Section C - Description/Specifications/Statement of Work

GENERAL SPECIFICATIONS

Mesa Falls Grandview Overlook Retaining Wall Repair

1.1 SCOPE OF CONTRACT

A. This project includes repairing the historic stone retaining wall at the Mesa Falls Grandview Overlook.

1.2 PROJECT LOCATION

A. The project is located on the Ashton-Island Park District of the Caribou-Targhee National Forest, Fremont County, Idaho. It is located at LAT 44.174916°, LONG -111.314911°

1.3 SITE INFORMATION AND LIMITATIONS

A. The following site conditions are considered incidental to the contract and the contractor will not be paid directly for any of the following items:

1. Construction site will be occupied by employees and the public. The Contractor will be responsible for signing and limiting access.
2. Utilities are not available at the site for construction purposes.
3. Government toilet facilities are available at the site during all construction work.

1.4 TRAFFIC CONTROL AND CONSTRUCTION SIGNING

A. No work that endangers, interferes, or conflicts with traffic or access to work sites shall be performed until a plan for satisfactory warning and handling of traffic has been submitted by the contractor and approved by the COR and Idaho Department of Transportation. Construction signing for traffic control shall conform to the Manual of Uniform Traffic Control Devices (MUTCD). All traffic control signs will be placed in areas adequate for a truck pulling a fifth wheel trailer to be turned around. Contractor shall not be paid directly for this item, rather it will be considered incidental to other items of work listed in the Schedule of Items.

1.5 WORK CAMPS, STAGING AND STORAGE AREAS

A. Areas for staging operations and storage of materials shall be approved by the CO. The Contractor must request in writing for approval from the CO to stage work trailers on site.

B. No overnight camping will be allowed at the project site

1.6 INSPECTION OF WORKSITE

A. The contractor acknowledges they have taken the necessary steps to ascertain the nature and location of work, and have investigated and satisfied themselves as to the general and local conditions that can affect the work or its cost. Any failure of the contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor

from the responsibility of estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expenses to the government.

1.7 START DATE

A. To be determined.

1.8 CONTRACT TIME

A. Base Bid: 60 days.

1.9 SPECIFICATIONS

A. The following specifications are attached. Some sections in the schedule of items refer to other sections not listed and are subsidiary to, or are included in payment for other pay items in this contract. These items are considered incidental and no additional compensation will be made.

Section 011250 - Measurement And Payment
Section 011900 - Mobilization
Section 013300 - Submittal Procedures
Section 013591 - Historic Treatment Procedures
Section 014100 - Quality Control

END OF SECTION C
May 2026

SECTION 011250 - MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Measurement and payment for contract work will be made only for and under those pay items included in the Schedule of Items. All other work, labor, materials, equipment, and incidentals necessary to successfully complete the project will be considered as included in the payment for items shown. This section defines the method of measurements and basis of payment for work items listed in the Schedule of Items.

B. When more than one class, size, type, thickness, etc. is specified in the Schedule of Items for any pay item, suffixes will be added to the item number to differentiate between the pay items.

1.2 DETERMINATION OF QUANTITIES

A. The following measurements and calculations shall be used to determine contract quantities for payment.

1. For individual construction items, longitudinal and lateral measurements for area computations shall be made horizontally or corrected to horizontal measurement unless otherwise specified. Measurements for geotextiles, netting and erosion control blankets shall be along slope lines.
2. For excavation or embankment volumes, the average end area method shall be used to compute volumes. However, if in the judgment of the Contracting Officer (CO), the average end area method is impractical, measurement shall be made by volume in hauling vehicles or by other three-dimensional methods.
3. For Structures, they shall be measured according to neat lines shown on the drawings or as altered by the CO, in writing, to fit field conditions.
4. For items that are measured by the linear foot, such as pipe culverts, fencing, guardrail, piping, utilities, and underdrains, measurements shall be made parallel to the base or foundation upon which the structures are placed.
5. For aggregates weighed for payment, the tonnage shall not be adjusted for moisture content, unless otherwise provided for.
6. For standard manufactured items (such as fence, wire, plates, rolled shapes, pipe conduits) identified by gauge, weight, section dimensions, and so forth, such identifications shall be considered the nominal weights or dimensions. Unless controlled by tolerances in cited specifications, manufacturer's tolerances shall be accepted.

B. Earthwork Tolerances - Adjustments of horizontal or vertical alignment, within the tolerances specified in this contract, or shifts of balance points up to 100 feet shall be

made by the contractor as necessary to produce the designed sections and to balance earthwork. Such adjustments shall not be considered as "Changes."

