

A.22 – List of Special Provisions in Part K

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K-C.2# - UTILIZATION AND REMOVAL OF INCLUDED PRODUCTS (4/03).

Unless otherwise agreed in writing, or as specified in K-C.2.1.1# - Optional Removal of Non-sawtimber Products, Contractor is required to pay for and remove the following products described in A.2 of the contract:

Sawtimber is the boles of trees meeting Sawtimber Product specifications as listed in A.2 of the contract.

Non-sawtimber is the boles of trees meeting Non-sawtimber Product specifications as listed in A.2 of the contract, but that do not meet the minimum piece specifications for Sawtimber Products. The volume of non-sawtimber in all cutting units is included in the estimated volume shown in A.2. If the Contractor and the Forest Service agree to remove non-sawtimber from cutting units, this non-sawtimber must be measured and paid for at the rates shown in A.4.

K-C.2.1.1# - OPTIONAL REMOVAL OF NON-SAWTIMBER PRODUCTS (01/07).

Contractor shall fall all trees designated for cutting. Notwithstanding the requirements of C.2 within **Cutting Units; 19, 21, Portions of Unit 56 where landings are accessible Post Harvest, and 182**, all Non-sawtimber Products meeting utilization standards in A.2 shall either be decked at the landing or removed, at the option of the Contractor. If Contractor elects the decking option, the Non-sawtimber Products shall be limbed and decked in such a manner as to facilitate loading at a later date. Payment for this product shall be made as per K-E.2.2.5. If Contractor elects to remove this product, then payment shall be made after the product is presented for scaling.

If the Contractor requests, and the Forest Service agrees, Non-sawtimber Products may be left in the harvest area in lieu of decking at the landing.

K-C.3.0.3# - DEAD TREES (10/04).

Notwithstanding the designations for cutting in other provisions of this contract, dead **Ponderosa Pine, Western Larch, and Douglas fir** standing trees over **10 feet** in height and **10 inches** diameter at breast height and dead standing trees meeting Utilization Standards stated in **A.2** will be left standing in **All Cutting Units**.

Upon agreement by the Forest Service, dead trees may be felled when necessary for safety under the State Safety Code. Unless otherwise agreed in writing, all dead trees which are required to be left standing and are felled for safety reasons shall be left on site.

K-C.3.5.8# - INDIVIDUAL TREES (LEAVE TREE MARKING) (2/09).

In Cutting Unit **18A**, all trees (live and dead) meeting minimum merchantable tree specifications of A2 are designated for cutting except trees reserved from cutting. Trees reserved from cutting have been marked with a horizontal stripe of **ORANGE** paint at or above eye level, and a stump mark consisting of a horizontal stripe of **ORANGE** paint on the downhill side of the tree at ground level.

The boundaries of units where leave trees are marked, are marked on three (3) sides of the cutting unit boundary trees with vertical stripes of **ORANGE** paint extending from diameter breast height (DBH) upwards approximately three (3) feet. The middle stripe of paint faces the cutting unit and the other two face on line with the cutting unit boundary. In addition, each boundary tree has a horizontal stump mark of **ORANGE** paint on the downhill side of the tree at ground level. Trees used for boundary designation are not to be cut. All hardwood trees are not to be cut.

K-C.3.8# - SPECIES DESIGNATION (2/09).

Within the following cutting units shown below, listed species are designated for cutting when they meet (a) utilization standards and (b) are smaller than the stump diameter listed below and shown on the Contract Area Map:

Unit	Designated Species	Maximum Stump Diameter – (Inches)
18, 19, 20A, 20B, 21, 56, 179, 182	All Species (Non-Sawtimber)	9.0
18, 19, 20A, 20B, 21, 179, 182	DF, LP	N/A
56	DF, LP	N/A

Stump diameter will be measured at 6 inches above ground level on the uphill side of the tree. A minimum stump height of 6 inches above ground level on the uphill side shall be left in the units listed above.

In addition, any trees within the cutting unit boundary that are windthrown prior to Contractor’s logging in the immediate vicinity which meet Utilization Standards in amounts less than specified in **C1.3.3** are designated for cutting.

In Cutting Units **18, 19, 20A, 20B, 21, 56, 179, 182** - Trees of the species listed above that are designated to be left standing are marked with a horizontal stripe of **ORANGE** paint at or above eye level, and a stump mark consisting of a horizontal stripe of **ORANGE** paint on the downhill side of the tree at ground level.

In Cutting Units **18, 19, 20A, 20B, 21, 179, 182** - In addition to those species listed above, trees marked with a horizontal stripe of **BLUE** paint at or above eye level, and a stump mark consisting of a horizontal stripe of **BLUE** paint on the downhill side of the tree at ground level are also designated for cutting.

In Cutting Unit **56** - In addition to those species listed above, trees marked with a horizontal stripe of **YELLOW** paint at or above eye level, and a stump mark consisting of a horizontal stripe of **YELLOW** paint on the downhill side of the tree at ground level are also designated for cutting.

The boundaries of units are marked on three (3) sides of the cutting unit boundary trees with vertical stripes of **ORANGE** paint extending from diameter breast height (DBH) upwards approximately three (3) feet. The middle stripe of paint faces the cutting unit and the other two face on line with the cutting unit boundary. In addition, each boundary tree has a horizontal stump mark of **ORANGE** paint on the downhill side of the tree at ground level. Trees used for boundary designation are not to be cut.

Upon agreement with Forest Service, dead trees designated to be left standing may be felled when necessary for safety under the State Safety Code and other dead trees designated in their place.

K-E.2.1.1 - TEMPORARY REDUCTION OF DOWNPAYMENT (8/09).

Notwithstanding E.2.1.1, upon the Contractor's written request Forest Service may temporarily reduce the downpayment when Contractor's scheduled operations are delayed or interrupted for 30 or more consecutive days, or the contract term is extended for 30 or more consecutive days for any of the following reasons:

- (1) Forest Service requests or orders Contractor to delay or interrupt operations for reasons other than breach;
- (2) Contractor interrupts or delays scheduled operations to work on a sale designated by the Forest Service as in urgent need of harvesting; or
- (3) An adjustment of the contract term authorized upon a determination of substantial overriding public interest, including a market-related contract term addition, or an urgent removal contract term extension under 36 CFR 223.53.

When Contractor is not cutting or removing timber under contract during a qualifying period of delay, interruption, or extension listed above the downpayment may be reduced to \$1000 or 2 percent of the downpayment amount stated in the contract, whichever is greater. The Contractor must restore the downpayment to the full amount stated in the contract within 15 days from receipt of the bill for collection and written notice from the Contracting Officer that the basis for temporarily reducing the downpayment no longer exists. Contractor shall not cut or remove timber on a contract where the downpayment has been temporarily reduced until the downpayment amount stated in the contract is fully restored.

K-E.2.1.5 - Deposits When Payment Guaranteed (05/10).

To the extent payment guarantee is provided under E.3, requirements for advance cash deposits under E.2.1.2 shall be waived for the value of Included Timber removed except for:

- (a) Base Rates,
- (b) associated charges, and
- (c) the value of Included Timber exceeding the sum of stewardship credits that have not been established under E.2.2 for mandatory stewardship projects listed in A.4.3 plus optional stewardship projects listed in A.4.3 authorized by Contracting Officer.

Charges for (a), (b) and (c) shall be waived for not more than a monthly billing period, subject to the provisions of E.4.

K-E.2.2.5 - ADVANCED PAYMENT FOR NON-SAWTIMBER (7/13).

Unless agreed otherwise, prior to beginning of harvest operations in a cutting unit, Contractor must notify the Forest Service of the decision to either remove or deck Non-sawtimber Products shown in A.2, if Special Provision K-C.2.1.1# - Optional Removal of Non-sawtimber Products is included in the contract.

Unless otherwise specified in K-E.2.2.8#, if Contractor selects the option to deck these products in lieu of removal, then advance cash deposit for stumps, plus the required slash disposal deposits for the volume of Non-sawtimber Products shown in the stewardship sale cruise report shall be billed for as a lump sum at the time that Contractor notifies the Forest Service of the decision to deck Non-sawtimber Products. All such material shown shall be reported as cut, and charged for, on the stewardship sale statement of account during the month in which the billing is paid.

K-E.2.2.8# - SLASH DISPOSAL DEPOSIT SCHEDULE (7/13).

Contractor shall make a cash deposit for slash disposal activities to be performed by the Forest Service.

Upon completion of skidding activities in each cutting unit, the Contractor shall be billed for the amount(s) shown in the table below.

Cutting Unit Number	Required Deposit(s)
18	\$1,608.37
18A	\$8,430.37
19	\$7,591.21
20A	\$2,144.50
20B	\$5,936.22
21	\$7,210.49
56	\$40,154.95
179	\$3,442.07
182	<u>\$7,536.82</u>
TOTAL	\$84,055.00

K-E.4 - PAYMENTS NOT RECEIVED (8/12).

(a) Payments are due and payable on the date of issue indicated on the bill for collection. When a payment for timber cut and other charges is not received at the location designated by Forest Service by the date specified in the bill for collection, Contracting Officer will suspend all or any part of Contractor's Operations until payment or acceptable payment guarantee is received. Other charges include, but are not limited to:

- (i) Slash disposal, road maintenance, and contract scaling deposits;
- (ii) Cooperative work at rates established by specific agreement under E.2.1.8;
- (iii) Damages pursuant to J.4;
- (iv) Road use fees;
- (v) Restoration of down payment pursuant to E.2.2;
- (vi) Periodic payments pursuant to E.2.1.3;
- (vii) Extension Deposits pursuant to E.2.1.7; and
- (viii) Other mandatory deposits.

(b) Failure to pay amounts due by the date specified in the bill for collection shall be considered a breach under J.3. The 30-day notice period prescribed therein shall begin to run as of the end of business on the date specified for receipt of payments. If the performance or payment is guaranteed by surety bond, the surety will receive a copy of the written notification of breach. Demand will be made on the surety or other institution providing the guarantee or bond instrument for immediate payment 10 days after issuance of written notification of the breach.

(c) Pursuant to the Debt Collection Improvement Act of 1996, as amended, if payment is not received by Forest Service within 15 days after the date of issue indicated on the bill for collection:

(i) Simple interest shall be assessed at the Current Value of Funds Rate as established by the Secretary of the Treasury. Interest will begin to accrue as of the date of issue indicated on the initial bill for collection.

