

Attachment E**PROJECT NUMBER 001 - Installation of Drainage Structure(s).**

End Result - Install one (1) aluminized corrugated steel culvert and associated hot mix asphalt full depth pavement patch to federal road construction standards in order to convey actively running water from a perennial spring across National Forest System Road 16 at mile post 18.45.

1. Description of Work

This Stewardship Project requires services for the installation of one (1) twenty-four (24) inch diameter corrugated metal pipe (CMP) to facilitate conveyance of water from an active spring across National Forest System Road (NFSR) 16 at the project location from the up-slope side of the road (road cut bank) to the down-slope side of the road (fill slope). The work consists of mobilization of equipment and materials to the work site; site dewatering and erosion control; sawcutting, removing, and disposing of existing asphalt over the full width of required excavation trench for the full width of the traveled roadway; excavation of a trench to depths required for pipe installation per contract plans and specifications; procurement, hauling, placement, and compaction of pipe bedding material per contract plans and specifications; procurement, hauling, and placing of riprap to construct energy dissipation pad per contract drawings and specifications; procurement and setting of new CMP to elevations and locations as staked in field by the Contracting Officer through the Engineering Representative; backfilling and compacting over the culvert with suitable structural material per the plans and specifications; hauling and disposal of unsuitable or excess material at designated locations as approved by the Contracting Officer; preparation of subgrade and surfaces for placement of hot-mix asphalt concrete (HMAC); replacement of removed asphalt via procurement, hauling, and placing of full depth patch HMAC per the contract plans and specifications; and mobilization of equipment off Forest Land.

2. Project Location

This Stewardship Project is located on the Hood River Ranger District, Mt. Hood National Forest, in Hood River County, Oregon. The locations of the worksites are shown on the Contract Area Map and on the Project Vicinity Map contained within the contract plans. Access to the project area is via Oregon Highway 35, Lost Lake Road (County Road) westbound from Dee, Oregon, NFSR 18, and NFSR 16.

The Contractor's use of all Forest Service Roads shall be in compliance with the Mt. Hood National Forest Commercial Road Rules dated January, 1992. A copy of these rules are available for review at the Hood River Ranger Station in Parkdale, Oregon, or at the Forest Supervisor's Office in Sandy, Oregon.

Inaccessibility due to snow, fallen trees, slides, or washouts on National Forest System Roads may or may not be corrected at the option of the Government. If access is blocked, the Government may:

- (a) Provide an alternate access route, or;
- (b) Delete the inaccessible items

3. Applicable Specifications

The "Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03, U.S. Customary Units" is included by reference. The requirements contained in these specifications are hereby made a part of this solicitation and any resultant contract. Section 100 through 109 of the Standard Specifications and all other Standard or Supplemental specifications shown in the Specification Listing referenced in the appendix are applicable to this contract. All specifications not included in the Specification Listing but referenced by listed specifications are applicable. The Supplemental Specifications shown on the Specification Listing are physically attached in the appendix.

4. Material Certifications, Testing Reports, & Other Submittals

The following certificates, test reports, samples, and operating plans shall be submitted in accordance with the referenced applicable sections as follows (3 sets each unless otherwise noted):

Description	Specification Reference Section	Detailed Submittal Requirements	Number of Copies to Submit	Time for Government Approval
Erosion Control and Dewatering Plan	157.03	-	3	10 days
Traffic Control Plan	635.03 & 156	718	3	10 days
Road Closure Notice	156.05	Table 156-1	1	10 days
Hazardous Spill Plan	107.10	-	3	5 days
Culverts & Drains	602.03 & 602.08	106.02, 106.03, 703.03, 707.02	3	10 days
Bedding Aggregate Material Certification	209.09	704.02	3	10 days
Riprap Material Certification	-	705.02 and Table 705-1	3	10 days
Hot Asphalt Concrete	430.02	404.02	3	10 days

Submittals shall include the following unless otherwise required in the specification:

- (a) Date and revision dates;
- (b) Project Name and Contract Number;
- (c) Names of Contractor, subcontractor(s), supplier(s), and manufacturer;
- (d) Specifications section number;
- (e) Applicable standards such as AASHTO, ASTM, or Federal Specifications; and
- (f) Contractor's stamp, initial, or signature certifying review of submittal and compliance with contract documents.

5. Special Equipment Cleaning Requirements

All earth moving equipment (loaders, excavators, dump trucks, etc.) moved to the job site shall be cleaned of weeds and their seeds prior to each entrance onto the National Forest lands. Cleaning shall consist of the removal of all dirt, grease, debris, and materials that may harbor noxious weeds and their seeds. This may require the use of a pressure hose. The Contractor shall take special care under this contract to prevent contamination of water at the work sites with any petroleum residues from mechanical equipment operations. This shall include daily inspection and cleaning as appropriate.

Equipment shall be made available for visual inspection by the Forest Service prior to entering Forest Service lands. The Contractor shall advise of a proposed date for mobilization. Inspections will take place at mutually agreeable en-route locations in advance of entry onto National Forest lands.

6. Protection of Water Quality

In order to protect water quality it is imperative that the following guidelines be strictly followed while working on this project. Some roads will intersect perennial streams and perennial streams that house resident and anadromous fish. The allowable

"work window" for these stream crossings is July 15th through August 15st, unless otherwise noted, applications to work beyond these allowable dates may be obtained on a case by case basis, and upon request by the Contractor, to the C.O.

- (a) Operations shall be scheduled and conducted so as to prevent soils from entering any waterway. Live streams shall be diverted from work areas prior to excavation of culverts, or any other stream crossing structure. A stream diversion plan must be submitted to the Contracting Officer (CO) for approval prior to starting excavation in live streams.
- (b) Absorbent pads shall be required under all stationary equipment, fuel storage containers and during all servicing and refueling operations.
- (c) All equipment used for refueling shall carry a "hazardous material recovery kit." Any soil, vegetation or debris contaminated with petroleum products or any other man-made substance considered harmful to the environment shall be removed from the site and disposed of in accordance with state laws, at the Contractor's expense.
- (d) All petroleum products being transported and/or stored must be in approved containers meeting OSHA standards.
- (e) All vehicles hauling more than 300 gallons of fuel must have an approved radio system with which to report accidental spills. If any fuel or fluid storage container exceeds a capacity of 660 gallons, the Contractor shall prepare a spill prevention control countermeasures plan. Such plan shall meet all applicable EPA requirements (40 CFR 112) including certification by a registered Professional Engineer (PE).
- (f) In order to preclude erosion into or contamination of the stream or floodplain, staging areas, (used for equipment, vehicle and hazardous material storage and equipment fueling and servicing locations, etc.), shall be located 150 ft. from stream channels, as approved by the CO.
- (g) The Contractor shall be liable for cleanup of any hazardous material or fuel spill occurring as a result of his/her operations.
- (h) An approved Spill Prevention Control and Containment Plan (SPCCP) would be created, which describes measures to prevent or reduce impacts from potential spills. The SPCCP would include a description of the hazardous materials that would be used; and adequate spill containment kit would be located on-site.
- (i) The Contractor shall, on a daily basis, remove all trash and refuse from the project area.

7. Deliveries or Performance

Commencement, Prosecution, and Completion of Work:

- (a) The Contractor shall be required to complete the entire work ready for use not later than (1) August 15, 2015, or (2) prior to hauling of Included Timber under this contract over the roadway at this site; whichever occurs first.
- (b) The stated completion date is set based on the assumption that the successful Bidder for the project will begin work allowing an adequate amount of time to finish the project by the completion date.
- (c) Construction activity shall be limited to the hours between 7:00 a.m. and 7:00 p.m., Monday through Friday, excepting federal holidays, unless other hours are approved in writing by the Contracting Officer. The Contractor shall conduct activities so that interference with the public shall be kept at a minimum. The project sites shall be closed to public access for no more than 3 consecutive days. Any activities requiring closure to the public shall be scheduled with the Contracting Officer at least 7 days in advance.
- (d) The Contractor shall use measures and precautions necessary to warn and protect the public and Government personnel during work at the project site. Such actions include, but are not limited to, furnishing and maintaining barricades and signs around the work site and roping off the area.

8. Contractor's Obligations

The Contractor shall furnish the necessary personnel, materials, equipment, supervision, transportation, and services required to complete the work as stated in the Description of Work and further described in the contract plans and specifications.

9. Inspections and Acceptance

The Forest Service will make periodic inspections to verify that the Contractor is conforming to plans and specifications per the contract requirements. Inspections will be performed in a timely manner that will not unduly delay execution of project work.

Final acceptance of the project will be made in writing by the Contracting Officer after inspection of completed work. Completed work must be in compliance with all specifications and contract requirements prior to final acceptance. The Contractor is responsible for addressing and/or correcting any deficiencies in the work at his/her own cost prior to receiving written acceptance; additional costs for remobilizing equipment and personnel will not be compensated for by the Government and the Contractor is strongly advised to delay mobilization off of Forest Lands until such time as a final inspection can be conducted.

10. Measurement and Stewardship Credit

The quantities to be measured will be the completed number of units of the items listed in the STEWARDSHIP SCHEDULE OF ITEMS table below. Quantities shown are estimates.

The accepted quantities will be credited at the contract price for the pay items shown on the STEWARDSHIP SCHEDULE OF ITEMS when work is completed and accepted by the Forest Service. Payment will be full compensation for the work prescribed in this Section.

11. STEWARDSHIP SCHEDULE OF ITEMS

PROJECT NUMBER 001 - Installation of Drainage Structure(s)
National Forest System Road 16: Mile Post 18.41

ITEM NO.	DESCRIPTION	PAY UNIT	EST. QTY.
15101	Mobilization	Lump Sum	All
15713	Soil Erosion & Pollution Control	Lump Sum	All
20102	Clearing and Grubbing, Disposal of Tops and Limbs (f), Logs (i), Stumps (f)	Lump Sum	All
20303	Removal of Asphalt Concrete, Disposal Method A	*Square Yard	11
20416	Waste, Unsuitable Excavation	*Cubic Yard	6
43004	Full Depth Patch Hot Asphalt Concrete Mix	*Ton	2.4
60211	24 inch Aluminized Corrugated Steel Pipe, 0.064 inch Thick	Foot	50
60608	Energy Dissipator, Class 3 Riprap	*Each	1

12. Project Plans and Exhibits

Attachment F: Stewardship Project Plans

13. Specifications Listing

FP-03 SPECIFICATIONS LIST

U.S. Forest Service
Hood River Ranger District
Mt. Hood National Forest
Hood River County, Oregon

All specifications not included in the specifications listing, but referenced by listed specifications, are applicable to this contract. The Supplemental Specifications shown on the specifications list are physically attached. Section 100 through 149 of the Standard specifications and all other Standard or Supplemental specifications shown in the specification listing are applicable to this contract.

Section	Title	Revised
	Preface	FP-03 and 3/15/2004
101	Terms, Format, and Definitions	FP-03
101.01	Meaning of Terms	1/22/2009
101.03	Abbreviations	6/16/2006
101.04	Definitions	3/29/2007
101.04	Definitions	3/11/2007
102	Bid, Award, and Execution of Contract	FP-03
102.00	Bid, Award, and Execution of Contract	2/16/2005
103	Scope of Work	FP-03
103.00	Deletions	2/16/2005
104	Control of Work	FP-03
104.00	Deletions	6/16/2006
104.03	Specifications and Drawings	1/22/2009
104.06	Use of Roads by Contractor	2/17/2005
105	Control of Material	FP-03
105.05	Use of Material Found in Work	5/12/2004
105.02(a)	Government Provided Sources	5/12/2004
106	Acceptance of Work	FP-03
106.01	Conformity with Contract Requirements	7/31/2007
106.07	Delete	5/11/2004
107	Legal Relations and Responsibility to the Public	FP-03
107.05	Responsibility for Damage Claims	5/11/2004
107.06	Contractor's Responsibility for Work	6/16/2006
107.08	Sanitation, Health, and Safety	3/29/2005
107.09	Legal Relationship of the Parties	6/16/2006
108	Prosecution and Progress	FP-03
108.00	Delete	2/16/2005
109	Measurement and Payment	FP-03
109.00	Deletions	2/17/2005

109.02	Measurement Terms and Definitions	6/16/2006
155	Schedules for Contracts	FP-03
155.00	Delete	5/11/2004
156	Public Traffic	FP-03
156.03	Accommodating Traffic During Work	2/24/2005
156.04	Maintaining Roadways During Work	2/24/2005
156.08	Traffic and Safety Supervisor	2/24/2005
157	Soil Erosion Control	FP-03
157.03	General	2/24/2005
170	Develop Water Supply and Watering	FP-03
170.00	Develop Water Supply and Watering	3/26/2007
201	Clearing and Grubbing	FP-03
201.01	Description	2/18/2005
201.02	Material	8/5/2009
201.04	Clearing. (c)	2/22/2005
201.06	Disposal	2/18/2005
203	Removal of Structures and Obstructions	FP-03
203.01	Description	2/25/2005
203.04	Removing Material	2/18/2005
203.05	Disposing of Material	3/26/2007
203.05	Disposing of Material	3/26/2007
203.08	Payment	2/24/2005
322	Minor Aggregate Courses	FP-03
322.00	Minor Aggregate Courses	10/14/2011
430	Asphalt Pavement Patching	FP-03
430.00	Asphalt Pavement Patching	3/26/2007
602	Culverts and Drains	FP-03
602.03	General	9/6/2005
602.03	General	3/17/2010
718	Traffic Signing and Marking Materials	FP-03
718.05	Aluminum Panels	8/5/2009

14. Supplemental Specifications

Preface

Preface_wo_03_15_2004_m

Delete all but the first paragraph and add the following:

The Forest Service, US Department of Agriculture has adopted FP-03 for construction of National Forest System Roads.

