

Select Cast Stone and Brick Repairs
Town of Yorktown
The Albert A. Capellini
Community and Cultural Center
1974 Commerce Street
Yorktown Heights, NY 10598



prepared by
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ARCHITECTURAL SPECIFICATIONS

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SECTION 011000 - SUMMARY

1.1 PROJECT INFORMATION

- A. Project Identification: Town of Yorktown – Albert A. Capellini Community and Cultural Center.
 - 1. Project Location: 1974 Commerce Street – Yorktown Heights, NY 10598.
- B. Owner: Town of Yorktown.
 - 1. Owner's Representative: Mr. Philip Marino and Ms. Suzanne Weiner.
- C. Architect: David Tetro.
 - 1. Architect's Representative: David Tetro.
- D. Historic Information
 - 1. The Albert A. Capellini Community & Cultural Center is a town owned landmark structure, as such, local preservation code applies in conjunction with the Certificate of Appropriateness process and the Secretary of Interior Standards for treatment of historic properties.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of the Project:
 - 1. Repairs and partial Replacement to the Cornice and Dripstone of the existing building.
 - 2. Masonry cleaning of cast stone and brick located above second story windows.
 - 3. Replacement of select sections of lead coated copper flashing.
 - 4. Adjustment of existing lead coated copper flashing to promote positive water drainage.
 - 5. New Lead-Coated Copper Thru Wall Flashing and associated Brick Replacement. See Section 012300 – Alternates for the Deduct Alternate for omission of this portion of the Contract.
 - 6. Installation and certification of temporary scaffolding and sidewalk roof structure.
- B. Type of Contract: Single Prime contract.
- C. Phased Construction: One phase.
- D. Owner's Occupancy Requirements: Full Owner occupancy.
 - 1. Owner occupancy of completed areas of construction.

1.3 CONTRACTOR QUALIFICATIONS

- A. Contractor or Subcontractor performing the work shall be a qualified Contractor (heretofore referred to as “Contractor”) with experience working with historic masonry. The Contractor shall have a minimum of five (5) years of experience. The contractor shall provide evidence of direct experience and proof of having worked on three (3) projects similar in scope and type to the required work. The work experience shall have been completed in the New York metropolitan region involving facilities designated as Landmarks by local governments, or buildings listed on the National or State Register of Historic Places.
- B. The Contractor shall maintain a steady work crew consisting of skilled masons who are experienced with the materials and methods specified and are familiar with the design requirements. Masons shall have sufficient level of skill and experience to accomplish the work described. Workers shall be carefully supervised to ensure that the work is accomplished to meet or exceed the highest standards of the trade. Contractor shall maintain a full-time Foreperson who fluently speaks, reads, and writes English. Acceptance or rejection of the work, no allowance will be made for lack of skill on the part of masons.
- C. Only skilled journeymen masons possessing essential competencies at the full performance level who can demonstrate prior experience in the use of natural cement mortars and are familiar with the design requirements shall be used for masonry raking and repointing.

END OF SECTION 011000

SECTION 012300 - ALTERNATES

1.1 SCHEDULE OF ALTERNATES

- A. Base bid: New Thru-Wall Flashing and Brick Replacement as shown on drawings.
- B. Alternate No. 1: Deduct:
 - 1. Alternate: Omit proposed thru-wall flashing and brick replacement. Replace damaged portions of flashing and re-solder any open joints.
 - a. This deduct will be evaluated once scaffolding is erected and exploratory work of the existing flashing has been performed by the General Contractor. If it is determined that damage to cast stone is not caused water entering the brick wall cavity, thru-wall flashing can be omitted.

END OF SECTION 012300

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SECTION 012500 - SUBSTITUTION PROCEDURES

1.1 ACTION SUBMITTALS

A. Documentation:

1. Justification.
2. Coordination information.
3. Detailed comparison.
4. Product Data.
5. Samples.
6. Certificates and qualification data.
7. List of similar installations.
8. Material test reports.
9. Research reports.
10. Detailed comparison of Contractor's construction schedule.
11. Cost information.
12. Contractor's certification.
13. Contractor's waiver of rights to additional payment or time.

- B. Architect's Action: If necessary, Architect will request additional information within three days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection within ten days of receipt, or seven days of receipt of additional information.

1.2 SUBSTITUTIONS

- A. Substitutions for Cause: Not later than ten days prior to time required for preparation and review of submittals.
- B. Substitutions for Convenience: Will be considered if received within 30 days after the Notice of Award.

