

PROJECT MANUAL
Pricing Set

November 7, 2025

Exterior Rehabilitation of the St. Augustine
Light Station Keepers' House

81 Lighthouse Avenue
St. Augustine, Florida

FOR

St. Augustine Lighthouse and
Maritime Museum

SARAH RYAN ARCHITECT, LLC
201 Owens Avenue
St. Augustine, Florida 32080
904-547-9430

**SECTION 000110
TABLE OF CONTENTS**

1.01 DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS

- A. 000102 - Project Information
- B. 000110 - Table of Contents
- C. 012500 - Substitution Procedures

SPECIFICATIONS

2.01 DIVISION 01 - GENERAL REQUIREMENTS

- A. 013000 - Administrative Requirements
- B. 014000 - Quality Requirements
- C. 015000 - Temporary Construction and Facilities
- D. 016000 - Product Requirements
- E. 017000 - Selective Demolition

2.02 DIVISION 03 - CONCRETE

- A. 033000 - Cast-in-Place Concrete

2.03 DIVISION 04 - MASONRY

- A. 042000 - Unit Masonry
- B. 042500 - Masonry repair and repointing

2.04 DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

- A. 061000 - Rough Carpentry
- B. 062000 - Finish Carpentry

2.05 DIVISION 07 - THERMAL AND MOISTURE PROTECTION

- A. 071400 - Fluid-Applied Waterproofing
- B. 076200 - Sheet Metal Flashing and Trim
- C. 079200 - Joint Sealants

2.06 DIVISION 08 - OPENINGS

- A. 081000 - Wood Entry Doors
- B. 085400 - Double Hung Window

2.07 DIVISION 09 - FINISHES

- A. 096429 - Wood Strip and Plank Flooring
- B. 099000 - Painting and Coating
- C. 102000 - Lighting

END OF SECTION

**SECTION 000102
PROJECT INFORMATION**

PART 1 GENERAL

1.01 PROJECT IDENTIFICATION

- A. Project Name: Lighthouse Keepers House Exterior Rehabilitation
81 Lighthouse Avenue
St. Augustine, Florida 32080.
- B. Architect's Project Number: 2509.00
- C. The Owner, hereinafter referred to as Owner: St. Augustine Lighthouse & Maritime Museum
- D. Owner's Project Manager:
Jason Titcomb, Executive Director
Lee Capitano, Director of Sales and Administration
81 Lighthouse Avenue
St. Augustine, Florida 32080
904.829.0745
jasontitcomb@staugustinelighthouse.org
lcapitano@staugustinelighthouse.org
- E. Architect:
Sarah Ryan Architect, LLC
201 Owens Avenue
St. Augustine, Florida 32080
904.547.9430
mm@sarahryanarchitect.com

1.02 PROJECT DESCRIPTION

- A. Summary Project Description:
1. Openings
 - a. Removal and replacement of all windows
 - b. Removal and replacement of door slabs
 - c. Replacement of all door hardware
 - d. Repair of door frames
 - e. Repair of door and window trim
 2. Brick
 - a. Limited repointing
 - b. Limited brick replacement
 - c. Limited cleaning of existing masonry
 3. Porches
 - a. Removal and replacement of wood flooring
 - b. Removal and replacement of compromised wood structural members
 - c. Exposing and potential replacement of steel connecting bolts
 4. Stairways
 - a. Removal and replacement of certain stringers
 - b. Replacement of stair treads
 - c. Rehabilitation of steel supports
 - d. Improvement of mid-span stringer supports
 5. Railings
 - a. Removal and replacement of railing components
 - b. Repair of railing posts to remain
 - c. Replacement of certain metal railing elements

6. New enclosures under porches
 - a. New lattice and wood frame
 - b. New section of brick and concrete sill under lattice
7. Roof edge improvements
 - a. Addition of historical roof edge elements
 - b. Copper flashing
8. Lighting
 - a. Removal of all existing exterior lighting fixtures
 - b. Installation of period-correct lighting fixtures
 - c. New emergency egress lighting
9. Miscellaneous repair and restoration items including, but not limited to, the following:
 - a. Wood trim and detail restoration
 - b. Repointing and repair of brick chimney caps
 - c. Small landscaping elements including white gravel under porches
 - d. Porch ceiling repair
 - e. Handicapped ramp replacement
 - f. Trim under porch flooring edges
10. Construction period management
 - a. Erection and removal of barriers to protect the public
 - b. Site cleaning and restoration at the close of each work area
 - c. Employee and subcontractor management

1.03 PROCUREMENT TIMETABLE

- A. The Owner reserves the right to change the schedule or terminate the entire procurement process at any time.
- B. A preliminary bid set or documents will be available November 10, 2025
- C. Pricing Proposals will be due by December 8, 2025
- D. The Owner anticipates construction start January 2026

1.04 PROCUREMENT DOCUMENTS

- A. Availability of Documents: Complete sets of procurement documents may be obtained from the Architect.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

**SECTION 012500
SUBSTITUTION PROCEDURES**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Procedural requirements for proposed substitutions.

1.02 RELATED REQUIREMENTS

- A. Section 013000 - Administrative Requirements: Submittal procedures, coordination.

1.03 DEFINITIONS

- A. Substitutions: Changes from Contract Documents requirements proposed by Contractor to materials, products, assemblies, and equipment.
 - 1. Substitutions for Cause: Proposed due to changed Project circumstances beyond Contractor's control.
 - a. Unavailability.
 - b. Regulatory changes.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

- A. A Substitution Request for products, assemblies, materials, and equipment 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, equipment, assembly, or system.
 - 2. Agrees to provide the same warranty for the substitution as for the specified product.
 - 3. Agrees to 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.
- B. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents. Burden of proof is on proposer.
- C. Content: Include information necessary for tracking the status of each Substitution Request, and information necessary to provide an actionable response.
 - 1. No specific form is required. Contractor's Substitution Request documentation must include the following:
 - a. Project Information:
 - b. Substitution Request Information:
 - c. Attached Comparative Data: Provide point-by-point, side-by-side comparison addressing essential attributes specified, as appropriate and relevant for the item:
 - d. Impact of Substitution:
- D. Limit each request to a single proposed substitution item.

3.02 SUBSTITUTION PROCEDURES DURING CONSTRUCTION

- A. Submit request for Substitution for Convenience immediately upon discovery of its potential advantage to the project, but not later than 14 days prior to time required for review and approval by Architect, in order to stay on approved project schedule.

1. In addition to meeting general documentation requirements, document how the requested substitution benefits the Owner through cost savings, time savings, greater energy conservation, or in other specific ways.
2. Document means of coordinating of substitution item with other portions of the work, including work by affected subcontractors.
3. Bear the costs engendered by proposed substitution of:
 - a. Owner's compensation to the Architect for any required redesign, time spent processing and evaluating the request.

3.03 RESOLUTION

3.04 ACCEPTANCE

END OF SECTION

**SECTION 013000
ADMINISTRATIVE REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General administrative requirements.
- B. Preconstruction meeting.
- C. Progress meetings.
- D. Submittals for review, information, and project closeout.
- E. Number of copies of submittals.
- F. Requests for Interpretation (RFI) procedures.
- G. Submittal procedures.

1.02 RELATED REQUIREMENTS

- A. Section 015000 – Temporary Construction and Facilities.

1.03 GENERAL ADMINISTRATIVE REQUIREMENTS

- A. Comply with requirements of Section 017000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.
- B. Note that this is not a competitively bid project at the General Contractor level, however, the owner fully anticipates that the major subcontractors will provide to the General Contractor competitive pricing prior to beginning work.
- C. Make the following types of submittals to Architect:
 - 1. Requests for Interpretation (RFI).
 - 2. Requests for substitution.
 - 3. Shop drawings, product data, and samples.
 - 4. Test and inspection reports.
 - 5. Design data.
 - 6. Manufacturer's instructions and field reports.
 - 7. Applications for payment and change order requests.
 - 8. Progress schedules.
 - 9. Coordination drawings.
 - 10. Correction Punch List and Final Correction Punch List for Substantial Completion.
 - 11. Closeout submittals.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 NOTICE OF COMMENCEMENT

- A. The Contractor, as agent for the Owner, shall prepare a Notice of Commencement, file and post same as required by the Mechanics' Lien Law, Florida Statutes. In addition to the Owner, the Architect shall be named in the Notice to receive a copy of the Lienor's Notice.

3.02 DIMENSIONS

- A. Before initiating actual work, Contractor shall take measurements to verify dimensions indicated on the drawings. Promptly report to Architect any discrepancies that will appreciably affect the work and request instructions.

3.03 PROGRESS PAYMENTS

- A. The Owner shall make monthly progress payments to the Contractor based upon the Certificate of the Architect for ninety percent (90%) of the contract value of work at the completion of the work and substantial completion of all work as substantiated by the Contractor's request for payment and the Architect's review of the work. The final payment shall be made after final completion of all work as per the General Conditions.

3.04 CONTRACTORS LIMITS OF LIABILITY INSURANCE

- A. All insurance policies shall be issued by companies authorized to do business under the laws of the State of Florida.
- B. Contractor shall purchase and maintain a policy or policies of commercial general liability insurance satisfactory in all respects to the City. **All policies shall be occurrence form policies and shall name the St. Augustine Lighthouse And Maritime Museum, as an additional insured which also includes a right to defense, with the premiums thereon fully paid by Contractor on or before their due date.** The liability insurance policy shall afford minimum protection of \$1,000,000 combined single limit coverage for bodily injury, property damage, or combination thereof.
- C. Required insurance shall be documented in Certificates of Insurance which provide that the **St. Augustine Lighthouse And Maritime Museum** shall be notified at least 30 days in advance of cancellation, nonrenewal, or adverse change. New Certificates of Insurance are to be provided to the **St. Augustine Lighthouse And Maritime Museum** at least 15 days prior to coverage renewals.
- D. If requested by the **St. Augustine Lighthouse And Maritime Museum**, Contractor shall furnish complete copies of its insurance policies, forms, and endorsements.
- E. For commercial general liability coverage. Contractor shall at the option of the **St. Augustine Lighthouse And Maritime Museum**, provide an indication of the amount of claims, payments, or reserves chargeable to the aggregate amount of liability.
- F. Receipt of certificates or other documentation of insurance or policies or copies of policies by the **St. Augustine Lighthouse And Maritime Museum**, or by any of its representatives, which indicate less coverage than required does not constitute a waiver of Contractor's obligation to fulfill the insurance requirements herein.
- G. Contractor shall also purchase and maintain workers' compensation insurance for all obligations imposed by law with employer's liability limits of at least \$1,000,000 each employee/\$500,000 policy limit for disease. Contractor shall also purchase any other coverage required by law.
- H. Contractor's maintenance of the insurance policies required hereunder shall not limit or otherwise affect its liability hereunder.
- I. Commercial General Liability (including Premises-Operations; Independent Contractors; Protective, products and Completed Operations; Broad Form Property Damage):
 - 1. Minimum Protection of \$1,000,000 each occurrence combined single limit coverage for bodily injury, property damage, or combination thereof.
 - 2. Products and completed operations to be maintained for one (1) year after final payment.
- J. Contractual Liability: Same as commercial general liability for each occurrence.
- K. Automobile Liability: Minimum protection of \$1,000,000 combined single limit coverage for bodily injury, property damage, or combination thereof.

- L. The Contractor shall require each of his subcontractors to obtain and maintain during the period of his subcontract agreement insurance of coverage as noted above or insure the activities of his subcontractors in his policy.
- M. **The St. Augustine Lighthouse and Maritime Museum, Board of Trustees shall be named as *additional insured* on all insurance certificates.**

3.05 BUILDERS RISK INSURANCE

- A. The St. Augustine Lighthouse and Maritime Museum may provide builder's risk insurance for the project.

3.06 INDEMNIFICATION RIDER

- A. The Contractor shall indemnify and save harmless and defend the St. Augustine Lighthouse and Museum, Inc. and the Architects, their agents, servants, and employees from and against any and all claims, liability, losses, and/or causes of action which may arise from any act or omission of the Contractor, its agents, servants, or employees or which otherwise arises in connection with the performance of this Agreement.

3.07 PROGRESS SCHEDULE

- A. Immediately after receipt of Notice to Proceed, prepare and submit a horizontal bar chart type construction schedule. Provide a separate horizontal bar for each trade of operation. Provide a horizontal time scale identifying the first day of each workweek. Submit three (3) copies to Architect and copies to all subcontractors. Update the progress schedule monthly to reflect construction status versus scheduled work and submit the updated schedule with the Application for Payment. Instruct subcontractors to promptly report to the Contractor in writing of any anticipated problems with the projects shown in the schedule.
- B. PROGRESS REPORTS_The General Contractor shall submit weekly progress reports to the owner and architect to include a description of work completed, project schedule status, any schedule delays, unresolved construction issues or problems and planned work activities for the following week.

3.08 PRECONSTRUCTION MEETING

- A. Schedule meeting after Notice to Proceed.
- B. Attendance Required:
 - 1. Owner.
 - 2. Architect.
 - 3. Contractor.
 - 4. Major Subcontractors.
- C. Agenda:
 - 1. Execution of Owner-Contractor Agreement.
 - 2. Submission of executed bonds and insurance certificates.
 - 3. Distribution of Contract Documents.
 - 4. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
 - 5. Designation of personnel representing the parties.
 - 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 - 7. Scheduling.
- D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.09 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the work at maximum bi-monthly intervals.

