US Department of Agriculture (USDA)

Statement of Work

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Project
Waunita Road Culvert

General Information

1.0 Scope of Work

The purpose of this contract is to supply a single-cell, precast, reinforced concrete box culvert to the specifications outlined below. This contract includes the option to supply reinforced, precast concrete wingwalls and headwalls (or a suitable prefabricated alternative) for both the upstream and downstream ends of the culvert that shall be compatible with the culvert supplied. ~~All materials supplied must include delivery to a pre-determined/ pre-approved location not greater than 45 miles (or approximately 1 hour's drive) outside of Gunnison, CO, pending delivery vehicle selection.~~

Delivery will be made to our administrative site in Almont, CO, called Ropers. These are the directions:

38.636660°, -106.869042°

On HWY 135, at about 4 miles north of Gunnison, you'll look for the "Entering Gunnison National Forest" sign on your right. 0.4 miles past the sign, you'll turn right onto Lost River Lane. Once you turn right off HWY 135, take the first (almost immediate) right to our admin site called "Ropers" (there will be a sign and an open gate). Stay right and continue down the dirt driveway till you see a chain link enclosure.

A full 52' semi or typical low-boy trailer can access this site without any issues. It is a dirt road, but low-clearance friendly with ample turn-around room.

2.0 Background

This culvert is to replace a failed road bridge that spans an ephemeral stream in the Gunnison Ranger District. The crossing has specific geometry, installation, and loading constraints.

Abbreviations to be used in the following sections:

US = Upstream
DS = Downstream
RIC = Reinforced concrete

Contractor Requirements

3.0 Technical Requirements / Tasks

1. ***<u>The site has specific geometric constraints which must be met by the culvert supplied. These geometric constraints include:</u>***

- 8' minimum interior width/span- greater than 8' preferred
- Rise not to exceed 55"- assuming there are no cover requirements and no embedment
- 35' minimum length- not to exceed 40'
- Culvert to be installed at a 45-degree angle to the centerline of the road- US and DS end sections must be skewed 45 degrees
- Box culvert shall be 4-sided
- Tapered inlet throat

2. ***<u>The existing site has specific installation requirements which must also be met by the culvert supplied. These installation and structural constraints include:</u>***

- In-situ foundation design shall not be required- structure is to be installed on native or imported prepared soil bedding, with bedding, backfill, and compaction specifications conforming to FHWA FP24 section 209 "Structural Excavation and Backfill" standards and Forest Service Supplemental Specifications (FSSS) section 209 standards of the same name.

- Project site geotechnical evaluation shall not be required for design or installation.
- No minimum cover requirements- no cover shall be required, besides a wearing surface, if applicable- not to exceed 4" thick.

The culvert supplied must adhere to all applicable, current design standards and specifications, as identified below:

3. ***<u>The structure has specific design and structural requirements, which must also be satisfied. These design standards and specifications include, but are not limited to:</u>***
   - ASTM C 1433 Precast Reinforced Concrete Monolithic Box Sections for Culverts, Storm Drains, and Sewers
   - AASHTO M 259 Precast Reinforced Concrete Box Sections for Culverts, Storm Drains and Sewers
   - AASHTO M 273 Precast Reinforced Box Section for Culverts, Storm Drains, and Sewers with less than 2 feet of Cover Subject to Highway Loadings. LRFD Design Code
   - ASTM C 1577 Precast Reinforced Concrete Monolithic Box Sections for Culverts, Storm Drains, and Sewers According to AASHTO LRFD
   - <u>Culvert must be designed to support the FHWA HL-93 design load.</u>

NOTE: No AASHTO LRFD Design Code exists. In the two AASHTO standards for box culverts, you will find a note stating, "If load–and-resistance factor design is required, then use ASTM C 1577."

4. ***<u>This requisition includes specific materials requirements, which must be met:</u>***

- Culvert must be made of reinforced precast concrete sections, meeting all applicable FHWA requirements and standards for concrete culverts in dry, cold-weather climates.

