



DESIGN & CONSTRUCTION GROUP  
THE GOVERNOR NELSON A. ROCKEFELLER  
EMPIRE STATE PLAZA  
ALBANY, NY 12242

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**ADDENDUM NO. 1 TO PROJECT NO. 47295**

**CONSTRUCTION WORK  
PROVIDE MASONRY REPAIR, PHASE 2  
STATE ARMORY  
2366 5<sup>TH</sup> AVENUE  
NEW YORK, NY**

April 4, 2024

**NOTE:** This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.

**SPECIFICATION GROUP**

1. SECTION 040513: MORTAR: Discard the Section bound in the Project Manual and substitute the accompanying Section (pages 040513-1 thru 040513-7) noted "Revised 04/03/2024".
2. SECTION 042113: BRICK MASONRY: Discard the Section bound in the Project Manual and substitute the accompanying Section (pages 042113-1 thru 042113-10) noted "Revised 04/03/2024".
3. SECTION 055000: METAL FABRICATIONS: Discard the Section bound in the Project Manual and substitute the accompanying Section (pages 055000-1 thru 055000-6) noted "Revised 04/03/2024".

**APPENDIX**

4. SCHEDULE OF SUBMITTALS: Discard the Document bound in the Project Manual and substitute the accompanying Document (pages 1 thru 7) noted as "Printed on 04/04/2024".

**END OF ADDENDUM**

Brady Sherlock, P.E.  
Director, Division of Design  
Design & Construction

**SECTION 040513**

**MORTAR**

**PART 1 GENERAL**

**1.01 SUMMARY**

- A. This Section includes the intent to provide a watertight and stable building enclosure by repointing open and defective masonry joints. Provide all materials, labor, equipment, and perform all operations required to complete the work in this Section. The work shall include but not limited to the following:
  - 1. Brick Masonry Repointing
  - 2. Brick Masonry Replacement
  - 3. Sandstone Joint Repointing
  - 4. Granite Joint Repointing
  - 5. Terra Cotta Repointing
  - 6. Terra Cotta Replacement

**1.02 RELATED WORK SPECIFIED ELSEWHERE**

- A. Masonry Cleaning: Section 040123
- B. Terra Cotta Restoration: Section 040130
- C. Brick Masonry: Section 042113
- D. Terra Cotta Unit: Section 042129
- E. Cut Stone: Section 044301

**1.03 REFERENCES**

- A. Standards:
  - 1. Mortar: ASTM C 270, except as otherwise specified.
  - 2. ASTM C109/C09M, compressive Strength of Hydraulic Cement Mortars.
  - 3. ASTM C 144, standard specification for aggregate for masonry mortar.
  - 4. ASTM C 150, standard specification for portland cement.
  - 5. ASTM C 207, standard specification for hydrated lime for masonry purposes.
  - 6. ASTM C 568/ C568M, Standard Specification for Limestone.
  - 7. ASTM STP 935-EB, Cleaning Stone and Masonry
  - 7. Brick Industry Association of America (BIA).
  - 8. National Park Service (NPS), Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings.

**1.04 SUBMITTALS**

- A. Product Data Sheets: For each product specified in Part 2 Products.

- B. Mix Design:
  - 1. Proportions of ingredients for each type of mortar specified.
  - 2. Where Pre-blended (Pre-bagged with Aggregates) mortars are specified, Manufacturer shall provide material certificates including description of mortar type indicating proportion or property specification, and conformance with ASTM C270 and ASTM C1714.
- C. Samples:
  - 1. Mortar Components: Dry samples (minimum 4 oz.) of each component.
    - a. Cement.
    - b. Lime.
    - c. Pigment (color).
    - d. Sand (aggregate) samples.
  - 2. Tooled-only Mortar: For each mortar expected to be incorporated in the Work. Samples shall be fully cured and tooled-only (unscuffed), 6" long x 1/2" wide, set in aluminum or plastic channels.

#### **1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver, store, and handle materials in a manner which will insure the preservation of their quality and fitness for the Work.
- B. Store cement and lime on raised platforms under waterproof, well ventilated cover.

#### **1.06 PROJECT CONDITIONS**

- A. Environmental Requirements; Cold Weather Conditions:
  - 1. At temperatures below 40 degrees F, maintain mortar temperature between 40 degrees F and 120 degrees F. If necessary, heat mixing water and sand to produce the required results.
  - 2. At temperatures between 40 degrees F and 32 degrees F, protect masonry from rain and snow for 24 hours after laying.
  - 3. 32° F and Below: No Work permitted.
  - 4. Do not lower freezing point of mortar by use of antifreeze, calcium chloride, or other additives.
  - 5. Do not use frozen materials or materials coated with ice or frost.

#### **1.07 QUALITY ASSURANCE**

- A. Contractor Qualifications: Work of this Section shall be performed by the Contractor or Subcontractor having not less than 5 years satisfactory experience in comparable restoration and rehabilitation projects. At least 5 of the projects shall be of landmark quality or historically significant, as determined by the Architect.
  - 1. Contractor or Subcontractor shall only use skilled and experienced workmen knowledgeable in performing the specified work.
  - 2. All Subcontractors shall be bound by the same requirements as the Contractor. Subcontractors must be approved by the Director's Representative and shall not begin work unless approved.

3. Skilled workmen shall successfully demonstrate to the Director's Representative the ability to perform the work as specified and without damage to the existing building.
  4. Only skilled journeymen masons who are trained, certified, and experienced with the materials and methods specified and are familiar with the design requirements shall be used for masonry restoration.
- B. Historic Treatment Specialist Qualifications: An experienced firm regularly engaged in historic treatments similar in nature, materials, design, and extent to this work as specified in each section and that has completed a minimum of five recent projects with a record of successful in-service performance that demonstrates the firm's qualifications to perform this work.
1. Field Supervisor Qualifications: Full-time supervisors experienced in historic treatment work similar in nature, material, design, and extent to that indicated for this Project. Supervisors shall be on Project site when historic treatment work begins and during its progress. Supervisors shall not be changed during Project except for causes beyond the control of the specialist firm.
  2. Construct new mockups of required work whenever a supervisor is replaced.
- C. Field Examples: Provide full size examples erected on site to demonstrate procedures, tolerances, fit, materials, and workmanship to establish the standards by which the mock-up work will be reviewed.
1. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.
  2. Provide samples on site in the area indicated by the Director's Representative, where examples will be exposed to the same conditions that will be present on the building during curing.
  3. Provide field examples for each mortar type included in this project.
  4. Demonstrate mortar removal and pointing of mortar with tooling.
  5. Repeat field examples as necessary until acceptance by Architect and OGS is achieved. Retain acceptable samples in an undisturbed condition, suitably marked and protected, as a standard for reviewing the completed work.

## **PART 2 PRODUCTS**

### **2.01 GENERAL**

- A. Refer to Drawings for color and texture of exposed mortars.
- B. Pigmented Portland cement-lime should be used to achieve the required color in exposed mortars.
- C. Use aggregates (sand) that match color and grain size of original aggregates as closely as possible.
- D. All mortars specified shall comply with ASTM C 270, type as indicated.
- E. Mortar components shall comply with the following:

1. Portland cement: ASTM C 150, Type I or Type II; gray or non-staining white. Portland cement for use with limestone shall contain no more than 0.60 percent total alkali when tested according to ASTM C 114.
2. Hydrated Lime: ASTM C 207, Type S
3. Aggregates (for mortar): ASTM C 144
4. Coloring Agent (Pigments): Alkali stable as approved by in writing by Architect.
5. Admixtures: None, unless approved in writing by Architect.
6. Water: Potable

**2.02 MIX DESIGN**

A. Administration Building – Exterior Brick Mortar:

- Glen Gery Colored Mortar Blend, “G-407” – Type N
- 2 parts Athenia “White Mason Sand”
- 1 part Schofield “125”

Note: The ratio of colored mortar blend to sand should follow the manufacturer’s specifications or Type N mortar. No masonry cement shall be used in this mortar mix.

