



ADDENDUM NO. 3

EXHIBIT C PROGRAM

REQUEST FOR QUALIFICATIONS

**PART A: PRE-CONSTRUCTION SERVICES (Design-Assist) and
PART B: CONSTRUCTION SERVICES (Construction Management at Risk)**

**Exterior Waterproofing and Reroof Sections A/B/C/F (Phases 3 and 4)
Louisiana State Capitol Building
Baton Rouge, Louisiana
Project No. 01-107-12-01, F.01003957**

July 9, 2024

ITEM NO. 1: EXHIBIT C – PROGRAM

This Addendum No. 3 includes Exhibit C – Program (program, drawings, abbreviated technical specifications). The content of the program is not intended to be comprehensive in any way but to provide a general overview into the scope of the project. Program information can be accessed per the following link:

<https://www.dropbox.com/scl/fi/pq2yyw819vm0m4udcjtug/00-EXHIBIT-C2-DRAWINGS.pdf?rlkey=loxlce9ggkvgnzxeay04ugzu1&st=2f5kjdae&dl=0>

END OF ADDENDUM

PROGRAM
for
Exterior Waterproofing and Reroof Sections A/B/C/F
Louisiana State Capitol Building
Baton Rouge, LA

Project No. 01-107-12-01, Parts 01 (F.01002099),
02 (F.01002100), 03 (F.01002101), F.011003773 and
F.01003957; 01-107-97S-03, Part 1M (F.01002197)
(Supplement); 01-107-06B-11, F.01004030 (Supplement) &
01-107-18-02, F.01004019 (Supplement)

DESCRIPTION OF THE HISTORIC RESOURCE

- A. The Capitol Building of the State of Louisiana is listed in the National Register of Historic Places, with National Landmark status, the highest level of significance recognized for historic properties in the U.S. Because of its historic significance, all work to the exterior and public areas of the building must follow the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties.

Care must be taken to avoid treatments and products which have the potential to damage historic building fabric. For this reason, all proposed products and treatment procedures must first be tested in an inconspicuous location. Testing of all proposed materials, products and treatment procedures shall take place and receive the written approval of the Architect prior to their general application or installation.

Note that for this historic preservation project, where the words "demolition" or "demo" in the standard text of any of the RFQ documents is used, the intent is careful *removal* for eventual reinstallation or replacement in kind by a tradesman, not demolishing by a demolition contractor.

PRE-CONSTRUCTION PROGRAM

- B,
1. Review Construction Documents for Constructability
 2. CMAR contractor shall engage a structural access engineer to design and submit Schematic Design Documents for scaffolding/access from grade to the entire project work (see technical specifications)
 3. Perform probes to expose existing condition of the structure at selective (two or three) deteriorated window assemblies for verification of proposed remedial treatments.

CONSTRUCTION PROGRAM

- C. **BUILDING WALLS:** The Phase III project will encompass all of the exterior work required from the fourth floor to the top of the Tower at all elevations, as well as any work required to the interior of the Tower as part of the repair and fireproofing of structural members in the Temple and its terraces or roofs.

1. MASONRY

- Repair or replacement of stones at any locations identified as having deteriorated

conditions. These conditions include loose and displaced panels, cracks within stone panels, failed Dutchman repairs, corroding steel lintels, stone spalls located at steel relief angles attached to the super structure, which support the self-weight of a certain number of stones (gravity supports), and stones identified to be lacking lateral connections. All stones are to receive conventional masonry repairs as required, including, but not limited to repair of failing patches, cracks and spalls within stone panels.

- At locations where stone removal is called for, clean existing supporting steel including structural members, spandrels, gravity supports, lintels, rivets and fasteners, and recoat with rust inhibitor.
- Replace or reinforce existing steel supports at locations discovered to have excessive corrosion.
- Provide additional steel for extensions at gravity supports to provide adequate bearing where needed.
- Provide new stainless steel lateral connections to substrate at locations identified and at all reset stone joints.
- Re-point all masonry joints within the project extents with mortar as specified.
- Re-hone all ashlar stone surfaces within the project extents to restore the stone surface. The stone was sand blasted in 1958, which caused pitting across the face of the building, which promotes build-up of dirt and organic growth.
- Install thru-wall flashing at stone parapets within the project extents.
- Masons shall clean all exterior masonry with an architectural antimicrobial cleaner as specified once all repairs in each area have been completed.

