FOREST SERVICE

SUPPLEMENTAL SPECIFICATIONS

FOR

ROCK CREEK ROAD REALIGNMENT

U.S.D.A Forest Service, Region 1

Kootenai National Forest

Cabinet Ranger District

Sanders County, Montana

Table of Contents

Preface

Preface_wo_04_20_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.

151 - Mobilization

Delete Section 151 in its entirety and replace with the following.

Description

151.01. This work consists of moving personnel, equipment, material, and incidentals to the project and performing all work necessary before beginning work at the project site; obtaining of permits, insurance, and bonds. This work also includes washing and treating construction equipment and vehicles necessary for equipment transport to remove seeds, plants, and plant fragments before the equipment is used on Forest Service lands, according to the requirements within.

Construction Requirements

151.02. Wash the sides, tops, and undercarriages of all construction equipment. Remove all seeds, plants, plant fragments, dirt, and debris from the construction equipment. Only equipment inspected by the Forest Service will be allowed to operate within the project area. All subsequent move-ins of equipment to the project area will be treated in the same manner as the initial move-in. This requirement does not apply to cars, pickup trucks, and other vehicles that regularly travel between the construction site and areas off the National Forest.

Equipment will be considered free of soil, seed, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment, components or the need for specialized inspection tools is not required.

Notify the Owner in writing at least 72 hours before moving any construction equipment onto the national forest. Notification will include an agreed upon location where the equipment will be available for inspection by the Forest Service. Inspection will be required after every cleaning.

Use methods of cleaning and locations for cleaning approved by the Owner.

For work at a commercial washing facility, use an approved facility.

New infestations of noxious weeds of concern to Forest Service and identified by either Contractor or Forest Service, in the Project Area or on the haul route, will be promptly reported to the other party. Contractor and Forest Service will 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 Forest Service is available at each Forest Service office.

Aquatic:

Wash the outside and inside of equipment that will come in contact with waterbodies, such as streams, lakes, wetlands, and ditches with one of the following approved methods:

1. Wash debris, mud, sediments, organisms, plant material and fragments from all equipment that will enter water feature. Allow equipment to thoroughly air dry (inside and out) for a minimum of 48 hrs
2. Wash equipments with heated water (>140° F) for a minimum of ten minutes and until all mud, sediments, organisms, plant material and fragments are removed from equipment. Allow equipment to thoroughly air dry for a minimum of two hours, or until no visible moisture exits.

3. Wash equipment with a minimum of 5% Quaternary ammonium solution (Quat128 Sparquat256) for a minimum of ten minutes and until all mud, sediments, organisms, plant material and fragments are removed from equipment. Allow equipment to thoroughly air dry for a minimum of two hours, or until no visible moisture exits.

Only equipment inspected by the Forest Service will be allowed to operate within the project. All subsequent move-ins of equipment to the project area will be treated in the same manner as the initial move-in

Equipment will be considered free of debris, mud, sediments, organisms, plant material and fragments when a visual inspection does not disclose such material. Disassembly of equipment, components or the need for specialized inspection tools is not required.

Measurement

151.03 Clean equipment prior to moving onto this project. The initial cleaning will not be included in the measurement for payment. Payment for cleaning will only be made if subsequent cleanings are ordered by the Owner. Measurement shall be on an "each" basis, meaning one complete cleaning of all equipment required for this contract. Subsequent cleanings necessitated by the Contractor's actions but not directed by the Owner will not be included in the measurement for payment.

Measure mobilization according to Subsection 109.02.

Section 152. – CONSTRUCTION SURVEY AND STAKING

Delete Subsection 152.05(d)(2) Survey and Staking Requirements, Slope and reference stakes, Conventional survey methods and replace with the following:

(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 152-1.

Replace Table 152-1 Construction Survey and Staking Tolerances with the following:

Table 152-1

Construction Survey and Staking Tolerances (1)

	Tolerance Class A		Tolerance Class B (7)	
Staking Phase	**Horizontal**	**Vertical**	**Horizontal**	**Vertical**
Control points set from existing Government control points	±0.03 feet	±0.01 feet × √N (2)	±0.16 feet	±0.16 feet ×√N (2)
Mapping, topography, and cross-section Points	±0.16 feet	±0.16 feet	±1.00 feet	±0.50 feet
Centerline points (3)	±0.06 feet	±0.06 feet	±0.16 feet	±0.16 feet
Slope-stake and slope-stake references (4)	±0.16 feet	±0.16 feet	±0.50 feet	±0.16 feet
Culverts, ditches, and minor drainage structures stakes	±0.16 feet	±0.06 feet	±0.50 feet	±0.16 feet
Retaining walls stakes	±0.06 feet	±0.03 feet	±0.06 feet	±0.03 feet
Curb and gutter stakes	±0.06 feet	±0.03 feet	±0.06 feet	±0.03 feet
Bridge substructures stakes	±0.03 feet (5)	±0.03 feet	±0.03 feet (5)	±0.03 feet
Bridge superstructures stakes	±0.03 feet (5)	±0.03 feet	±0.03 feet (5)	±0.03 feet
Clearing and grubbing limit stakes	±1.00 feet	–	±2.00 feet	—
Roadway subgrade finish stakes-Tolerance Class A (6)	±0.16 feet	±0.03 feet	±0.50 feet	±0.16 feet
Roadway finish grade stakes (6)	±0.16 feet	±0.03 feet	±0.50 feet	±0.16 feet