- B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- C. Attendance Required:
 - 1. Contractor.
 - 2. Owner.
 - 3. Architect.
 - 4. Contractor's superintendent.
 - 5. Major subcontractors.
- D. Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of work progress.
 - 3. Field observations, problems, and decisions.
 - 4. Identification of problems that impede, or will impede, planned progress.
 - 5. Review of submittals schedule and status of submittals.
 - 6. Maintenance of progress schedule.
 - 7. Corrective measures to regain projected schedules.
 - 8. Planned progress during succeeding work period.
 - 9. Maintenance of quality and work standards.
 - 10. Effect of proposed changes on progress schedule and coordination.
 - 11. Other business relating to work.
- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.10 REQUESTS FOR INTERPRETATION (RFI)

- A. Definition: A request seeking interpretation when the resulting direction could result in additional cost to the owner. When such result is not anticipated or assured, written direction through the RFI process is not required.
- B. Whenever possible, request clarifications at the next appropriate project progress meeting, with response entered into meeting minutes, rendering unnecessary the issuance of a formal RFI.
- C. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
 - 1. Prepare a separate RFI for each specific item.
 - 2. Prepare in a format and with content acceptable to Owner.
- D. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.
- E. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.
- F. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Owner.

3.11 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
 - 1. Product data.
 - 2. Shop drawings.
 - 3. Samples for selection.
 - 4. Samples for verification.
- B. Submit to Architect for review for the limited purpose of checking for compliance with information given and the design concept expressed in Contract Documents.
- C. Samples will be reviewed for aesthetic, color, or finish selection.

- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 017800 - Closeout Submittals.

3.12 SUBMITTALS FOR PROJECT CLOSEOUT

- A. Submit Correction Punch List for Substantial Completion.
- B. Submit Final Correction Punch List for Substantial Completion.
- C. When the following are specified in individual sections, submit them at project closeout in compliance with requirements of Section 017800 - Closeout Submittals:
 - 1. Project record documents.
 - 2. Operation and maintenance data.
 - 3. Warranties.
 - 4. Bonds.
 - 5. Other types as indicated.
- D. Submit for Owner's benefit during and after project completion.

3.13 NUMBER OF COPIES OF SUBMITTALS

- A. Electronic Documents: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs at native size and right-side up; illegible files will be rejected.
- B. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.
 - 1. After review, produce duplicates.
 - 2. Retained samples will not be returned to Contractor unless specifically so stated.

3.14 SUBMITTAL REVIEW

- A. Submittals for Review: Architect will review each submittal, and approve, or take other appropriate action.
- B. Submittals for Information: Architect will acknowledge receipt and review. See below for actions to be taken.
- C. Architect's actions will be reflected by marking each returned submittal using virtual stamp on electronic submittals.
- D. Architect's and consultants' actions on items submitted for review:
 - 1. Authorizing purchasing, fabrication, delivery, and installation:
 - a. "Approved", or language with same legal meaning.
 - b. "Approved as Noted, Resubmission not required", or language with same legal meaning.
 - 1) At Contractor's option, submit corrected item, with review notations acknowledged and incorporated.
 - c. "Approved as Noted, Resubmit for Record", or language with same legal meaning.
 - 2. Not Authorizing fabrication, delivery, and installation:
 - a. "Revise and Resubmit".
 - 1) Resubmit revised item, with review notations acknowledged and incorporated.
 - b. "Rejected".
 - 1) Submit item complying with requirements of Contract Documents.
- E. Architect's and consultants' actions on items submitted for information:
 - 1. Items for which no action was taken:
 - a. "Received" - to notify the Contractor that the submittal has been received for record only.
 - 2. Items for which action was taken:
 - a. "Reviewed" - no further action is required from Contractor.

END OF SECTION

**SECTION 014000
QUALITY REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Submittals.
- B. Quality assurance.
- C. References and standards.
- D. Control of installation.
- E. Mock-ups.
- F. Tolerances.
- G. Manufacturers' field services.
- H. Defect Assessment.

1.02 RELATED REQUIREMENTS

- A. General Conditions: Inspections and approvals required by public authorities.
- B. Section 012100 - Allowances: Allowance for payment of testing services.
- C. Section 013000 - Administrative Requirements: Submittal procedures.
- D. Section 016000 - Product Requirements: Requirements for material and product quality.

1.03 REFERENCE STANDARDS

- A. ASTM C1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation 2017.
- B. ASTM C1093 - Standard Practice for Accreditation of Testing Agencies for Masonry 2022.
- C. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction 2019.
- D. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection 2021.
- E. ASTM E543 - Standard Specification for Agencies Performing Nondestructive Testing 2021.
- F. ASTM E699 - Standard Specification for Agencies Involved in Testing, Quality Assurance, and Evaluating of Manufactured Building Components 2016.
- G. IAS AC89 - Accreditation Criteria for Testing Laboratories 2021.

1.04 DEFINITIONS

1.05 TESTING AND INSPECTION AGENCIES AND SERVICES

- A. Owner will employ and pay for services of an independent testing agency to perform other specified testing.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. 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.
- E. Have work performed by persons qualified to produce required and specified quality.
- 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, and disfigurement.

3.02 MOCK-UPS

- A. Integrated Exterior Mock-ups: Construct integrated exterior mock-up as indicated on drawings. Coordinate installation of exterior envelope materials and products as required in individual Specification Sections. Provide adequate supporting structure for mock-up materials as necessary.
- B. Notify Architect fifteen (15) working days in advance of dates and times when mock-ups will be constructed.
- C. Tests shall be performed under provisions identified in this section and identified in the respective product specification sections.
- D. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- E. Obtain Architect's approval of mock-ups before starting work, fabrication, or construction.
 1. Make corrections as necessary until Architect's approval is issued.
- F. Architect will use accepted mock-ups as a comparison standard for the remaining Work.
- G. Where mock-up has been accepted by Architect and is specified in product specification sections to be removed, protect mock-up throughout construction, remove mock-up and clear area when directed to do so by Architect.
- H. Where possible salvage and recycle the demolished mock-up materials.

3.03 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.

3.04 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance equipment as applicable, and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.05 DEFECT ASSESSMENT

- A. Replace Work or portions of the Work not complying with specified requirements.
- B. If, in the opinion of Architect, it is not practical to remove and replace the work, Architect will direct an appropriate remedy or adjust payment.

END OF SECTION

**SECTION 015000
TEMPORARY CONSTRUCTION AND FACILITIES**

PART 1 GENERAL

1.01 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:
 - 1. Building Code Requirements
 - 2. Health and Safety Regulations
 - 3. Utility Company Regulations
 - 4. Police, Fire Department, and Rescue Squad Rules
 - 5. Environmental Protection Regulations
- B. Standards: Comply with NFPA 241 "Standard for Safeguarding Construction, Alterations, and Demolition Operations," ANSI A10 Series standards for "Safety Requirements for Construction and Demolition," and NECA Electrical Design Library "Temporary Electrical Facilities."
- C. Electrical Service: Comply with NEMA, NECA, UL standards and regulations for temporary electric service. Install service in compliance with NFPA 70 "National Electric Code."
- D. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

1.02 CONDITIONS OF USE:

- A. Operate, maintain, control and protect temporary facilities in a manner which will prevent fire, hazardous exposures, health problems, unsanitary conditions, pollution, contamination, discomfort to users, flooding, freeze-up, interference with construction work, public nuisances and similar deleterious effects.

1.03 REMOVAL

- A. Remove all temporary construction and facilities from the site at the completion of construction.

PART 2

2.01 SAFETY AND PROTECTION ON SITE

- A. Throughout the entire operation maintain the area clean and safe, materials carefully stored, ladders removed and stored at the end of each day's operation, and shutdown and/or storage of all equipment to prevent "Misuse Accidents."
- B. Collect and store all debris and waste in a safe manner until removal at the earliest possible time as work progresses. Remove all construction trash daily.
- C. Store all tools, equipment, and materials in a manner so that no items protrude so as to endanger workers or other parties on the construction site.
- D. Provide all required bracing, shoring, etc., required to complete work in a safe manner and take all other precautions to prevent settlement, collapse or movement of foundations, walls, floors, etc., during construction, all in conformance with applicable Building Codes.
- E. Provide all necessary temporary enclosures, guard rails, barricades, etc., to adequately protect personnel, workmen and the public from possible injury, all in conformance with applicable Building Codes. Maintain enclosures and barricades around all areas of work.
- F. Do not permit access to areas of work to anyone not directly related to the rehabilitation work. Authorized personnel include workmen, the Architects, or lighthouse staff.
- G. Project Security: The General Contractor shall take every precaution to ensure the security of the buildings and safeguard against acts of vandalism, arson, theft, and similar actions.

- H. Conform to all requirements of the State of Florida, OSHA, and EPA

2.02 SAFETY PROTOCOLS

- A. Provide facilities and services as necessary to effectively protect project from losses, persons from injury, and buildings from damage during the course of construction. Conduct operations to prevent injury or discomfort caused by dust, water, water mist, or noxious fumes to adjacent buildings, other facilities, property and persons.
- B. Comply with the requirements of the Standard Building Code and NFPA Code 241 "Building Construction and Demolition Operations."

2.03 FIRE PREVENTION

- A. Develop a fire prevention-protection program, provide and maintain fire extinguishing equipment as recommended in NFPA Standard No. 10, and designate a Fire Marshal who shall coordinate the efforts of all workers at the site toward fire safety. Comply with recommendations of NFPA Standard No. 10. Provide types, sizes, quantities, and at locations as would be reasonably effective in extinguishing fires during early stages by project personnel, inspect periodically and maintain in usable condition. Instruct employees in proper use of extinguishers. Post local fire department call number on each telephone instrument. Maintain access onto the site for municipal fire fighting equipment at all times.

2.04 HOISTING AND MATERIAL HANDLING

- A. Provide hoisting equipment as required to adequately perform the work. Comply with manufacturer's instructions and governing regulations for installation, operation, and removal.

2.05 STAGING AND SCAFFOLDING

- A. Provide staging and scaffolding as required to perform the work. Contractor shall obtain necessary permits. All staging and scaffolding shall comply with OSHA and all other governing regulations.

2.06 EMERGENCY PROCEDURES

- A. The Contractor is fully responsible for protection of the Owner's property. Additionally, the Contractor shall develop contingency plans for preventing and handling emergency situations during and outside of working hours. These plans shall include but are not limited to the following issues.
- B. The Contractor's superintendent (or other qualified individual acceptable to Owner) shall be available to render assistance in the event of an emergency occurring outside of working hours. The telephone numbers at which each may be reached shall be furnished to the Owner's representative at the time of the preconstruction conference.
- C. The Contractor shall further take any and all precautions he deems necessary to prevent emergencies from arising. Should the Contractor fail to take adequate precautions or respond to emergency situations, the Contractor shall reimburse the Owner for all cost taken to rectify the emergency. The Owner shall in all cases have the final determination as to what precautionary or emergency measures are adequate to protect the existing structure and the furnishings and equipment installed therein.
- D. First Aid: Comply with governing regulations and recognized recommendations within the construction industry.
- E. Health Codes: Comply with all governing regulations and health codes.

PART 3

3.01 TEMPORARY FACILITIES

- A. General: Carry out rehabilitation work operations with maximum consideration for conservation of energy and water.

- B. Water: Water necessary for rehabilitation work shall be furnished by the Owner. The Contractor shall make all special connections for any required temporary service and do all piping and clear away all evidence of same after work is completed.
- C. Electricity: Electricity necessary for lighting and power for rehabilitations shall be furnished by the Owner. The Contractor shall make any necessary temporary connections he requires for his use and remove all evidence of same after the work is completed.
- D. Drinking Water: Provide safe source of drinking water for all those connected with the work.
- E. Toilet Facilities: Construction personnel may use designated toilet at the Keeper's House. Keep toilets in sanitary condition.
- F. Telephone: Provide a telephone for construction use.

3.02 PROTECTIONS

- A. General: Public Safety and Visitor Protocols
 1. **The facility will remain open to the public during renovation operations.** Work will be confined to single area, building element, porch, or location while the remainder of the facility is open to the public. Only on the rarest, previously scheduled, occasions will the entire facility or large sections of the facility be closed to the public.
 2. Provide, erect, and maintain barricades, guards, signs, lights, and other devices necessary to protect persons from injury and property from damage resulting from preparation, demolition and construction operations on a given building element or area.
 3. Public Access Ways: When working in public spaces place, maintain barricades, barriers, warning signs, danger signals, and other safeguards as necessary.
 4. Do not entirely obstruct egress from interior spaces. One egress component may be obstructed provided that the interior space has access to another egress point.
- B. Fencing and barriers: No general fencing around the Keepers house will be permitted. Fencing may be installed to secure a lay-down area for the contractor in an area expressly directed by Museum staff. Fencing around this area may be galvanized steel chain link, wire, or plastic construction fence material, but must be sturdy enough to support required state signage and construction company identification signage.
 1. Each area in which construction operations will be performed on a given day must be separated from the public in a way that assures safety and identifies clear limits to museum guests.
 2. Temporary barriers shall not damage or be connected to existing construction that will remain after the project is complete.
 3. The quality of the temporary barriers shall be of first-use material, clean, and stable enough for the intended use.
- C. Protect landscape material from damage.
- D. Provide protection from cleaning operations.