(ii) Debtors will be assessed administrative charges, in addition to the delinquent amount due. Administrative charges are those additional costs incurred by the Government in processing, handling, and collecting delinquent debts.

(iii) A penalty charge of six (6) percent per annum will be assessed on any portion of a debt delinquent more than 90 days. This penalty charge is in addition to interest and administrative charges under paragraphs (c)(i) and (c)(ii). The penalty charge shall accrue from the date of issue indicated on

the bill for collection and shall be assessed on all outstanding amounts, including interest and administrative costs assessed under paragraphs (c)(i) and (c)(ii).

(iv) Payments will be credited on the date received by the Federal Depository or Collection Officer designated on the bill for collection.

(d) Forest Service remedies for Contractor's failure to make payment for timber cut and other charges when due, except for accrual of interest, suspension of all or any part of Contractor's Operations, and administrative offset, shall be stayed for so long as:

- (i) A bona fide dispute exists as to Contractor's obligation to make such payment and
- (ii) Contractor files and prosecutes a timely Claim.

K-F.1.0.2# - CONSTRUCTION OF TEMPORARY ROADS (2/97).

Unless otherwise agreed in writing, temporary roads as shown on the Contract Area Map and as designated on the ground, shall be constructed and closed in accordance with the attached plans and specifications. Location has been designated by **ORANGE Flagging**.

Contractor and Forest Service agree that if the Contractor elects not to build the road, or minor changes in locations or designs are mutually agreed to, there will be no adjustment in costs allowances as extra skid costs or mitigation measures would offset cost differences.

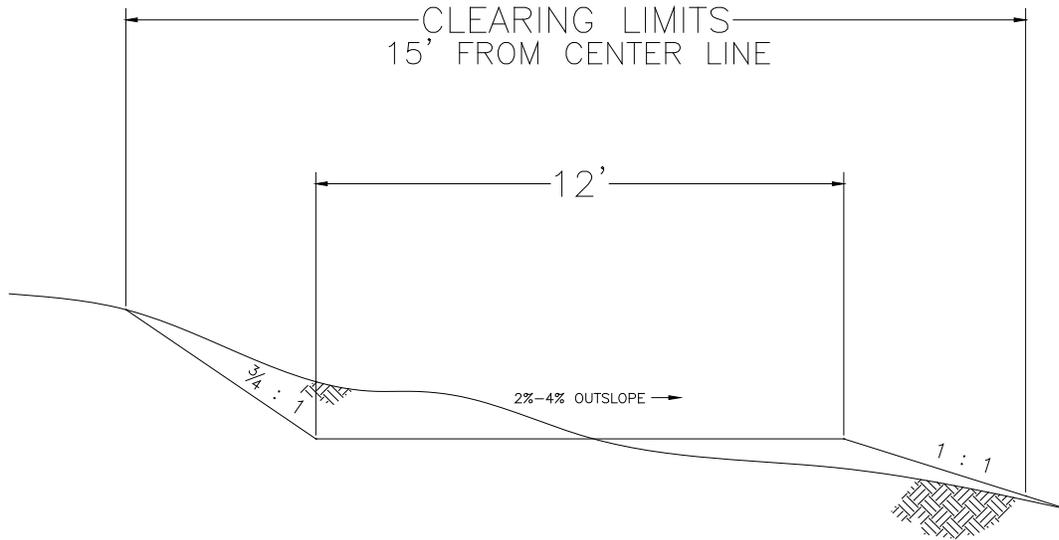
Notwithstanding C.4, timber within the clearing limits of these temporary roads have been included in the quantity estimate in A.2.

Temporary Road Specifications for harvest **Units 18, 18A, 20A, 20B, 56, and 179**

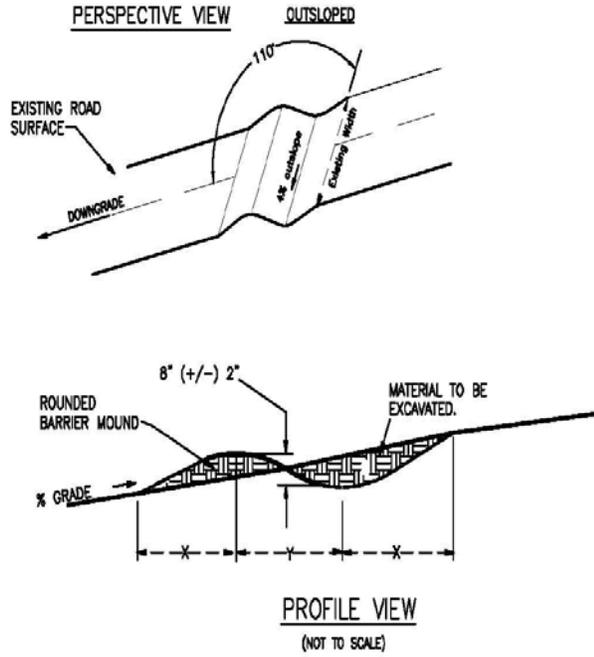
Contractor shall construct and close temporary roads according to the following drawings and specifications.

- Purchaser shall dispose of construction slash as detailed in K-G.7.5.3.
- Construct water bars in locations identified on-the-ground by Forest Service.
- Installation and removal of culverts shall be performed as indicated on attached drawings.
- Upon completion of harvest activities Contractor shall scarify and seed road surfaces as per K-G.6.3.3# and K-G.6.0.1#.
- Upon completion of harvest activities Contractor shall close road as indicated on attached closure detail.

C5.102# TEMPORARY ROAD TYPICAL



K-F.1.0.2# Temporary Road Typical



ROAD GRADE % (PERCENT)	DISTANCE	
	X	Y
0 - 4%	7.0 ft	6.0 ft
4 - 6%	8.0 ft	7.0 ft
6 - 8%	11.0 ft	9.0 ft
8 - 10%	14.0 ft	11.0 ft
10 - 12%	18.0 ft	14.0 ft

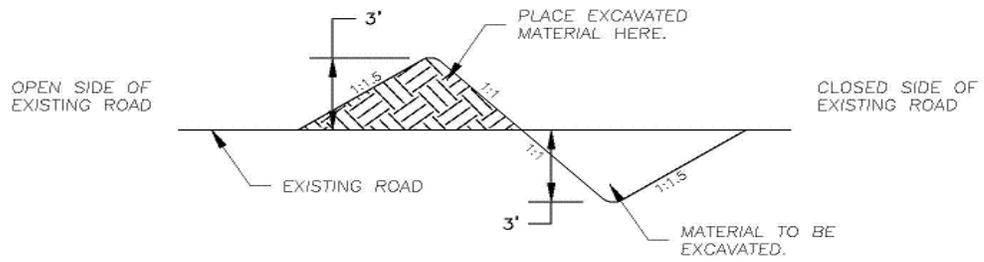
**Locations to be identified
on-the-ground by Forest
Service.**

NOTES:

1. Driveability of waterbar to be determined and approved in the field by the Contracting Officer's Representative.

SINGLE EARTH BARRIER DETAILS

SEED AND FERTILIZE ALL DISTURBED SOIL.



K-F.1.2# – USE OF ROADS BY CONTRACTOR (9/04).

Contractor’s use of existing roads identified on Contract Area Map by the following codes is prohibited or subject to restrictive limitations, unless agreed otherwise:

<u>Code</u>	<u>Use Limitations</u>
X	Hauling prohibited
R	Hauling restricted
U	Unsuitable for hauling prior to completion of agreed reconstruction
P	Use prohibited
A	Public use restriction
W	Regulation waiver

Roads coded A will be signed by Forest Service to inform the public of use restrictions. Contractor’s use of roads coded R, A, or W shall be in accordance with the following restrictions:

Restricted Road List

Road Number	Road Name	Termini		Map Legend	Description of Restrictions
		From	To		
835	Cripple Horse Weigel	835/4898 Jct.	835/4905 Jct.	U	Unsuitable for hauling prior to completion of agreed reconstruction
4898	Warland Peak	End of Unit 56, MP 4.16	4898/4424 Jct.	U	Unsuitable for hauling prior to completion of agreed reconstruction

K-F.2.2.1# – MATERIAL SOURCES (9/04).

Sources of local materials are designated on Plans and Contract Area Map. Forest Service assumes responsibility for the quality and quantity of material in designated sources. Contractor shall determine the equipment and work required to produce the specified product, including the selection of acceptable material that is reasonably available in the source that meets specifications. The designation of source includes the rights of Contractor to use certain area(s) for plant site, stockpiles, and haul roads.

Should the designated source, due to causes beyond the control of Contractor, contain insufficient acceptable material, Forest Service will provide another source with adjustment in accordance with F.2.5.3.

When Contractor elects not to use designated sources, Contractor shall furnish the specified product with no adjustment in unit rates. Quality testing shall be the responsibility of Contractor. Test results shall be furnished to Forest Service.

When Contractor elects not to use designated sources and the Schedule of Items lists pit development separately, cost allowance will be reduced under F.2.5.3 when Forest Service determines the work will not be required.

When materials are subject to a weight measurement, the specific gravity or weight/volume relationship used as a basis for determination of estimated quantities shall be:

Source I N/A , Source II N/A , and Source III N/A .

Contractor may, when agreed in writing, use on the project such suitable stone, gravel, and sand, or other

material found in the excavation, and will earn a cost allowance for the excavation of such materials at the corresponding contract unit price and for the pay items for which the excavated material is used. Contractor shall replace, without additional cost allowance, sufficient suitable materials to complete the portion of the work that was originally contemplated to be constructed with such material. Contractor shall not excavate or remove any material, except that which is within the excavation limits, without written authorization from Forest Service.

When material is appraised from non-National Forest designated sources, owner charges for the material in terms of unit cost for royalties, purchase of raw materials, or finished products shall be as follows until:

Material	Type of Purchase	Owner(s)	Unit of Measure	Unit Price	Estimated Quantity	Total
		N/A				

Should quantity vary from that estimated, payment to owners shall be for units actually obtained. Contractor shall make arrangements with owner(s) for measurement and payment for royalties, purchase of raw materials, or finished products, as shown above.