END OF SECTION 012500

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SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

1.1 SUMMARY

- A. Minor Changes in the Work: On form mutually agreed-upon by Project team.
- B. Owner-Initiated Work Change Proposal Requests: Issued by Architect or Construction Manager.
- C. Contractor-Initiated Work Change Proposals: Submit to Architect or Construction Manager.
 - 1. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
- D. Change Orders: Issued by Architect or Construction Manager for signatures of Owner and Contractor.
- E. Construction Change Directives: Issued by Architect or Construction Manager for signatures of Owner and Contractor.

END OF SECTION 012600

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SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

1.1 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: PDF electronic file.
- B. Startup construction schedule.
- C. Startup network diagram.
- D. Contractor's construction schedule.
- E. Daily Construction Reports: Submit at weekly intervals.
- F. Material Location Reports: Submit at weekly intervals.
- G. Site condition reports.
- H. Unusual event reports.

1.2 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Schedule Type: Gantt chart.
- B. Milestones: Notice to Proceed, Substantial Completion, and final completion.
- C. Updating: At monthly intervals, issued one week before each progress meeting.

END OF SECTION 013200

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SECTION 013300 - SUBMITTAL PROCEDURES

1.1 SUBMITTALS

- A. Submit submittal schedule.

1.2 PROCEDURES

- A. Prepare and submit submittals as PDF sent via email.
- B. Content: Submittals to be sent as a single complete submittal of each product or assembly separately. Mass submittals will not be accepted.
- C. Liability: Submittals rejected by Architect shall not impact the construction time schedule and shall not be included as part of the processing times listed below.
- D. Processing Time:
 - 1. Initial Review: 5 days.
 - 2. Resubmittal Review: 5 days.
 - 3. Sequential Review: 10 days.
 - 4. Concurrent Consultant Review: 10 days.
- E. Certificates and Certifications Submittals: Includes signature of entity responsible for preparing certification.
- F. Delegated Design Services Certification: In addition to other required submittals, submit signed PDF electronic file and three paper copies of certificate, signed and sealed by the design professional responsible.
- G. Contractor's Submittal Review: Mark with approval stamp before submitting to Architect and Construction Manager.

END OF SECTION 013300

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SECTION 014000 - QUALITY REQUIREMENTS

1.1 DEFINITIONS

- A. Quality Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements.
- C. Mockups: Full-size physical assemblies that are constructed on-site either as freestanding temporary built elements or as part of permanent construction.

1.2 QUALITY ASSURANCE

- A. Delegated Design Services: For products and systems assigned to Contractor to be designed and certified by Contractor's design professional to be in compliance with performance and design criteria.
- B. Qualifications:
 - 1. Contractor's quality-control personnel.
 - 2. Manufacturer.
 - 3. Fabricator.
 - 4. Installer.
 - 5. Professional engineer performing delegated design services.
 - 6. Specialists.
 - 7. Testing agency.
 - 8. Manufacturer's technical representative.
 - 9. Factory-authorized service representative.
- C. Preconstruction testing.
- D. Mockups: Contractor shall provide a mock-up or sample length of each each profile of cast stone for review.
 - 1. Demonstrate the proposed range of aesthetic effects and workmanship.
 - 2. Maintain mockups as a standard for judging the completed Work.
 - 3. Demolish and remove mockups when directed unless otherwise indicated.
- E. Integrated Exterior Mockups: Construct according to approved Shop Drawings.

1.3 PRE-BID FIELD VERIFICATION

- A. Contractor shall make a field visit / observation and familiarize themselves with the Scope of Work, and all associated field conditions prior to completing the bid that would be submitted for consideration.

1.4 QUALITY CONTROL

- A. Contractor Responsibilities: Sampling of Cast Stone and Masonry Materials, and associated testing to determine material make-up are Contractor's responsibility as part of the Contract.
- B. Manufacturer's field services.
- C. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- D. Associated Services: Access to the Work, taking and storing samples, and delivery of samples to the testing agency.
- E. Special Tests and Inspections: Engage a qualified testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner.
- F. Test and inspection log.
- G. Repair and Protection: Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

SECTION 014339 - MOCKUPS

1.1 SUMMARY

- A. Mockups shall be provided for the following items:
 - 1. Non-integrated segment demonstrating the profile for each different profile of replaced cast stone units is to be provided prior to installation.
 - 2. Mortar.

