face of surrounding masonry and other surfaces.
 - 1. Cover sills, ledges, and other projecting items to protect them from mortar droppings.
 - 2. Keep wall area wet below rebuilding and pointing work to discourage mortar from adhering.
 - 3. Immediately remove mortar splatters in contact with exposed masonry and other surfaces.
- B. For exterior work:
 - Provide temporary rain drainage during work to direct water away from building.
- 3.2 MASONRY REPAIR, GENERAL
 - A. Repair Appearance Standard: Repaired surfaces are to have a uniform appearance as viewed from 20 feet away by Architect.
- 3.3 ABANDONED ANCHOR REMOVAL

- A. Remove abandoned anchors, brackets, wood nailers, and other extraneous items no longer in use unless indicated to remain.
 - 1. Remove items carefully to avoid spalling or cracking masonry.
 - 2. Notify Architect before proceeding if an item cannot be removed without damaging surrounding masonry. Do the following where directed:
 - a. Cut or grind off item approximately 3/4 inch beneath surface, and core drill a recess of same depth in surrounding masonry as close around item as practicable.
 - Immediately paint exposed end of item with two coats of antirust coating, following coating manufacturer's written instructions and without exceeding manufacturer's recommended dry film thickness per coat. Keep paint off sides of recess.
 - 3. Patch the hole where each item was removed unless directed to remove and replace the masonry unit.

3.4 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.
 - 1. When removing single bricks, remove material from center of brick and work toward outside edges.
- B. Support and protect remaining masonry that surrounds removal area.
- C. Maintain flashing, reinforcement, lintels, and adjoining construction in an undamaged condition. Coordinate with new flashing, reinforcement, and lintels, which are specified in other Sections.
- D. Notify Architect of unforeseen detrimental conditions, including voids, cracks, bulges, loose units in existing masonry backup, rotted wood, rusted metal, and other deteriorated items.
- E. Remove in an undamaged condition as many whole bricks as possible.
 - 1. Remove mortar, loose particles, and soil from brick by cleaning with hand chisels, brushes, and water.
 - 2. Remove sealants by cutting close to brick with utility knife and cleaning with solvents.
 - 3. Store brick for reuse. Store off ground, on skids, and protected from weather.
 - 4. Deliver cleaned brick not required for reuse to Owner unless otherwise indicated.
- 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 and salvaged brick in good condition, where possible, or with new brick 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.
- 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 C 67 initial rates of absorption (suction) of more than 30 g/30 sq. in. 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.
 - 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 sufficiently hard 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.

3.5 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 units. 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, anchors, lintels, and adjoining construction in an undamaged condition. Coordinate with new flashing, reinforcement, and lintels, which are specified in other Sections.
- D. Notify Architect of unforeseen detrimental conditions, including voids, cracks, bulges, loose units beyond the removal area, rotted wood, rusted metal, and other deteriorated items.
- E. Remove in an undamaged condition as many whole bricks as possible.

- 1. Remove mortar, loose particles, and soil from brick by cleaning with hand chisels, brushes, and water.
- 2. Remove sealants by cutting close to brick with utility knife and cleaning with solvents
- 3. Store brick for reuse. Store off ground, on skids, and protected from weather.
- 4. Deliver cleaned brick not required for reuse to Owner unless otherwise indicated.
- F. Clean masonry surrounding removal areas by removing mortar, dust, and loose particles in preparation for brick replacement.
- G. Replace removed damaged brick with salvaged backup brick in good condition, where possible, or with new building brick matching existing backup 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.
- 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 C 67 initial rates of absorption (suction) of more than 30 g/30 sq. in. per min.. Use wetting methods that ensure that units are nearly saturated but surface is dry when laid.
- 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.

3.6 PAINTING STEEL UNCOVERED DURING THE WORK

- A. Notify Architect if steel is exposed during masonry removal. Where Architect determines that steel is structural, or for other reasons cannot be totally removed, prepare and paint it as follows:
 - 1. Surface Preparation: Remove paint, rust, and other contaminants according to SSPC- SP 3, "Power Tool Cleaning", as applicable to comply with paint manufacturer's recommended preparation.
 - 2. Antirust Coating: Immediately paint exposed steel with two coats of antirust coating, following coating manufacturer's written instructions and without exceeding manufacturer's recommended rate of application (dry film thickness per coat).
- B. If on inspection and rust removal, the thickness of a steel member is found to be reduced from rust by more than 1/16 inch, notify Architect before proceeding.

3.7 STONE-FRAGMENT REPAIR

- A. Carefully remove cracked or fallen stone fragment indicated to be repaired. Reuse only stone fragment that is in sound condition.
- B. Remove soil, loose particles, mortar, and other debris or foreign material, from fragment surfaces to be bonded and from parent stone where fragment had broken off, by cleaning with stiff-fiber brush.
- C. Concealed Pinning: Before applying adhesive, prepare for concealed mechanical anchorage consisting of 1/4-inch- diameter, plain stainless-steel pins set into 1/4-inch- diameter holes drilled into parent stone and into, but not through, the fragment. Center and space pins 3 to 5 inches apart and at least 2 inches from any edge. Insert pins at least 2 inches in parent stone and 2 inches in fragment, but no closer than 3/4 inch from exposed face of fragment.
- D. Apply stone-to-stone adhesive according to adhesive manufacturer's written instructions. Coat bonding surfaces of fragment and parent stone, completely filling all crevices and voids.
- E. Fit stone fragment onto parent stone while adhesive is still tacky and hold fragment securely in place until adhesive has cured. Use shims, clamps, wedges, or other devices as necessary to align face of fragment with face of parent stone.
- F. Clean adhesive residue from exposed surfaces and patch chipped areas.

3.8 FINAL CLEANING

- A. 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.
 - 1. Do not use metal scrapers or brushes.
 - 2. Do not use acidic or alkaline cleaners.
- B. Clean adjacent non-masonry surfaces. Use detergent and soft brushes or cloths.
- C. Clean mortar and debris from roof; remove debris from gutters and downspouts. Rinse off roof and flush gutters and downspouts.
- D. Remove masking materials, leaving no residues that could trap dirt.

3.9 FIELD QUALITY CONTROL

A. Architect's Project Representatives: Architect will assign Project representatives to help carry out Architect's responsibilities at the site, including observing progress and quality of portion of the Work completed. Allow Architect's Project representatives use of lift devices and scaffolding, as needed, to observe progress and quality of portion of the Work completed.

B. Notify Architect's Project representatives in advance of times when lift devices and scaffolding will be relocated. Do not relocate lift devices and scaffolding until Architect's Project representatives have had reasonable opportunity to make inspections and observations of work areas at lift device or scaffold location.

3.10 MASONRY-WASTE DISPOSAL

- A. Salvageable Materials: Unless otherwise indicated, excess masonry materials are Contractor's property.
- B. Masonry Waste: Remove masonry waste and legally dispose of off Owner's property.

END OF SECTION 04 03 22

SECTION 04 03 44

HISTORIC MASONRY REPOINTING

PART 1 - GENERAL

- 0.0 SUMMARY: This section specifies the supply and installation of pointing mortar for:
 - (a) Deteriorated mortar in stonework
- 1.0 RELATED DOCUMENTS: This section is only a portion of the Contract Documents. All of the Contract Documents, including Conditions of the Contract and Division 1 General Requirements, apply to this section.

1.1 SECTION INCLUDES:

- A. Furnish and Install:
 - 1) Cutting back masonry joints to the specified depth.
 - 2) Removing existing mortar that is soft and friable.
 - 3) Cleaning debris and dust from open mortar joints.
 - 4) Spraying masonry to near saturation to limit suction/absorption of moisture from new mortar.
 - 5) Repointing unsound and open mortar joints.
 - 6) Post installation care of installed materials
- B. Related Sections:

Section 04 03 22 Historic Brick Unit Masonry Repair

- 1.2 STANDARDS AND GUIDELINES:
 - A. Products to conform the following Standards:
 - 1) Air Lime (Lime Putty): ASTM C5 Standard Specification for Quicklime for Structural Purposes and ASTM C207 Standard Specification for Hydrated Lime for Masonry Purposes. Type N, high-calcium lime only. Type S, dolomitic lime shall not be used.
 - 2) Aggregate: for ashlar work ASTM C144 Standard Specification for Aggregate for Masonry Mortar as modified in this section.
 - 3) Mortar: ASTM C270 Standard Specification for Mortar for Unit Masonry as modified in this section.
- 1.3 SUBMITTALS:
 - A. Samples for each type and color of exposed masonry units and colored mortars.

- B. Material Certificates: For each type of product indicated. Include statements of material properties indicating compliance with requirements including compliance with standards and type designations within standards
- C. Product Data: Manufacturers' data including technical data sheets (TDS), material safety data sheets (SDS), instructions, recommendations and restrictions

D. Additional Product Data:

Test reports on current batches by a recognized independent testing facility for:

- 1) Grading curve conformity to ASTM C144 and C33 respectively of aggregate systems
- 2) Compressive strength data at 28-days for masonry mortar
- E. Qualifications: Submit documentation which verifies qualifications and experience of subcontractors, their site supervisors, and craftsmen per part 1.6 of this section.
- F. Work Plan: in accordance with Section 01 31 00 Project Management and Coordination.
- G. Mockups: Minimum of two (2) linear feet, to include both bedding and header joints, for each condition specified in Part 3 below for the Architect's approval prior to execution of full-scale repairs. Approved mockups may become part of the finished work.