1.3 UNITS OF MEASUREMENT

A. Payment shall be by units defined and determined according to U.S. Standard measure and by the following:

1. Acre: Make longitudinal and transverse measurements for area computations horizontally.
2. 50lb Bag: Measurement will be for the actual number of 50lb bags of standard bentonite grout.
3. 94lb Bag: Measurement will be for the actual number of 94lb bags of standard cement or grout.
4. Cubic Yard (CY): A measurement computed by one of the following methods:

    a. Excavation, Embankment, or Borrow. The measurement computed by the average end area method from measurements made longitudinally along a centerline or reference line.
    b. Material in Place or Stockpile. The measurement computed using the dimensions of the in-place material.
    c. Material in the Delivery Vehicle. The measurement computed using measurements of material in the hauling vehicles at the point of delivery. Vehicles shall be loaded to at least their water level capacity. Leveling of the loads may be required when vehicles arrive at the delivery point.

5. Each (EA): One complete unit, which may consist of one or more parts.
6. Gallons (GAL): The quantity shall be measured by any of the following methods:

    a. Measured volume in container.
    b. Metered volume by approved metering system.
    c. Commercially package volume.

7. Hour (HR): Measurement will be for the actual number of hours (or fraction thereof) ordered by the Contracting Officer and performed by the contractor.
8. Linear Foot (LF): Measurement of work along its length from point-to-point; parallel to the base or foundation. Do not measure overlaps.
9. Lump Sum (LS): One complete unit.
10. Mile: Measured horizontally along the centerline of each roadway, approach, or ramp.
11. Pound (LB): For sacked or packaged material, measurement will be the net weight as packed by the manufacturer.
12. Square Foot (SF): Measured on a plane parallel to the surface being measured.
13. Square Yard (SY): Measured on a plane parallel to the surface being measured.
14. Ton: Measured as a short ton consisting of 2,000 pounds.

1.4 METHOD OF MEASUREMENT

A. One of the following methods of measurement for determining final payment is designated on the Schedule of Items for each pay item:

1. ACTUAL QUANTITIES (AQ) - These quantities are determined from actual measurements of completed work.
2. DESIGNED QUANTITIES (DQ) - These quantities denote the final number or units to be paid for under the terms of the contract. They are based upon the original design data available prior to advertising the project. Original design data include the preliminary survey information, design assumptions, calculations, drawings, and the presentation in the contract. Changes in the number of units shown in the Schedule of Items may be authorized under any of the following conditions:

    a. As a result of changes in the work authorized by the CO.
    b. As a result of the CO determining that errors exist in the original design that cause a pay item quantity to change by 15 percent or more.
    c. As a result of the Contractor submitting to the CO a written request showing evidence of errors in the original design that cause a pay item quantity to change by 15 percent or more. The evidence must be verifiable and consist of calculations, drawings, or other data that show how the designed quantity is believed to be in error.

3. LUMP SUM QUANTITIES (LSQ) - These quantities denote one complete unit of work as required by or described in the contract, including necessary materials, equipment, and labor to complete the job. They shall not be measured.
4. STAKED QUANTITIES (SQ) - These quantities are determined from staked measurements prior to construction.
5. VEHICLE QUANTITIES (VQ) - These quantities are measured or weighed in hauling vehicles.

PART 2 - PRODUCTS (NOT APPLICABLE)
PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 011250
May 2026

USDA FOREST SERVICE, R4
Mesa Falls Grandview Overlook Retaining Wall Repair

SECTION 011900 - MOBILIZATION

PART 1 - GENERAL

1.1 SUMMARY

A. This item is intended to compensate the Contractor for operations including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site; for payment of premiums for bonds and insurance for the project; and for any other work and operations which must be performed or costs that must be incurred incident to the initiation of meaningful work at the site and for which payment is not otherwise provided for under the contract.

1.2 MEASUREMENT AND PAYMENT

1. No separate measurement and/or payment will be made for this section. Payment shall be included with work shown in the schedule of items.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 011900
May 2026

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals. See Table 013300-1 for a summary of required submittals.

B. See other specification section within this package for additional requirements on submittal.

1.2 SUBMITTAL PROCEDURES

A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

    a. The Contracting Officer (CO) reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

B. Processing Time: Allow enough time for submittal review, including time for re-submittals, as follows. Time for review shall commence on CO's receipt of submittal.

1. Initial Review: Allow 14 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. CO will advise Contractor when a submittal being processed must be delayed for coordination.
2. If intermediate submittal is necessary, process it in same manner as initial submittal.
3. Allow 14 days for processing each re-submittal.
4. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.

C. Identification: Place a permanent label or title block on each submittal for identification.

1. Indicate name of firm or entity that prepared each submittal on label or title block.
2. Provide a space on label or beside title block to record Contractor's review and approval markings and action taken by CO.
3. Include the following information on label for processing and recording action taken:

    a. Project name.

b. Date.
c. Name and address of Contractor.
d. Name of manufacturer.
e. Unique identifier, including revision number.
f. Number and title of appropriate Specification Section.
g. Drawing number and detail references, as appropriate.
h. If more than one item is shown on submittal sheet, identify item.

D. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.

E. Additional Copies: Unless additional copies are required for final submittal, and unless CO observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.

F. Use for Construction: Use only final submittals with mark indicating action taken by CO in connection with construction.

