



Phase Two: A & E Services in Support of Work Planning on Historic Facilities within the Manhattan Project National Historical Park - Hanford

STATEMENT OF WORK

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1.0 INTRODUCTION / BACKGROUND

This solicitation is issued for the performance of *Architectural & Engineering (A&E) Services* for Central Plateau Cleanup Company (CPCC) in support of the Manhattan Project National Historical Park (MAPR) Pre-Manhattan Project facilities on the Hanford Site. CPCCo is a prime contractor to the Department of Energy (DOE).

The MAPR was authorized by the Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015 (Public Law No. 113-291) and created by a Memorandum of Agreement between the Secretary of Energy and Secretary of the Interior in November 2015. MAPR is a collaboration between the DOE, which will preserve, own, and provide safe public access to its park facilities and lands, and the National Park Service (NPS), which will interpret the story of the Manhattan Project and provide technical assistance to DOE on historic preservation. The Hanford properties included in this scope are:

- Bruggemann’s Warehouse
- Allard Pump House
- White Bluffs Bank
- Hanford High School
- Hanford Electrical Substation Building

2.0 DESCRIPTION OF WORK – GENERAL

Contractor is required to provide general building envelope structural and stability evaluations and identify any near-term recommended actions necessary to stabilize and prevent further degradation of the Pre-Manhattan era facilities noted in Section 1.0. Specific focus on near term actions to stabilize should be on the Hanford High School and Bruggemann Warehouse as they are currently experiencing noticeable structural failures.

Contractor shall be responsible for independently planning, organizing, and performing a wide variety of non-hazardous specialized administrative/technical duties in support of the successful completion of goals and deliverables and in accordance with all provisions of the contract.

3.0 DESCRIPTION OF WORK – SPECIFIC

The work scope for this activity includes the resources, material and/or equipment necessary to accomplish the following CPCCo activities; prepare building structural evaluations and provide stabilization and/or rehabilitation and improvement recommendations for the remaining four (4) Pre-Manhattan Project era facilities:

1) White Bluffs Bank (WBB)

The WBB was restored in recent years and is in a mode of preservation and maintenance as well as completing some minor restorations such as finishing the hardwood floors and repainting the vault door. The WBB is periodically opened for tour groups to enter so public access is available and in use. There is no HVAC system thus leaving the building subject to seasonal temperature and humidity variations. The evaluation should provide a recommendation on if some level of HVAC is needed to best preserve the structure and finishes, considering the area has no utilities available and to minimize impacts on the aesthetics of the WBB and surrounding area.

2) Hanford High School

The Hanford School is not open to public access due to the degrading condition of the structure and amount of debris located in the interior spaces as well as significant biological debris from nesting activities in the upper interior spaces. The building structure is showing signs of structural collapse particularly on the North side where walls have fractured and are separating with only the rebar preventing a more significant failure. The envelope evaluation and recommendations should include the location and type of bracing or shoring that should be done near term to stabilize the structure. The longer-term goal is to be able to open and allow public access to some or all of the interior areas for tours and interpretation, and beyond that even partial restoration of certain areas such as a classroom. The report should include recommendations on the feasibility and viability of the best path forward for this structure that would provide improved public access and experiences.

3) Bruggemann Warehouse

The Bruggemann Warehouse is not open to public access due to the degraded condition of the structure. The roof structure is failing due to the bowing failure of the wall and beams where the barn doors are located. This is pulling the truss beams away from the opposite wall, leaving the truss beams hanging without support, thus creating a noticeable sag in the roofline. Recently temporary shoring and bracing has been installed to stop the wall bowing, support for the falling roof trusses, and support for the rock walls and window arches that were failing. The rock and mortar parts of the building structure appear to be in good shape, except for a couple of areas that were provided shoring for support. One primary concern being the chimney being at risk if the roof completely fails. The chimney

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has some unique stone artwork that must not be allowed to be lost so ensuring stabilization is paramount. Long term goals of this Bruggeman Warehouse would be to have public access to the interior areas and be able to have an improved experience of what it was like Pre-Manhattan Project. Consideration of enclosing the entire structure to protect it from the elements should be discussed as well as recommendations of potential to restore the structure to a condition to better represent the significance and tell the story of the structure in a “what’s possible” format.

4) Allard Pump House

The Allard Pumphouse located on the bank of the Columbia River appears to be in good shape structurally with few signs of significant degradation. The interior floor space is filled with rocks and gravel and is uneven. It is difficult to assess the stability of the floor area due to the overburden within the structure. The long-term goal is to allow limited public access to the interior. The envelope evaluation and recommendations should include a discussion on the best approach to determine the stability of the floor are and eventual removal of the overburden and create a safe walking space within the interior.

The contractor shall provide and manage labor, equipment, materials, and services required to complete the work. CPCCo shall provide and/or make available relevant reports, drawings, and any other material deemed necessary to complete this scope of work.

Resources covered in this SOW include mechanical, structural, and other engineers with expertise in the preservation of historical structures.

5) Hanford Electrical Substation Building

The Hanford Electrical Substation is located near the Hanford High School and is not showing significant signs of degradation at this time although access in recent times has only been around the exterior of the building.

3.1 Task Description

The contractor shall provide assessments of the current physical condition of the Pre-Manhattan Project era structures, and the recommended actions to preserve and stabilize them (see Section 3.0). For the buildings that the contractor believes lend themselves to additional improvements beyond preservation, the contractor shall provide further recommended actions consistent with the requirements of the National Historic Preservation Act and utilizing the United States Secretary of the Interior's Standards for the Stabilization of Historic Properties.