1.5 DELIVERY AND STORAGE:

- A. Comply with requirements of Section 01 60 00 Material and Equipment.
- B. Deliver materials in manufacturer's unopened containers with the manufacturer's brand name, material type, batch number and manufacturing date clearly marked thereon.
- C. Store materials in accordance with manufacturer's printed instructions.
- D. Keep materials dry, covered completely and protected from the weather.

1.6 QUALIFICATIONS:

A. Subcontractors: Contractor companies and designated personnel specializing in the repair of historic masonry with a minimum of five (5) years of experience on projects of similar scope and complexity.

1.7 ENVIRONMENTAL REQUIREMENTS:

- A. Comply with requirements of referenced mortar application standards for environmental conditions before, during, and after installation.
- B. Cold Weather Requirements:

1) Do not use frozen materials in mortar mixes.

2) Do not install mortar in masonry substrate that is both wet and potentially subject to frost. When the ambient temperature is 40° F and falling, heat mixing water and

materials, and furnish heated enclosure and insulation, at or above 40° F for at least 24 hours during mortar installation, and retain insulation and protection for 120 days

minimum if temperatures remain below 40° F.

C. Hot Weather Requirements:

1) For all hydrated powder binder format, comply with manufacturers' instructions

and/or recommendations of the Portland Cement Association.

2) Do not install mortar at temperatures above 85° F.

3) Protect mortar in masonry substrate surfaces from uneven and excessive moisture absorption / suction from the stonework during hot, dry weather (i.e., water mist

spraying every two hours and covering the works with damp hessian sheets).

Part 2 - Materials and Products:

2.1 PRODUCTS:

Natural Hydraulic Lime (NHL): St. Astier NHL 3.5 as supplied by LimeWorks.us, Α.

www.limeworks.us of 3145 State Road, Telford, PA 18969. Tel: (215) 536-6706, E-mail:

info@limeworks.us.

B. Air Lime (Lime Putty): St. Astier Décorchaux CL90 lime putty as supplied by

LimeWorks.us, www.limeworks.us of 3145 State Road, Telford, PA 18969. Tel: (215)

536-6706, E-mail: info@limeworks.us.

C. Aggregate for mortar for repointing dressed ashlar masonry: ASTM C144 well-graded to

match aggregate in original mortar in color and texture

D. Water: Clean, potable, and free from deleterious amounts of acids, alkalis or organic

materials.

2.2 MORTAR MIXES:

Α. For deteriorated mortar in stonework, use the following material mix proportion by

volume:

Exterior: Type N

1) Portland Cement: 1 part.

- 2) Air Lime (Lime Putty): 1 part
- 3) Aggregate to ASTM C144: 6 parts
- B. Thoroughly mix mortar ingredients in accordance with the binder manufacturer's instructions.
- C. Do not re-temper NHL mortars. Air lime putty mortar can be stored indefinitely provided that air (carbon dioxide) is kept off the material in plastic covered and sealed containers.

Part 3 - Execution

3.1 REMOVAL OF EXISTING POINTING MORTAR:

- A. Cut back masonry joints to a minimum depth of twice the joint width or 1 to 1-1/2 in., whichever is greater (to ensure that very narrow joints are fully pointed). Measure the joint width from its average width inside the joint and not from the wall face where joints tend to become oversized due to weathering and erosion caused by previous interventions.
- B. Use reciprocating mortar saws (e.g., Arbortech, www.arbortechusa.com) with short, narrow "heritage blades" or sharp, tungsten-tipped, quirks and masonry chisels of a width narrower than the joint to avoid chipping or abrading the stone and brick edges. When using mini-grinders and power chisels to remove mortar, avoid run-ons across adjacent stones or bricks at header joints.
- C. If the existing mortar is soft and friable and crumbles away at the back face of the joint, continue to clear away unsuitable material using longer handled chisels while supporting the stones or bricks with plastic shims to avoid local collapse. Do deep cut mortar in any two adjacent stone blocks or bricks at the same time to avoid local collapse.

3.2 REPOINTING:

- A. Clean out all debris and dust from the open joint with an oil-free compressed air and mist spray of water. Soak the joint cavity to near saturation by intermittent hand spraying (without spilling water down the face of the wall), to help limit suction on the subsequent mortar placement.
- B. Repoint all unsound and open mortar joints with the specified mortar to match the existing color, texture and profile.
 - 1) Brickwork: air lime/sand mortar with straight, flush face joint profile. Expose the aggregate.

- C. When repointing, slightly overfill the joint with stiff mortar and use non-flexible metal pointing keys (appropriately sized to the widths of both joints and the varied heights of header joints) to strongly compress the mortar so that it fills all joint cavities and undulations.
 - 1) When the mortar is "green" (i.e., the surface can be indented by a finger nail but it not fully cured), finish the surface of plain flush pointing by hitting the surface with a churn brush to remove smooth surface laitance and expose the underlying aggregate.
 - If the churn brush damages arrises of soft stone, use alternative clean dry sponges
 1-2 hours after mortar placement to absorb and remove lime laitance and expose aggregates.
 - 3) Keep all newly installed pointing mortars intermittently moist for the first 36 hours by occasional mist spraying by hand, and by protecting the installation from sunshine and wind by covering with damp hessian sheets.

3.3 PROTECTION:

A. Protect all work in progress and when finished from direct sunlight, wind, rain, frost and snow, and from damage by birds and animals.

END OF SECTION

SECTION 06 40 23

ARCHITECTURAL MILLWORK

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Interior standing and running trim.
 - 2. Stair-work and rails
 - 3. Shop finishing of woodwork.
 - 4. Exterior wood shutters.
- B. Interior architectural woodwork includes wood furring, blocking, shims, and hanging strips unless concealed within other construction before woodwork installation.

1.2 SUBMITTALS

- A. Product Data: For cabinet hardware and accessories, handrail brackets and finishing materials and processes.
- B. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.

C. Samples:

- 1. Lumber and panel products for transparent finish, for each species and cut, finished on one side and one edge.
- 2. Lumber and panel products with shop-applied opaque finish, for each finish system and color, with exposed surface finished.

1.3 QUALITY ASSURANCE

- A. Fabricator and Installer's Qualifications: Fabricators and Installers of woodwork shall each have at least 3 years experience in projects of similar scope and quality.
- B. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards.", "Custom" Grade unless otherwise noted.

1.4 PROJECT CONDITIONS

A. Environmental Limitations: Do not deliver or install interior woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Wood Species and Cut for Transparent Finish: As indicated on drawings.
- B. Wood Species for Opaque Finish: Eastern white pine, sugar pine, or western white pine, or approved equal.

2.2 MISCELLANEOUS MATERIALS

- A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln-dried to less than 15 percent moisture content.
- B. Rough Carriages for Stairs: No. 1 grade Douglas fir-larch, hem-fir, or southern pine; kiln dried to 15 percent maximum moisture content:
- C. Handrail Brackets: Cast from malleable iron with wall flange drilled and tapped for concealed hanger bolt and with support arm for screwing to underside of rail. Sized to provide 1-1/2-inch clearance between handrail and wall.
- D. Adhesives, General: Do not use adhesives that contain added urea formaldehyde resins.

2.3 FABRICATION

- A. General: Complete fabrication to maximum extent possible before shipment to Project site. Where necessary for fitting at site, provide allowance for scribing, trimming, and fitting.
 - 1. Interior Woodwork Grade: Custom.
 - 2. Shop cut openings to maximum extent possible. Sand edges of cutouts to remove splinters and burrs. Seal edges of openings in countertops with a coat of varnish.
- B. Interior Standing and Running Trim:

- Backout or groove backs of flat trim members and kerf backs of other wide, flat members, except for members with ends exposed in finished work.
- 2. Assemble casings in plant except where limitations of access to place of installation require field assembly.

C. Stair Work:

- 1. Treads: Primer and two coats semigloss acrylic paint.
- 2. Risers, Stringers, Balusters, Handrails, Bottom Rail: Primer and two coats eggshell on exposed wood parts.
- 3. Round Handrail: As indicated on drawings.

D. Wood Trim:

- 1. Base and Shoe Mold: Primer and two coats paint to match existing.
- 2. Siding: Primer and two coats paint to match existing. SHOP FINISHING
- E. Back-priming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of woodwork. Apply two coats to back of paneling.
 - 1. Sheen: Semi-gloss, 46-60 gloss units measured on 60-degree gloss meter per ASTM D 523 unless otherwise indicated.
 - 2. Sheen: Semi-gloss, 46-60 gloss units measured on 60-degree gloss meter per ASTM D 523 unless otherwise indicated.

PART 3 - EXECUTION

3.1 RESTORATION WORK

- A. Identify Millwork to be restored; protect it during general demolition; remove it as necessary, taking care not to damage woodwork to be restored.
- B. Sand, scrape and prepare millwork for new finish.
- C. Apply new finishes to standards established by approved sample.

3.2 INSTALLATION

A. Before installation, condition woodwork to average prevailing humidity conditions in installation areas. Examine shop-fabricated work for completion and complete work as required, including removal of packing and back-priming.