2. WINDOWS & DOORS:

Rehabilitation/Conservation/Replication of fenestration systems (windows, doors, storefronts, Lantern and frames

a. Bronze Windows and Doors

- After abatement of existing sealants replace glazing compounds and perimeter sealant (metal-to-stone) at windows & doors.
- Remove existing solar film and replace with new solar/safety film on all windows (alternate: contractor may opt to completely re-glaze).
- Clean and wax all sash and frames under direction of the Conservator.

b. Aluminum windows and ornamental storefronts at observation deck in the Temple

- Clean and conserve cast aluminum ornamental sidelites and storefront frames
- Clean, repair and treat ornamental cast aluminum grilles previously removed, and reinstall.
- Remove and replace deteriorated aluminum sash to match the existing.
- Replace existing aluminum doors and hardware with higher quality.

c. Glazed Lantern at top of Temple

- Repair lantern to water tight condition.
- Cap off abandoned boiler flue

D. STRUCTURAL REPAIRS

1. Clean, recoat and strengthen (plate or replace) steel structural members (columns and beams) which are found to be badly corroded.
2. After repairs have been completed, reinstall masonry fire proofing around all structural steel in Temple (top five floors), which was removed in previous phase in order to expose and inspect steel member.

E. ROOFING/TERRACES

1. Replace roofing/flooring systems and drains at Temple terraces.

F. MINOR INTERIOR REPAIRS TO TEMPLE:

1. Repairs to the existing mechanical ventilation systems in the top un-conditioned floors
2. Repairs to interior plaster and painting

F. HAZARDOUS MATERIALS

1. Abatement of any and all hazardous materials in roofing and on parapets and built- in gutters
2. Abatement of old, asbestos containing sealant at the perimeter of door and window openings and in selective masonry joints and of glazing compound in all doors and windows.

END OF PROGRAM

SECTION 01 50 10 – PERFORMAANCE SPECIFICATIONS FOR SCAFFOLDING AND BUILDING PROTECTION SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes, but is not limited to scaffolding and protection necessary to provide access to work and to protect building visitors and occupants, workmen, existing structures, walkways, utilities, and other improvements, maintenance of scaffolding and protection, removal of scaffolding and protection.

1.2 SUBMITTALS

- A. Initial pre-construction design services are required for this project. The scaffold designer will be required to prepare a preliminary scaffold design in coordination with the Design Team that will be submitted to the Owner for review prior to construction.
- B. Submit drawings for scaffolding and protection system and other data prepared by, or under the supervision of, a qualified professional engineer licensed to practice in the State of Louisiana. Drawings shall be signed and sealed by a professional engineer registered in Louisiana, who shall be solely responsible for all scaffolding and protection work. Submit drawings for review only.
- C. Protection of Historic Building Program: This building is listed in the National Register of Historic Places (Ref. No. 78001421). Contractor shall submit a written protection program indicating protection methods and materials for existing stone paving, steps, railings, sculpture bases, and other items in the vicinity of the scaffolding and along the access path during erection and removal of scaffolding.
- D. Inspection reports by Contractor's Engineer.
- E. Contractor's professional engineer's professional liability insurance certificate, indicating project coverage of \$1 million.
- F. Qualifications: Submit qualification data for firms and persons specified in "Quality Assurance" article to demonstrate their capabilities and experience. Include list of completed projects of similar size and scope with project names, addresses, names of architects and owners and other information specified, completed in the last five (5) years.

1.3 QUALITY ASSURANCE

- A. Fabricator and Erectors Qualifications: Firm experienced in fabricating, erecting and maintaining scaffolding and protection system similar to those indicated for this Project with a record of successful in-service performance. Firm must have a minimum of ten (10) years of operating experience.
- B. Manufacturer Qualifications: Firm experienced in manufacturing scaffolding and protection systems and with a record of successful in-service performance.
- C. Supervision: Engage and assign supervision of scaffolding and protection system to a qualified professional engineer consultant.
- D. Contractor's Professional Engineer Qualifications: A professional Civil/Structural Engineer legally authorized to practice in the State of Louisiana, and experienced in providing successful

engineering services for scaffolding and protection systems similar in extent required for this Project. Submit name of engaged consultant and qualifying technical experience including a list of at least three (3) similar projects designed by consultant with contact name and telephone number.