- 1) Perform building evaluations, including structural analysis, for each of the Pre Manhattan buildings.
- 2) Provide information and instructions as needed of each building to support near term stabilization and preservation work. Document present size, condition, material types, colors, construction techniques, and other elements that are relevant to the recommended treatment option/s.
- 3) Utilizing "*The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating Restoring and Reconstructing Historic Buildings,*" provide a detailed treatment recommendation (preservation, rehabilitation, restoration, or reconstruction) for each building. The recommendation for each building shall include, at a minimum, the stabilization and preservation of the building in addition to any recommendation(s) for building rehabilitation, restoration, and/or reconstruction, if appropriate.
- 4) The contractor shall provide an approach for cleaning up each building area and interior (e.g., debris, waste, vegetation) to make them safe for public entry.
- 5) Contractor's recommended approach to work on the buildings shall place a priority on stabilization for long-term protection, enabling safe public access around and into the buildings, preserving original materials, preserving the original appearance of the structures to the maximum extent possible, and devising work approaches that are highly protective of the surrounding cultural resources.
- 6) Prepare a report for CPCCo and DOE that includes descriptions, challenges and benefits of the recommended approach(es); estimate of how long the recommended work would extend the building's life; and a rough order of magnitude (Class 5) cost range for each facility.

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- 7) Prepare briefing materials to support CPCCo and DOE in presenting the findings, recommendations and estimates to DOE management and other stakeholders.
- 8) Be able to attend and participate in meetings and briefings for DOE management and other stakeholders. Estimate is up to five (5) meetings lasting up to two (2) hours each.

3.2 Special Requirements

Contractor shall have specialized experience with early 20th century historic preservation projects (see Section 5.1).

3.3 Acceptance Criteria

Work products and services provided shall meet all applicable CPCCo procedures for control and review of work products and pertinent regulatory requirements, as required by this contract and incorporated provisions.

3.4 Organizational Interfaces

The Contractor shall interface with various CPCCo (and other) organizations through the CPCCo Contract Specialist (or designee), and Buyer's Technical Representative (BTR) as required.

3.5 Work Not Included

N/A

3.6 Buyer Furnished Materials and Equipment

There will be no government furnished materials or equipment associated with the work, Site Conditions and Known Hazards.

3.7 Site Coordination Requirements

Contractor site coordination and interface requirements include Lucas Engineering & Management Services, Inc.

4.0 TECHNICAL REQUIREMENTS

Contractor will perform in accordance with the terms and conditions of this contract, CPCCo internal policies and procedures, and quality assurance provisions, including safety programs, laws, orders, permits, rules, confidentiality of information and intellectual property safeguards.

4.1 Work Location / Access Requirements (if applicable)

The Pre-Manhattan Project era facilities are located on the Hanford Site outside of Richland, WA. CPCCo will coordinate access as needed by the contractor.

5.0 PERSONNEL REQUIREMENTS

5.1 Training and Qualification

- A. Contractor shall have the requirements listed below.
 - 1) At least 15 years of experience in evaluation and preservation of historic structures.
 - 2) At least 15 years of experience with Section 106 of the National Historic Preservation Act as it relates to work on historic facilities. Experience with documenting, monitoring, and/or preservation of historic buildings at the Hanford Site preferred.
 - 3) Specialized training in preservation and *The Secretary of the Interior's Standards for the Treatment of Historic Properties* (reference National Park Service U.S. Department of the Interior) with Guidelines for Preserving, Rehabilitating Restoring and Reconstructing Historic Buildings.
- B. The Contractor is expected to provide appropriately trained and qualified staff to perform the work scope.
- C. CPCCo shall provide Contractor staff task or facility specific training as required for site and facility access and safe performance of assigned tasks.

5.2 Desired Qualifications

Experience and familiarity with the Manhattan Project National Historical Park facilities at Hanford

5.3 Security and Badging Requirements

For any on site work, general site access badging is required. Special clearance requirements will be provided, if applicable.

5.4 Site Access and Work Hours

Work will be done on a 4 x 10 schedule. The standard workday shall consist of ten (10) hours of work between 6:00 AM and 4:30 PM, with one-half hour designated as an unpaid period for lunch. No work occurs on the non-working Fridays. If schedule alternative is required BTR will communicate to contractor's contact.

6.0 ENVIRONMENTAL, SAFETY, HEALTH, AND QUALITY REQUIREMENTS

The Contractor shall perform work safely, in a manner that ensures adequate protection for employees, the public, and the environment, and shall be accountable for the safe performance of work. The Contractor shall comply with, and assist CPCCo in complying with Environmental, Safety, Health, and Quality (ESH&Q) requirements of all applicable laws, regulations and directives.

Materials supplied or purchased for use in performance of this contract, to the maximum extent practical, shall be environmentally preferred as described in 40 CFR 247 and including Biobased products as designated by the USDA (www.biopreferred.gov).

The following project-specific ESH&Q requirements are applicable to this scope of work in addition to the requirements identified in the contract [General Provisions](#) and, when work is being conducted on site, the additional ESH&Q requirements in [SP-5 \(On-Site Services\)](#) should be followed.

7.0 MEETINGS AND SUBMITTALS

7.1 Meetings

After contract is awarded, Contractor shall participate in a kick-off meeting. Additional meetings will be scheduled as needed or as noted in the task description.

7.2 Submittals

There are no submittals for this scope.

8.0 DELIVERABLES, PROJECT CONTROLS, MILESTONES, AND PERFORMANCE SCHEDULE REQUIREMENTS

- A. Deliverables include all eight (8) tasks listed in Section 3.1 compiled into a Final Report.