B. Administration Building – Sandstone and Terra Cotta Mortar:

- Glen Gery Colored Mortar Blend, “G-407” – Type N
- 2 parts Athenia “White Mason Sand”
- 1 part Schofield “125”

Note: The ratio of colored mortar blend to sand should follow the manufacturer’s specifications or Type N mortar. No masonry cement shall be used in this mortar mix.

C. Drill Hall – Exterior Brick Mortar:

- Glen Gery Colored Mortar Blend, “G-103” – Type N
- 2 parts Athenia “White Mason Sand”
- 1 part Schofield “125”

Note: The ratio of colored mortar blend to sand should follow the manufacturer’s specifications or Type N mortar. No masonry cement shall be used in this mortar mix.

D. Drill Hall – Terra Cotta Mortar:

- Glen Gery Colored Mortar Blend, “G-103” – Type N
- 3 parts Athenia “White Mason Sand”

Note: The ratio of colored mortar blend to sand should follow the manufacturer’s specifications or Type N mortar. No masonry cement shall be used in this mortar mix.

E. Administration Building – Granite Mortar:

- Glen Gery Colored Mortar Blend, “G-302” – Type N
- 3 parts Athenia “White Mason Sand”

Note: The ratio of colored mortar blend to sand should follow the manufacturer’s specifications or Type N mortar. No masonry cement shall be used in this mortar mix.

Schofield: “125” – described as a variable sized tan sand, with a moderate amount of dark grains.  
Schofield Stone HQ, 831 East Main Street, Bridgewater, NJ 08807. Tel: (732) 356-0858.

Athenia: “White Mason Sand” – described as a fine white mason’s sand.  
Athenia Mason Supply, 72 Mina Avenue, Clifton, NJ 07011. Tel: (973) 253-0570.

Glen-Gery Colored Mortar Blend:  
Glen-Gery Corporation, 1166 Spring Street, PO Box 7001, Wyomissing, PA 19610,  
Tel: (610) 374-4011, www.glengery.com

## **2.03 MORTAR MIXING**

- A. Measuring: Measure all ingredient materials in a dry condition by volume or equivalent weight. Do not measure by shovel.
- B. Mixing: Mix materials in a clean mechanical batch mixer.
  - 1. Thoroughly mix cement, lime, pigment, and aggregate materials together before adding any water.
  - 2. Mix again adding only enough water to produce a damp, unworkable mix which will retain its form when pressed into a ball. Let mortar stand in this dampened condition for 15 minutes to allow for pre-hydration.
  - 3. Add remaining water in small portions until mortar of desired consistency is reached. Use mortar within 1 hour of final mixing. Do not re-temper or use partially hardened material.

## **PART 3 EXECUTION**

### **3.01 GENERAL**

- A. Comply with Contract Documents for mortaring requirements (e.g. mortar bedding and jointing, repointing mortar joints, and parging (plastering) masonry walls).

### **3.02 MORTAR REMOVAL AND JOINT PREPARATION**

- A. Use qualified, experienced personnel for removal operations. Removal shall be performed in a careful, orderly and controlled manner to avoid hazard to persons, damage to property, and interference with the spreading of dust and flying particles.
- B. Remove cracked and loose material to expose sound mortar.
- C. Remove all loose debris and dirt from raked joints and cracks; use a stiff natural bristle brush or compressed air to remove granular particles and dust.
- D. Take all necessary precautions to ensure masonry faces and corners are not damaged during mortar removal. Contractor shall be responsible for protection of all adjacent surfaces.
- E. Remove mortar from the surface of the masonry within the joint so that new mortar bonds directly to the masonry.

- F. Repair all masonry units damaged from raking of joints at no extra cost to the Owner.

**3.03 REPOINTING**

- A. Where required, rake mortar joint in a manner to protect masonry units from damage. Acceptable tools include:
  - 1. At head joints, short bed joints or end of long cuts, acceptable tools include power oscillating mortar removal tools or hand tools.
  - 2. At long cuts, acceptable tools include power driven grinder with diamond blade and vacuum attachment for dust collection, or hand tools.
- B. Where mortar embedded units (e.g., masonry units, stone units, etc.) have been removed, remove mortar, loose particles and debris from existing surrounding units, in preparation for replacement units.
- C. Preparation: Brush, vacuum or rinse joint substrates to remove dust, dirt and loose debris. Allow to dry before proceeding unless pre-wetting is required below. Do not use wire brush or implements that mark or damage exposed surfaces.
- D. Pre-wetting High Absorption Brick Masonry:
  - 1. Do not pre-wet concrete masonry units (CMU).
  - 2. Wet high absorption brick units and surrounding masonry before laying.
  - 3. Allow masonry to absorb water and become damp, but not wet (dry on the surface) at time of pointing.
- E. Pointing (For Filling Prepared Mortar Joints):
  - 1. Apply first layer of pointing mortar to areas where existing mortar was removed to depths greater than surrounding areas until a uniform depth is formed.
  - 2. Apply mortar in lifts (layers) not greater than 1/4", unless otherwise shown on Drawings.
  - 3. Fully compact the mortar in each layer and allow to become thumbprint hard before applying the next layer.
- F. Tooling:
  - 1. Remove mortar fins and smears before tooling joints.
  - 2. Fully compact mortar. Where existing masonry has rounded edges recess mortar slightly from face. Do not spread mortar over edges onto exposed masonry surfaces. Do not feather edge mortar.
  - 3. When mortar is thumbprint hard, tool joints to match original appearance of joints, unless otherwise indicated. For glazed units, use a non-metallic jointer. Remove excess mortar from edge of joint by brushing.
  - 4. Stipple joints lightly with a soft bristle brush to expose aggregate, if necessary to match appearance of original mortar.
- G. Curing: Cure mortar by maintaining in a damp condition for not less than 72 hours.

**3.04 PROTECTION**

- A. Protect sills, ledges, stairs, canopies, windows, and projections from mortar droppings using plastic sheet, tarp, or other means.
  - 1. To secure the protection, use only tapes, adhesives or sealants that can be fully removed and that leave no residue or trace on surfaces.
  - 2. Nails or screws used to secure protection.
- B. Promptly remove excess mortar, smears, and droppings using a stiff natural bristle brush and clean water before mortar has set, as work proceeds and upon completion.
- C. Clean adjacent and adjoining surfaces of marks arising out of execution of the work of this Section.
- D. Work shall be protected against damage from subsequent operations.

**3.05 CLEANING**

- A. See Masonry Cleaning Section 040123.

**3.06 DEFECTIVE WORK**

- A. Defective work shall be repaired or replaced, as directed, using approved procedures.

**3.07 MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS**

- A. Comply with manufacturer's written installation instructions and recommendations for applications indicated.
- B. If written instructions are not available or do not apply to Project conditions, consult manufacturer's authorized representative for specific recommendations before proceeding with Work. Document such recommendations in detail and submit to Architect along with Product Data.

**END OF SECTION**



**SECTION 042113**

**BRICK MASONRY**

**PART 1 GENERAL**

**1.01 SUMMARY**

- A. This Section includes brick removal and replacement, parging, patching, crack repair, and repointing of mortar joints.

**1.02 RELATED WORK SPECIFIED ELSEWHERE**

- A. Selective Removals: Section 024119.
- B. Masonry Cleaning: Section 040123.
- C. Mortar: Section 040513.
- D. Masonry Anchorage and Reinforcing: Section 040519
- E. Flashing and Trim: Section 076000.