101 - Terms, Format, and Definitions

101.00_nat_us_07_25_2005

101.01_nat_us_01_22_2009

101.01 Meaning of Terms

Delete all references to the TAR (Transportation Acquisition Regulations) in the specifications.

101.03_nat_us_06_16_2006

101.03 Abbreviations.

Add the following to (a) Acronyms:

AFPA	American Forest and Paper Association
MSHA	Mine Safety and Health Administration
NIST	National Institute of Standards and Technology
NESC	National Electrical Safety Code
WCLIB	West Coast Lumber Inspection Bureau

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Add the following to (b) SI symbols:

mp	Milepost
ppm	Part Per Million

101.04_nat_us_03_29_2007

101.04 Definitions.

Delete the following definitions and substitute the following:

Bid Schedule--The Schedule of Items.

Bridge--No definition.

Contractor--The individual or legal entity contracting with the Government for performance of prescribed work. In a timber sale contract, the contractor is the “purchaser”.

Culvert--No definition.

Right-of-Way--A general term denoting (1) the privilege to pass over land in some particular line (including easement, lease, permit, or license to occupy, use, or traverse public or private lands), or (2) Real property necessary for the project, including roadway, buffer areas, access, and drainage areas.

Add the following:

Adjustment in Contract Price--“Equitable adjustment,” as used in the Federal Acquisition Regulations, or “construction cost adjustment,” as used in the Timber Sale Contract, as applicable.

Change--“Change” means “change order” as used in the Federal Acquisition Regulations, or “design change” as used in the Timber Sale Contract.

Design Quantity--“Design quantity” is a Forest Service method of measurement from the FS-96 *Forest Service Specifications for the Construction of Roads and Bridges*. Under these FP specifications this term is replaced by the term “Contract Quantities”.

Forest Service--The United States of America, acting through the Forest Service, U.S. Department of Agriculture.

Neat Line--A line defining the proposed or specified limits of an excavation or structure.

Pioneer Road--Temporary construction access built along the route of the project.

Purchaser--The individual, partnership, joint venture, or corporation contracting with the Government under the terms of a Timber Sale Contract and acting independently or through agents, employees, or subcontractors.

Protected Streamcourse--A drainage shown on the plans or timber sale area map that requires designated mitigation measures.

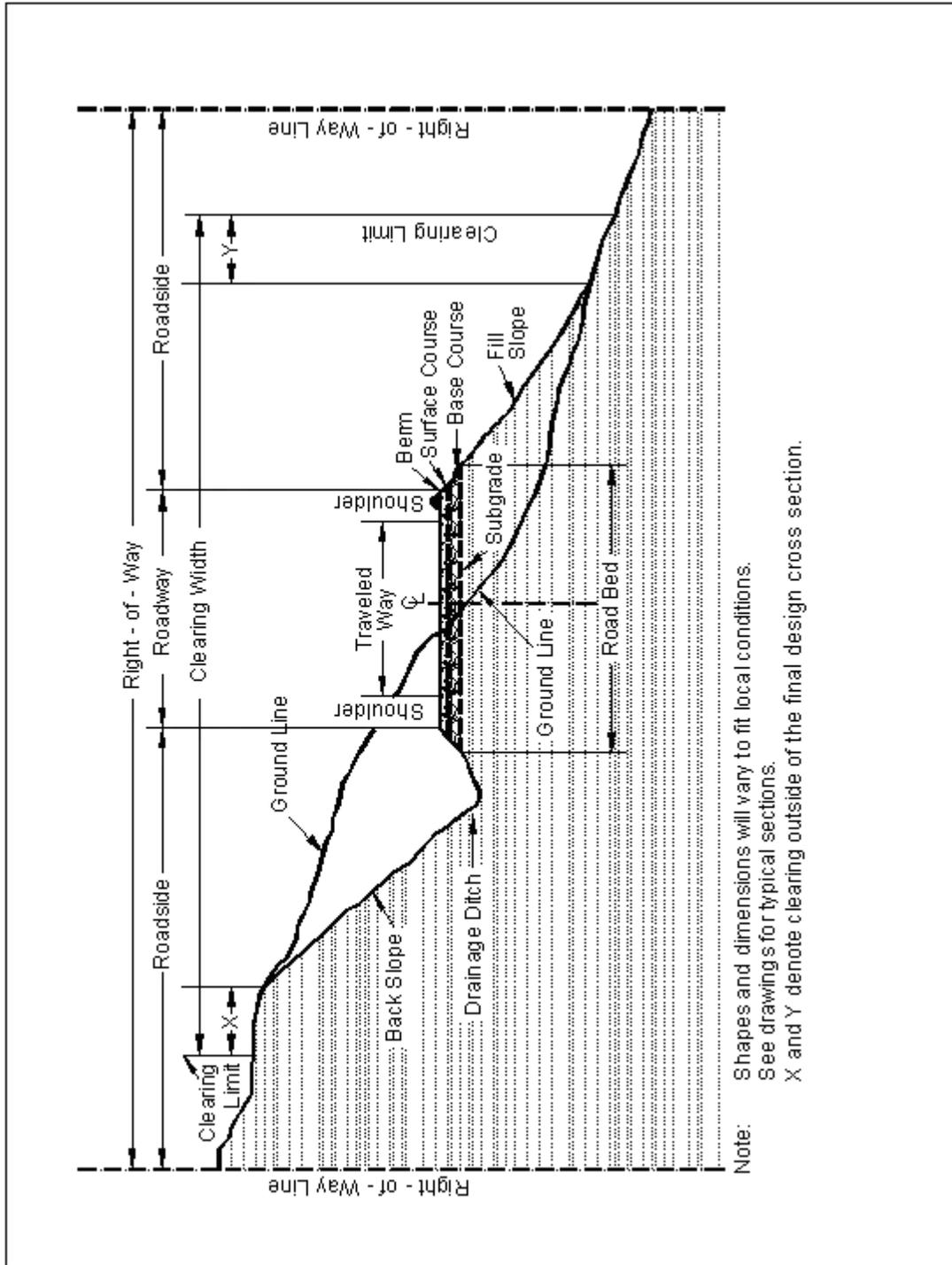
Road Order--An order affecting and controlling traffic on roads under Forest Service jurisdiction. Road Orders are issued by a designated Forest Officer under the authorities of 36 CFR, part 260.

Schedule of Items--A schedule in the contract that contains a listing and description of construction items, quantities, units of measure, unit price, and amount.

Utilization Standards--The minimum size and percent soundness of trees described in the specifications to determine merchantable timber.

Add Figure 101-1—Illustration of road structure terms:

Figure 101-1—Illustration of road structure terms.



102 - Bid, Award, and Execution of Contract

102.00_nat_us_02_16_2005

102 Bid, Award, and Execution of Contract

Delete Section 102 in its entirety.

103 - Scope of Work

103.00_nat_us_02_16_2005

Deletions

Delete all but subsection 103.01 Intent of Contract.

104 - Control of Work

104.00_nat_us_06_16_2006

Deletions

Delete Sections 104.01, 104.02, and 104.04.

104.06_nat_us_02_17_2005

Add the following subsection:

104.06 Use of Roads by Contractor

The Contractor is authorized to use roads under the jurisdiction of the Forest Service for all activities necessary to complete this contract, subject to the limitations and authorizations designated in the Road Order(s) or described in the contract, when such use will not damage the roads or national forest resources, and when traffic can be accommodated safely.

105 - Control of Material

105.02_nat_us_03_08_2007

105.02 Material Sources.

105.02(a) Contractor-provided sources.

Add the following:

All material (e.g., soil, gravel, sand, borrow, aggregate, etc.) transported onto National Forest System land or incorporated into the work will be weed-free. The Contracting Officer may request written documentation of methods used to determine the weed-free status of any and all materials furnished by the contractor. Contractor-provided expertise and methods to establish weed-free status must be appropriate for the weeds of concern in the local area. The following applies to this contract:

A Forest Service weed specialist will inspect proposed sources to determine weed-free status. Provide the Contracting Officer written notification of proposed material sources **10** days prior to use. Written approval of the specific source will be provided to the contractor. If weed species are present in the proposed source, appropriate mitigation measures may allow conditional use of the source as required by the Contracting Officer.

105.02_nat_us_02_17_2005

105.02(a) Government Provided Sources.

(a) Government-provided sources. Add the following:

Government-provided sources for this project are identified as follows:

(1) Government-provided mandatory sources.

Obtain material for use as **Unclassified Borrow** and in the production of aggregates under Sections (301/401/411/etc.) from **Trout Creek Quarry**.

(2) Government-provided optional sources.

Material for use as **Surface Aggregate** and in the production of aggregates under Sections (301/401/411/etc.) may be obtained from **Existing Stockpile on National Forest System Road 4620280**.

105.05_nat_us_05_12_2004

105.05 Use of Material Found in the Work.

Delete 105.05 (a) and (b) and the last sentence of the second paragraph and substitute the following:

Materials produced or processed from Government lands in excess of the quantities required for performance of this contract are the property of the Government. The Government is not obligated to make reimbursement for the cost of producing these materials.

106 - Acceptance of Work

106.07_nat_us_05_11_2004

106.07 Delete

Delete subsection 106.07.

107 - Legal Relations and Responsibility to the Public

107.05_nat_us_05_11_2004

107.05 Responsibility for Damage Claims.

Delete the entire subsection.

107.06_nat_us_06_16_2006

107.06 Contractor's Responsibility for Work.

Delete the following from the first paragraph.

“except as provided in Subsection 106.07”.

107.09_nat_us_06_16_2006

107.09 Legal Relationship of the Parties.

Delete the entire subsection.

107.10_nat_us_06_16_2006

107.10 Environmental Protection.

Add the following:

Design and locate equipment repair shops, stationary refueling sites, or other facilities to minimize the potential and impacts of hazardous material spills on Government land.

Before beginning any work, submit a Hazardous Spill Plan. List actions to be taken in the event of a spill. Incorporate preventive measures to be taken, such as the location of mobile refueling facilities, storage and handling of hazardous materials, and similar information. Immediately notify the CO of all hazardous material spills. Provide a written narrative report form no later than 24 hours after the initial report and include the following:

- Description of the item spilled (including identity, quantity, manifest number, and other identifying information).
- Whether amount spilled is EPA or state reportable, and if so whether it was reported, and to whom.
- Exact time and location of spill including a description of the area involved.
- Containment procedures.
- Summary of any communications the Contractor had with news media, Federal, state and local regulatory agencies and officials, or Forest Service officials.
- Description of clean-up procedures employed or to be employed at the site including final disposition and disposal location of spill residue.

When available provide copies of all spill related clean up and closure documentation and correspondence from regulatory agencies.

The Contractor is solely responsible for all spills or leaks that occur during the performance of this contract. Clean up spills or leaks to the satisfaction of the CO and in a manner that complies with Federal, state, and local laws and regulations.

108 - Prosecution and Progress

108.00_nat_us_02_16_2005

108 Delete.

Delete Section 108 in its entirety.

109 - Measurement and Payment

109.00_nat_us_02_17_2005

109 Deletions

Delete the following entire subsections:

109.06 Pricing of Adjustments.

109.07 Eliminated Work.

109.08 Progress Payments.

109.09 Final Payment.

109.02_nat_us_06_16_2006

109.02 Measurement Terms and Definitions.

(b) Contract quantity.

Add the following:

Contract quantities will be adjusted only when there are errors in the original design of 15% or more.

Change the following:

“(b) Cubic yard” to “(c) Cubic yard”.