1.4 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Design, fabricate and erect the scaffolding and protection system to comply with all governing codes and to withstand those loads and forces required by the local building codes and the project requirements without exceeding the design allowable working stress of the materials including anchors and connections.
- B. Scaffold system must include all hoists required to lift materials to the proper elevation.
- C. All scaffolding levels MUST be accessible by elevator from grade.
- D. The use of any and all interior elevators will not be allowed for the duration of this project.
- E. Existing Structure Attachments: Do not drill or anchor into the existing fabric. The scaffolding must be completely free-standing and not in contact with or braced against the building unless authorized by the Architect of Record. The Owner does not warrant or guarantee that the existing structure can safely resist any anchoring loads without incurring damage. Do not allow any metal surface to be in contact with the existing structure fabric.
- F. Some ground level exterior spaces have as much as two levels of sub-grade occupied spaces beneath them. In most instances, it will be acceptable to shore through these underground spaces down to the bottom level. This will require coordination with the Design Team and Owner.
- G. Code Requirements: The scaffolding and protection system shall be designed, erected and maintained to comply with all requirements of OSHA, ANSI/ASSE A110.8-2011, NFPA 101, 102, and the IBC codes. Comply with requirements of guidelines established by Scaffolding, Shoring and Forming Institute, Inc., 1300 Summer Avenue, Cleveland, Ohio 44115, telephone number (216) 241-7333. Erect temporary scaffolding in accordance with OSHA 29 CFR 1926.451 and ANSI A110.8. Provide landing platforms with stairways for proper access and egress to all work areas.

END OF SECTION 01 50 10

**MASONRY REPAIR, REPOINTING & CLEANING
SECTIONS 04 01 00 & 04 02 00 CONSOLIDATED & ABBREVIATED**

PART 1 – GENERAL

1.01 SUMMARY

- A. The Capitol of the State of Louisiana is listed in the National Register of Historic Place, with National Landmark status, the highest level of significance recognized for historic properties in the U.S. Because of its historic significance, all work to the exterior of the building must follow the Secretary of the Interior’s Standards for the Treatment of Historic Properties.
- B. Section includes but is not limited to repair of exterior masonry as follows:
 - 1. Removal and replacement of selected damaged ashlar masonry units to match the existing.
 - 2. Removal of selected masonry units to review the condition of the steel anchoring systems behind; replace anchoring system components as detailed and reinstall in same location form which it was removed.
 - 3. Repair/rebuilding of brick back-up in-fill masonry behind the limestone panels as needed.
 - 4. Re-hone all exterior flat (ashlar) limestone surfaces to reverse the effects of previous sand blasting.
 - 5. Repoint All Masonry Joints (100% of exterior joints); with site mixed mortar as specified.
 - 6. Where masonry joints were previously pointed with sealant, completely clean out and repoint with masonry mortar as specified.
 - 7. At shallow spalled or deteriorated stone areas retool/hone rather than patching, to eliminate the possibility of ponding water.
 - 8. Removal and Repair of Previous Inappropriate Repairs as specified.
 - 9. Stone Crack Repair only as noted
 - 10. Dutchman Repair: Partial Stone Removal and Installation of a salvaged piece to Match as close as possible.
 - 11. Lead T-Caps at parapet wash joints
 - 12. Initial and general cleaning and final rise with an architectural antimicrobial cleaner; and spot cleaning with specialized products and procedures as needed.
- B. Care must be taken to avoid treatments and products which have the potential to damage historic building fabric. For this reason, all proposed products and treatment procedures must first be tested in an inconspicuous location. Testing of ALL proposed materials, products and treatment procedures shall take place with prior notification and receive the written approval of the Architect prior to their general application or installation.