**1.03 SUBMITTALS**

- A. Product Data: For each product specified in Part 2.
- B. Samples:
  - 1. Facing Brick: 25, each type, showing full range of color and texture.
  - 2. Building Brick (Back-up): 6.
  - 3. Accessories: Provide minimum one of each item specified; full size or 24 inch long sections as applicable.
- C. Shop Drawings: Provide shop drawings for special shaped bricks, indicate dimensions, profile, and pattern per details where special shape bricks are to be removed and replaced.
- D. Confirmation Survey: Upon Completion of survey submit drawings verifying the adjustments needed to the scope of work due to conditions unseen underneath the EPDM membrane.
- E. Quality Control Submittals:
  - 1. Historic Treatment Subschedule
  - 2. Test Reports: At the written request of the Director's Representative, submit certified test reports for each type of brick specified as follows:
    - a. Compressive strength.
    - b. Twenty-four hour cold water absorption.
    - c. Five hour boiling water absorption.
    - d. Saturation coefficient.
    - e. Initial rate of absorption (suction).

**1.04 QUALITY ASSURANCE**

- A. Field Examples:
  1. Prior to installation of brick masonry, construct a sample brick masonry wall panel at the Site.
  2. Build panel 4 feet long by 3 feet high by full wall thickness, with materials, bond, joints, accessories, and back-up masonry required for the Work.
  3. Construct a separate panel for each kind of exposed brick.
  4. Do not start brick masonry until a sample panel has been approved by the Director's Representative.
  5. Approved panel will be the standard of workmanship required for all masonry built of the same materials. Failure to maintain this standard will be cause for rejection of the masonry.
  6. Maintain approved panel intact until all brick masonry has been installed and approved; then remove panel from the Site.
  
- B. Contractor Qualifications: Work of this Section shall be performed by a contracting or subcontracting firm having not less than 5 years satisfactory experience in comparable restoration and rehabilitation projects. At least 5 of the projects shall be of landmark quality or historically significant, as determined by the Architect.
  1. Contractor or Subcontractor shall only use skilled and experienced workmen knowledgeable in performing the specified work.
  2. All Subcontractors shall be bound by the same requirements as the Contractor. Subcontractors must be approved by the Director's Representative and shall not begin work unless approved.
  
- C. Historic Treatment Specialist Qualifications: An experienced firm regularly engaged in historic treatments similar in nature, materials, design, and extent to this work as specified in each section and that has completed a minimum of five recent projects with a record of successful in-service performance that demonstrates the firm's qualifications to perform this work.
  1. Field Supervisor Qualifications: Full-time supervisors experienced in historic treatment work similar in nature, material, design, and extent to that indicated for this Project. Supervisors shall be on Project site when historic treatment work begins and during its progress. Supervisors shall not be changed during Project except for causes beyond the control of the specialist firm.
  2. Construct new mockups of required work whenever a supervisor is replaced.
  
- D. Manufacturer Qualifications: Obtain materials from an established plant having the capacity and facilities for producing material of specified quality and finish, and in sufficient quantity so as to not delay progress of the work. Plant to be that of a producer recognized by the industry as a manufacturer of this type of material and who can show successful completion of work of comparable quality and scope.

- E. Source: For each type of material required for the work of this Section, provide the products from one manufacturer to ensure match of quality, color, texture, and detailing.
- F. Pre-Installation Conference / Preliminary Historic Treatment Conference: Prior to beginning masonry work, the Contractor shall schedule and hold on-site conference to review pre-submitted "Construction Schedule"; procedure of Work and the uncovered findings; and the detailed requirement of the Work. Attendees shall include the Contractor's project manager and foreman; the mason(s); historic treatment specialist; Architect's project representative; and Director's Representative. Contractor shall send a written conference notification and pre-masonry work agenda to all attendees seven (7) days prior to the date of the conference.
  - 1. Conference agenda shall include, but not limited to:
    - a. "Project Schedule"
    - b. Historic Treatment Subschedule
    - c. Demolition equipment to be used
    - d. Examination of uncovered substrate
    - e. Field example of masonry work
    - f. Quality control / inspection schedule
    - g. Sequence of historic treatment work operations.
    - h. Protection of adjoining building elements
    - i. Storage and protection of salvaged and specially fabricated items.
    - j. Qualifications of personnel assigned to historic treatment work and assigned duties.
    - k. Methods and procedures related to historic treatments.
    - l. Embedded work such as flashings and lintels, special details, and other conditions of construction that affect the Work or shall affect the work.
    - m. Submitted anchors for select use
    - n. Tests

**1.05 GENERAL HISTORIC TREATMENT**

- A. Ensure that supervisory personnel are present when historic treatment work begins and during its progress.
- B. Record existing work before each procedure (preconstruction), and record progress during the work. Use digital preconstruction documentation photographs or video recordings.
- C. Perform surveys of Project Site as the Work progresses to detect hazards resulting from historic treatment procedures.
- D. Follow the procedures in subparagraphs below unless otherwise indicated:
  - 1. Retain as much existing material as possible; repair and consolidate rather than replace.
  - 2. Use additional material or structure to reinforce, strengthen, prop, tie, and support existing material or structure.

3. Use reversible processes wherever possible.
  4. Use historically accurate repair and replacement materials and techniques unless otherwise indicated.
  5. Record existing work before each procedure (preconstruction) and progress during the work with digital preconstruction documentation photographs or video recordings.
- E. Notify Architect of visible changes in the integrity of material or components whether from environmental causes including biological attack, UV degradation, freezing, or thawing or from structural defects including cracks, movement, or distortion.
1. Do not proceed with the work in question until directed by Architect.
- F. Where missing features are indicated to be repaired or replaced, provide work with appearance based on accurate duplications rather than on conjecture, subject to approval of Architect.
- G. Where work requires existing features to be removed or dismantled and reinstalled, perform these operations without damage to the material itself, to adjacent materials, or to the substrate.
- H. Identify new and replacement materials and features with permanent marks hidden in the completed Work to distinguish them from original materials. Record a legend of identification marks and the locations of the items on record Drawings.

#### **1.06 DELIVERY, STORAGE AND HANDLING**

- A. Contractor shall verify the availability and/or limitations of on-site storage and coordinate delivery schedule accordingly.
- B. Deliver brick for use in exposed Work on pallets. Handle by mechanical means, by hand or tongs. Dumping will not be permitted.
- C. Store brick off the ground to prevent contamination by mud, dust or other materials likely to cause staining or other defects.
- D. Cover brick, when necessary, to protect from the elements.
- E. Protect accessories from the elements.
- F. The Owner shall not be responsible for damaged or stolen materials or for equipment left on the building premises by the Contractor.

#### **1.07 PROJECT CONDITIONS**

- A. Environmental Requirements; Cold Weather Conditions:
  1. At temperatures below 40 degrees F, maintain mortar temperature between 40 degrees F and 120 degrees F. If necessary, heat mixing water and sand to produce the required results.

2. At temperatures between 40 degrees F and 32 degrees F, protect masonry from rain and snow for 24 hours after laying.
3. 32° F and Below: No Work permitted.
4. Do not lower freezing point of mortar by use of antifreeze, calcium chloride, or other additives.
5. Do not use frozen materials or materials coated with ice or frost.

## 1.08 HISTORIC TREATMENT SUBSCHEDULE

- A. A construction schedule coordinating the sequencing and scheduling of historic treatment work for entire Project, including each activity to be performed in historic spaces, areas, and rooms, and on historic surfaces; and based on Contractor's Construction Schedule. Secure time commitments for performing critical construction activities from separate entities responsible for historic treatment work.

## PART 2 PRODUCTS

### 2.01 BRICK

- A. Facing Brick (Exterior): ASTM C 216, Grade SW, Type FBS.
  1. Size, Color, and Texture: Match existing adjacent brickwork.
  2. Existing Size:  $\pm 3-5/8'' \times \pm 2-1/4'' \times \pm 8''$   
(average measurement of the existing brick)
  3. Administration Building and Drill Hall brick units differ in color.
- B. Face Brick (Salvaged Existing): Existing brick, if sound, may be salvaged and re-used only with advance written permission of Director's Representative.
- C. Building (Common) Brick:
  1. Building Brick (Back-Up): Comply with ASTM C 62, Grade MW
  2. Size, color, and appearance: Match existing adjacent brickwork.
- E. Special Shaped Bricks: Furnish for applications where units cannot be sawn from standard sizes.