- B. Grade: Install woodwork to comply with requirements for the same grade specified in Part 2 for fabrication of type of woodwork involved.
- C. Typically, install woodwork level, plumb, true, and straight to a tolerance of 1/8 inch in 96 inches. New baseboard to align with existing floors. Shim as required with concealed shims.
- D. Scribe and cut woodwork to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
- E. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing as required for complete installation. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with woodwork and matching final finish if transparent finish is indicated.
- F. Standing and Running Trim: Install with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to greatest extent possible. Scarf running joints and stagger in adjacent and related members. Fill gaps, if any, between top of base and wall with plastic wood filler, sand smooth, and finish same as wood base if finished.
- G. Stairs: Securely anchor carriages to supporting substrates. Install stairs with treads and risers no more than 1/8 inch from indicated position.
- H. Railings: Install rails with no more than 1/8 inch in 96-inch variation from a straight line.
 - 1. Stair Rails: Glue and dowel or pin balusters to treads and railings, and railings to newel posts.
 - 2. Wall Rails: Support rails on indicated metal brackets securely fastened to wall framing.

END OF SECTION 06 40 23

SECTION 06 50 00 EPOXY WOOD REPAIR

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general prov1s1ons of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

I.2 SUMMARY

- A. Section Includes:
 - 1. Repairs with two-component, (A) Resin, and (B) Hardener, non-shrinking epoxy wood filler.
- B. Related Requirements:
 - 1. Division 9 FINISHES Painting
 - 2. Lead based paint was noted in a report by Air, Land and Water Engineering, Inc. dated April 19, 2019.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
 - 1. Include Printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.

1.6 QUALITY ASSURANCE

- A. Mockups: Not used.
- B. Title X Requirement: Each firm conducting activities that disturb painted surfaces shall be a "Lead-Safe Certified Firm" according to 40 CFR 745, Subpart E, and use only workers that are trained in lead-safe work practices.

1.7 DELIVERY, STORAGE, AND HANDLING

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

1.8 FIELD CONDITIONS

- A. Apply epoxy wood filler only when temperature of surfaces to be patched and ambient air temperatures are between 60 and 90 deg F.
- B. Do not apply epoxy wood filler when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Abatron.WoodEpox 2
 - 2. Bondo Home Solutions Wood Filler

2.2 EPOXY WOOD FILLER, GENERAL

- A. Two-part epoxy filler.
- B. Colors: Manufacturer's standard.

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.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - 1. Wood: 15 percent.
- C. Proceed with epoxy materials application only after unsatisfactory conditions have been corrected.
 - 1. Application of epoxy materials indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations applicable to substrates and paint systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be consolidated. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and applying filler.
 - After completing repair 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 epoxy, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
- D. Protect adjacent surfaces from contact with epoxy materials.

E. Wood Substrates:

- 1. Remove loose and dusty material, and any paint that will be under the filler.. Spongy or cracked wood can be left in place.
- 2. Coarse sand and roughen deteriorated surfaces, and dust off.

3.3 APPLICATION

- A. Coat prepared wood with an epoxy resin consolidant by the same manufacturer as the wood filler. Once the entire surface of the wood has been coated in the consolidant, leave it for a few hours to cure fully before applying the filler.
- B. Mix epoxy paste according to manufacturer's instructions.
- C. Trowel on epoxy paste according to manufacturer's written instructions. Cover the filled wood while the epoxy is curing.
- D. After hardening, sand filled surface flush with adjacent wood. Wait at least 24 hours after hardening, and sand lightly before painting.
- E. Apply paints as indicated in DIVIION 9 Paint specification.

3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing epoxy wood filler application, clean spattered surfaces. Remove spattered filler by, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from filler 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.

END OF SECTION 06 50 00

SECTION 07 21 00 THERMAL INSULATION

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:
 - 1. Mineral-wool board insulation
 - 2. Fiberglass batt insulation
 - 3. Blown-in cellulose insulation

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.4 INFORMATIONAL SUBMITTALS

A. Product Test Reports: For each product, for tests performed by a qualified testing agency.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Protect insulation materials from physical damage and from deterioration due to moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.
- B. Protect foam-plastic board insulation as follows:
 - 1. Do not expose to sunlight except to necessary extent for period of installation and concealment.
 - 2. Protect against ignition at all times. Do not deliver foam-plastic board materials to Project site until just before installation time.
 - 3. Quickly complete installation and concealment of foam-plastic board insulation in each area of construction.

PART 2 - PRODUCTS

2.1 MINERAL WOOL RIGID BOARD INSULATION

A. Product: Thermafiber® FireSpan® 40 insulation or approved equal.

- B. Formaldehyde-Free (FF) Option.
- C. GREENGUARD Gold Certified.
- D. UL Validated Formaldehyde-Free.
- E. Declare Label is Living Building Challenge Red-list Approved.
- F. R-Value: 4.3 per inch.
- G. Facing: Foil-Faced.
- H. Density: 4.0 pcf (nominal).
- I. Surface Burning Characteristics: Tested in accordance with ASTM E84. Unfaced, maximum Flame Spread 0 and Smoke Developed 0; Foil-Faced, maximum Flame Spread 25 and Smoke Developed 0.
- J. Fiber Type: EPA Choice fiber; minimum 75% pre-consumer recycled content; complies with EPA Preference Program.
- K. Fiber Type: Standard fiber; 70% pre-consumer recycled content.
- L. Post-Consumer Recycled Content: 0%.
- M. UL® Certified Environmental Product Declaration (EPD) in accordance with ISO 14025.

2.2 MINERAL WOOL BATT INSULATION

- A. Product: Non-combustible, lightweight, semi-rigid mineral wool batt insulation to ASTM C655, Type 1.
- B. Non-combustible, lightweight, semi-rigid mineral wool batt insulation to ASTM C665, Type 1.
- C. R value/1 inch at 75 °F: 4.0 h ft2 °F/Btu.
- D. Basis of Design: ROCKWOOL COMFORTBAT®

2.3 BLOWN-IN CELLULOSE INSULATION

- A. Materials: Borate Treated Cellulose Insulation, GreenFiber or approved equal.
- B. Comply with 16 CFR Parts 460, 500, 1209 and 1404, ASTM C 1149-08, ASTM C 739-08, ASTM C 518-10, ASTM E 970-10, ASTM E 84-10, CAN / ULC S-102.2-10, CAN / ULC S-703-09 Type 1 and Type 2.
- C. Surface Burning Characteristics:
 - a. ASTM E 84-10: Flame spread <25, Smoke Developed Index <50
 - b. CAN / ULC S 102.2: Maximum Flame Spread 90.
- D. GreenFiber's insulation products, when used in fire-resistance rated wall assemblies, are allowed to increase the fire-resistance rating by fifteen (15) minutes per IBC 2012 Table 722.6.2(5) provided the cavity is completely filled with a minimum density of 2.6 pounds per cubic foot.
- E. Comply with all building code requirements for cellulose fiber thermal insulation. Provide ICC ESR1996 or CCMC Listings 12911-L and 13162-L as required.
- F. Comply with EPA 40 CFR Part 247.12.
- G. Comply with Scientific Certification Services (SCS) certification report SCS-MC-02055 for minimum 85% recycled content, with minimum 55% post-consumer and

- 30% pre-consumer. The remaining 15% is fire retardant chemical and stabilizing additives.
- H. No asbestos, mineral fibers, or formaldehyde to be used in the manufacturing process.

I. Thermal Performance:

- a. ASTM C 518-10, thermal performance varies with density and thickness. See the appropriate product coverage chart to calculate the R-value per inch if needed. All C 518-10 testing is done at a representative thickness of 4".
- b. CAN / ULC S-703-09, varies depending on whether the product is Type 1 open or closed, or Type 2 open or closed.

2.4 ACCESSORIES

- A. Insulation for Miscellaneous Voids:
 - 1. Spray Polyurethane Foam Insulation: ASTM C 1029, Type II, closed cell, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, per ASTM E 84.
- B. Adhesive for Bonding Insulation: Product compatible with insulation and air and water barrier materials, and with demonstrated capability to bond insulation securely to substrates without damaging insulation and substrates.
 - 1. Adhesives shall have a VOC content of 70 g/L or less.
 - 2. Adhesive shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

PART 3 - EXECUTION

3.1 PREPARATION

A. Clean substrates of substances that are harmful to insulation, including removing projections capable of puncturing insulation or vapor retarders, or that interfere with insulation attachment.

3.2 INSTALLATION, GENERAL

- A. Comply with insulation manufacturer's written instructions applicable to products and applications.
- B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.
- C. Extend insulation to envelop entire area to be insulated. Fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.

D. Provide sizes to fit applications and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units unless multiple layers are otherwise shown or required to make up total thickness or to achieve R-value.

3.3 INSTALLATION OF MINERAL WOOL RIGID BOARD INSULATION

- A. Install insulation in accordance with approved submittals, manufacturer's written recommendations and guidelines.
- B. Install insulation to maintain continuity of thermal protection to building elements and spaces.
- C. Comply with tested and listed systems.
- D. Install products in proper relationship with each other and adjacent construction, and as follows:
 - 1. Backer Reinforcement Members for Perimeter Fire Containment System:
 - 2. Installation on wood frame floor/wall:
 - a. Install insulation in accordance with manufacturer's instructions.
 - b. Fasten insulation in place with mechanical fasteners to wood studs and floor joists, spaced at intervals recommended by the UL® or Intertek® listed and tested assembly to hold insulation securely in place.
 - c. Provide mechanical fasteners as approved by architect and manufacturer.
 - d. Comply with specific listed and tested assemblies per ASTM E2307 for mechanical fastener requirements.
 - 3. Vapor Retarders:
 - a. Seal all seams in foil face of mineral wool board insulation with vapor retarder tape.
 - b. Application of vapor retarder must be directed by the architect or engineer of record.
 - c. For continuous vapor barrier, repair all tears in insulation foil-facing with vapor retarder tape.

