



Request for Proposals THOUSAND SPRINGS SNO-PARK PARKING LOT EXPANSION Rogue River-Siskiyou National Forest, Oregon

Background and Statement of Work:

Through this Request for Proposals (RFP), the National Forest Foundation (NFF), in partnership with the U.S. Forest Service (USFS) Rogue River-Siskiyou National Forest, is seeking a qualified contractor to expand the parking area at Thousand Springs Sno-Park by 16,500 square feet (approximately 0.38 acres). Thousand Springs is a popular winter recreation site that frequently reaches and exceeds parking capacity. This project will increase safety and winter recreation access by adding space to accommodate an additional 10-13 vehicles in the winter (assuming pickup/trailer and RV/trailer users).

The expanded parking area will be excavated below grade and backfilled with 12 inches of four inch minus aggregate subbase and topped with six inches of compacted three-quarter inch minus aggregate base material. The final surface will include paving the expanded parking areas with three inches of hot mix asphaltic concrete (HMAC). The expansion area will have been cleared of trees and stumps in advance of parking lot construction. Highway approaches will not be moved with the parking lot expansion.

I. PROJECT OVERVIEW AND REQUIREMENTS

General Specifications

- (a) <u>Description of Work</u> This Request for Proposals is for construction services related to expanding and paving the Thousand Springs Sno-Park. The work items are listed below. The quantities are approximations; the Contractor shall evaluate the site to determine the exact quantities needed to complete the work as described in this RFP for expanding the parking area by 16,500 square feet.
 - 1. Mobilization to the site, including equipment cleaning and fire protection measures. See Other Project Requirements and Specifications (f) for Equipment Cleaning and Appendix D for fire protection measures.
 - 2. Planning and implementing temporary protection and direction of traffic. See Other Project Requirements and Specifications (I) and (m).
 - 3. Planning and implementing erosion and sediment control measures. See Other Project Requirements and Specifications (e) and (k).

- 4. Purchase and deployment of weed-free native grass seed and weed-free straw in disturbed areas. See Other Project Requirements and Specifications (e) and (k).
- 5. General excavation of expansion area (approximately 3,648 cubic yards). See Other Project Requirements and Specifications (d) and Appendix A.
- 6. Below grade excavation (subgrade) of expansion area (approximately 383 cubic yards). See Other Project Requirements and Specifications (d) and Appendix A.
- 7. Disposal and compaction of excavated material in designated locations (approximately 4,031 cubic yards). See Other Project Requirements and Specifications (d) for more information and Appendix C for a map.
- 8. Watering (approximately 100 M-Gal).
- 9. Purchase and installation of non-woven subgrade geotextile (approximately 1,914 square yards). See Appendix A.
- 10. Purchase and installation of subgrade geogrid (approximately 383 square yards). See Appendix A.
- 11. Purchase and installation of 6" of 3/4" minus aggregate base (approximately 577 tons). See Appendix A.
- 12. Purchase and installation of 12" of 4" minus aggregate subbase (approximately 1,810 tons). See Appendix A.
- 13. Purchase and installation of 3"-0 Level 2 High-Modulus Asphalt Concrete (HMAC) (approximately 325 tons). See Appendix A.

The Contractor shall identify what they can supply in terms of materials, labor, equipment, supplies, supervision, quality control, and incidentals required to complete the work described. The Contractor shall perform all work in a safe and conscientious manner.

- (b) <u>Project Location</u> The project is located at Thousand Springs Sno-Park which is in Jackson County, Oregon on the Rogue River-Siskiyou National Forest (Appendix C). To arrive at the site from Medford, Oregon, travel 62 miles to the northeast on Highway 62. Thousand Springs is located at mile post 63, approximately 10 miles west of Crater Lake. Site elevation is 4,400 feet. Coordinates for the site are: <u>42.913058</u>, <u>-122.324620</u>.
- (c) Work Schedule On-site project work may begin after June 30, 2024, and should be completed by October 31, 2024 to avoid inclement weather. Work on holidays and weekends must be approved by the NFF in advance. During fire season, fire restrictions may result in limited hours of equipment operations at the work site. (See Appendix D for Fire Protection and Suppression Guidelines.)

Other Project Requirements and Specifications

- (a) Utilities
 - 1. Sanitation: Contractor is allowed to use existing restroom facilities near the project site. The USFS may discontinue use of this privilege at its discretion if the Contractor leaves the toilets in an untidy condition. The Contractor shall install a portable toilet if the right to use the site facilities is denied by the USFS.
 - 2. Camping: At the discretion of the USFS District Ranger, camping may be allowed at the construction site or other industrial camp site. Service or fuel type vehicles are to be parked in approved staging areas. The USFS may discontinue this privilege at its discretion if the Contractor or employees leave the campsites in an untidy condition. Camping is by permit only and is to be arranged by the Contractor through the NFF.
 - 3. Cell service: There is no cell phone service at the project site.
- (b) <u>Specifications</u> Project work shall be accomplished in accordance with the following:
 - 1. Project work shall be accomplished in accordance with the details outlined in Appendix A: Thousand Springs Construction Plan.
 - 2. The <u>Federal Highway Administration Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-14 Customary Units 2014</u> are included by reference. The requirements contained in these specifications are hereby made a part of this solicitation and any resultant contract. The contractor must perform construction in conformance with these specifications except as modified by supplemental specifications and clauses in the contract document or the plans. A specification list and the Forest Service Supplemental Specifications (FSSS) are included in Appendix B. All specifications not included in the specification listing, but referenced by listed specifications, are applicable.
- (c) <u>Drainage</u> Drainage for the expanded lot has been designed to match the existing facility and include a drainage slope of 2% from the east to the west and 1.5% drainage slope from north to south so all storm water is drained away from the highway. The Contractor shall extend the open ditch currently located on the south side of the lot to the east to match the existing facility. Storm water draining from the area is carried via a shallow drainage ditch into the forest where it dissipates into the porous volcanic soils.
- (d) Excavation and Disposal The expansion area is forested with small diameter lodge pole pine and ground cover. The trees (including stumps) will be cleared from the site by Oregon Department of Transportation staff and the Rogue Snowmobilers club in advance of the Contractor beginning work. The Contractor shall excavate existing surfaces to a depth of 21 inches below the finish grade. This will require the excavation of approximately 3,648 cubic yards of material.

The Contractor shall dispose of excavated material on an existing trail/spur road (Trail #3/FS Road 6000898) via tail gate spreading in layers of four to six inches (see Appendix C for map). This road is approximately 0.9 miles long. The Contractor shall begin spreading at the material at the northwest end of the road near the junction with Highway 62 and working toward the southeast. The NFF/USFS will provide on-site feedback regarding depth of material. The Contractor shall have dump trucks wheel compact the material by splitting their wheel tracks resulting in a smooth graded final

surface shaped to drain. The Contractor shall water and compact the finished surface with a roller.

- (e) Weed-free Seed and Straw In disturbed areas other than FS Road 6000898, the Contractor shall spread weed-free native grass seed and weed-free straw uniformly on finished slopes. This should occur after any hydrologic stabilization such as waterbarring. Seed and straw must be Oregon-certified noxious weed free straw from oats, wheat, rye, or other grain crops that are free from mold or other objectionable material. A Forest Service botanist will determine the proper seed species and mixture rates. Other materials, where State inspection protocol does not exist (gravel, wood chips), used as mulch in the project area should be inspected by a USFS representative to determine the potential for spread of noxious weeds.
- (f) Equipment Cleaning In order to prevent the spread of noxious weeds and Phytophthora Lateralis, the root rot disease that kills Port Orford-Cedar, the Contractor shall clean all vehicles and equipment prior to entering the National Forest. This cleaning shall remove all soil, plant parts, seeds, or other debris that could contain or hold seeds. Additionally, pressure washing shall remove all mud and dried soil from outer surfaces and undersides of equipment. Only vehicles inspected before entering National Forest land will be allowed to operate within the project area. All subsequent move-ins of equipment to the project area shall be treated in the same manner as the initial move-in.

Equipment shall be considered clean when a visual inspection does not disclose soil or plant parts. Equipment or components disassembly, or the need for specialized tools, are not required. Documentation on inspection reports shall be kept in the project files by the Contractor.

Unless otherwise agreed, Contractor shall give the NFF at least 24 hours notice when equipment is ready for inspection. Notification will include a mutually agreed upon location and time when the equipment will be available for inspection by the NFF. Inspection will be required after every cleaning.

(g) Noxious Weeds – New infestations of noxious weeds of concern to USFS and identified by either Contractor, the NFF, or the USFS, on the Project Area or on the haul route, shall be promptly reported to the other party. Contractor and the NFF shall agree on treatment methods to reduce or stop the spread of noxious weeds when new infestations are found. A current list of noxious weeds of concern to USFS is available at each USFS office.

Forest Service botanist will flag for avoidance infestations of moderate and high priority non-native invasive species. Flagging labeled with "INVASIVE SPECIES" will be used to delineate infestation boundaries. Equipment, vehicles, and personnel shall avoid working within flagged noxious weed sites. If work must occur in an area infested with invasive species, all equipment and vehicles will be washed prior to progressing to or working in an uninfested area. Personnel will clean their clothing and shoes free of all plant matter prior to moving to an uninfested area.

(h) <u>Fire Precautions</u> – If operating during fire season, the Contractor shall adhere to the Fire Protection and Suppression Guidelines (Appendix D).

- (i) <u>Hazardous Conditions Safety Plan</u> The following conditions have been identified as inherently hazardous to the degree that failure to take the proper precautions could lead to serious injury or loss of life. This listing shall not be construed as all inclusive. The Contractor shall provide a written job-specific hazard analysis and safety plan. Appropriate actions shall be taken by the Contractor to implement this plan during performance and to take any and all other necessary steps to mitigate the dangers from hazards.
 - 1. Tree felling
 - 2. Temporary excavation / deep trenching / slope stability
 - 3. Traffic control on high-volume and/or high-speed and/or limited visibility roads
 - 4. Heavy equipment operation
 - 5. Hydraulic and/or pneumatic and/or other high pressure hazards
- (j) <u>Hazardous Materials/Spill Prevention</u> –If the Contractor maintains storage facilities for oil products on site, appropriate preventative measures shall be taken to ensure that any spill of such oil or oil products does not enter any streams or other waters of the United States or of any individual states. Servicing of all equipment shall be done only in the area approved by the NFF. If the total oil or oil products storage exceeds 1,320 gallons or if any single container exceeds a capacity of 660 gallons, the Contractor shall prepare a Spill Prevention Control and Countermeasures (SPCC) Plan. Such a plan shall meet applicable EPA requirements including certification by a registered Engineer.

 Mechanized equipment shall not be operated in live streams without written approval by the NFF.

Before construction begins, identify a point of contact for that project that will be responsible for carrying out the following pollution and erosion control measures:

- 1. List and describe any hazardous material that is proposed to be used at the project site.
- 2. Identify procedures to contain and control a spill of any hazardous material generated, used or stored on-site, including notification of proper authorities. Ensure that materials for emergency erosion and hazardous materials control are onsite (e.g., silt fence, straw bales, oil-absorbing floating boom whenever surface water is present).
- 3. Designate staging areas to store (i) hazardous materials or fuel; (ii) service heavy equipment, vehicles, and other power equipment with tanks larger than 5 gallons.
- (k) Erosion Control Operations shall be scheduled and conducted to minimize erosion of soils and to prevent silting and muddying of streams. Pollutants such as fuels, lubricants, raw sewage, and other harmful materials shall not be discharged onto the ground, into or near rivers, streams, and impoundments or into natural or manmade channels leading thereto. Contractor shall submit an Erosion Control Plan identifying the nature of materials to be used and procedures for installing temporary erosion control devices. Install and maintain erosion control devices prior to and throughout construction and until permanent erosion control measures identified in Specifications and on Drawings are completed. Other requirements include:
 - 1. The Contractor shall adhere to designated areas for equipment staging, stockpiling materials, and parking to minimize the area of ground disturbance.

- 2. The Contractor shall remove temporary erosion controls after construction is complete and the site is fully stabilized.
- 3. The Contractor shall implement erosion control measures to prevent off-site movement of disturbed or exposed soil associated with the construction of ground disturbing activities such as excavation and haul for site expansion, grading, backfilling of aggregate and pavement operations, construction, use, and obliteration of temporary road, and all locations where overburden is placed. Erosion control measures include silt fences, wattles, straw bales, matting, mulch, slash, grass seed, or other products. Erosion control features will be maintained in working order during and post project activities.
- 4. Bare soils would be covered by slash or other vegetative material or seeded and mulched. The coverage of effective ground cover (EGC) would be sufficient to prevent off-site movement of soils as guided by Forest Plan standard and guideline for Soils (5) (USDA 1990), to meet 60% EGC. For restoration, revegetation, or erosion control on disturbed ground, use only locally adapted native plant materials. Consult USFS District Botanist for further information.
- 5. During implementation, utilize only existing roads and planned expansion areas/temporary road to minimize additional ground impacts (detrimental soil conditions). The USFS shall stake construction areas to avoid excessive disturbance.
- 6. The Contractor shall promptly rehabilitate or stabilize disturbed areas following implementation and expected wet weather at construction areas.
- 7. If temporary road construction and obliteration is needed: set aside cleared vegetation along route for placement back onto obliterated road surface. Utilizing an excavator with a thumb or other similar equipment, pull back any bermed materials/soil back into roadbed, subsoil compacted roadbed to a minimum of 20 inches utilizing a winged subsoiler or similar, to lift and fracture compacted layers using a hen scratch pattern; avoid continuous linear furrows. Scatter woody debris from road clearing back onto surface to meet 60% effective ground cover.
- (I) Temporary Protection and Direction of Traffic During construction while haul is occurring Forest Road 60 shall have "construction zone" and "Trucks on Roadway" signage placed from the Highway 62 entrance to the intersection with FSR 6000898. FSR 6000898/Trail #3 will be closed to all vehicle traffic and marked with signage as closed during haul activities and overburden deposit.
- (m) <u>Use of Roads by Contractor</u> The Contractor is authorized to use all roads under the jurisdiction of the USFS that are open and necessary for direct route access to the contract work site for all activities necessary to complete this contract. This authorization is subject to the limitations described below, when such use will not damage the roads or national forest resources, and when traffic can be accommodated safely.