### 2.02 MASONRY ACCESSORIES

- A. Weep Slot: #QV Quadro Vent by Hohmann & Barnard.
- C. Mortar Screen: Mortar Trap, 1/4" thick; without Dovetail by Hohmann & Barnard.
- D. Masonry Anchorage and Reinforcing: Section 040519

### 2.03 CLEANING AGENTS

- A. Comply with Section 040123 (Masonry Cleaning).

### 2.04 SOURCE QUALITY CONTROL

- A. Brick Tests: Test brick in accordance with ASTM C 67. Have tests performed by a qualified independent testing laboratory.

### **PART 3 EXECUTION**

#### **3.01 GENERAL**

- A. Coordinate with Work related Sections as required or directed by Director's Representative. Provide full cooperation with other Sections in setting built-in items in a manner so that the built-in members are true, plumb and level as shown on the Drawings.
- B. Prior to any masonry Work, evaluate and analyze areas of existing masonry work to be restored by sampling and testing of mortar, unit masonry and anchorage system to determine its composition, quality and compliance with the applicable standards and codes of authorities having jurisdiction.
- C. Remove existing face brick masonry, mortar, anchors and ties in its entirety as shown on the Drawings.
- D. Layout masonry units in the bond pattern indicated on the Drawings, unless otherwise indicated.
- E. Cut exposed masonry units, where necessary, Cut exposed brick with a motor-driven saw or by other methods which provide straight and true cuts. Avoid the use (by proper layout) of less-than-half-size units.
- F. Matching Existing Masonry Work: Match coursing, bonding, color, finish and texture of new masonry work with existing work. The finishing and texturing of new masonry shall conceal bond lines between the restoration and adjacent surfaces.
- G. Comply with Section 040513 for weather limitation and protection.

#### **3.02 INSPECTION**

- A. Before commencing with work, survey entire façade for damaged or defective conditions and submit a schedule of pointing and masonry repairs needed. Conduct survey from scaffolding at close range.
  - 1. Intent of survey is to verify estimated quantities at Administration Building.
- B. Prepare a schedule of work based on the survey, indicating the following:
  - 1. Masonry types, conditions, locations, and quantity of pointing and masonry repairs required. Contractor shall utilize and coordinate with the Architect's drawings and location grid to develop the schedule.
  - 2. Notify discrepancies between the results of Contractor's survey and the scope of work indicated on the drawings.
  - 3. Work shall not proceed until the schedule has been reviewed and approved by the Director's Representative and Architect.

**3.03 REMOVAL AND REPLACEMENT OF MASONRY UNITS**

- A. Extent of masonry removal and rebuilding is indicated on the Drawings and comply with Section 024119 (Selective Removals).
- B. Salvage Existing Brick (only with written permission from Director's Representative):
  - 1. Salvage as many whole, undamaged bricks as possible.
  - 2. Remove mortar, loose particles and soil from salvaged brick by cleaning with hand chisels, brushes and water.
  - 3. Store brick for reuse.
- C. Support and protect masonry, including but not limited to sills, ledges, canopies, projections and similar items, indicated to remain which adjoins removal area.
  - 1. Cover top of walls with non-staining waterproof tarpaulin at the end of each work day and when the work is not in progress. Properly secure in place the tarpaulin against wind in a manner that the fasteners will not damage the brick masonry units.
  - 2. When new work is in progress, protect base of wall and completed masonry areas from mud, dirt, mortar droppings and other materials that would stain the masonry.
  - 3. Clean remaining brick at edges of removal areas by removing mortar, dust, and loose debris in preparation for rebuilding.
- D. Preparation: Brush, vacuum or rinse masonry units and surrounding masonry to remove dust, dirt and loose debris. Allow to dry before proceeding unless wetting is required below. Do not use wire brush or implements that mark or damage exposed surfaces.
- E. Wetting Brick:
  - 1. Wet brick of high absorption, prior to laying. Wet brick that absorb 20 drops of water (placed in a one inch circle) in less than 90 seconds.
  - 2. One day before use of brick (or several hours in extremely warm weather), play a water hose on the brick pile until excess water runs off. Allow brick surfaces to dry before use.
- F. Bonding and Coursing Pattern:
  - 1. Set masonry units in the bond pattern indicated, or if none is indicated, in running bond.
  - 2. Where rebuilding existing construction, match and fit replacement units into existing bonding and coursing pattern; maintain joint width to match existing.
  - 3. Bond wythes of composite masonry together using bonding system shown on Drawings.
  - 4. Do not traverse existing expansion joints with rebuilt masonry construction.
- G. Fitting and Cutting:
  - 1. Cut exposed masonry units, where necessary, in a manner to produce clean, sharp unchipped edges. Avoid the use (by proper layout) of less than half size units.

2. Build other Work into masonry Work as shown on Drawings, fitting masonry units around other Work.
- H. Mortar Bedding:
1. Lay solid units as follows:
    - a. Fully bed unit in mortar.
    - b. Butter ends of units with sufficient mortar to completely fill head joints and shove into place.
    - c. Do not deeply furrow bed joints or slush head joints.
  2. Lay hollow units as follows:
    - a. Fully bed face shells in mortar.
    - b. Fully bed webs in mortar in all courses in piers, columns, pilasters, and in grouted walls (including starting course).
    - c. Fully bed entire units including areas under cells at starting course on footings where cells are not grouted.
    - d. Butter ends of units with sufficient mortar to fill head joints and shove into place.
  3. Fill collar joints between wythes in solid composite walls, unless otherwise shown on Drawings:
    - a. Where accessible from above, after each course is laid, fill the vertical, longitudinal collar joint between wythes solidly with mortar.
    - b. Where not accessible from above, solidly fill collar joints by parging face of wythe already in place and shoving units of other wythe into place.
- I. Jointing:
1. Do not mortar joints where other joint treatment is indicated on Drawings (e.g., sealant joints).
  2. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated. For glazed units, use a non-metallic jointer.
  3. Cut joints flush for masonry walls to receive plaster, parging, or other direct-applied finishes (other than paint), unless otherwise indicated.
- J. Curing: Cure mortar by maintaining in a damp condition for not less than 72 hours.
- K. Flashings:
1. Clean contact surfaces and remove projections which might puncture the flashing.
  2. Place flashing on bed of mortar and cover with mortar.
- L. Protection:
1. Protect face materials against staining.
  2. Remove misplaced mortar immediately.
  3. Protect sills, ledges, off-sets, and similar items from mortar drippings and other damage during construction.
  4. Protect newly laid masonry from exposure to precipitation, excessive drying, freezing, soiling, and other harmful elements.



5. Cover top of walls with non-staining waterproof covering when Work is not in progress. Place with minimum 2 foot overhang of protective covering on each side of wall and securely anchor.
6. Hot Weather Requirements: Comply with hot weather construction requirements per ACI 530.1/ASCE 6/TMS 602.

### **3.04 INSTALLATION OF ANCHORS**

- A. Install anchors of type and diameter indicated, at locations shown on the Drawings following the approval of the Director's Representative.
  1. Avoid galvanic reaction between dissimilar anchor material, base material and top material.
  2. Load anchor and fasteners to the full load as per manufacturer's recommendations.
- B. Anchoring to Structural Members:
  1. Anchor masonry to structural members where masonry abuts or faces new or existing structural members.
  2. Provide an open space not less than 1 inch in width between masonry and structural member, unless otherwise indicated.
- C. Wall Ties and Anchors:
  1. Install wall ties and anchors as shown on Drawings.
  2. Unless otherwise indicated on Drawings, install ties within 6 inches to 10 inches at sides of openings and 8 inches at underside of opening (e.g. below window sill)

### **3.05 REINFORCING**

- A. Place reinforcement accurately spaced and at locations shown on Drawings, secured against displacement, and spliced by lapping, unless otherwise indicated, per ACI 530.
- B. Provide temporary shoring as required for support of reinforced masonry elements.