Materials produced or processed from National Forest lands in excess of the quantities required for performance of this contract are the property of Forest Service, unless prior written agreement has been obtained to use excess material on other National Forest contracts. Forest Service is not obligated to reimburse Contractor for the cost of their production.

Materials shall be stored to assure the preservation of their quality and fitness for the work. Stored materials shall be located to facilitate their prompt inspection. Sites on Forest Service administered land, approved by Forest Service, may be used for storage purposes and for the placing of Contractor's plant equipment. All storage sites provided by Forest Service shall be restored at Contractor's expense. Contractor shall be responsible for making arrangements for storage on other than Forest Service administered lands.

When the construction of the portion of the project for which Temporary Roads used for hauling materials is completed, all such Temporary Roads shall be restored as nearly as practicable to their original ground profile, unless otherwise agreed in writing.

K-F.3.1# – ROAD MAINTENANCE REQUIREMENTS (9/04).

Contractor shall maintain roads in accordance with the following Contract Road Maintenance Requirements Summary:

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Pre Haul Road Maintenance Specifications										
	From	To		T101	T103	T108	T301	T310	T506	T507	T508	T618	T619	T710
	N/A													
	N/A													

Road	Termini		Miles	Applicable During Haul Road Maintenance Specifications										
	From	To		T101	T103	T108	T301	T310	T506	T507	T508	T618	T619	T710
4898	Jct. Rd 835	End Unit 56	4.16	P	P	P	P	P	P	D	P		F	F
835	Jct. Hwy 37	Jct. 4898	3.32	P		P	P	P	P	D	P		F	F

P = Purchaser Performance Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

Road	Termini		Miles	Applicable Post Haul Road Maintenance Specifications										
	From	To		T101	T103	T108	T301	T310	T506	T507	T508	T618	T619	T710
4898	Jct. Rd 835	End Unit 56	4.16	P		P	P	P	P	--	P		F	F
835	Jct. Hwy 37	Jct. 4898	3.32	P		P	P	P	P	--	P		F	F

P = Purchaser Performance Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

SPECIFICATION T-101 SURFACE BLADING

DESCRIPTION

1.1 Surface blading is keeping the native or aggregate surfaced road in a condition to facilitate traffic, minimize additional future maintenance, reduce erosion, and provide proper drainage. It includes maintaining the crown, inslope or outslope of the traveled way and shoulders, drainage dips, leadoff ditches, berms, turnouts, removal of minor slides and slumps, and other irregularities that prevent normal runoff from the road surface.

REQUIREMENTS

3.1 Surface blading shall be performed as often as necessary and to the standards required to facilitate traffic and proper drainage.

3.2 The blading shall be performed in such a manner as to preserve the existing cross section and to conserve surface materials. On gravel surfaced roads, the base must not be disturbed and no surface material may be bladed into the ditch or over the road shoulders. Blading of native surface roads shall be performed so no base material under four (4) inches in the greatest dimension is lost. All ruts, holes, etc., shall be removed by scarifying and/or cutting to the bottom of any surface irregularities. Oversize material brought to the surface in the scarification process shall be removed from the roadway. Surface material which has been displaced to the shoulders, turnouts, outside of curves, etc., shall be brought back so as to leave a uniform depth on the traveled way at completion of blading. Water shall be applied during blading if sufficient moisture is not present to prevent segregation.

3.3 Roadside cutslopes or berms shall not be undercut.

3.4 At intersections, the roadbeds of sideroads shall be graded for a reasonable distance to assure proper blending of the two riding surfaces.

3.5 Drainage dips and leadoff ditches shall be cleaned and continually maintained to conform reasonably to their original constructed lines, grade, and cross section.

3.6 Berms shall be repaired promptly by placing selected material as needed to restore the berm to its original condition.

3.7 Surface blading of native surface roads also includes ditch cleaning, which shall be done in accordance with T-301, Ditch Cleaning.

3.8 All blading operations shall be properly signed in accordance with **G.3.3#** and all applicable State Laws.

SPECIFICATION T-103 DUST ABATEMENT

DESCRIPTION

1.1 Dust abatement consists of road surface preparation and application of materials.

MATERIALS

2.1 Water, bituminous products, lignin sulfonates, chloride products, and other materials may be used for dust abatement. Materials other than water will require approval of the Forest Service and shall meet specifications furnished by the Forest Service.

REQUIREMENTS

3.1 Dust abatement materials shall be applied to the road surface as necessary to control surface loss and provide that vehicles are always intervisible within their stopping sight distance. The average user speed on the road shall be used to determine stopping sight distance. Preparation shall be in accordance with Specification T-101, Surface Blading.

3.2 The rate of application shall be such that the selected material will not run off the surface and cause pollution or unnecessary waste.

3.3 When water is the selected material, it shall be applied as often as necessary to abate dust from all Contractor operations.

a. Dust abatement shall be maintained as needed throughout the duration of operations.

SPECIFICATION T-108 SLIDE REMOVAL AND SLUMP REPAIR

DESCRIPTION

1.1 Slide removal and slump repair consists of all work necessary to restore the road to its original cross section as necessary to facilitate use and provide drainage. This work is such that it cannot be handled by a grader during surface blading and ditch cleaning operations.

Slump repair is the filling with selected material of depressions or washouts in roadway which cannot be routinely filled by a motor grader.

Slide removal and slump repair includes excavation, loading, hauling, placing, and compacting of replacement material and the removal and disposal of waste material. This includes the development of disposal or borrow areas at locations approved by the Forest Service.

REQUIREMENTS

3.1 Contractor shall deposit slide material in an approved manner at designated locations.

Material shall not be disposed of on road fills unless otherwise agreed.

The slope which contributed the slide material shall be reshaped as practicable to reduce future sliding unless otherwise agreed.

3.2 When filling slumps and depressions, select material shall be used, placed in layers, and compacted to conform with or exceed the density of existing subgrade.

Existing aggregate surfacing shall be salvaged and relayed or replaced after slumps have been filled.

Damaged aggregate base, aggregate surfacing, and asphalt surfacing shall be repaired under Specification T-113, Surfacing Repair.

3.3 Following slide removal, roadway shall be shaped so as to reasonably conform to its original subgrade template.

3.4 Slump, waste, and borrow areas shall be seeded as required under T-508.

SPECIFICATION T-301 DITCH CLEANING

DESCRIPTION

1.1 Ditch cleaning is removing and disposing of all slough material from roadside ditches to provide an unobstructed waterway conforming reasonably to previous line, grade, and cross section.

REQUIREMENTS

3.1 Slough Material.

A. Native Surfaced Roads. Slough material from ditch cleaning, if suitable, may be placed and blended into the existing road surface or shoulders or placed in a designed berm during surface blading.

B. Aggregate Surface Roads. Slough material from ditch cleaning shall not be mixed with aggregate surfacing or left on the road surface unless otherwise agreed. Material shall be disposed of in an agreed manner at designated locations.

C. Asphalt Surfaced Roads. Equipment, methods, and timing shall be agreed to before start of ditch cleaning operations so as to protect the asphalt pavement. Material shall be disposed of in an agreed manner at designated locations.

SPECIFICATION T-310 MINOR DRAINAGE STRUCTURES

DESCRIPTION

1.1 Minor drainage structures are single passages with maximum waterway opening equivalent to a 78-inch round pipe (87- by 63-inch arch) or multiple passages with maximum, single waterway opening equivalent to a 60-inch round pipe (66- by 51-inch arch). They include overside drains. **Maintenance is work performed on inlets, outlets, related channels, existing riprap, trash racks, and drop inlets.**

MATERIALS

2.1 All materials used in the maintenance of minor drainage structures shall conform by type and specification to the material in the structure being maintained.

REQUIREMENTS

3.1 All minor drainage structures are to be maintained in accordance with these specifications in the spring following any significant runoff and prior to the beginning of winter storms.

3.2 Clear inlet and outlet channels, inlet trash racks, and drop inlets of loose material that could cause plugging or prevent the free flow of water. Debris shall be disposed of in agreed manner at designated locations.

3.3 If outlet riprap was originally placed to dissipate water energy, it shall be maintained in good condition including the replacement of riprap if necessary.

4.1 Make whatever minor repairs are necessary to ensure the proper functioning of the head walls, aprons, inlet assemblies, overside drains, riprap, trash racks, and other facilities related to the drainage structure.

SPECIFICATION T-506 CLEARING ROADWAY VEGETATION

DESCRIPTION

1.1 This work consists of cutting and disposing of all vegetative growth including trees from the road surface that reduces the operational capability of the road. Vegetation removal is required if the growth of the vegetation during the contract period causes unacceptable reduction of sight distance and operation capability.

REQUIREMENTS

3.1 Vegetative matter on the road surface which reduces sight distance, impedes vehicular travel, or interferes with road maintenance operations such as surface blading and ditch and culvert cleaning shall be removed. Downed timber meeting utilization standards shall be cut in appropriate lengths and decked along the roadside in locations where the traveled way or sight distance will not be impaired.

3.2 Low shrubs and brush which do not restrict sight distance, do not impede road maintenance, and reduce erosion need not be removed if the road surface can be adequately maintained without doing so. Vegetation and nonmerchantable timber removed shall be disposed of by scattering, chipping, hauling to designated disposal areas, or as otherwise agreed upon.

SPECIFICATION T-508 SEEDING

DESCRIPTION

1.1 Seeding is the application of seed and fertilizer to areas where vegetation has been disturbed as a result of slides, slumps, disposal of materials, and other Contractor operations in connection with road maintenance.

REQUIREMENTS

3.1 Contractor shall provide and apply the required kinds and amounts of seed and fertilizer in accordance with the requirements in G.6.0.1#.

3.2 Surfaces of areas to be treated shall be in a loose and roughened condition favorable to the retention and germination of seed.

K-F.3.1.4# - DUST ABATEMENT TREATMENT (02/02).