Keep existing roads open to all traffic during contract work, and maintain them in a condition that will adequately accommodate traffic. Perform no work that interferes or conflicts with traffic or existing access to the roadway surface until a Written Traffic Control Plan for the satisfactory handling of traffic has been approved. Post traffic control signs and devices in conformance with the "Manual on Uniform Traffic Control Devices" (MUTCD). Do not proceed with work on the project until all required signs are in place and approved.

Before shutting down any operations, leave all travel ways in a condition suitable for traffic.

Maintain traffic control devices during closure period(s). Appropriate cones, drums, barricades and signs will be erected and maintained as shown in the approved traffic control plan or as otherwise designated.

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

If the Contractor requests use of additional National Forest roads or road segments the USFS may authorize such use if not in conflict with the current Road Rules document. Authorization to use such additional roads may include maintenance requirements and use limitations.

The roads authorized for use will be subject to the current National Forest Road Use Rules Document which is applicable to all commercial road users. This document is available for inspection at the office of the Forest Supervisor and shall be applicable except when modified by provisions of this contract. Copies are available upon request.

The load weight, height, length, and width limitations of vehicles on National Forest roads shall be in accordance with Chapter 818 of the Oregon Vehicle Code.

All commercial users are required to apply for and obtain both a State of Oregon and Rogue River-Siskiyou National Forest overload permit to exceed legal limits established by the State of Oregon on all USFS Roads. In addition, any vehicle gross weight more than 80,000 pounds or with axle weights and/or axle spacing not in conformance with Oregon Weight Table 1 require a USFS Bridge Permit to cross any USFS bridge. Processing applications for bridge overload permits may take up to thirty (30) days depending upon the haul route and the complexity of bridges or other structures involved. The Contractor is responsible for determining if overload permits are required.

A weight certification or State overload permit is to be with the hauling vehicle or in the possession of the designated representative on the project. A load includes the equipment or materials being moved and the vehicle on which it is being moved. The weight certificate shall show the name of the owner of the equipment, the weight of the load (within 5% accuracy), distinctive identification by which the load can be recognized and the signature of the person certifying that the weight is accurate.

(n) Protection of Habitat of Endangered, Threatened, and Sensitive Species – Measures needed to protect areas needing special measures for protection of plants or animals listed as threatened or endangered under the Endangered Species Act of 1973, as amended, or as sensitive by the Regional Forester under authority of FSM 2670 have been included elsewhere in this contract.

If protection measures prove inadequate, if other such areas are discovered, or if new species are listed as federally threatened or endangered, or as sensitive by the Regional Forester, the NFF may cancel or modify this contract to provide additional protection regardless of when such facts become known. Discovery of such areas by either party shall be promptly reported to the other party.

- (o) Moisture Sensitive Soils Contractors are cautioned that the roadway/parking lot structure is designed so that the completed road will support highway legal loads during a limited use season. Construction equipment often subjects the uncompleted roadway/parking lot structure to loadings it is not designed to support. This is especially critical during periods of excessive moisture and will require careful selection and scheduling to permit efficient operation. Any damage resulting from operations which renders the material unsuitable for use or results in potential siltation of streams will be corrected by the Contractor at its expense.
- (p) Protection of Cultural Resources Location of known historic or prehistoric sites, buildings, objects and properties related to American history, architecture, archaeology and culture, such as settler or Indian artifacts, protected by American Antiquities Act of 1906 (16 U.S.C. 431-433), National Historic Preservation Act of 1966 (16 U.S.C. 470) and the Archaeological Resources Protection Act of 1969 (PL 96-95 and 36 CFR 261.9(e)) shall be identified on the ground by the USFS. Wheeled or track-laying equipment shall not be operated within such areas, except on roads. If cultural resources are encountered during the project, earth disturbing activities in the vicinity must be suspended in accordance with federal regulations and the NFF/USFS must be notified.
 - In the event cultural materials or human remains are discovered, all activities in the immediate area shall stop, the area will be secured, and the USFS Archaeologist and District Ranger will be notified immediately. Work will not resume in that area until the USFS Archaeologist has evaluated the material and has notified the District Ranger that the applicable requirements of 36 CFR 800 and NAGPRA have been completed.
 - 2. Should ground conditions warrant a change in the way proposed activities are implemented, additional consultation with the USFS Heritage Specialist will be required before proceeding to determine the potential effects to cultural resources.
 - 3. Should unanticipated discoveries of any cultural resources be made during implementation, all activities in the immediate area shall stop and the USFS Heritage Specialist shall be notified immediately to determine a course of action consistent with protocols set forth in applicable cultural resource laws.
 - 4. A qualified archaeologist or archaeological technician may be on site as needed during project implementation to monitor ground disturbing activities.
- (q) <u>Fish Protection</u> Draft hoses being used to withdraw water from any stream or pond located on Forest shall utilize one of the following methods of screening:
 - 1. Perforated Plate: screen openings shall not exceed 3/32 or 0.0938 inches (2.38 mm).
 - 2. Profile Bar Screen: screen openings shall not exceed 0.0689.inches (1.75 mm) the narrowest dimension.
 - 3. Woven Wire Screen: the screen openings shall not exceed 3/32 or 0.0938 inches (2.38 mm) in the narrow direction.

(r) Landscape Preservation -

1. The Contractor shall confine operations to within the areas designated in contract documents and prevent the depositing of excavated materials or other debris

- outside of these limits. Damage to vegetation or structures outside the designated areas shall be repaired as directed by the NFF.
- 2. Trash and Refuse: Contractor shall remove all their own trash and refuse from the contract area. This material must be removed to a State, County or Municipality-designated solid waste disposal area.
- 3. "Before You Dig": Contractor is responsible for locating existing utilities prior to digging.
- (s) <u>Dust Abatement</u> Use dust abatement measures commensurate with soil type, equipment use, wind conditions, and the effects of other erosion control measures.
 - 1. Do not use petroleum-based products.
 - 2. Do not apply dust-abatement chemicals, e.g., magnesium chloride, calcium chloride salts, ligninsulfonate, within 25 feet of a water body, or in other areas where they may runoff into a wetland or water body.
 - 3. Do not apply dust-abatement chemicals within 24 hours of predicted rain.
 - 4. Do not apply ligninsulfonate at rates exceeding 0.5 gallons per square yard of road surface, assuming a 50:50 solution of ligninsulfonate to water. Sequence and schedule work to reduce the exposure of bare soil to wind erosion.
 - 5. Maintain spill containment supplies on-site whenever dust abatement chemicals are applied.
- (t) Water Drafting (for Dust Abatement) Drafting water from streams or standing waterbodies Locate water source developments, including access roads, in such a manner as to avoid or minimize disturbance to the riparian area and streambanks and erosion and sedimentation to the extent practicable.
 - 1. Prior to use, water sources will be reviewed by the USFS Fisheries Biologist and approved by the Forest Service District Ranger.
 - 2. Draft from existing roads and bridges to the extent practicable to avoid creating new access roads.
 - 3. Use existing hardened facilities, such as boat launches and campground access roads, for emergency or other short-term uses rather than native surface areas prone to erosion.
 - 4. Locate facilities to minimize potential damage from streamflows.
 - 5. The diversion will not exceed 10% of the available flow, and will include a fish screen to prevent juvenile fish from swimming or being drawn into the intake that is consistent with NMFS's fish passage criteria.
 - 6. For a surface water withdrawal that does not exceed 3 cfs, the fish screen will meet the following specifications: i. An automated cleaning device with a minimum effective surface area of 2.5 square feet per cubic foot per second, and a nominal maximum approach velocity of 0.4 feet per second; or, ii. No automated cleaning device, but a minimum effective surface area of 1 square foot per cubic foot per second, a nominal maximum approach rate of 0.2 foot per second; and either a round or square screen mesh that is no larger than 2.38 millimeters (mm) (0.094 inches) in the narrow dimension, or any other shape that is no larger than 1.75 mm (0.069 inches) in the narrow dimension.
 - 7. Any surface withdrawal that exceeds 3 cfs will be reviewed by National Marine Fisheries Service (NMFS) project to ensure consistency with NMFS fish passage criteria (NMFS 2011a, or most recent version).

- (u) <u>Inspection and Testing</u> The NFF/USFS will perform sampling, testing and inspection of work in progress where these responsibilities are not expressly assigned to the Contractor by the contract or associated specifications.
- (v) <u>Conformity with Drawings and Specifications</u> Unless working tolerances are specified, all work performed and materials furnished shall be in reasonably close conformity with lines, grades, cross sections, dimensions, and material requirements shown on the Drawings (Appendix A), indicated in the specifications (Appendix B), or designated on the ground. "Reasonably close conformity" is in compliance with reasonable and customary manufacturing and construction tolerances.
- (b) <u>Submittals</u> Selected contractor shall provide the following product samples, submittals, material certifications, and testing reports to USFS and NFF for approval prior to starting work:

ltem	Time of Approval After Submittal
Fire Plan and certification that fire tools and equipment are in full compliance with the contract requirements	30 days
Hazardous Conditions Safety Plan	30 days
Spill Prevention Control and Countermeasures (SPCC) Plan	30 days
Erosion Control Plan	30 days
Traffic Control Plan	30 days
Bridge Overload Permits (if needed)	30 days
Asphalt concrete mix strength, quality, and gradation specifications, and the maximum specific gravity (density) of the mix	14 days
Non-woven Subgrade Geotextile and Subgrade Geogrid	14 days
Density of Asphalt concrete	24 hours

Insurance Requirements

Upon selection of the winning bid, the Contractor agrees that it has and shall maintain the following insurance coverage indicated below. The effective date of all coverage shall precede the start of any work.

- a. State minimum workers' compensation insurance coverage for its employees, if any.
- b. Broad form general liability, property damage, and automotive liability insurance in the minimum amount of \$1,000,000 for bodily injury, death, or damage to property of any person and \$2,000,000 for bodily injury, death, or damage to property of more

- than one person. The Contractor shall name NFF an Additional Named Insured and provide NFF with a certificate of insurance evidencing such coverages, prior to the initiation of the Scope of Services.
- c. Contractor shall provide professional errors and omissions liability insurance if its Scope of Services includes professional services. Professional services for purposes of this section include, but are not limited to performing: architecture, engineering, landscape architecture, land surveying or planning, geological investigation, interior design/space planning, preparation and signing or stamping of drawings, maps, surveys or construction specifications, consulting, or design and development of computer software, programs or websites by the Contractor or by subcontractors on behalf of the Contractor. The minimum coverage limits required are \$1,000,000 for each claim and \$1,000,000 annual aggregate.

Prohibited Telecommunications Services and Equipment

The Contractor is responsible for compliance with the prohibition on certain telecommunications and video surveillance services or equipment identified in 2 CFR 200.216.

Payment/Performance Security

Contractor shall post cash, a letter of credit, bond, or other financial security that is easily convertible into cash in a form acceptable to the NFF, in its sole determination, to assure completion of the work required under any subsequent agreement and payment of all amounts lawfully due to all persons supplying or furnishing to the Contractor or Contractor's subcontractors with labor, laborers, materials, rental machinery, tools or equipment used or to perform the work. Contractor may incorporate required associated costs into mobilization costs or other approved expenses.

- a. Work that is classified as construction in accordance with the Miller Act or Little Miller Act or if required per conditions of the funding source, payment and performance bonding will be required in the full amount of any Agreement. For the purposes of this Request for Proposal, construction is defined as "any contract greater than \$100,000 for the construction, alteration, or repair of any public building or public work where the federal government is the owner", or
- b. If Contractor is not self-performing at least 85% of the total contract value or if the cost of materials is in excess of the larger of \$100,000 or 50% of the contract total, payment and performance bonding will be required in the full amount of the agreement, or
- c. If the value of the agreement is in excess of \$250,000, Contractor will be required to post financial security in a form acceptable to the NFF in the amount of 5% of the total agreement value up to \$250,000 in total financial security.

Federal Exclusion Verification

The selected Contractor will be required to affirm that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

REQUIRED COMPONENTS

If interested in submitting a bid for this project, please provide a proposal for the above statement of work by providing an explanation of your capacity and approach for this project, including:

- Brief explanation of your capability to accomplish this work, including:
 - o Experience in the last three years with similar projects.
 - Experience with land management agencies.
- Detailed technical approach to the project, including:
 - o List of equipment you will provide to complete the work (owned or rented).
 - A brief explanation of your traffic control and sediment/erosion control practices associated with this work.
 - Your expected project schedule including sequence of work items, approximate time to complete each item, and start/end dates.
 - o Description of the work you plan to subcontract out.
- Completed pricing schedule.
- Names and contact information for three professional references that can speak to past performance. Include the project name/type and dates of performance.

Pricing Schedule

Contractor shall price work according to the schedule below. Prevailing wages are required per conditions of funding sources. The quantities listed in the pricing schedule are approximations; the Contractor shall evaluate the site to determine the exact quantities needed to complete the work as described in this RFP for expanding the parking area by 16,500 square feet.