3.03 REHABILITATION, RECONSTRUCTION AND NEW WORK

- A. Make such explorations and probes as necessary to ascertain any required protective measures before proceeding with the work. Where rehabilitation, reconstruction or new work and existing work join, cut, remove, patch, repair, or refinish the adjacent surfaces, leaving in as good condition as existing prior to commencing work. The materials and workmanship employed in reconstruction and rehabilitation, unless shown or otherwise specified, shall conform to and match the existing work. Where existing items are indicated for reuse, repair and refinish to put in perfect working order unless specifically noted otherwise.

3.04 HISTORIC VALUE

- A. The St. Augustine Lighthouse and Maritime Museum is a National Historic Landmark and is listed on the National Register of Historic Places. Any and all historic materials and artifacts

discovered at the site shall remain the property of the Owner and shall be immediately turned over to the Owner's representative.

3.05 PROTECTION OF FINISHES

- A. Protect finished surfaces to remain including building stairs and all jambs, soffits and openings used as passageways or through which materials are handled against damage.
- B. Cover new flooring, treads, landings, handrails, and posts subject to damage from continuing construction operations.
- C. Do not store materials on finished surfaces nor subject it to traffic.
- D. Where activity on existing roofing is necessary, protect roof surface from construction damage.
- E. Protect all glazed areas to prevent damage of any type to glass.

3.06 WORKERS' BEHAVIOR AND ATTIRE

- A. Note that, for all intents and purposes, workers will be occupying the same space as museum guests and need to act as agents of the Museum.
- B. All workers/laborers/craftsmen working the job site are to refrain from coarse language, profanity, or lewd behavior.
- C. All workers/laborers will be properly dressed in matching (if possible) shirts or jackets that clearly identifies them as part of the contracting team (no shirtless workers).
- D. Smoking shall not be permitted in the Lighthouse at any time. Keep cigarette butts in containers at the exterior of the building.
- E. Music is prohibited.
- F. Workers are not, under any circumstances, to move, alter, or disrupt museum exhibits. If exhibits interfere with the work, the contractor shall contact museum staff to move or otherwise handle the exhibit.

3.07 WORKING HOURS

- A. Working hours may be negotiated with the owner to optimize time on job but a noise ordinance of the City of Saint Augustine prohibits noise greater than 65 decibels after 10:00 pm and prior to 7:00 am. Noise levels should be measured from the closest property line adjacent to the property that is the source of the noise.

PART 4

4.01 HOUSEKEEPING

- A. Reference: "General Conditions."
- B. Rodent Controls: During the construction period, take continuous actions to eliminate sources of food for rodents and prevent colonization in crawl spaces and shafts of the building. It will not be sufficient to bait with poison and permit rodents to die in inaccessible places.
- C. Handling Debris:
 - 1. Sprinkle dusty debris with water.
 - 2. Materials or objects shall not be thrown from any height.
 - 3. Materials shall not be allowed to accumulate on the floors, roof, or other parts of the building or premises but shall promptly be removed and disposed.

END OF SECTION

**SECTION 016000
PRODUCT REQUIREMENTS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General product requirements.
- B. Re-use of existing products.
- C. Transportation, handling, storage and protection.
- D. Product option requirements.

1.02 SUBMITTALS

- A. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- B. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

PART 2 PRODUCTS

2.01 EXISTING PRODUCTS

- A. Unforeseen historic items encountered remain the property of the Owner; notify Owner promptly upon discovery; protect, remove, handle, and store as directed by Owner.

2.02 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by Contract Documents.

2.03 PRODUCT OPTIONS

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

2.04 MAINTENANCE MATERIALS

- A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 EXECUTION

3.01 TRANSPORTATION AND HANDLING

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.02 STORAGE AND PROTECTION

- A. 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. See Section 017419.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.
- D. Store sensitive products in weathertight, climate-controlled enclosures in an environment favorable to product.
- E. For exterior storage of fabricated products, place on sloped supports above ground.
- F. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- G. Comply with manufacturer's warranty conditions, if any.
- H. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- I. Prevent contact with material that may cause corrosion, discoloration, or staining.
- J. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- K. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

**SECTION 017000
SELECTIVE DEMOLITION**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Requirements for alterations work, including selective demolition.
- C. Cutting and patching.
- D. Cleaning and protection.
- E. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.

1.02 RELATED REQUIREMENTS

- A. Section 013000 – Administrative Requirements:
- B. Section 015100 - Temporary Construction and Facilities.

1.03 SCOPE

- A. Remove items indicated in preparation for installation of new products such as windows, doors, porch floors, railings, brick areas, lights, etc.

1.04 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
- B. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
- C. Provide, erect, and maintain temporary barriers and security devices.
- D. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
- E. Protect existing structures and other elements that are not to be removed.
- F. Provide bracing and shoring.
- G. Stop work immediately if adjacent structures appear to be in danger.
- H. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.

1.05 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Drawings showing existing construction are based on casual field observation and existing record documents only.
- B. Report discrepancies to Architect before disturbing existing installation.
- C. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- D. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
- E. Remove existing work as indicated and as required to accomplish new work.
- F. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
- G. Remove items indicated on drawings.

- H. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.
- I. Protect existing work to remain.
- J. Perform cutting to accomplish removals neatly and as specified for cutting new work.
- K. Repair adjacent construction and finishes damaged during removal work.
- L. Patch as specified for patching new work.
- M. Remove all plugs in porch columns and beams concealing structural connections for review by the structural engineer.

1.06 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.

1.07 COORDINATION

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Notify affected utility companies and comply with their requirements.
- C. Verify that utility requirements and characteristics of new operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- D. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on drawings. Follow routing indicated for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- F. Coordinate completion and clean-up of work of separate sections.
- G. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 016000 - Product Requirements.

PART 3 EXECUTION

3.01 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 work being 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, to minimize waste due to over-ordering or misfabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. 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. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 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.
- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.04 ALTERATIONS

- A. Drawings showing existing construction are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as indicated.
 - 2. Report discrepancies to Architect before disturbing existing installation.
 - 3. Beginning of alterations work constitutes acceptance of existing conditions.
- B. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
 - 1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.
- C. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove items indicated on drawings.
 - 2. Relocate items indicated on drawings.
 - 3. Where new surface finishes are to be applied to existing work, perform removals, patch, and prepare existing surfaces as required to receive new finish; remove existing finish if necessary for successful application of new finish.
 - 4. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.
- D. Protect existing work to remain.
 - 1. Prevent movement of structure; provide shoring and bracing if necessary.
 - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 - 3. Repair adjacent construction and finishes damaged during removal work.

- E. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
 1. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.
 2. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
 3. Where a change of plane of 1/4 inch (6 mm) or more occurs in existing work, submit recommendation for providing a smooth transition for Architect review and request instructions.
- F. Patching: Where the existing surface is not indicated to be refinished, patch to match the surface finish that existed prior to cutting. Where the surface is indicated to be refinished, patch so that the substrate is ready for the new finish.
- G. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- H. Do not begin new construction in alterations areas before demolition is complete.
- I. Comply with all other applicable requirements of this section.

3.05 CUTTING AND PATCHING

- A. Whenever possible, execute the work by methods that avoid cutting or patching.
- B. Perform whatever cutting and patching is necessary to:
 1. Complete the work.
 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-complying work.
- C. 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 to original condition.
- D. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- E. Restore work with new products in accordance with requirements of Contract Documents.
- F. Patching:
 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
 2. Match color, texture, and appearance.
 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.06 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.07 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations or casual contact by visitors prior to curing or drying.
- B. Provide special protection where specified in individual specification sections.

3.08 DEMONSTRATION AND INSTRUCTION

3.09 FINAL CLEANING

- A. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces.
- B. Remove all labels that are not permanent.
- C. Clean site; sweep paved areas, rake clean landscaped surfaces.
- D. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.

END OF SECTION

**SECTION 033000
CAST-IN-PLACE CONCRETE**

PART 1 GENERAL

1.01 DESCRIPTION

- A. Work included: Provide all labor, materials, equipment, fabrication, incidentals, transportation, placing and supervision necessary to complete all cast-in-place concrete work, its finishing, and all related work called for by the Contract Drawings and/or Specifications, or reasonably inferable from either or both, as needed for a complete and proper installation. The only location where Cast In Place Concrete will be used is the grade beam under the brick at the easternmost end of the lattice under the first floor porch.
- B. Related work: Work affecting this Section includes, but is not limited to:
 - 1. Shop Drawings-Per General Conditions and as specified herein.
 - 2. Materials and storage thereof.
 - 3. Reinforcing-Bar and fabric..
 - 4. Formwork and removal thereof, including shoring and reshoring.
 - 5. Concrete proportions and mixes.
 - 6. Placing of concrete.
 - 7. Joints, metal joint screeds and joint fillers.
 - 8. Finishes of all types.
 - 9. Protection and curing.
 - 10. Patching.

1.02 QUALITY ASSURANCE

- A. Unless otherwise indicated, all materials, workmanship and practices shall conform to the requirements of ACI 301-96 "Specifications for Structural Concrete for Buildings", except as modified by supplemental requirements hereinafter.

1.03 STANDARDS

- A. ACI 301-96 Specifications for Structural Concrete.
- B. ACI 318-95 Building Code Requirements for Reinforced Concrete.
- C. Florida Building Code, latest edition.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Materials for Concrete:
 - 1. Cement shall conform to the following: Portland Cement ASTM C150, normal, type I or type II. Provide domestic cement of one type and from same source for entire project.
 - 2. Mineral Admixtures:
 - a. Fly Ash: Shall conform to ASTM C 618. 20% maximum of total cementitious weight.
 - b. Ground Blast Furnace Slag: total cementitious weight. Shall conform to ASTM C 989-93. 30% maximum of total cementitious weight.
 - 3. Aggregates: Shall conform to ASTM C 33 and shall be quarried/mined in fresh water. Aggregates from salt water or brackish water are not permitted. Coarse aggregate size shall not exceed:

Concrete member	Size
a. Walls	3/4" 67#
b. Beams or structural slabs not on ground	3/4" 67#
- B. Anchor bolts, nuts and washers: Conform to ASTM A449-89, hot-dip galvanized.

- C. Forms:
 1. Plywood Forms: PS-1, B-B Concrete Form, Class I, exterior type, mill oiled and edge sealed. Thickness shall be as required to support concrete at the rate placed, but not less than 3/4".
 2. Steel Forms: Uncoated steel, 3/16"-inch minimum thickness, fabricated to close tolerances, protected only by the specified release agent, braced so as not to dent, bend or dimple under wet concrete loads, vibrator impact and tool impact. Maintain steel forms in rust free condition by use of steel wool and light grinding, followed by coats of the specified release agent. Forms should be adjustable to be brought into true alignment without steps or ridges.
- D. Form release agent:
 1. For plywood forms use a natural non-petroleum base, non-staining and non-retarding release agent that will effectively prevent absorption of moisture and prevent bond with concrete, and leaves the concrete with a paintable surface.
 2. For steel forms, use an approved material that will not stain, color or otherwise affect the finish of the concrete. Form coating shall not be detectable on finished surfaces.
 3. Round column forms: Provide seamless fiber forms with the three plies nearest to the interior surface of the form deckled or scarfed and overlapped to minimize spiral gaps or seams on the column surface.
- E. Form Ties: Steel rod type with integral waterstops and cones, and with ends or end fasteners that can be removed without spalling the concrete and which leave a hole equal in depth to the required reinforcement clearance, but not less than 2 inches from the formed face of the concrete. Wire tie, banding wire and wood spreaders will not be permitted.
- F. Preformed Expansion Joint Filler: Non-extruding type, self expanding cork, 3/4", 1", and 1½" cork (not to be used for sidewalks), conforming to plans or as otherwise noted on drawings, conforming to the requirements of ASTM D1752, Type II, and compatible with joint sealant compound.
- G. Joint Sealant Compound: Non-sag, 2 component, solvent free, moisture insensitive, flexible, epoxy resin conforming to the requirements ASTM C920-87 Type M, Grade NS. Additionally, the sealant must be recommended by the manufacturer to perform under continuous immersion in water.
- H. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Engineer.

PART 3 EXECUTION

3.01 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work.

3.02 SUPPLEMENTAL REQUIREMENTS

- A. All phases of concrete construction, including materials formwork, and all other related procedures shall comply with the most stringent allowed tolerances of ACI-301 and ACI-117 Standards (Latest Edition) - Non compliance with these standards will cause full rejection of any work done.
- B. Comply with ACI 301-96 and with all modifications and supplements thereto listed herein. In addition to the ACI Standards on finished concrete, the Engineer will only approve quality finished concrete which in his opinion is ready to receive a grout finish, paint or liquid membrane
 1. Reinforcement
 - a. Prior to fabrication, submit for review shop drawings showing all fabrication dimensions, bar lists and location for placing of the reinforcing steel and accessories,

including spacing of reinforcing, splices (lap, welded, Cadweld and/or mechanically threaded), grade of reinforcing and name of manufacturer. Note all deviations from the Contract Drawings and use the same designation mark as shown on the Contract Drawings where possible.