1.02 DEFINITIONS

- A. Very Low-Pressure Spray: Under 100 psi (690 kPa).
- B. Low-Pressure Spray: 100 to 400 psi (690 to 2750 kPa).
- C. Medium-Pressure Spray: 401 to 800 psi (2750 to 5510 kPa); 4 to 6 gpm.
- D. High-Pressure Spray: 800 to 1200 psi (5510 to 8250 kPa); 4 to 6 gpm. Not allowed on this project.
- E. Stone Terminology: ASTM C 119.

1.03 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For masonry restoration and cleaning specialists
- B. Restoration Program
- C. Cleaning Program

1.04 QUALITY ASSURANCE

- A. Mason Restoration Specialist Qualifications: Company shall demonstrate a minimum of 10 years experience in historic load bearing masonry restoration and has successfully completed at least five historic masonry restoration projects on National Register listed structures, of comparable type and size as this project. Experience installing standard unit masonry or new stone masonry, or simply applying water proofing products or pre-mixed mortars or sealants, is not sufficient experience for historic stone rehabilitation work. Restoration masons must have experience in true masonry construction and the on-site mixing of custom mortars, not merely the application of prepackaged products. Prepackaged mortars will not be used for historic masonry work on this project. Contractor shall submit an AIA Qualifications Statement describing Masonry Restoration firm's qualifications as required above. Include names and addresses of at least five projects successfully completed, and for each include the name, address, and phone numbers of the owner, and the architect, and the type of work performed.
- B. Masonry-Cleaning Qualifications: Restoration Cleaning Specialist Qualifications: Company shall demonstrate that it has a minimum of 10 years' experience in historic masonry restoration cleaning and has successfully completed at least five historic restoration projects of comparable size and type. Contractor shall submit an AIA Qualifications Statement describing Masonry Restoration Cleaning firm's qualifications as required above. Include names and addresses of projects successfully completed and for each include the name, address, and phone numbers of the owner and the architect. Experience with cleaning new or concrete structures is not sufficient experience for historic stone cleaning work.
- C. RESTORATION PROGRAM: Prepare and submit a written Restoration Program to include a detailed description of materials, methods, equipment, and sequence of operations proposed for use for each phase of restoration work including protection of surrounding materials and the project site. Include methods for keeping pointing mortar damp during curing period.
- D. CLEANING PROGRAM: Prepare and submit a written cleaning program that describes proposed cleaning process in detail, including materials, methods, and equipment to be used, protection of surrounding materials, and control of runoff during operations.

1.05 TESTING AND MOCKUPS

- A. Testing and Mockups will be required to demonstrate proficiency in stone rehabilitation methods and repointing; and to establish cleaning methods and duration. Do not commence Work until written approval has been obtained from the Architect on each mock-up type.

1.06 SEQUENCING AND SCHEDULING

- A. Perform stone rehabilitation work in the following sequence:
 - 1. Protect windows and other building elements in the area to be worked on during the work of this section.

2. Soak masonry units in the immediate area to be worked on with the approved architectural antimicrobial cleaner applied with a hand held pump spray, allow to dwell for the period established during the testing. Rinse with running water and a hand held hose to remove any remaining residue cleaner or debris once dwell period is complete.
 3. Carry out the re-honing of flat limestone surfaces to reverse the damage done by previous sand blasting - may be done prior to the removal of stones called to be removed and reinstalled, of after their reinstallation; but shall be carried out prior to repointing.
 4. Stones scheduled for removal and reinstallation in order to examine and repair/replace the steel anchoring system as indicated, shall be removed and marked with a unique number on the back, for reinstallation in the exact same location from which they were removed.
 5. Stones shall be removed and the required work completed in local batches to accommodate limited storage options. Removal of all stone at the same time will not be allowed.
 6. Make any repairs to the back-up brick in-fill behind the limestone as needed.
 7. Make anchoring repair/replacements as detailed and reinstall units in the exact same location from which they were removed.
 8. Follow with all masonry repairs and finally with the repointing of all masonry joints.
 9. Allow all mortar and sealants in an area to cure before commencing general cleaning in that area, to prevent the intrusion of water and other cleaning materials into the wall. The minimum cure time for mortar is 21 days.
 10. General cleaning and final rinse of stone surfaces. Clean stone surfaces with procedures determined during the initial testing phase.
 11. After cleaning, inspect for open mortar joints and repair before removal of scaffolding or swing stages.
- B. As scaffolding is removed, fill joints where anchors were used to attach encapsulation or scaffolding. Fill holes in mortar joints to comply with "Repointing Stonework" Section.