When conditions are such that dusting would result in hazardous driving conditions or there would be an appreciable loss of road surface binder material, Purchaser shall control such dusting by application of a dust abatement treatment to the surface of roadways and other traveled areas according to referenced or attached specifications or other specifications agreed to in writing. This treatment will provide a surface which can be bladed and retreated when necessary. It is not intended to produce a permanent waterproof wearing surface or dust control for more than one year, even though some residual value may be retained. It is intended to be compatible with the physical characteristics of the road surface, such as parent material, percent fines, relative humidity, or possibly some residual dust abatement material. Dust abatement treatment shall apply only to the roads listed below. The provisions of Specification T-103 of C5.31# shall apply to all other roads when required under C5.31#. T-103 of C5.31# may be used in lieu of C5.314# to perform dust abatement during hauling of timber cut within the clearing limits of roads constructed under this timber sale unless otherwise agreed.

Dust Abatement Specifications

Road Number	Road Name	Termini	Application Type	Abatement Treatment	Width of Application
835	Cripple Horse Weigel	Jct Hwy 37 to Jct Rd #4898: 3.32 Miles	Subsequent	Calcium Chloride Flakes @94% Concentration	14 feet
REFER TO APPLICATION RATE TABLE (BELOW)					

K-F.3.1.4# Attachment (02/02)

SURFACE PREPARATION

Prior to application of chlorides, the roadway shall be prepared by T-101 Surface Blading, and watered as necessary to achieve adequate penetration of the chlorides without runoff. If flakes are used, water will be added after placing the flakes to facilitate penetration of the chlorides into the roadway.

APPLICATION

(a) The Distribution Equipment shall be so designed, equipped, maintained, and operated such that the dust abatement material may be applied uniformly on variable widths of surface.

For liquid products the following requirements shall apply: (1) The spray pattern from each nozzle on the spray bar shall be uniform across the spray bar; (2) Distribution equipment shall include accurate volume measuring devices or a calibrated tank, a thermometer for measuring temperatures of tank contents, and a hose and nozzle attachment for applying material to areas inaccessible to the spray bar.

Calcium Chloride Flake shall be spread with equipment that evenly distributes the material across the required road width. The relative weight of material placed shall be easily determined during application.

A. Application Rate. Application rates will be as follows:

Application Rate Table

Road Number	Road Name	Termini	Application Type	Abatement Treatment	Application Rate **	Width of Application (Feet)
835	Cripple Horse Weigel	Jct Hwy 37 to Jct Rd #4898: 3.32 Miles	Subsequent	Calcium Chloride Flakes @94% Concentration	1.6 lbs/SqYd	14

** Application Rate for Calcium Chloride Brine (94% concentration) – Initial (.50 gals/Sq Yd) – Subsequent (.25 gals/ SqYd)

** Application Rate for Calcium Chloride Flakes (94% concentration) – Initial (1.6 lbs/Sq Yd) – Subsequent (.8 lbs/ SqYd)

** Application Rates for Magnesium Chloride are the same as Calcium Chloride.

The Forest Service may field test Chloride brines prior to application to make sure that the products meet the minimum concentrations specified. Acceptance of the material will be based on the concentration shown on the manufacturer's certificate, or on results of laboratory quality assurance tests done by the Forest Service on samples taken from distribution or hauling vehicles.

Uniform distribution shall be obtained at all points. For liquid products the spray pattern from each nozzle on the spray bar shall be uniform across the spray bar. For flake products, the coverage will be uniform on the road surface. Overlapping or skipping between spread sections shall be corrected. Accidental spillage and areas with excess dust palliative that are hazardous to traffic shall be covered with additional road surfacing material. The surface of adjacent structures and trees shall be protected from spattering or marring. Dust palliative material shall be discharged only in approved areas, and shall not be allowed to flow into ditches or stream courses. All products may be placed in one application.

All spreading and hauling equipment shall comply with applicable State and Federal requirements including GVW limitations.

(c) Certification with Shipment. When each load of chloride material is delivered, the Purchaser shall furnish one copy of the Bill of Lading, and a fully executed Certificate of Compliance indicating, as a minimum, the following information: Date, Material composition by weight of MgCL and CaCl, Net weight of shipment, Net gallons at 60 degrees F, Specific Gravity of brine at 60 degrees F. A separate Certificate of Compliance will not be required if the standard Bill of Lading contains the essential information required by the certificate.

(d) Sampling. Sampling of chloride material may be required to validate certifications furnished by the Purchaser. When sampling is directed by the Forest Service, the actual samples will be taken by the Purchaser in the presence of the Forest Service representative. All delivery and distribution equipment shall be constructed to permit sampling in conformance with AASHTO T-40 test procedure. Samples shall be obtained from hauling units just prior to application of the material.

When conditions are such that dusting would result in hazardous driving conditions or there would be an appreciable loss of road surface binder material, Contractor shall control such dusting by application of a dust abatement treatment to the surface of roadways and other traveled areas according to referenced or attached specifications or other specifications agreed to in writing. This treatment will provide a surface which can be bladed and retreated when necessary. It is not intended to produce a permanent waterproof wearing surface or dust control for more than one year, even though some residual value may be retained. It is intended to be compatible with the physical characteristics of the road surface, such as parent material, percent fines, relative humidity, or possibly some residual dust abatement material.

Dust abatement treatment shall apply only to the roads listed below. The provisions of Specification T-103 of K-F.3.1# shall apply to all other roads when required under K-F.3.1# T-103 of K-F.3.1# may be used in lieu of K-F.3.1.4# to perform dust abatement during hauling of timber cut within the clearing limits of roads constructed under this timber sale unless otherwise agreed.

K-F.3.1.6 - SNOW REMOVAL. (4/13)

Snow removal shall be done in a manner to preserve and protect the roads, to insure safe and efficient transportation and to prevent unacceptable damage to roads, streams, and adjacent lands.

A. Description. Snow removal work by Contractor shall include:

1. Removal of snow from entire width of road surface including turnouts.
2. Removal of snow slides, minor earth slides, fallen timber and boulders that obstruct normal road surface width including turnouts.
3. Maintenance of drainage so that the drainage system will function efficiently and prevent erosion damage.

B. Performance. Snow removal shall be kept current and performed as often as necessary to insure safe and efficient transportation. Work shall be done in accordance with the following minimum standards of performance.

1. All debris, except snow and ice, that is removed from the road surface and ditches shall be deposited away from stream channels at agreed locations.
2. During snow removal operations, banks shall not be undercut nor shall gravel or other surfacing material be bladed off the roadway surface.
3. Ditches and culverts shall be kept functional during and following road use.
4. Snow berms shall not be left on the running surface of the road. Berms left on the shoulder of road shall be removed and/or drainage holes shall be opened and maintained in them.

Drainage holes shall be spaced as needed to obtain satisfactory surface drainage without discharge on erodible fills.

5. Dozers or skidders shall not be used to plow snow on system roads without written approval of Forest Service. If approved, dozers and skidders must be equipped with shoes or runners to keep the plow blade a minimum of two inches above the road surface.

6. Snow removal must be done in such a way as to protect surface water drainage structures and the road surface. Any damage from, or as a result of, Contractor's snow removal work shall be restored in a timely manner at Contractor's expense.

K-F.3.2# – ROAD MAINTENANCE DEPOSIT SCHEDULE (8/12).

Other provisions herein notwithstanding, when Forest Service requests payment in lieu of Contractor's performance of road maintenance, Contractor shall make Required Deposits (16 USC 537) for current and/or deferred road maintenance. Such deposits are based on the estimated volume and distance hauled and Contractor's commensurate use of each road listed in the Road Maintenance Plan in K-F.3.1#.

Contractor and Forest Service may agree in writing on adjustment of such rates. If Contractor uses roads under jurisdiction of Forest Service other than those listed in the Road Maintenance Plan, Forest Service shall establish rates commensurate with Contractor's use of such roads.

The Required Deposits for Forest Service work in lieu of Contractor performance are \$N/A per TON for recurrent maintenance, and **\$0.13** per **TON** for deferred maintenance.

The following table lists who Contractor will make deposits for road maintenance to, and the rate per unit of measure of the deposit. The Road Maintenance Agreement is available for inspection at the Forest Supervisor's Office.

Deposit Made To	Rate	Unit of Measure
N/A		

K-G.1.0 - PREWORK CONFERENCE (10/04).

Annually, prior to commencement of work, a prework conference will be held to discuss contract terms and work performance requirements. Also at this meeting such things as responsibility under OSHA, and procedures for how undesignated timber that may have to be added to the contract (including danger trees) shall be discussed and documented.

The Contractor, or designated representative, will arrange for the meeting with the Contracting Officer.

K-G.2.3 - PROTECTION OF LAND SURVEY MONUMENTS (10/04).

Forest Service shall appropriately designate on the ground all known survey monuments including but not limited to horizontal control stations (Triangulation Stations), vertical control stations (Bench Marks), property corner monuments, and all Public Land Survey System monuments. This shall include reference monuments, corner accessories such as bearing trees, line trees and line posts. Identifying signs shall be posted by Forest Service on two sides of each known bearing tree and each line post shall be posted with a metal sign or decal. Line trees may be cut if designated under C.3.

In authorized clearings such as Clearcutting Units and road construction clearings, and in other instances where damage to survey monuments, corners, corner accessories and survey of property line markers is unavoidable, Forest Service shall arrange protective or perpetuative action which does not cause unnecessary delay to Contractor.

Contractor shall protect all known survey monuments, witness corners, reference monuments, bearing trees and line markers against avoidable destruction, obliteration or damage during Contractor's Operations. Additional monuments or objects discovered on the area shall be promptly reported to the other party and shall also be protected. If any known monuments, corners, corner accessories, and survey or property line markers are destroyed, obliterated or damaged during Contractor's Operations, Contractor shall employ a registered professional land surveyor to reestablish or restore at the same location the monuments, corners, corner accessories or line markers. Such surveyors shall use procedures and monumentation that accords with the Bureau of Land Management Manual of Instructions for the Survey of the Public Lands of the United States for General Land Office surveys and any applicable State statutes concerned with land surveys. Contractor's agent shall record such surveys in accordance with state survey statutes.

K-G.2.4# – SITE SPECIFIC SPECIAL PROTECTION MEASURES (9/04).

Special protection measures needed to protect known areas identified on Contract Area Map or on the ground include:

Cultural Resource Protection Measures: Shown as an STZ on Contract Area Map and flagged on the ground in **Yellow**, no road reconstruction, landing construction, or slash piling is allowed within the STZ.