Add the following definition:

(p) Thousand Board Feet (Mbf). 1,000 board feet based on nominal widths, thickness, and extreme usable length of each piece of lumber or timber actually incorporated in the job. For glued laminated timber, 1,000 board feet based on actual width, thickness, and length of each piece actually incorporated in the job.

155 - Schedules for Construction Contracts

155.00_nat_us_05_11_2004

155 Delete.

Delete Section 155 in its entirety.

156 - Public Traffic

156.00_nat_us_04_17_2007

Delete Section 156 in its entirety and replace with the following:

Description

156.01 This work consists of controlling and protecting public traffic adjacent to and within the project.

Material

156.02 Conform to the MUTCD and the following Sections and Subsections:

Construction sign panels	633
Retro-reflective sheeting	718.01
Temporary concrete barrier	618
Temporary plastic fence	710.11
Temporary traffic control devices	718.22

156.03 General. Unless otherwise provided for in Table 156-1, keep existing roads open to all traffic during road improvement work, and maintain them in a condition that will adequately accommodate traffic. Delays may not exceed **20** minutes at any one time followed by an open period of no less than **10** minutes.

Perform no work that interferes or conflicts with traffic or existing access to the roadway surface until a traffic control plan has been approved. Post construction signs and traffic control devices in conformance with MUTCD. All required signs will be in place and approved prior to beginning work on project.

If the Contractor agrees in writing to allow public traffic to use a new road being constructed prior to completion, it will be considered an existing road for traffic control purposes.

156.04 Temporary Traffic Control. Install and maintain temporary traffic control devices adjacent to and within the project as required by the approved traffic control plan and the MUTCD. Install and maintain traffic control devices as follows:

- (a) Furnish and install traffic control devices before the start of construction operations.
- (b) All detours outside of clearing limits will be approved in writing by the Contracting Officer as part of the traffic control plan.
- (c) Install only those traffic control devices needed for each stage or phase.
- (d) Relocate temporary traffic control devices as necessary.
- (e) Remove devices that no longer apply to the existing conditions.
- (f) Immediately replace any device that is lost, stolen, destroyed, or inoperative.
- (g) Keep temporary traffic control devices clean.
- (h) Remove all temporary traffic control devices upon contract completion or when approved.
- (i) When required, use flaggers certified by the American Traffic Safety Services Association, the National Safety Council, the International Municipal Signal Association, a state agency, or other acceptable organization. Perform the work described under MUTCD Part 6. Use type III, VII, VIII, or IX retroreflective sheeting on flagger paddles. Do not use flags. Flaggers must wear high visibility safety apparel as required by MUTCD 6E.02.

156.05 Temporary Closures. Road segments may be closed as shown in Table 156-1. The maximum consecutive days of closure shall be followed by a minimum number of consecutive days open to traffic as shown. Maintain traffic control devices during closure period(s). Appropriate barricades and signs will be erected and maintained as shown in the traffic control plan or as otherwise designated.

Prior to closing roads during construction, give written notice to the Contracting Officer at least 10 days in advance.

Table 156-1
Temporary Road Closures

Road Number	From Terminus	To Terminus	Maximum Consecutive Days of Closure	Minimum Consecutive Days Open
4620	Mile Post 8.80	Mile Post 15.59	5 (Weekdays Only)	2 (Saturdays & Sundays)

156.06 Acceptance. Public traffic work will be evaluated under Subsection 106.02.

Measurement and Payment

156.07 Do not measure Public Traffic for payment. Compensation is made as an indirect payment.

157 - Soil Erosion Control

157.03_nat_us_02_24_2005

157.03 General

Delete the entire subsection and replace with the following:

Prior to the start of construction, submit a written plan that provides permanent and temporary erosion control measures to minimize erosion and sedimentation during and after construction. Do not begin work until the necessary controls for that particular phase of work have been implemented. Do not modify the type, size, or location of any control. An alternate erosion control plan with all necessary permits may be submitted 30 days before intended use.

Incorporate all permanent erosion control features into the project at the earliest practicable time, as outlined in the approved plan.

When erosion control measures are not functioning as intended, immediately take corrective action.

170 - Develop Water Supply and Watering

170.00_0618_us_03_26_2007

Description

170.01 This work consists of developing an acceptable water supply, furnishing, hauling, and applying water.

Materials

170.02 Conform to the following subsection.

Water 725.01.

Construction Requirements

170.03 Development of Supply & Access. Develop water supplies and access to the water supplies as required. Use designated water sources or other approved water sources. Before using non-designated water sources, obtain all necessary permissions, water rights, and permits.

170.04 Equipment.

(a) Water tanks. Provide mobile watering equipment with watertight tanks of known capacity. Provide for positive control of water application from the driver's position.

(b) Juvenile fish protection. All draft hoses being used to withdraw water from any live flowing stream or pond will utilize one of the following methods of screening.

(1) Perforated plate: Screen opening shall not exceed 3/32 or 0.0938-inches.

(2) Profile bar screen: The narrowest dimension in the screen openings shall not exceed 0.0689-inches in the narrowest direction.

(3) Woven wire screen: Screen openings shall not exceed 3/32 or 0.0938-inches in the narrow direction.

All methods shall be cleaned frequently with either wire brushing, flushing or other acceptable method.

170.05 Application. Apply water uniformly without ponding or washing.

170.06 Acceptance. Developing water supplies and watering will be evaluated under Subsections 106.02 and 106.04.

Measurement

170.07 Measure the Section 170 items listed in the bid schedule according to Subsection 109.02.

Payment

170.08 The accepted quantities will be paid at the contract price per unit of measurement for the Section 170 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

201 - Clearing and Grubbing

201.00_nat_us_08_05_2009

201.02 Material:

Delete Tree wound dressing material reference.

201.03 General.

Delete the last sentence.

201.04 Clearing.

Delete the last sentence of (d).

201.01_nat_us_02_18_2005

201.01 Description

Replace with the following

This work consists of clearing and grubbing within clearing limits and other designated areas.

201.04_nat_us_02_22_2005

201.04 Clearing. (c)

Delete paragraph (c) and replace with the following:

(c) In areas outside the excavation, embankment, and slope rounding limits, cut stumps to within 12 inches or one-third of the stump diameter of the ground, whichever is higher, measured on the side adjacent to the highest ground. For timber sales, stump heights will meet the requirements of the Timber Sale contract.

201.04 Clearing.

Delete subsection (d) and replace with the following:

(d) Do not cut vegetation less than 3 feet tall and less than 3 inches in diameter, that is within the clearing limits but beyond the roadway and not in a decking area, and that does not interfere with sight distance along the road.

Add the following:

(e) Trim branches of remaining trees or shrubs to give a clear height of 14 feet above the roadbed unless otherwise indicated. Trim tree limbs as near flush with the trunk as practicable.

(f) Remove brush from log decks. Deck logs so that logs are piled parallel to one another; can be removed by standard log loading equipment; will not damage standing trees; will not interfere with drainage, and will not roll. Keep logs in log decks free of brush and soil.

201.06_nat_us_02_18_2005

201.06 Disposal.

Delete the first sentence of this subsection and substitute the following:

Dispose of merchantable timber designated for removal according to the provisions of the timber sale contract.

203 - Removal of Structures and Obstructions

203.01_nat_us_02_25_2005

203.01 Description.

Delete and replace with the following:

This work consists of disposing of construction slash and debris, salvaging, removing, and disposing of buildings, fences, structures, pavements, culverts, utilities, curbs, sidewalks, and other obstructions.

203.04_nat_us_02_18_2005

203.04 Removing Material.

Replace the fourth and fifth paragraphs with the following:

Where part of an existing culvert is removed, remove the entire culvert upstream from the removal. The remaining downstream culvert may be left in place if no portion of the culvert is within 12 inches of the subgrade, embankment slope, or new culvert or structure; and the culvert ends are sealed with concrete.

Remove structures and obstructions in the roadbed to 12 inches below subgrade elevation. Remove structures and obstructions outside the roadbed to 12 inches below finished ground or to the natural stream bottom.

203.05_0618_us_03_26_2007

203.05 Disposing of Material

(a) Remove from project.

Delete the last two sentences

203.05_nat_us_02_18_2005

203.05 Disposing of Material.

Add the following:

(e) Windrowing Construction Slash. Place construction slash outside the roadway in neat, compacted windrows approximately parallel to and along the toeline of embankment slopes. Do not permit the top of the windrows to extend above subgrade. Use construction equipment to matt down all material in a windrow to form a compact and uniform pile. Construct breaks of at least 15 feet at least every 200 feet in a windrow. Do not place windrows against trees. Obtain approval for pioneer roads. A pioneer road may be constructed to provide an area for placement

of windrows, provided the excavated material is kept within the clearing limits and does not adversely affect the road construction.

(f) Scattering. Scatter construction slash outside the clearing limits without damaging trees. Limb all logs. Place logs and stumps away from trees, positioned so they will not roll, and are not on top of one another. Limb and scatter other construction slash to reduce slash concentrations.

(g) Chipping or Grinding. Use an approved chipping machine to grind slash and stumps greater than 3 inches in diameter and longer than 3 feet. Deposit chips or ground woody material on embankment slopes or outside the roadway to a loose depth less than 6 inches. Minor amounts of chips or ground woody material may be permitted within the roadway if they are thoroughly mixed with soil and do not form a layer.

(h) Debris Mat. Use tree limbs, tops, cull logs, split stumps, wood chunks, and other debris to form a mat upon which construction equipment is operated. Place stumps upside down and blend stumps into the mat.

(i) Decking Firewood Material. Remove brush from decks. Limb and deck logs that do not meet Utilization Standards according to Subsection 201.04 as directed by the CO. Cut logs to lengths less than 30 feet. Ensure that logs stacks are stable and free of brush and soil.

(j) Removal to designated locations. Remove construction slash to designated locations.

(k) Piling. Pile construction slash in designated areas. Place and construct piles so that if the piles are burned, the burning will not damage remaining trees. Keep piles free of dirt from stumps. Cut unmerchantable logs into lengths of less than 20 feet.

(l) Placing Slash on Embankment Slopes. Place construction slash on completed embankment slopes to reduce soil erosion. Place construction slash as flat as practicable on the completed slope. Do not place slash closer than 2 feet below subgrade. Priority for use of available slash is for: (1) through fills; (2) insides of curves; and (3) ditch relief outlets.

(m) Hydrological Sensitive Placement. Where required use this method in combination with other designated methods to dispose of material to reduce erosion and to aid in re-vegetation:

1. Place windrow segments on contours, wrap in type I geotextile.
2. Place logs as log erosion barriers on contours. Place logs so that 80% of their length is on the ground surface.
3. Scatter slash on bare or disturbed areas within or outside the clearing limits as directed.
4. Scatter chips or ground woody material on bare or disturbed areas within or outside the clearing limits as directed.

Place stumps in swales or on sites to form planting pockets. Place windrow segments on contours, wrap in type I geotextile.

203.08_nat_us_02_24_2005

203.08 Payment

Add the following:

Disposal of construction slash will be compensated under the designated pay item in Section 201.

322 - Minor Aggregate Courses

322.00_nat_us_10_14_2011

Description

322.01 This work consists of constructing one or more courses of aggregate on a prepared surface. Work includes producing aggregate by grid rolling, screening, or crushing methods, or placing pit-run or Government-furnished aggregate.

Surface aggregate grading is designated as shown in Table 703-3.

Subbase and base aggregate grading is designated as shown in Table 703-2.

Screened aggregate grading is designated as shown in Table 703-16.

Material

322.02 Conform to the following Subsections:

Aggregate	703.05
Water	725.01

Construction Requirements

322.03 General. Prepare the surface on which the aggregate course is placed according to Section 204 or 303 as applicable.

Request approval of the roadbed in writing before placing aggregate.

Develop, haul, and apply water in accordance to Section 170.

Submit target values within the gradation ranges shown in Table 703-2 or 703-3 for the required grading. After reviewing the proposed target values the CO will determine the final values for the gradation and notify the Contractor in writing.

No quality requirements or gradation other than maximum size will be required for pit run and grid-rolled material. For grid rolling, use all suitable material that can be reduced to maximum size.

After processing on the road, remove all oversize material from the road and dispose of it as directed by the CO.

If the aggregate is produced and stockpiled before placement, handle and stockpiled according to Section 320. Establish stockpile sites at approved locations.

322.04 Mixing and Spreading. Mix the aggregate and adjust the moisture content to obtain a uniform mixture with a moisture content suitable for the specified compaction method. Spread and shape the mixture on the prepared surface in a uniform layer with no segregation of size, and to a loose depth that will provide the required compacted thickness.