1.3 MEASUREMENT AND PAYMENT

A. No separate measurement and/or payment will be made for this section. Payment shall be included with work shown in the schedule of items.

PART 2 - PRODUCTS

1.1 ACTION SUBMITTALS – (Submittals requiring CO approval)

A. General: Prepare and submit Action Submittals required by individual Specification Sections.

1. Number of Copies: Submit three copies of each submittal, unless otherwise indicated. CO will return two copies. Mark up and retain one returned copy as a Project Record Document.

B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:

a. Manufacturer's written recommendations.
b. Manufacturer's product specifications.
c. Manufacturer's installation instructions.
d. Manufacturer's catalog cuts.
e. Wiring diagrams showing factory-installed wiring.
f. Compliance with recognized trade association standards.
g. Compliance with recognized testing agency standards.

C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

1. Preparation: Include the following information, as applicable:

a. Dimensions.
b. Identification of products.
c. Fabrication and installation drawings.
d. Roughing-in and setting diagrams.
e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
f. Notation of dimensions established by field measurement.

2. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.

D. Contractor's Construction Schedule: The contractor shall submit a Construction Schedule, for approval by CO, in accordance with the contract provisions within 5 day of commencement of work.

E. Samples: Prepare physical units of materials or products, including the following:

1. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.

1.2 INFORMATIONAL SUBMITTALS – (Submittals NOT requiring CO approval)

A. General: Prepare and submit Informational Submittals required by other Specification Sections.

1. Number of Copies: Submit three copies of each submittal, unless otherwise indicated. CO will not return copies.
2. Certificates and Certifications: Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
3. Test and Inspection Reports: Comply with requirements in Section 014100 "Quality Control."

B. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.

C. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements.

D. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment.

E. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer.

PART 3 - EXECUTION

1.1 GENERAL

A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to CO.

B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

C. CO will not review submittals that do not bear Contractor's approval stamp and will return them without action.

D. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

E. Substitutions – Whenever materials, products, and equipment are listed by name or brand in the specifications and/or on the drawings, it is used as a measure of quality, utility, or standard. If the Contractor prefers to use any other brand or manufacturer of same quality, appearance and utility to that specified, he shall request substitution as provided below, not less than 30 days before the planned installation of the item. The Contracting Officer will approve or disapprove the request for substitution.

F. Requests for substitutions will only be considered if contractor submits the following:

1. Complete technical data including drawings, complete performance specifications, test data, samples and performance tests of the article proposed for substitution. Submit additional information if required by Contracting Officer. All items in the above information shall be circled, tagged, or marked in some way to indicate all deviations or differences which the proposed item differs from the originally specified item.
2. Similar data as above for item originally specified. All items shall be marked to identify where/how the proposed substitution will differ.
3. A statement by the Contractor that the proposed substitution is in full compliance with the contract documents, applicable codes, and laws.
4. The Contractor shall be responsible for any effect upon related work in the project for any substitution and shall pay any additional costs generated by any substitutions.

1.2 SUBMITTAL SCHEDULE – Submittals shall be made as required by and called for in the drawings and specifications. The following table is a summary of the required

submittals for the project - the table is to assist the Contractor and may not be all inclusive – additional submittals may be required by specific specifications:

TABLE 013000-1

Spec. Section	Section Title	Subsection	Required Submittal
013300	Submittal Procedures	2.1D	Construction Schedule
014100	Quality Control	1.3 A	Contractor quality control plan
014100	Quality Control	1.3 B	Permits, Licenses, and Certificates
014100	Quality Control	1.3 C	Test and inspection reports
014100	Quality Control	1.3 D	As-Built drawings
237313.13	Electric Furnaces	1.3A	Product Data
237313.13	Electric Furnaces	1.3B	Shop Drawings
237313.13	Electric Furnaces	1.3C	Operation and Maint. Data

END OF SECTION 013300
May 2026

SECTION 013591 - HISTORIC TREATMENT PROCEDURES

PART 4 - GENERAL

1.1 SUMMARY

A. This Section includes special procedures for historic treatment on Project including, but not limited to, the following:

1. Storage and protection of existing historic materials.
2. Temporary protection of historic materials during construction.
3. Historic treatment procedures.

1.2 DEFINITIONS

A. "Preservation": To apply measures necessary to sustain the existing form, integrity, and materials of a historic property. Work may include preliminary measures to protect and stabilize the property.

B. "Rehabilitation": To make possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values.

C. "Restoration": To accurately depict the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and the reconstruction of missing features from the restoration period.

D. "Reconstruction": To reproduce in the exact form and detail a building, structure, or artifact as it appeared at a specific period in time.

E. "Stabilize": To apply measures designed to reestablish a weather-resistant enclosure and the structural reinforcement of an item or portion of the building while maintaining the essential form as it exists at present.

F. "Protect and Maintain": To remove deteriorating corrosion, reapply protective coatings, and install protective measures such as temporary guards; to provide the least degree of intervention.