PART 2 - PRODUCTS

2.01 MASONRY MATERIALS

- A. Stone: For full stone units provide limestone from same quarry as the original building stone was acquired:
 1. Original Quarry: Alabamastone, a Division of Vetterstone; 3835 Highway 36, Russellville, AL, 507-345-4777. www.alabamastone.com
- B. Salvaged Stone for Dutchman repairs: The Owner has a good supply of stones removed from the building in previous phases. The Unit Price in the bid documents only needs to include the labor to trim such stone to the appropriate size and to carefully install the Dutchman repairs; but not the material.
- D. Brick: Back-up walls are constructed of brick. Where repairs are needed to the back-up wall, use a brick to match the density and size of the existing. Color is not a factor.

2.02 HONING EQUIPMENT & MATERIALS

- A. Highest quality stone polishing disks in a variety of grit sizes, from approximately 40 grit to 80 grit, for use in hand held rotary palm sander.
- B. Hand held palm sander

- A. Natural bristle brushes
- B. Potable water from a hand held hose (do not use power washers for this work as it may be performed prior to the repointing of the mortar joints). All water used in the masonry work shall be filtered at the supply source.

2.03 MORTAR MATERIALS

- A. All masonry mortar shall be site mixed to the requirements of this specification. No pre-bagged mortar shall be allowed on this project.
- B. Portland cement: ASTM C 150, Type I or Type II, White.
- C. Masonry cement shall NOT be used for anything in this job.
- D. Hydrated Lime: ASTM C 207, Type S; as free of magnesium as possible, but not more than 5% magnesium
- E. Site Prepared Lime Putty:
 - a. Autoclaved fine white finishing lime reconstituted according to the manufacturer's instructions to form lime putty and kept on site with a layer of protective water for use as needed; or.
 - b. Quicklime slaked on site according to ASTM C5-79 to form a lime paste and kept on site with a protective layer of water for use as needed
- F. Factory-Prepared Lime Putty: Must meet ASTM C 1489.
- G. Mortar Sand: ASTM C 144 unless otherwise indicated; clean washed and free from iron, soluble salts and other impurities.
 - 1. Color: Provide natural sand of color necessary to produce required mortar color.
 - 2. Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands if necessary to achieve suitable match.
- H. Mortar Color: Matching the colors of existing mortars shall be achieved only by the use of appropriate sand; added pigments are not allowed.
- I. Water: Potable and filtered.
- J. Admixtures: No admixtures are permitted on this job.
- K. Sealant or other caulk type materials shall NOT be used in masonry joints unless specifically called for as an expansion joint or in other specific circumstances as indicated on the drawings. Where sealant has previously been used in masonry joints, it shall be removed and replaced with mortar.

2.04 MORTAR MIXES

- A. Preparing Lime Putty:
 - 1. Slake quicklime and prepare lime putty according to appendix to ASTM C 5 and manufacturer's written instructions.
 - 2. Optionally, lime putty may be prepared using an autoclaved finish lime according to the manufacturer's instructions for mixing and storing for this use.
- C. Colored Mortar: Achieve match in mortar colors required using sands only.
- D. Do not use admixtures in mortar.
- E. Mortar Proportions: Mix mortar materials in the following proportions:
 - 1. Pointing Mortar for Limestone and brick:
 - One part white Portland cement, one part lime, and six parts sand.
 - a. Use only natural sands to produce mortar colors required.
 - 2. Rebuilding (Setting) Mortar: Same as pointing mortar.

