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DATE: September 2020

PROJECT DESCRIPTION:

Two monuments in the City of Worcester: a review of *Burnside Fountain (Boy with Turtle)* and the *Timothy Bigelow Monument* and surrounding headstones. All work to be carried out onsite both monuments and surrounding areas are to be protected with temporary construction fence. Conservation assessments and recommendations for treatment have been carried out. The scope of work for cleaning, conservation and restoration of the monuments and surroundings are provided below.

SCULPTURES AND OBJECTS TO BE TREATED:

1. Burnside Fountain (Boy with Turtle)

Date of site visit: 08/12/20

Artist: Harvey, Charles Y. (1869-1912)
Fry, Sherry Edmundson (1879-1966)
(both under supervision of Daniel Chester French)

Foundry: Jno. Williams, Inc. (New York)

Fountain: Bacon, Henry (1866-1924)

Title: *Burnside Fountain* or *Boy with Turtle*

Date: 1912. Relocated 1969

Material: Bronze and pink granite

Location: Worcester Common

Smithsonian Inventory of American Sculpture #: 87630006

Description: The fountain sculpture depicts a young boy riding on the turtle's back. The bronze sculpture is attached to a small circular granite base in the center of a large rectangular fountain, with four basins once used as horse watering troughs. There is a small basin low to the ground on the reverse for dogs.

CONDITION

Both the bronze sculpture and the granite fountain are in poor condition. The bronze has suffered from extreme damage due to pollution and acid deposition, resulting in disfiguring green copper sulfate corrosion and raised black copper sulfide corrosion. The current installation method clearly shows the attachment screws, and the sculpture is at risk of theft.

The pink granite fountain has extreme rust staining from water flow through iron pipes. There is a fountain manifold directly underneath the bronze. There are small chip losses to the stone, and numerous areas of mortar loss. It is not known if all the original plumbing was removed during the 1969-1970 restoration or during the 2004 repair. There are heavy iron stains on the granite, particularly at the basins, small chip losses on edges, and missing mortar. The sculpture is heavily corroded, appearing mostly green from corrosion due to acid deposition.

GOALS of the TREATMENT

The City of Worcester will not be moving or replumbing the Burnside Monument, and are having the bronze restoration done on site to reduce removal and re-installation costs. The City would like the bronze brought back to its original dark brown lustrous appearance, the granite cleaned, loose or deteriorated mortar replaced, and a “Dutchman” replacement repair of the largest granite loss.

2. Timothy Bigelow Memorial (sculpture and surrounding headstones)

Site visit: 08/13/2020
Architect: Snell, George. (1820-1893)
Execution: Wentworth and Co., Boston
Granite: Granite Railway Company
Title: *Timothy Bigelow Memorial*, (sculpture)
Other titles: *Colonel Timothy Bigelow Memorial*, (sculpture), *Bigelow Memorial*, (sculpture)
Date: 1860. Dedicated April 19th, 1861
Inscriptions: On the front of the sculpture:
TIMOTHY BIGELOW
On the right side of the sculpture:
Born Aug, 12, 1739 Died March 31, 1790
On the back of the sculpture:
In memory of the colonel of the 15th Massachusetts Regiment of the Continental Army in the War of Independence, this monument is erected by his great-grandson, Timothy Bigelow Lawrence in 1861
On the left side of the sculpture:
Quebec/Saratoga/Valley Forge/Monmouth/Verplanck's Point/Yorktown unsigned
Materials: Sculpture: Tuscany marble
Base: Granite
Dimensions: Sculpture: approximately 20' x 6'9" x 6'9"
Base: approximately 9' x 9'
Location: Worcester Common, Worcester MA 01608

The focus of this assessment is the marble memorial and the 21 historic headstones surrounding the monument. The painted iron fence is not a focus of this assessment because it is not original to the cemetery nor of the same time period as the monument. Further historic research is required to determine best preservation/restoration procedure for the fence.

CONDITION

The multi-tiered marble memorial was unfortunately previously aggressively over-cleaned by sand blasting and the entire surface has lost much detail and has an uneven profile. This past damage has introduced areas for bio growth to form and has allowed water to infiltrate the marble matrix causing damage upon freezing. The treatment also has also caused numerous cracking particularly, at the bottom courses of the stone.

There is also light surface soil on all surfaces, some small areas of black sulfate formation and dark staining associated with the cracks.

The previous aggressive treatment unfortunately cannot be reversed, but the monument can be best preserved by gentle washing, followed by patching of small losses, cracks, and deteriorated mortar joints. These repairs must be done with an appropriate lime mortar that matches the softness of the marble (no cement, no synthetic materials). There are already some recent repairs with fills. These fills are not the perfect color match but they are structurally sound and should be left as is.

There is a granite coping surrounding the memorial in a square shape approximately 5.5 feet from the monument. The coping contains 16 stones in a cross shape approximately every 5 feet with holes in the middle, some with iron staining. These are the attachment locations for the previous painted iron fence.