3.3 INSTALLATION OF MINERAL WOOL BATT INSULATION

- A. Install insulation in accordance with manufacturer's written recommendations.
- B. Install insulation to maintain continuity of thermal protection to building elements and spaces.
- C. Do not compress insulation to fit into spaces.
- D. Fit insulation closely around electrical boxes, pipes, ducts, frames and other objects in or passing through insulation.
- E. Keep insulation minimum [3] inches from heat emitting devices such as recessed light fixtures, and minimum [2] inches from sidewalls of chimneys and vents.

F. Do not enclose insulation until before inspection and receipt of Consultant's written approval.

3.5 INSTALLATION OF BLOWN-IN CELLULOSE INSULATION

- A. Read, understand and comply with manufacturer's instructions for particular conditions of installation.
- B. Wear proper clothing and eye protection.
- C. For breathing protection, use a NIOSH approved N95 or higher disposable or reusable particulate respirator per 29 CFR 1910.134.
- D. The work shall be coordinated with other trades whose work may be affected by, or have an effect on, the installation.
- E. Spray-applied and Stabilized Insulation shall be installed with equipment specifically designed for its application.
- F. Drying time varies due to local climate conditions including temperature, humidity and the installed moisture. Do not cover the insulation until the insulation moisture levels, measured and documented after a minimum period of 24 hours from the time of installation, reach a moisture reading of 25% or less in accordance with manufacturer's Wall Spray Manual.
- G. Use hole saw to drill a series of 2" holes on the interior side of the existing exterior walls. Ensure that one hole is provided for each stud cavity.
- H. After installation of blown-in cellulose is completed, contractor to submit infrared photographs of exterior walls to confirm that insulation was installed throughout the exterior wall cavities. Contractor to inspect and fill any cavities that appear to be without insulation.
- I. After confirmation that blown-in insulation installation is completed, fill holes with wood plugs secured to adjacent wall services. Patch surface of hole with finish plaster and paint wall to match existing color.

3.6 PROTECTION

A. Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION 07 21 00 THERMAL INSULATION

SECTION 07 92 00

JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Silicone joint sealants.
 - 2. Urethane joint sealants.
 - 3. Acrylic Latex joint sealants.

1.2 PRECONSTRUCTION TESTING

A. Preconstruction Field-Adhesion Testing: Before installing sealants, field test their adhesion to Project joint substrates. Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.

1.3 SUBMITTALS

- A. Product Data: For each joint-sealant product indicated.
- B. Samples: For each kind and color of joint sealant required.
- C. Joint-Sealant Schedule: Include the following information:
 - 1. Joint-sealant application, joint location, and designation.
 - 2. Joint-sealant manufacturer and product name.
 - 3. Joint-sealant formulation.
 - 4. Joint-sealant color.
- D. Product test reports.
- E. Warranties.

1.4 QUALITY ASSURANCE

- A. Testing Agency Qualifications: Qualified according to ASTM C 1021 to conduct the testing indicated.
- B. Preinstallation Conference: Conduct conference at Project site.

1.5 WARRANTY

A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

- 1. Warranty Period: Two years from date of Substantial Completion.
- B. Special Manufacturer's Warranty: Manufacturer's standard form in which jointsealant manufacturer agrees to furnish joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.
 - 1. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. VOC Content of Interior Sealants: Provide sealants and sealant primers for use inside the weatherproofing system that comply with the following limits for VOC content when calculated according to 40 CFR 59, Part 59, Subpart D (EPA Method 24):
 - 1. Architectural Sealants: 250 g/L.
 - 2. Sealant Primers for Nonporous Substrates: 250 g/L.
 - 3. Sealant Primers for Porous Substrates: 775 g/L.
- B. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
 - Suitability for Immersion in Liquids. Where sealants are indicated for Use I for joints that will be continuously immersed in liquids, provide products that have undergone testing according to ASTM C 1247. Liquid used for testing sealants is deionized water, unless otherwise indicated.
- C. Stain-Test-Response Characteristics: Where sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
- D. Suitability for Contact with Food: Where sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.

2.2 SILICONE JOINT SEALANTS

- A. 100% Silicone Joint Sealant: ASTM C 920.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. BASF Building Systems.
 - b. Dow Corning Corporation.

- c. GE Advanced Materials Silicones.
- d. May National Associates, Inc.
- e. Pecora Corporation.
- f. Polymeric Systems, Inc.
- g. Schnee-Morehead, Inc.
- h. Sika Corporation; Construction Products Division.
- i. Tremco Incorporated.
- j. Or approved equal.
- 2. Type: Single component (S)
- 3. Grade: non-sag (NS).
- 4. Class: 25.
- 5. Uses Related to Exposure: Non-traffic (NT).
- 6. Use silicone sealant in locations exposed to low abrasion and with air contact for curing.

2.3 URETHANE (POLYURETHANE) JOINT SEALANTS

- A. Urethane Joint Sealant: ASTM C 920.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. BASF Building Systems.
 - b. Bostik, Inc.
 - c. Lymtal, International, Inc.
 - d. May National Associates, Inc.
 - e. Pacific Polymers International, Inc.
 - f. Pecora Corporation.
 - g. Polymeric Systems, Inc.
 - h. Schnee-Morehead. Inc.
 - i. Sika Corporation: Construction Products Division.
 - j. Tremco Incorporated.
 - k. Or approved equal.
 - 2. Type: Single component (S) or Multi-Component (M).
 - a. Single component urethane sealant may be used in exterior locations where "tacky until weathered" cure rate is acceptable.
 - b. Use multi-component urethane sealant in interior locations and where "tack-free" curing is desired in less than 24 hours.
 - 3. Grade: non-sag (NS).
 - 4. Class: 25.
 - 5. Uses Related to Exposure: Traffic (T).
 - 6. Use Urethane sealants in concrete joints and traffic areas. Ensure substrate is absolutely dry when installing urethane sealants.

2.4 LATEX JOINT SEALANTS

A. Latex Joint Sealant: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.

- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. BASF Building Systems.
 - b. Bostik, Inc.
 - c. May National Associates, Inc.
 - d. Pecora Corporation.
 - e. Schnee-Morehead, Inc.
 - f. Tremco Incorporated.
 - g. Or approved equal.
- 2. Use latex sealants or "Acrylic Latex Caulk Plus Silicone" as a filler to be painted over, for example between wood trim and drywall. Do not use latex sealants as a weather barrier, for example as an exterior sealant around doors and windows use silicone or polyurethane sealants in weather barrier locations.

2.5 JOINT SEALANT BACKING

- A. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin), Type O (open-cell material) or Type B (bicellular material with a surface skin), as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
- B. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer.

2.6 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials.
- C. Masking Tape: Non-staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions.
 - 1. Remove laitance and form-release agents from concrete.

- 2. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.2 INSTALLATION

- A. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- B. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 - 1. Do not leave gaps between ends of sealant backings.
 - 2. Do not stretch, twist, puncture, or tear sealant backings.
 - 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
 - 1. Place sealants so they directly contact and fully wet joint substrates.
 - 2. Completely fill recesses in each joint configuration.
 - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- E. Tooling of Non-sag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
 - 1. Remove excess sealant from surfaces adjacent to joints.

- 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
- 3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.
- F. Acoustical Sealant Installation: Comply with ASTM C 919 and with manufacturer's written recommendations.
- G. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.
- 3.3 FIELD QUALITY CONTROL
 - A. Not used
- 3.4 JOINT-SEALANT SCHEDULE
 - A. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal non-traffic surfaces.
 - 1. Joint Locations:
 - a. Control and expansion joints in unit masonry.
 - b. Joints between different materials listed above.
 - c. Perimeter joints between materials listed above and frames of doors windows and louvers.
 - d. Other joints as indicated.
 - 2. Joint Sealant: Silicone.
 - 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.

END OF SECTION

SECTION 08 91 18 FIXED LOUVERS

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

Provide all labor, materials, equipment, and services and perform all operations required for complete installation of fixed louvers work as shown on the drawings or specified herein to include but not necessarily limited to the following areas:

- A. Fixed extruded-aluminum louvers
- B. Blank-off panels for louvers

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. For louvers specified to bear AMCA seal, include printed catalog pages showing specified models with appropriate AMCA Certified Ratings Seals.
- C. Shop Drawings: For louvers and accessories. Include plans, elevations, sections, details, and attachments to other work. Show frame profiles and blade profiles, angles, and spacing.
 - 1. Show weep paths, gaskets, flashings, sealants, and other means of preventing water intrusion.
 - 2. Show frame and mullion profiles and locations.
- D. Sample card for each type and color of metal finish required.

1.4 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: Based on evaluation of comprehensive tests performed according to AMCA 500-L by a qualified testing agency or by manufacturer and witnessed by a qualified testing agency, for each type of louver and showing compliance with performance requirements specified.
- B. Windborne-debris-impact-resistance test reports.
- C. Sample Warranties: For manufacturer's special warranties.

1.5 QUALITY ASSURANCE

- A. Welding Qualifications: Qualify procedures and personnel according to the following:
 - 1. AWS D1.2/D1.2M.
 - 2. AWS D1.3/D1.3M.
 - 3. AWS D1.6/D1.6M.

1.7 FIELD CONDITIONS

A. Field Measurements: Verify actual dimensions of openings by field measurements before fabrication.

1.8 WARRANTY

- A. Special Finish Warranty: Manufacturer agrees to repair or replace components on which finishes fail in materials or workmanship within specified warranty period.
 - 1. Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain fixed louvers from single source from a single manufacturer where indicated to be of same type, design, or factory-applied color finish.