1.2 INTEGRATED EXTERIOR MOCKUPS

- A. Design and construct support foundation and superstructure.
- B. The Work of integrated exterior mockups includes, but is not limited to, the following:
 - 1. Exterior brick.
 - 2. Joint colors.
 - 3. Through-wall flashing.
 - 4. Flashing and sheet metal trim.
 - 5. Joint sealants.
 - 6. Cast Stone color.

END OF SECTION 014339

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SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

1.1 USE CHARGES

- A. Sewer Service: Available from the existing system without charge.
- B. Water Service: Available from the existing system without charge.
- C. Electric Power Service: Available from the existing system without charge.

1.2 INFORMATIONAL SUBMITTALS

- A. Site safety plan.
- B. Moisture-protection plan.
- C. Noise- and vibration-control plan.
- D. Fire-safety program.
- E. Dust-control plan.

1.3 MATERIALS

- A. Portable chain-link fencing.
- B. Wood enclosure fence.

1.4 TEMPORARY FACILITIES

- A. Use of Owner's existing facilities for field office, toilet rooms and drinking fountains.
- B. Storage and fabrication sheds.

1.5 EQUIPMENT

- A. Fire extinguishers.

1.6 INSTALLATION, GENERAL

- A. Isolation of work areas in occupied facilities.

1.7 TEMPORARY UTILITY INSTALLATION

- A. Water Service: Connect to existing service.
- B. Electric Power Service: Connect to existing service.

1.8 SUPPORT FACILITIES INSTALLATION

- A. Parking: Use designated areas of Owner's existing parking areas.
- B. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.

1.9 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Tree and plant protection.
- B. Covered Walkway: Erect protective covered walkway with lighting for passage of individuals through or adjacent to Project site.

END OF SECTION 015000

SECTION 015639 - TEMPORARY TREE AND PLANT PROTECTION

1.1 MATERIALS

- A. Barriers: Construction fencing, temporary fencing, etc.

1.2 EXECUTION

- A. Protect trees and existing plantings from damage caused by construction activities.
- B. Trunk Protection: Wood planks and plastic construction fencing.

END OF SECTION 015639

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SECTION 016000 - PRODUCT REQUIREMENTS

1.1 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Use means and methods that will prevent damage, deterioration, and loss, including theft.
- B. Store products to allow for inspection and measurement or counting of units.
- C. Provide for storage of any materials and equipment that may be supplied by Owner.

1.2 PRODUCT WARRANTIES

- A. Manufacturers' disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

1.3 PRODUCT SELECTION PROCEDURES

- A. Sole Product: Product named that complies with requirements.
- B. Sole Manufacturer/Source: Product by manufacturer or from source named that complies with requirements.
- C. Limited List of Products: One of the products listed complies with requirements. Comparable products will be considered unless otherwise indicated.
- D. Limited List of Manufacturers: Product by one of the manufacturers listed that complies with requirements. Comparable products will be considered unless otherwise indicated.
- E. Non-Limited List of Products: One of the products listed that complies with requirements, or another product submitted by Contractor that meets requirements. Substitution request is not required.
- F. Non-Limited List of Manufacturers: Product by one of the manufacturers listed that complies with requirements, or product of another manufacturer that meets requirements. Substitution request is not required.
- G. Basis-of-Design Product: Either the specified product or a comparable product by one of the other named manufacturers, approved by Architect as part of normal Project submittal.
- H. Visual Matching Specification: Product that matches Architect's sample. Architect's decision will be final.

- I. Visual Selection Specification: Product (and manufacturer) that complies with other specified requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

1.4 COMPARABLE PRODUCTS

A. Conditions for Consideration:

1. Product does not require revisions to the Contract Documents, is consistent with the Contract Documents and will produce the indicated results and is compatible with other portions of the Work.
2. Comparison of proposed products with those named in the Specifications.
3. Product provides a specified warranty.
4. Similar installations, if requested.
5. Samples, if requested.

END OF SECTION 016000

SECTION 017300 - EXECUTION

1.1 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of subsequent work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of subsequent work.

1.2 MATERIALS

- A. Complete final cleaning using products that comply with Green Seal's GS-37 and the California Code of Regulations maximum allowable VOC levels.

