STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS

FP-24

ANDERSON GRAVEL PIT ROCK CRUSHING

FOREST SERVICE SUPPLEMENTAL SPECIFICATIONS (FSSS)

SPECIFICATION	NUMBER	TITLE	LATEST REVISION
FSSS	101-109	GENERAL REQUIREMENTS	2025
FSSS	153	CONTRACTOR QUALITY CONTROL	2025
FSSS	204	EXCAVATION AND EMBANKMENT	2025
FSSS	314	STOCKPILED AGGREGATES	2025
FSSS	625	TURF ESTABLISHMENT	2025
FSSS	703	AGGREGATE	2025
HANDBOOK	44	BELT CONVEYOR SCALE SYSTEMS	2016

PREFACE

Delete all but the first paragraph and add the following:

The Forest Service, US Department of Agriculture has adopted FP-24 for construction of National Forest System Roads. The Forest Service Supplemental Specifications (FSSS) shall be incorporated in FP-24. The applicable specifications for the project will be FP-24 as modified by the FSSS.

Section 101. – TERMS, FORMAT, AND DEFINITIONS

Add the following paragraph to Subsection 101.01 Meaning of Terms:

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

Add the following to Subsection 101.03 Abbreviations:

(a) Acronyms.

AGAR — Agriculture Acquisition Regulations

AFPA — American Forest and Paper Association

FSSS – Forest Service Supplemental Specifications

MSHA — Mine Safety and Health Administration

NESC — National Electrical Safety Code

WCLIB — West Coast Lumber Inspection Bureau

(d) Miscellaneous unit abbreviations.

MP - Milepost	location
ppm - parts per million	volumes
STA – station	location
MFBM - thousand feet board measure	volumes

Section 104. – CONTROL OF WORK

Delete Subsection 104.07 Coordination of Contract Documents.

Add the following Subsection 104.12 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.

Section 105. – CONTROL OF MATERIAL

Add the following to Subsection 105.02(a) Material Sources, Government-furnished sources:

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

(1) Government-furnished mandatory sources.

Pay Item	Description	Material source number or name
31401	Stockpiled Aggregates	Anderson Gravel Pit
70301	Aggregate	Anderson Gravel Pit

The following restrictions apply: Crushing operations can be conducted between July 1st through October 1st. No work shall occur during Federal holidays unless otherwise authorized and approved in writing by the Contracting Officer (CO).

Add the following to Subsection 105.02(c) Material Sources, 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 all materials furnished by the contractor. Contractor-provided means 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: All equipment shall be cleaned by the

contractor prior to moving equipment onto public lands and project area. Equipment shall be cleaned of mud, dirt, and accumulations of organic material which may harbor seeds or plant parts of noxious weeds. Fluid leaks shall be repaired prior to moving onto Forest lands.

Delete second paragraph and subparagraphs (a) and (b) in Subsection 105.05 Use of Material Found in the Work and replace it with the following:

The right to use and process material found in the work excludes the use and processing of material for nongovernment contract work, except for the disposal of waste material. Materials produced or processed from Government lands more than the quantities required for performance of this contract are the property of the Government. Place excess material at government-approved agreed to location(s), at no additional cost to government.

Section 106. – ACCEPTANCE OF WORK

Delete the 3rd and 4th paragraphs in Subsection 106.01 Conformity with Contract Requirements.

Section 108. - PROSECUTION AND PROGRESS

Delete Section 108 Prosecution and Progress in its entirety.

Section 109. - MEASUREMENT AND PAYMENT

Delete Subsections 109.06 Pricing and Adjustments, 109.07 Estimated Work, 109.08 Progress Payments, and 109.09 Final Payment.

Delete Table 109-1 of Subsection 109.01 Measurement of Work and replace them with the following:

Table 109-1

Decimal Accuracy of Quantities for Payment

Pay Item	**Level of Precision**
Acre	0.01
Cubic Foot	1
Cubic Yard	1
Cubic Yard Exception - Structure Excavation; Sheathing; Materials; Bedding, Bed Course, and Backfill, Materials; Gabions;	0.1
Cubic Yard Exception – Concrete; Masonry	0.01
Day	1
Each	1
Gallon	1
Hour	0.1
Linear Foot	1
Linear Foot Exception - Timber, Steel, and Concrete Piles	0.1
M-Gallon	0.1
Mile	0.01
Month	0.1
Pound	1
Square Foot	0.1
Square Yard	0.1
Station	0.1
Thousand Board Feet Measure	0.01
Ton	0.1
Ton Exception - Calcium Chloride; Sodium Chloride; Hydrated Lime; Bituminous Materials; Pavements; Bed Course Materials	0.01
Week	0.1

Delete Subsection 109.02(c) Measurement Terms and Definitions, Contract quantity and replace with:

(c) Contract quantity. The quantity to be paid is the quantity listed in the bid schedule. The contract quantity will be adjusted for authorized changes that affect the quantity or for errors made in computing this quantity when that error exceeds 15% or more. If there is evidence that a quantity specified as a contract quantity is incorrect by 15% or more, submit

calculations, drawings, or other evidence indicating why the quantity is in error and request in writing that the quantity be adjusted.