- b. Reinforcing bars: ASTM A615, Grade 60, deformed bars of USA manufacturer.
- c. Place reinforcing bars to the most stringent tolerances indicated in ACI 301 and ACI 117 (Latest Edition). Tolerances specified in those standards shall govern over any other reference code or standard.
- d. The minimum clear distance between parallel bars, both vertical and horizontally, shall not be less than the nominal diameter of the bars, or less than 1½ times the maximum size of the aggregate, or 1-inch in beams, or 1½ inches in columns, whichever is greater. Where reinforcement in beams is placed in two or more layers, the upper layer shall be placed directly above the bars in the bottom layer. Misplacement, misalignment or improper length of dowels shall be sufficient cause to require removal and reconstruction of affected work.

2. Placing:

- a. Equipment for mixing and transporting concrete must be clean. Forms shall be thoroughly clean and damp, and reinforcing shall be secured in place. Runways for transporting concrete shall not rest on reinforcing. When concrete is placed against earth, sprinkle sufficiently before placing.
- b. Deposit of concrete in forms no longer than ninety (90) minutes after the initial design water has been added to the cement and aggregates. Concrete which can not be so placed shall not be used and shall be wasted. **No additional water shall be added.** No retempering with water is permitted.
- c. Do not place concrete in forms unless the water level is below the concrete to be placed, even if it is necessary to maintain the dewatering, or under rain.
- d. Do not place concrete under water except for tremie concrete as called for on the Contract Drawings. Submit for approval plan and details of means and methods for installation of seal tremie concrete prior to commencement of work. Seal concrete which subsequently fails to perform, shall be repaired or replaced at no additional cost to the Department.

3. Repair of Surface Defects:

- a. Repair all concrete surface defects, which includes, but not limited to cracks, tie holes (no plastic cones), uneven holes, honey combs, rough frame work and other objectionable conditions deemed unacceptable to the Engineer immediately after form removal. This repair work is to be done for all concrete expose surfaces, liquid applied surface or painted surfaces in or out of the water. Repair all cracks and defects in the concrete floors, beams, joists, columns, and other structural members, roof and walls, to the satisfaction of the Engineer, that may occur up to one year after acceptance of work regardless of the cause. Test unformed, surfaces such as monolithic slabs, for smoothness and verify placement tolerances specified for each surface and finish. Test unformed surfaces sloped to drain for trueness of slope, in addition to smoothness. Repair unformed surfaces that contain surface defects which affect durability of concrete. Surface defects, as such, include cracking, cracks which penetrate to reinforcement or completely through non-reinforced sections regardless of width, spalling, pop-outs, honeycomb, rock pockets and other objectionable and rough conditions.
- b. Proprietary compounds for adhesion or as patching ingredients may be used, if approved by the Engineer. All structural repair of surface defects to be made require the approval of the Engineer, as to the method and procedure. Approval of the completed work must be obtained from the Engineer.

4. Finishing of Formed Surfaces.

- a. Apply rough form finish to exterior walls below grade not exposed to water.
- b. Apply smooth form finish to exterior and interior walls and columns exposed to water.
- c. Finish concrete surface, interior or exterior, below or above water shall include all:

- 1) Exposed concrete.
- 2) Grout finished concrete.
- 3) The entire surface of finished concrete shall have a smooth uniform surface, there shall be no offsets, visually bulges, or wavering in the finished surfaces. The joints must be accurately aligned, they can not be uneven or in or out, a higher and lower, there shall be no fins, projection or unevenness between forms.

5. Curing and Protection

- a. Comply with ACI 305 "Hot Weather Concreting", Chapter 4, with the supplements and modifications to ACI 301 listed herein.
- b. Only concrete water curing for not less than 7 days (24 hours/day continuously) will not be accepted; Burlen mats shall be used in curing. Water cure by ponding or continuous sprinkling covering complete surface with minimum runoff. The application of water to wall may be interrupted for grout cleaning only over the areas being cleaned at the time, and the concrete surfaces shall not be permitted to become dry during such interruption.
- c. Begin all water curing as soon as concrete is set and concrete will not be damaged. Keep concrete and wall forms wet the first 24 hours. Remove forms as indicated in Formwork, Section 3.02-C.4, and continue with 7 day water curing. Recoat damaged surfaces subject to heavy or surfaces damaged by construction procedures within 3 hours of damage. Method of repair shall be approved by the Engineer.

END OF SECTION

**SECTION 042000
UNIT MASONRY**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Concrete block.
- B. Mortar and grout.
- C. Reinforcement and anchorage.
- D. Accessories.

1.02 RELATED REQUIREMENTS

- A. Section 032000 - Concrete Reinforcing: Reinforcing steel for grouted masonry.
- B. Section 042500 – Masonry Repair and Repointing .
- C. Section 061000 - Rough Carpentry.
- D. Section 079200 - Joint Sealants: Sealing control joints.

1.03 REFERENCE STANDARDS

- A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware 2016a.
- B. ASTM A641/A641M - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire 2019.
- C. ASTM C91/C91M - Standard Specification for Masonry Cement 2018.
- D. ASTM C270 - Standard Specification for Mortar for Unit Masonry 2019a, with Editorial Revision.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data for masonry units, fabricated wire reinforcement, mortar, and masonry accessories.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, handle, and store masonry units by means that will prevent mechanical damage and contamination by other materials.

PART 2 PRODUCTS

2.01 CONCRETE MASONRY UNITS

- A. Concrete Block: Comply with referenced standards and as follows:
 - 1. Size: Standard units with nominal face dimensions of 16 by 8 inches and nominal depth of 8 inches.
 - 2. Load-Bearing Units: ASTM C90, normal weight.
 - a. Hollow block, as indicated.

2.02 MORTAR AND GROUT MATERIALS

- A. Mortar and Grout: As specified in Section 040511.

2.03 REINFORCEMENT AND ANCHORAGE

- A. Reinforcing Steel: size as indicated on drawings; galvanized finish.
- B. Joint Reinforcement: Use ladder type joint reinforcement where vertical reinforcement is involved and truss type elsewhere, unless otherwise indicated.

- C. Single Wythe Joint Reinforcement: ASTM A951/A951M.
 - 1. Type: Truss or ladder.
 - 2. Material: ASTM A1064/A1064M steel wire, mill galvanized to ASTM A641/A641M Class 3.
 - 3. Size: 0.1483 inch side rods with 0.1483 inch cross rods; width as required to provide not less than 5/8 inch of mortar coverage on each exposure.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive masonry.
- B. Verify that related items provided under other sections are properly sized and located.

3.02 PREPARATION

- A. Direct and coordinate placement of metal anchors supplied for installation under other sections.
- B. Provide temporary bracing during installation of masonry work. Maintain in place until building structure provides permanent bracing.

3.03 COURSING

- A. Establish lines, levels, and coursing indicated. Protect from displacement.
- B. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.
- C. Concrete Masonry Units:
 - 1. Bond: Running.
 - 2. Coursing: One unit and one mortar joint to equal 8 inches.
 - 3. Mortar Joints: Match existing.

3.04 PLACING AND BONDING

- A. Lay solid masonry units in full bed of mortar, with full head joints, uniformly jointed with other work.
- B. Lay hollow masonry units with face shell bedding on head and bed joints.
- C. Remove excess mortar and mortar smears as work progresses.
- D. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment must be made, remove mortar and replace.

3.05 TOLERANCES

- A. Install masonry within the site tolerances found in TMS 402/602.
- B. Maximum Variation From Unit to Adjacent Unit: 1/16 inch.
- C. Maximum Variation from Plane of Wall: 1/4 inch in 10 ft and 1/2 inch in 20 ft or more.
- D. Maximum Variation from Plumb: 1/4 inch per story non-cumulative; 1/2 inch in two stories or more.
- E. Maximum Variation from Level Coursing: 1/8 inch in 3 ft and 1/4 inch in 10 ft; 1/2 inch in 30 ft.
- F. Maximum Variation from Cross Sectional Thickness of Walls: 1/4 inch.

3.06 CUTTING AND FITTING

- A. Obtain approval prior to cutting or fitting masonry work not indicated or where appearance or strength of masonry work may be impaired.

3.07 CLEANING

- A. Remove excess mortar and mortar droppings.

B. Clean soiled surfaces with cleaning solution.

3.08 PROTECTION

A. Without damaging completed work, provide protective boards at exposed external corners that are subject to damage by construction activities.

END OF SECTION

**SECTION 042500
MASONRY REPAIR AND REPOINTING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Repointing of existing mortar joints.
- B. Replacement of exiting face brick masonry units.

1.02 SUMMARY

- A. Section Includes
 - 1. Removal of Portland cement replacement mortar in areas as directed.
 - 2. Careful salvaging and cleaning of historic materials.
 - 3. Raking out of all unsound mortar from exterior brick joints.
 - 4. Removal of mortar excess from brick faces.
- B. Samples
 - 1. Submit 4" x 4" dried mortar sample.

1.03 QUALITY ASSURANCE

- A. Masons:
 - 1. Raking, repointing, removal, material salvage, and finishing operations shall be performed by craftspersons who are familiar with historic lime mortar formulations, curing conditions and performance characteristics. Contractor shall provide proof of such knowledge.
 - 2. Only skilled journeymen masons who are familiar and experienced with the materials and methods specified and are familiar with the design requirements shall be used for masonry restoration.

1.04 MOCK-UP

- A. Construct mock-ups of the following:
 - 1. Repair and replacement of brick bond courses with shallow (up to 1 - 1/2" deep) repointing or deep (exceeding 1 - 1/2" or multiple lifts) repointing.
 - 2. Retain approved mock-ups in undisturbed condition, suitable indentified, during restoration as a standard for judging completed work.
 - 3. Obtain approval of raking out and surface preparation before finishing joints.

PART 2 PRODUCTS

2.01 MORTAR MATERIALS

- A. Manufacturer: Custom masonry mortar producer:
 - 1. U. S. Heritage Group , Chicago Ill; usheritage.com or approved substitution

2.02 TOOLS AND ACCESSORIES

- A. Chisels: Carbide-tipped masonry carving chisels.
- B. Pointing Irons: Width slightly less than joint width. Various widths required to suit project conditions.
- C. Brushes of various sizes for cleaning raked-out joints.
- D. Garden sprayer, water hose, and shop-type vacuum for cleaning raked-out joints.
- E. Hand water mister bottle and garden sprayer for curing, cleaning, and finishing pointed joints.
- F. Mortar Injectors: For full-depth pointing, if Contractor so elects, Contractor will be permitted to use powered injection equipment of suitable design, providing that Contractor demonstrates that joints can be completely filled and compacted to the same degree as accomplished by

hand placement of mortar by conventional methods. Where mortar injectors are employed, the final 5/8" shall be placed by hand.

- G. Other tools as necessary for the Work.

2.03 TEMPORARY SUPPORT

- A. Provide temporary support where necessary to prevent displacement of brick during repointing and until mortar has achieved sufficient strength.
- B. Vigorously scrub joint faces with a stiff brush to remove embedded dust and debris from joint faces, followed by vacuuming, working from top to bottom of wall.
- C. Remove existing underlying mortar to the depth specified prior to repointing.

PART 3

3.01 REMOVING EXISTING MORTAR

- A. Existing horizontal mortar joints (bed joints) that are pointed with a Portland cement mortar may be raked out by a skilled mason by carefully scoring the center of the mortar joint with a rotary grinder to relieve the stress on the joint. The remaining mortar in head and bed joints shall be removed to the required depth using hand chisels
- B. Vertical joints (head joints) shall not be raked out using a grinder. All vertical head joints must be removed strictly by hand .
- C. All joints shall be raked back to sound, solid, back up material. Raking out shall leave a clean, square face at the back of the joint to provide for maximum contact of pointing mortar with the masonry back up mortar. Shallow or feather edging will not be permitted.
- D. Existing mortar shall be removed using only small-headed hand chisels that are no wider than half the width of the existing masonry joints.
- E. Do not widen the existing masonry joints. Do not spall or chip the surrounding masonry edges in the process of mortar removal. Contractor shall replace brick damaged during mortar removal with replacement units that match the original as determined by the Architect.
- F. Brush joint faces and vacuum debris from joint to remove dirt and loose debris, working from top to bottom of wall.

3.02 MORTAR REMOVAL DEPTH

- A. Existing mortar joints shall be raked out to a whichever depth is greatest:
 - 1. 5/8 inch.
 - 2. 2-1/2 times the width of the existing mortar joint.
 - 3. The depth necessary to remove previously pointed Portland cement mortar.
 - 4. Until bonded, cohesive existing lime mortar is encountered.

3.03 FULL DEPTH POINTING

- A. Provide temporary support where necessary to prevent displacement of brick or stone during repointing and until mortar has achieved sufficient strength.
- B. Where required to maintain support of units, rake out and repoint each unit in stages, allowing freshly repointed portions to cure sufficiently before raking out and repointing remaining portion of joints supporting the unit.
- C. Remove temporary shims and supports when no longer necessary, and repoint voids left by temporary shims and supports.