Do not place in layers exceeding 6 inches in compacted thickness for aggregate base and surface courses or twice the maximum particle size for screened aggregate. When more than one layer is necessary, compact each layer according to Subsection 322.05 before placing the next layer. Route hauling and leveling equipment uniformly over the full width.

When placing aggregate over geotextile, place aggregate in a single lift to the full depth specified.

322.05 Compacting. Compact each layer full width. Roll from the sides to the center, parallel to the centerline of the road. Along curbs, headers, walls, and all places not accessible to the roller, compact the material with approved tampers or compactors.

Compact the aggregate using one of the following methods as specified:

Compaction A. Operating spreading and hauling equipment over the full width of the travelway.

Compaction B. Operate rollers and compact as specified in Subsection 204.11(a)(1).

Compaction C. Moisten or dry the aggregate to a uniform moisture content between 5 and 7 percent based on total dry weight of the mixture. Operate rollers and compact as specified in Subsection 204.11(a)(1).

Compaction D. Compact to a density of at least 95 percent of the maximum density, as determined by AASHTO T 99, method C or D.

Compaction E. Removed.

Compaction F. Compact to a density of at least 95 per-cent of the maximum density, as determined by AASHTO T 180, method C or D.

Compaction G. Removed.

For all compaction methods, blade the surface of each layer during the compaction operations to remove irregularities and produce a smooth, even surface. When a density requirement is specified, determine the in place density and moisture content according to AASHTO T 310 or other approved test procedures.

322.06 Construction Tolerance. If grade finishing stakes are required, finish the surface to within ± 0.10 feet from staked line and grade elevation.

If grade finishing stakes are not required, shape the surface to the required template and check the surface with a 10-foot straightedge. Defective areas are surface deviations in excess of 1/2 inch in 10 feet between any two contacts of the straightedge with the surface.

Correct all defective areas by loosening the material, adding or removing material, reshaping, and compacting.

Ensure that the compacted thickness is not consistently above or below the specified thickness. The maximum variation from the compacted specified thickness is 1/2 inch.

Ensure that the compacted width is not consistently above the specified width. The maximum variation from the specified width will not exceed +12 inches at any point.

322.07 Maintenance. Maintain the aggregate course to the correct line, grade, and cross-section by blading, watering, rolling, or any combination thereof until placement of the next course. Correct all defects according to Subsection 322.06.

322.08 Acceptance. See Table 322-1 or Table 322-2 as applicable, for sampling and testing requirements.

Aggregate gradation and surface course plasticity index will be evaluated under Subsection 106.04. If the aggregate is obtained from a Government stockpile then the above characteristics will be evaluated under Subsection 106.02. Other aggregate quality properties will be evaluated under Subsections 106.02 and 106.04. Placement of aggregate courses will be evaluated under Subsections 106.02 and 106.04.

The allowable upper and lower aggregate gradation limits are the Target Value plus or minus the allowable deviations shown in Tables 703-2 and 703-3.

The allowable upper and lower Plasticity index limits for surface courses are stated in 703.05(b).

Preparation of the surface on which the aggregate course is placed will be evaluated under Section 204 or 303 as applicable.

Measurement

322.09 Measure the Section 322 items listed in the bid schedule according to Subsection 109.02 and the following as applicable.

Measure square yard width horizontally to include the top of aggregate width including designed widening. Measure the square yard length horizontally along the centerline of the roadway.

If the measurement for aggregate is by cubic yard using contract quantities then measure aggregate by the cubic yard in-place once compacted, otherwise measurement for aggregate by the cubic yard is measured by the cubic yard in the hauling vehicle.

Measure thickness perpendicular to the grade of the travelway.

Measure width perpendicular to the centerline.

Payment

322.10 The accepted quantities will be paid at the contract price per unit of measurement for the Section 322 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

**Table 322-1
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Aggregate source quality 703.05	Measured and tested for conformance (106.04 & 105)	LA abrasion (course)	—	AASHTO T 96	1 per type & source of material	Source of material	Yes, when requested	Before using in work
		Sodium sulfate soundness loss (course & fine)	—	AASHTO T 104	“	“	“	“
		Durability index (course & fine)	—	AASHTO T 210	“	“	“	“
		Fractured faces	—	ASTM D 5821	“	“	“	“
Subbase, Base, and Surface courses	Measured and tested for conformance (106.04)	Sample	—	AASHTO T 2	2 per day	From windrow or roadbed after processing or from approved crusher sampling device	Yes	48 hours

**Table 322-1 (continued)
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Subbase, Base, and Surface	Measured and tested for conformance (106.04)	Moisture-density Method D	—	AASHTO T 99 ⁽¹⁾	1 per type and source of material	Source of material	Yes, when requested	Before using in work
		Moisture-density Method F	—	AASHTO T 180 ⁽¹⁾	“	“	“	“
		In-place density & moisture content	—	AASHTO T 310 or other approved procedures	3 per day	In-place	—	Before placing next layer

**Table 322-2
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Screened Aggregate	Measured and tested for conformance (106.04)	Sample	—	AASHTO T 2	2 per day	From windrow or roadbed after processing or from approved crusher sampling device	Yes	48 hours

430 - Asphalt Pavement Patching

430.00_0618_us_03_26_2007

Description

430.01 This work consists of performing full depth patching, patching with geotextiles, skin patching, spray-injection patching, and removal and replacement of asphalt berms.

Material

430.02 Conform to the following Subsections:

Minor Hot Asphalt Pavement	404.02
Asphalt Binder	702.01
Cutback Asphalt	702.02
Emulsified Asphalt	702.03
Application Temperatures	702.04
Cold Asphalt Mix	702.10
Aggregate	703.07 (a) and (b)
Choker Aggregate	703.12
Geotextile Type VI	714.01
Sand	703.15

Construction

430.03 Composition of Mix (Job-Mix Formula). Furnish either Minor Hot Asphalt Pavement or Minor Cold Asphalt Mix as approved by the CO.

430.04 Full Depth Patch. Remove material to the depth noted on the plans, or as necessary to reach firm support. If firm support for a patch is unavailable, notify the CO prior to placing any material.

Trim or mill the edges of the prepared hole to form a vertical face in un-fractured asphalt surfacing. Make the prepared hole rectangular, and clean it of all loose material. When the hole is dry, apply emulsified asphalt to the bottom and faces of the hole. Barricade prepared sites. Patch the sites immediately after the emulsified asphalt breaks. Place the asphalt concrete mixture in layers not exceeding 4 inches. Thoroughly compact each layer with hand or mechanical tampers or rollers. For hot asphalt concrete mixtures, compact the mix while it is above 230 °F.

Compact the finished surface with a steel-wheel roller or vibratory plate compactor. Ensure that the compacted patch is approximately 1/8 to 1/4 inches above the level of the adjacent pavement. Seal the edges of the completed patch with emulsified asphalt, and blot with fine sand.

430.05 Patching with Geotextile. Prepare the surface by digging out and patching according to Subsection 430.04 or by cleaning the surface, removing vegetation, and filling all cracks more than 1/4 inch wide with an approved crack-filling material. Remove excess crack-filling material. Spray the prepared surface with asphalt cement or emulsified asphalt according to the geotextile manufacturer's direction. Immediately place the geotextile over the repaired area. Allow emulsified asphalt to break before placing geotextile. Extend the fabric a minimum of 6 inches beyond the repaired or patched area onto sound adjoining pavement. Use a minimum of 2 inches overlap where adjacent fabric panels are needed to cover the repaired area.

Do not place the asphalt concrete mixture until authorized by the CO. Uniformly distribute asphalt concrete mixture in layers not to exceed 2 inches compacted depth. Feather the edges of skin patches. When placing more than one layers, offset all joints at least 6 inches between layers. Compact each layer with an 8 to 10 ton steel roller. For hot asphalt concrete mixtures, compact the mix while it is above 230°F. Ensure that the completed patch does not have abrupt transitions that could adversely affect the steering of a passenger car traveling across the area. Provide transition tapers for skin patches that are 12 inches long per 1/8 inch thickness of patch in the direction on travel.

430.06 Skin Patches. Prepare the surface on which the skin patch is placed by cleaning the surface, removing vegetation, and filling all cracks more than 1/4 inch wide with an approved crack-filling material. Remove excess crack-filling material. Spray the surface with emulsified asphalt at the rate approved by the CO.

Apply the asphalt concrete mixture according to Subsection 430.05.

430.07 Spray-Injection Patching. Use an approved continuous process that cleans and dries the area to be patched, sprays a tack coat of binder on the sides and bottom of the pothole, place aggregate coated with emulsified asphalt, and covers the area with a choker aggregate.

430.08 Asphalt Berm. Remove damaged segments of berm and bevel exposed ends at approximately 45 degrees from vertical. Clean and patch the berm foundation as necessary. Coat

the foundation and joining surfaces with emulsified asphalt. Place and compact asphalt mix to conform to the shape of the undamaged segment.

430.09 Waste Material. Dispose of all materials removed from potholes, patches, and berms in accordance with Subsection 203.05(a).

430.10 Acceptance. Asphalt concrete mixtures will be evaluated under Subsections 106.02 and 106.03. Geotextiles will be evaluated under Subsection 106.03. Spray-injection patching will be evaluated under Subsections 106.02 and 106.03.

Measurement

430.11 Measure the Section 430 items listed in the bid schedule according to Subsection 109.02.

Payment

430.12 The accepted quantities will be paid at the contract unit price per unit of measurement for Section 430 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05

602 - Culverts and Drains

602.03_nat_us_09_06_2005

602.03 General.

Add the following:

Ensure that the final installed alignment of all pipe allows no reverse grades, and does not permit horizontal and vertical alignments to vary from a straight line drawn from center of inlet to center of outlet by more than 2 percent of pipe center length or 1.0 feet, whichever is less.

602.03_06_us_03_17_2010

602.03 General

Add the following:

Clean and paint damaged coating caused by welding, field cutting, or handling in accordance with AASHTO M 36M and ASTM A 849.

718 - Traffic Signing and Marking Material

718.05_nat_us_08_05_2009

718.05 Aluminum Panels

Delete the third paragraph and replace with the following:

Clean, degrease and properly prepare the panels according to methods recommended by the sheeting manufacturer. Conversion coatings will conform to ASTM B-921 or ASTM B-449.

Attachment F**PROJECT NUMBER 002 - Entrance Management**

End Results - return compacted soil on road surfaces and landings to hydrologically stable functionality with appropriate hydrologic capacity to reduce soil erosion and displacement.

1. Description of Work

This Stewardship Project requires services to decommission, or permanently remove from use by vehicular travel, routes designated and authorized for requested treatment. Road decommissioning will vary by route and may have additional benchmarks and specifications not represented on this specification, but will be addressed in communication of ordered activity. All routes scheduled for decommissioning will have the described "passive" entry treatment, in addition to other prescribed activities up to full prism obliteration and recontouring of entire length of route, and its associated fills and cuts.

2. Services Required

This work consists of rehabilitating and reclamation of forested land by removing routes that negatively impact natural resources or have the propensity to hydrologically fail under certain storm events. The work consists of multiple activities including, but not limited to the following; Road travel way surface decompaction, Installation of cross ditches and waterbars, Removal and disposition of signs, posts, guardrails and bridges, culverts, cross drain pipes along with their associated fills and any other man-made structures, Dewatering of live stream crossings, Installation and use of sedimentation control systems and stream grade controls, Stabilization of failing fill slopes, Seeding and mulching of all exposed native soil as a result of Contractor operations and Entry Management Treatments. Further description of activities will be listed in "Scope". Decision on type, extent and priority of roads to be decommissioned will be made by the Forest Service and described within specified road listing. Contractor shall provide equipment, operators, materials and supplies necessary to perform requested activities. Performance Standards outlined below are the major benchmarks, additional site specific ordered work will be outlined on the request for service, task order or contract.

3. Location of Work

This Stewardship Project is located on the Hood River Ranger District, Mt. Hood National Forest, in Hood River County, Oregon. The locations of the worksites are shown on the Contract Area Map and on the Project Vicinity Map contained within the contract plans. Access to the project area is via Oregon Highway 35, Lost Lake Road (County Road) westbound from Dee, Oregon, and NFSR 18.

The Contractor's use of all Forest Service Roads shall be in compliance with the Mt. Hood National Forest Commercial Road Rules dated January, 1992. A copy of these rules are available for review at the Hood River Ranger Station in Parkdale, Oregon, or at the Forest Supervisor's Office in Sandy, Oregon.

4. Scope of Contract/Special Requirements

For all activities, Contractor should include all labor, materials and supplies (including fire equipment) needed to perform decommissioning work as described, within offers block under its corresponding unit price. Failure to do so will not warrant modification of bid acceptance price.