2.05 CLEANING MATERIALS

- A. Cleaning Equipment: Atomized water spraying apparatus may be a complete proprietary system or it may be custom assembled by the Contractor for the purposes of this Project; so long as all components meet the requirements herein stated for quality and performance.
- B. Equipment Manufacturers
 - 1. Lockwood Products, Inc.
 - 2. Spraying Systems Co.
 - 3. Any reputable manufacturer of PVC pipe materials
- C. Cleaning Products: For general cleaning of the masonry a one part, nontoxic, neutral architectural antimicrobial cleaner is required. This product shall NOT require that a second neutralizing agent or after wash be used and shall prove effective on biological staining within the limestone. Other types of specific/spot soiling or staining may be cleaned with any product, which in the course of testing, demonstrate the most effective and gentlest means of doing the job without deleterious effects to the historic material. All products must first be tested before they can be approved for use on this building.
- D. Possible Cleaning Products Manufacturers
 - 1. D/2 Biological Solutions, Inc., www.d2bio.com
 - 2. Dumond Chemicals, Inc., www.dumondchemicals.com
 - 3. ProSoCo, Inc., www.prosoco.com
 - 4. Cathedral Stone Products, Inc., www.cathedralstone.com

END OF CONSOLIDATED, ABBREVIATED MASONRY SECTIONS

**ARCHITECTURAL METALS CLEANING, REPAIR AND CONSERVATION
SECTIONS 05 51 10, 08 03 11 & 08 03 51 CONSOLIDATED & ABBREVIATED**

PART 1 – GENERAL

1.01 SUMMARY

- A. The intent of this Project is that all work to the architectural metal elements be under the direction of a highly qualified firm specializing in the conservation and preservation of historic, ornamental metals.
- B. This section includes cleaning, repair and treatment of all architectural metal elements located on the exterior façades included in this scope of work; including but not limited to:
 - 1. Bronze Windows, Doors and Grilles
 - 2. Historic Bronze Hardware
 - 3. Ornamental Cast Aluminum Storefronts and Grilles
- C. Section includes but is not limited to:
 - 1. Cleaning and treatment of architectural bronze and cast aluminum elements
 - 2. Conservation, Stabilization or Rehabilitation efforts may include, but are not limited to, the following:
 - a. Documentation and analytical characterization of materials preservation levels, and environmental conditions.
 - b. Hand cleaning of historic metals to remove loose corrosion
 - c. Rotary Laser Cleaning to remove adhered corrosion, surface dirt and grime, and to expose/reveal original finishes.
 - d. Repair/replication of original patina as needed
 - e. Selective Application of protective coatings of wax and/or reversible lacquer.
- D. Section includes cleaning and treatment of all bronze windows in the project areas as follows:
 - 1. Removal (abatement) and replacement of all perimeter sealants at masonry openings
 - 2. Removal (abatement) and replacement of existing glazing compound in sash, and frame systems
 - 3. Cleaning and protective treatment all metal window and frame surfaces and elements
 - 4. Removal and replacement of cracked window lies where indicated
 - 5. Installation of solar/safety film on the interior side of glazing at windows (alternate at contractor's option: remove and replace glazing in toto with new safety/solar film already installed).
 - 6. Cleaning, treatment and reinstallation of 12 existing, exterior ornamental, bronze grilles which were previously removed and have been in storage.
 - 7. Replication and installation of four missing ornamental bronze grilles to match the historic.

- E. Section includes cleaning, repair and treatment of bronze Doors within the north Porte Cochere, and upgrades to accommodate the installation of new Level 1 rated ballistic glazing as follows:
1. Removal (abatement) and replacement of all perimeter sealants at historic masonry openings within the project scope (the bronze doors/storefronts which are to be retained).
 2. Removal of doors for repairs including rehabilitation or replacement of damaged bronze elements and historic hardware (reference Section 08 03 71 – Rehabilitation and Reuse of Historic Door Hardware).
 3. The custom fabrication and installation of a new solid bronze rabbet of sufficient size and strength to accommodate the new Level I ballistic glazing.
 4. Installation of new Level I ballistic glazing in all door lites. The existing glass in transoms may remain, if intact, or replaced to match the existing if damaged.
 5. Laser cleaning, with special laser equipment with conical rotating beam, of all door and frame surfaces to remove corrosion and even out the appearance as described in the Conservation Program, approved by the Architect.
 5. Patination and Protective coating to all bronze door and frame surfaces as described in the Conservation Program approved by the Architect.
 6. Installation of solar/safety film on the interior side of (non-rated) transom glazing
- F. As the building will be occupied throughout the duration of this project, Contractor shall provide protection of the building fabric on both the exterior and interior sides of all windows while the work is in progress.