	Task/Item	Units	Quantity	Unit Cost	Extended Cost
(a)	Mobilization	Lump Sum	1		
(b)	Temporary Protection and Direction of Traffic	Lump Sum	1		
(c)	Erosion & Sediment Control	Lump Sum	1		
(d)	Permanent and Temporary Seeding for Disturbed Areas	Lump Sum	1		
(e)	General Excavation	Cu. Yds.	3648		
(f)	Below Grade Excavation - Subgrade	Cu. Yds.	383		
(g)	Disposal of excavated material	Cu. Yds.	4031		
(h)	Watering	M-Gal	100		
(i)	Non-woven Subgrade Geotextile	Sq. Yds.	1914		

(j)	Subgrade Geogrid	Sq. Yds.	383		
(k)	Aggregate Base (3/4"-0)	Tons	577		
(I)	Aggregate Subbase (4"-0)	Tons	1810		
(m)	3" - 0 Level 2 High-Modulus Asphalt Concrete (HMAC)	Tons	325		
				Total Bid	

I. SUBMISSION, EVALUATION, AND CONTACTS

Contractor Selection Process

This is a request for proposals only and bids furnished are not offers from the National Forest Foundation. This request does not commit the National Forest Foundation to pay any costs incurred in the preparation or submission of the proposal or to contract for supplies or services.

The NFF will use the Evaluation Factors below to review each submitted bid. Based on the outcomes of that selection process, the NFF will notify successful and unsuccessful bidders by **February 16, 2024** and will prepare a separate contract document.

Evaluation Factors and Relative Importance

The following criteria will be used in the evaluation of submitted proposals, ordered from highest weighting (level 3) to lowest weighting (level 1).

Level 3 Criteria

- Price / cost
- Equipment and contractor capability
- Timing of when contractor can begin and/or finish the project
- Past performance, references, and USFS feedback

Level 2 Criteria

- Technical proposal / proposed approach to project
- Overall strategic benefits to meeting NFF goals and grant needs, requirements, and timelines

Level 1 Criteria

- Benefits to the local community
- Relationship to local community

Point of Contact

Please submit any questions about the project in writing to the Point of Contact.

Jeff Malik

National Forest Foundation, Oregon Recreation Projects Coordinator jmalik@nationalforests.org

Responses will be shared with known interested parties by email or otherwise posted at https://www.nationalforests.org/rfp.

Virtual Pre-bid Meeting

There will be no organized pre-bid site visit due to winter conditions. A virtual pre-bid meeting will be held via Microsoft Teams on **Friday**, **January 5**, **2024**, **at 1PM Pacific Time**. Interested contractors can use this link to attend the virtual meeting:

https://teams.microsoft.com/l/meetup-

join/19%3ameeting_N2Q5YWMxYWQtNGZiZi00Y2JhLWFhNWltMzg0YTNjOTExOThj%40thread.v2/0?context=%7b%22Tid%22%3a%2248f542e0-bb03-43c2-97d0-

e71b1ec5b127%22%2c%22Oid%22%3a%22244d4bf9-20f5-45e2-b202-7fe68930539b%22%7d

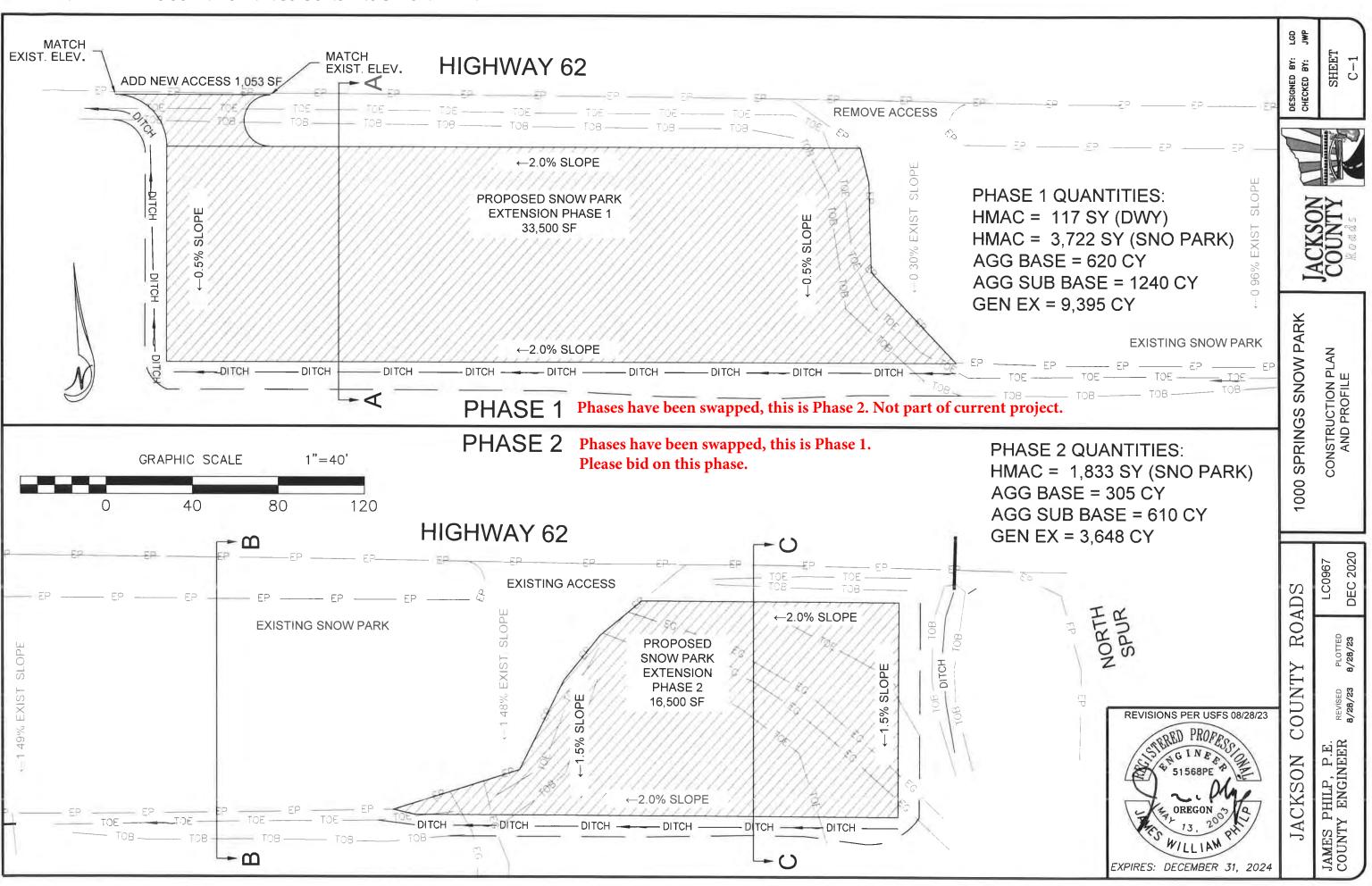
Bid Submission

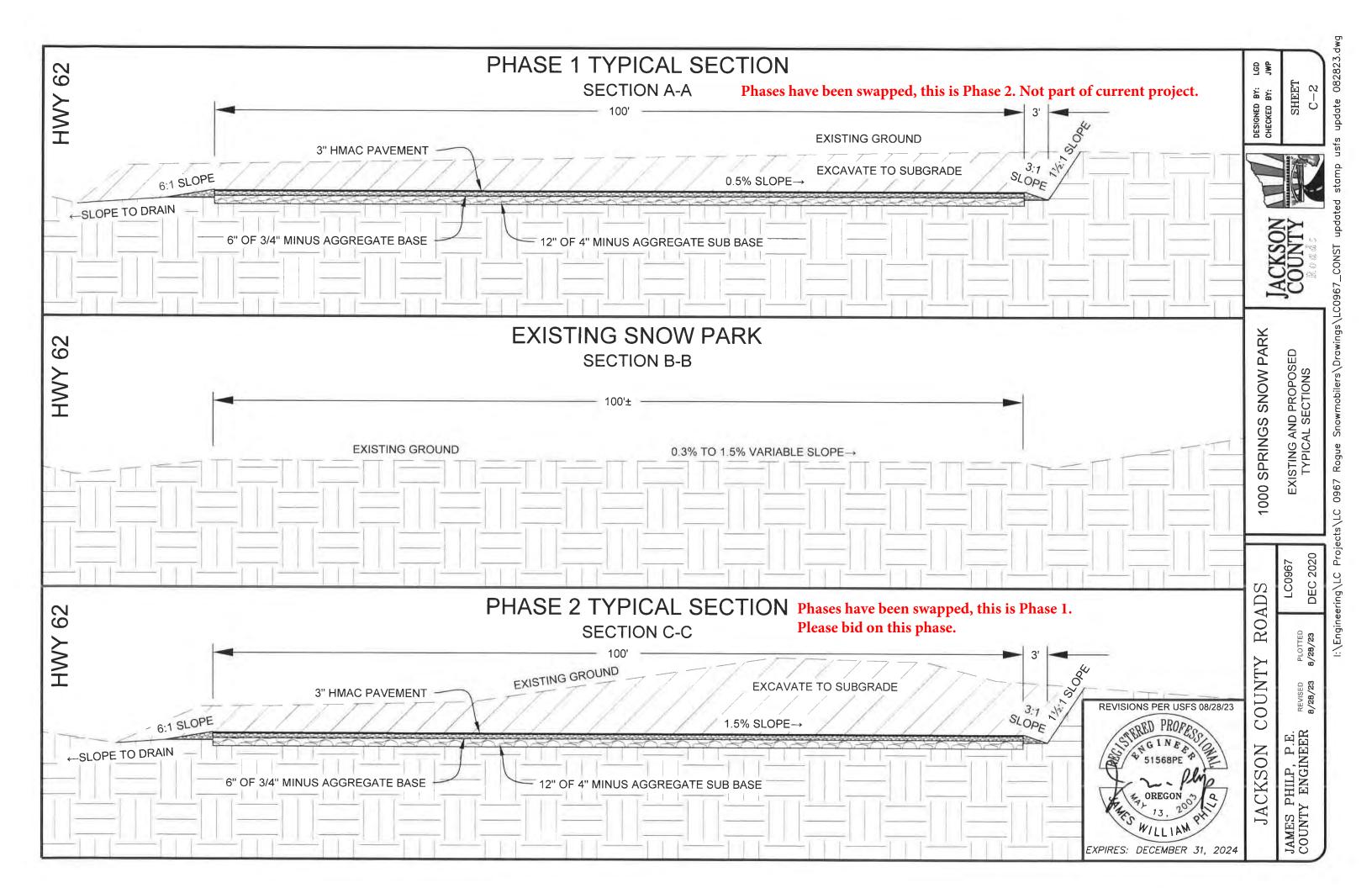
Submit bids via email to jmalik@nationalforests.org by January 19, 2024.

Equal Opportunity Provider

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APPENDIX A - THOUSAND SPRINGS CONSTRUCTION PLAN





Appendix B Forest Service Supplemental Specifications (FSSS)

Preface

Preface_wo_03_22_2022

Delete all but the first paragraph and add the following:

The Forest Service, US Department of Agriculture has adopted FP-14 for construction of National Forest System Roads.

101 - Terms, Format, and Definitions

101.01_National_11_9_2016

Add the following paragraph to Subsection 101.01:

101.01 Meaning of Terms.

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

101.03_National_11_9_2016

Add the following to Subsection 101.03:

101.03 Abbreviations.

(a) Acronyms.

AGAR — Agriculture Acquisition Regulations

AFPA — American Forest and Paper Association

FSAR — Forest Service Acquisition Regulations

MSHA — Mine Safety and Health Administration

NESC — National Electrical Safety Code

WCLIB — West Coast Lumber Inspection Bureau

(f) Miscellaneous unit abbreviations.

MP	_	milepost	location
ppm	_	parts per million	volume
STA		station	location

101.04_National_1_22_2020

Make the following changes to Subsection 101.04:

101.04 Definitions.

Delete these definitions and replace the following:

Bid Schedule — The Schedule of Items.

Bridge — A structure, including supports, erected over a depression or an obstruction such as water along a road, a trail, or a railway and having a deck for carrying traffic or other loads.

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 — Any structure with a bottom, regardless of fill depth, depth of invert burial, or presence of horizontal driving surface, or any bottomless (natural channel) structure with footings that will not have wheel loads in direct contact with the top of the structure.

Drawings — (Public Works Contracts) Design sheets or fabrication, erection, or construction details submitted to the CO by the Contractor according to FAR Clause 52.236-21 Specifications and Drawings for Construction. Also refers to submissions and submittals.

Notice to Proceed — (Public Works Contracts) Written notice to the Contractor to begin the contract work.

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.

Solicitation—(Public Works Contracts) The complete assembly of documents (whether attached or incorporated by reference) furnished to prospective bidders.

Add the following definitions:

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.

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.

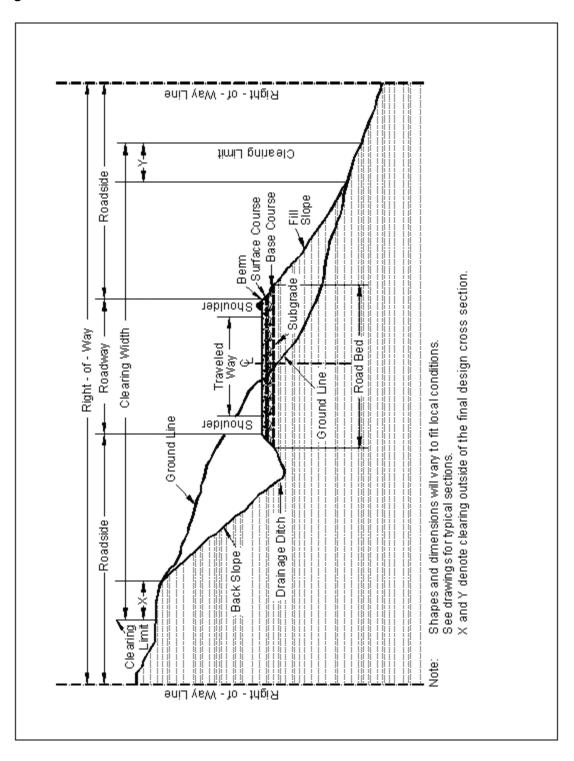
Road Order — An order affecting and controlling traffic on roads under Forest Service jurisdiction. Road Orders are issued by a designated Forest Officer under the authorities of 36 CFR, part 260.