5. ***<u>This requisition includes specific delivery constraints which must be met:</u>***

- Materials to be delivered on time, undamaged, and no later than the date specified in section 5.0.
- Materials delivery must be guaranteed against damage. The government shall not be held financially responsible for any damage occurring to the product(s) prior to delivery or during product manufacturing, storage, loading, hauling, or unloading.
- Materials shall be subject to inspection by designated USFS personnel prior to acceptance of materials. The government reserves the right to reject materials that do not meet the specifications and requirements outlined in this contract. Rejected materials shall be replaced within fourteen (14) days of the inspection of the rejected materials at no additional cost to the government.
- Materials delivery shall be at a pre-determined, pre-approved location not greater than 45 miles (or approximately 1-hour drive) outside of Gunnison, CO.
- Contractor shall provide delivery vehicle specifications no less than seven (7) days prior to product shipment so that an appropriate delivery location can be selected.
- Delivery location shall be selected by designated USFS personnel.
- Delivery vehicle(s) *may* be subject to weed inspection prior to entering National Forest Lands. Delivery vehicle(s) *shall* be reasonably clean and free of mud and foreign debris *prior* to entering National Forest Lands.

6. ***<u>If the option to provide headwalls and wingwalls is to be exercised:</u>***
   They shall conform to all current FHWA specifications for headwall and wingwalls design and materials *and* shall be the minimum size required to be compatible with the culvert supplied. Precast headwalls and wingwalls are recommended, but satisfactory alternatives will be considered.

See drawings provided for additional information.

5.0 Deliverables / Schedule

1. ***<u>At the time of bid submission, to be included within the bidding package, the contractor shall supply:</u>***

- Geometric details of the culvert including:
  - Clear span (from interior wall to interior wall), Clear rise (from interior wall to interior wall), full length, section length (if applicable), skew of ends or end sections, and the thickness of each external side- for the culvert

    - Maximum and minimum (exterior) heights
    - Skew of end sections
    - All applicable interior and exterior angles- of headwalls and wingwalls (if applicable)
- Weight details of all sections, in tons or pounds.
- Manufacturer drawings, shop drawings, and all applicable certification test results.
- Manufacturer's installation and structural specifications for all components to include compaction, bedding, backfill, and wearing surface details, as applicable.
- If optional bid items are included in bid package, submit all applicable documentation from the above list for the optional bid item.
- Estimated materials delivery date. Contractor shall advise USFS personnel if the target delivery date is not feasible, and provide a realistic estimated delivery date.

2. <u>After contract award and a minimum of seven (7) days prior to shipment of supplies, the contractor shall:</u>

- Supply the project COR all shipping/freight details, to include- at minimum:
    - Delivery vehicle specifications (trailer length, axel spacing, and axel load)
    - Location of origin
    - Estimated travel/ shipping time
    - Estimated delivery date
    - Method of unloading

3. <u>Target delivery date for no later than October 15, 2026:</u>

- Contractor shall ensure designated USFS personnel are onsite at time of supplies delivery and unloading, for final inspection and acceptance.
- Materials shall be delivered and unloaded at the specified location as stated above.
- Materials are subject to acceptance by USFS personnel upon delivery. If materials are deemed unacceptable by USFS personnel upon unloading and final inspection, the contractor has no more than fourteen (14) days after the final inspection to replace rejected materials.

<u>Table 1</u>

Key Deliverables

Item No.	*Deliverable*	*Objective*	*Due*
1	*Product/ supplies details*	*Contractor shall provide all requested product dimensions and all available manufacturer's drawings and specifications, for all products and supplies to be delivered. To be included in the contractor's bid.*	*At time of bid submission*
2	*Shipping/ freight details*	*To include all requested logistical information*	*No later than seven (7) days prior to supplies shipment*
3	*Single-cell, Precast RIC box culvert.*	*To meet or exceed all minimum requirements and specifications described in section 3.0 of SOW*	*See item 3.*
2	*Compatible headwalls and wingwalls*	*To meet or exceed all minimum requirements and expectations described in section 3.0 of SOW.*	*See item 3.*
3	*Materials delivery*	*All requested supplies to be delivered to a predetermined delivery location, not greater than a 45-mile (or one-hour drive) radius outside of Gunnison, CO. Delivery location to be announced once delivery vehicle specifications are provided. Delivery logistics and costs to account for loading and unloading of materials.*	*Targeted for August 30, 2026*