3.04 PREWETTING

- A. Brush joint faces and flush out joints with water to remove dirt and loose debris, working from top to bottom of wall. Rinse stone joints with water to remove dust and mortar particles.

Thoroughly wet wall below to avoid soiling. Joint surfaces should be damp but free from standing water.

- B. Prior wetting is necessary to achieve the proper absorption rate before masonry repair commences and is essential to good masonry practice. Presoak walls and joints with water as required by project and weather conditions. During hot or windy weather, wet walls and joints several times in advance of pointing. Re-wet walls and joints yet to be pointed if masonry dries out before pointing. Masonry units shall be damp but without standing water at the time of pointing.
- C. Maintain hand mister bottles or a garden sprayer with clean, clear, potable water immediately available to masons at all times during the repointing process. Exposed surface of masonry adjacent to joint shall be wet prior to repointing.

3.05 REPOINTING OF MORTAR JOINTS

- A. Joints shall be pointed in layers or "lifts" where the joints are deeper than $\frac{3}{4}$ inch.
 - 1. Joints greater than $\frac{3}{4}$ inches deep shall be pointed with an initial lift to bring the joint depth to a uniform $\frac{3}{4}$ inches deep.
 - 2. Compact each layer at the time it is placed in the joint by applying firm pressure with the pointing tool.
 - 3. Allow each lift to become thumbprint hard before applying the next lift.
 - a. Finish joints uniformly. Do not overwork. Leave the surface of the masonry clean.
 - b. Shield from direct sun and drying winds for the first 48 hours after installation

3.06 CLEANING

- A. Remove excess mortar and mortar droppings.
- B. Clean soiled surfaces with cleaning solution.

3.07 PROTECTION

- A. Without damaging completed work, provide protective boards at exposed external corners that are subject to damage by construction activities.

END OF SECTION

**SECTION 061000
ROUGH CARPENTRY**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Structural dimension lumber framing.
- B. Nonstructural dimension lumber framing.
- C. Rough opening framing for doors, windows, and roof openings.
- D. Preservative treated wood materials.
- E. Miscellaneous framing and sheathing.
- F. Concealed wood blocking, nailers, and supports.

1.02 REFERENCE STANDARDS

- A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware 2016a.
- B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2020.
- C. PS 20 - American Softwood Lumber Standard 2021.
- D. SPIB (GR) - Grading Rules 2014.

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
 - 1. Species: Douglas Fir-Larch, unless otherwise indicated.
 - 2. If no species is specified, provide species graded by the agency specified; if no grading agency is specified, provide lumber graded by grading agency meeting the specified requirements.
 - 3. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee at www.alsc.org, and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

- A. Grading Agency: Southern Pine Inspection Bureau, Inc; SPIB (GR).
- B. Sizes: Nominal sizes as indicated on drawings, S4S.
- C. Moisture Content: S-dry or MC19.
- D. Stud Framing (2 by 2 through 2 by 6):
 - 1. Species: Douglas Fir-Larch.
 - 2. Grade: No. 2.
- E. Joist, Rafter, and Roof Beam Framing (2 by 6 through 4 by 16):

1. Species: Douglas Fir-Larch.
- F. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
 1. Lumber: S4S, No. 2 or Standard Grade.
 2. Boards: Standard or No. 3.

2.03 DIMENSION LUMBER FOR EXPOSED APPLICATIONS

- A. Note: all work on the porch structures is intended to be exposed and should be considered as the finished product. Therefore, no off-the-shelf dimensional lumber with rounded corners, conveyor marks, identifying marks, or factory trimmed ends are permitted on exposed members.
- B. Grading Agency: National Hardwood Lumber Association (NHLA), Select and better
- C. Sizes: As indicated on Drawings or to match existing/remove members
- D. Species: As indicated on Drawings. If not indicated use Acoya, white oak, or approved substitution. If unsure, contact the architect.
- E. Moisture Content: Kiln Dried. Maximum 8% moisture content when delivered to site.

2.04 ACCESSORIES

- A. Fasteners and Anchors:
 1. Metal and Finish: 316 Stainless steel.

2.05 FACTORY WOOD TREATMENT

- A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
 1. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWPA standards.
- B. Preservative Treatment:
 1. Preservative Pressure Treatment of Lumber Above Grade: AWPA U1, Use Category UC3B, Commodity Specification A using waterborne preservative.
 - a. Kiln dry lumber after treatment to maximum moisture content of 19 percent.
 - b. Treat lumber exposed to weather.
 - c. Treat lumber in contact with roofing, flashing, or waterproofing.
 - d. Treat lumber in contact with masonry or concrete.
 - e. Treat lumber less than 18 inches above grade.
 - f. Treat lumber in other locations as indicated.
 2. Preservative Pressure Treatment of Lumber in Contact with Soil: AWPA U1, Use Category UC4A, Commodity Specification A using waterborne preservative.
 - a. Preservative for Field Application to Cut Surfaces: As recommended by manufacturer of factory treatment chemicals for brush-application in the field.

PART 3 EXECUTION

3.01 PREPARATION

- A. Where wood framing bears on cementitious foundations, install full width sill flashing continuous over top of foundation, lap ends of flashing minimum of 4 inches and seal.
- B. Coordinate installation of rough carpentry members specified in other sections.

3.02 INSTALLATION - GENERAL

- A. Select material sizes to minimize waste.

- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.
- C. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

3.03 FRAMING INSTALLATION

- A. Set structural members level, plumb, and true to line. Discard pieces with defects that would lower required strength or result in unacceptable appearance of exposed members.
- B. Make provisions for temporary construction loads, and provide temporary bracing sufficient to maintain structure in true alignment and safe condition until completion of erection and installation of permanent bracing.
- C. Install structural members full length without splices unless otherwise specifically detailed.
- D. Install horizontal spanning members with crown edge up and not less than 1-1/2 inches of bearing at each end.

3.04 BLOCKING, NAILERS, AND SUPPORTS

- A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.

3.05 ROOF-RELATED CARPENTRY

- A. Coordinate installation of roofing carpentry with deck construction, framing of roof openings, and roofing assembly installation.
- B. Provide wood curb at each roof opening except where specifically indicated otherwise; form corners by alternating lapping side members.

3.06 TOLERANCES

- A. Framing Members: 1/8 inch from true position, maximum.
- B. Surface Flatness of Floor: 1/8 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.
- C. Variation from Plane, Other than Floors: 1/4 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.

END OF SECTION

**SECTION 062000
FINISH CARPENTRY**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Finish carpentry items.
- B. Wood casings and moldings.
- C. Railings.

1.02 RELATED REQUIREMENTS

- A. Section 061000 - Rough Carpentry: Support framing, grounds, and concealed blocking.
- B. Section 081000 - Wood Entry Doors.
- C. Section 085200 – Double Hung Wood Windows.
- D. Section 099113 - Exterior Painting: Painting of finish carpentry items.

1.03 REFERENCE STANDARDS

- A. AWI (QCP) - Quality Certification Program Current Edition.
- B. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards, 2nd Edition 2014, with Errata (2016).
- C. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards 2021, with Errata.
- D. AWPA U1 - Use Category System: User Specification for Treated Wood 2022.
- E. HPVA HP-1 - American National Standard for Hardwood and Decorative Plywood 2020.
- F. PS 1 - Structural Plywood 2009 (Revised 2019).

1.04 QUALITY ASSURANCE

- A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of documented experience.
- B. Quality Certification:
 - 1. Comply with AWI (QCP) woodwork association quality certification service/program in accordance with requirements for work specified in this section: www.awiqcp.org/#sle.

PART 2 PRODUCTS

2.01 FINISH CARPENTRY ITEMS

- A. Quality Standard: Custom Grade, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.
- B. Exterior Woodwork Items:
 - 1. Window Casings and Moldings: Softwood; prepare for paint finish.
 - 2. Soffits and Fascias: Prepare for paint finish.
 - 3. Brackets, Railings, beams, trim: Prepare for paint finish.

2.02 LUMBER MATERIALS

- A. Softwood Lumber: Cyprus, species, plain sawn, maximum moisture content of 6 percent; with vertical grain, of quality suitable for transparent finish.
- B. Hardwood Lumber: Acoya or White Oak species, quarter sawn, maximum moisture content of 6 percent; with vertical grain, of quality suitable for Painted finish.

2.03 SHEET MATERIALS

- A. Softwood Plywood, Not Exposed to View: Any face species, medium density fiberboard core; PS 1 Grade A-B, glue type as recommended for application.
- B. Hardwood Plywood: Face species as indicated, plain sawn, book matched, medium density fiberboard core; HPVA HP-1 Front Face Grade AA, Back Face Grade 1, glue type as recommended for application.

2.04 FASTENINGS

- A. Adhesive for Purposes Other Than Laminate Installation: Suitable for the purpose; not containing formaldehyde or other volatile organic compounds.
- B. Fasteners for Exterior Applications: 316 Stainless steel; length required to penetrate wood substrate 1-1/2 inch minimum.

2.05 ACCESSORIES

- A. Adhesive: Type recommended by fabricator to suit application.
- B. Primer: Alkyd primer sealer.
- C. Wood Filler: Solvent base, tinted to match surface finish color.

2.06 WOOD TREATMENT

- A. Factory-Treated Lumber: Comply with requirements of AWPA U1 - Use Category System for pressure impregnated wood treatments determined by use categories, expected service conditions, and specific applications.
- B. Wood Preservative by Pressure Treatment (PT Type): Provide AWPA U1 treatment using waterborne preservative with 0.25 percent retainage.

2.07 SITE FINISHING MATERIALS

2.08 FABRICATION

- A. Shop assemble work for delivery to site, permitting passage through building openings.
- B. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify adequacy of backing and support framing.
- B. Verify mechanical, electrical, and building items affecting work of this section are placed and ready to receive this work.

3.02 INSTALLATION

- A. Install custom fabrications in accordance with AWI/AWMAc/WI (AWS) or AWMAc/WI (NAAWS) requirements for grade indicated.
- B. Set and secure materials and components in place, plumb and level.
- C. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim to conceal larger gaps.

3.03 PREPARATION FOR SITE FINISHING

- A. Set exposed fasteners. Apply wood filler in exposed fastener indentations. Sand work smooth.
- B. Site Finishing: See Section 099113 and 099123.
- C. Before installation, prime paint surfaces of items or assemblies to be in contact with cementitious materials.

3.04 TOLERANCES

- A. Maximum Variation from True Position: 1/16 inch.
- B. Maximum Offset from True Alignment with Abutting Materials: 1/32 inch.

END OF SECTION

**SECTION 071400
FLUID-APPLIED WATERPROOFING**

PART 1 GENERAL

1.01 RELATED REQUIREMENTS

- A. Section 076200 - Sheet Metal Flashing and Trim: Metal trim covers, copings, and counterflashings.
- B. Section 079200 - Joint Sealants: Sealing moving joints in waterproofed surfaces that are not part of work in this section.

1.02 REFERENCE STANDARDS

- A. ASTM C661 - Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer 2015 (Reapproved 2022).
- B. ASTM C836/C836M - Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course 2018 (Reapproved 2022).
- C. ASTM D5385/D5385M - Standard Test Method for Hydrostatic Pressure Resistance of Waterproofing Membranes 2020.
- D. ASTM D6506/D6506M - Standard Specification for Asphalt Based Protection Board for Below-Grade Waterproofing 2001, with Editorial Revision (2018).
- E. NRCA (WM) - The NRCA Waterproofing Manual 2021.

1.03 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.
- C. Testing Firm Qualifications: Company specializing in performing work of the type specified and approved by manufacturer.

1.04 FIELD CONDITIONS

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Cold-Applied Elastomeric Polymer Dispersion Waterproofing:
 - 1. Master Builders Solutions: www.master-builders-solutions.com/
 - 2. Substitutions: See Section 016000 - Product Requirements.
- B. Modified-Polymer Elastomeric Waterproofing:
 - 1. Carlisle Coatings & Waterproofing, Inc: www.carlisleccw.com/
 - 2. W.R. Meadows, Inc; HYDRALASTIC 836: www.wrmeadows.com/

2.02 FLUID APPLIED WATERPROOFING MATERIALS

- A. Hot-Applied Rubberized Asphalt Waterproofing: Elasticized rubberized asphaltic compound, hot-applied and quick setting.
 - 1. Capable of resisting maximum water head of 25 feet and preventing moisture migration to interior, tested in accordance with ASTM D5385/D5385M.
 - 2. Suitable for installation over concrete, gypsum board, and wood substrates.
 - 3. Ultimate Elongation: 500 percent, minimum, measured in accordance with ASTM D412.