G. "Repair": To stabilize, consolidate, or conserve; to retain existing materials and features while employing as little new material as possible. Repair includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials. Within restoration, repair also includes limited replacement in kind, rehabilitation, and reconstruction, with compatible substitute materials for deteriorated or missing parts of features when there are surviving prototypes.

H. "Replace": To duplicate and replace entire features with new material in kind. Replacement includes the following conditions:

1. Duplication: Includes replacing elements damaged beyond repair or missing. Original material is indicated as the pattern for creating new duplicated elements.
2. Replacement with New Materials: Includes replacement with new material when original material is not available as patterns for creating new duplicated elements.
3. Replacement with Substitute Materials: Includes replacement with compatible substitute materials. Substitute materials are not allowed, unless otherwise indicated.

I. "Remove": To detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.

J. "Remove and Reinstall": To detach items from existing construction, repair and clean them for reuse, and reinstall them where indicated.

K. "Existing to Remain" or "Retain": Existing items of construction that are not to be removed and that are not otherwise indicated to be removed and salvaged, or removed and reinstalled.

L. "Material in Kind": Material that matches existing materials, as much as possible, in species, cut, color, grain, and finish.

1.3 SUBMITTALS

A. Historic Treatment Program: Submit a written plan for each phase or process including protection of surrounding materials during operations. Describe in detail materials, methods, and equipment to be used for each phase of work.

B. Alternative Methods and Materials: If alternative methods and materials to those indicated are proposed for any phase of work, provide a written description including evidence of successful use on other, comparable projects, and program of testing to demonstrate effectiveness for use on this Project.

C. Historic Treatment Specialist Qualifications: A firm that employs personnel, including supervisory personnel, experienced and skilled in the processes and operations indicated. Must demonstrate successful rehabilitation of similar projects.

1.4 QUALITY ASSURANCE

A. Historic Treatment Preconstruction Conference: Conduct conference at Project site.

B. When providing historic preservation or rehabilitation services, the work shall be accomplished by or under the direct supervision of someone meeting the Secretary of the Interior’s Professional Qualification Standards for Historic Architecture.

1.5 STORAGE AND PROTECTION OF HISTORIC MATERIALS

A. Removed and Reinstalled Historic Materials:

1. Clean and repair historic items to functional condition adequate for intended reuse.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

B. Existing Historic Materials to Remain: Protect construction indicated to remain against damage and soiling during historic treatment. When permitted by the Contracting Officer's Representative items may be removed to a suitable, protected storage location during historic treatment and cleaned and reinstalled in their original locations after historic treatment operations are complete.

C. Storage and Protection: When removed from their existing location, store historic materials within a weathertight enclosure where they are protected from wetting by rain, snow, or ground water, and temperature variations. Secure stored materials to protect from theft.

1. Identify removed items with an inconspicuous mark indicating their original location.

1.6 PROJECT-SITE CONDITIONS

A. Exterior Cleaning and Repairing:

1. Proceed with the work only when forecasted weather conditions are favorable.

a. Wet Weather: Do not attempt repairs during rainy or foggy weather. Do not apply primer, paint, putty, or epoxy when the relative humidity is above 80 percent. Do not remove exterior elements of structures when rain is forecast or in progress.
b. Do not perform exterior wet work when the air temperature is below 40 deg F.
c. Do not begin cleaning, patching, or repairing when there is any likelihood of frost or freezing.
d. Do not begin cleaning when either the air or the surface temperature is below 45 deg F unless approved means are provided for maintaining a 45 deg F temperature of the air and materials during, and for 48 hours subsequent to, cleaning.

2. Perform cleaning and rinsing of the exterior only during daylight hours.

1.7 MEASUREMENT AND PAYMENT

A. No separate measurement and/or payment will be made for this Section. Refer to Section 00050, Project Description for a description line items.

PART 5 - PRODUCTS (Not Used)

PART 6 - EXECUTION

1.1 PROTECTION, GENERAL

A. Comply with manufacturer's written instructions for precautions and effects of products and procedures on adjacent building materials, components, and vegetation.

B. Ensure that supervisory personnel are present when work begins and during its progress.

C. Temporary Protection of Historic Materials during Construction:

1. Protect existing materials during installation of temporary protections and construction. Do not deface or remove existing materials.
2. Attachments of temporary protection to existing construction shall be approved by Architect prior to installation.

D. Protect landscape work adjacent to or within work areas as follows:

1. Provide barriers to protect tree trunks.
2. Bind spreading shrubs.
3. Use coverings that allow plants to breathe and remove coverings at the end of each day. Do not cover plant material with a waterproof membrane for more than 8 hours at a time.
4. Set scaffolding and ladder legs away from plants.

1.2 PROTECTION DURING APPLICATION OF CHEMICALS

A. Protect persons, motor vehicles, surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm or damage resulting from applications of chemical cleaners and paint removers.