Add the following to Subsection 109.03(c) Weighing Procedures and Devices, Project weighing system:

For aggregates weighed for payment, adjust scale weights of material to deduct the daily average moisture content more than 2 percentage points over optimum moisture as determined by AASHTO T 99 or the designated compaction method. If moisture determination is necessary, determine the daily average moisture content in accordance with AASHTO T 255, from not less than three representative samples of aggregate taken at random intervals each day that aggregate is weighed.

Manual scales may be used if approved in writing by the CO and if the method of weighing meets all other contract requirements.

Section 153. – CONTRACTOR QUALITY CONTROL

Delete Subsection 153.08 Records and Control Charts and replace them with the following:

Maintain complete testing and inspection records by pay-item number and make them accessible to the CO.

Section 204. – EXCAVATION AND EMBANKMENT

Delete Subsection 204.06 Roadway Excavation and replace with the following:

204.06 Roadway Excavation. Excavate as follows:

(a) Rock cuts. Verify the top portion of the rock cuts during pioneer access or initial excavation. Construct the final soil cut before starting drilling for rock blasting or other rock excavation methods unless approved. Blast rock according to Forest Service Supplemental Specification Section 205 if approved by the CO. Excavate rock cuts to 6 inches below subgrade within the roadbed limits. Backfill to subgrade with select borrow. Compact the material according to Subsection 204.11.

(b) Earth cuts. Scarify earth cuts to 6 inches below subgrade within the roadbed limits. Compact the scarified material according to Subsection 204.11.

(c) 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.

Remove snow or ice in advance of work and deposit beyond the roadway limits in a manner to prevent resource damage.

Conserve 6-inch minus material from the roadway excavation to use for finishing the roadbed. Dispose of unsuitable or excess excavation material according to Subsection 204.14. Replace shortage of suitable material caused by premature disposal of roadway excavation.

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

Delete 204.16(a)(1)(a) Measurement, Roadway Excavation and replace with the following:

(a) Roadway Prism excavation.

Add the following to Subsection 204.16(g) Measurement:

(g) Drainage features. Measurement includes all excavation, embankment, shaping, and grading necessary for a completed drainage feature.

Section 314. - STOCKPILED AGGREGRATES

Add the following to Subsection 314.01 Description:

Pit or quarry development work consists of clearing, grubbing, stripping topsoil, removing overburden, constructing access roads, conducting restoration activities, and performing other incidental work required for pit or quarry development. Includes processing and crushing material to produce specified aggregates.

Add the following to Subsection 314.04 Stockpile Site after the first sentence of second paragraph:

Submit a plan of operation according to Section 105.02. Perform the work in accordance with MSHA 30 CFR, part 56.

Delete the following paragraph of Subsection 314.05 Stockpile:

Section 625. - TURF ESTABLISHMENT

Delete and replace Subsection 625.03 General with the following:

625.03 General. Apply turf establishment to disturbed areas within ten (10) days after completion of gravel crushing operations.

Areas that have already been seeded and then damaged by construction activities shall be reseeded within ten (10) days of the damage. 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.

Do not allow vehicles or equipment onto newly seeded areas.

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

Type of Seed		Quantity of Pure Live Seed (Lbs/Acre)
1.	**Mountain Bromegrass**	**5**
2.	**Slender Wheatgrass**	**3**
3.	**Thick spike Wheatgrass**	**3**
4.	**Candy Bluegrass**	**3**
5.	**Blue Wildrye**	**5**
Total		**19**

Use the following equation to determine pounds of seed required:

PLS= Pounds of pure live seed

Ac=Acre

%PY= Percent purity

%GN= Percent germination

$$Lbs.of\ Seed\ to\ be\ furnished\ per\ acre = \left(\frac{\frac{PLS}{Ac}}{PY * GN} \right)$$

Section 703. - AGGREGATE

Delete Subsection 703.05(c)(3) Subbase, Base, and Surface Coarse aggregate, Surface coarse aggregate and replace with the following:

(3) Plastic Index, AASHTO T 90

If the percentage passing the No. 200 sieve is less than or equal to 12% - 2 to 16

If the percentage passing the No. 200 sieve is greater than 12% - Less than 2

Delete Surface Columns F, G, and H in Table 703-1 in Subsection 703.05 Subbase, Base, and Surface Coarse Aggregate and replace with the following F, G, H, S, T, and U columns:

Table 703-1

Target Value Ranges for Surface Gradation

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

If the plasticity index (PI) is greater than 0, the TV range for the No. 200 sieve size is 8-12 (4).