4. Water Vapor Permeance: 0.1 perm, maximum, measured in accordance with ASTM E96/E96M.
5. Reinforcing: Manufacturer's standard reinforcing fabric, approved for use with specified product.
6. Finished Coating Thickness: 125 mil, 0.125 inch, minimum.
7. Products:
 - a. American Hydrotech, Inc; Monolithic Membrane 6125: www.hydrotechusa.com/
 - b. Carlisle Coatings & Waterproofing, Inc; CCW 500: www.carlisleccw.com/
 - c. CETCO, a division of Minerals Technologies Inc; STRATASEAL HR: www.mineralstech.com/#sle.
 - d. EPRO Services, Inc; HotDeck Waterproofing System: www.eproinc.com/
 - e. EPRO Services, Inc; HydroGel Waterproofing System: www.eproinc.com/
 - f. Henry Company; 790-11EV: www.henry.com/
 - g. Henry Company; 790-11: www.henry.com/
 - h. Mar-flex Waterproofing & Building Products; Armor HRA 800: www.mar-flex.com/
 - i. Soprema, Inc; COLPHENE H: www.soprema.us/
 - j. Tremco Commercial Sealants & Waterproofing; TREMproof 6100: www.tremcosealants.com/
 - k. W.R. Meadows, Inc; HRM 714: www.wrmeadows.com/.
 - l. Substitutions: See Section 016000 - Product Requirements.
- B. Cold-Applied Rubberized Asphalt Waterproofing: Rubberized asphaltic compound, suitable for installation on concrete and concrete masonry.
 1. Cured Thickness: 60 mils, 0.060 inch, minimum.
 2. Comply with ICC-ES AC29 acceptance criteria.
 3. Hydrostatic Pressure Resistance: Tested in accordance with ASTM C1306/C1306M, 50 psi, minimum by rapid test, and 35 psi, minimum by long term test.
 4. Low Temperature Resistance: No cracking, loss of adhesion, splitting or pinholes when tested at minus 15 degrees F in accordance with ASTM C836/C836M.
 5. Adhesion: No separation when tested in accordance with ASTM C836/C836M.
 6. Decay Resistance: No decay when tested in accordance with ASTM E154/E154M.
 7. Wet Film Sag Resistance: Maximum sag within plus/minus 5 mils when tested in accordance with ASTM C836/C836M.
 8. Water Vapor Permeance: 1 perm, maximum, when tested in accordance with ASTM E96/E96M.
 9. Heat Aging Resistance: No cracking, splitting, or pinholes when tested in accordance with ASTM C836/C836M.
 10. Elongation at Break: 1,000 percent, minimum, when tested in accordance with ASTM D412.
 11. Products:
 - a. AVM Industries, Inc: www.avmindustries.com/
 - b. EPRO Services, Inc; e.spray: www.eproinc.com/
 - c. Specialty Products Group; Vapor Lock - Shield Wall 39 Jet Set: www.spgogreen.com/#sle.
 - d. Substitutions: See Section 016000 - Product Requirements.
- C. To be applied over top of joists under porch flooring.

2.03 ACCESSORIES

- A. Surface Conditioner: compatible with membrane compound; as recommended by membrane manufacturer.
- B. Brushed-On Coating: Cold-applied elastomeric coating that provides waterproofing, corrosion protection, and weather resistance.
 1. Coverage: Apply coating between 15 to 30 sq ft/gal to produce at least 40 to 120 mil, 0.040 to 0.12 inch thick coating.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify substrate surfaces are free of frozen matter, dampness, loose particles, cracks, pits, projections, penetrations, or foreign matter detrimental to adhesion or application of waterproofing system.
- C. Verify that substrate surfaces are smooth, free of honeycomb or pitting, and not detrimental to full contact bond of waterproofing materials.
- D. Verify items that penetrate surfaces to receive waterproofing are securely installed.

3.02 PREPARATION

- A. Protect adjacent surfaces from damage not designated to receive waterproofing. Note this is extremely important. Adjacent brick and sides of joists will be visible from above and below and **MUST** not have waterproofing on these surfaces.
- B. Clean and prepare surfaces to receive waterproofing in accordance with manufacturer's instructions; vacuum substrate clean.

3.03 INSTALLATION

- A. Install waterproofing to specified minimum thickness in accordance with manufacturers instructions and NRCA (WM) applicable requirements.
- B. Apply primer or surface conditioner at a rate recommended by manufacturer, and protect conditioner from rain or frost until dry.

3.04 INSTALLATION - DRAINAGE PANEL AND PROTECTION BOARD

- A. Immediately after cooling, dust membrane with tack-reducing surfacing at rate of approximately 10 lb per 100 sq ft.
- B. Adhere protection board to substrate with compatible adhesive.

3.05 PROTECTION

- A. Do not permit traffic over unprotected or uncovered membrane.

END OF SECTION

**SECTION 076200
SHEET METAL FLASHING AND TRIM**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Fabricated sheet metal items, including flashings, and counterflashings.
- B. Sealants for joints within sheet metal fabrications.

1.02 RELATED REQUIREMENTS

- A. Section 061000 - Finish Carpentry: Flashing over trim at rake and soffit.

1.03 REFERENCE STANDARDS

- A. ASTM C920 - Standard Specification for Elastomeric Joint Sealants 2018.
- B. SMACNA (ASMM) - Architectural Sheet Metal Manual 2012.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week before starting work of this section.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.
- C. Samples: Submit two samples, 4 by 4 inches in size, illustrating material of typical metal material

1.06 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.
- B. Maintain one copy of each document on site.
- C. Fabricator and Installer Qualifications: Company specializing in sheet metal work with 5 years of documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. See Section 017419 - Construction Waste Management and Disposal for packaging waste requirements.
- B. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- C. Prevent contact with materials that could cause discoloration or staining.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Sheet Metal Flashing and Trim Manufacturers:
 - 1. Petersen Aluminum Corporation; www.pac-clad.com/
 - 2. Substitutions: See Section 016000 - Product Requirements.

2.02 SHEET MATERIALS

- A. Copper: ASTM B370; temper H00 (cold-rolled) except where temper 060 is required for forming; 16 oz. per sq. ft. (0.0216-inch thick) except as otherwise indicated.

- B. Stainless Steel: ASTM A666, Type 304 alloy, soft temper, 28 gauge, 0.0156 inch thick; smooth No. 4 - Brushed finish.
- C. Terne Coated Stainless Steel: 28-gauge, 0.0156-inch ASTM A666 Type 304 alloy core material with 0.092 lb/sq ft terne alloy coating on both sides of core metal.

2.03 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Form pieces in longest possible lengths.
- C. Hem exposed edges on underside 1/4 inch; miter and seam corners.
- D. Form material with flat lock seams, except where otherwise indicated; at moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- E. Tin edges of stainless sheet to be soldered; solder shop formed metal joints, and after soldering, remove flux, wipe and wash solder joints clean; provide weathertight joints.
- F. Fabricate corners from one piece with minimum 18-inch long legs; seam for rigidity, seal with sealant.
- G. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.

2.04 EXTERIOR PENETRATION FLASHING PANELS

- A. Flashing Panels for Exterior Wall Penetrations: Premanufactured components and accessories as required to preserve integrity of building envelope; suitable for conduits and facade materials to be installed.

2.05 ACCESSORIES

- A. Fasteners: Stainless steel, with soft neoprene washers.
- B. Underlayment: ASTM D226/D226M, organic roofing felt, Type I, No. 15.
- C. Protective Backing Paint: Zinc molybdate alkyd.
- D. Concealed Sealants: Non-curing butyl sealant.
- E. Exposed Sealants: ASTM C920; elastomeric sealant, with minimum movement capability as recommended by manufacturer for substrates to be sealed; color to match adjacent material.
 - 1. Manufacturers:
 - a. Franklin International, Inc; Titebond WeatherMaster Metal Roof Sealant: www.titebond.com/
 - b. Substitutions: See Section 016000 - Product Requirements.
- F. Solder: ASTM B32; Sn50 (50/50) type.

PART 3 EXECUTION

3.01 PREPARATION

- A. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil, 0.015 inch.

3.02 INSTALLATION

- A. Comply with drawing details.
- B. Insert flashings into reglets to form tight fit; secure in place with lead wedges; pack remaining spaces with lead wool; seal flashings into reglets with sealant.
- C. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted.
- D. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.

- E. Seal metal joints watertight.
- F. Solder metal joints for full metal surface contact, and after soldering wash metal clean with neutralizing solution and rinse with water.

3.03 FIELD QUALITY CONTROL

- A. See Section 014000 - Quality Requirements for field inspection requirements.
- B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

3.04 SCHEDULE

- A. Flashing on top of new rake and fascia trim details.
- B. Flashing at edge of porch floor framing

END OF SECTION

SECTION 079200 JOINT SEALANTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Nonsag gunnable joint sealants.
- B. Joint backings and accessories.

1.02 REFERENCE STANDARDS

- A. ASTM C661 - Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer 2015 (Reapproved 2022).
- B. ASTM C834 - Standard Specification for Latex Sealants 2017.
- C. ASTM C920 - Standard Specification for Elastomeric Joint Sealants 2018.
- D. ASTM C1193 - Standard Guide for Use of Joint Sealants 2016.
- E. SCAQMD 1168 - Adhesive and Sealant Applications 1989, with Amendment (2017).

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
 - 1. Physical characteristics, including movement capability, hardness, cure time, and color availability.
 - 2. List of backing materials approved for use with the specific product.
 - 3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
 - 4. Substrates the product should not be used on.
- C. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.

1.04 WARRANTY

- A. Correct defective work within a five year period after Date of Substantial Completion.
- B. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal , exhibit loss of adhesion or cohesion, or do not cure.

PART 2 PRODUCTS

2.01 MANUFACTURERS

2.02 JOINT SEALANT APPLICATIONS

- A. Scope:
 - 1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
 - a. Joints between door, window, and other frames and adjacent construction.
 - b. Joints between door and window trim and adjacent brick
 - c. Joints in railing system
 - 2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
 - a. Joints between door, window, and other frames and adjacent construction.
 - 3. Do not seal the following types of joints.
 - a. Joint between porch flooring and adjacent brick.

- b. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
 - c. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
- B. Type 1 - Exterior Joints: Only use non-sag, non-staining silicone sealant where the joint will be entirely covered by permanent construction, unless otherwise indicated.
- 1. Type 1a - Lap Joints in Sheet Metal Fabrications: Butyl rubber, non-curing.
 - 2. Type 1b – Joints to receive paint. Specifically those between door and window trim and adjacent brick construction. Elastomeric Acrylic Latex Sealant
 - 3. .

2.03 NONSAG JOINT SEALANTS

- A. Non-Staining Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
- 1. Non-Staining to Porous Stone: Non-staining to light-colored natural stone when tested in accordance with ASTM C1248.
 - 2. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
- B. Acrylic-Urethane Sealant: ASTM C920, Grade NS, Uses M and A; single component; paintable; not expected to withstand continuous water immersion or traffic.
- 1. Movement Capability: Plus and minus 12-1/2 percent, minimum.
 - 2. Color: White.
 - 3. Service Temperature Range: Minus 40 to 180 degrees F.
 - 4. Manufacturers:
 - a. DAP Products Inc; DYNAFLEX 920 Sealant: www.dapspecline.com/#sle.
 - b. Sherwin-Williams Company; Shermax Urethanized Elastomeric Sealant: www.sherwin-williams.com.
 - c. Substitutions: See Section 016000 - Product Requirements.
- C. Non-Curing Butyl Sealant: Solvent-based, single component, non-sag, non-skinning, non-hardening, non-bleeding; non-vapor-permeable; intended for fully concealed applications.

2.04 ACCESSORIES

- A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
- 1. Type for Joints Not Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type O - Open Cell Polyurethane.
 - 2. Open Cell: 40 to 50 percent larger in diameter than joint width.
- B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that joints are ready to receive work.
- B. Verify that backing materials are compatible with sealants.
- C. Verify that backer rods are of the correct size.

3.02 PREPARATION

- A. Remove existing caulk in joints around all window and door trim.
- B. Remove caulking residue from adjacent brick using an appropriate solvent.
- C. Remove loose materials and foreign matter that could impair adhesion of sealant.

- D. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- E. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- F. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

3.03 INSTALLATION

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Perform installation in accordance with ASTM C1193.
- C. Install sealant deeply recessed in joint between the trim and brick. Install a sample for architect review. Do not continue with installation until approval is received from the architect..
- D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- E. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- F. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

3.04 POST-OCCUPANCY

- A. Post-Occupancy Inspection: Perform visual inspection of entire length of project sealant joints at a time that joints have opened to their greatest width; i.e. at low temperature in thermal cycle. Report failures immediately and repair.

END OF SECTION

**SECTION 081416
WOOD ENTRY DOORS**

PART 1 GENERAL

1.01 RELATED REQUIREMENTS

- A. Section 062000 - Finish Carpentry: Wood door frames.

1.02 REFERENCE STANDARDS

- A. ASTM F476 - Standard Test Methods for Security of Swinging Door Assemblies 2014.
- B. AWI (QCP) - Quality Certification Program Current Edition.
- C. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards, 2nd Edition 2014, with Errata (2016).
- D. BHMA A156.13 - Mortise Locks & Latches Series 1000 2017.
- E. WI (CCP) - Certified Compliance Program (CCP) Current Edition.