B. Cover adjacent surfaces with materials that are proven to resist chemical cleaners selected for Project unless chemicals being used will not damage adjacent surfaces. Use covering materials that contain only waterproof, UV-resistant adhesives. Apply masking agents to comply with manufacturer's written instructions. Do not apply liquid masking agent to painted or porous surfaces. When no longer needed, promptly remove masking to prevent adhesive staining.

C. Do not clean surfaces during winds of sufficient force to spread cleaning solutions to unprotected surfaces.

D. Neutralize and collect alkaline and acid wastes and dispose of off Government’s property.

E. Dispose of runoff from chemical operations by legal means and in a manner that prevents soil erosion, undermining of paving and foundations, damage to landscaping, and water penetration into building interiors.

1.3 PROTECTION DURING USE OF HEAT-GENERATING EQUIPMENT

A. Comply with the following procedures while performing work with heat-generating equipment, including welding, cutting, soldering, brazing, paint removal with heat, and other operations where open flames or implements utilizing heat are used:

1. Obtain the Contracting Officer’s approval for operations involving use of open-flame or welding equipment.

    a. Notification shall be given for each occurrence and location of work with heat-generating equipment.

2. As far as practical, use heat-generating equipment in shop areas or outside the building.
3. Before work with heat-generating equipment commences, furnish personnel to serve as a fire watch (or watches) for location(s) where work is to be performed.
4. Do not perform work with heat-generating equipment in or near rooms or in areas where flammable liquids or explosive vapors are present or thought to be present. Use a combustible gas indicator test to ensure that the area is safe.
5. Remove and keep the area free of combustibles, including, rubbish, paper, waste, etc., within area of operations.

    a. If combustible material cannot be removed, provide fireproof blankets to cover such materials.

6. Where possible, furnish and use baffles of metal or gypsum board to prevent the spraying of sparks or hot slag into surrounding combustible material.
7. Prevent the extension of sparks and particles of hot metal through open windows, doors, holes, and cracks in floors, walls, ceilings, roofs, and other openings.
8. Inspect each location of the day's work not sooner than 30 minutes after completion of operations to detect hidden or smoldering fires and to ensure that proper housekeeping is maintained.

1.4 HISTORIC TREATMENT PROCEDURES

A. The principal aim of preservation work is to halt the process of deterioration and stabilize the item's condition, unless otherwise indicated. Repair is required where specifically indicated. The following procedures shall be followed:

1. Retain as much existing material as possible; repair and consolidate rather than replace.
2. Use additional material or structure to reinforce, strengthen, prop, tie, and support existing material or structure.
3. Use reversible processes wherever possible.
4. Use traditional replacement materials and techniques. New work shall be distinguishable to the trained eye, on close inspection, from old work.
5. Record the work before the procedure with preconstruction photos and during the work with periodic construction photos.

B. Prohibit smoking by personnel performing work on or near historic structures.

C. Obtain Contracting Officer’s review and written approval in the form of a Constructive Change Directive or Supplemental Instruction before making changes or additions to construction or removing historic materials.

D. Notify Contracting Officer of visible changes in the integrity of material or components whether due to environmental causes including biological attack, UV degradation, freezing, or thawing; or due to structural defects including cracks, movement, or distortion.

1. Do not proceed with the work in question until directed by Contracting Officer.

E. Where missing features are indicated to be repaired or replaced, provide features whose designs are based on accurate duplications rather than on conjectural designs, subject to the approval of the Contracting Officer's Representative and Historic Treatment Specialist.

F. Where Work requires existing features to be removed, cleaned, and reused, perform these operations without damage to the material itself, to adjacent materials, or to the substrate.

G. Identify new or replacement materials and features with inconspicuous, permanent marks to distinguish them from original materials. Record the legend of identification marks and the locations of these marks on Record Drawings.

H. When cleaning, match samples of existing materials that have been cleaned and identified for acceptable cleaning levels. Avoid overcleaning to prevent damage to existing materials during cleaning.

END OF SECTION 013951
May 2010

SECTION 014100 - QUALITY CONTROL

PART 1 - GENERAL

1.1 This work shall consist of providing quality control in conformance with the inspection, testing, and product certification requirements of this contract to ensure compliance with the drawings and specifications. The Contractor shall provide all personnel, equipment, tests, and reports necessary to meet the requirements of the contract.

1.2 QUALITY CONTROL

A. The Contractor shall provide and maintain a quality control system that will ensure all services, supplies, and construction work required under this contract conforms to the contract requirements. The Contractor shall perform, or cause to be performed, the sampling, inspection, and testing required to substantiate that all services, supplies, and construction conform to the contract requirements.

B. Special Tests and Inspections: Contractor will engage a testing agency to conduct required special tests and inspections. The Contractor shall authorize the testing agency to perform the required testing and inspections on the work completed. The authority shall include:

1. Testing agency will interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
2. Testing agency will re-test and re-inspect corrected work.

C. Retesting/Reinspecting: Contractor shall provide quality-control services for retesting and reinspection for replaced construction work or for work that failed to comply with the requirements under the contract.