1.3 EXECUTION

- A. Existing Conditions: Existence and location of site improvements, utilities, and other construction affecting the Work must be investigated and verified.
- B. Review of the Contract Documents and field conditions.
- C. Construction Layout: Engage a land surveyor to lay out the Work, using accepted surveying practices.
- D. Installation: Comply with the manufacturer's written instructions.

1.4 CUTTING AND PATCHING

- A. Provide temporary support.
- B. Protect in-place construction.
- C. Protect adjacent occupied areas.
- D. Existing Utility Services and Mechanical/Electrical Systems: Minimize interruption to occupied areas.
- E. Cutting: In general, use hand or small power tools. Cut holes and slots neatly to the minimum size required. Temporarily cover openings when not in use.
- F. Patching: Patch with durable seams that are as invisible as practicable.
- G. Finishes: Restore exposed finishes. Extend new finishes to perimeter of patched surface. Leave patched work is indistinguishable from existing undisturbed work.

1.5 COORDINATION OF OWNER'S PORTION OF THE WORK

- A. Coordinate the Work with work performed by Owner's construction personnel and Owner's separate contractors.
- B. Provide temporary facilities for Owner-furnished, Contractor-installed and Owner-furnished, Owner-installed products.
- C. Provide access to Project site for Owner's personnel.
- D. Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable.
- E. Include Owner's personnel at pre-installation conferences.

1.6 PROGRESS CLEANING

- A. Clean Project site and work areas daily. Dispose of materials lawfully.
- B. Keep installed work clean.
- C. Remove debris from concealed spaces.

1.7 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure Work is without damage.

1.8 CORRECTION OF THE WORK

- A. Repair or remove and replace damaged, defective, or nonconforming Work. Restore damaged substrates and finishes.

END OF SECTION 017300

SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

1.1 SUMMARY

- A. Recycling nonhazardous cardboard, glass, and other demolition and construction waste that can be recycled.
- B. Disposing of nonhazardous nonrecyclable demolition and construction waste legally and safely.

1.2 WASTE MANAGEMENT

- A. Type of waste and whether it will be recycled or disposed of in landfill or incinerator.

1.3 PLAN IMPLEMENTATION

- A. Train workers, subcontractors, and suppliers on proper waste management procedures.

1.4 PROCEDURES

- A. Dispose of on-site construction waste on a daily basis into approved construction waste containers.
- B. Construction areas to be kept broom swept clean at the end of each workday.
- C. Exterior areas where debris dumpsters and containers are kept shall be secure at the end of the work day against access and entry.
- D. All debris shall be disposed of legally.

END OF SECTION 017419

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SECTION 017700 - CLOSEOUT PROCEDURES

1.1 CLOSEOUT PROCEDURES

- A. Prepare and submit Contractor's list of incomplete items (punch list) in the form of PDF electronic file.
- B. Submit closeout items required in other Sections.
- C. Submit Project warranties.
- D. Complete final cleaning using products that comply with Green Seal's GS-37 and the California Code of Regulations maximum allowable VOC levels.
- E. Replace bulbs that are dim or burned out.
- F. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter on inspection.
 - 1. Clean HVAC system in compliance with NADCA ACR. Provide written report on completion of cleaning.
- G. Touch up or repair finishes.

END OF SECTION 017700

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SECTION 017839 - PROJECT RECORD DOCUMENTS

1.1 RECORD DOCUMENTS

A. Record Drawings:

1. Initial Submittal: One paper-copy set for Owner and PDF electronic files for owner and Design Professionals.
2. Final Submittal: One paper-copy set for Owner and PDF electronic files for owner and Design Professionals.

B. Record Specifications: One paper-copy set for Owner and PDF electronic files for owner and Design Professionals.

C. Record Product Data: One paper-copy set for Owner and PDF electronic files for owner and Design Professionals.

D. Miscellaneous Record Submittals: One paper-copy set for Owner and PDF electronic files for owner and Design Professionals.

E. Record Digital Data Files: Corrected digital data files of the Contract Drawings, as follows:

1. Format: Annotated PDF electronic file with comment function enabled.

END OF SECTION 017839

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SECTION 040110 - MASONRY CLEANING

1.1 QUALITY ASSURANCE

- A. Written program for cleaning.
- B. Mockups for cleaning each type of masonry and surface condition.
- C. Reference Standard to be followed: United States National Park Service Preservation Brief #1: Assessing Cleaning and Water-Repellant Treatments for Historic Masonry Buildings

1.2 PRECONSTRUCTION TESTING

- A. Chemical-cleaner manufacturer(s) to test-clean masonry surfaces.