Shop Drawings — (Timber and Stewardship Contracts) Referred to as "Drawings" in FP-14, include drawings, diagrams, layouts, schematics, descriptive literature, illustrations, lists or tables, performance and test data, and similar materials furnished by Purchaser to explain in detail specific portions of the work required by the contract.

Utilization Standards — The minimum size and percent soundness of trees described in Public Works contract specifications or Timber Sale and IRTC contract provisions 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_National_11_9_2016

Delete Section 102 in its entirety.

Delete Section 102.

103 - Scope of Work

103.00_National_11_9_2016

Delete all of Section 103 except Subsection 103.01 Intent of Contract.

Delete Subsections 103.02, 103.03, 103.04, 103.05.

104 - Control of Work

104.00_National_11_9_2016

Delete Subsections 104.01, 104.02, and 104.04.

Delete Subsections 104.01, 104.02, 104.04.

104.06_National_11_9_2016

Add the following to Subsection 104.06:

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_National_11_1_2016

Add the following to Subsection 105.02(a):

105.02(a) Government-provided sources.

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

(1) Government-provided mandatory sources.

Pay Item	Description	Material source number or name
N/A		

(2) Government-provided optional sources for this project are identified as follows:

Pay Item	Description	Material source number or name
N/A		

(1) Contractor shall post "Trucks Entering Roadway" signs during construction operations.

105.02_National_11_1_2016

Add the following to Subsection 105.02c:

105.02(c) Contractor-located sources.

All material (e.g., soil, gravel, sand, borrow, aggregate, etc.) transported onto National Forest System land or incorporated into the work shall 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 <u>14</u> days prior to use. Written approval of the specific source will be provided to the contractor by the CO. 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.

105.05_National_6_29_2020

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. Place excess material safely at government-approved location, at no additional cost to government.

106 - Acceptance of Work

106.01_National_7_18_2017

Delete Subsection 106.01 and replace with the following:

106.01 Conformity with Contract Requirements.

Follow the requirements of FAR Clause 52.246-12 Inspection of Construction.

References to standard test methods of AASHTO, ASTM, GSA, and other recognized standard authorities refer to the methods in effect on the date of solicitation for bids.

Perform all work to the lines, grades, cross-sections, dimensions, and processes or material requirements shown on the plans or specified in the contract.

Incorporate manufactured materials into the work according to the manufacturer's recommendations or to these specifications, whichever is more strict.

Plan dimensions and contract specification values are the values to be strived for and complied with as the design values from which any deviations are allowed. Perform work and provide material that is uniform in character and reasonably close to the prescribed value or within the specified tolerance range. The purpose of a tolerance range is to accommodate occasional minor variations from the median zone that are unavoidable for practical reasons.

When standard manufactured items are specified (such as fence, wire, plates, rolled shapes, pipe conduits, etc., that are identified by gauge, unit mass, section dimensions, etc.), the identification will be considered to be nominal masses or dimensions. Unless specific contract tolerances are noted, established manufacturing tolerances will be accepted.

The Government may inspect, sample, or test all work at any time before final acceptance of the project. When the Government tests work, copies of test reports are furnished to the Contractor upon request. Government tests may or may not be performed at the work site. If Contractor testing and inspection is verified by the Government, the Contractor's results may be used by the Government to evaluate work for acceptance. Do not rely on the availability of Government test results for process control.

Acceptable work conforming to the contract will be paid for at the contract unit bid price. Four methods of determining conformity and accepting work are described in Subsections 106.02 to 106.05 inclusive. The primary method of acceptance is specified in each Section of work. However, work may be rejected at any time it is found by any of the methods not to comply with the contract.

Remove, repair, or replace work that does not conform to the contract, or to prevailing industry standards where no specific contract requirements are noted. Removing, repairing, or replacing work; providing temporary traffic control; and any other related work to accomplish conformity will be at no cost to the Government.

- (a) Disputing Government test results. If the accuracy of Government test results is disputed, promptly inform the CO. If the dispute is unresolved after reasonable steps are taken to resolve the dispute, further evaluation may be obtained by written request. Include a narrative describing the dispute and a proposed resolution protocol that addresses the following:
 - 1. Sampling method;
 - 2. Number of samples;
 - 3. Sample transport;

- 4. Test procedures;
- 5. Testing laboratories;
- 6. Reporting;
- 7. Estimated time and costs; and
- 8. Validation process.

If the evaluation requires additional sampling or testing be performed, mutually agree with the Government on witnessing procedures and on sampling and testing by a third party laboratory. Use a third party laboratory accredited by the AASHTO accreditation program. Provide proof of the laboratory's accreditation for the test procedures to be used. Do not use the same laboratory that produced the disputed Government test results or that produced the test results used as a basis for the dispute.

The CO will review the proposed resolution protocol and may modify it before final approval and execution.

The Government will use the approved resolution protocol test results to determine the validity of the disputed testing. If the Government test results are validated, the Contractor will be responsible for all costs associated with developing and performing the resolution protocol. If the Government test results are not validated, the Government will be responsible for all costs associated with developing and performing the resolution protocol. If the validity of the Government test results cannot be determined, the Contractor and Government will equally share all costs associated with developing and carrying out the resolution protocol.

- **(b) Alternatives to removing and replacing non-conforming work.** As an alternative to removal and replacement, the Contractor may submit a written request to:
 - 1. Have the work accepted at a reduced price; or
 - 2. Be given permission to perform corrective measures to bring the work into conformity.

The request must contain supporting rationale and documentation. Include references or data justifying the proposal based on an evaluation of test results, effect on service life, value of material or work, quality, aesthetics, and other tangible engineering basis. The CO will determine disposition of the nonconforming work.

106.02_National_11_9_2016

Delete Subsection 106.02 and replace with the following:

106.02 Visual Inspection.

Acceptance is based on visual inspection of the work for compliance with the specific contract requirements. Use prevailing industry standards in the absence of specific contract requirements or tolerances.

106.07_National_11_1_2016

Delete Subsection 106.07.

106.07 Partial and Final Acceptance.

107 - Legal Relations and Responsibility to the Public

107.02_National_11_1_2016

Add the following to Subsection 107.02:

107.02 Protection and Restoration of Property and Landscape.

Add the following:

See Section H for additional information...

Any vehicle gross weight more than 80,000 pounds or with axle weights and/or axle spacing not in conformance with Oregon Weight Table 1 requires a USDA Forest Service Bridge Permit to cross any Forest Service bridge. Contractor shall submit a bridge overload application. Bridge overload permits may take up to thirty (30) days depending upon the haul route and the complexity of bridges or other structures involved.

On-site work shall not incorporate straw, hay, or other items that may contain noxious weeds or seeds. Straw may be used only if certified to be weed free.

107.05_National_7_18_2017

Delete Subsection 107.05.

Delete Subsection 107.05.

108 - Prosecution and Progress

108.00_National_11_9_2016

Delete Section 108 in its entirety.

Delete Section 108.

109 - Measurement and Payment

109.00_National_11_9_2016

Delete Subsections 109.06, 109.07, 109.08, and 109.09:

Delete Subsections 109.06, 109.07, 109.08, 109.09.

109.01_National_2_22_2019

Delete the third paragraph and Table 109-1 of Subsection 109.01 and replace with the following:

109.01 Measurement of Work.

Take measurements as described in Subsection 109.02 unless otherwise modified by the Measurement Subsection of the section controlling the work being performed. Table 109-1 indicates the accuracy required for quantities of the various pay units used in the Schedule of Items. Use this guide to determine the decimal placement in the final payment.

Table 109-1

Decimal Accuracy of Quantities for Final Payment

	1
Pay Item	Level of Precision
Linear Foot	1
ExceptionTimber, Steel, and concrete Piles	0.1
Station	0.1
Mile	0.01
Square Foot	0.1
Square Yard	0.1
Each	1
Acre	0.01
Gallon	1
M-Gals.	0.1
Cubic Yard	1
ExceptionStructure Excavation; Sheathing	0.1
Materials; Bedding, Bed Course, and Backfill	
Materials; Gabions;	
ExceptionConcrete; Masonry	0.01
Pound	1
Ton	0.1
ExceptionCalcium Chloride;	0.01
Sodium Chloride; Hydrated Lime;	
Bituminous Materials; Pavements;	
Bed Course Materials	
Hour	0.1
MFBM	0.01
Station Yard	1
Cubic Yard Mile	1
Ton Mile	1

Add the following sentence to Subsection 109.02(b):

109.02 Measurement Terms and Definitions.

(b) Contract quantity.

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

152 - Construction Survey and Staking

152.00_National_12_12_2016

Add the following to Subsection 152.04(c):

152.04 General.

(c) Material.

Use required stake dimensions and materials. Pre-paint the top 2 inches of all stakes and lath, or mark them with plastic flagging. Use designated colors for paint or flagging. Mark all stakes with a stake pencil that leaves a legible imprint, or with waterproof ink.

Do not use aerosol spray paints.

Use moisture-resistant paper for survey notes. Keep notes in books with covers that will protect the contents and retain the pages in numerical sequence.

Make the following changes to Subsection 152.05:

152.05 Survey and Staking Requirements.

Delete Subsection 152.05(d)(2) and replace with the following:

(d) Slope and reference stakes.

(2) Conventional survey methods. When required, locate slope stakes on designated portions of the road. Locate the slope stake catch points and use them to establish clearing limits and slope stake references.

Mark slope stakes with the station, the amount of cut or fill, the horizontal distance to centerline, and the slope ratios.

Place slope reference stakes at least 10 feet outside the clearing limit and mark with the offset distance to the slope stake. Place sight stakes when required.

Prior to clearing and grubbing operations, move the slope stake outside the clearing limit to the slope reference stake. After clearing and grubbing and before excavation, reset the slope stakes in their original position.

Use the designated method to establish the slope stake catchpoint.

Method I—Computed Method. Use the template information shown in the plans or other Government-provided data to calculate the actual location of the catchpoint. The slope stake "catchpoint distance" provided may be used as a trial location to initiate slope staking. Recatch slope stakes on any section that does not match the staking report within the tolerances established in Table 152-2.

Method II—Catchpoint Measurement Method. Determine the location of slope stake catchpoints by measuring the catchpoint distances shown in the plans or other Government-provided data.

Add the following to Subsection 152.05(e):

(e) Clearing and grubbing limits.

Mark the clearing limits with flagging or tags on trees to be left standing, or on lath. Make markings intervisible, and no more than 90 feet apart.

After establishing clearing limits, move the location line stake outside the clearing limits for station identification purposes, and mark it with horizontal distance to location line.

Replace Table 152-1 with the following:

Table 152-1 Construction Survey and Staking Tolerances **Table 152-1**

Construction Survey and Staking Tolerances (1)

Staking Phase	Horizontal	Vertical
Control points set from existing Government control points- Tolerance Class A	±0.03 feet (±10 millimeters)	± 0.01 feet $\times \sqrt{N}$ (± 3 millimeters $\times \sqrt{N}$) $^{(2)}$
Mapping, topography, and cross-section Points- Tolerance Class A	±0.16 feet (±50 millimeters)	±0.16 feet (±50 millimeters)
Centerline points ⁽³⁾ including (PC), (PT), (POT),(POC), and references- Tolerance Class A	±0.06 feet (±20 millimeters)	±0.06 feet (±20 millimeters)
Slope-stake and slope-stake references- Tolerance Class A (4)	±0.16 feet (±50 millimeters)	±0.16 feet ±50 millimeters)
Culverts, ditches, and minor drainage structures stakes- Tolerance Class A	±0.16 feet (±50 millimeters)	±0.06 feet (±20 millimeters)
Retaining walls stakes	±0.06 feet (±20 millimeters)	±0.03 feet (±10 millimeters)
Curb and gutter stakes	±0.06 feet (±20 millimeters)	±0.03 feet (±10 millimeters)
Bridge substructures stakes	±0.03 feet (±10 millimeters) ⁽⁵⁾	±0.03 feet (±10 millimeters)
Bridge superstructures stakes	±0.03 feet (±10 millimeters) ⁽⁵⁾	±0.03 feet (±10 millimeters)
Clearing and grubbing limit stakes- Tolerance Class A	±1.00 feet (±300 millimeters)	_
Roadway subgrade finish stakes- Tolerance Class A ⁽⁶⁾	±0.16 feet (±50 millimeters)	±0.03 feet (±10 millimeters)
Roadway finish grade stakes (6)	±0.16 feet (±50 millimeters)	±0.03 feet (±10 millimeters)

 ${\bf Table~152-1} \\ {\bf Construction~Survey~and~Staking~Tolerances~(continued)} \ ^{(1)}$

Staking Phase	Horizontal	Vertical
Control points set from existing Government control points –Tolerance Class B (7)	±0.16 feet (±20 millimeters)	$\pm 0.16 \text{ feet} \times \sqrt{N}$ ($\pm 20 \text{ millimeters} \times \sqrt{N}$)(2)
Mapping, topography, and cross-section points—Tolerance Class B ⁽⁷⁾	±1.00 feet (±300 millimeters)	±0.50 feet (±150 millimeters)
Centerline points including (PC), (PT), (POT), (POC), and references—Tolerance Class B (7)	±0.16 feet (±20 millimeters)	±0.16 feet (±20 millimeters)
Slope-stake and slope-stake references— Tolerance Class B ⁽⁷⁾	±0.50 feet (±50 millimeters)	±0.16 feet ±50 millimeters)
Culverts, ditches, and minor drainage structures stakes—Tolerance Class B ⁽⁷⁾	±0.50 feet (±150 millimeters)	±0.16 feet (±20 millimeters)
Clearing and grubbing limit stakes—Tolerance Class B ⁽⁷⁾	±2.00 feet (±600 millimeters)	_
Roadway subgrade finish stakes—Tolerance Class B ⁽⁷⁾	±0.50 feet (±50 millimeters)	±0.16 feet (±10 millimeters)
Roadway finish grade stakes–Tolerance Class B (7)	±0.50 feet (±50 millimeters)	±0.16 feet (±10 millimeters)

⁽¹⁾ At statistical 95 percent confidence level. Tolerances are relative to existing Government control points.