1.3 SUBMITTALS

A. Contractor Quality Control Plan

B. Permits, Licenses, and Certificates

C. Test and Inspection Reports

D. As-Built Drawings

1.4 MEASUREMENT AND PAYMENT

A. No separate payment will be made for the work included under this section; rather payment shall be considered to be included in the items of work listed in the Schedule of Items.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

1.1 QUALITY CONTROL SYSTEM

A. General: Perform required testing, inspections, sampling, and similar services per direction specified in the contract drawings and specifications and in accordance with established industry standards.

1.2 CONTRACTOR QUALITY CONTROL PLAN

A. At the time of the preconstruction conference, the Contractor shall submit for approval a written Contractor Quality Control Plan.

1. If the plan requires any revisions or corrections, the Contractor shall resubmit the plan within 10 days.
2. The Government reserves the right to require changes in the plan during the contract period as necessary.
3. No change in the approved plan may be made without written concurrence by the Contracting Officer.
4. At a minimum, the plan shall include the following:

    a. A list of personnel responsible for quality control and assigned duties. Include each person's qualifications.
    b. A copy of a letter of direction to the Contractor's Quality Control Supervisor outlining assigned duties.
    c. Names, qualifications, and descriptions of laboratories to perform sampling and testing, and samples of proposed report forms.
    d. Methods of performing, documenting, and enforcing quality control of all work.
    e. Methods of monitoring and controlling environmental pollution and contamination as required by all applicable regulations and laws.

1.3 TEST AND INSPECTION REPORTS

A. Submit three copies of complete test results no later than three calendar days after the test was performed.

B. Submit failing test results and proposed remedial actions within four hours of noted deficiency.

C. Testing and Inspection Reports shall include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples, tests, or inspections.
5. Names of individuals performing tests and inspections.
6. Reference Specification Section(s).
7. Complete test or inspection data.
8. Test and inspection results and an interpretation of test results.
9. Ambient conditions at time sample was taken, tested, or inspected.

10. Comments or professional opinion on whether tested or inspected work complies with the Contract Document requirements.
11. Name and signature of laboratory inspector.
12. Recommendations on retesting and reinspecting.

1.4 PERMITS, LICENSES, AND CERTIFICATES

A. For Contracting Officer's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations relevant to the on performance of the work.

1.5 SAMPLING, TESTING, AND CERTIFICATION REQUIREMENTS

A. Sampling, testing, and Certification requirements and frequency for specific items shall be as specified in the drawings and specification.

END OF SECTION 014100
May 2026

Lower Mesa Falls Overlook

Historic Stonewall Masonry Consult

Lower Mesa Falls Overlook Wall

Current Conditions

The stone wall of the Lower Mesa Falls Overlook is approximately 60 feet long. Construction of the upper wall visible from the viewing deck is in the random rubble class of stone masonry involving two types of stone: lava rubble (volcanic tuff) and columnar basalt. The lava random rubble stone facing wall is 18-24” tall and 8 to 18” thick. This lava random rubble facing is built into and supported by a coursed rubble columnar basalt and boulder retaining wall. This retaining wall was built into existing boulders and bedrock and varies in height as the wall wraps around the observation road deck from four feet high on the ends to fifteen feet high in the middle. The CCC era mortar is a Portland cement based mortar in the type N to type S strength range. There are several failed previous repair patches of Portland cement based mortar along the top and face of the lava rubble facing wall.

This is a great time to be addressing the stone wall failures before the problem areas grow in scope. The wall is in a serviceable state: failures exist across the topside mortar presenting in cracks, gaps and missing stones. Some of these historic stones are visible below the observation deck within trundling distance. I was able to find historic pieces below the wall in the talus slope boulders with mortar still attached. Another area of concern on the South end appears to be impact damaged (vehicles/snowmobiles over the years). There is some shifting within the boulder work apparent on the back side/cliff side. Thankfully this shifting can be addressed by replacing missing stone pinning between the boulders and repairing failed mortar joints without massive deconstruction or boulder moves.

The quality of the CCC stonework demonstrated in the backside/cliffside boulder work and use of columnar basalt plates of stone is wonderful to see as a stonemason. Stones were most likely sourced on site from the surrounding, sprawling talus slopes. Columnar basalt breaks beautifully and provides stable polygonal blocks. The facing lave stone work is reasonably well done with artistic choices apparent in individual selections and placement of lava stones. It is typical CCC construction. What makes this site unique, in addition to the amazing view of the Lower Mesa Falls, is the blending of excellent structural basalt foundational stonework with the lava stone facing wall.

Scope of Work

The Lower Mesa Falls Overlook Wall project involves three phases. First, remove and repoint all failed mortar work. Second, replace missing historic lava stone and stone pinning pieces. Third, cap the existing wall with columnar basalt from the site.