### **3.06 PARGING**

- A. Where required, parge cavity wall face of backup wythe in a single coat approximately 3/8 inch thick. Trowel face of parge coat smooth.

### **3.07 LOOSE LINTELS**

- A. Install lintels over openings in masonry. Center lintel over opening. Set in full bed of mortar under each bearing end of minimum 6".

### **3.08 PROTECTION**

- A. Protect newly laid masonry from exposure to precipitation, excessive drying, freezing, soiling, backfill and other harmful elements.

- B. Hot Weather Requirements: Comply with hot weather construction requirements per ACI 530.1/ASCE 6/TMS 602.

**3.09 CLEANUP**

- A. After mortar is thoroughly set and cured, remove matter accumulated during construction and wash down masonry as follows:
  - 1. Remove large mortar particles by hand with wooden paddles and non metallic scrap hoes or chisels.
  - 2. Wash Down:
    - a. Test wash down methods on sample panels before proceeding with wash down of masonry surfaces.
    - b. Wash down brick masonry in accordance with: Brick Industry Association Technical Notes on Brick Construction, No.20, June 2006, "Cleaning New Masonry: Bucket and Brush Hand Cleaning"

**3.10 FIELD QUALITY CONTROL**

- A. Tests: 25 sample bricks of each kind specified may be selected by the Director's Representative from the brick delivered to the site for testing purposes. Package and ship selected sample bricks to the OGS Field Office per Director's Representative's instructions.

**END OF SECTION**

**SECTION 055000****METAL FABRICATIONS****PART 1 GENERAL****1.01 RELATED WORK SPECIFIED ELSEWHERE**

- A. Shop-Applied Coating for Metal: Section 050513.
- B. Construction Painting: Section 099101.

**1.02 REFERENCES**

- A. Except as shown or specified otherwise, the Work of this Section shall meet the requirements of the following:
  - 1. Design, Fabrication, and Erection: “Specification for Structural Steel Buildings, Allowable Stress Design and Plastic Design” adopted by the American Institute of Steel Construction, June 1, 1989 (AISC Specification).
    - a. Design and Fabrication of Cold-Formed Shapes: “Specification for the Design of Cold-Formed Steel Structural Members”, by the American Iron and Steel Institute (AISI Specification).
  - 2. Welding: “Structural Welding Code - Steel, AWS D1.1”, or “Structural Welding Code - Sheet Steel, AWS D1.3”, by the American Welding Society (AWS Codes).
- B. Organizations:
  - 1. AISC: American Institute of Steel Construction, One East Wacker Dr., Suite 700, Chicago, IL 60601-1802, 866-275-2472, [www.aisc.org](http://www.aisc.org).
  - 2. AISI: American Iron and Steel Institute, 1140 Connecticut Ave., NW, Suite 705, Washington, D.C. 20036, (202) 452-7100, [www.steel.org](http://www.steel.org).
  - 3. AWS: American Welding Society, 550 N.W. LeJeune Rd., Miami, FL 33126, (800) 443-9353, [www.aws.org](http://www.aws.org).
  - 4. ANSI: American National Standards Institute, 1819 L Street, NW, 6th Floor, Washington, DC 20036, (202) 293-8020, [www.ansi.org](http://www.ansi.org).
  - 5. ASME: ASME International, 3 Park Ave., New York, NY 10016-5990, (800) 843-2763, [www.asme.org](http://www.asme.org).
  - 6. ASTM: ASTM International, 100 Barr Harbor Dr., PO Box C700, West Conshohocken, PA, 19428-2959, (610) 832-9500, [www.astm.org](http://www.astm.org).
  - 7. MPI: The Master Painters Institute Inc., 2808 Ingleton Ave., Burnaby, BC, V5C 6G7, (888) 674-8937, [www.specifypaint.com](http://www.specifypaint.com).
  - 8. SSPC: The Society for Protective Coatings, 40 24th Street, 6th Floor, Pittsburgh PA 15222-4656, (877) 281-7772, [www.sspc.org](http://www.sspc.org).

**1.03 SUBMITTALS**

- A. Shop Drawings: Show application to project. Furnish setting drawings and templates for installation of bolts and anchors in other Work. Indicate shop and field welds by standard AWS welding symbols in accordance with AWS A2.4.

- B. Submit an Environmental Product Declaration (EPD) from the manufacturer for steel within this specification section, if available. A statement of the contractor's good faith effort to obtain the EPD shall be provided if not available.
  - 1. Manufacturer-provided EPDs must be Product Specific Type III (Third-Party Reviewed), in adherence with ISO 14025 *Environmental labels and declarations*, ISO 14044 *Environmental management – Life cycle assessment*, and ISO 21930 *Core rules for environmental product declarations of construction products and services*.
- C. Product Data: Catalog sheets, specifications, and installation instructions for each fabricated item specified, except submit data for fasteners only when directed.
- D. Samples:
  - a. Window Grilles: 1 whole unit for each building (Administration Building and Drill Hall).
- E. Quality Control Submittals:
  - 1. Certificates: Copy of certificates required under Quality Assurance Article.

#### 1.04 QUALITY ASSURANCE

- A. Certificates:
  - 1. Affidavit by the structural steel manufacturer certifying that structural steel items meet the contract requirements.
    - a. Submit evidence of steel material compliance with this Specification. Evidence shall consist of certification of source of material, copies of purchase orders and manufacturer's certifications. For stock material, submit copies of latest mill or purchase orders for material replacement.
      - 1) Documentation to confirm compliance with General Conditions Article 25.4 Domestic Steel.
  - 2. The Contractor agrees, that if the value of this contract exceeds \$100,000 all structural steel, reinforcing steel and other major steel items to be incorporated in the Work of this Contract shall be produced and made in whole or substantial part in the United States, its territories or possessions.
- B. Galvanizing: Stamp galvanized items with galvanizer's name, weight of coating, and applicable ASTM number.

#### 1.05 DELIVERY AND STORAGE

- A. Coordinate delivery of items to be built into other construction to avoid delay.
- B. Promptly cover and protect steel items delivered to the Site.

### PART 2 PRODUCTS

**2.01 MATERIALS**

- A. Steel Bars and Bar-Size Shapes: ASTM A 675, Grade 70; or ASTM A 36.
- B. Stainless Steel: Type 302/304; ASTM A 666 for plate, sheet and strip; ASTM A 276 for bars and shapes; ASTM A 269 for tubing.
- C. Anchors: Except where shown or specified, select anchors of type, size, style, grade, and class required for secure installation of metal fabrications. For exterior use and where built into exterior walls, anchors shall be galvanized or of corrosive-resistant materials.
  - 1. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to six times the load imposed when installed in unit masonry and equal to four times the load imposed when installed in concrete, as determined by testing per ASTM E 488, conducted by a qualified independent test agency.
    - a. Stainless Steel: Bolts, Alloy Group 1 or 2; ASTM F593, Nuts; ASTM F 594.
- D. Fasteners: Except where shown or specified, select fasteners of type, size, style, grade, and class required for secure installation of metal fabrications. For exterior use and where built into exterior walls, fasteners shall be galvanized.
  - 1. Standard Bolts and Nuts: ASTM A 307, Grade A, regular hexagon head.
  - 2. Stainless Steel Fasteners: ASTM A 666; Type 302/304 for interior Work; Type 316 for exterior Work; Phillips flathead (countersunk) screws and bolts for exposed Work unless otherwise specified.
  - 3. Eyebolts: ASTM A 489.
  - 9. Lock Washers: Helical, spring type, ASME B18.21.1.
- E. Shop Paint (General): Universal shop primer; fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79 and compatible with topcoat.
  - 1. Use primer containing pigments that make it easily distinguishable from zinc-rich primer.
  - 2. See section 099101 for color.
- F. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.
- G. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.
- H. Bedding Mortar:
  - 1. Cement Grout: Portland cement complying with ASTM C 150, Type I or III, and clean uniformly graded natural sand complying with ASTM C 404, size No. 2; mixed at a ratio (by volume) of 1.0 part cement to 3.0 parts sand, with only the minimum amount of water required for placement and hydration.