Wildlife and Botanical Protection Measures: Purchaser and all sub-contractors shall comply with Kootenai National Forest Food Storage Orders.

K-G.2.7# - NOXIOUS WEED TREATMENT (3/07).

The roads shown in the table below and being used by the Contractor shall be treated with herbicide to remove seed-bearing noxious weeds.

Contractor shall:

A. Include a schedule for herbicide treatment of noxious weeds as part of the Annual Operating Schedule.

B. Treat roads or road segments required to have noxious weeds treated between **06/01** and **09/30**, unless otherwise agreed in writing.

C. Follow the “TECHNICAL SPRAYING SPECIFICATIONS”.

Treatment shall consist of spot applications that target those noxious weeds identified on the State of Montana’s Noxious weed list that occur on the listed roads. Reasonable care shall be exercised to limit application so that spraying does not contact native forbs, grasses, herbs, and trees.

Road Number(s)	Road Termini MP to MP	Herbicide	Prehaul	Posthaul
835	0.00 to 3.35 (Hwy 37 to Jct. Rd 4898)	Aminopyralid	NO	YES
4898	0.00 to 4.16 (Jct. Rd 835 to End of Unit 56)	Aminopyralid	NO	YES

K-G.2.7# - NOXIOUS WEED TREATMENT - TECHNICAL SPRAYING SPECIFICATIONS
KOOTENAI NATIONAL FOREST

1. The Purchaser shall give the Forest Service a 48 hour notification prior to spraying.
2. Spraying will be done by a State of licensed commercial applicator, and only by personnel under the direct supervision of the licensed applicator.
3. The following herbicides and application rates are approved for use, and are the only authorized methods of weed treatment under this contract provision. All use of herbicides and surfactants shall follow EPA label requirements.

Common Name	Trade name(s)	Application Rate (lbs active ingredient/ acre or oz/ac)
Aminopyralid	Milestone or approved equal	7 oz/ac

4. For treatments from **06/01** to **09/30**, surfactants that cause herbicide to adhere to the plant (stickers) shall be applied with herbicides.
5. No spraying of any non-aquatic herbicide will take place within **15** feet of open water and wet areas. Weed infestations within **15** feet of water can only be treated with labeled for treatment of aquatics, unless otherwise approved in writing by the Forest Service. No spray shall come in contact with open water at any time.
6. No spraying shall occur when rain is expected within six (6) hours of completion of the treatment.
7. Nozzles shall be made of stainless steel or ceramic material.
8. All equipment shall be in good mechanical condition and will be inspected prior to work. The spray pattern, application rates, and calibration shall also be checked before beginning the job and thereafter as deemed necessary by the Forest Service.
9. A tight-fitting lid on all spray tanks is mandatory.
10. Mixing, loading, and equipment cleaning shall be done more than 200 feet from private land or open water. Mixing and cleaning water shall come from public or cooperator supplies, and shall be transported to the site in labeled containers separate from water used for other purposes. On-site locations for water drafting must be approved in advance by the Forest Service. Equipment used to draft water from creeks or rivers must be equipped with anti-back siphoning devices.
11. Weather conditions shall be monitored before and during all spraying projects. Spraying is NOT allowed when any of the following conditions exist:

Hand-held equipment: Temperature greater than **85** degrees F.; humidity less than 20 percent, or wind greater than **10** MPH.

Truck-mounted equipment: temperature greater than **85** degrees F.; humidity less than 20 percent; or wind greater than **10** MPH.

12. Herbicides shall be transported daily to the project site with the following conditions: Transport only the quantity needed for that day's work; transport concentrate containers only in a manner that will prevent spills; and transport spray in a compartment that is isolated from food, clothing, and safety equipment.
13. Mixing shall only occur on site.
14. The Purchaser shall inspect equipment daily for leaks.
15. The Purchaser shall remove all herbicide containers from national forest land and dispose of them in accordance with all local, state, and federal requirements
16. Applicators will complete a daily pesticide application report as required by the Montana Department of Agriculture. Applicators will use the daily pesticide application report form provided by the Forest Service. Daily application reports shall be submitted to the Forest Service within 10 days of application.
17. When spraying occurs prior to road reconstruction, road reconstruction will not begin for at least 10 days following herbicide application.

K-G.3.1.6# - LIMITED OPERATING PERIOD (5/05).

Except when agreed otherwise in writing, Contractor's Operations shall be limited as follows:

No operations within units 179 and 182, including road reconstruction activities on the 835 Road from MP 2.0 to Jct. with 4898, and slashing activities, shall be allowed between April 1 and August 1 to protect Goshawk nesting.

Attachment B6.33
10/01
LOGGING AND MAINTENANCE OPERATIONS SIGNING STANDARDS

All signs must be manufactured & installed as specified in the FHWA "Manual on Uniform Traffic Control Devices" (MUTCD) & FS publication "Standards for Forest Service Signs & Posters"(EM 7100-15).

SIGN STANDARDS

SHAPE & COLOR: Generally, signs for logging and maintenance operations are either diamond-shaped or rectangular. All signs are **reflective orange background with black legend and border** unless shown otherwise. Handpainted, homemade signs are not legal. Fluorescent paint is not reflectorized.

SUBSTRATE: Sign substrate material may be High Density Overlay (HDO) Plywood, Aluminum, Fiberglass Reinforced Plastic, Corrugated Plastic or Roll-up Fabrics.

SIGN SIZE: Sign size is a factor of speed and MUTCD & FS standards. Where conditions of speed, volume, or special hazard require greater visibility or emphasis, larger signs should be used. Minimum sizes for the most common signs can be found in Figure 4. Refer to the EM-7100-15 for additional sign sizes.

LEGEND: All lettering shall be Series "C" alphabet, conforming to Standard Alphabets for Highway Signs. Letter size is also a function of speed - use letter size and word messages as specified in MUTCD and EM-7100-15.

SIGN PLACEMENT

Signs are to be installed in locations as agreed to in the traffic control plan. All signs are to be removed, covered, or folded when operations are not in progress or the sign message is not applicable. Signs should generally be located on the right-hand side of the roadway. When special emphasis is needed, signs may be placed on both the left and right sides of the road. Sign message shall be clearly visible to road users, mounted on posts or portable sign stands.

LATERAL CLEARANCE

From the edge of the road - 2 foot minimum, where slope limits to less than 6 feet. 6-12 foot preferred.

HEIGHT

Minimum of 7 feet, measured from the bottom of the sign to the near edge of the travelway. The height to the bottom of a supplemental sign mounted below the primary sign will be 6 feet.

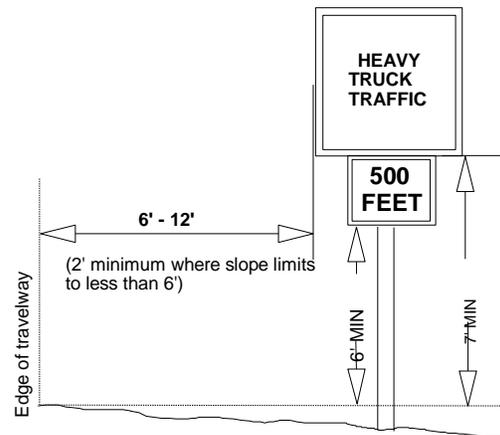


Figure 1: Sign Placement Dimensions

PLACEMENT DISTANCE

Signs must be located 100-500 feet prior to the activity, (both ends if a through road) and maintained at that distance. This distance is based on speed. Refer to Figure 2 , Table II-1, MUTCD, a portion of which is reproduced here, to determine correct placement distance.

Posted or 85 percentile speed MPH	Deceleration to listed advisory speed MPH				
	10	20	30	40	50
20	NA				
25	100				
30	150	100			
35	200	175			
40	275	250	175		
45	350	300	250		
50	425	400	325	225	
55	500	475	400	300	
60	575	550	500	400	300
65	650	625	575	500	375

Figure 2: A Portion of MUTCD TABLE II-1

SIGN SUPPORTS

POSTS: Signs are to be mounted on separate posts. Supplemental signs such as Speed Advisory plates are to be mounted on the same post as the primary sign. **Do not mount signs on trees or other signs.** Posts may be wood, metal, carsonite or similar material. Where sign supports cannot be sufficiently offset from the road edge, supports will meet breakaway standards. Single wood posts with less than 24 square inches do not require breakaway design.

TEMPORARY/PORTABLE SUPPORTS: Portable supports may be used for short-term, short-duration, and mobile conditions. MUTCD defines this time period as one work shift, 12 hours or less. All portable supports must meet MUTCD standards, including breakaway. These must be a minimum of 1 foot above the road surface or more if visibility requires it.