1.02 REFERENCED STANDARDS

- A. All work shall be performed in accordance with The Secretary of the Interior's Standards for Treatment of Historic Properties.
- B. All work shall be carried out according to the standards and ethics of American Institute of Conservation by a qualified metals conservator.

1.03 INFORMATION SUBMITTALS

- A. Preconstruction and Construction photographs.
- B. WRITTEN CONSERVATION PROGRAM: Prepare a written, detailed description of materials, methods, equipment, and sequence of operations to be used for each phase of conservation work including protection of surrounding materials and Project site. If materials and methods other than those indicated are proposed for any phase of restoration work, add to Rehabilitation Program a written description of such materials and methods, including evidence of successful use on comparable projects, and demonstrations to show their effectiveness for this Project and worker's ability to use such materials and methods properly
- C. Qualification Data: For metal conservator and foundry company is used.

1.04 QUALITY ASSURANCE

- A. Metal Conservator Qualifications: Engage metal conservators experienced in metals conservation and restoration to perform work of this Section.

1. Firm shall have completed at least three documented historic restoration projects similar in material indicated for this project that have successfully met the Secretary of the Interior's Standards for the Treatment of Historic Properties.
 2. Metals Conservator directing the work shall have a minimum of ten years' experience in the stabilization and conservation of historic metals and shall employ personnel skilled in the various restoration operations (or sub-contract with vendor approved by the Architect) in accordance with the Secretary of the Interior's Standards.
 3. The Metal Conservator must show ability and prior experience of performing in situ and in shop materials conservation in particular, as past experience shows methods of metals conservation conducted by hand. Provide a list of at least five previous projects that required hand method metal restoration. Power buffers and abrasive disks will not be permitted in conjunction with conservation of historic metal.
 4. All work shall be conducted in accordance with the American Institute of Conservation – Code of Ethics and Guidelines for Practice.
- B. Contractor shall submit a statement describing their qualifications as required above. This shall include the experience and qualifications of firm and of key personnel who will work on this project include technicians, craftsmen, and artisans. Include names and addresses of projects successfully completed and for each include the name, address, and phone numbers of the owner, and name and address of the architect, if any.

1.05 HISTORIC METALS WORK, GENERAL

- A. Quality Standard: Louisiana State Capitol Building is listed in the U.S. National Register of Historic Places. Because of its historic significance all work to the exterior of the building must follow the Secretary of the Interior's Standards for the Treatment of Historic Properties.
- B. Care must be taken to avoid treatments and products which have the potential to damage historic building fabric. For this reason, all proposed products and treatment procedures must first be tested in an inconspicuous location. Testing of all proposed products, materials and treatment procedures shall take place and receive the written approval of the Owner and Architect prior to their general application or installation.

1.06 TESTING AND MOCK-UPS

- A. Testing and mockups will be required to demonstrate proficiency in the use of equipment and materials and quality of execution. Use materials and methods proposed for completed Work and prepare samples under same weather conditions to be expected during remainder of Work.
- B. Samples: Submit as many in situ or shop samples as needed to evaluate the full range of options, illustrating all visual qualities.

PART 2 – PRODUCTS & EQUIPMENT

2.01 METAL CONSERVATION GENERAL

CONSERVATION OF ARCHITECTURAL METAL ELEMENTS

- A. Final material selection to be used in the work of this section, including aluminum and bronze treatment, shall be based on approved work plan and test panels. Substitutions based on conservator's expertise will be considered by the Architect only if they improve the quality of the final product.