**2.02 MISCELLANEOUS FRAMING AND SUPPORTS**

- A. Fabricate metal framing and supports to support related items required by the Work. Fabricate of welded construction unless otherwise indicated. Preassemble to largest extent possible.
- B. When required to be built into other Work, equip units with integral anchors spaced not more than 24 inches on center.
- C. Galvanize exterior steel framing and supports.

**2.03 MISCELLANEOUS STEEL TRIM**

- A. Fabricate trim of shapes, sizes, and profiles shown, with continuously welded joints and smooth exposed edges, unless otherwise indicated or approved. Use concealed field splices wherever possible. Furnish necessary cutouts, fittings, and anchorages.
- B. Galvanize exterior steel trim.

**2.04 FABRICATION**

- A. Use materials of size and thickness indicated. If not indicated, use material of required size and thickness to produce adequate strength and durability for the intended use of the finished product. Furnish suitable, compatible anchors and fasteners to support assembly.
- B. Fabricate items to be exposed to view of material entirely free of surface blemish, including pitting, seam marks, roller marks, rolled trade names, and roughness. Remove surface blemishes by grinding or by welding and grinding prior to cleaning, treating, and finishing. Ease exposed edges to a radius of approximately 1/32 inch unless otherwise shown.
- C. Joints: Fabricate accurately for close fit. Weld exposed joints continuously unless otherwise indicated or approved. Dress exposed welds flush and smooth.
- D. Connections: Form exposed connections with flush, smooth, hairline joints. Use concealed fasteners wherever possible. Use Phillips flathead (countersunk) bolts or screws for exposed fasteners, unless otherwise shown or specified.
  - 1. Furnish flat washer under connections requiring raised bolt heads.
  - 2. Furnish lock washer under nuts when through-bolting occurs.
- E. Punch, reinforce, drill, and tap metal Work as required to receive hardware and other appurtenant items.
- F. Galvanizing:
  - 1. In addition to specific items specified or noted to be galvanized, galvanize items attached to, embedded in, or supporting exterior masonry (including interior wythe of exterior masonry walls) and concrete Work.
  - 2. Unless otherwise specified or noted, items indicated to be galvanized shall receive a zinc coating by the hot-dip process, after fabrication, complying with the following:

- a. ASTM A 123 for plain and fabricated material, and assembled products.
  - b. ASTM A 153 for iron and steel hardware.
- G. Shop Painting:
- 1. Cleaning Steel: Thoroughly clean all steel surfaces. Remove oil, grease, and similar contaminants in accordance with SSPC SP-1 “Solvent Cleaning”. Remove loose mill scale, loose rust, weld slag and spatter, and other detrimental material in accordance with SSPC SP-2 “Hand Tool Cleaning”, SSPC SP-3 “Power Tool Cleaning”, or SSPC SP-7 “Brush-Off Blast Cleaning”.
  - 2. Galvanized Items:
    - a. Galvanized items which are to be finish painted under Section 099101 shall be rinsed in hot alkali or in an acid solution and then in clear water.
    - b. Welded and abraded areas of galvanized surfaces shall be wire brushed and repaired with a coating of cold galvanizing compound.
  - 3. Apply one coat of shop paint to all steel surfaces except as follows:
    - a. Do not shop paint steel surfaces to be field welded and steel to be encased in cast-in-place concrete.
    - b. Apply 2 coats of shop paint, before assembly, to steel surfaces inaccessible after assembly or erection, except surfaces in contact.
    - c. Do not paint galvanized items which are not to be finished painted under Section 099101.
  - 4. Apply paint and compound on dry surfaces in accordance with the manufacturer’s printed instructions, and to the following minimum thickness per coat:
    - a. Shop Paint (General): 4.0 mils wet film.
    - b. Shop Paint for Galvanized Steel: 3.0 mils wet film.
    - c. Cold Galvanizing Compound: 2.0 mils dry film.

**PART 3 EXECUTION**

**3.01 PREPARATION**

- A. Temporarily brace and secure items which are to be built into concrete, masonry, or similar construction.
- B. Isolate non-ferrous metal surfaces to be permanently fastened in contact with ferrous metal surfaces, concrete, or masonry by coating non-ferrous metal surface with bituminous mastic, prior to installation.

**3.02 INSTALLATION**

- A. Fit and set fabricated metal Work accurately in location, alignment, and elevation. Securely fasten in place. Cut off exposed threaded portion of bolts flush with nut.

- B. Set loose items on cleaned bearing surfaces, using wedges or other adjustments as required. Solidly pack open spaces with bedding mortar or grout.
- C. Attached Work: Fasten to concrete and solid masonry with expansion anchors and to hollow masonry with toggle bolts in cells, unless otherwise indicated. Drill holes for fasteners to exact required size using power tools.

**END OF SECTION**





<b>SCHEDULE OF SUBMITTALS</b>	
<b>PROJECT NO.:</b> 47295-C	
<b>FACILITY:</b> State Armory	
<b>CONTRACTOR:</b>	
<b>PROJECT MANAGER:</b> Kelly Periard	
<b>DESIGN CONSULTANT:</b> Superstructures Engineering + Architecture	
<b>ENGINEER-IN-CHARGE:</b> TBD	
<p style="text-align: center;"><b>LEGEND</b></p> <p><b>PACK:</b> SUBMITTAL PACKAGE</p> <p><b>SD:</b> SHOP DRAWINGS</p> <p><b>PD:</b> PRODUCT DATA</p> <p><b>EPD:</b> ENVIRONMENTAL PRODUCT DECLARATION</p> <p><b>SAM:</b> SAMPLES</p> <p><b>QCS:</b> QUALITY CONTROL SUBMITTALS</p> <p><b>LEED:</b> LEED SUBMITTALS</p> <p><b>CCS:</b> CONTRACT CLOSEOUT SUBMITTALS</p> <p><b><u>SUBMITTAL REVIEW RESPONSIBILITY:</u></b>  <b>F:</b> OGS FIELD OFFICE  <b>F/O:</b> OGS FIELD OFFICE / OFFICE (ALBANY)  <b>D:</b> CONSULTANT / DESIGNER  <b>S:</b> OGS SCHEDULING DEPARTMENT  <b>RSM:</b> Regional Safety Manager</p>	<p style="text-align: center;"><b><u>INSTRUCTIONS TO THE CONTRACTOR</u></b></p> <ol style="list-style-type: none"> <li>Refer to <b>Section 013300 Submittals</b> of the Project Manual for general requirements regarding submittals and to <b>Section 017716 - CONTRACT CLOSEOUT</b> for project closeout submittals.</li> <li>Refer to Sections of the specifications indicated herein for details of the requirements for each submittal listed.</li> <li>Indicate in the rows (spaces) following each item:             <ol style="list-style-type: none"> <li>Critical submittals and long lead items (mark with an 'X'). Some critical submittals may already be identified by the design team. Confirm that these are critical submittals.</li> <li>The date the item will be submitted, and date approval is required (allow at least 3 weeks), and the date delivery of the material or equipment is necessary for completion of the work in accordance with the Progress Schedule. The date entered for the submittal is the last date a substitution will be considered. Proposed substitutions must be made prior to the date entered if more than one substitution is to be submitted for approval. Spaces which contain N/A do not require dates.</li> </ol> </li> <li>An example of a Submittal Transmittal (BDC-42) can be located at: <a href="http://www.ogs.ny.gov/BU/DC/forms/ContractorConstForms.asp">http://www.ogs.ny.gov/BU/DC/forms/ContractorConstForms.asp</a></li> <li>Submit Contract Closeout Submittals (CCS) prior to final inspection.</li> </ol> <p style="text-align: center;"><b><u>INSTRUCTIONS TO THE CONSULTANT / DESIGNER</u></b></p> <ol style="list-style-type: none"> <li>Cut and paste required information from each Division (Div.X) tab and place in the S.O.S. tab.</li> <li>Delete Division (Div.X) tabs after the S.O.S. tab has been in-filled.</li> <li>Indicate F, F/O or D in column E. Items in Div.1 have defaults that can be modified as necessary.</li> <li>Indicate items that are critical submittals in column F.</li> </ol> <p><b><u>Note:</u></b>          The following list of submittals is furnished for your convenience in scheduling submittals. The list is not warranted to be complete and does not take precedence over the contract documents. Enter additional submittals, as required and modify this schedule to the specific project. This S.O.S. will be used to populate the submittals website log.</p>