GOALS of the TREATMENT

The City would like the marble and granite cleaned and loose and deteriorated mortar replaced. All the headstones should be very gently cleaned and the leaning stone returned to the upright position in keeping with the surrounding stones.

1. SCOPE OF WORK

1. The city of Worcester issues this bid for the purposes of engaging the services of a qualified professional sculpture conservator or art conservation studio (hereafter identified as the “conservator” or the “vendor”) to perform cleaning and conservation of 2 historic monuments within the City of Worcester. The existing metal fence around the Burnside Monument shall be scraped sanded where needed and repainted with a coat of primer and a coat of black exterior paint.
2. The scope of work of the contract is expected to commence in October 2020.
3. **Schedule for Work** - All work must begin and be completed 45 days after Notice to Proceed letter has been received.
4. The conservator will provide all supplies and materials, site safety materials including signs, caution tape, safety cones, and plastic sheeting. The conservator will provide daily updates to the project manager.

2. REQUIRED SERVICES: PROFESSIONAL ART CONSERVATION TREATMENT

A. The Conservator shall implement all conservation services according to the treatments to be carried out according to the *Standards for Practice* outlined by the American Institute for Conservation of Historic and Artistic Works, including: surface cleaning of sculptures and monuments, repatination of bronze to correct historic color, structural repairs as specified, and restoration of missing parts in consultation with the project manager. Protective coatings on metal objects will be carried out as specified (Incralac and wax). The Conservator shall submit complete written and photographic documentation, including daily work log, as described below, within six weeks of completion of services:

B. Written documentation: A written final treatment report shall be submitted for each object, which shall consist of a description of all materials used and procedures followed. The format of the reports should follow the 2020 conservation assessment reports, in that each numbered step should be recorded. The reports should follow the standards of the American Institute for Conservation of Historic and Artistic Works.

C. Photographic documentation: In addition to written reports the City of Worcester will require photographic documentation of the before, during and after-treatment condition and appearance of each object. Photographic documentation shall be conducted using both overall and detail images. Digital photographic documentation may be submitted in high resolution JPEG images. Each image must be labeled with object name, brief description, and phase of treatment being documented.

For example: Burnside_2020_overall front_BT

And: Bigelow_2020_detail of previously damaged marble_BT

3. SPECIFICATIONS FOR CLEANING

A. Stone: Granite

Green, brown, or yellow growth from moss, lichen, or other bio-growth will be removed from the stone by an initial application of Nilodor Professional's Edge Bio-Enzymatic Digester, followed by washing and rinsing with Vulpex Detergent (potassium methyl cyclohexyl oleate). No acidic cleaners are to be used. Bio

Stone: marble

Surface soiling, biological growth, and particulate will be removed from the marble by an initial application of Nilodor Professional's Edge Bio-Enzymatic Digester, followed by washing with P & G Orvus WA Paste (sodium lauryl sulfate)

Stone: slate

Surface soiling, biological growth, and particulate will be removed from the slate headstones by an initial wetting of the surfaces with *distilled or deionized water*, followed by Nilodor Professional's Edge Bio-Enzymatic Digester in *distilled or deionized water*, followed by washing with P & G Orvus WA Paste (sodium lauryl sulfate) in *distilled or deionized water*, followed by water rinse.

B. Bronze and other metals:

Bronze to be washed with P & G Orvus WA Paste (sodium lauryl sulfate) in water using sponges or soft brushes, followed by copious water rinsing and drying with cotton rags or microfiber cloths.

4. SPECIFICATIONS FOR PATINATION OF BRONZE

Bronze to be hot re-patinated. Bronze sculpture on Burnside Monument: repatinate using historically correct patinating reagents in water, specifically ferric nitrate and potassium permanganate, using a propane or high purity gas heat torch.

SAMPLES OF PATINAS must be submitted for approval to the project manager before re-patination can commence.

5. SPECIFICATIONS FOR PROTECTIVE COATINGS:

Outdoor Bronze to be protected with Incralac lacquer (Acryloid B-44) in toluene, applied by brush and spray. After drying, the lacquer should be waxed and buffed with Butcher's Bowling Alley Paste Wax.

SPECIFICATIONS FOR REMORTARING and DUTCHMAN REPAIR

Stone: marble

1/8" or less re-mortaring: US Heritage Dispersed hydrated lime (USHeritage.com) or Voidspan Technologies (Voidspan.com), or Cathedral Stone's Jahn pre-mixed marble mortar

Colorants by Jahn or Keim's mineral pigments

1/8" - 3/8" re-mortaring: Fine cleaned marble dust mixed with St. Astier Natural Hydraulic Lime (Limeworks.us) or approved alternative.

Stone: granite

Remortaring: Cathedral Stone Jahn Mortars

Dutchman fill:

The original quarry source for the base of the Burnside monument is currently unknown, and the source has likely been depleted. Locate and procure samples of pink granite as close to overall tone and color as the original granite and submit for approval for Dutchman repair.