First: Mortar Work. All failed mortar joints shall be removed using a combination of hand hammers and chisels as well as HEPA vac supported grinding with dust collection to minimize silica dust per OSHA standards. Care must be taken to leave as much original sound historic mortar with lichens undisturbed. Only grind out failed joints, leave sound joints and blend repairs into sound joints. After all failed mortar is removed, joints are gently cleaned with forced air and hand pump sprayer water (not pressure washed). Mortar shall be mixed to match historic mortar as closely as possible, applied to damp stone work and cured properly. We want *invechiatto*: aged joints. Use the *effetto acqua sporca* to match mortar joints where appropriate.

Failed Repair Mortar

Failed Historic Mortar

All mortar shall be protected from freezing as well as premature drying from wind and sun exposure to ensure a proper damp cure occurs. This requires a combination of damp burlap, drop cloths, sun shades and concrete blankets depending on night time temperatures/weather conditions.

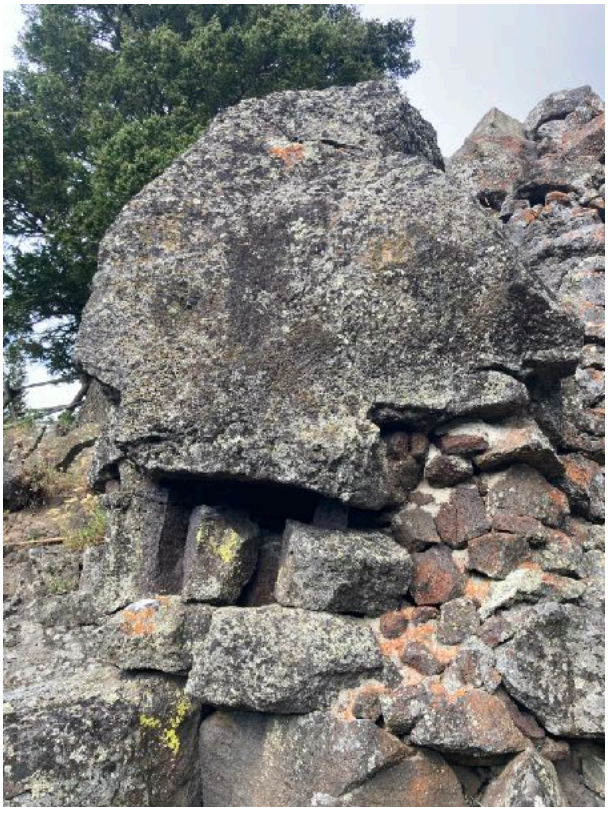
Second: Stone Work. Historic pieces that have been heaved over the edge shall be recovered. Clean and reset original lava pieces where possible. Source pieces from surrounding talus slopes where it is not possible to find original pieces. Replace missing/shifted stone pinning along entire backside (riverside) of columnar basalt and boulder wall. Remove all vegetation from stonework. Rebuild missing south wall end section in kind. Match historic mortar.

Missing South End Wall Stone

Wall Top Detail

Third, Fabricate Columnar Basalt Wall Cap. Source columnar basalt from talus slopes on site. Fabricate cap stones by splitting large pieces with a rotary hammer drill and plug and feathers. Individual cap stones should be 18-24” front to back. Match existing wall variances (4-6” thick). Width of each capstone will be determined by average size of basalt columns (18-24”). Establish a consistent

overhang over lava facing wall of 2-3” on the face. The back of the stone capping should run wild as the the existing top backing course does: flush the front face of the capping stones to establish a continuous plane of capping running the entire 60’ of wall. Blending this work into the original, in kind, is key. The cap should look like it has always been there. Shape cap stones by hand with hammer and chisels. Avoid grinder and saw work: no grinder or saw marks shall be visible in finished work. Joints between cap stones must be consistent: a 5/8”-1” mortar joint is appropriate. Match mortar joint between cap bottom and wall top to existing work. The existing wall undulates at least 3”. The cap should follow the existing elevations across the length of the wall: The tops of the cap stones should be flush (not necessarily level) one to the next. The undulation is achieved, accommodated, blended in with the bed joint (bottom) of the capstones.