- (2) N is the number of instrument setups.
- (3) Centerline points: PC point of curve, PT point of tangent, POT point on tangent, POC point on curve.
- (4) Take the cross-sections normal to the centerline ±1 degree.
- (5) Bridge control is established as a local network and the tolerances are relative to that network.
- (6) Includes paved ditches.
- (7) Tolerance Class B for Very Low Volume Roads with an aggregate or native finished surface.

155 - Schedules for Construction Contracts

155.00_National_11_9_2016

Delete Section 155 in its entirety.

Delete Section 155.

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

Section 156. - PUBLIC TRAFFIC

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:

Permanent Traffic Control	633
Traffic Signing and Marking Material	718
Concrete Barriers and Precast Guardwalls	618
Temporary plastic fence	710.11

Construction Requirements

156.03 General. Accommodate traffic according to MUTCD, approved traffic control plan and this section. Perform work in a manner that ensures safety and convenience of the public. 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 <u>30</u> minutes at any one time followed by an open period of no less than <u>5</u> minutes. Accommodate public traffic on roads adjacent to and within the project until the project is accepted according to Subsection 106.07(b).

Submit traffic control plan at least 30 days prior to intended use. 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 and Forest Service EM 7100-15. 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.
- (j) Place temporary traffic control advanced warning signs at locations as approved by the CO.

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
N/A				

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. Payment for contract work is provided indirectly. See Subsection 109.05.

157 - Soil Erosion and Sediment Control

157.04_National_11_1_2016

Delete Subsection 157.04 and replace with the following:

157.04 General.

Thirty (30) days prior to the start of construction, submit a written plan according to subsection 104.03 with all necessary permits 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 without approval.

When erosion control measures are not functioning as intended, take corrective action to eliminate or minimize pollutants in storm water discharges from the project.

201 - Clearing and Grubbing

201.04_National_9_10_2018

Construction Requirements

Delete paragraph (c) and replace with the following:

201.04 Clearing

(c) In areas outside the excavation, embankment, and slope rounding limits, cut stumps to maximum stump height shown in table below.

Utilization standards for merchantable timber are listed below. Fall and buck merchantable material into lengths not to exceed 42.5 feet. Pieces (logs) meet utilization standards when such pieces would have met Utilization Standards if bucking lengths were varied to include such material.

Minimum Utilizati	ion Standards			
	Maximum Stump			
Species	Height (inches)	Length (feet)	Diameter ¹ (inches)	% Net Scale ²
Douglas Fir	24"	8.5	5"	

¹ measured at inside bark at small end

201.06_National_2_22_2018

Delete the first sentence of Subsection 201.06 and replace the following:

201.06 Disposal.

Merchantable timber is Government property.

² in % gross scale

203 - Removal of Structures and Obstructions

203.04_National_11_2_2016

Make the following changes to Subsection 203.04(b):

203.04 (b) General.

Delete the fifth paragraph of Subsection 203.04(b) and replace with the following:

Remove structures and obstructions in the roadbed to 12 inches (300 millimeters) below subgrade elevation. Remove structures and obstructions outside the roadbed to 12 inches (300 millimeters) below finished ground or to the natural stream bottom.

Delete the seventh paragraph of Subsection 203.04(b) and replace with the following:

When abandoning an existing culvert pipe, remove the upstream and downstream portion of the culvert to within 12 inches (300 millimeters) of the subgrade or embankment slope. Ensure the abandoned pipe is at least 48 inches (1200 millimeters) from a new culvert or structure. Seal the abandoned culvert ends with a tight-fitting plug of concrete at least 6 inches (150 millimeters) thick. Ensure the structure does not entrap water.

203.05_National_9_10_2018

Add the following to Subsection 203.05:

203.05 Disposing of Material.

- **(e) Windrowing Construction Slash.** Place construction slash outside the roadway in neat, compacted windrows approximately parallel to and along the toe line 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.
- **(f) Scattering.** Scatter construction slash in designated areas 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. When scattering for erosion control, place construction slash as flat as practicable on the completed slope.
- **(g) Chipping.** Use an approved chipping machine to chip slash longer than 3 feet. Deposit chips 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. Remove brush from designated log deck areas. Limb and top logs.

Logs not meeting the Utilization Standards described in Subsection 201.04(c) shall be cut to lengths less than 20 feet and decked in designated log deck location.

Merchantable timber not associated with an existing timber sale shall be cut to length meeting the Utilization Standards described in Subsection 201.04(c).

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.

- (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.

204 - Excavation and Embankment

204.00_National_11_4_2016

Delete Section 204 in its entirety and replace with the following.

Section 204. — EXCAVATION AND EMBANKMENT

Description

204.01 This work consists of excavating material and constructing embankments. This work also includes furnishing, hauling, stockpiling, placing, disposing, sloping, shaping, compacting, and finishing earthen and rocky material.

204.02 Definitions.

- (a) Excavation. Excavation consists of the following:
 - (1) Roadway excavation. Material excavated from within the right-of-way or easement areas, except subexcavation covered in Subsection 204.02(a)(2) and structure excavation covered in Sections 208 and 209. Roadway excavation includes all material encountered regardless of its nature or characteristics.
 - **(2) Subexcavation.** Material excavated from below subgrade elevation in cut sections or from below the original ground-line in embankment sections. Subexcavation excludes the work required by Subsection 204.05 or 204.06.
 - **(3) Borrow excavation.** Material used for embankment construction that is obtained from outside the roadway prism. Borrow excavation includes unclassified borrow, and topping.
- **(b) Embankment construction.** Embankment construction consists of placing and compacting roadway or borrow excavation. This work includes:
 - (1) Preparing foundation for embankment;
 - (2) Constructing roadway embankments;
 - (3) Benching for side-hill embankments;
 - (4) Constructing dikes, ramps, mounds, and berms; and
 - (5) Backfilling subexcavated areas, holes, pits, and other depressions.
- **(c) Conserved topsoil.** Excavated material conserved from the roadway excavation and embankment foundation areas that is suitable for growth of grass, cover crops, or native vegetation.
- (d) Waste. Excess and unsuitable roadway excavation and subexcavation that cannot be used.

Material

204.03 Conform to the following Subsections:

Topping	704.05
Unclassified borrow	704.06

Water 725.01(c)

Construction Requirements

204.04 Preparation for Roadway Excavation and Embankment Construction. Clear the area of vegetation and obstructions according to Sections 201 and 203.

Road pioneering, slash disposal, and grubbing of stumps may proceed concurrently with excavation and embankment. Maintain drainage during pioneering operations.

204.05 Conserved Topsoil. When designated, conserve topsoil from roadway excavation and embankment foundation areas. Stockpile conserved topsoil in low windrows immediately beyond the rounding limits of cut and embankment slopes or in other approved locations. Separate conserved topsoil from other excavated material. When designated, place conserved topsoil on completed slopes according to Section 624.

204.06 Roadway Excavation. Excavate as follows:

- (a) Rock cuts. Blast rock according to Section 205. Excavate rock cuts to 6 inches (150 millimeters) below subgrade within the roadbed limits. Backfill to subgrade with topping or other suitable material. Compact the material according to Subsection 204.11.
- **(b) Earth cuts.** Scarify earth cuts to 6 inches (150 millimeters) below subgrade within the roadbed limits. Compact the scarified material according to Subsection 204.11.
- **(c) Pioneer Roads.** Conduct excavation and placement operations so material to be treated under Section 201 will not be incorporated into the roadway unless specified in the slash treatment method. Maintain drainage during pioneering operations.

Remove snow and ice in advance of the work and deposit beyond the roadway limits in a manner that will not waste material or generate sediment. Do not incorporate snow and ice into embankments. Place snow or ice in a manner to prevent resource damage.

(d) Drainage Feature. Drainage feature includes construction of all ditches, minor channel changes, drainage dips, catch basins, surface water deflectors, and other minor drainage structures. Compact the material according to Subsection 204.11. Excavate on a uniform grade between control points.

Do not disturb material and vegetation outside the construction limits. Retrieve material deposited outside the construction limits. Dispose of unsuitable or excess excavation material according to Subsection 204.14. Replace shortage of suitable material caused by premature disposal of roadway excavation.

Shape to drain and compact the work area to a uniform cross-section at the end of each day's operations.

204.07 Subexcavation. Excavate material to the required limits. Dispose of unsuitable material according to Subsection 204.14. Take cross-sections according to Section 152. Backfill subexcavated area with suitable material in horizontal layers not exceeding 12 inches (300 millimeters) in compacted thickness and compact according to Subsection 204.11. Prevent unsuitable material from mixing with suitable backfill material.

204.08 Borrow Excavation. Use suitable roadway excavation in embankment construction. Do not use borrow excavation when it results in excess roadway excavation. Deduct excess borrow excavation from the total borrow excavation quantity.

Obtain borrow source approval according to Subsection 105.02. Develop and restore borrow sources according to Subsections 105.03 and 105.06. Do not excavate beyond the established limits. When applicable, shape the borrow source to permit accurate measurements when excavation is complete.

204.09 Preparing Foundation for Embankment Construction. Prepare foundation for embankment construction as follows:

- (a) Embankment over natural ground. Remove topsoil and break up the ground surface to a minimum depth of 6 inches (150 millimeters) by plowing or scarifying. Compact the ground surface according to Subsection 204.11.
- **(b) Embankments over an existing asphalt, concrete, or gravel road surface.** Scarify gravel roads to a minimum depth of 6 inches (150 millimeters). Scarify or pulverize asphalt and concrete roads to 6 inches (150 millimeters) below the pavement. Reduce particles to a maximum size of 6 inches (150 millimeters) and produce a uniform material. Compact the surface according to Subsection 204.11.
- (c) Embankment across ground not capable of supporting equipment. Dump successive loads of embankment material in a uniformly distributed layer to construct the lower portion of the embankment. Limit the layer thickness to the minimum depth necessary to support the equipment.
- **(d) Embankment on an existing slope steeper than 1V:3H.** Cut horizontal steps in the existing slope to a sufficient width to accommodate placement and compaction operations and equipment. Step the slope as the embankment is placed and compacted in layers. Begin each step at the intersection of the original ground and the vertical cut of the previous step.
- **204.10 Embankment Construction.** Incorporate only suitable roadway excavation material into the embankment. When the supply of suitable roadway excavation is exhausted, furnish unclassified borrow to complete the embankment. Obtain written approval before beginning construction of embankments over 6 feet (2 meters) high at subgrade centerline. Construct embankments as follows:
 - (a) General. At the end of each day's operations, shape to drain and compact the embankment surface to a uniform cross-section. Eliminate ruts and low spots that could hold water.

During all stages of construction, route and distribute hauling and leveling equipment over the width and length of each layer of material.

Compact embankment side slopes with a tamping foot roller, by walking with a dozer, or by over-building the fill and then removing excess material to the final slope line. For slopes 1V:1¾H or steeper, compact the slopes as embankment construction progresses.

(b) Embankment within the roadway prism. Place embankment material in horizontal layers not exceeding 12 inches (300 millimeters) in compacted thickness. Incorporate oversize boulders or rock fragments into the 12-inch (300-millimeter) layers by reducing them in size or placing them individually as required below. Compact each layer according to Subsection 204.11 before placing the next layer.

Material composed predominately of boulders or rock fragments too large for 12-inch (300-millimeter) layers may be placed in layers up to 24 inches (600 millimeters) thick. Incorporate oversize boulders or rock fragments into the 24-inch (600-millimeter) layer by reducing them in size or placing individual rock fragments and boulders greater than 24 inches (600 millimeters) in diameter as follows:

(1) Reduce rock to less than 48 inches (1200 millimeters) in the largest dimension;

- (2) Distribute rock within the embankment to prevent nesting;
- (3) Place layers of embankment material around each rock to a depth not greater than that permitted above. Fill voids between rocks; and
- (4) Compact each layer according to Subsection 204.11(a) before placing the next layer.
- **(c) Embankment outside of roadway prism.** When placing embankment outside the staked roadway prism, place material in horizontal layers not exceeding 24 inches (600 millimeters) in compacted thickness. Compact each layer according to Subsection 204.11.
- **204.11 Compaction.** Compact the embankment using one of the following methods as specified.
 - **(a) Placement Method 1.** Use AASHTO T 27 to determine the quantity of material retained on a No. 4 (4.75-millimeter) sieve. Compact as follows:
 - (1) More than 80 percent retained on a No. 4 (4.75-millimeter) sieve. Adjust the moisture content to a level suitable for compaction. Fill the interstices around rock with earth or other fine material as practical. Use compression-type rollers at speeds less than 6 feet (1.8 meters) per second and vibratory rollers at speeds less than 3 feet (1 meter) per second. Compact each layer of material full width with one of the following and until there is no visible evidence of further consolidation:
 - (a) Four roller passes of a vibratory roller having a minimum dynamic force of 40,000 pounds (180 kilonewtons) impact per vibration and a minimum frequency of 1000 vibrations per minute;
 - (b) Eight roller passes of a 20-ton (20-metric ton) compression-type roller; or
 - (c) Eight roller passes of a vibratory roller having a minimum dynamic force of 30,000 pounds (130 kilonewtons) impact per vibration and a minimum frequency of 1000 vibrations per minute.