APPROVED SOURCES FOR CONSERVATION PRODUCTS:

Talas Online, for all detergents, Paraloid B-72, and Incralac: <http://www.talasonline.com>

Nilodor Professional's Edge Bio-Enzymatic Digester: <http://www.nilodor.com/The-Professionals-Edge.aspx>

Butcher's Bowling Alley Paste Wax: <http://www.bwccompany.com/bowlingalley.html>

Patination Reagents:

Fisher Scientific Ferric Nitrate Nonahydrate (Crystalline/Certified ACS), Fisher Chemical™

Fisher Scientific Potassium Permanganate (Crystalline/Certified ACS), Fisher Chemical™

Or approved alternative.

Re-mortar Materials:

USHeritage.com (<https://usheritage.com>)

Voidspan Technologies (<https://www.voidspan.com>)

Limeworks.com (<https://www.limeworks.us>)

Or approved alternative.

7. QUALIFICATIONS

The successful bidder must be a trained conservator whose primary occupation is the practice of conservation and who, through specialized education, knowledge, training, and experience, formulates and implements all the activities of conservation in accordance with the American Institute of Conservation's Code of Ethics and Guidelines for Practice.

Prior experience of at least 7 or more years' conserving monuments, outdoor bronze, stone, and historic artifacts including cemetery headstones is required. Bidders should provide a list of similar projects with at least two references. The successful bidder will be the lowest cost qualified bidder.

8. SUBMISSION REQUIREMENTS

Guidelines for Response Submission

1. Submit Cover page with name, business name, address, email, and telephone of Conservator.
2. Submit Qualifications, including Summary/Description of Business, curriculum vitae of Lead Conservator and Associate Conservators and conservation technicians. Additionally, a description of similar works carried out in the past 7 years, and three references. Membership in the American Institute of Conservation, particularly as a professional associate or Fellow, will be highly advantageous.
3. Submit a written summary proposal for each historic object or monument, including any proposals that are different from specifications.
4. All quotes should include an itemized breakdown of material costs, labor and administrative time.
5. All work to be carried out on site.

CITY OF WORCESTER: CONTRACT SPECIFIC TERMS AND CONDITIONS

Materials and Treatments

The City of Worcester requires all conservation materials as specified and all proposed treatments to be carried out according to the Standards for Practice outlined by the American Institute for Conservation of Historic and Artistic Works.

Should proposal list materials, which are unfamiliar to the City of Worcester, or if any procedure is brought into question, the City of Worcester shall seek the advice of the Consulting Conservator, or an outside conservator, in order to properly evaluate all proposals. The City of Worcester reserves the right to reject any and all proposals which it deems to be inappropriate or not in the best interest of the artwork.

Scheduling of Services

This contract will be processed by City of Worcester, and must receive final approval before services may be scheduled. Timothy L. Boucher, Physical Plant Director shall notify the conservator of this final approval and arrange for services to commence at a mutually convenient time with the City of Worcester.

Equipment and access

The conservator shall supply all materials and equipment necessary for the proper implementation of all services required under this agreement. The conservator shall be allowed to park up to two vehicles at each site location and will provide vehicle information to the City of Worcester.

Performance Measurements, Inspection and Approval

The selected conservator will be measured by his ability to meet the required specifications with emphasis on effective communication to the City of Worcester of all conservation issues affecting the sculptures and historic objects, and coordination of personnel in pro-active problem solving. The selected Contractor will be required to demonstrate satisfactory performance under this contract through continuous review of work in progress. Contractor should understand that work in progress may be inspected and evaluated at any time by Rika Smith McNally and will undergo a final evaluation by the City of Worcester upon completion. All documentation and invoices shall also be reviewed and approved by Rika Smith McNally and the City of Worcester.

The selected Contractor will be required to provide sufficient insurance coverage for General Liability, Workmen's Comp and Vehicle protection in accordance with the standard requirements of the City of Worcester.

CITY OF WORCESTER Requirements:

1. This bid does not commit City of Worcester to award an agreement or pay cost incurred in the preparation of a proposal. The City of Worcester reserves the right to accept or reject any and all proposals received, to negotiate with any qualified source, or to cancel this bid, in whole or in part, if the City of Worcester so chooses.
2. Upon award all Conservators are responsible for all existing field conditions.
3. All quotes must reflect prevailing wage rate for labor unless otherwise noted.
4. All work is to be performed in a professional manner compliant with, but not limited to, all accepted historic preservation standards, codes, and regulations.
5. All work is to be performed during daytime hours.
6. The awarded Conservator to City of Worcester must submit all product specifications for approval prior to purchase and installation.
7. All vendors must be responsible for the prompt removal of all individual project-related trash from the job site **(must be disposed of offsite, unless City of Worcester approved)**.