Missing/Shifted Pinning

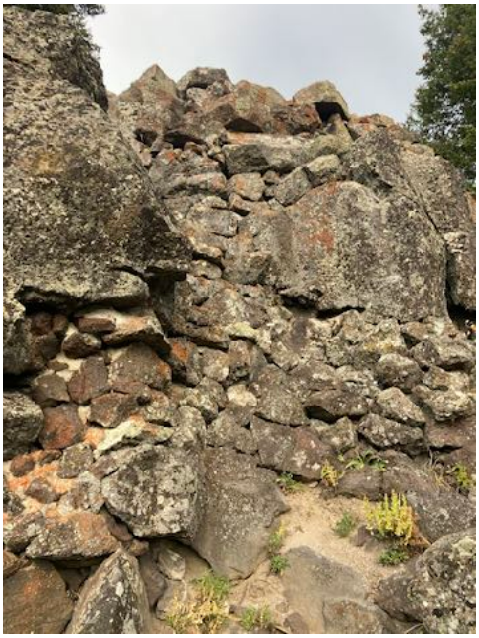
Riverside/Cliffside Detail

Lava Stone Random Rubble Facing Wall

A note on concrete, caps, and railings

It is my opinion that this masonry wall should be capped with stone. The blending of columnar basalt and lava rock is unique and a distinct historic feature of this CCC built masonry. I recommend adding a stone cap to bridge the two skins (walls) of masonry and to protect the top joints of the lava facing wall. A continuous stone columnar basalt cap would match the existing work in kind and minimize joint damage over future generations. Currently, this wall top is where the majority of the masonry failures exist. No concrete was used on site. Adding a concrete cap would significantly change the appearance of this historic work. Adding a stone cap would increase the longevity of the masonry work and still allow people to sit comfortably on the wall. I do not recommend a railing at this site. A railing would both inhibit the typical knee wall uses of this wall (sitting, viewing) and increase the danger to those people who would still climb and walk

along the wall at will. I'd much rather have the public sitting on a stout stone capped wall than sitting on a railing on top of that stone wall (for photos) and falling backwards. A railing would change the work historically and potentially lead to worse injuries: we can only control so much. Those individuals determined to be idiots will be idiots with or without a railing, in my opinion.



Wall Detail Backside/River Side

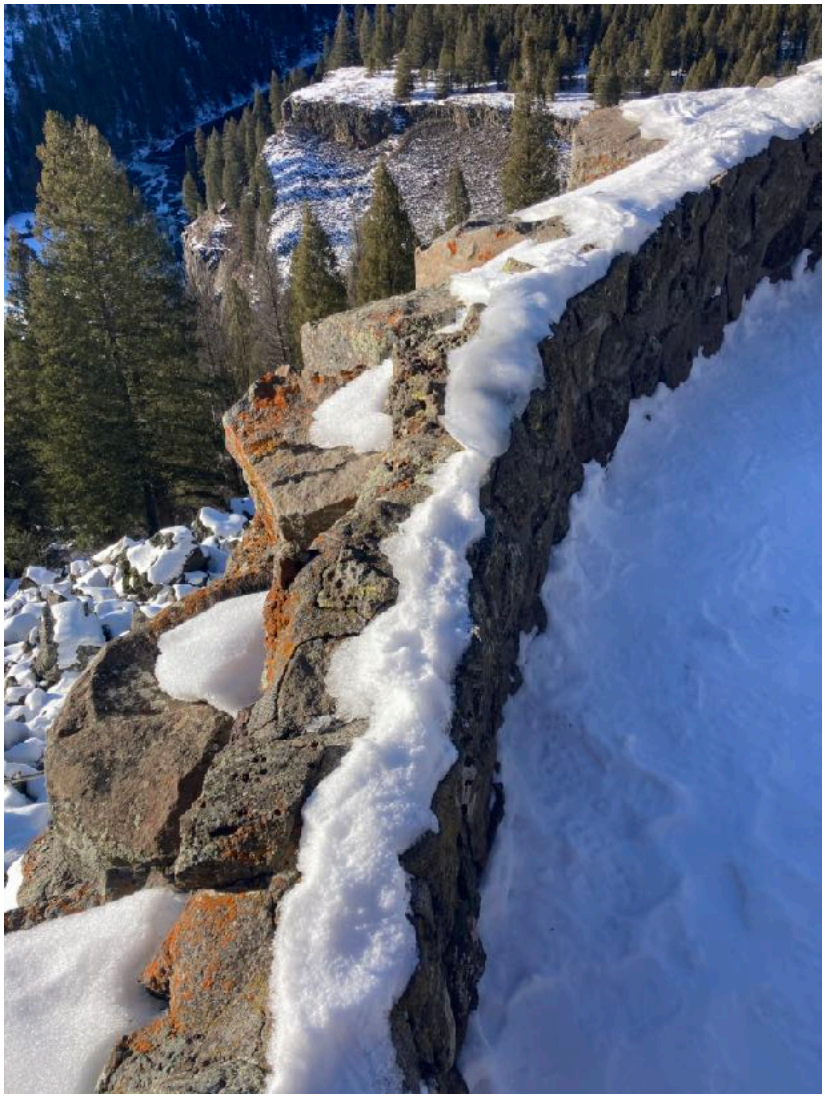
Wall Detail Backside/River Side

Stone Source Below

January 2026: Stone Source

Rough Cost and Time Estimates

I estimate this to be a four week project. I would spend approximately one week grinding out old mortar and cleaning joints, one and a half weeks repointing mortar, resetting missing stones and curing mortar, and one week fabricating and setting stone capping. With mobilization, mortar and stone work, site clean up and demob all work should be feasible in a four week window. The location of the Grandview campground immediately adjacent to the work site is convenient for camping and setting up a remote work station. I would stay at the campground, limiting lodging expenses. Approximate cost of the job should be in the $30,000-40,000 range.



January 2026 View