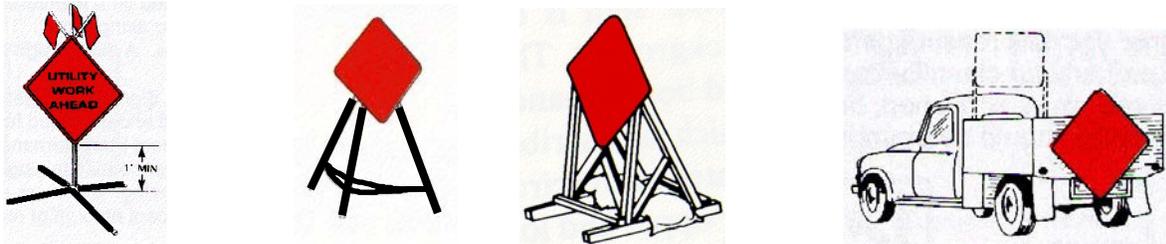
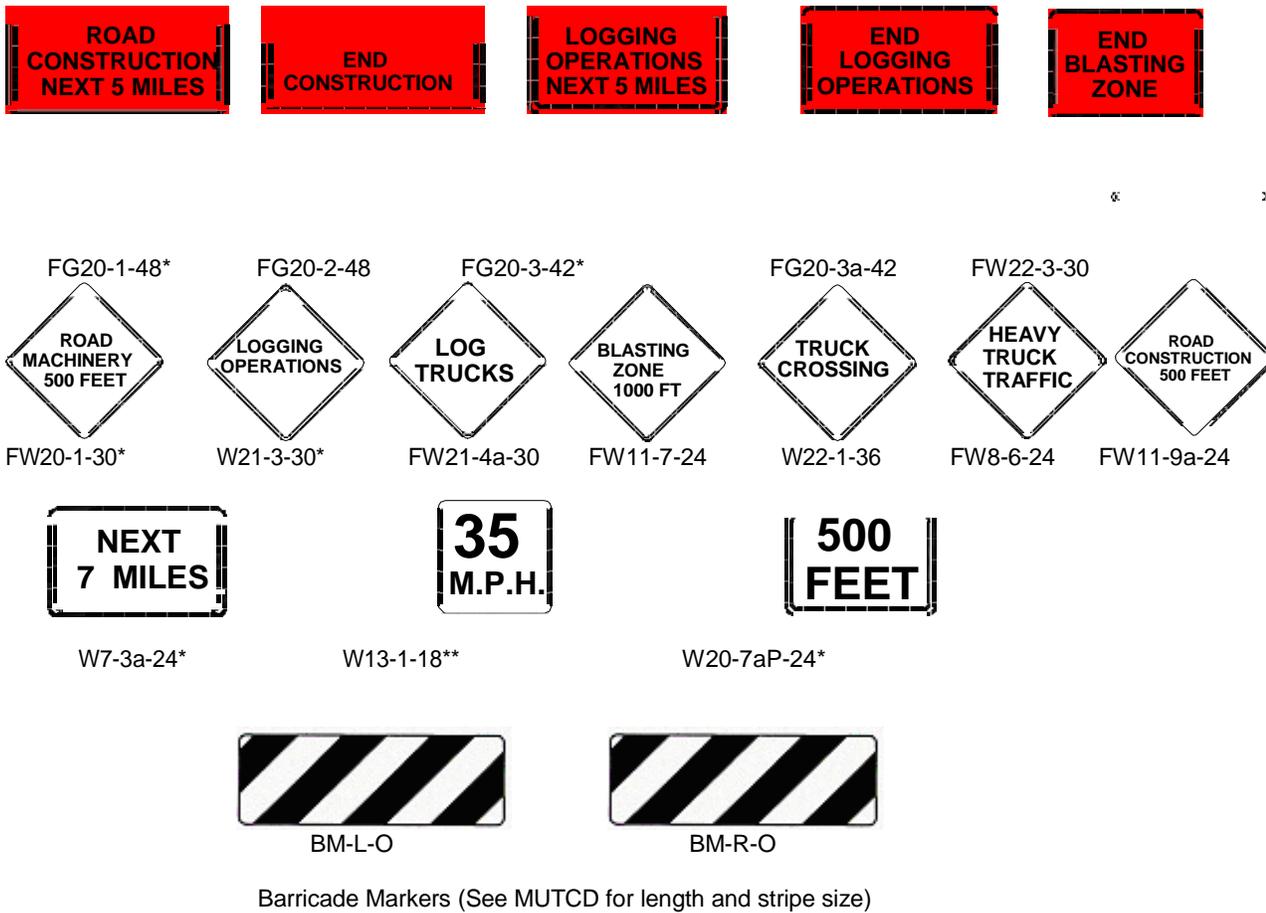


Figure 3: Examples of Temporary/Portable Supports

SIGNS

The following signs meet the intent of Timber Sale Contract Provision B6.33, SAFETY.
This is not a complete listing of signs that may be needed.



Barricade Markers (See MUTCD for length and stripe size)

* Specify Distance
 ** Specify Speed

K-G.3.3.2 - SAFETY (TIMBER HAULING) (10/04).

Contractor shall secure all products transported by truck with at least two chain or cable wrappers over the load, such wrappers being securely fastened to effectively contain every bolt or log in at least two places.

K-G.3.3.9 - ACCIDENT AND INJURY NOTIFICATION (4/05).

Contractor shall notify Forest Service of any lost time personal injury accident or any accident or vandalism resulting in personal property damage over \$400 in value that occurs as a result of or is associated with Contractor's Operations.

Contractor shall notify Forest Service within 8 hours of any personal injury accident. For vandalism and personal property accidents, Contractor shall notify Forest Service at the same time notification is given to the state and local law enforcement authorities.

Contractor shall take all reasonable measures after an accident or vandalism event to preserve the scene of the incident and provide information to facilitate a Forest Service investigation.

The method of notification shall be agreed to in writing at the prework conference required by provision K-G.1.0.

K-G.3.5.1# - WASHING EQUIPMENT (7/07).

In order to prevent the spread of noxious weeds into the Contract Area, Contractor shall be required to clean all off-road logging and construction equipment prior to entry on to the Contract Area. This cleaning shall remove all soil, plant parts, seeds, vegetative matter, or other debris that could contain or hold seeds. Only logging and construction equipment so cleaned and inspected by the Forest Service will be allowed to operate within the Contract Area. All subsequent move-ins of equipment to the Contract Area shall be treated in the same manner as the initial move in. "Off-road equipment" includes all logging and construction machinery, except for log trucks, chip vans, service vehicles, water trucks, pickup trucks, cars, and similar vehicles.

Contractor shall employ whatever cleaning methods are necessary to ensure that off-road equipment is free of noxious weeds. Equipment shall be considered free of soil, seed, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools is not required.

In order to prevent the spread of noxious weed species **IN** the Contract Area, Contractor shall be required to clean all off-road logging and construction equipment that operates in **N/A** prior to the equipment leaving the **N/A**. Contractor and Forest Service shall agree on methods of cleaning, locations for the cleaning, and control of off-site impacts, if any.

Unless otherwise agreed, Contractor shall give the forest service at least 24 hours notice when equipment is ready for inspection. Notification will include an agreed upon location where the equipment will be available for inspection by the forest service.

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

K-G.4# - CONDUCT OF LOGGING (10/82).

Unless otherwise agreed in writing, silvicultural prescriptions and land management objectives shall be conducted and accomplished by the following requirements, methods and procedures:

CUTTING UNIT	CONDUCT OF LOGGING
	TRACTOR
All	The location of tractor skid roads shall be agreement. Tractor skidding shall be done over the natural terrain without excavation except where location of excavated skid roads is approved by Forest Service in advance of construction. Skid roads requiring excavation shall be kept to a minimum width. Prior to completing the unit the constructed skid roads shall be drained by outsloping, cross ditching or both.
All	Trees shall be felled, insofar as safety permits, to angle in the direction of skidding.
All	Tractor skid roads shall not be constructed on slopes steeper than 35% . Skidding tractors shall be limited to the constructed skid roads which are spaced no closer than 75 feet apart.
All	Logs shall be tractor skidded with the leading end free of the ground.
All	Tractor skid roads shall be located and approved in advance of falling adjacent timber.
All	Tractors shall be restricted to approved skid roads.
All	Tractor skid roads shall be no less than 75 feet apart except where converging.
All	Tractor skid roads shall be kept to a minimum width specified by Forest Service.
All	Rub trees and/or logs shall be left along tractor skid roads as needed to protect young growth and leave trees.
179	<u>Cultural Resource Protection Measures</u> : Shown as an STZ on Contract Area Map and flagged on the ground in Yellow, no road reconstruction, landing construction, or slash piling is allowed within the STZ.

K-G.4.0.6# - SITE CONDITION (10/01).

Unless otherwise agreed in writing, in **Cutting Unit 182**, Refer to K-G.7# for Piling Specifications.

A minimum of **Refer to K-G.7# for Piling Specifications** and a maximum of **Refer to K-G.7# for Piling Specifications** of woody material will be left evenly distributed on each acre.

Unless otherwise agreed in writing, in **Cutting Units 18, 18A, 19, 20A, 20B, 21, 56, 179** the following site condition is required:

A minimum of **5** and a maximum of **12 tons/acre** of woody material a minimum of **4** inches in diameter on the large end at least 4 feet in length, **where available**, will be left evenly distributed on each acre.

Contractor may be required to remove limbs and tops prior to skidding or yarding or return them to the area after skidding or yarding in order to meet the minimum requirement. If the maximum requirement is not met through normal logging operations, slash will be treated in accordance with specifications listed in the Hazard Reduction and Site Preparation Plan.

K-G.5.0# - STREAMSIDE MANAGEMENT ZONES (12/90).

A Streamside Management Zone (SMZ) is a zone that contains riparian vegetation and other special characteristics. Areas identified as Streamside Management Zones (SMZ's) are shown on the Contract Area Map and designated with **ORANGE** flagging and paint. Boundary trees are marked on three (3) sides with vertical stripes of **ORANGE** paint extending from diameter breast height (DBH) upwards approximately three (3) feet. The middle stripe of paint faces the cutting unit and the other two face on line with the SMZ boundary. In addition, each boundary tree has a horizontal stump mark of **ORANGE** paint on the downhill side of the tree at ground level. Trees used for boundary designation are not to be cut.

Timber designation, conduct of logging, and/or slash treatment may differ in the SMZ from the rest of the unit. Unless otherwise agreed to in writing and notwithstanding the contract requirements otherwise applicable to each cutting unit, the following special requirements apply to the SMZ of the cutting units specified below:

Streamside Management	
Cutting Unit	Zone Requirements
20B	50 feet either side of high water mark, equipment exclusion zone. No equipment allowed within the SMZ (Orange flagged). Sawtimber and Non-sawtimber material must be directionally felled away from the SMZ and removed. No slashing (except felling damaged residuals) allowed within the SMZ.

K-G.6 - EROSION PREVENTION AND CONTROL (10/04).

Unless otherwise agreed in writing, Contractor shall complete erosion prevention and control work required in section G.6, including Streamcourse protection, within 15 calendar days after completion of skidding and/or yarding operations for each landing.

Designation of on the ground work shall be done as promptly as feasible unless it is agreed that the location of such work can be established without marking on the ground.

During periods of accelerated water runoff, especially during the spring runoff and periods of heavy rainfall, Contractor shall inspect and open culverts and drainage structures, construct special cross ditches for road runoff, and take other reasonable measures needed to prevent soil erosion and siltation of streams.

When operations are active outside the Normal Operating Season defined in A.16, erosion control work will be kept current and will be completed as soon as practicable.

K-G.6.0.1# - EROSION CONTROL SEEDING (3/07).