- (a) Entry Management Treatments: Road and road segments proposed for entrance management "passive decommissioning" would be decommissioned by allowing them to return to a natural condition as native vegetation grows. A barrier closure device or feature shall be constructed at the beginning of road to prevent vehicle access. The first portion (approximately 1/8, or 0.13 mile which is equal to 660 ft.) of a road

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segment shall be decompacted and made impassable by vehicles using mechanical methods (i.e., the road entrance would be obliterated so vehicles cannot travel beyond it). All aggregate and natural surfaced roads requiring decompaction shall be treated as follows; the road decompaction length shall have 3 ft. by 3ft. craters machine excavated every 15 ft. in each wheel track. Stagger decompaction craters between left and right wheel tracks such that spacing on centerline will be at every 7 .5 ft. Decompaction craters shall be machine excavated to a minimum depth of 18 inches. A minimum of three waterbars shall be installed throughout the entry treatment area as staked by the Contract Administrator. Local downed woody debris, stumps, and boulders should be scattered throughout treated area. All signing, culverts, or manmade items shall be removed and disposed of, by Contractor, at a disposal or recycling location off Forest Land. All soils exposed as a result of Contractor operations shall be seeded and mulched.

- (b) Removal of Bridges and Stream Crossings: All Bridge and Culvert structures located on road scheduled for "active" decommissioning shall be removed from road prism and disposed of off National Forest Lands to an approved disposal or recycling facility in accordance with all local, state and federal regulations, unless deemed useable in decommissioning activity by the C.O. (through the C.O.R.) during the prosecution of work. Stream channels shall be excavated to a width of 1.3 times the bank-full channel width, as measured upstream of crossing, but no less than 12 ft. wide. Associated approach fills shall be excavated back to "natural" terrain features, or at no greater than 2H:1V from base of 1.3 times the bank-full channel width, for recontouring of stream channel. Excavated material generated from stream channel recontouring shall be placed on stable portions of existing road prism in a manner that will not cause a failure to storage location or allow excess sedimentation to enter into stream system. Finished slopes for storage areas will be left at no less than a 2H:1V slope. Segregation of Rip Rap material will be done during excavation for use in stream grade controls needed for stream channel enhancement throughout excavated fill sites. All live stream channels shall be dewatered prior to "in stream" channel work. All exposed native soil as a result of Contractor operations shall be seeded and mulched.

*Note; for purposes of submitting proposals, Contractor shall base bid price on a 12 ft. wide excavated stream channel. Modification will need to be made should crossing exceed the 12 ft. wide baseline.

- (c) Removal of Cross Drain Pipes: All Cross drain pipes located on road scheduled for "active" decommissioning shall be removed from road prism and disposed of off National Forest Lands to an approved disposal or recycling facility in accordance with all local, state and federal regulations. Voids left by removal of cross-drains shall remain open and not backfilled, (which will be considered a water bar), including lead up and out ditches, to help dissipate surface water and sedimentation runoff during storm events. All exposed native soil as a result of Contractor operations shall be seeded and mulched.
- (d) Removal of Signs, Posts, Guardrail and Other Man-Made Structures: All signs, posts, guardrails and any other man-made structures encountered on road scheduled for "active" decommissioning shall be removed from road prism and disposed of off National Forest Lands to an approved disposal or recycling facility in accordance with all local, state and federal regulations, unless deemed useable in decommissioning activity by the C.O. (through the C.O.R.) during the prosecution of work. All exposed native soil as a result of Contractor operations shall be seeded and mulched.
- (e) Grubbing of Existing Road Prism: Some grubbing of material on road travelway surface may be necessary to access entire length of road system to be decommissioned. All material grubbed or moved to gain access shall be stored on site and reused to cover decommissioned road surface. Material shall be scattered evenly throughout roadbed. Large woody debris shall be placed parallel to slope to serve as "contour barriers" to prevent surface soil movement. All efforts should be made to minimize disturbance of existing vegetation around project area.

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- (f) Dewatering of Live Stream Crossings: All live stream crossings encountered during decommissioning activity shall be dewatered prior to removal of stream crossing structure, or if the possibility exists that decommissioning activity may likely produce excessive sediment contamination into stream channel. Dewatering may consist of constructing dams upstream and machine pumping water around the project area. All draft hoses shall require a draft screen with a maximum holes size of 3/32nd's when drafting water from streams within project area(s). Water shall be filtered by use of naturally vegetated land or by use of filter material, (i.e. weed free straw bales or silt fencing), to reduce sedimentation travel back into stream channel. A site specific water quality control plan shall be submitted and approved by C.O. for each stream diversion/dewatering location, prior to start of excavation.

- (g) Stream Channel Enhancement: Rip Rap/Boulder material shall be segregated from fill during excavation and will be used to enhance stream channel features throughout stream crossing site. Enhancement features, (i.e.; grade controls, rock weirs and pools) shall be constructed within stream channel reclamation area at locations. Consider a minimum of three grade controls/ weirs (upstream "U"s) to be constructed at each stream crossing, for bid proposal. " Upstream U's" are necessary to prevent streambed and bank erosion. The ends of structures would be keyed into the stream bank for at least 1/4 of the diameter of the boulder to minimize the stream cutting into the stream bank at high flows. Structures would be installed as outlined in the following table, using reclaimed materials excavated from prism during decommissioning activities:

Table 1. Pool to Pool Spacing

Wetted Stream Width (feet)	Minimum Boulder Size Needed (inches)	Stream Gradient (percent)			
		0-2%	2-6%	6-15%	15-30%
0 to 5	18	42 feet	15 feet	8 feet	4 feet
5 to 10	24	63 feet	21 feet	12 feet	6 feet
10 to 15	24	105 feet	36 feet	20 feet	10 feet
15 to 25	30	167 feet	57 feet	32 feet	16 feet

All exposed native soil as a result of contractors operation(s), above waterline of stream channel shall be seeded and mulched.

- (h) Fill Slope Stabilization: At locations marked by the C.O where visible signs of fill slope failures are imminent or where fill slopes are deemed "unstable" fill slopes shall be pulled back and excavated material generated shall be placed on stable portions of existing road prism in a manner that will not cause a failure to storage location or allow excess sedimentation to enter into stream system. Finished slopes for storage areas will be left at 2H:1V. Site will be approved by C.O. prior to the storage of material. All exposed native soil as a result of Contractor operations shall be seeded and mulched.

- (i) Seeding and Mulching: All soils exposed as a result of Contractor operations shall be seeded with government furnished native blue wild-rye seed (Elymus Glaucus) at a rate of 30 lbs/acre. All soils exposed as a result of Contractor operations (with the exception of decompaction craters) shall also be mulched with Contractor furnished certified weed free straw at a rate of 4,000 lbs/acre, scattered to a depth of two (2) inches. All exposed soils on decompaction craters shall be shall be mulched with Contractor furnished certified weed free straw at a rate of 2,000 lbs/acre, scattered to a depth of one (1) inch. Contractor shall provide documentation of weed free certification for straw, without exception.

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- (j) Installation of Water Bars: Waterbars shall be installed every 200 ft., or at locations marked by C.O., to enhance surface water runoff and minimize sediment reaching stream channels. Waterbars shall be free flowing and made to drain to an area whereas not to empty directly into stream or channel thereof. All exposed native soil as a result of Contractor operations shall be seeded and mulched.
- (k) Hazard/Danger Trees Encountered within Work Zones: All Hazard/Danger Trees located within or adjacent to work zones, that pose a threat to safety of employees of Contractor or those employees of the USDA Forest Service, deemed necessary to mitigate, at site, shall be felled by contractor upon approval of C.O. and a Certified, Region 6, Danger Tree Identifier. Identified tree(s) shall be felled in a direction where safety to feller is primary concern. Where feasible, Hazard/Danger trees shall be directionally felled toward streams. Where no stream is present for felling purposes, tree(s) shall be felled and used as cover over decommissioned road travel way.
- (l) Protection of Water Quality: Some roads scheduled for decommissioning are located within watersheds that may provide drinking water for local municipalities found adjacent to the Mt. Hood National Forest. In order to protect water quality it is imperative that the following guidelines be strictly followed while working on this project. Some roads will intersect perennial streams and perennial streams that house resident and anadromous fish. The allowable "work window" for these stream crossings is July 15th through August 31st, unless otherwise noted, applications to work beyond these allowable dates may be obtained on a case by case basis, and upon request by the Contractor, to the C.O.
1. Operations shall be scheduled and conducted so as to prevent soils from entering any waterway. Live streams shall be diverted from work areas prior to excavation of culverts, or any other stream crossing structure. A stream diversion plan must be submitted to the C.O. for approval prior to starting of excavation in live streams.
 2. Stream turbidity will be monitored by the C.O. during the prosecution of work. If an increase in turbidity, as a result from Contractor operations, exceeds 10 Nephelometric Turbidimeter Units (NTU's) for a period exceeding 30 minutes, the contractor shall cease operations. The contractor will be notified when increases in turbidity are nearing 10 NTU's in order that operations may be modified. The USDA Forest Service will not issue waivers regarding NTU limits.
 3. All vehicles and machinery must be free of petroleum leaks. Any leak that develops during decommissioning activities shall be repaired immediately.
 4. Absorbent pads shall be required under all stationary equipment, fuel storage containers and during all servicing and refueling operations.
 5. All equipment used for refueling shall carry a "hazardous material recovery kit." Any soil, vegetation or debris contaminated with petroleum products or any other man-made substance considered harmful to the environment shall be removed from the site and disposed of in accordance with state laws, at contractor's expense.
 6. All petroleum products being transported and/or stored must be in approved containers meeting OSHA standards.
 7. All vehicles hauling more than 300 gallons of fuel must have an approved radio system with which to report accidental spills. If any fuel or fluid storage container exceeds a capacity of 660 gallons, the contractor shall prepare a spill prevention control countermeasures plan. Such plan shall meet all applicable EPA requirements (40 CFR 112) including certification by a registered Professional Engineer (PE).

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8. In order to preclude erosion into or contamination of the stream or floodplain, staging areas, (used for equipment, vehicle and hazardous material storage and equipment fueling and servicing locations, etc.), shall be located beyond the 100 year floodplain or 150 ft. from stream channels, location will be approved by the C.O.
9. The contractor shall be liable for cleanup of any hazardous material or fuel spill occurring as a result of his/her operations.
10. An approved Spill Prevention Control and Containment Plan (SPCCP) would be created, which describes measures to prevent or reduce impacts from potential spills. The SPCCP would include a description of the hazardous materials that would be used; and adequate spill containment kit would be located on-site.
11. The contractor shall, on a daily basis, remove all trash and refuse from the project area.
12. If decommissioning activity shall take place within the boundaries of the "Bull Run" or "The Dalles" Watersheds, contractor is required to provide and maintain a chemical toilet at each work area. It shall be located within 10 minutes walking distance of all personnel. Payment for this item is considered incidental to mobilization.
13. Camping by contractor may be permitted, when approved, at most locations. Proper documentation shall accompany the camping party(s), which can be obtained by request of the contractor, with five days advance notice, to the C.O. Camping areas will be considered part of the "work area" and shall adhere to all contract and task order specifications. Camping in the "Bull Run" and/or "The Dalles" watersheds will not be permitted.

5. Submittals

- (a) Prior to application of Contractor supplied straw the Contractor shall submit to the Forest Service documentation identifying the type, origin, and weed-free status of the straw (name of supplier, type/species of straw, location of field grown, and weed free certification).
- (b) Contractor shall supply the Forest Service with weight tickets from a certified scale indicating weight (in pounds) of straw supplied to the project.

6. Deliveries or Performance

Commencement, Prosecution, and Completion of Work:

- (a) The Contractor shall be required to (1) commence work under this contract after a pre-work meeting agreed upon by the Contractor and Forest Service, (2) prosecute the work diligently, and (3) complete the entire work not later than March 31, 2017. The time stated for completion shall include final cleanup of the premises.
- (b) The stated completion date is set based on the assumption that the successful Bidder for the project will begin work allowing an adequate amount of time to finish the project by the completion date.
- (c) Construction activity shall be limited to daylight hours Monday through Friday, excepting federal holidays, unless other hours are approved in writing by the Contracting Officer. The Contractor shall conduct activities so that interference with the public shall be kept at a minimum.
- (d) The Contractor shall use measures and precautions necessary to warn and protect the public and Government personnel during work at the project site. Such actions include, but are not limited to, furnishing and maintaining barricades and signs around the work site and roping off the area.

Attachment F

7. Contractor's Obligations

The Contractor shall furnish the necessary personnel, materials, equipment, supervision, transportation, and services required to complete the work as stated in the Description of Work and further described in the contract plans and specifications.