Increase the compactive effort for layers deeper than 12 inches (300 millimeters) as follows:

- For each additional 6 inches (150 millimeters) or fraction thereof, increase the number of roller passes in Subsection 204.11(a)(1)(a), by four passes; or
- For each additional 6 inches (150 millimeters) or fraction thereof, increase the number of roller passes in Subsection 204.11(a)(1)(b) and (c), by eight passes.
- (2) 50 to 80 percent retained on a No. 4 (4.75-millimeter) sieve. Classify the material according to AASHTO M 145. Adjust the moisture content of material classified A-1 through A-5 to a moisture content suitable for compaction. Adjust the moisture content of material classified A-6 and A-7 to within 2 percent of the optimum moisture content. Use AASHTO T 99 to determine the optimum moisture content of the portion of the material passing a No. 4 (4.75-millimeter) sieve. Multiply this number by the percentage of material passing a No. 4 (4.75-millimeter) sieve, and add 2 percent to determine the optimum moisture content of the material.

Use nonvibratory rollers at speeds less than 6 feet (1.8 meters) per second and vibratory rollers at speeds less than 3 feet (1 meter) per second. Compact each layer of material full width according to Subsection 204.11(a)(1).

(3) Less than **50** percent retained on a No. **4 (4.75-millimeter)** sieve. Classify the material according to AASHTO M 145. For material classified A-1 or A-2-4, determine the maximum density according to AASHTO T 99, Method C.

Adjust the moisture content of material classified A-1 through A-5 to a moisture content suitable for compaction. Adjust the moisture content of material classified A-6 and A-7 to within 2 percent of the optimum moisture content.

Use compression-type or vibratory rollers. Compact each layer of material full width to at least 95 percent of the maximum density. Determine the in-place density and moisture content according to AASHTO T 310 or other approved test procedures. When required, use AASHTO T 224 to correct for coarse particles.

- **(b) Placement Method 2.** Adjust the moisture content of the material to a moisture content suitable for compaction. Fill the interstices around rock with earth or other fine material as practical. Operate roller compaction equipment over the full width of each layer until there is no visible evidence of further consolidation or, if when a sheepsfoot roller is used, the roller "walks out" of the layer. Make at least three complete passes. Use compression-type rollers at speeds less than 6 feet (1.8 meters) per second and vibratory rollers at speeds less than 3 feet (1 meter) per second. Ensure rollers meet the following requirements:
 - (1) Steel wheeled rollers, other than vibratory, capable of exerting a force of not less than 250 pounds per inch (4.5 kilogram/millimeter) of width of the compression roll or rolls.
 - (2) Vibratory steel wheeled rollers equipped with amplitude and frequency controls with a minimum dynamic force of 30,000 pounds (130 kilonewtons) impact per vibration, specifically designed to compact the material on which it is used.
 - (3) Pneumatic-tired rollers with smooth tread tires of equal size that will provide a uniform compacting pressure for the full width of the roller and capable of exerting a ground pressure of at least 80 psi (550 Kilopascals).
 - (4) Sheepsfoot, tamping, or grid rollers capable of exerting a force of 250 pounds per inch (4.5 kilogram/millimeter) of width of roller drum.
- **204.12 Drainage Features.** Slope, grade, and shape all drainage features. Remove projecting roots, stumps, rock, or similar matter. Maintain all drainage features in an open condition and without sticks, and other debris.

Form furrow ditches by plowing or using other acceptable methods to produce a continuous furrow. Place excavated material on the downhill side so the bottom of the ditch is approximately 18 inches (450 millimeters) below the crest of the loose material. Clean the ditch using a hand shovel or other suitable method. Shape to provide drainage without overflow.

- **204.13 Sloping, Shaping, and Finishing.** Complete subgrade, slopes, drainage features, culverts, riprap, and other underground minor structures before placing aggregate courses. Slope, shape, and finish to the designated tolerance class as defined in Table 204-2 as follows:
 - (a) Sloping. Leave earth slopes with uniform roughened surfaces, except as described in Subsection 204.13(b), with no noticeable break as viewed from the road. Except in solid rock, round tops and bottoms of slopes including the slopes of drainage ditches. Round material overlaying solid rock to the extent practical. Scale rock slopes. Slope rounding is not required on tolerance class D through M roads.

If a slide or slipout occurs on a cut or embankment slope, remove or replace the material and repair or restore damage to the work. Bench or key the slope to stabilize the slide. Reshape the cut or embankment slope to an acceptable condition.

- **(b) Stepped slopes.** Where required, construct steps on slopes of 1½V:1H to 1V:2H. Construct the steps approximately 18 inches (450 millimeters) high. Blend the steps into natural ground at the end of the cut. If the slope contains non-rippable rock outcrops, blend steps into the rock. Remove loose material found in transitional area. Except for removing large rocks that may fall, scaling stepped slopes is not required.
- **(c) Shaping.** Shape the subgrade to a smooth surface and to the cross-section required. Shape slopes to gradually transition into slope adjustments without noticeable breaks. At the ends of cuts and at intersections of cuts and embankments, adjust slopes in the horizontal and vertical planes to blend into each other or into the natural ground.
- (d) Finishing. Ensure that the subgrade is visibly moist during shaping and dressing; smooth and uniform, and shaped to conform to the typical sections. Remove material larger than 6 inches (150 millimeters) from the top 6 inches (150 millimeters) of the roadbed. Remove unsuitable material from the roadbed, and replace it with suitable material. Scarify to 6 inches (150 millimeters) below the bottom of low sections, holes, cracks, or depressions and bring back to grade with suitable material.

Maintain proper ditch drainage.

204.14 Disposal of Unsuitable or Excess Material. Dispose of unsuitable or excess material at designated sites or according to Subsection 203.05(a)

When there is a pay item for waste, shape and compact the waste material in its final location. Do not mix clearing or other material not subject to payment with the waste material.

204.15 Acceptance. See Table 204-1 for sampling, testing, and acceptance requirements.

Material for embankment and conserved topsoil will be evaluated under Subsections 106.02 and 106.04.

Excavation and embankment construction will be evaluated under Subsections 106.02 and 106.04.

Subexcavation will be evaluated under Subsections 106.02 and 106.04.

Measurement

- **204.16** Measure the Section 204 pay items listed in the bid schedule according to Subsection 109.02 and the following as applicable:
 - (a) Roadway excavation. Measure roadway excavation in its original position as follows:
 - (1) Include the following volumes in roadway excavation:
 - (a) Roadway prism excavation;
 - (b) Rock material excavated and removed from below subgrade in cut sections;
 - (c) Unsuitable material below subgrade and unsuitable material beneath embankment areas when a pay item for subexcavation is not listed in the bid schedule;
 - (d) Ditches, except furrow ditches measured under a separate pay item;
 - (e) Conserved topsoil;
 - (f) Borrow material used in the work when a pay item for borrow is not listed in the bid schedule;
 - (g) Loose scattered rocks removed and placed as required within the roadway;

- (h) Conserved material taken from pre-existing stockpiles and used in Section 204 work, except topsoil measured under 624; and
- (i) Slide and slipout material not attributable to the Contractor's method of operation.
- (2) Do not include the following in roadway excavation:
 - (a) Overburden and other spoil material from borrow sources;
 - (b) Overbreakage from the backslope in rock excavation;
 - (c) Water or other liquid material;
 - (d) Material used for purposes other than required;
 - (e) Roadbed material scarified in place and not removed;
 - (f) Material excavated when stepping cut slopes;
 - (g) Material excavated when rounding cut slopes;
 - (h) Preparing foundations for embankment construction;
 - (i) Material excavated when benching for embankments;
 - (j) Slide or slipout material attributable to the Contractor's method of operation;
 - (k) Conserved material taken from stockpiles constructed at the option of the Contractor;
 - (I) Material excavated outside the established slope limits; and
 - (m) Road pioneering for the convenience of the Contractor.
- (3) When both roadway excavation and embankment construction pay items are listed in the bid schedule, measure roadway excavation only for the following:
 - (a) Unsuitable material below subgrade in cuts and unsuitable material beneath embankment areas when a pay item for subexcavation is not listed in the bid schedule;
 - (b) Slide and slipout material not attributable to the Contractor's method of operations; and
 - (c) Drainage ditches, channel changes, and diversion ditches.
- **(b) Unclassified borrow, and topping.** When measuring by the cubic yard (cubic meter) measure in its original position. If borrow excavation is measured by the cubic yard (cubic meter) in-place, take initial cross-sections of the ground surface after stripping overburden. Upon completion of excavation and after the borrow source waste material is returned to the source, retake cross-sections before replacing the overburden. Do not measure borrow excavation until suitable roadway excavation is depleted.
- **(c) Embankment construction.** Measure embankment construction in its final position. Do not make deductions from the embankment construction quantity for the volume of minor structures.
 - (1) Include the following volumes in embankment construction:
 - (a) Roadway embankments;
 - (b) Material used to backfill subexcavated areas, holes, pits, and other depressions;

- (c) Material used to restore obliterated roadbeds to original contours; and
- (d) Material used for dikes, ramps, mounds, and berms.
- (2) Do not include the following in embankment construction:
 - (a) Preparing foundations for embankment construction;
 - (b) Adjustments for subsidence or settlement of the embankment or of the foundation on which the embankment is placed; and
 - (c) Material used to round fill slopes.
- (d) Rounding cut slopes. If a pay item for slope rounding is included in the bid schedule measure rounding cut slopes horizontally along the centerline of the roadway. If a pay item is not included for slope rounding is not included in the bid schedule payment will be considered indirect to roadway excavation.
- **(e) Waste.** Measure waste by the cubic yard (cubic meter) in its final position. Take initial cross-sections of the ground surface after stripping over-burden. Upon completion of the waste placement, retake cross-sections before replacing overburden.
- (f) Slope scaling. Measure slope scaling by the cubic yard (cubic meter) in the hauling vehicle.
- (g) Subexcavation. Measure subexcavation by the cubic yard (cubic meter) in its original position.
- **(h) Drainage features.** Measurement includes all excavation, embankment, shaping, and grading necessary for a completed drainage feature.

Payment

204.17 The accepted quantities will be paid at the contract price per unit of measurement for the Section 204 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Table 204-1 Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Source								
Topping (704.05)	Measured and tested for conformance (106.04 & 105)	Classification ⁽¹⁾	-	AASHTO M 145	1 per soil type and source of material	Processed material	Yes	Before using in work
Unclassified borrow (704.06)	"	"	-	"	"	"	"	"
Production								
Topping (704.05) and (204.11(a))	Measured and tested for conformance (106.04)	Moisture-density	-	T 99, Method C ⁽²⁾	1 per soil type, but not less than 1 per each 13,000 yd ³ (10,000 m ³)	Processed material	Yes	Before using in work
		Density	-	AASHTO T 310 or other approved procedures	1 per 3500 yd ² (3000 m ²), but not less than 3 per layer	In-place	No	Before placement of next layer
Unclassified borrow (704.06) and (204.11(a))	"	Moisture-density	-	T 99, Method C ⁽²⁾	1 per soil type, but not less than 1 per each 13,000 yd ³ (10,000 m ³)	Processed material	Yes	Before using in work
		Density	-	AASHTO T 310 or other approved procedures	1 per 3500 yd ² (3000 m ²), but not less than 3 per layer	In-place	No	Before placement of next layer

Table 204-1 Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Production (c	ontinued)							
Earth embankment (204.11(a))	Measured and tested for conformance (106.04)	Classification	_	AASHTO M 145	1 per soil type	Source of material	Yes	Before using in work
		Moisture-density	_	T 99, Method C ⁽²⁾	1 per soil type, but not less than 1 per each 13,000 yd ³ (10,000 m ³)	"	"	"
		Density	-	AASHTO T 310 or other approved procedures	1 per 3500 yd ² (3000 m ²), but not less than 3 per layer	In-place	No	Before placement of next layer
Top of subgrade (204.11(a))	"	Density	-	AASHTO T 310 or other approved procedures	1 per 2500 yd ² (2000 m ²), but not less than 3 per layer	In-place	No	Before placement of next layer
Finished Prod	luct							
Roadbed (204.13)	Measured and tested for conformance (106.04)	Final line & grade	_	Field measured	Determined by the CO	Determined by the CO	No	Before placement of next layer

⁽¹⁾ Not required when using Government-provided source.(2) Minimum 5 points per proctor.

			•	T Constru	Table 204-2 ruction Tole	Table 204-2 Construction Tolerances	səo						
						Tolera	Tolerance Class (a)	ass (a)					
Location Description	А	В	C	D	E	H	Û	Н	I	J	X	T	M
Roadbed width (ft)	+0.5	+0.5	+1.0	+1.0	+1.0	+1.0	+1.5	+1.0	+2.0	+2.0	+2.0	+2.0	+2.0
Subgrade elevation (ft)	±0.1	±0.2	±0.2	±0.5	±0.5	±1.0	<u>+</u> 1.0	±1.5	±2.0	+ 3.0	±2.0	±3.0	(3)
Centerline alignment (ft)	+0.2	±0.2	+0.5	+0.5	-1 1.0	+ 1.0	±1.5	+1.5	+2.0	<u>+</u> 3.0	±3.0	+ 5.0	(3)
Slopes, excavation, and embankment (% slope ^(b))	-13		5-1	5+		<u>+</u> 5	<u>+</u> 10	<u>+</u> 10	-1 10	<u>+</u> 10	<u>+</u> 20	- 20	<u>+</u> 20

⁽a) Maximum allowable deviation from construction stakes and drawings.
(b) Maximum allowable deviation from staked slope measured from slope stakes or hinge points.
(c) Unless otherwise shown the centerline alignment and subgrade elevation, as built, have no horizontal curves with a radius of less than 80 feet, and no vertical curves with a curve length of less than 80 feet when the algebraic difference in the grade change is less than 10 percent, or a curve length of less than 100 feet when the algebraic difference of the grade change is greater than or equal to 10 percent. The centerline grade is not to exceed 20 percent in 100 feet of length.

302 - Minor Crushed Aggregate

302.04_National_7_18_2017

Add the following to Subsection 302.04 and 302.04(a)

302.04 Placing Crushed Aggregate.

Written approval of the surface is required before placing aggregate.

(a) Roadway aggregate.