Following completion of skidding and yarding operations in an area, Contractor shall seed and fertilize all exposed areas of raw soil on skid trails, landings, firebreaks, slides, slumps, Temporary Roads and traveled ways of National Forest system roads scheduled for stabilization by Purchaser after operations. Special Provision K-F.4.1.9# - SYSTEM ROAD STABILIZATION contains a list of the roads requiring seeding and fertilizing.

Soil on areas to be seeded shall be left in a roughened condition favorable to the retention and germination of the seed or as specified in Special Provision K-G.6.3.3# - TEMPORARY ROAD, SKID TRAIL/SKID ROAD AND LANDING SCARIFICATION.

Seed and fertilizer shall be spread evenly at the rate of **26** pounds of seed and **240** pounds of fertilizer per acre. When fertilizer and seed are applied in separate operations, the second operation shall be carried out within 72 hours of the first.

Application shall be during the period **March to November** and under the above specified conditions unless otherwise approved.

The kinds and amounts of seed to be sown in terms of pure live seed (PLS) shall be:

Species of Seed	PLS Pounds per Acre
Blue Wild Rye	8
Bluebunch Wheatgrass	4
Slender Wheatgrass	4
Mountain Brome	4
Annual Rye	6
Total	26

Contractor shall provide to the Forest Service:

1. Blue tags, or copies of blue tags from each seed lot used in the specified mix. Only certified, blue-tagged seed shall be used. The blue tag represents a field certification and serves as evidence of the genetic purity and varietal identity of the seed contained in the seed lot .
2. Labels which indicate the percentage composition of the various species in the seed mix.
3. Copies of Seed Analysis Reports from a certified seed analyst for each seed lot used in the specified mix. Contractor will obtain this report from the seed provider. Seed Analysis Reports must include at a minimum, content of any noxious weed seeds listed on the current "State of Montana Noxious Weeds List". Only after the Forest Service has verified that this report indicates the seed does not contain any weeds on the current "State of Montana Noxious Weeds List", will the seed be accepted and used.

The following kinds and amounts of standard commercial fertilizer shall be used with guaranteed analysis of contents clearly marked on containers:

Type of Fertilizer	Pounds Per Acre
25-10-10 or 27-12-12 or 34-16-10	240

K-G.6.3.2# - TEMPORARY ROAD AND TRACTOR ROAD OBLITERATION (2/02).

Notwithstanding the provisions of G.6.3 and G6.5, unless otherwise agreed, temporary roads accessing All Units and tractor roads within All Units constructed for use with this sale shall be obliterated after they have served the Contractor's purpose. Obliteration shall consist of recontouring road prism including all cut and fill slopes to natural ground contour. Equipment will not be permitted to operate outside the clearing limits. In addition, from **5 to 10** tons per acre of clearing or logging slash, stumps or other woody debris shall be placed and scattered uniformly on the top of the recontoured corridor.

K-G.6.3.3# - TEMPORARY ROAD, SKID TRAIL/SKID ROAD AND LANDING SCARIFICATION (2/02).

Unless waived in writing by the Forest Service on specific roads, skid trails/skid roads or landings, all landings, skid trails/skid roads, and Temporary Roads constructed or used by Contractor shall be scarified by the Contractor following use.

Scarification shall span the width of the compacted areas and shall be done to a depth of not less than **4 inches**, but not to exceed a depth of **14 inches**, and must effectively prepare the ground for seeding.

Scarification shall be done during the period **May** to **October** unless otherwise approved. No scarification work shall be done during wet weather or when the ground is frozen or otherwise unsuitable.

K-G.6.6.1 - CURRENT OPERATING AREAS (10/04).

Unless waived in writing by Forest Service, Contractor shall remove accumulations of slash and logging debris in operating areas from system roads prior to the end of Normal Operating Season. Slash and logging debris in excess of three (3) feet in length and three (3) inches in diameter shall not remain on backslope, in ditches, or on traveled way, shoulders or turnouts. Debris shall be scattered downslope from the roadbed, avoiding any concentrations. When weather permits operation after Normal Operating Season, Contractor shall keep such work on any additional disturbed areas as current as practicable.

K-G.7 - HAZARD REDUCTION AND SITE PREPARATION (3/89).

Contractor's timing of product removal, hazard reduction and site preparation shall not unnecessarily delay Forest Service slash disposal, site preparation or reforestation. Contractor shall perform hazard reduction and site preparation work in accordance with the Hazard Reduction and Site Preparation Plan and Map which are attached hereto and made a part hereof. Such work is in addition to Required Deposits for slash disposal.

CLOONEY BECK STEWARDSHIP
Hazard Reduction and Site Preparation Plan
K-G.7#

General:

Unless otherwise agreed in writing, Purchaser shall perform the following work described below and as shown on the Hazard Reduction and Site Preparation Map.

Forest Service and Purchaser shall jointly develop a schedule for completion of slash treatment on the various portions of the sale area.

Within **cutting unit(s) 18, 19, 20A, 20B, 21, 56, 179 and 182** in which logging is substantially completed by **September 30th**, purchaser's slash disposal and site preparation responsibilities shall be completed by **October 31** of the same year.

Any activity fuel or slash generated as a result of timber harvest operations, shall be returned to a minimum of **15 feet** inside of the cutting unit boundary.

SLASH TREATMENT METHODS	SPECIFICATIONS
<u>Machine (Grapple) Slash Piling Without Site Preparation, Unit 182</u>	<p>Logging slash abatement may be met by proper utilization. However, in the event logging activities result in significant accumulations of slash due to breakage or as a result of slashing damaged residual, excavator piling shall be performed to mitigate the accumulations of slash.</p> <p>Purchaser shall grapple pile logging slash within the cutting unit and portions of cutting unit.</p> <p>An accumulation of slash will be defined as, activity slash concentrations over a one-tenth acre that could be piled to the minimum height of <u>6 feet</u> and not more than <u>15 feet</u> in width.</p> <p>Piles shall be placed no closer than <u>20 feet</u> from the outside perimeter of the unit, system roads, wet areas, or other areas designated on the ground by the Forest Service. No pile or windrow shall be closer than <u>15 feet</u> from any standing reserve trees. Piles shall be compact and free of soil.</p> <p>Where material is available, Purchaser will leave a minimum of <u>5</u> and a maximum of <u>12</u> tons of woody material over <u>4 inches</u> in diameter on the small end and a minimum of <u>4 feet</u> in length scattered, as much as practical, throughout the cutting unit.</p>
<u>Slashing Units: ALL UNITS</u>	<p>Purchaser shall fell all live and dead coniferous vegetation not meeting utilization standards and over <u>3 feet</u> in height, unless otherwise designated to be left standing. Stump height shall not exceed <u>6 inches</u> from ground surface as measured on the uphill side. Trees shall be completely severed from the stump below the lowest live limb, leaving no sharp angles.</p> <p>Material to be slashed <u>within 10 feet</u> of the boundary of a unit shall be felled toward the center of the unit. Any material which falls outside of the</p>

	unit shall be returned to a minimum of 10 feet inside of the boundary. All roads within these units shall be kept free of slashed material. Slashed vegetation shall be felled along the contour as much as possible for water runoff soil movement protection.
<u>Clean System Roads:</u> ALL UNITS	Purchaser shall dispose of all logging slash 3 inches large end diameter and 4 feet in length which is created within the clearing limits of system roads. Slash shall be piled for later burning within the right-of-way clearing unless an alternate method of slash disposal is agreed to in writing. Piles shall be reasonably compact and free of soil to facilitate burning. Piles shall be of a size and location which will not impair road use. Piles shall be a minimum of twice their diameter from any residual timber.
<u>Yard Tops, Units:</u> ALL UNITS	Purchaser shall leave the tops of felled trees attached to the top log and yard them to landings.
<u>Landing Cleanup:</u> ALL UNITS	A landing is considered a place where any logs or products are gathered for loading. Unless otherwise agreed, all slash accumulated at landings shall be piled. Piles shall be reasonably compact and free of soil to facilitate burning. Piles shall be of a size and location which will not impair road use or result in damage to residual timber. Piles shall be a minimum of 40 feet from any residual timber.

K-G.7.1 - CHANGE IN SLASH TREATMENTS (3/90).

Slash treatment measures required in accordance with the Hazard Reduction and Site Preparation Plan and Map may be changed upon written agreement. The Forest Service shall determine the current cost of performing the work to be deleted and the work to be added. When the cost of work deleted exceeds the cost of work added, the agreement shall provide for a lump sum payment to the Forest Service for the amount of the difference.

K-G.7.1.1 - BURNING BY CONTRACTOR (10/79).

Contractor shall obtain a written permit from Forest Service before burning any camp refuse, brush, slash or construction debris at any time throughout the year. The terms of the permit will set forth:

- A. Area or location where burning is permitted.
- B. Material to be burned.
- C. Safeguards, including help and equipment to control the fire.
 1. Special precautions to be taken before burning.
 2. Control action needed until the fire is out.

K-G.7.5.3 - TEMPORARY ROAD CONSTRUCTION SLASH DISPOSAL (10/82).

Unless agreed otherwise in writing, Temporary Road slash shall be disposed of or treated in accordance with the following:

A. All timber within the road clearing limits which contains a product meeting the minimum piece specifications stated in A.2 shall be felled (not pushed over) and bucked in advance of road construction. All timber shall be felled within the clearing limits whenever it is feasible to do so.

B. Timber within the clearing limits not meeting minimum piece specifications in A.2 and other debris from the clearing and grubbing operations more than three (3) inches in diameter and three (3) feet in length shall either be (a) utilized and removed from Contract Area, (b) burned within the right of way, (c) removed to designated locations shown on Contract Area Map for burying or later burning, (d) buried, (e) processed through a chipping machine, (f) scattered in such a manner as to avoid concentrations of slash and without damaging other trees or resource values, (g) decked, or (h) a combination thereof.

C. All material to be treated or disposed of shall be bucked into lengths not to exceed 20 feet before being piled or buried.

D. If debris is to be burned, burning shall be complete and shall be done at such times and in a manner approved in writing by Forest Service. Residual construction slash from burning shall be buried, scattered or removed to agreed locations.

E. Debris to be buried shall be placed in prepared holes, benches, or trenches at agreed locations and covered with not less than two (2) feet of native soil or rock. Slash and debris may be buried in the roadway providing hauling can be supported and providing there is little probability or hazard of slope failure.