(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) For Tolerance Class A only, 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) For Tolerance Class A only, includes paved ditches.
(7) Tolerance Class B for Very Low Volume Roads with an aggregate or native finished surface.

156 - Public Traffic

156.00_National_1_2_2020

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

Description

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

Material

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

Permanent Traffic Control	633
Traffic Signing and Marking Material	718
Concrete Barriers and Precast Guard walls	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. *The Contractor will be allowed to close the existing NFSR 150 to through traffic but must have the new route open to the public.*
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 Owner as part of the traffic control plan.

(c) Install only those traffic control devices needed for each stage or phase.

(d) Relocate temporary traffic control devices as necessary.

(e) Remove devices that no longer apply to the existing conditions.

(f) Immediately replace any device that is lost, stolen, destroyed, or inoperative.

(g) Keep temporary traffic control devices clean.

(h) Remove all temporary traffic control devices upon contract completion or when approved.

(i) When required, use flaggers certified by the American Traffic Safety Services Association, the National Safety Council, the International Municipal Signal Association, a state agency, or other acceptable organization. Perform the work described under MUTCD Part 6. Use type III, VII, VIII, or IX retroreflective sheeting on flagger paddles. Do not use flags. Flaggers must wear high visibility safety apparel as required by MUTCD 6E.02.

156.05 Temporary Closures.

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

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

156.06 Acceptance.

Public traffic work will be evaluated under Subsection 106.02.

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

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

201.03_Regional_3_7_2022

Delete the last sentence in the second paragraph of Subsection 201.03.

201.03 General.

Delete paragraph (c) and (d) of Subsection 201.04 and replace with the following:

201.04 Clearing.

(c) In areas outside the excavation, embankment, and slope rounding limits, cut stumps to within 12 inches or one-third of the stump diameter of the ground, whichever is higher, measured on the side adjacent to the highest ground; and

(d) Trim tree branches that extend over the road surface and shoulders to attain a clear height of 14 feet. If required, remove other branches to present a balanced appearance. Trim according to accepted tree surgery practices. Treat wounds with tree wound dressing.

201.06_National_3_7_2022

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

201.06 Disposal.

Merchantable timber is Government property.

203 - Removal of Structures and Obstructions

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 **6** 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

204.11 Compaction.

Delete and replace with the following:

Layer Placement (Roller Compaction) Method (2) - Place material by end dumping to the minimum depth needed for operation of spreading equipment. Adjust the moisture content of the material to obtain a mass that will not visibly deflect under the load of the hauling and spreading equipment. Operate compaction equipment over the full width of each layer until visible deformation of the layer ceases. Make at least six complete passes.

204.14 Disposal of Unsuitable or Excess Material.

Delete the text of the first paragraph and substitute the following:

Dispose of unsuitable or excess material at designated sites or as directed by the Owner.

204.15 Acceptance.

Delete reference to Table 204-1.

622 - Rental Equipment

622.01_Regional_3_8_2022

Add the following to Subsection 622.01

622.01 Description

Work is to correct minor site discrepancies not noted in the contract documents that occurred between award of contract and implementation of work needed to result in a complete project. Examples of work may include:

a. Excavating and placing embankment,
b. Slide removal,
c. Drainage and roadway repair,
d. Haul and placement of material such as rocks, logs, or debris, or
e. Sign or gate installation

625 - Turf Establishment

Delete Section 625 in its entirety and replace with the following:

Section 625. — TURF ESTABLISHMENT

Description

625.01 This work consists of soil preparation, watering, fertilizing, seeding, and mulching. Seeding and mulching methods are designated as dry or hydraulic.

Material

625.02 Conform to the following Subsections:

Agricultural limestone	713.02
Fertilizer	713.03
Mulch	713.05
Seed	713.04
Tackifiers	713.11
Water	725.01(b)

Construction Requirements

625.03 General. Apply turf establishment to the areas shown on the plans or worklists within 14 days after completion of ground disturbing activities unless otherwise agreed to.