2.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Louvers shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated without permanent deformation of louver components, noise or metal fatigue caused by louver-blade rattle or flutter, or permanent damage to fasteners and anchors. Wind pressures shall be considered to act normal to the face of the building.
 - 1. Wind Loads: Determine loads based on pressures as indicated Basic Wind Velocity according to ASCE. ASCE/SEI 7-16.

- B. Windborne-Debris-Impact Resistance: Louvers located within 30 feet of grade shall pass basic protection, when tested according to AMCA 540.
- C. Louver Performance Ratings: Provide louvers complying with requirements specified, as demonstrated by testing manufacturer's stock units identical to those provided, except for length and width according to AMCA 500-L.
- D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.
 - 1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.
- E. SMACNA Standard: Comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" for fabrication, construction details, and installation procedures.

2.3 FIXED EXTRUDED-ALUMINUM LOUVERS

- A. Horizontal, Wind-Driven-Rain-Resistant Louver.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Airolite Company, LLC (The).
 - b. Construction Specialties, Inc.
 - c. Greenheck Fan Corporation.
 - d. Ruskin Company.
 - 2. Louver Depth: 4 inches or approved by submittal.
 - 3. Frame and Blade Nominal Thickness: Not less than 0.080 inch.
 - 4. Louver Performance Ratings:
 - a. Free Area: Not less than 6.0 sq. ft. for 48-inch- wide by 48-inch- high louver.
 - b. Air Performance: Not more than 0.10-inch wg static pressure drop at [600-fpm].
 - c. Wind-Driven Rain Performance: Not less than 99 percent effectiveness when subjected to a rainfall rate of 3 inches per hour and a wind speed of 29 mph at a core-area intake velocity of 500 fpm.
 - d. AMCA Seal: Mark units with AMCA Certified Ratings Seal.

2.4 LOUVER SCREENS

A. General: Provide screen at each exterior louver.

- 1. Screen Location for Fixed Louvers: Interior face.
- 2. Screening Type: Bird and insect screening.
- B. Secure screen frames to louver frames with stainless-steel machine screws, spaced a maximum of 6 inches from each corner and at 12 inches o.c.
- C. Louver Screen Frames: Fabricate with mitered corners to louver sizes indicated.
 - 1. Metal: Same type and form of metal as indicated for louver to which screens are attached. Reinforce extruded-aluminum screen frames at corners with clips.
 - 2. Finish: Powder coated, color to match window color.
 - 3. Type: Non-rewirable, U-shaped frames.
- D. Louver Screening for Aluminum Louvers:
 - 1. Manufacturer's standard bird and insect screening:

2.5 BLANK-OFF PANELS

- A. Insulated Blank-Off Panels: Laminated panels consisting of an insulating core surfaced on back and front with metal sheets and attached to back of louver.
 - 1. Thickness: 1 inch.
 - 2. Metal Facing Sheets: Aluminum sheet, not less than 0.032-inch nominal thickness.
 - 3. Insulating Core: Rigid, glass-fiber-board insulation or extruded-polystyrene foam.
 - 4. Edge Treatment: Trim perimeter edges of blank-off panels with louver manufacturer's standard extruded-aluminum-channel frames, not less than 0.080-inch nominal thickness, with corners mitered and with same finish as panels.
 - 5. Panel Finish: Same finish applied to louvers.
 - 6. Attach blank-off panels with sheet metal screws.

2.6 MATERIALS

- A. Aluminum Extrusions: ASTM B 221, Alloy 6063-T5, T-52, or T6.
- B. Aluminum Sheet: ASTM B 209, Alloy 3003 or 5005, with temper as required for forming, or as otherwise recommended by metal producer for required finish.
- C. Fasteners: Use types and sizes to suit unit installation conditions.

- 1. For fastening aluminum, use aluminum or 300 series stainless-steel fasteners.
- 2. For color-finished louvers, use fasteners with heads that match color of louvers.

2.7 FABRICATION

- A. Factory assemble louvers to minimize field splicing and assembly. Disassemble units as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.
- B. Maintain equal louver blade spacing to produce uniform appearance.
- C. Fabricate frames, including integral sills, to fit in openings of sizes indicated, with allowances made for fabrication and installation tolerances, adjoining material tolerances, and perimeter sealant joints.
- D. Include supports, anchorages, and accessories required for complete assembly.
- E. Provide subsills made of same material as louvers or extended sills for recessed louvers.

2.8 ALUMINUM FINISHES

- A. Finish louvers after assembly.
- B. High-Performance Organic Finish: Two-coat fluoropolymer finish complying with AAMA 2604 and containing not less than 50 percent PVDF resin by weight in color coat.Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
- C. Color and Gloss: As selected by Architect from manufacturer's full range

PART 3. EXECUTION

3.1 EXAMINATION

- A. Examine substrates and openings, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Coordinate setting drawings, diagrams, templates, instructions, and directions for installation of anchorages that are to be embedded in concrete or masonry construction. Coordinate delivery of such items to Project site.

3.3 INSTALLATION

- A. Locate and place louvers level, plumb, and at indicated alignment with adjacent work.
- B. Use concealed anchorages where possible. Provide brass or lead washers fitted to screws where required to protect metal surfaces and to make a weathertight connection.
- C. Form closely fitted joints with exposed connections accurately located and secured.
- D. Comply with Section 07 92 00 "Joint Sealants" for sealants applied during louver installation.

3.4 ADJUSTING AND CLEANING

- A. Clean exposed louver surfaces that are not protected by temporary covering, to remove fingerprints and soil during construction period. Do not let soil accumulate during construction period.
- B. Before final inspection, clean exposed surfaces with water and a mild soap or detergent not harmful to finishes. Thoroughly rinse surfaces and dry.
- C. Restore louvers damaged during installation and construction, so no evidence remains of corrective work. If results of restoration are unsuccessful, as determined by Architect, remove damaged units and replace with new units.
 - 1. Touch up minor abrasions in finishes with air-dried coating that matches color and gloss of, and is compatible with, factory-applied finish coating.

END OF SECTION 08 19 00

SECTION 08 73 00 WEATHERSTRIPPING

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

Provide all labor, materials, equipment, and services and perform all operations required for complete installation, replacement, and/or repair of all weather-stripping and thresholds and related work as shown on the drawings or specified herein to include but not necessarily limited to the following areas:

- A. Provide and install weather-stripping at building entry doors and other exterior doors, to include:
 - a. Spring bronze V-shape weatherstripping at sides and top of doors.
 - b. Door shoe at bottom of doors.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.4 DELIVERY, STORAGE AND HANDLING

A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage.

PART 2 - PRODUCTS

2.1 WEATHERSTRIPPING

A. Cushion/Spring Weatherstrip, 0.008 hemmed spring bronze, 1-1/8 inch width, Pemko 74 or approved equal.

2.2 DOOR SHOE

A. Vinyl door shoe, 1-3/8" wide, Pemko 209 or approved equal.

PART 3. EXECUTION

- A. Trim doors as required to provide sufficient expansion space during humid weather. Prime and paint any trimmed surfaces.
- B. Install weather-stripping and door shoes following manufacturer's recommendations.

- B. Do not mix aluminum and bronze weather-stripping materials. Installed weather-stripping shall be straight, true and without binding, bends, kinks or defects of any type.
- D. Doors shall operate freely, close and lock easily. Weather-stripping shall prevent infiltration of air from exterior and loss of conditioned air from interior.
- E. Install weatherstripping with bronze or brass nails at 3 inches on center.
- F. Remove excess materials off site.

END OF SECTION 08 73 00

SECTION 09 29 00 GYPSUM BOARD

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general prov1s1ons of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Related Specifications: Section 072100 "Thermal Insulation."

I.2 SUMMARY

- A. Section Includes:
 - 1. Interior gypsum board
- B. Related Requirements:

Structural plans for non-structural wood framing that supports gypsum board panels.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.4 DELIVERY, STORAGE AND HANDLING

A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.5 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written instructions, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, moisture damaged, and mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 GYPSUM BOARD, GENERAL

A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.2 INTERIOR GYPSUM BOARD

- A. Gypsum Wallboard: ASTM C 1396/C 1396M.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Georgia-Pacific Gypsum LLC.
 - b. National Gypsum Company.
 - c. USG Corporation.
 - 2. Thickness: 5/8 inch.
 - 3. Long Edges: Tapered.

2.3 TRIM ACCESSORIES Not Used

2.4 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C 475/C 475M.
- B. Joint Tape:
 - 1. Interior Gypsum Board: Paper.
- C. Joint Compound for Interior Gypsum Board: For each coat, use formulation that is compatible with other compounds applied on previous or for successive coats.
 - 1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.
 - 2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound.
 - a. Use setting-type compound for installing paper-faced metal trim accessories.
 - 3. Fill Coat: For second coat, use drying-type, all-purpose compound.
 - 4. Finish Coat: For third coat, use drying-type, all-purpose compound.

2.7 AUXILIARY MATERIALS

- A General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written instructions.
- B. Steel Drill Screws: ASTM C 1002 unless otherwise indicated.
 - 1. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch thick.

- 2. For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer.
- C. Thermal Insulation: As specified in Section 072100 "Thermal Insulation."

PART 3 – EXECUTION

3.1. EXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and support framing, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C 840.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- E. Form control and expansion joints with space between edges of adjoining gypsum panels.
- F. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
 - 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.
 - 2. Fit gypsum panels around ducts, pipes, and conduits.
 - 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch- wide joints to install sealant.