8. Inspections and Acceptance

The Forest Service will make periodic inspections to verify that the Contractor is conforming to plans and specifications per the contract requirements. Inspections will be performed in a timely manner that will not unduly delay execution of project work.

Final acceptance of the project will be made in writing by the Contracting Officer after inspection of completed work. Completed work must be in compliance with all specifications and contract requirements prior to final acceptance. The Contractor is responsible for addressing and/or correcting any deficiencies in the work at his/her own cost prior to receiving written acceptance; additional costs for remobilizing equipment and personnel will not be compensated for by the Government and the Contractor is strongly advised to delay mobilization off of Forest Lands until such time as a final inspection can be conducted.

9. Measurement and Stewardship Credit

The quantities to be measured will be the completed number of units of the items listed in the table for STEWARDSHIP SCHEDULE OF ITEMS. Quantities shown are estimates.

The accepted quantities will be credited at the contract price for the pay items shown on the STEWARDSHIP SCHEDULE OF ITEMS. Payment will be full compensation for the work prescribed in this Section.

10. Acceptable Quality Levels

Activity does not warrant table of acceptable quality, each route shall be monitored for consistency with outlined Specifications and Best Management Practices within this SPS and associated specifications outlined within request for quote, task order or contract. Each route shall be accepted by CO after completion but prior to contractor moving operations off completed route. Failure to comply with any and all conditions and specification shall result in an issuance of "Notice of Non-Compliance" and contractor will be responsible for reworking shortcomings at their cost.

11. Entrance Management Road

ROAD NO.	LENGTH (miles)	ESTIMATED NO. OF STREAM CULVERTS TO REMOVE	ENTRANCE TREATMENTS	ESTIMATED NO. OF WATER BARS TO INSTALL
1800008	0.30	0	1	8

Note: Entry Management includes a minimum of three water bars covering the first 0.1 miles of road which are not included in the number of water bars shown. Number of water bars shown is the estimated quantity needed outside of the entrance treatment area.

Attachment F

12. STEWARDSHIP SCHEDULE OF ITEMS

PROJECT NUMBER 002 - Entrance Management
National Forest System Road 1800008: 0.30 miles

ITEM NO.	DESCRIPTION	PAY UNIT	EST. QTY.
15101	Mobilization	Lump Sum	All
886(1)	Entry Management Treatment	*Each	1
886(2)	Water Bars	*Mile	0.20

Note: Entry Management includes a minimum of three water bars covering the first 0.1 miles of road which is not included in the Water Bar Pay Item. The Water Bar pay item is the estimated quantity needed outside of the entrance treatment area.

* Denotes a Contract Quantity

13. Project Plans and Exhibits

Attachment F: Stewardship Project Plans

Attachment F

PLOTTED SHEET SIZE: 11" x 17"



UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE - REGION SIX
SUB-REGIONAL ENGINEERING GROUP



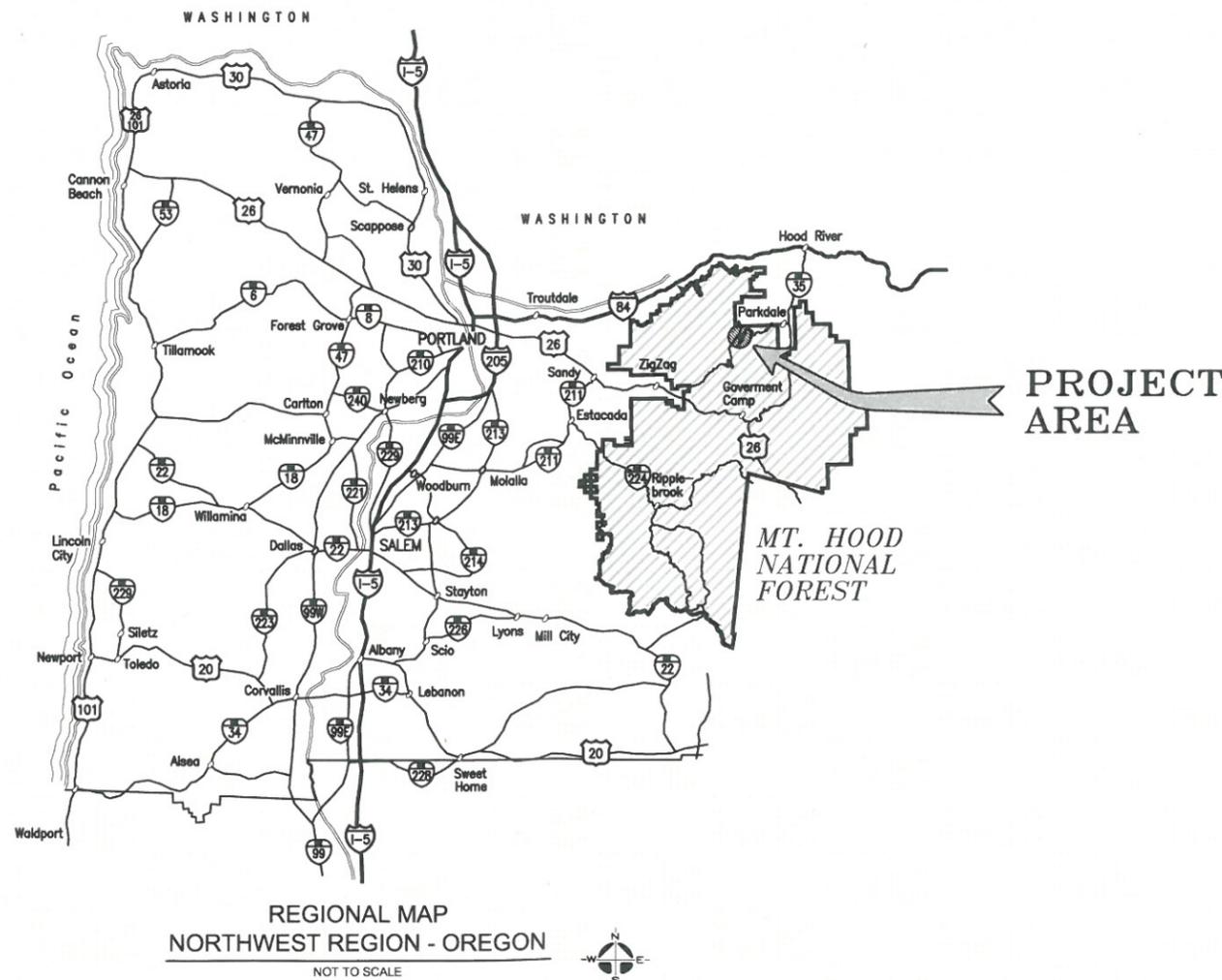
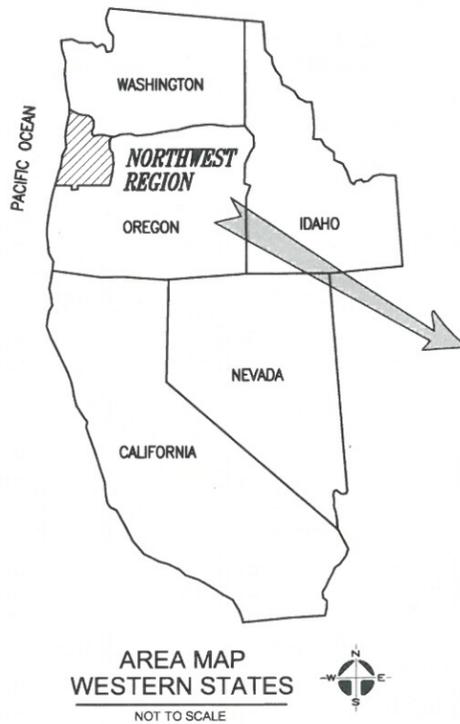
Mt. Hood National Forest

SHEET INDEX	
SHEET NO.	SHEET TITLE
1 of 4	TITLE AND PROJECT LOCATION
2 of 4	PROJECT VICINITY MAP
3 of 4	ESTIMATE OF QUANTITIES, WORK SUMMARY DRAINAGE LISTING, AND GENERAL NOTES
4 of 4	TYPICAL CULVERT INSTALLATION DETAILS

DESIGNED BY <i>[Signature]</i>	DATE 6-05-2014
DESIGNER	DATE
REVIEWED BY <i>[Signature]</i>	DATE 6-5-14
REVIEWING ENGINEER	DATE
RECOMMENDED BY <i>[Signature]</i>	DATE 6-5-14
ZONE ENGINEER	DATE
APPROVAL	
<i>[Signature]</i>	DATE 6-16-14
DISTRICT RANGER	DATE
<i>[Signature]</i>	DATE 6/16/14
FOREST ENGINEER	DATE

PLANS FOR
**Bull-Bronco Stewardship
Restoration Projects**

STEWARDSHIP	ROAD NO.	MILE POSTS	TYPE OF WORK
PROJECT #001	NFSR 16	18.41	CONSTRUCTION
PROJECT #002	NFSR 1800008	0.0 to 0.3	DECOMMISSION



PROJECT AREA

PROJECT LOCATION

Mt. Hood National Forest,
Clackamas River Ranger District
Clackamas County, Oregon

NFSR 16
Construction
Mile Post: 18.41
(Township & Range)
Township: T 1 S
Range: R 9 E
Section(s): 12; SW1/4

NFSR 1800008
Decommission
Mile Post: 0.0 - 0.3
(Township & Range)
Township: T 1 S
Range: R 9 E
Section(s): 1; NE1/4

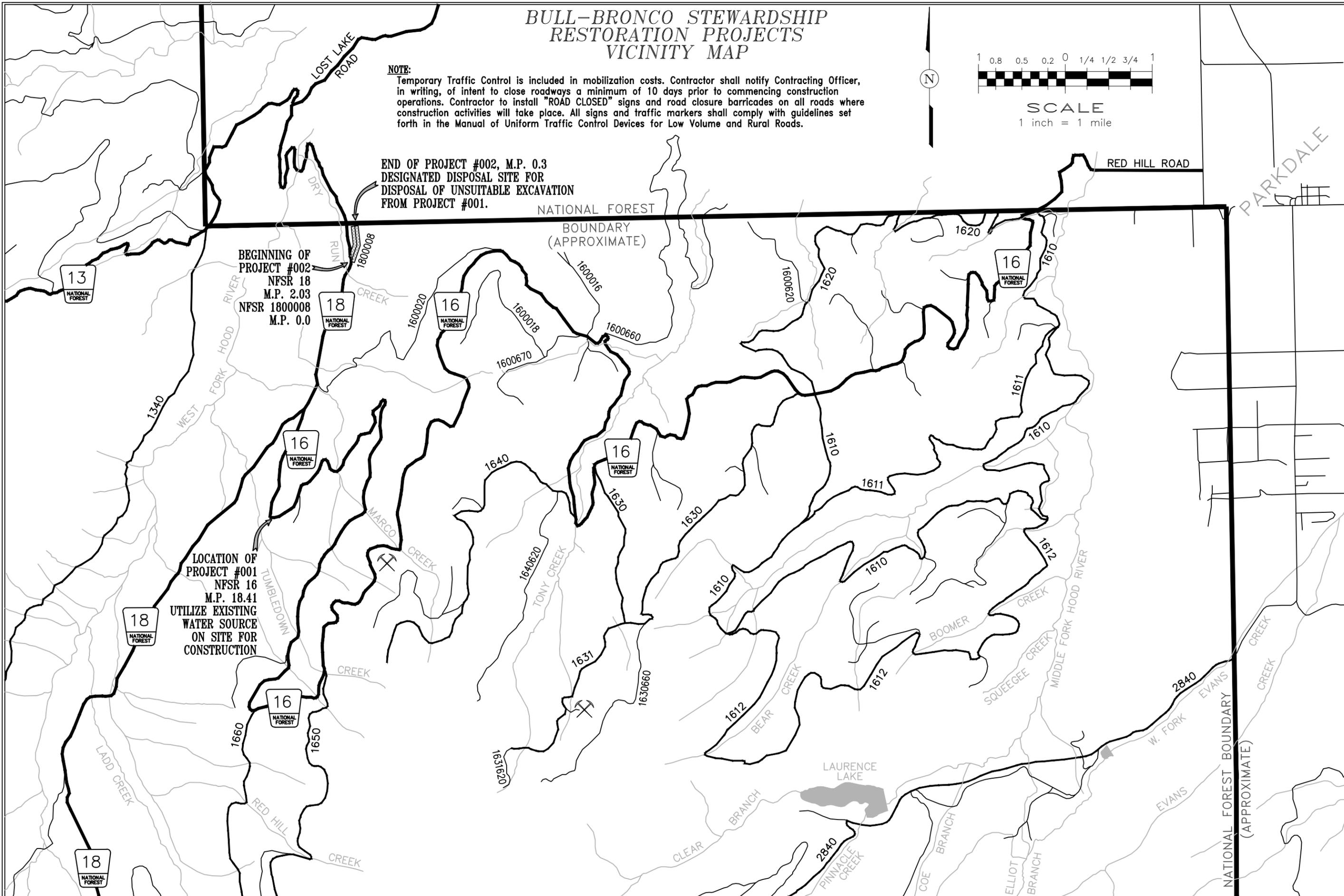
LEGEND

- = INTERSTATE HIGHWAY
- = FEDERAL HIGHWAY
- = STATE HIGHWAY

DESIGNED BY: L. JIMENEZ DRAWN BY: L. JIMENEZ CHECKED BY: J. CASWELL SCALE: NONE	
USDA FOREST SERVICE The Pacific Northwest Region MT. HOOD NATIONAL FOREST 16400 Champion Way Sandy, OR 97055	
PROJECT: Bull-Bronco Stewardship Restoration Projects SHEET TITLE: TITLE AND PROJECT LOCATION	
SHEET 1 of 4	

BULL-BRONCO STEWARDSHIP RESTORATION PROJECTS VICINITY MAP

NOTE:
 Temporary Traffic Control is included in mobilization costs. Contractor shall notify Contracting Officer, in writing, of intent to close roadways a minimum of 10 days prior to commencing construction operations. Contractor to install "ROAD CLOSED" signs and road closure barricades on all roads where construction activities will take place. All signs and traffic markers shall comply with guidelines set forth in the Manual of Uniform Traffic Control Devices for Low Volume and Rural Roads.