Seeded areas damaged by construction activities shall be reseeded. Do not seed during windy weather or when the ground is excessively wet, frozen, or snow covered.

Assure that all seed and mulch used in the work conforms to the weed free requirements of Section 713.

625.04 Preparing Seedbed. Ensure that the surface soil is in a roughened condition favorable for germination and growth.

625.05 Watering. Maintain moisture as follows:

Not Applicable

625.06 Fertilizing. Apply fertilizer by the following methods:

Not Applicable

625.07 Seeding. Apply seed by the following methods:

(a) Dry Method. Apply the seed in a uniform application with approved power driven seeders, drills, or other mechanical equipment. Hand-operated seeding methods are satisfactory on areas inaccessible to mechanical equipment; or

(b) Hydraulic Method. Use hydraulic-type equipment capable of providing a uniform application using water as the carrying agent. Add a tracer material consisting of either wood or grass cellulose fiber mulch to the water. Apply the tracer material at a rate of 400 pounds per acre (450 kilograms per hectare) to provide visible evidence of uniform application. Add the seed to the water slurry no more than 30 minutes before application. Seed by hand areas inaccessible to seeding equipment.

Furnish and apply the following kinds and amounts of pure live seed:

2018 Kootenai National Forest Approved Seed					
Standard Native Seed Mix (with cover crop)					
Species of Seed *Scientific Name* Common Name	**PLS** lbs/ac	**PLS** Per/lb	**Seeds / ft²**	**Acceptable Cultivars**	**Species Summary Information**
Elymus glaucus Blue wildrye	8	0.308 lb.	25	Arlington or Elkton	Tall bunchgrass, excellent erosion control, recommended rate 10 lbs/ac. Rapid establishment, short lived, quick cover.
Pseudoroegneria spicata Bluebunch wheat grass	4	0.154 lb.	13	Goldar or Anatone	Medium to tall bunchgrass, good erosion control, drought tolerant. Poor to moderate establishment success, adapted to thin, non-productive soils.
Elymus trachycaulus Slender wheatgrass	4	0.154 lb.	15	Primar Pryor or Revene	Cool season, rapid est., short-lived, very good for erosion control. Adapted to a wide variety of sites. Quick, native, non-aggressive perennial cover.
Bromus marginatus Mountain brome	4	0.154 lb.	6	Bromar or Garnet	Cool season, short to medium lived species, germinates and establishes quickly.
Cover crop of Sterile wheat *(Triticum aestivum)*	6	0.230 lb.	31		Sterile wheatgrass is an annual grass and is well suited to soil conservation uses. It germinates well, establishes readily the first year to stabilize soils, and provides cover for other germinating species. It produces a high level of biomass which helps retain soil surface moisture and enhances soil productivity.
TOTALS	**26 lbs/ Acre**	1 lb.	90 seeds/ft²		

PLS: Pure Live Seed

625.08 Mulching. Apply Mulch within **N/A** hours after seeding by the following methods.

(a) Dry Method. Apply mulch with a hand spreader or a spreader utilizing forced air at a rate of **N/A** pounds per acre. Anchor the mulch with an approved stabilizing emulsion tackifier at a rate of **N/A** gallons per acre. Do not mark or deface structures, pavements, utilities, or plant growth with tackifier.

(b) Hydraulic Method. Apply mulch in a separate application from the seed using hydraulic-type equipment according to Subsection 625.07(b).

Apply wood fiber or grass straw cellulose fiber mulch at a rate of **N/A** pounds per acre.

Apply bonded fiber matrix hydraulic mulch at a minimum rate of **N/A** pounds per acre.

Apply so no hole in the matrix is greater than 0.04 inches. Apply so that no gaps exist between the matrix and the soil.

Apply mulch uniformly over the entire disturbed area. Mulch by hand areas inaccessible to mulching equipment.

625.09 Protecting and Caring for Seeded Areas. Protect and care for seeded areas including watering according to 625.05. Repair or apply supplemental applications of seed, mulch, fertilizer, and water according to 625.05 as many times as needed until turf is established or final acceptance.

625.10 Acceptance. Material for turf establishment will be evaluated under Subsections 106.02 and 106.03.

Placing of turf establishment will be evaluated under Subsections 106.02 and 106.04.

Measurement

625.11 Measure the Section 625 pay items listed in the bid schedule according to Subsection 109.02 and the following as applicable:

When measuring turf establishment and supplemental applications by the acre (hectare), measure on the ground surface.

When measuring water by volume or mass, measure in the hauling vehicle or by metering.

Payment

625.12 The accepted quantities will be paid at the contract price per unit of measurement for the Section 625 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.