For pit run or grid-rolled material, furnish material smaller than the maximum size, no gradation will be required otherwise. After processing on the road, remove all oversize material from the road and dispose as directed by the CO.

302.05_National_6_11_2020

Replace the first paragraph of subsection 302.05(a) with the following:

302.05 Compacting and Finishing Crushed Aggregate

(a) **Roadway aggregate.** Unless otherwise specified compact according to method 2. Finish surface according to Subsection 301.06.

703 - Aggregate

703.05_National_3_17_2021

Delete 703.05 and replace with the following:

703.05 Subbase, Base, Surface Course, and Screened Aggregate.

(a) **Subbase or base aggregate.** Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel conforming the following:

(1) Gradation	Table 703-2
(2) Liquid limit, AASHTO T 89	25 max.
(3) Plastic limit, AASHTO T 90	Nonplastic
(4) Los Angeles abrasion, AASHTO T 96	40% max.
(5) Sodium sulfate soundness loss (5 cycles),	12% max.
AASHTO T 104	
(6) Durability index (coarse), AASHTO T 210	35 min.
(7) Durability index (fine), AASHTO T 210	35 min.
(8) Fractured faces, ASTM D 5821	50% min.
(9) Free from organic matter and lumps or balls of clay	

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary. Fine aggregate, material passing the No. 4 sieve, shall consist of natural or crushed sand and fine mineral particles.

(b) Surface course aggregate. Furnish hard, durable particles or fragments of crushed stone, crushed slag, or crushed gravel conforming the following:

(1) Gradation	Table 703-3
(2) Liquid limit, AASHTO T 89	35 max.
(3) Plastic Index, AASHTO T 90	
a) If the percent passing the No. 200 sieve is less than 12%	2 to 9
b) If the percent passing the No. 200 sieve is greater than 12%	Less than 2
(4) Los Angeles abrasion, AASHTO T 96	40% max.
(5) Sodium sulfate soundness loss (5 cycles),	12% max.
AASHTO T 104	
(6) Durability index (coarse), AASHTO T 210	35 min.
(7) Durability index (fine), AASHTO T 210	35 min.
(8) Fractured faces, ASTM D 5821	75% min.
(9) Free from organic matter and lumps or balls of clay	

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Do not furnish material that contains asbestos fibers.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary. Fine aggregate, material passing the No. 4 sieve, shall consist of natural or crushed sand and fine mineral particles.

(c) Screened aggregate – Furnish hard, durable particles or fragments of stone, slag, or gravel conforming the following:

(1) GradationTable 703-13(2) Plastic Index, AASHTO T 90Less than 9(3) Los Angeles abrasion, AASHTO T 9655% max.

(4) Free from organic matter and lumps or balls of clay.

Do not use material that breaks up when alternately frozen and thawed or wetted and dried.

Obtain the aggregate gradation by crushing, screening, and blending processes as necessary.

Delete Table 703-2 and replace with the following:

Target Value Ranges for Subbase and Base Gradation

	Per	cent by Mass Passing	g Designated Sieve (A	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)	11)
Sieve Size			Grading Designation		
	A (Subbase)	B (Subbase)	C (Base)	D (Base)	E (Base)
2½ inch	100				
2 inch	97 - 100	100	100		
1½ inch		97 - 100			
1 inch	65 - 79 (6)		80 - 100(6)	100	
3/4 inch			64 – 94 (6)	86 - 100 (6)	100
1/2 inch	45 – 59 (7)				
3/8 inch			40 – 69 (6)	51 – 82 (6)	62 - 90 (6)
No. 4	28 – 42 (6)	40 – 60 (8)	31 – 54 (6)	36 – 64 (6)	36 – 74 (6)
No. 40	9 – 17 (4)			12 - 26 (4)	12 – 26 (4)
No. 200	4.0 - 8.0(3)	4.0 - 12.0 (4)	4.0 – 7.0 (3)	4.0 - 7.0(3)	4.0 - 7.0(3)

() The value in the parentheses is the allowable deviation (\pm) from the target values..

Delete Table 703-3 and replace with the following:

Table 703-3

Target Value Ranges for Surface Gradation

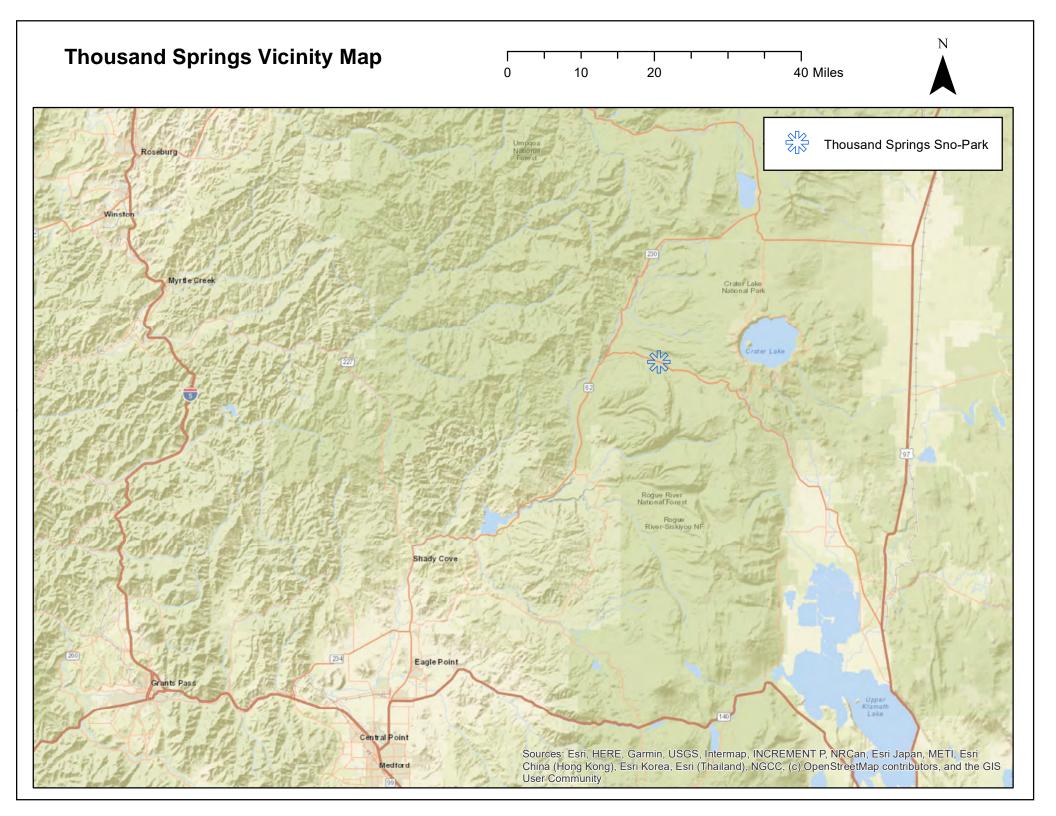
		Percent by M	Percent by Mass Passing Designated Sieve (AASHTO T 27 and T 11)	ted Sieve (AASHTO	T 27 and T 11)	
Sieve Size			Grading]	Grading Designation		
	F	G	Н	S	${f L}$	Ω
1 1/2 inch	100			100		
1 inch	97-100	100		72 – 92 (6)	100	
3/4 inch	76-89 (6)	97 - 100	97 - 100			100
1/2 inch					71 – 91 (6)	
3/8 inch	56-68 (6)	70 – 80 (6)	80 – 92 (6)	51 – 71 (6)		71 – 90 (6)
No. 4	43-53 (7)	51 – 63 (7)	58 – 70 (7)	36 – 53 (7)	43 – 60 (7)	50 – 68 (7)
No. 8				26 – 40 (6)	30 – 46 (6)	34 – 51 (6)
No. 16	23-32 (6)	28 – 39 (6)	28 – 40 (6)			
No. 40	15-23 (5)	19 – 27 (5)	16 - 26(5)	14 - 25(5)	16 - 28 (5)	19 – 30 (5)
No. 200	10.0-16.0 (4)	10.0 - 16.0(4)	9.0 – 14.0 (4)	8.0 - 15.0 (4)	8.0 - 15.0(4)	8.0 - 15.0 (4)

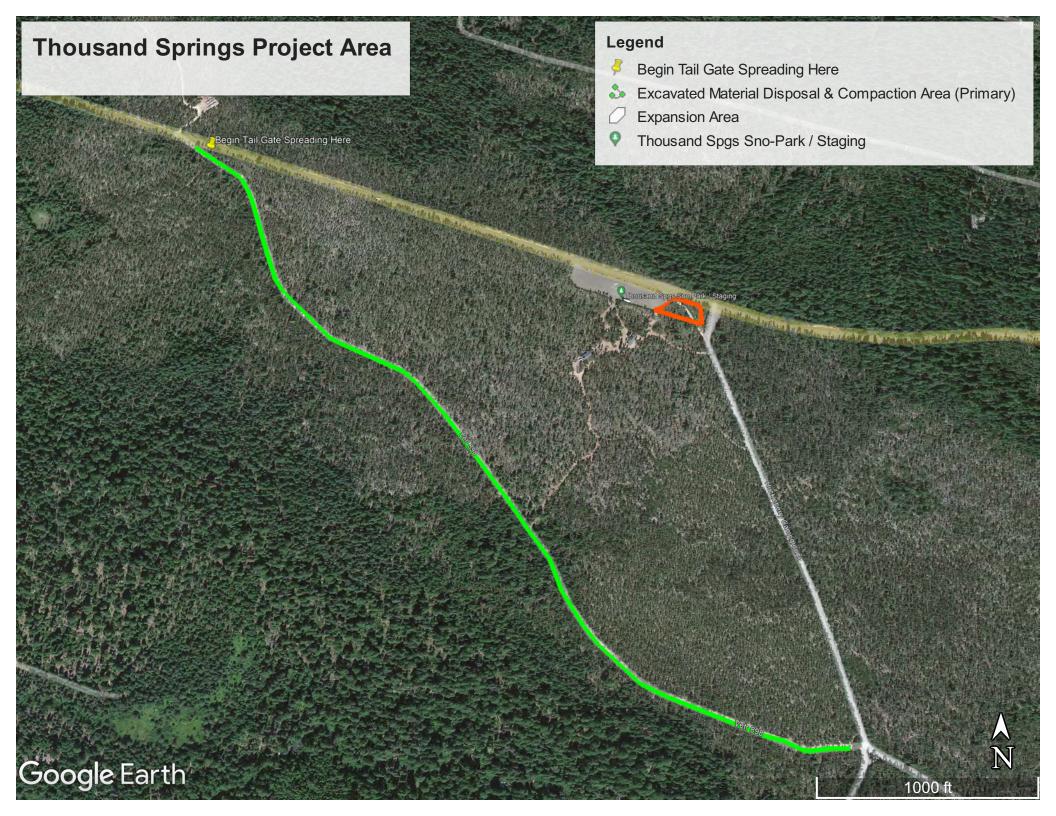
() The value in the parentheses is the allowable deviation (\pm) from the target values. If the plasticity index (PI) is greater than 0, the TV range for the No. 200 sieve size is 8-12 (4).

Add Table 703-13:

Table 703-13 Gradation Requirements for Screened Aggregate

	P	ercent by Ma		esignated Siev			1)
Sieve Size			Gra	ding Designa	tion		
	L	M	N	0	Р	Q	R
6 inch	100	100					
4 inch			100	100			
3 inch					100	100	
2 inch							100
No. 4		15-45		15-45		15-45	





1. Fire Period and Closed Season

Specific fire prevention measures are listed below and shall be effective for the period April 1 to October 31 of each year. The Forest Service may change the dates of said period by advance written notice if justified by unusual weather or other conditions. Required tools and equipment shall be kept currently in serviceable condition and immediately available for initial attack on fires.

2. Fire Plan

Before starting any operations on the project, the Contractor, Permittee, Licensee, or Purchaser, hereinafter referred to as the "Contractor," shall prepare a fire plan in cooperation with the Contracting Officer providing for the prevention and control of fires in the project area.

The Contractor shall certify compliance with fire protection and suppression requirements before beginning operations during the fire period and closed season, and shall update such certification when operations change.

3. Substitute Measures

The Contracting Officer may by written notice authorize substitute measures or equipment or may waive specific requirements during periods of low fire danger.

4. Emergency Measures

The Forest Service may require emergency measures, including the necessary shutting down of equipment or portions of operations in the project area during periods of fire emergency created by hazardous climatic conditions.

5. Fire Control

The Contractor shall, independently and in cooperation with the Forest Service, take all reasonable action to prevent and suppress fires in the project area. Independent initial action shall be prompt and shall include the use of all personnel and equipment available in the project area.

For the purpose of fighting forest fires on or in the vicinity of the project which are not caused by the Contractor's operations, the Contractor shall place employees and equipment temporarily at the disposal of the Forest Service. Any individual hired by the Forest Service will be employed in accordance with the Interagency Pay Plan for Emergency Firefighters. The Forest Service will compensate the Contractor for equipment rented at firefighting equipment rates common in the area, or at prior agreed to rates.

6. Compliance with State Forest Laws

Listing of specific fire precautionary measures herein is not intended to relieve the Contractor in any way from compliance with the State Fire Laws covering fire prevention and suppression equipment, applicable to operations under this contract, permit or license.

7. Fire Precautions

Specific fire precautionary measures are as follows:

a. Smoking and Open Fires

Smoking and fires shall be permitted only at the option of the Contractor. The Contractor shall not allow open fires on the project area without advance permission in writing from Forest Service.

Unless restricted by State Law or Federal Regulation, smoking shall be permitted only in such portions of the project area that are free of flammable material. Smokers shall sit down to smoke in such a position that any burning material will fall within a cleared area, and shall extinguish and press out in mineral soil all burning material before leaving the cleared area.

b. Fire Extinguishers and Equipment on Trucks, Tractors, etc.