1.3 EXECUTION

- A. Preliminary cleaning to remove plant growth and extraneous substances that are resistant to cleaning methods used.
- B. Clean masonry using materials that are compatible and non-damaging to brick, stone, or mortar. Select from the following items:
 - 1. Cold-water washing.
 - 2. Detergent.
 - 3. Mold, mildew, and algae remover.
 - 4. Nonacidic liquid cleaner.
 - 5. Mild-acid cleaner.

END OF SECTION 040110

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SECTION 042000 - UNIT MASONRY

1.1 QUALITY ASSURANCE

- A. Reference Standard to be followed: United States National Park Service Preservation Brief #2: Repointing Mortar Joints in Historic Masonry Buildings

1.2 PERFORMANCE REQUIREMENTS

- A. Net-Area Compressive Strengths of Unit Masonry: As indicated.
- B. Determine net-area compressive strength of masonry by unit-strength method.

1.3 MATERIALS

- A. Brick: Clay face brick.
- B. Reinforcement: Uncoated-steel reinforcing bars.
- C. Masonry-Joint Reinforcement:
 - 1. Exterior Walls: 304 Stainless steel.
- D. Ties and Anchors: 304 Stainless steel.
 - 1. Corrugated-metal ties.
 - 2. Rigid anchors.
 - 3. Adjustable Masonry-Veneer Anchors.
- E. Embedded Flashing:
 - 1. All Flashing: 20-ounce lead-coated copper
- F. Weep/Vent Holes: cellular plastic.
- G. Cavity drainage material: Non-woven mat.
- H. Reinforcing bar positioners.
- I. Mortar:
 - 1. Portland cement-lime mortar unless otherwise indicated.

1.4 INSTALLATION

- A. Match existing masonry coursing, bonding, color, and texture.
- B. Bond Pattern: Running bond.

042000
UNIT MASONRY

Town of Yorktown
Community and Cultural Center

- C. Parge cavity face of backup wythe.
- D. Clean masonry waste recycled as fill material.

END OF SECTION 042000

SECTION 047200 - CAST STONE MASONRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:

- 1. Trim Units.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Show fabrication and installation details for cast stone units. Include dimensions, details of reinforcement and anchorages if any, and indication of finished faces.
- C. Samples:
 - 1. For each color and texture of cast stone required, 4 inches square in size.
 - 2. For each trim shape required, 4-inches in length.
 - 3. For colored mortar.

1.4 INFORMATIONAL SUBMITTALS

- A. Cast stone test reports.

1.5 QUALITY ASSURANCE

- A. Testing:
 - 1. Contractor shall take necessary samples of existing cast stone units in quantity sufficient for thorough testing in order to determine the new cast stone unit composition.
 - 2. Contractor shall engage a qualified independent testing agency to sample and test cast stone make-up to determine the adequate cast stone matrix for the replacement units.
 - 3. Contractor shall provide testing results to Owner and shall prepare submittals for replacement units based upon sample testing findings.
- B. Manufacturer Qualifications: A qualified manufacturer of cast stone units similar to those indicated for this Project, that has sufficient production capacity to manufacture required units, and is a plant certified by CSI.

- C. Reference Standards to be followed:
 - 1. United States National Park Service Preservation Brief #15: Preservation of Historic Concrete.
 - 2. United States National Park Service Preservation Brief #42: The Maintenance, Repair and Replacement of Historic Cast Stone

PART 2 - PRODUCTS

2.1 CAST STONE UNITS

- A. Cast Stone Units: Comply with ASTM C1364.
 - 1. Units are manufactured using the manufacturer's selected method.
 - 2. Trim units including Cornice and Dripstone items as indicated in drawings
- B. Fabricate units with sharp arris and accurately reproduced details, with indicated texture on all exposed surfaces unless otherwise indicated.
 - 1. Slope exposed horizontal surfaces 1:12 to drain unless otherwise indicated.
 - 2. Provide raised fillets at backs of sills and at ends indicated to be built into jambs.
 - 3. Provide drips on projecting elements unless otherwise indicated.
- C. Cure Units as Follows:
 - 1. Cure units in enclosed, moist curing room at 95 percent relative humidity and temperature of 100-degrees F for 12 hours or 70-degrees F for 16 hours.
 - 2. Keep units damp and continue curing to comply with one of the following:
 - a. No fewer than five days at mean daily temperature of 70-degrees F or above.
 - b. No fewer than seven days at a mean daily temperature of 50 deg F or above.
- D. Acid etch units after curing to remove cement film from surfaces to be exposed to view.
- E. Colors and Textures: Match existing.