DESIGNED BY: L. JIMENEZ
DRAWN BY: L. JIMENEZ
CHECKED BY: J. CASWELL
SCALE: NONE



USDA FOREST SERVICE
 The Pacific Northwest Region
 MT. HOOD NATIONAL FOREST
 16400 Champion Way
 Sandy, OR 97055

PROJECT: Bull-Bronco Stewardship Restoration Projects
 SHEET TITLE: PROJECT VICINITY MAP
 SHEET: 2 of 4

16 ROAD - PROJECT #001 ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	PAY UNIT	QTY	NOTES
15101	MOBILIZATION	LUMP SUM	ALL	TEMPORARY TRAFFIC CONTROL, FIRE PROTECTION, WEED PREVENTION, AND EQUIPMENT CLEANING ARE INDIRECT TO THIS PAY ITEM.
15713	SOIL EROSION AND POLLUTION CONTROL	LUMP SUM	ALL	INCLUDES ALL EROSION AND POLLUTION CONTROL MEASURES TO PREVENT SITE DAMAGE AND POLLUTION. SITE DEWATERING IS INCIDENTAL TO THIS PAY ITEM.
20102	CLEARING AND GRUBBING, DISPOSAL OF TOPS AND LIMBS (f), LOGS (i), STUMPS (f)	LUMP SUM	ALL	SCATTER UNMERCHANTABLE VEGETATION AND DEBRIS OUTSIDE THE EXCAVATION LIMITS OF THE WORK. DISPOSAL OF ORGANIC SOILS UNSUITABLE FOR USE IN CONSTRUCTION WILL BE MEASURED UNDER PAY ITEM 20416. MERCHANTABLE TREES SHALL BE CONSIDERED INCLUDED TIMBER WITH CONSIDERATION PROVIDED TO THE GOVERNMENT ACCORDING TO THE TERMS OF THE STEWARDSHIP CONTRACT.
20303	REMOVAL OF ASPHALT CONCRETE, DISPOSAL METHOD A	*SQUARE YARD	11	SAWCUT AND REMOVE ASPHALT PER DETAIL 4, SHEET 4, AND DISPOSE OF PER SECTION 203.05(a) "REMOVE FROM PROJECT".
20416	WASTE, UNSUITABLE EXCAVATION	*CUBIC YARD	6	LOAD, HAUL, AND PLACE EXCESS AND UNSUITABLE MATERIAL TO DESIGNATED DISPOSAL SITE AND LAYER PLACE.
43004	FULL DEPTH PATCH HOT ASPHALT CONCRETE MIX	*TON	2.4	COMMERCIAL SOURCE MATERIAL.
60211	24 INCH ALUMINIZED CORRUGATED STEEL PIPE, 0.064 INCH THICK	FOOT	50	INCLUDES MATERIALS, TIME, AND EQUIPMENT FOR INSTALLATION OF EACH CULVERT AS SHOWN ON THE DRAINAGE LISTING. USES COMMERCIAL SOURCE CULVERT AND COMMERCIAL SOURCE BEDDING MATERIAL. SURVEYING AND STAKING PER 152.03(G) IS INCIDENTAL TO THIS PAY ITEM.
60608	ENERGY DISSIPATOR, CLASS 3 RIPRAP	*EACH	1	COMMERCIAL SOURCE MATERIAL.

180008 ROAD - PROJECT #002 ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	PAY UNIT	QTY	NOTES
15101	MOBILIZATION	LUMP SUM	ALL	TEMPORARY TRAFFIC CONTROL, FIRE PROTECTION, WEED PREVENTION, AND EQUIPMENT CLEANING ARE INDIRECT TO THIS PAY ITEM.
886(1)	ENTRY MANAGEMENT TREATMENT	*EACH	1	INCLUDES ROAD DECOMMISSIONING PER SECTION 886.03(k) - ENTRY MANAGEMENT TREATMENT.
886(2)	WATER BARS	*MILE	0.2	INCLUDES ROAD DECOMMISSIONING PER SECTION 886.03(j) - INSTALLATION OF WATER BARS, AS MARKED IN THE FIELD BY THE CONTRACTING OFFICER THROUGH THE CONTRACT ADMINISTRATION TEAM.

* - DENOTES A CONTRACT QUANTITY

16 ROAD DRAINAGE LISTING (PROJECT #001)

MILE POST	DESIGNED										AS BUILT						REMARKS		
	CULVERT			INSTALLATION DETAILS				EARTHWORK			CULVERT			INSTALLATION DETAILS					
	DIAMETER	LENGTH	THICKNESS	TYPE	SKEW	ANCHOR ASSEMBLY	COUPLING BANDS	BEDDING	RIPRAP	ASPHALT	DIAMETER	LENGTH	THICKNESS	TYPE	SKEW	ANCHOR ASSEMBLY		COUPLING BANDS	
18.41	24	50	.065	A	AS	-	2	5	3	2.4									ALL CULVERTS: 1. ALUMINIZED STEEL SHALL BE USED FOR ALL CULVERT INSTALLATIONS. METAL PIPE CORRUGATIONS SHALL BE 2 2/3" X 1/2" UNLESS OTHERWISE APPROVED. 2. RIPRAP IS FOR ENERGY DISSIPATORS ONLY, UNLESS OTHERWISE NOTED. EARTHWORK QUANTITIES ARE SHOWN ONLY FOR CLARITY. EXCAVATION, BEDDING, AND BACKFILL ARE INCIDENTAL TO PAY ITEMS 60211-A&B. 3. CULVERT SKEW SHALL BE SET AS-STAKED (AS) IN THE FIELD BY THE CONTRACTING OFFICER THROUGH THE ENGINEERING REPRESENTATIVE.
	(INCHES)	(FEET)	(INCHES)	SEE DETAILS SHEET 4	EXISTING or AS-STAKED	EACH	EACH	CUBIC YARDS	CUBIC YARDS	TONS	(INCHES)	(FEET)	(INCHES)	SEE DETAILS SHEET X	EXISTING or AS-STAKED	EACH	EACH		INSTALL NEW 24-INCH CORRUGATED METAL PIPE.

PROJECT #001 - 16 ROAD RESTORATION WORK SUMMARY

M.P. 13.78	JUNCTION OF NATIONAL FOREST SYSTEM ROAD (NFSR) 16 AND NFSR 1650 (REFERENCE ONLY).
M.P. 14.45	JUNCTION OF NFSR 16 AND NFSR 1660 (REFERENCE ONLY).
M.P. 18.41	DEWATER SITE; SAWCUT AND REMOVE EXISTING ASPHALT PER DETAIL 4, SHEET 4; INSTALL NEW 24" CORRUGATED METAL PIPE (SEE DRAINAGE LISTING); BACKFILL AND PATCH PAVEMENT FULL DEPTH WITH HOT MIX ASPHALT CONCRETE (HMAC); CONSTRUCT ENERGY DISSIPATOR PER DETAIL 2, SHEET 4; REWATER SITE. OBTAIN WRITTEN APPROVAL OF SUBGRADE PRIOR TO PLACING BASE AGGREGATE AND HMAC.
M.P. 18.43	DECOMMISSIONED ROAD PRISM LEFT (OLD 1670 ROAD)(REFERENCE ONLY).
M.P. 19.27	JUNCTION OF NFSR 16 AND NFSR 18 (REFERENCE ONLY).

PROJECT #002 - 180008 ROAD RESTORATION WORK SUMMARY

M.P. 0.00	JUNCTION OF NATIONAL FOREST SYSTEM ROAD (NFSR) 1800008 AND NFSR 18 AT M.P. 2.03 OF THE 18 ROAD (REFERENCE ONLY). BEGIN ROAD DECOMMISSIONING.
M.P. 0.00-0.10	DECOMMISSION ROAD PER SECTION 886.03(k) - ENTRY MANAGEMENT TREATMENT. REMOVE ALL DRAINAGE STRUCTURES AND DISPOSE OF PER SECTION 203.05(a) "REMOVE FROM PROJECT".
M.P. 0.10-0.30	DECOMMISSION ROAD PER SECTION 886.03(j) - INSTALLATION OF WATER BARS.
M.P. 0.30	END ROAD DECOMMISSIONING WORK AT THE FOREST BOUNDARY.

GENERAL NOTES

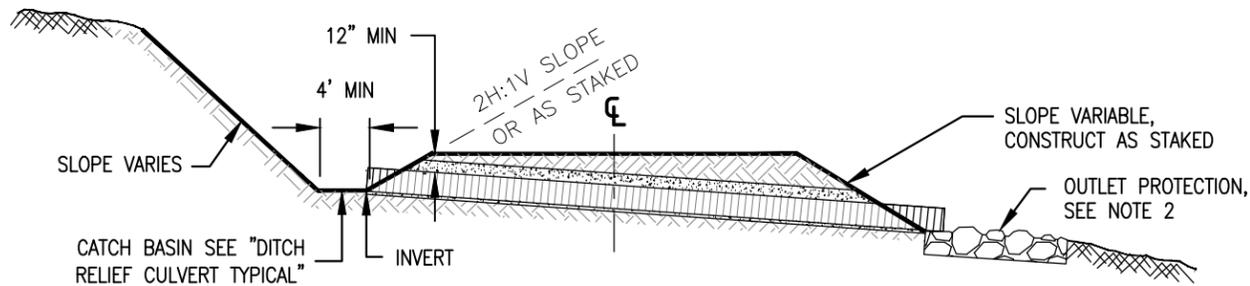
- THE CONTRACTOR SHALL PROVIDE THE GOVERNMENT WITH A TRAFFIC CONTROL PLAN AND A ROAD CLOSURE NOTICE A MINIMUM OF 10 CALENDAR DAYS PRIOR TO THE CLOSURE OF NATIONAL FOREST SYSTEM ROADS THAT HAVE BEEN APPROVED FOR TEMPORARY CLOSURE UNDER THIS CONTRACT.
- STORAGE OF ALL EQUIPMENT AND MATERIALS ON GOVERNMENT LANDS WILL BE AT APPROVED LOCATIONS ONLY AND BE STORED AT THE CONTRACTOR'S RISK.
- ANY DAMAGE TO THE EXISTING ROAD SYSTEM, INSIDE OR OUTSIDE OF THE WORK AREA, WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.
- EXTRACT WATER FOR CONSTRUCTION OPERATIONS ONLY FROM APPROVED WATER SOURCES AS SHOWN ON SHEET 2, PROJECT VICINITY MAP. AT ANY TIME WHEN THE WATER AT THESE LOCATIONS IS INSUFFICIENT FOR THE PROPOSED WORK, THE CONTRACTOR WILL DEVELOP A WATER SUPPLY AT ANOTHER NEARBY LOCATION AS DESIGNATED BY THE CONTRACTING OFFICER.
- STRUCTURAL FILL OR BACKFILL MAY CONSIST OF SUITABLE ROADWAY EXCAVATION COMPLYING WITH THE REQUIREMENTS OF SECTION 704.04.