1.03 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Indicate door core materials and construction; veneer species, type and characteristics.
- C. Shop Drawings: Show doors and frames, elevations, sizes, types, swings, undercuts, beveling, blocking for hardware, factory machining, factory finishing, cutouts for glazing and other details.
 - 1. Provide information as required by AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS).
 - 2. Include certification program label.
- D. Samples: Submit two samples of door construction, 12 by 12 inches in size cut from top corner of door.
- E. Certificate: Submit labels and certificates required by quality assurance and quality control programs.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section, with not less than three years of documented experience.
 - 1. Accredited participant in the specified certification program prior to the commencement of fabrication and throughout the duration of the project.
- B. Woodwork Quality Assurance Program:
 - 1. Comply with AWI (QCP) woodwork association quality assurance service/program in accordance with requirements for work specified in this section; www.awiqcp.org/#sle.
 - 2. Provide labels indicating that the installed work complies with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS) requirements for grade or grades specified.
 - 3. Provide designated labels on shop drawings as required by quality assurance program.
 - 4. Provide designated labels on installed products as required by quality assurance program.
 - 5. Submit documentation upon completion of installation that verifies this work is in compliance with specified requirements.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Package, deliver and store doors in accordance with specified quality standard.
- B. Accept doors on site in manufacturer's packaging, and inspect for damage.
- C. Protect doors with resilient packaging sealed with heat shrunk plastic; do not store in damp or wet areas or areas where sunlight might bleach veneer; seal top and bottom edges with tinted sealer if stored more than one week, and break seal on site to permit ventilation.

1.06 WARRANTY

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Exterior Doors: Provide manufacturer's warranty for the life of the installation.
- C. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.
- D. Manufacturer's Warranty: Contractor agrees to repair or replace wood doors that fail in materials or workmanship within specified warranty period

1.07 PRODUCTS

- A. Two panel, solid wood entry door slabs, associated hardware, and installation. ALL EXTERIOR DOORS ARE TO BE REPLACED
- B. Operating Type: Single swing. All doors are egress doors, however none are required to have panic devices.
- C. Exterior Wood Surfaces: Manufacturer's standard factory-applied color prime coat to be finished in the field
- D. Door Slabs -
 - 1. 1 3/4" thick solid wood or solid core wood veneer door slabs to fit existing frame opening, approximately 3'-0" x 6'-8". Materials must be suitable for heavy commercial, marine environment including but not limited to Accoya, mahogany, or teak. Top rail and side styles min. 4 1/2"
- E. Hardware -
 - 1. Hinges - Best FBB199 5 knuckle ball bearing hinges - 3 per door slab. 613 finish.
 - 2. Lockset - Mortise. Corbin Russwin ML2065 with DSB lever or eq. 613 finish.
 - 3. Closer - Parallel arm heavy duty. Corbin Russwin DC6210 or 6410 with A13 closer arm for use with overhead stop. 613 finish.
 - 4. Weatherstripping - for gaps 1/16" to 3/16": 1 1/4" Spring Bronze fastened with solid bronze nails @ 2" o.c.. for gaps 1/8" to 1/4": 3/4" V Bronze fastened with solid bronze nails @ 4" o.c.. Brush type sweep at threshold.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PREPARATION

- A. Carefully measure opening, paying particular attention to diagonal measurements to address out-of-square conditions. New door slabs are to fit existing openings.
- B. Once door slabs are on site and fit with the existing opening is verified, remove existing door slab and hardware on door and jamb
- C. Prime door slab
- D. Patch and repair jamb. Install patches where jamb is compromised or holes occur larger than a nail hole
- E. Prep door slab and jamb to receive hardware
- F. Paint door slab and jamb
- G. Install weather stripping
- H. Install hardware

3.02 INSTALLATION

- A. Install doors in accordance with manufacturer's instructions and specified quality standard.

1. Install fire-rated doors in accordance with NFPA 80 requirements.
- B. Coordinate installation of doors with installation of frames and hardware.
- C. Coordinate installation and keying of hardware.
- D. Touch up paint and assure smooth operation

END OF SECTION

**SECTION 085200
DOUBLE HUNG WINDOW**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Double Hung window complete with hardware, glazing, weather strip, jamb extensions, and standard anchors, trim and attachments. Heritage Traditions by Kolbe.
- B. Impact rated IPD3. Florida Product Approval #13091. No screens.
- C. ALL WINDOWS ARE TO BE REPLACED

1.02 RELATED SECTIONS

- A. Section 013000 – Submittal Procedures: Shop Drawings, Product Data, and Samples
- B. Section 012500 – Substitution Procedures
- C. Section 07 92 00 – Joint Sealants: Sill sealant and perimeter caulking
- D. Section 09 90 00 – Paints and Coatings: Paint and stain other than finish

1.03 REFERENCES

- A. ASTM International:
 - 1. E283: Standard Test Method for Determining Rate of Air Leakage through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen
 - 2. E330: Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference
 - 3. E547: Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls, by Cyclic Air Pressure Difference
 - 4. E2190: Standard Specification for Insulating Glass Unit Performance and Evaluation
 - 5. E2112: Standard Practice for Installation of Exterior Windows, Doors, and Skylights
- B. North American Fenestration Standard (NAFS) - American Architectural Manufacturer's Association/Window and Door Manufacturer's Association/Canadian Standards Association (AAMA/WDMA/CSA 101/I.S.2/A440):
 - 1. AAMA/WDMA/CSA 101/I.S.2/A440-17: NAFS: North American Fenestration, Standard/Specification for windows, doors, and skylights
- C. Window and Door Manufacturers Association (WDMA)
 - 1. WDMA I.S.4: Industry Standard for Water Repellent Preservative Treatment for Millwork
 - 2. WDMA I.S.2: Hallmark Certification Program
- D. National Fenestration Rating Council (NFRC):
 - 1. NFRC 101: Procedure for Determining Fenestration Product Thermal Properties
 - 2. NFRC 200: Procedure for Determining Solar Heat Gain Coefficients at Normal Incidence

1.04 SYSTEM DESCRIPTION

- A. Design and Performance Requirements:
 - 1. Missile Impact at Missile Level D complies with ASTM E1886-05, and ASTM E1996-05.
 - 2. Impact Pressure Cycling at +55/-65 psf, complies with ASTM E1886-05,ASTM E1996-05.
 - 3. Forced Entry Resistance, complies with ASTM F588.

1.05 SUBMITTALS

- A. Shop Drawings: Submit shop drawings under provision of Section 013000.

- B. Product Data: Submit product data for certified options under provision of Section 013000. Product performance rating information may be provided via quote, performance rating summary (NFRC Data), or certified performance grade summary (WDMA Hallmark data).
- C. Samples:
 - 1. Submit corner section under provision of Division 1.

1.06 DELIVERY

- A. Comply with provisions of Section 016000
- B. Deliver in original packaging and protect from weather

1.07 STORAGE AND HANDLING

- A. Prime and seal wood surfaces, including to be concealed by wall construction, if more than thirty (30) days will expire between delivery and installation.
- B. Store window units in an upright position in a clean and dry storage area above ground to protect from weather.

1.08 WARRANTY

- A. Manufacturer's Warranty: Manufacturer agrees to repair or replace wood windows that fail in materials or workmanship within specified warranty period.
- B. Warranty Period: Window: 10 years from date of shipment and issued to the owner at Substantial Completion

PART 2 PRODUCTS

2.01 MANUFACTURED UNITS

- A. Description: Heritage Traditions by Kolbe Windows and Doors.

2.02 FRAME DESCRIPTION

- A. Interior: White interior surfaces.
- B. Kiln-dried to moisture no greater than twelve (12) percent at the time of fabrication.
- C. Water repellant preservative treated in accordance with K-Kron II treatment system
- D. Exterior: Wood. Color Ultra Pure White.
- E. Frame Width: 4 9/16".

2.03 SASH DESCRIPTION

- A. White interior surfaces
 - 1. Kiln-dried to moisture content no greater than twelve (12) percent at the time of fabrication.
 - 2. Water repellant preservative treated in accordance with K-Kron II treatment system.
- B. Sash Options:
 - 1. Equal Sash.
 - 2. Composite sash thickness: 1 9/16".
 - 3. 5/8" Beveled Profile
- C. Operating sash tilt to interior for cleaning or removal.

2.04 GLAZING

- A. Select quality complying with ASTM C1036. Insulating glass SIGMA/ICC certified to performance level CBA when tested in accordance with ASTM E2190. STC/OITC ratings are certified to the level in accordance with ASTM E90-09.
- B. Glazing method: Insulating glass, fully tempered
- C. Gas Fill: Argon

- D. Impact glazing for winds zone 3. Glass is laminated Low E2 or Low E3 with Argon consisting of annealed or tempered glass to the exterior and laminated glass to the interior. The laminated glass is made up of two pieces of glass with either SGP or PVB laminate layer in between. The interior and exterior glazing compound is silicone, in a sandwich style glazing system.

2.05 FINISH

- A. Exterior Wood Surfaces: Manufacturer's standard factory-applied color finish

2.06 HARDWARE

- A. Balance System: Coil spring block and tackle with nylon cord and glass filled nylon shoe and zinc locking clutch.
- B. Lock: Traditional sash locks in oil rubbed bronze finish
- C. Lifting handles: Traditional Sash Lift Handles in Oil Rubbed Bronze

2.07 WEATHER STRIP

- A. At Bottom Sash: Rigid color matched vinyl with a hollow vinyl weather strip; interfaces against the sill and jamb weather strip
 - 1. Color: Black.
- B. Jamb Weather Strip: Robust skin covered foam weather strip is used to seal the double hung jamb. It is inserted into to a rigid vinyl jamb carrier.
 - 1. Color: White.
- C. Blind Stop: vinyl with a flexible leaf seal to seal between the header and the upper sash.

2.08 SIMULATED DIVIDED LITES (SDL)

- A. 5/8" wide with spacer bar.
 - 1. Exterior muntins: color match exterior
 - 2. Interior muntins: white
 - 3. Spacers: bronze or dark brown anodized or Kynar finished. Bare or clear anodized aluminum spacer bars are not permitted
 - 4. Patterns:
 - a. Rectangular

2.09 ACCESSORIES AND TRIM

- A. Installation Accessories:
 - 1. Factory-installed vinyl nailing fin/drip cap at head, sill and side jambs.
 - 2. Installation brackets: Brackets for 4 9/16", 6 9/16" jambs.
 - 3. Installation clips standard with nailing fin on impact glazed windows.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of Condition: Before installation, verify openings are plumb, square and of proper dimensions. Report opening defects or unsuitable conditions to the General contractor before proceeding.
- B. Acceptance of Condition: Beginning on installation confirms acceptance of existing conditions.

3.02 INSTALLATION

- A. Assemble and install window/door unit(s) according to manufacturer's instruction and reviewed shop drawing.
- B. Install sealant and related backing materials at perimeter of unit or assembly in accordance with Section 079200 Joint Sealants. Do not use expansive foam sealant.

- C. Comply with manufacturer's written instructions for installing windows, hardware, accessories, and other components. Install windows level, plumb, square, true to line, without distortion, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction to produce weathertight construction.
- D. Install windows from the interior. Remove interior trim and existing window, leaving exterior trim in place. Install waterproofing system similar to RedGuard. Install new window against exterior trim with full bead of sealant between the trim and new window.
- E. Integrate window system installation with exterior water-resistant barrier using flashing/sealant tape if possible. Place interior seal around window perimeter to maintain continuity of building thermal and air barrier using insulating-foam sealant.
- F. Seal window to exterior wall cladding with sealant and related backing materials at perimeter of assembly.
- G. Re-install interior trim, caulk and paint to match existing.
- H. Install accessory items as required.
- I. Use finish nails to apply wood trim and mouldings.

3.03 FIELD QUALITY CONTROL

- A. Remove visible labels and adhesive residue according to manufacturer's instruction.
- B. Unless otherwise specified, air leakage resistance tests shall be conducted at a uniform static pressure of 75 Pa (~1.57 psf). The maximum allowable rate of air leakage shall not exceed 2.3 L/sm² (~0.45 cfm/ft²).
- C. Unless otherwise specified, water penetration resistance testing shall be conducted per AAMA 502 and ASTM E1105 at 2/3 of the fenestration products design pressure (DP) rating using "Procedure B" – cyclic static air pressure difference. Water penetration shall be defined in accordance with the test method(s) applied.

3.04 CLEANING

- A. Remove visible labels and adhesive residue according to manufacturer's instruction.
- B. Leave windows and glass in a clean condition.

3.05 PROTECTING INSTALLED CONSTRUCTION

- A. Protecting windows from damage by chemicals, solvents, paint or other construction operations that may cause damage.

END OF SECTION

**SECTION 096429
WOOD STRIP AND PLANK FLOORING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Wood strip porch flooring, nailed.

1.02 RELATED REQUIREMENTS

- A. Section 061000 - Rough Carpentry.
- B. Section 099000 - Painting.

1.03 REFERENCE STANDARDS

- A. NWFA (IG) - Installation Guidelines Current Edition.

1.04 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data for flooring.
- C. Samples: Submit two samples illustrating floor finish, color, and sheen.
- D. Installation Instructions: Indicate standard and special installation procedures.
- E. Maintenance Data: Include maintenance procedures and recommended maintenance materials.

1.05 FIELD CONDITIONS

- A. Do not install wood flooring until preparation and finishing of floor joist and supporting beams has been completed.
- B. Carefully strip all sealant off of brick at existing porch edge.
- C. First floor - floor joists and beams to be entirely de-nailed, scraped, sanded, and painted with primer and two coats of acrylic paint. Fluid apply self healing waterproofing membrane on TOP surface of the joists only. Take care to avoid drips or over-painting on sides of joists.
- D. Second floor - floor joists and beams to be entirely de-nailed, scraped, sanded, and painted with primer and two coats of acrylic paint.