2.2 ACCESSORIES

- A. Anchors: Type and size indicated, fabricated from Type 304 stainless steel complying with ASTM A240/A240M, ASTM A276/A276M, or ASTM A666.
- B. Dowels: See drawings for round bar diameter, fabricated from Type 304 stainless steel complying with ASTM A240/A240M, ASTM A276/A276M, or ASTM A666.
- C. Proprietary Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use products expressly approved for intended use by cast stone manufacturers and expressly approved by cleaner manufacturer for use on cast stone and adjacent masonry materials.

2.3 MORTAR MIXES

- A. Comply with requirements in Section 042000 "Unit Masonry" for mortar mixes.
- B. Comply with ASTM C270, Proportion Specification.
 - 1. For setting mortar, use Type S or Type N depending on field conditions.
 - 2. For pointing mortar, use Type N.
- C. Preblended dry mortar mix complying with ASTM C1714/C1714M and capable of producing mortar strength as indicated in ASTM C270.
 - 1. For setting mortar, use Type S or Type N depending on field conditions.
 - 2. For pointing mortar, use Type N.
- D. Pigmented Mortar: Use colored cement product or select and proportion pigments with other ingredients to produce color required. Do not add pigments to colored cement products.

2.4 SOURCE QUALITY CONTROL

- A. Engage a qualified independent testing agency to sample and test cast stone units according to ASTM C 1364.
 - 1. Include one test for resistance to freezing and thawing.

PART 3 - EXECUTION

3.1 SETTING CAST STONE IN MORTAR

- A. Set cast stone as indicated in TMS 604.
- B. Set cast stone as indicated on Drawings. Set units accurately in locations indicated, with edges and faces aligned according to established relationships and indicated tolerances.
- C. Set units in full bed of mortar with full head joints unless otherwise indicated.
 - 1. Fill dowel holes and anchor slots with mortar.
 - 2. Fill collar joints solid as units are set.
 - 3. Build concealed flashing into mortar joints as units are set.
 - 4. Keep head joints in copings and between other units with exposed horizontal surfaces open to receive sealant.
 - 5. Keep joints at shelf angles open to receive sealant.
- D. Rake out joints for pointing with mortar to depths of not less than 3/4 inch. Rake joints to uniform depths with square bottoms and clean sides. Scrub the faces of units to remove excess mortar as joints are raked.

- E. Point mortar joints by placing and compacting mortar in layers not greater than 3/8 inch. Compact each layer thoroughly and allow it to become thumbprint hard before applying next layer.
- F. Tool exposed joints slightly concave when thumbprint hard. Use a smooth plastic jointer larger than joint thickness.

3.2 ADJUSTING AND CLEANING

- A. Remove and replace stained and otherwise damaged units and units not matching approved Samples. Cast stone may be repaired if methods and results are approved by Architect.
- B. Replace units in a manner that results in cast stone matching approved Samples, complying with other requirements, and showing no evidence of replacement.
- C. In-Progress Cleaning: Clean cast stone as work progresses.
 - 1. Remove mortar fins and smears before tooling joints.
 - 2. Remove excess sealant immediately, including spills, smears, and spatter.
- D. Final Cleaning: After mortar is thoroughly set and cured, clean exposed cast stone as follows:
 - 1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
 - 2. Test cleaning methods on sample; leave one sample uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of cast stone.
 - 3. Clean cast stone by methods described in Cast Stone Institute Technical Bulletin #39.

END OF SECTION 047200

SECTION 076200 - SHEET METAL FLASHING

1.1 PERFORMANCE REQUIREMENTS

- A. Sheet Metal Standard for Flashing and Trim: NRCA's "The NRCA Roofing Manual: Architectural Metal Flashing, Condensation and Air Leakage Control, and Reroofing" SMACNA's "Architectural Sheet Metal Manual" and CDA's "Copper in Architecture Handbook".

1.2 MATERIALS

- A. Sheet Metals:
 - 1. 20-ounce Lead-Coated Copper Sheet: Finish to match existing.

1.3 PRODUCTS

- A. Formed through-Wall Fabrications: Flashing, counter flashing and cap flashing.
- B. Bird deterrent screening devices: Match existing.

END OF SECTION 076200