- G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments. Provide 1/4- to 1/2-inch- wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.
- Wood Framing: Install gypsum panels over wood framing, with floating internal corner construction. Do not attach gypsum panels across the flat grain of wide-dimension lumber, including floor joists and headers. Float gypsum panels over these members or provide control joints to counteract wood shrinkage.
- J. STC-Rated Assemblies: Seal construction at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with ASTM C 919 and with manufacturer's written instructions for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.
- K. Install sound attenuation blankets before installing gypsum panels unless blankets are readily installed after panels have been installed on one side. 3. Before installation, verify that sign surfaces are clean and free of materials or debris that would impair installation.

3.3 APPLYING INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
 - 1. Wallboard Type: Vertical surfaces where indicated.
 - 2. Type X: Not Used.
 - 3. Ceiling Type: Not Used.
 - 4. Mold-Resistant Type: Not used.
- B. Single-Layer Application:
 - On partitions/walls, apply gypsum panels vertically (parallel to framing) unless otherwise indicated or required by fire-resistance-rated assembly, and minimize end joints.
 - a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
 - b. At stairwells and other high walls, install panels horizontally unless otherwise indicated or required by fire-resistance-rated assembly.
 - 3. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

C. Multilayer Application: Not Used

- On partitions/walls, apply gypsum board indicated for base layers and face layers vertically (parallel to framing) with joints of base layers located over stud or furring member and face-layer joints offset at least one stud or furring member with base-layer joints unless otherwise indicated or required by fire-resistance-rated assembly. Stagger joints on opposite sides of partitions.
- 2. Fastening Methods: Fasten base layers and face layers separately to supports with screws.
- D. Laminating to Substrate: Where gypsum panels are indicated as directly adhered to a substrate (other than studs, joists, furring members, or base layer of gypsum board), comply with gypsum board manufacturer's written instructions and temporarily brace or fasten gypsum panels until fastening adhesive has set.

3.5 INSTALLING TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- B. Control Joints: Install control joints according to ASTM C 840 and in specific locations approved by Architect for visual effect.
- C. Interior Trim: Install in the following locations:
 - 1. Cornerbead: Use at outside corners.
 - 2. LC-Bead: Use at exposed panel edges.

3.6 FINISHING GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints, rounded or beveled edges, and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:
 - 1. Level 1: Not Used.
 - 2. Level 2: Not Used.
 - 3. Level 4: At panel surfaces that will be exposed to view unless otherwise indicated.

3.7 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 09 29 00

SECTION 09 91 23 PAINTING & COATINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general prov1s1ons of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

I.2 SUMMARY

A. Section Includes:

- 1. Exterior trim, including shutters and handrails.
- 2. Interior trim, including new baseboards
- 3. Interior walls
- 4. Interior ceilings

B. Related Requirements:

- 1. Division 6 WOOD Architectural Millwork
- 2. Division 9 FINISHES Drywall
- 3. Lead based paint was noted in a report by Air, Land and Water Engineering, Inc. dated April 19, 2019.

1.3 DEFINITIONS

- A. MPI Gloss Level 1: Not more than five units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
- B. MPI Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees according to ASTM D 523.
- C. MPI Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- D. MPI Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
- E. MPI Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.
- F. MPI Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.
- G. MPI Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
 - 1. Include Printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.

- 2. Indicate VOC content.
- B. Samples for Verification: For each type of paint system and in each color and gloss of topcoat.
 - 1. Submit Samples on rigid backing, 8 inches square.
 - 2. Apply coats on Samples in steps to show each coat required for system.
 - 3. Label each coat of each Sample.
 - 4. Label each Sample for location and application area.
- D. Product List: Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings. Include color designations.

1.5 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: 5 percent, but not less than 1 gal. of each material and color applied.

1.6 QUALITY ASSURANCE

- A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Architect will select one surface to represent surfaces and conditions for application of each paint system.
 - a. Vertical and Horizontal Gypsum Board Surfaces: Provide samples of at least 4 sq. ft.
 - b. Other Items: Architect will designate items or areas required.
 - 2. Final approval of color selections will be based on mockups.
 - a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.
 - 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.
- B. Title X Requirement: Each firm conducting activities that disturb painted surfaces shall be a "Lead-Safe Certified Firm" according to 40 CFR 745, Subpart E, and use only workers that are trained in lead-safe work practices.
- 1.7 DELIVERY, STORAGE, AND HANDLING

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

1.8 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Benjamin Moore & Co.
 - 2. Glidden Professional.
 - 3. PPG Paints.
 - 4. Sherwin-Williams Company (The).
- B. Products: Subject to compliance with requirements, provide one of the products listed for the paint category indicated.

2.2 PAINT, GENERAL

- A. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products Lists."
- B. Material Compatibility:
 - 1. Materials for use within each paint system shall 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 shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.
- C. 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:
 - 1. Flat Paints and Coatings: 50 g/L.
 - 2. Nonflat Paints and Coatings: 50 g/L.
 - 3. Dry-Fog Coatings: 150 g/L.

- 4. Primers, Sealers, and Undercoaters: 100 g/L.
- 5. Rust-Preventive Coatings: 100 g/L.
- 6. Zinc-Rich Industrial Maintenance Primers: 100 g/L.
- 7. Pretreatment Wash Primers: 420 g/L.
- 8. Shellacs, Clear: 730 g/L.
- 9. Shellacs, Pigmented: 550 g/L.
- D. Low-Emitting Materials: For field applications that are inside the weatherproofing system, 90 percent of paints and coatings shall comply with the requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."
- E. Colors: As indicated on drawings.

2.3 SOURCE QUALITY CONTROL

- A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:
 - A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:
 - 1. Owner will engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.
 - 2. Testing agency will perform tests for compliance with product requirements.
 - 3. Owner may direct Contractor to stop applying paints if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

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

1. Concrete: 12 percent.

2. Wood: 15 percent.

3. Gypsum Board: 12 percent.

4. Plaster: 12 percent.

- C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.
- D. Verify suitability of substrates, including surface conditions and compatibility, with existing finishes and primers.
- F. Proceed with coating application only after unsatisfactory conditions have been corrected.
 - 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems 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.
 - 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. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted 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 7/NACE No. 4.
- F. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and areas where shop paint is abraded. Paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- G. Wood Substrates:

- 1. Sand surfaces that will be exposed to view, and dust off.
- 2. Prime edges, ends, undersides, and backsides of wood not exposed to view.
- 3. Apply two coats of varnish to exposed surfaces. Stir thoroughly prior to and during use. Do not shake or thin. Using a high quality nylon brush, dip approximately an inch into the can, gently tapping it against the inside to remove any excess. Apply a thin, even coat following the direction of the grain making sure to maintain a wet edge. Minimize the brush marks and bubbles after application by topping off the surface by holding the brush at a 45 degree angle and lightly run the bristles over the entire length of the wood.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."
 - 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, except for electrical panels.
 - 4. Do not paint over labels of independent testing agencies or equipment name identification, performance rating, or nomenclature plates.
 - 5. Primers 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.
- E. Painting Fire Suppression, Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work: Not Used.
 - 1. Paint the following work where exposed in office space, classrooms, break room::
 - a. Uninsulated metal piping.
 - b. Uninsulated plastic piping.
 - c. Pipe hangers and supports.

- d. Metal conduit.
- e. Plastic conduit.
- f. Tanks that do not have factory-applied final finishes.
- g. Other items as directed by Architect.
- 2. Do NOT paint the following work where exposed in vocational labs and corridors:
 - a. Equipment, including panelboards.
 - b. Uninsulated metal piping.
 - c. Uninsulated plastic piping.
 - d. Pipe hangers and supports.
 - e. Metal conduit.
 - f. Plastic conduit.
 - g. Ducts and HVAC equipment.
- 3. Do not paint portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets that are visible from occupied spaces.

3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
 - 1. Contractor shall touch up and restore painted surfaces damaged by testing.
 - 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

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

3.6 INTERIOR PAINTING

A. As indicated on drawings.

END OF SECTION 09 91 23 PAINTING & COATINGS

MARYLAND HISTORICAL TRUST

Larry Hogan, Governor Boyd Rutherford, Lt. Governor Robert S. McCord, Secretary Sandy Schrader, Deputy Secretary

Historic Preservation Easement Program Change/Alteration Request Application

This form is intended to be used by Maryland Historical Trust (MHT) Easement Property Owners and/or the Authorized Project Contact to initiate review of projects which require approval of the Director of the MHT as per the Deed of Easement. All Change/Alteration Request Applications must be submitted along with pertinent supplemental information in <a href="https://hardle.com/hardle

Return the Change/Alteration Request Application, and other information to:
Casey DeHaven, Administrator, Historic Preservation Easement
Program Maryland Historical Trust, 100 Community Place, Crownsville,
MD 21032

 $(410)\ 697\text{-}9545/casey. dehaven@maryland.gov$

Name of Easement Property:

Name of Easement Property:		Dr. William Waters Property							
Alternative Name:		Pleasant Fields							
Address of Property:			12535 Mile	estone I	Manor La	ne			
			Germantow	/n			County:	Montg	gomery
Maryland Inventory of Histori	c Places	# (if kno	own):		1	M-19-1			
(for more information visit									

Historic Preservation Easement Program Change/Alteration Request Application, Page 2 Updated January 23, 2019