**SCHEDULE OF SUBMITTALS**

**PROJECT NO.: 47295-C**

SUBMITTALS FOR APPROVAL				Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)		
Spec Section	Sub Section	Type	Description	F	Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:	Projected Delivery Date:
				F/O				
D								
S								
<b>GENERAL CONDITIONS</b>								
007213			ARTICLE 6: Designate in writing competent supervision and/or management representatives as required - include contact number in case of an emergency after work hours, including weekends and holidays (see 011000 Summary of Work)	F				
007213		PD	ARTICLE 8: Permits and licenses	F				
<b>SAFETY</b>								
011100		QCS	Site Specific Safety Plan	RSM				
011100		QCS	Employee Safety Orientation Training and Certificates					
011100		QCS	Emergency Action and Evacuation Plan					
<b>PROJECT SCHEDULE</b>								
<b>SUBMITTALS</b>								
013300		PD	Schedule of Submittals (Fill in the SET DATES column)	F	X			
013300		QCS	Submittal Coordinator Qualifications	F/O	X			
<b>MOCKUP REQUIREMENTS</b>								
014339		SD	Mockup Plan: Detailed, dimensioned plans and elevations.	F				
<b>CONTRACT CLOSEOUT</b>								
017716		CCS	Project Record Documents	F				
017716		CCS	Operation and maintenance, 2 copies	F				
017716		CCS	Warranties	F				
017716		CCS	Spare Parts and Maintenance Materials	F				
<b>ASBESTOS ABATEMENT</b>								
028213		PD	Disposal Bags	D	X			
028213		PD	Glove Bags	D	X			
028213		PD	Negative Air Pressure Units	D	X			
028213		PD	Respirators	D	X			
028213		PD	Vacuum Cleaners	D	X			
028213		QCS	Asbestos Site Specific Variance Submittals; if a site specific variance is sought submit the following: One copy of the completed DOSH-751 and DOSH-465 forms	D	X			
028213		QCS	Asbestos Site Specific Variance Submittals; if a site specific variance is sought submit the following: One copy of the New York State Department of Labor site specific variance decision.	D	X			
028213		QCS	Notification Compliance Data	D	X			
028213		QCS	Work Plan	D	X			
028213		QCS	Abatement Contractor's Qualifications Data	D	X			
028213		QCS	Abatement Worker's Qualifications Data	D	X			
028213		QCS	Waste Transporter Permit	D	X			
028213		QCS	Landfill Permit	D	X			

# SCHEDULE OF SUBMITTALS

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SUBMITTALS FOR APPROVAL				Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)			
Spec Section	Sub Section	Type	Description			F	Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:
				F/O					
				D					
				S					
028213		QCS	Negative Air Pressure Equipment	D	X				
028213		QCS	Waste Shipment Records and Disposal Site Receipts	D	X				
028213		QCS	Daily Log	D	X				
028213		QCS	Air Monitoring Data	D	X				
028303			<b>ABATEMENT OF LEAD CONTAINING MATERIALS</b>						
028303		PD	Chemical Paint Removal Products	D	X				
028303		PD	Mechanical Paint Removal	D	X				
028303		PD	Respirators	D	X				
028303		PD	Vacuum Cleaners	D	X				
028303		PD	Disposal Bags	D	X				
028303		QCS	Abatement Worker's Qualifications Data	D	X				
028303		QCS	Work Plan	D	X				
028303		QCS	Waste Transporter Permit	D	X				
028303		QCS	Disposal Site Receipts	D	X				
028304			<b>HANDLING OF LEAD CONTAINING MATERIALS</b>						
028304		QCS	Lad Handling Worker's Qualifications Data	D	X				
028304		QCS	Work Plan	D	X				
028304		QCS	Waste Transporter Permit	D	X				
028304		QCS	Disposal Site Receipts	D	X				
028304		QCS	Test Data	D	X				
030131			<b>CONCRETE REHABILITATION</b>						
030131		PD	Cement Base Patching Mortars	D	X				
030131		PD	Rebar Coating	D	X				
030131		PD	Cleaning Agent, Bonding Agent/Primer, Sealer/Topcoat	D	X				
030132			<b>CRACK REPAIRS BY EPOXY INJECTION</b>						
030132		PD	Epoxy Adhesive	D	X				
030132		PD	Surface Seal Material	D	X				
030132		PD	Finishing Patching Materials	D	X				
030132		QCS	Test Reports	D	X				
030132		QCS	Certificates: Epoxy adhesive manufacturer's written certification that each batch of epoxy adhesive material shipped for this Project complies with the requirements of these specifications.	D	X				
033001			<b>CAST-IN-PLACE CONCRETE BROADSCOPE SHORT VERSION</b>						
033001		PACK	Submit product data for design mix(es) and materials for concrete specified below at the same time as a package	D	X				
033001		SD	Placing drawings for bar reinforcement	D	X				
033001		PD	Concrete design mix(es)	D	X				
033001		PD	Portland Cement	D	X				
033001		PD	Fly Ash	D					
033001		PD	Air-entraining Admixture	D					
033001		PD	Water-reducing Admixture	D					
033001		PD	Aggregates	D					
033001		PD	Bonding Agent (Adhesive)	D					
033001		PD	Expansion Joint Fillers	D					
033001		SAM	Bar Supports	F					