DESIGNED BY: L. JIMENEZ
DRAWN BY: L. JIMENEZ
CHECKED BY: J. CASWELL
SCALE: NONE

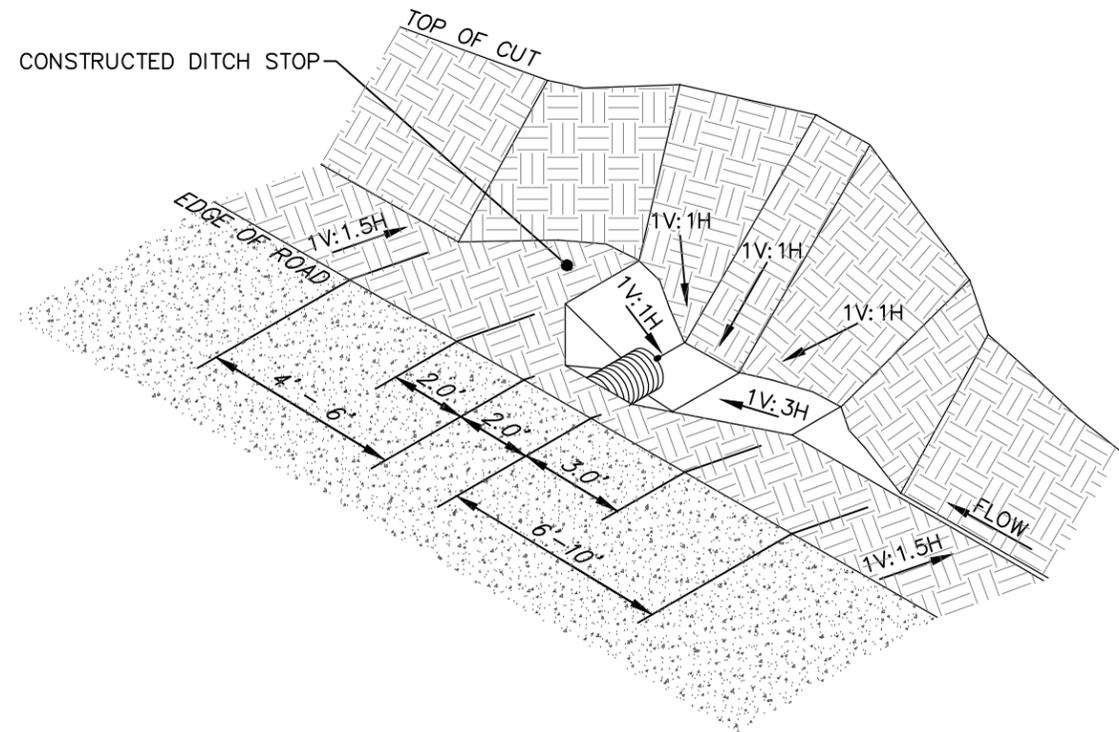


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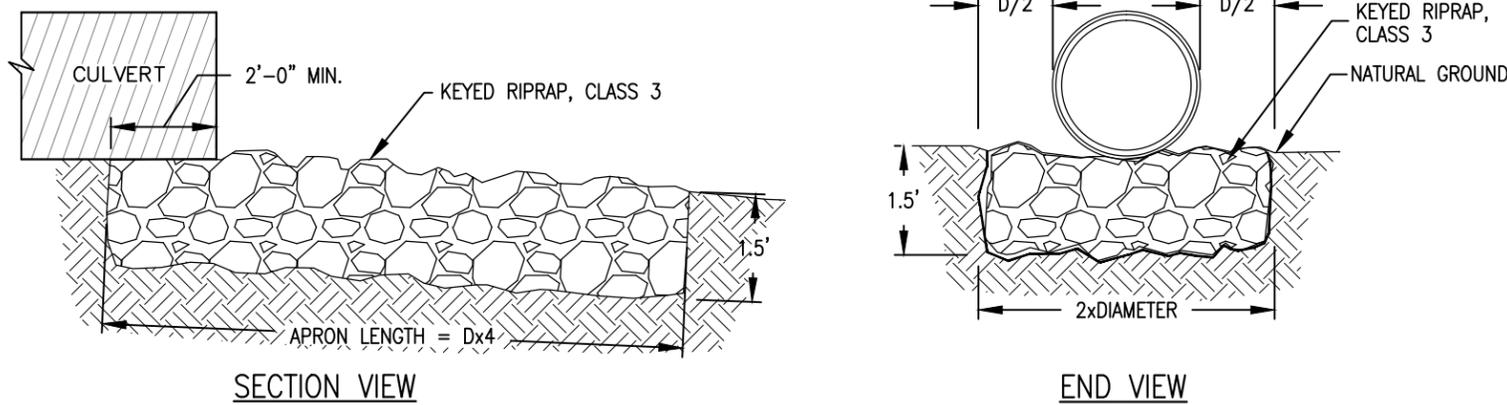
PROJECT: Bull-Bronco Stewardship Restoration Projects
SHEET TITLE: ESTIMATE OF QUANTITIES, RECONSTRUCTION SUMMARY, DRAINAGE LISTING, AND GENERAL NOTES



1 TYPICAL CULVERT INSTALLATION SECTION
NOT TO SCALE

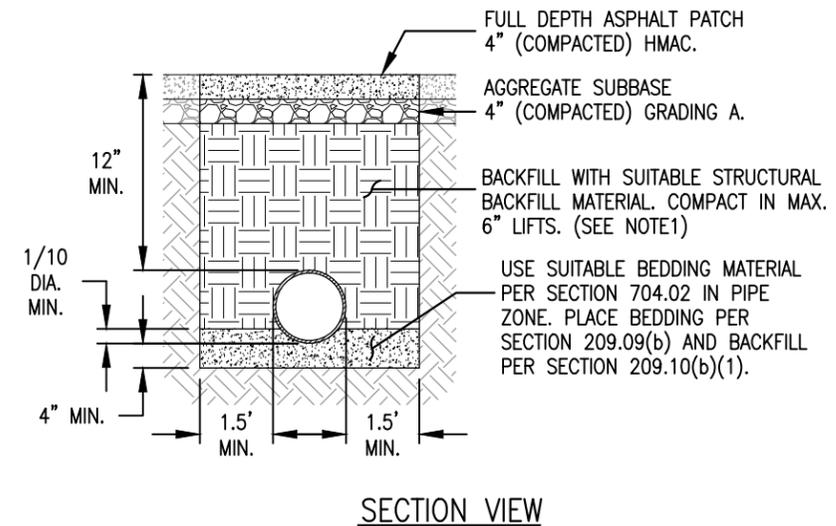


3 TYPICAL CATCH BASIN DETAIL
NOT TO SCALE



ENERGY DISSIPATION PAD				
CULVERT DIA.	RIPRAP CLASS	APRON DIMENSIONS	DEPTH OF APRON	RIPRAP QUANTITY
24"	3	8' x 4'	1.5'	3 cy

2 TYPICAL ENERGY DISSIPATION PAD DETAIL
NOT TO SCALE



4 TYPICAL CULVERT TRENCH DETAIL
NOT TO SCALE

CULVERT INSTALLATION NOTES:

- BACKFILL ALL CULVERTS IN ACCORDANCE WITH FP-03, SECTION 209 STRUCTURE EXCAVATION AND BACKFILL.
- PROVIDE FOR A 15' TRANSITION GRADE ALONG BOTTOM OF DITCH INTO INLET OF CULVERT.
- ALL EXCAVATION AND TRENCHING OPERATIONS SHALL CONFORM TO OSHA REQUIREMENTS.
- DO NOT OPERATE ANY HEAVY EQUIPMENT OVER ANY CULVERT UNTIL IT HAS BEEN PROPERLY BACKFILLED WITH A MINIMUM OF 1-FOOT COVER.
- CULVERTS SHALL BE INSTALLED WITH A MINIMUM OF 4% SLOPE WHEREVER POSSIBLE.
- THE MINIMUM LENGTH OF A SINGLE PIPE SECTION FOR ANY INSTALLATION SHALL NOT BE LESS THAN 10 L.F.
- FIELD CUTTING OF CULVERT IS NOT PERMITTED UNLESS APPROVED BY THE CONTRACTING OFFICER. WHERE SPALTER COATING HAS BEEN BRUISED OR BROKEN IN THE SHOP, DURING SHIPPING, OR BY FIELD CUTTING, REPAIRS SHALL BE IN ACCORDANCE WITH AASHTO M36.
- ALL NEW CULVERTS SHALL BE ALUMINIZED STEEL, TYPE 2, WITH STANDARD 2-2/3"x1/2" CORRUGATIONS.
- ALL ACTIVELY FLOWING DITCH LINES SHALL BE DEWATERED PRIOR TO DISTURBANCE OF THE DITCH OR ROADWAY. DEWATERING MAY CONSIST OF CONSTRUCTING DAMS UPSTREAM AND MACHINE PUMPING WATER AROUND THE PROJECT AREA. ALL DRAFT HOSES REQUIRE A DRAFT SCREEN WITH A MAXIMUM HOLE SIZE OF 3/32-INCH WHEN DRAFTING WATER FROM FISH BEARING STREAMS. WATER SHALL BE FILTERED BY USE OF NATURALLY VEGETATED LAND OR BY USE OF FILTER MATERIAL (I.E. WEED FREE STRAW BALES OR SILT FENCING), TO REDUCE SEDIMENTATION TRAVEL INTO STREAM CHANNEL. A SITE SPECIFIC EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE FOREST SERVICE FOR EACH DIVERSION/DEWATERING LOCATION PRIOR TO START OF EXCAVATION.

DESIGNED BY: L. JIMENEZ
DRAWN BY: L. JIMENEZ
CHECKED BY: J. CASWELL
SCALE: NONE



USDA FOREST SERVICE
The Pacific Northwest Region
MT. HOOD NATIONAL FOREST
16400 Champion Way
Sandy, OR 97055

PROJECT: Bull-Bronco Stewardship Restoration Projects

TYPICAL CULVERT INSTALLATION DETAILS

SHEET TITLE:

SHEET

Attachment G

PROJECT NUMBER 003 - Pre-Commercial Thin

End Results - Pre-commercial thin project units leaving the best and healthiest trees as well as the desired residual spacing as described in the following technical specifications. Slash remaining in project units will not exceed 26 tons per acre.

1. Description Of Work

This stewardship project requires services for tree thinning, tree release, slash treatment and related work.

2. Project Location

- A. Project Location
The location of the worksites are shown on the Contract Area Map.
- B. Boundaries
Boundaries are obviously defined by physical features, such as streams or roads, old cutting unit boundaries, etc., which are shown as boundaries on the Contract Area Map. Units may, or may not be flagged.
- C. Quantity:

Project Unit	Acres
61	32
62	35
Total	67

3. Technical Specifications

In identified cutting units, cut and dispose of trees over 12.0 inches in height, and less than 7.0 inches DBH to an average spacing of 22 x 22 feet leaving the most vigorous, undamaged and healthy trees. Use the following priority when selecting leave trees:

- (1) Western Larch
- (2) Ponderosa Pine
- (3) Western White Pine
- (4) Western Red Cedar
- (5) Western Hemlock
- (6) Douglas-fir
- (7) Grand Fir

All cut trees shall be cut below the lowest live limb, except when prevented by natural obstacles; in which case any live limbs below the cutting point shall be removed. Trees shall be completely severed from the stump. Stump height shall not exceed 6 inches above ground level or 4 inches above natural obstacles.

Cut all brush over 12.0 inches in height to a height not to exceed 8 inches. Herbaceous plants may be ignored.

Dispose of slash to a fuel loading of 26 tons per acre. For the purposes of this project slash is defined as vegetative debris including, but not limited to, cull logs, blasted or pushed-out stumps, chunks, broken tops, limbs, branches, rotten wood, damaged or cut brush, damaged, cut or destroyed reproduction, saplings and poles, created by the activity. The process used shall in no way damage or kill existing leave trees. The contractor is to include in their Technical Proposal the slash disposal method to be used and associated specifications on how the end results will be achieved. Burning by Contractor will not be approved.

Impact to soils from Contractor's Operations shall be less than 10 percent of the stewardship/cutting unit area. Impact is defined as soils being exposed by the removal of the duff layer or displaced from one place to another as the result of Contractor's Operations. The contractor is to include in their Technical Proposal how operations will be scheduled or conducted that results in impacts to soils to be less than 10% of the treated areas.

Not more than 5 percent of the residual stand may be damaged by Contractor's Operations. Scarring of boles that exceed 16 square inches of cambium exposure will be considered damage.

Attachment G

Any tree "root sprung" or with a broken top will also be considered damage. The contractor is to include in their Technical Proposal how operations will be scheduled or conducted that results in less than 5% of the residual trees in each stand being damaged.

4. Contractor's Obligations

The Contractor shall furnish materials, labor, supervision, transportation, and all supplies for this project.