Project Funding Information:	
Is this project being funded by any of the	MHT Capital Grant (FY)
following sources?	MHT Loan
	MHAA Capital Grant (FY)
	AAHPP Grant (FY)
Please check all that apply:	Historic Tax Credits (Residential Commercial)
	Bond Bill (Chapter /Year)
	Other State/Federal Funding
	Other Funding Mty County CIP
	<u> </u>
Please check that you have included the	he following information as part of your complete application:
Required:	As Necessary (Recommended):
X Change/Alteration Request	X Site Plan/Drawings/Plans (dated 4.10.23)
X Application Detailed Work Description	
	peled/identified
<u> </u>	
The Easement Property Owner and/or the	e Authorized Proposal Contact is encouraged to keep a duplicated
	the MHT, including photos and plans, as the MHT staff may need
	ant prior to submission to the Easement Committee.
11	- -
	$=i$ π
Signature of Owner or Authorized Repres	sentative/Date: FMT

<u>Detailed Work Description Form</u>

(Include all construction, reconstruction, improvement, enlargement, painting and decorating, alteration, demolition, maintenance or repair, and excavation)

Work Item # 1

Architectural/Landscape feature: Rear Porch Floor	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: Although the stone piers supporting the porch appear to be original from 1797, the wood porch framing, flooring and columns are late 20 th c. or early 21 st c.	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 01A, 01B	Drawing no. A101
Five fir floorboards and edge trim below the corner 4 x 4 column are severely rotted; the stair treads are worn and cracked.	The full length of rotted flooring and trim will be replaced to match the existing with naturally rot resistant wood of same size, shape and profile a the existing. The new floorboards and trim will be painted to match the existing porch floor.	

Work Item # 2

Architectural/Landscape feature: Rear Deck Floorboards	Describe, in detail, the proposed work and impact on existing feature:		
Approximate date of feature: 1994	Be sure to include details and specifications or proposed products		
Describe existing feature and its condition:	Photo no. 02A, 02B Drawing no. A101		
In the 1994 rear deck addition there are small areas of rot at approximately 20 wood floorboards and severe floorboard rot at five floorboards below one railing post.	The small rotted areas will be cut out and patched with epoxy wood filler. The railing post will be disconnected, the severely rotted flooring will be replaced to match the existing with naturally rot resistant wood of same size, shape and profile as the existing, and the post reconnected. The new floorboards will be painted to match the existing deck.		

Architectural/Landscape feature: Wood	Describe, in detail, the proposed	work and	
Clapboards	impact on existing feature:		
Approximate date of feature: 19 th c.	Be sure to include details and specifications on		
	proposed products		
Describe existing feature and its condition:	Photo nos. 03A, Drawing no. A2	202, A203	
	03B, 03C		
Clapboards at the bottom of the east elevation of the	The partially deteriorated areas of clapboards at the		
1890's block and the bottom of the north porch	electric meter will be cut out and pa	tched with epoxy	
enclosure at the 1797 block are severely deteriorated	wood filler. The severely deteriorate	ed clapboards	
by dry rot. Two clapboards at the top of the electric	will be replaced to match the existing with naturally		
meter on the east elevation of the 1890's block are	rot resistant wood of same size, sha	ape and profile	
partially deteriorated.	as the existing.		

Architectural/Landscape feature: Porch Railing	Describe, in detail, the proposed work and impact on existing feature:		
Approximate date of feature: 1994	Be sure to include details and specifications on proposed products		
Describe existing feature and its condition: The east side railing of the 1797 block front porch steps is severely deteriorated.	Photo no. 04 Drawing no. A101 The railing will be replaced with naturally rot resistant wood top and bottom rails and square balusters matching the existing in size, shape and profile. Connectors will be galvanized steel.		

Work Item #5

Architectural/Landscape feature: Wood Louver	Describe, in detail, the proposed work and impact on existing feature:		
Approximate date of feature: 19 th c.	Be sure to include details and specifications on proposed products		
Describe existing feature and its condition:	Photo no. 05	Drawing no. A200	
The wood louver in the front basement opening has two broken slats.	The louver will be removed, new slats installed to match the existing size and profile, and the louver reinstalled.		

Work Item #6

Architectural/Landscape feature: Window Shutters	Describe, in detail, the proposed work and impact on existing feature:		
Approximate date of feature: 20 th c.	Be sure to include details and specifications on proposed products		
Describe existing feature and its condition:	Photo no. 06A, 06B, 06C Drawing no. A200		
The wood louvered shutters have cast-iron pintle hinges and fasters, and hinges. The shutters are in poor condition and falling off the building.	The hardware will be salvaged, stripped, painted and reinstalled on new naturally rot resistant woo shutters matching the existing in size, shape, profund construction method.		

Architectural/Landscape feature: Stone foundations	Describe, in detail, the proposed work and impact on existing feature:		
Approximate date of feature: 1797	Be sure to include details and specifications on proposed products		
Describe existing feature and its condition:	Photo no. 7A, 7B, 7C	Drawing no. A100, A201	
Although the foundations are in generally good condition, there are voids at two locations in the 1797 block due to missing stones and mortar is missing at some locations.	Mortar analysis will be performed. New stones matching the existing will be installed and limited repointing with mortar matching the original will be performed.		

Architectural/Landscape feature: Basement firebox brick	Describe, in detail, the proposed work and impact on existing feature:		
Approximate date of feature: 1797	Be sure to include details and specifications on proposed products		
Describe existing feature and its condition:	Photo no. 08 Drawing no. A100		
Some bricks are severely deteriorated inside the firebox in basement Room 005 of the 1797 block.	Mortar analysis will be performed. New bricks matching the existing size, shape, color and texture will be installed and limited repointing with mortar matching the original will be performed.		

Work Item # 9

Architectural/Landscape feature: Basement firebox lintel	Describe, in detail, the proposed work and impact on existing feature:		
		e sure to include details and specifications on oposed products	
Describe existing feature and its condition:	Photo no . 09A, 09B	Drawing no. A100, S100, S302	
The brickwork above the firebox opening in the 1797 block Room 005 is supported by two wrought iron bars which have corroded and sagged.	The existing iron bars will be replaced by a steel angle. Some bricks above the lintels will be salvaged and reinstalled. Mortar analysis will be performed and the new mortar will match the original composition, color and tooling. The front edge of the new angle will be exposed to match existing condition.		

Architectural/Landscape feature: Stair to Basement	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: 1797	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 10 Drawing no. A300, S301	
The wood winder stair connects the first floor Room 106 to the original 1797 basement. The winder treads slope downwards because the bottoms of their supporting posts have rotted away. The straight lower flight has sagged down 2" because it became disconnected at the top. The bottom of the lower flight rests on a non-contributing modern wood box set on dirt that is a tripping hazard.	The work will repair the original wood stair in its current location. The lower, straight flight will be salvaged and temporarily stored in the basement and modern blocking removed. The upper winder flight and posts will be shored and jacked into their original position. The rotten bottoms of the posts will be cut off and replaced with metal connectors. A concrete slab-on-grade foundation will be cast to support the posts and the lower flight of stairs, then the lower flight reinstalled.	

Architectural/Landscape feature: Basement column repair	Describe, in detail, the proposed work and impact on existing feature:		
Approximate date of feature: 1994	Be sure to include details and specifications on proposed products		
Describe existing feature and its condition:	Photo no. 11A, 11B	Drawing no. S100, S303	
The wood 6x6 column at the south wall of Room 002 is not centered under the girder end above and is providing inadequate support.	An additional wood 6x6 will be bolted to the existi column.		

Work Item #12

Architectural/Landscape feature: Stone foundation wall	Describe, in detail, the proposed work and impact on existing feature:		
Approximate date of feature: c. 1890	Be sure to include details and specifications or proposed products		
Describe existing feature and its condition:	Photo no. 12 Drawing no. S100, S304		
A portion of the first-floor framing above Room 002 is insufficiently supported by a partially collapsed stone wall on the west side.	The collapsed portion of the stone wall will be rebuil using original stones in the basement and be supported on new concrete foundations. Lower strength Type N mortar will be used.		

Work Item #13

Architectural/Landscape feature: First Floor Insulation Approximate date of feature: 1797-19 th c.	Describe, in detail, the proposed work and impact on existing feature: Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 13 Drawing no. A101	
There is no thermal insulation below the first floor, which is above unconditioned basement spaces.	Fiberglass batt insulation will be installed between all first-floor joists, 1-1/2" thermal mineral-wool board insulation will be attached to the bottom of the joists.	

Architectural/Landscape feature: Insulation for Wood Frame Perimeter Walls	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: 19 th c.	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 14	
The wood braced-frame perimeter walls of the 1890's block at floors 1 and 2 have no insulation, creating severe radiant and convective energy losses and discomfort.		

Architectural/Landscape feature: Furred Insulation Walls	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: pre-1857	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 15 Drawing no. A102	
The brick exterior walls on the west side of the second-floor middle section (Rooms 206 & 209) have no insulation, creating severe energy losses and discomfort.	Furred walls with 2x4 framing will be installed in front of the existing west walls and baseboards. Before the drywall finish is installed, borate treated chopped cellulose will be blown into the walls from the interior. The framing will be covered with drywall and new baseboard matching the original will be installed. The walls and baseboards of the two rooms will be painted to match the existing walls and trim.	