All power-driven equipment operated by the Contractor on National Forest land, except portable fire pumps, shall be equipped with one fire extinguisher having a UL rating of at least 5 BC, and one "D" handled or long handled round point shovel, size "0" or larger. In addition, each motor patrol, truck and passenger-carrying vehicle shall be equipped with a double-bit axe or Pulaski, 3-1/2 pounds or larger.

Equipment shall be kept in a serviceable condition and shall be readily available.

c. Power Saws

Each gasoline power saw operator shall be equipped with a pressurized chemical fire extinguisher of not less than 8-ounce capacity by weight, and one long-handled round point shovel, size "0" or larger. The extinguisher shall be kept in possession of the saw operator at all times. The shovel shall be accessible to the operator within 1 minute.

d. Extinguishers

One refill for each type or one extra extinguisher sufficient to replace each size extinguisher required on equipment shall be safely stored in the fire tool box or other agreed upon place on the project area that is protected and readily available.

e. Spark Arresters and Mufflers

Each internal combustion engine shall be equipped with a spark arrester meeting either (1) USDA Forest Service Standard 5100-1a, or (2) appropriate Society of Automotive Engineers (SAE) recommended practice J335(b) and J350(a) as now or hereafter amended unless it is:

- (1) Equipped with a turbine-driven exhaust supercharger such as the turbocharger. There shall be no exhaust bypass.
- (2) A passenger-carrying vehicle or light truck, or medium truck up to 40,000 GVW, used on roads and equipped with a factory-designed muffler complete with baffles and an exhaust system in good working condition.

(3) A heavy duty truck, such as a dump or log truck, or other vehicle used for commercial hauling, used only on roads and equipped with a factory designed muffler and with a vertical stack exhaust system extending above the cab.

Exhaust equipment described in this subsection, including spark arresters and mufflers, shall be properly installed and constantly maintained in serviceable condition.

f. Emergency Fire Precautions

The Contractor shall restrict operations in accordance with the Industrial Fire Precaution Levels listed below. The Forest Service may change the Industrial Fire Precaution Levels to other values upon revision of the National Fire Danger Rating System and may change the specific Industrial Fire Precaution Levels when such changes are necessary for the protection of the National Forest. When sent to the Contractor, the revised Industrial Fire Precaution Levels will supersede the attached levels.

INDUSTRIAL FIRE PRECAUTIONS SCHEDULE

LEVEL INDUSTRIAL FIRE PRECAUTION (IFPL)

- I. Closed season Fire precaution requirements are in effect. A fire watch/security is required at this and all higher levels unless otherwise waived.
- II. Partial hootowl The following may operate only between the hours of 8 p.m. and 1 p.m., local time:
 - a. power saws, except at loading sites;
 - b. cable yarding;
 - c. blasting;
 - d. welding or cutting of metal.
- III. Partial shutdown The following shall be prohibited except as indicated:

Cable yarding - except that gravity operated logging systems employing non-motorized carriages may be operated between the hours of 8 p.m. and 1 p.m., local time, when all block and moving lines, except the line between the carriage and the chokers, are suspended 10 feet above the ground;

Power saws - except power saws may be used at loading sites and on tractor/skidder operations between the hours of 8 p.m. and 1 p.m., local time.

In addition, the following are permitted between the hours of 8 p.m. and 1 p.m., local time:

- a. tractor/skidder operations;
- b. mechanized loading and hauling of any product or material;
- c. blasting;
- d. welding or cutting of metal;
- e. any other spark-emitting operation not specifically mentioned.
- IV. General shutdown All operations are prohibited.

The following definitions shall apply to these Industrial Fire Precaution Levels:

Cable yarding systems: A yarding system employing cables and winches in a fixed position.

Closed season (Fire Precautionary Period): That season of the year when a fire hazard exists as declared by the responsible agency official.

Contracting Officer: The person executing the contract, permit or license on behalf of the Government and includes that person's designated representative, acting within the limits of their authority or the duly appointed successor to the individuals.

Loading sites/woods site/project area: A place where any product or material (including but not limited to logs, firewood, slash, soil, rock, poles, posts, etc.) is placed in or upon a truck or other vehicle.

Low hazard area: Means any area where the responsible agency representative (WDNR, ORF, BIA, BLM) determines the combination of elements reduces the probability of fire starting and/or spreading.

Tractor/skidder operations: include a harvesting operation, or portion of a harvesting operation, where tractors, skidders, or other harvesting equipment capable of constructing fire line, are actively yarding forest products and can quickly reach and effectively attack a fire start.

Waivers, written in advance, may be used for any and all activities. Activities for which waivers may be issued include, but are not limited to:

- a. mechanized loading and hauling;
- b. road maintenance such as sprinkling, graveling, grading and paving;
- c. cable yarding using gravity systems or suspended lines and blocks, or other yarding systems where extra prevention measures will significantly reduce the risk of fire;
- d. powers saws at loading sites or in felling and bucking where extra prevention measures will significantly reduce the risk of fire;
- e. maintenance of equipment (other than metal cutting and welding) or improvements such as structures, fences and powerlines.

Such waiver, or substitute precautions will prescribe measures to be taken by the Contractor to reduce the risk of ignition, and/or the spread of fire. The Contracting Officer shall consider site specific weather factors, fuel conditions, and specific operations that result in less risk of fire ignition and/or spread than contemplated when precaution level was predicted. Consideration shall also be given to measures that reduce the precaution levels above. The Contractor shall assure that all conditions of such waivers or substitute precautions are met.

The Contractor shall obtain the predicted Industrial Fire Precaution Level daily, prior to the start of work, from the appropriate Ranger District headquarters. If predictions made after 6:00 p.m., local time, are significantly different than the original prediction, the Forest Service will inform the Contractor when changes in restrictions or industrial precautions are made.

Where hauling involves transit through more than one shutdown/regulated use area, the precaution level at the woods loading site shall govern the level of haul restriction, unless otherwise prohibited by other than industrial precaution level system.

8. Fire Tools

The Contractor shall furnish serviceable firefighting tools in a readily accessible fire tool box or compartment of sound construction with a hinged lid and hasp so arranged that the box can be secured or sealed. The box shall be red and marked "Fire Tools" in letters one inch high. It shall contain a minimum of:

- a. 2 axes or Pulaskis with a 32-inch handle;
- b. 3 adze eye hoes. One Pulaski may be substituted for 1 adze eye hoe;
- c. 3 long-handled, round point shovels, size "0" or larger.

9. Fire Security

When the Industrial Fire Precautions Level is "I" or higher, unless a waiver is granted, the Contractor shall designate a person who shall perform fire security services listed below on the project area and vicinity. The designated person shall be capable of operating the Contractor's communications and fire fighting equipment specified in the contract, excluding helicopters, and of directing the activities of the Contractor's personnel on forest fires. In lieu of having the designated person perform the required supervisory duties, the Contractor may provide another person meeting the qualifications stated above to direct the activities of Contractor's personnel and equipment during all fire fighting activities.

Services described shall be for at least 1 hour from the time the Contractor's operations are shut down. For the purposes of this provision, personnel servicing equipment, and their vehicles, who are not engaged in cutting or welding metal are excluded.

Fire security services shall consist of moving throughout the operation area or areas constantly looking, reporting, and taking suppression action on any fires detected. Where possible, the designated person shall observe inaccessible portions of helicopter operating areas from vantage points within or adjacent to project area.

10. Blasting

Whenever the Industrial Fire Precaution Level is "II" or greater, a fire security person, equipped with a long-handled, round point, No. "0" or larger, shovel, and a five-gallon backpack pump can filled with water will stay at location of blast for 1 hour after blasting is done. Blasting may be suspended by Forest Service in writing, in an area of high rate of spread and resistance to control.

Fuses shall not be used for blasting. Explosive cords shall not be used without written permission of Forest Service, which may specify conditions under which such explosives may be used and precautions to be taken.

Additional Fire Precautionary Measure 1 - Tank Truck

11. The Contractor shall provide a tank truck or trailer, containing not less that 300 gallons of water, during yarding, loading, land clearing, right-of-way clearing and mechanical treatment of slash. A tank truck or trailer will not be required if powersaw falling and bucking is the only operation. Such tank truck or trailer shall be maintained in a serviceable condition and located within 10 minutes, round trip, from each project area during fire period and closed season.

The tank truck or trailer shall be equipped with a pump capable of discharging 20 gallons or water per minute, using a 1/4 inch nozzle tip, through a 50 foot length of rubber lined hose. In addition, 500 feet of serviceable fabric jacket rubber lined hose of not less than 1 inch outside diameter, fitted with a nozzle capable of discharging a straight stream of 1/4 inch diameter and a spray pattern shall be immediately available for use. The tank, pump and atleast 250 feet of hose and nozzle shall be connected and ready for use at all times.

If a trailer is used, it shall be equipped with a hitch to facilitate prompt movement. A serviceable tow vehicle shall be immediately available for attachment to the trailer and must meet the time requirement stated above. Such truck or trailer shall be equipped to operate for a minimum of 8 hours. Tank truck or trailer shall be available from the start of work to the end of the Fire Watch/Fire Security service.

Additional Fire Precautionary Measure 2- Communications

12. The Contractor shall provide adequate two-way communication facilities to report a fire to Forest Service within 15 minutes of detection. FCC Regulations prohibit commercial use of Citizen Bank (CB) radio. (CB's are not considered adequate two-way communications.)

Such communications shall be operable during periods of operation of power-driven equipment, including the time fire security is required.

APPENDIX E

Federal Requirements

- 1. **Compliance with Law:** Contractor shall comply with all federal, state and local laws, regulations, executive orders and ordinances applicable to the Agreement or to implementation of the Project, including without limitation 23 USC 206 and ORS 390.980 which makes funds available for the purposes of the Oregon Recreation Trails System Act. Without limiting the generality of the preceding sentence, Contractor shall, in its performance of its obligations under this Agreement and implementation of the Project, comply with the following laws and regulations:
 - 23 U.S.C. 206 Recreational Trails Program
 - 23 U.S.C. 104 (h), Recreational Trails Program Apportionments
 - 23 U.S.C. 106, Project Approval and Oversight
 - 23 U.S.C. 114, Convict Labor
 - FHWA Recreational Trails Program Guidance: located at https://www.fhwa.dot.gov/environment/recreational trails/guidance/rtp9908 toc.cfm
 - 40 U.S.C 3141-3148, The Davis-Bacon & Related Acts
 - Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
 - 2 CFR Part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, as supplemented by 2 CFR Part 1201 for Awards by the U.S. Department of Transportation
 - 2 CFR 1201
 - 23 CFR 1.36, Compliance with other Federal Laws and Regulations
 - 23 CFR 771, Environmental Requirements
 - 23 CFR 635.410 Buy America, as further described below
 - 41 U.S.C. § 4712, Enhancement of Contractor Protection from Reprisal for Disclosure of Certain Information
- Required Contract Provisions for Federal-Aid Construction Contracts: Form FHWA-1273 must be physically incorporated in each construction subcontract funded with Funds provided under this Agreement. The contractor (or subcontractor) must insert Form FHWA-1273 in each subcontract and further require its inclusion in all lower tier subcontracts. See Attachment C: Form FHWA-1273.
- 3. **Buy America**: 23 CFR 635.410 is applicable to steel, iron and manufactured goods used in a "federal-aid highway construction project" including the Project funded under this Agreement. Based on the definitions of "construction" in 23 U.S.C. 101 and "project", the Buy America provisions apply to steel and iron permanently incorporated in a project funded by RTP when the total value of these materials exceeds \$2,500. Documentation of Buy America compliance is required to be obtained and retained with the National Forest Foundation's grant records.
- 4. **Build America, Buy America Act:** As required by Section 70914 of the Bipartisan Infrastructure Law (also known as the Infrastructure Investment and Jobs Act), P.L. 117-58, on or after May 14, 2022, none of the funds under a federal award that are part of Federal financial assistance program for infrastructure may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States, unless subject to an approved waiver. The requirements of

this section must be included in all contracts, subcontracts and purchase orders for work or products under this program. Recipients of an award of Federal financial assistance are hereby notified that none of the funds provided under this award may be used for a project for infrastructure unless:

a. unless subject to the \$2,500 threshold described in item 3, all iron and steel used in the project are produced in the United States—this means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States:

b. unless subject to FHWA's General Applicability Waiver of Buy America Requirements for Manufactured Products, all manufactured products used in the project are produced in the United States —this means the manufactured product was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation; and

- c. all construction materials are manufactured in the United States—this means that all manufacturing processes for the construction material occurred in the United States. The Buy America preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor does a Buy America preference apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project, but are not an integral part of the structure or permanently affixed to the infrastructure project.
- 5. Audit Clause: Subrecipients receiving federal awards in excess of \$750,000 in the Subrecipient's fiscal year are subject to audit conducted in accordance with the provisions of 2 CFR part 200, subpart F. Subrecipient, if subject to this requirement, shall, upon request, at Subrecipient's own expense submit to Agency a copy of, or electronic link to, its annual audit subject to this requirement covering the funds expended under this Agreement and shall submit or cause to be submitted to Agency the annual audit of any subrecipient(s), contractor(s), or subcontractor(s) of Subrecipient responsible for the financial management of funds received under this Agreement.
- 6. **Debarment and Suspension.** Recipient certifies that it is not listed, and shall not permit any person or entity to be a subcontractor if the person or entity is listed, on the non-procurement portion of the General Service Administration's "List of Parties Excluded from Federal Procurement or Nonprocurement Programs" in accordance with Executive Orders No. 12549 and No. 12689, "Debarment and Suspension". (See 2 CFR Part 180.) This list contains the names of parties debarred, suspended, or otherwise excluded by agencies, and contractors declared ineligible under statutory authority other than Executive Order No. 12549. Subcontractors with awards that exceed the simplified acquisition threshold shall provide the required certification regarding their exclusion status and that of their principals prior to award.