2.02 CLEANING

- A. Surface Cleaning – may involve but not be limited to:
 - 1. Hand cleaning
 - 2. Mechanical cleaning should only be done with approved tools in accordance with the Conservation Plan.
 - 3. Laser cleaning only with a rotary laser capable of the control required for work on fine ornamental objects, such as the GC-300 laser system
 - 4. Low pressure steam cleaning.
 - 5. Neutral nonionic detergent.
 - 6. Water for surface cleaning shall be potable, non-staining and free of minerals detrimental to the type of material being cleaned.
 - 7. Because the water on site has a high alkaline reading, the Contractor shall install and use at all times a filter device at the water source, for all metal work.

2.03 PROTECTIVE COATINGS

- A. Wax for use in protective coating shall be a non-acidic mix of carnauba wax and microcrystalline wax with a hydrocarbon solvent delivery, applied as recommended by the Conservator.
- B. Reversible, special lacquer formulated for the conservation of bronze alloys for highly ornamental or sculptural, exterior objects only.

2.04 EQUIPMENT

- A. Initial Hand Cleaning to remove three dimensional soiling and corrosion:
 - 1. Soft natural bristle brushes
 - 2. Clean cotton or micro fiber cloths
- B. Final Cleaning to reveal original finish: Laser cleaning only with a rotary laser capable of the control required for work on fine ornamental objects, such as the GC-300 laser system
- C. 185 CXFM Compressor w/air hoses
- D. Vacuum Equipment

PART 3 – EXECUTION

3.01 EXAMINATION AND TESTING

- A. All ornamental metal elements shall be examined to ensure substrate materials require remedial treatment as detailed in the approved Conservation Plan. If necessary, testing may include but is not limited to x-ray diffraction (XRD), x-ray fluorescence (XRF), and other analytical or non-destructive testing as required.

- B. Verify that recommended temperature and humidity conditions do not exceed manufacturer's recommendation prior to beginning work. Do not begin work until satisfactory conditions exist.
- C. Thoroughly document artifacts or elements before treatment begin (to include photography, sketches, mechanical drawings) to record existing conditions and level of preservation and throughout the treatment process to monitor the success of treatments.

3.02 TREATMENT APPLICATION

- A. Remedial treatments should be applied in accordance with the approved Conservation Plan.
- B. The Metal Conservator shall notify the Architect and provide documentation of any changes in the procedures or materials for the metal conservation work prior to implementing said changes.
- C. Debris and waste, including cleaning rags, etc., shall be removed from the site on a daily basis.

3.03 TREATMENT IN SITU CONSERVATION

- A. Document each artifact or element including before, in process, and upon completion of treatments.
- B. Identify materials and analytically characterize the artifact or element, including, but not limited to preservation/ maintenance provenance, levels and type of contamination, and mechanisms of corrosion.
- C. Clean to remove loose paint and corrosion products.
- D. Remove free contaminants with a nonionic detergent or by low pressure steam cleaning.
- E. Complete repairs as indicated in the Conservation Plan and approved by the Architect.
- F. Apply final protective coatings.
- G. Provide written report in support of work and preventative conservation plan for the Owner through the Architect.

3.04 TREATMENT OFF SITE CONSERVATION

- A. Carefully remove and transport artifacts to appropriate pre-approved facility. The facility shall comply with federal regulation 36 CFR part 79.9.
- B. Document each artifact or element including before, in process, and upon completion of treatments.
- C. Identify materials and analytically characterize the artifact or element, including, but not limited to: preservation/ maintenance provenance, levels and type of contamination, and mechanisms of corrosion.
- D. Clean to remove loose paint and corrosion products.
- E. Remove free contaminants with a nonionic detergent or by low pressure steam cleaning.
- F. Complete repairs as indicated in the Conservation Plan and approved by the Architect.
- G. Apply wax or other protective coating as approved in Conservation Program and established through testing.
- H. Provide written report in support of work and preventative conservation plan for Owner through Architect.

3.05 CLEAN-UP

- A. Remove debris from the site on a daily basis and at the completion of work. Do not let debris build up on site.
- B. Contractor shall be responsible for the removal of protective coverings, grit, and surface residue. Dispose of waste materials in an approved manner in accordance with local, state, and federal regulations.
- C. Remove materials, scaffolding, tools, and protection from project site at completion of work.

END OF CONSOLIDATED, ABBREVIATED METALS CONSERVATION SECTION