PART 2 PRODUCTS

2.01 WOOD STRIP FLOORING

- A. Species: Acoya or eq. clear wood milled with double bead on bottom and square edge (flat on the top).
- B. Grade: Clear.
- C. Cut: Edge grain.
- D. Moisture Content: 7 to 9 percent.
- E. Actual Thickness: 3/4 inch (19 mm).
- F. Actual Width: 2-1/4 inches (57 mm).
- G. Edge: Tongue and groove.
- H. End: No end or butt joints. Every piece of flooring to extend from building face to overhang of porch
- I. Length: Full depth of porch.
- J. Flooring fasteners: type 316 stainless steel.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting this work.
- B. Verify that required floor-mounted utilities are in correct location.

3.02 PREPARATION

- A. Prepare substrate to receive wood flooring in accordance with manufacturer's and NWFA instructions.

3.03 INSTALLATION

- A. Sheathing Paper: Place over wood subfloor; lap edges and ends 2 inches, staple in place.
- B. Wood Flooring:
- C. Install in accordance with manufacturer's and NWFA instructions; predrill and blind nail to subfloor.
- D. Lay perpendicular to beams from brick to porch edge.
- E. Overlap edge beam adequately to install molding per detail in the drawings.
- F. Finishing: Paint two coats on the bottom (bead board side) and one coat on the top (flat) and tongue prior to installation. Finish top with second coat immediately prior to turning the project over to the owner.

3.04 PROTECTION

- A. Prohibit traffic on floor finish for 48 hours after installation.

END OF SECTION

**SECTION 061000
ROUGH CARPENTRY**

PART 1 GENERAL

1.01 SUMMARY

- A. Work includes furnishing of materials and equipment, preparation of surfaces and completion of painting and finishing of surfaces as required by Drawings and specified herein.

1.02 RELATED WORK

- A. Factory, pre-finished items as specified in various sections.
- B. Shop painting specified in respective sections.
- C. Architectural woodworking.
- D. Surfaces not to be painted:
 - 1. Pre-finished wall, ceiling and floor coverings.
 - 2. Items with factory-applied final finish.
 - 3. Concealed ducts, pipes and conduit.
 - 4. Surfaces specifically scheduled or noted on Drawings not to be painted.

1.03 SUBMITTALS

- A. Product data:
 - 1. Not less than thirty (30) days before beginning work, submit a complete list of materials proposed for use, together with manufacturer's specifications.
 - 2. Paint materials and products shall be subject to Architect's approval.
- B. Color samples:
 - 1. Prepare color and finishes on samples, 8-1/2" x 11" in size.
 - 2. Submit samples as requested until required sheen, color and texture is achieved.
 - 3. Prepare wood samples on type and quality of wood specified for use on project.
 - 4. Label and identify each sample as to location and application.

1.04 COLORS

- A. Colors are to be selected or approved by Architect and actual color chips shall be supplied to Contractor for matching. All undercoats shall be tinted to approximately half the color of finish coat.
- B. Approval of final colors: Do not apply final coat of paint until colors have been approved by Architect.
- C. The number of colors to be used shall be as determined by Architect. Architect reserves right to vary colors throughout project.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Deliver paint materials in sealed original labeled containers bearing manufacturer's name, type of paint, stock number, color and instructions for reducing or mixing where applicable.
- B. Paint materials and equipment
 - 1. Store only acceptable project materials on site.
 - 2. Store in a suitable location.
 - 3. Restrict storage to paint materials and related materials.
 - 4. Comply with health and fire regulations.

1.06 PROJECT CONDITIONS

- A. Comply with manufacturer's recommendations as to environmental conditions under which coatings and coating systems can be applied. Do not apply paint or coatings when temperature

is below 50°F. Do not apply exterior paint in damp or rainy weather; ensure that the surface has dried thoroughly before proceeding. Surface temperature must be at least 5°F above dew point before painting.

- B. Do not apply finish in areas where dust or contaminants are being generated.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Basis-of-Design Product: Provide products listed from Behr Paint Company, Santa Ana, California 92705, or comparable products by one of the following. Other manufacturers to conform to materials listed and be approved by Architect.
 - 1. Sherwin-Williams Company (The)
 - 2. Benjamin Moore & Company
- B. Materials selected for coating systems for each type surface shall be the product of a single manufacturer.
- C. Accessory materials such as thinner, linseed oil, putty and shellac shall be of the highest quality and by approved manufacturer.
- D. Paints shall be ready-mixed except field catalyzed coatings.
- E. Do not thin finish coats without Architect's approval.
- F. Unsuitability of specified products: Claims concerning unsuitability of any material specified or inability to satisfactorily produce the work will not be entertained, unless such claim is made in writing to Architect before work is started.
- G. Number of coats scheduled is minimum. Apply additional coats at no additional cost if necessary to completely hide base materials, produce uniform color and provide satisfactory finish result.
- H. Submitted paints and coating shall comply with current local, state and federal air quality regulations.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine surfaces scheduled to receive paint and finishes for conditions that will adversely affect execution, permanence or quality of work and which cannot be put into acceptable condition through preparatory. Notify Owner's Representative in writing of any defects or conditions which will prevent a satisfactory installation.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.
- C. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows;
 - 1. Wood: 9 percent
- D. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- E. Proceed with surface preparation and coating application only after unsatisfactory conditions have been corrected.

1. Application of coating is construed as acceptance of surfaces and conditions.

3.02 PREPARATION

- A. Surfaces to receive paint shall be clean, dry, and dust free before application of any coatings. Prepare surfaces as follows:
 1. **WOOD SUBSTRATES:** Remove mill glaze and dust, sand smooth. Fill open joints, cracks, nail holes and other pits or depressions flush and smooth with wood filler after priming. Use wood putty to match finish paint coat. Touch up knots or sap streaks with a stain-blocking sealer before priming. Sand all surfaces, no exceptions.
 2. **PAINTED FERROUS METAL:** Remove contaminants and foreign matter. Touch up abrasions with a suitable ferrous metal primer.
- B. Surfaces, which cannot be prepared or painted as specified, shall be immediately brought to attention of Architect in writing.
 1. Starting of work without such notification will be considered acceptance by the Contractor of surfaces involved.
 2. Replace unsatisfactory work caused by improper or defective surfaces as directed by Architect at no additional cost to Owner.

3.03 APPLICATION

- A. Do not apply initial coating until moisture content of surface is within limitations recommended by paint manufacturer.
- B. Application:
 1. Apply paint with suitable brushes, rollers or spraying equipment.
 2. Apply stain in accordance with manufacturer's recommendations.
 3. Rate of application shall not exceed that as recommended by paint manufacturer for surface involved.
- C. Comply with recommendations of product manufacturer for drying time between succeeding coats.
- D. Leave parts of molding and ornaments clean and true to details with no undue amount of paint in corners and depressions.
- E. Make edges of paint adjoining other material or color clean and sharp with no overlapping.
- F. Apply materials evenly with proper film thickness and free of runs, sags, skips and other defects. Hard, glossy finishes shall be sanded lightly between coats, dusted and cleaned before recoating.
- G. Remove hardware, hardware accessories, plates, lighting fixtures and similar items in place prior to painting and replaced upon completion of each space.
- H. Paint visible surfaces behind vents, registers or grilles flat black.
 1. Wash exposed metal with solvent then prime and paint as scheduled.
 2. Spray paint wherever practical.
- I. Do not paint over Underwriters' labels, fusible links or sprinkler heads.

3.04 CLEANUP

- A. Upon completion of work, remove equipment, excess material and debris, remove paint splatters and leave area in a neat and orderly condition.

3.05 PROTECTION

- A. Protect work of other trades, whether to be painted or not, against damage by painting. Correct damage by cleaning, repairing or replacing, and repainting, as acceptable to Architect.
- B. Provide "wet paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others for protection of their work after completion of painting operations.

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

3.06 FINISH SCHEDULE

- A. Finish surfaces in accordance with schedule. Catalog names and numbers refer to products as manufactured by the Behr Paint Company, Santa Ana, California 92705, except as otherwise specified.
- B. Provide paint finishes of even uniform color, free from cloudy or mottled appearance. Properly correct non-complying work to satisfaction of Owner's representative and representative of Behr Process Corporation.
- C. Some colors, especially accent colors may require multiple finish coats for adequate coverage and opacity.
- D. The specified number of primer and finish coats is minimum acceptable. If full coverage and opacity is not obtained with specified number of coats, apply additional coats as necessary to produce required finish.
- E. Application Finish Schedule:

EXTERIOR PAINT SCHEDULE:

BEHR	Sherwin-Williams	Benjamin Moore
------	------------------	----------------

1. Wood, Paint Finish

Semi-Gloss – Professional Exterior 100% Acrylic

Prime Coat:	Premium Multi-Surface Primer 436	PrepRite ProBlock B51-600	Fresh Start Latex Primer N023
Intermediate Coat:	Behr Pro e600 Exterior Semi-Gloss 670	A-100 Latex Gloss A8-100	Ultra Spec Ext Gloss N449
Topcoat:	Behr Pro e600 Exterior Semi-Gloss 670	A-100 Latex Gloss A8-100	Ultra Spec Ext Gloss N449

2. Wood, Wood Composite – Decks, Patios, Boat Docks, Railings – Solid Color Coating

Flat – Premium 100% Acrylic, Solid Color Coating

Two Coats:	5000 DeckOver Solid Color Coating	N/A	N/A
------------	-----------------------------------	-----	-----

3. Steel, Ferrous Metal

Semi-Gloss – Professional Exterior 100% Acrylic

Prime Coat:	Premium Multi-Surface Primer 436	Loxon Primer A24W8300	Super Spec Metal Primer P04
Intermediate Coat:	Behr Pro e600 Exterior Semi-Gloss 670	A-100 Latex Gloss A8-100	Ultra Spec Ext Gloss N449
Topcoat:	Behr Pro e600 Exterior Semi-Gloss 670	A-100 Latex Gloss A8-100	Ultra Spec Ext Gloss N449

4. Galvanized Metal, Aluminum, and Non-Ferrous Metals

Semi-Gloss – Professional Exterior 100% Acrylic

Pretreatment:	Klean Strip Prep & Etch (GKPA 30220)	Krud Kutter Metal Cleaner & Etch	Krud Kutter Metal Cleaner & Etch
Prime Coat:	Premium Multi-Surface Primer 436	Pro-Cryl Universal Primer B66W1310	Super Spec Metal Primer P04
Intermediate Coat:	Behr Pro e600 Exterior Semi-Gloss 670	A-100 Latex Gloss A8-100	Ultra Spec Ext Gloss N449
Topcoat:	Behr Pro e600 Exterior Semi-Gloss 670	A-100 Latex Gloss A8-100	Ultra Spec Ext Gloss N449

INTERIOR PAINT SCHEDULE

1. WOOD – Paint Finish

Semi-Gloss – Interior, Acrylic

Prime Coat:	Premium All-In-One Primer Sealer 75	Premium Wall & Wood Primer B28W08111	Fresh Start Primer N023
Intermediate Coat:	Premium Plus Interior Semi-Gloss 3050	Super Paint Semi-Gloss A88- 1100	Regal Select Semi-Gloss 551
Topcoat:	Premium Plus Interior Semi-Gloss 3050	Super Paint Semi-Gloss A88- 1100	Regal Select Semi-Gloss 551

END OF SECTION

**SECTION 102000
EXTERIOR LIGHTING**

PART 1 GENERAL

1.01 RELATED REQUIREMENTS

- A. Section 099000 - Painting: Ceilings.

1.02 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Product Data: Cut sheets for all fixtures indicating materials, glazing, wet location certification, warranty information, and installation instructions.
- C. Samples: Submit one sample each light fixture type. Note that in the event the sample is rejected, the contractor must be able to return the item at no cost to the owner.
- D. Certificate: Submit labels and certificates required by Underwriters Laboratories.

1.03 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section, with not less than three years of documented experience.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Package, deliver and store fixtures in accordance with Section 016000.
- B. Accept fixtures after painting, wiring, and all work on site in proximity to the installation in manufacturer's packaging, and inspect for damage.
- C. Protect fixtures with resilient packaging sealed with heat shrunk plastic.

1.05 WARRANTY

- A. Exterior Light Fixtures: Provide manufacturer's warranty of the finish and materials for 10 years.

PART 2 PRODUCTS

2.01 PRODUCTS - SEE CUT SHEETS ATTACHED AT THE END OF THIS SECTION.

PART 3 EXECUTION

3.01 PREPARATION

- A. Remove existing sconce and pendant fixtures.
- B. Remove mounting plates but leave wiring and boxes in place.
- C. Re-use existing wiring if possible. If not possible, coordinate re-wiring with the architect.

3.02 INSTALLATION

- A. Install fixture and lamp with approved bulb.
- B. Remove protective coverings and clean finger prints and other blemishes
- C. All sconce locations: H-2 Large Hooded Wall Mount
- D. First floor pendant locations: C-3TUB Large Hooded Pole Light
- E. Second floor pendant locations: C-3ARM Large hooded Pendant

END OF SECTION