Work Item #16

Architectural/Landscape feature: Attic Wall Insulation	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: c. 1890	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 16 Drawing no.	
The attic walls surrounding third floor rooms are open on the back side and have inadequate and damaged insulation, resulting in high energy loss and poor temperature control inside.	- J	

Architectural/Landscape feature: Attic Floor and Ceiling Insulation	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: c. 1890	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 17 Drawing no. A103	
The attic floors in Rooms 301, 303, 305, 307 and 309 are uninsulated and the ceilings above Rooms 302, 304, 306 and 308 have inadequate or damaged insualtion, resulting in high energy loss and poor temperature control in the rooms below		

Architectural/Landscape feature: Access Doors	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: 19 th c.	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no.	Drawing no. A103
There are two attic spaces, Rooms 303 and 305, at the third-floor level of the 1890's block which have no access.	A 24-inch wide by 36-inch high fire-rated steel	

Work Item #18

Architectural/Landscape feature: Rear Service Stair	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: c. 1890	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 18 Drawing no. A301	
The rear winder stair between the second and third floors of the 1890's block does not have a continuous handrail.	A new 1-1/2" round oak handrail supported by brass-plated wall brackets will be installed and finished with semi-gloss polyurethane varnish.	

Work Item #19

Architectural/Landscape feature: Main Stair Newel Post	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: c. 1890	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 19	Drawing no. S101, S305
The large newel post at the base of the stair balustrade is not securely attached.	2x blocking will be added around the base of the newel post protruding below the first-floor flooring, and the post attached with screws.	

Architectural/Landscape feature: Main Stair Railing	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: c. 1890	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 20 Drawing no. S306	
The balustrade of the main stair of the 1890's block is unstable at the second-floor level where the balustrade makes a U-turn at the bottom of the flight up to the third floor.	Option 1: Provide steel cable X-bracing where the balustrade makes a U-turn at the bottom of the flight up to the third floor with small plates screwed to underside of top-rail and top of baserail, or Option 2: Open the ceiling below the U-turn and install blocking and plates to anchor the balustrade; repair and paint the ceiling.	

Architectural/Landscape feature: Toilet Room Locksets	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: c. 1890, 1994	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 21A, 21B Drawing no. A101, A102	
Toilet room 105 has a surface mounted cast-iron box lock. Room 106 and bathroom 204 have cylindrical knob locksets. None of these locksets have a functioning privacy feature.	A slide bolt will be installed above the box lock in 105. The locksets in 106 and 204 will be replaced with lever style locksets, which will provide an ADA lockset with privacy lock at both occupied floors.	

Architectural/Landscape feature: Louver in Window	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: pre-1857	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 23	Drawing no. A201
The existing double-hung wood window in Attic 301 is in good condition and cannot be seen from ground level.	Code requires a fresh air intake be added for the two HVAC systems in Attic room 301. Rather than cut a hole in the slate roof or the west elevation wood siding, the lower window sash will be removed and stored, and a metal intake louver sized to fit the area of the removed window sash will be installed and painted to match the existing window.	



1A. Deteriorated floorboards and edge trim at porch corner.



1B. Worn and cracked stair treads at north porch.



2. Deteriorating floorboards below north deck railing post.



3A. Deteriorated clapboards at east facade.



3B. Deteriorated clapboards at bottom of east facade.



3C. Deteriorated clapboard at 1797 block north (rear) facade.



4. Deteriorated east side railing at 1797 block south (Front) porch



5. Broken wood louver at north (front) basement opening.



6A. Damaged shutters on 1890's block south (front) facade.



6B. Existing front shutter pintle hinge.



6C. Mortise-and-tenon joint with wood pegs of existing shutter.



7A. Missing stone and deteriorated mortar joints at 1797 block south basement entry wall.



7B. Missing stone at 1797 block north (rear) porch pier.



7C. Deteriorated mortar joints at 1797 block south basement entry wall.



8. Deteriorated brick in 1797 block basement firebox.



9A. 1797 block fireplace.



9B. Corroded and sagging wrought iron bars at basement firebox.



10. Wood winder stair at 1797 block basement.



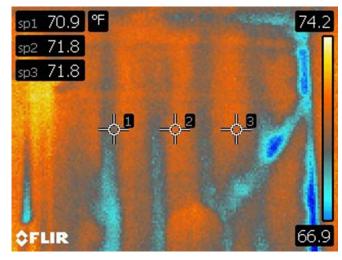
11A. Wood 6x6 column at 1890's block basement south wall.



13. 1797 block log ceiling joists with no thermal insulation between joist.



11B. Incorrectly centered 6x6 wood column and girder at 1890's block basement south wall.



14. Exterior wall infrared image showing hollow stud cavities (orange color).



12. Partially collapsed stone wall at 1890's block basement west wall.



15. West wall of Room 209.



16. Missing floor and wall insulation in Room 307.



17. Uninsulated floor in Room 301.



19. Rear winder stair at Room 205 of 1890's block.



20. Newel post and pin below 1890's block 1st floor finished floor.



21. Unstable balustrade at 2nd floor level of 1890's block.

Encore Sustainable Architects



22A. Surface mounted cast-iron box lock at Room 105 door.



22B. Cylindrical knob lockset at Room 106.



23. Window at pre-1857 section attic.

Detailed Work Description Form

(Include all construction, reconstruction, improvement, enlargement, painting and decorating, alteration, demolition, maintenance or repair, and excavation)

Work Item # 23

Architectural/Landscape feature: 1797 Block and 1890s Block - Front Porch Column Bases Approximate date of feature: The wood porch framing, flooring and columns are late 20 th c. or early 21 st c.	Describe, in detail, the proposed work and impact on existing feature: Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 23-1,2,3	Drawing no. A101, Illustration A
The column bases (at free-standing locations at the front edge of the porch deck) are beginning to rot due to water infiltration that is not drying out properly.	·	

WORK Item # 24	1		
Architectural/Landscape feature: 1st Floor, Front	Describe, in detail, the proposed work and		
Door Hinges	impact on existing feature:		
Approximate date of feature: Mid-19 th C.	Be sure to include details and specifications on proposed products		
Describe existing feature and its condition:	Photo no. 24-	Drawing no. A101	
•	1,2,3		
The main door at the south elevation is a step up from the porch floor. A decorative trim surrounds the pair of doors and two-lite transom. The doors have a single panel with raised trim and a single pane of glass above. The active leaf of the door has a mortise lock with a knob.	The original hinges, as shown in the photos, were larger than the existing ones and likely made of cast-iron. Larger solid-brass, rectangular butt hinges are recommended as replacement hinges because we don't know what the originals looked like. The original screw holes will be filled so the new screws will grip the jambs.		
The door hinges are solid brass (Meant for light weight doors) holding up solid wood/glass doors. It has caused the hinges to mushroom out and separate/space apart.	J		

Architectural/Landscape feature: 1st Floor, Rear Door Hinges	Describe, in detail, the proposed work and impact on existing feature:	
Approximate date of feature: Mid-19 th C.	Be sure to include details and specifications on proposed products	
Describe existing feature and its condition:	Photo no. 25-1,2,3	Drawing no. A101
The rear exterior doors are typically single-leaf paneled doors with a transom. Possibly replaced with the 1990s renovation and non-contributing. This door opens onto the deck. It has cabinet hinges holding up the door. They are not rated for door use and are quite small. You can see that there were two other sets of hinges on the frame at one point or another in time.	The original hinges, as shown in the photos, were larger than the existing ones and likely made of cast-iron. Larger solid-brass, rectangular butt hinges are recommended as replacement hinges because we don't know what the originals looked like. The original screw holes will be filled so the new screws will grip the jambs.	

Architectural/Landscape feature: 2 nd Floor, Rear Deck Door Repair	Describe, in detail, the proposed work and impact on existing feature:		
Approximate date of feature: Unknown. Non-contributing.	Be sure to include details and specifications on proposed products		
Describe existing feature and its condition:	Photo no. 26-1,2,3	Drawing no. A101	
The rear exterior doors are typically single-leaf paneled doors with a transom. Possibly replaced with the 1990s renovation and non-contributing.	Patch with wood	consolidating material and paint.	
Rotting is occurring at mid-point of door. Approximately 4-in long x ¾-in deep.			

PHOTOGRAPHS:



Photo 23-1: 1797 Block 3 Free-standing columns



Photo 23-2: 1890s Block 4 Free-standing columns



Photo 23-3: 1797 Block Proposed Vent Locations

Approximate location vents, top and bottom of column



24-1 1890's Block, Front Door



Photo 24-2: 1890s Block, Front Door Hinge



Photo 24-3: 1890s Block, Front Door Hinge

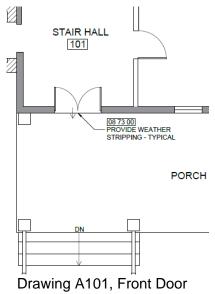




Photo 25-1 1850s Block, Rear Door

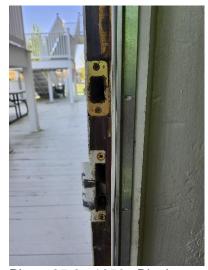


Photo 25-2: 1850s Block Door Jamb, Adjacent Rm 106



Photo 25-3: 1850s Block Hinge

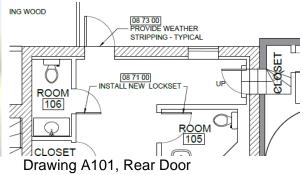
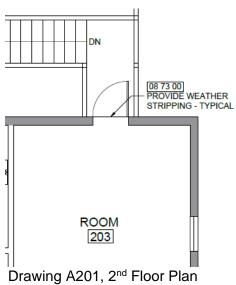




Photo 26-1 1890s 2nd Floor Rear Door



PLEASE Do NOT OPEN

Photo 26-2: 1890s Block Rear Door, Rm. 203



Photo 26-3: 1890s Block Rear Door, Rm. 203