# SCHEDULE OF SUBMITTALS

PROJECT NO.: 47295-C

SUBMITTALS FOR APPROVAL				Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)		
Spec Section	Sub Section	Type	Description			F	Mark "X" for all that apply	Projected Transmittal Date:
				F/O				
				D				
				S				
<b>MASONRY CLEANING</b>								
040123		PD	Solvent-based Paint Remover	D	X			
040123		PD	Alkaline Paint Remover (Two Step)	D	X			
040123		PD	Acidic Cleaner: MS	D	X			
040123		PD	Acidic Cleaner: HS	D	X			
040123		PD	Alkaline Cleaner: MS	D	X			
040123		PD	Alkaline Cleaner: HS	D	X			
040123		PD	Biological Soiling Remover	D	X			
040123		PD	Efflorescence Remover	D	X			
040123		PD	Iron Stain Remover	D	X			
040123		QCS	Cleaning Contractors Qualifications Data	D	X			
040123		QCS	Cleaners Qualifications Data	D	X			
040123		QCS	Proposed Cleaning Procedure	D	X			
<b>TERRA COTTA RESTORATION</b>								
040130		PD	Micro Injection Grout	D	X			
040130		PD	Crack and Void Injection Grout (3/16" and Up)	D	X			
040130		PD	Repair Coating: E	D	X			
040130		PD	Repair Coating: SC	D	X			
040130		PD	Patching Compounds	D	X			
040130		SAM	Patching Compound	F	X			
040130		SAM	Coating Materials	F	X			
040130		QCS	Sample Warranty	D	X			
040130		QCS	Manufacturer Approved Installer Credentials	D	X			
<b>MORTAR</b>								
040513		PD	Mix Design	D	X			
040513		SAM	Mortar Components	F	X			
040513		SAM	Toolled-only Mortar	F	X			
<b>MASONRY ANCHORAGE AND REINFORCING</b>								
040519		PD	Anchorage Adhesive	D	X			
040519		PD	Veneer Anchor (To Masonry/Concrete)	D	X			
040519		PD	Veneer Anchor (To Structural Steel)	D	X			
040519		PD	Stone Anchor	D	X			
040519		PD	Stone Joint Anchor (Concealed)	D	X			
040519		SAM	Anchors and Fasteners	F	X			
<b>BRICK MASONRY</b>								
042113		SAM	Facing Brick	F	X			
042113		SAM	Building Brick (Back-up)	F	X			
042113		SAM	Special Shaped Bricks	F	X			
042113		QCS	Certified test reports for each type of brick	D	X			
<b>TERRA COTTA UNITS</b>								
042129		SD	Shop Drawings & Engineering Calculations	D	X			
042129		SAM	Terra Cotta Unit	F	X			
042129		QCS	Sample Warranty	D	X			
042129		QCS	Manufacturer Approved Installer Credentials	D	X			
<b>CUT STONE</b>								
044301		SD	Setting and detail drawings showing dimensions, sections, jointing, anchoring, and setting number of each stone.	D	X			

# SCHEDULE OF SUBMITTALS

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Spec Section	Sub Section	Type	Description			F	Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:
				F/O					
				D					
				S					
044301		PD	Granite	D	X				
044301		PD	Bluestone	D	X				
044301		PD	Sandstone	D	X				
044301		SAM	Granite	F	X				
044301		SAM	Bluestone	F	X				
044301		SAM	Sandstone	F	X				
044301		QCS	Certificate: Qualifications: Statements certifying that the stone supplier and the installer have the specified qualifications	D	X				
044301		QCS	Certificate: Stone: Statement certifying that each kind and type of stone provided for this project meets the requirements of these specifications.	D	X				
<b>050513 SHOP-APPLIED COATINGS FOR METAL</b>									
050513		QCS	Certification: Furnish Certificates of Compliance with ASTM Specifications, and Standards specified herein	D	X				
050513		SAM	Two 3 inch by 6 inch samples of factory applied coatings and colors	F	X				
050513		CCS	Operation and Maintenance Data: Deliver 2 copies	F					
050513		CCS	Warranty - Provide 20 year warranty against rust	F					
050513		CCS	Warranty - 5 year warranty against coating failure	F					
<b>051200 STRUCTURAL STEEL RESTORATION</b>									
051200		SD	Shop Drawings: Showing complete details for fabrication, assembly and erection, including connections and any proposed splice locations. Shop Drawings and supporting calculations must bear the seal of a qualified professional engineer.	D	X				
051200		EPD	Environmental Product Declaration	D	X				
051200		PD	Bolt Fastener	D	X				
051200		PD	Steel Angle	D	X				
051200		QCS	Special Inspection Test Reports	D					
051200		QCS	Field Quality Control Test Reports	D					
<b>055000 METAL FABRICATIONS</b>									
055000		SD	Application to Project: Locate anchor bolts required for installation in other Work	D	X				
055000		SD	Application to Project: Indicate shop and field welds by standard AWS welding symbols in accordance with AWS A2.4.	D	X				
055000		SAM	Window Grilles	F					
055000		EPD	Environmental Product Declaration	D	X				
055000		QCS	Certificates	D	X				
<b>055200 METAL RAILINGS</b>									
055200		SD	Shop Drawings & Structural Calculations	D					
055200		PD	Free-Standing Guardrail System	D					
055200		SAM	Railing Assembly	F					
055200		QCS	Certificates	D					
<b>076000 FLASHING AND TRIM</b>									
076000		SD	Show the manner of forming, jointing and securing the metal flashings and trim	D	X				
076000		PD	Pre-formed Sheet Metal Flashing - Stainless Steel	D	X				

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				F/O					
				D					
				S					
076000		PD	Pre-formed Sheet Metal Flashing - Copper	D	X				
076000		PD	Prefinished Galvanized Steel Sheet (Sheet Metal Molding)	D	X				
076000		PD	Composite Flexible Flashing	D	X				
076000		PD	Self-Adhering Flexible Flashing	D	X				
076000		PD	Modified Bitumen Flexible Flashing	D	X				
076000		PD	High Temperature Flexible Flashing	D	X				
076000		SAM	Pre-formed Sheet Metal Flashing	F	X				
076000		SAM	Prefinished Galvanized Steel Sheet (Sheet Metal Molding)	F	X				
076000		SAM	Composite Flexible Flashing	F	X				
076000		SAM	Cap Flashings	F	X				
076000		SAM	Accessories	F	X				
079200			<b>JOINT SEALERS</b>						
079200		PD	Type 1 Sealant	D	X				
079200		PD	Type 2 Sealant	D	X				
079200		PD	Type 3 Sealant	D	X				
079200		PD	Type 4 Sealant	D	X				
079200		PD	Foam Sealant	D	X				
079200		SAM	Sealant	F	X				
079200		SAM	Compressible Filler	F	X				
079200		SAM	Backer Rods	F	X				
079200		SAM	Lead Weather Cap	F	X				
079200		QCS	Installer's Qualifications Data	D	X				
079200		QCS	Compatibility and Adhesion Test Reports	D	X				
079200		QCS	Field Adhesion Test Reports	D	X				
081102			<b>STEEL DOORS AND FRAMES</b>						
081102		SD	Quality Assurance Package	D					
081102		SD	Finish Hardware Package	D					
081102		SD	Door and Frame Schedule with Product Data Package	D					
081102		SAM	Door and Frame Samples	F					
081102		CCS	Closeout Submittal Package	F					
088100			<b>GLASS AND GLAZING</b>						
088100		PD	Type A Glass	D					
088100		PD	Type 1 Glazing Material	D					
088100		EPD	Environmental Product Declaration	D					
088100		SAM	Glass: 12 x 12 inch pieces for each type of glass specified	F					
088100		SAM	Setting Blocks	F					
088100		SAM	Color Samples for Glazing Materials	F					
088100		QCS	Test Reports: Certified test data to sufficiently substantiate glass or glass assembly compliance with requirements specified	D					
092400			<b>PORTLAND CEMENT PLASTERING</b>						
092400		PD	Pre-Blended Cement Plaster	D	X				
092401		SAM	Galvanized Metal Lath	F	X				
092402		SAM	Galvanized Metal J Bead	F	X				
092403		SAM	Furring Channel	F	X				
099101			<b>CONSTRUCTION PAINTING</b>						
099101		PD	Painting Schedule - Exterior Substrates	D	X				

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099101		PD	Coating Type 1 to 3, 6 to 9	D	X			
099101		PD	Coating Type 4	D	X			
099101		PD	Coating Type 5	D	X			
099101		PD	Color Chart	D	X			
099101		SAM	Security Screen Example	F	X			
099101		SAM	Metal Grille Example	F	X			
099101		SAM	Door and Frame Example	F	X			
099102		SAM	Gate Example	F	X			
099101		QCS	Test Reports	D	X			
099101		QCS	Certificates of Quality Assurance Article	D	X			
099101		PD	Existing Exterior Paint Film Stripping and Removal Submittals	D	X			
099623			<b>GRAFFITI RESISTANT COATINGS</b>					
099623		PD	Graffiti Resistant Coating: NS/SP	D	X			
099623		QCS	Compatibility Test Reports	D	X			
099623		QCS	Resistance Test Reports	D	X			
099623		QCS	Sample Warranty	D	X			
099623		SAM	Graffiti Resistant Coatings	F	X			
Updated 07/3/2023								