F. If debris is to be chipped, the chips shall be spread over the surface of the ground in such a manner that their loose depth does not exceed six (6) inches. Chips may be mixed with soil within roadway.

G. Slash and debris may be scattered in those situations where the volume of slash or residual slash is relatively light and the adjacent stands of timber are sufficiently open to accommodate the scattering without damage.

H. If material is decked, logs not meeting Utilization Standards that are six (6) inches or more in diameter shall be bucked into lengths not to exceed 32 feet and piled at agreed locations.

K-G.8.0.1 - SCALING (PULP LOGS) (10/04).

A pulp log, as shown and specified in A.2, shall be any log or portion of a tree, except western redcedar, dead or alive, not meeting sawlog specifications shown in A.2 and containing at least 50 percent pulpable wood in terms of gross cubic volume. Normal sawlog scaling defects such as stain, shake, checks, crook, sweep, burls, knot clusters, pitch, worm holes, and firm rot are considered pulpable. Fire char is not considered pulpable. Defective logs that will break up under normal debarking operations are not considered pulpable.

Final piece, log, or load volume shall be in terms of gross cubic feet.

When pulp logs are manufactured and marketed in shorter minimum piece lengths than shown in A.2, this shorter pulp log shall be considered as meeting Utilization Standards.

K-G.8.2.2 - PRESENTATION FOR WEIGHT SCALING. (4/13).

To facilitate the requirement of G.8.2 that loads be presented so that they may be scaled in an economical and safe manner, and to aid in the accountability requirements of K-G.8.4.0 or K-G.8.4.8, Contractor, unless otherwise agreed in writing, shall:

A. Utilize scales that meet the standard for commercial vehicle scales defined in the National Bureau of Standards Handbook 44, current edition.

B. Weigh all loads on scales currently certified by the State in which weighed. Scales must have a current inspection tag or seal posted which shows the date of the most recent test by the State weights and measures agency. No load shall be presented for weighing that weighs more than the certified capacity of the scales in use. Each load shall be weighed according to the *Instructions for Load Weighing and Accountability* posted at the weighing facility, with the gross and tare weights stamped and recorded by an automatic recording device on the scales. Loads shall be weighed in sequence, with the gross weight obtained first and the tare weight printed within two (2) hours of unloading. In addition to the gross and tare weights, Purchaser shall record the following information on each weight slip:

- a. Sale name
- b. Load Removal Permit number
- c. Date and time weighed

C. Maintain load accountability from the Sale Area to point of weighing. In so doing, the load of products shall remain intact while in transit. Products accidentally lost in transit shall be promptly identified by Load Removal Permit number and sale designation. Purchaser shall, within 48 hours, load out such lost products and present them for weighing or make other arrangements acceptable to Forest Service. Unless otherwise agreed, off-loaded logs will not be stored at State weigh station sites. Logs will be off-loaded onto an empty truck and will have a log load removal permit attached before proceeding from the weigh station. Purchaser is required to notify the Forest Service before off-loading of logs occurs. Off-loaded logs will be delivered immediately to the designated weight scales.

D. Clearly and legibly paint the last three digits of the Load Removal Permit number in **BLACK** paint on the back end of at least three (3) logs of every load transported from the Sale Area.

K-G.8.2.3 - VOLUME DETERMINATION. (4/13).

Volume determination shall be based on Weight Measurement unless otherwise agreed. Products shall be weighed on certified scales at locations approved by Forest Service. The weight slip, showing sale name, Load Removal Permit number, date and time weighed, and the gross and tare weights, shall be attached to the Scaler Permit and placed in the location(s) designated by the Forest Service.

In the event of weight scale equipment breakdown or suspension of use for other reasons, hauling shall be suspended until Contractor and Contracting Officer agree to an alternate weighing location.

If Scaler Permits and/or weight slips are not provided for any reason, Forest Service shall use data from the records during the period in which loss occurred to determine weight of load(s). The weights of such load(s) shall be deemed equal to the load with the heaviest net weight presented during the payment period in which the loss occurred.

Payment for lost products may not be required if Forest Service determines that the weight of such lost products involved is small and justified by existing conditions.

K-G.8.4.8 - WEIGHT ACCOUNTABILITY FOR SPLIT PRICING (3/12).

Products sold on a basis other than single price for all products shall be accounted for as follows:

A. Requirements Applicable to Contractor's Accountability Obligations:

- a. Where Contractor's product accountability responsibilities are concerned, all operations performed by Contractor's employees, agents, contractors, subcontractors, their employees or agents, Contractor's obligations shall be the same as if performance is by Contractor.
- b. Contractor shall sort and deck separately the sawtimber and non-sawtimber products at the landing. The non-sawtimber products shall remain on the landing until released for hauling and weighing by the Sale Administrator.

B. Requirements Applicable to Product Removal Book:

1. Forest Service:

- a. Forest Service will issue to Contractor or designated representative(s) serially numbered Product Removal Permit Books for sawtimber products for use only on this sale. Product Removal Permit Books whether used or unused are accountable property of Forest Service and shall be returned to issuing Ranger District in accordance with instructions contained on the inside cover of each book.
- b. The Product Removal Permits for non-sawtimber products will be issued by the sale administrator as needed to haul these products and are accountable property of the Forest Service. The non-sawtimber products will not be hauled until inspected and released by the sale administrator.

2. Contractor shall require:

- a. All permits be filled out in ink by an individual named in writing other than the truck driver and be attached to load before products are hauled from immediate vicinity of or adjacent to location where loading is done showing date loaded, brand, sale name, and destination where products will be weighed. Permits shall be attached in accordance with instructions on inside cover of Product Removal Permit Book.
- b. Before Sawtimber products are hauled, truck driver will sign legal signature in ink on Woods Permit.
- c. Contractor's Representative or other designated representative will sign legal signature in ink on Woods Permit for non Sawtimber products at time the permits are issued by the sale administrator.
- d. Contractor shall assure that all used Scaler Permits are deposited in accordance with procedures established by the Forest Service.

C. Requirements Applicable to Weight Slips:

1. Contractor shall assure that:

- a. All products removed are presented for weighing at agreed to locations and that gross and tare weights are obtained on certified scales.
- b. That weight slips are attached to proper Scaler Permit and deposited in accordance with procedures established by the Forest Service.

K-G.8.4.9 - ROUTE OF HAUL. (4/13)

As part of the annual Operating Schedule, Contractor shall furnish Forest Service both a map and a written general plan for hauling Included Timber from Contract Area. The plan shall set forth:

- A. Designated haul route(s).
- B. Designated weight scales.

Such route of haul shall normally be the shortest, most economical haul route available between the points. Forest Service written approval of the haul route(s) and weight scales is required prior to commencement of Contractor's hauling operations. The designated weight scales must meet the requirements contained in Standard Provision G.8.1.4 at each weighing facility the Contractor wishes to use.

Upon advance written request, other haul routes may be approved. All products removed from Contract Area shall be transported over the approved designated routes of haul. Contractor shall notify Forest Service when a load of products, after leaving Contract Area, will be delayed for more than 12 hours in reaching weighing location. Such notification shall be made as soon as the Contractor is aware of the delay and include the Load Removal Permit number, weighing destination and rationale for the delay.

Contractor shall require truck drivers to stop, if requested by Forest Service, for accountability checks when products are in transit from Contract Area to the designated weighing location. Purchaser and Forest Service shall agree to locations for accountability checks in advance of haul. Such locations shall be established only in areas where it is safe to stop trucks. Forest Service shall notify Contractor of the methods to be used to alert truck drivers of an impending stop.

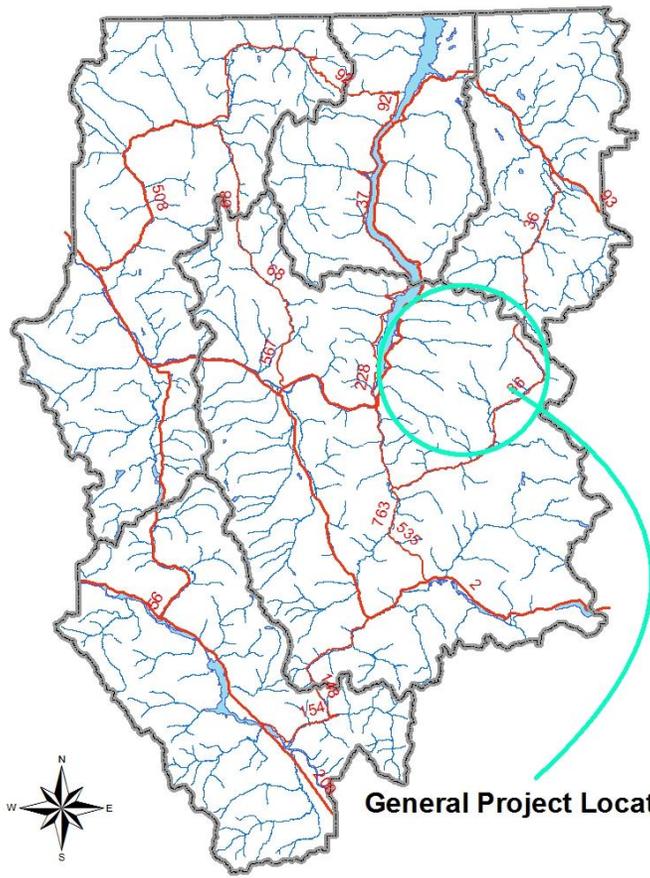
K-G.9# – STEWARDSHIP PROJECTS (9/04).

Performance of stewardship projects shall be in accordance with the following specifications.

PROJECT NUMBER 001 – (MANDATORY)

ROAD STORAGE AND DECOMMISSIONING

UNITED STATES DEPARTMENT OF AGRICULTURE
 FOREST SERVICE – REGION ONE
 PLANS FOR MANDATORY ROAD
 STORAGE AND DECOMMISSIONING
 LINCOLN COUNTY, MONTANA
**CLOONEY-BECK ROAD STORAGE AND
 DECOMMISSIONING PROJECT**
 KOOTENAI NATIONAL FOREST
 LIBBY RANGER DISTRICT



General Project Location

ROAD NO.	ROAD NAME	LENGTH (ft)
Storage 4893A	MIDDLE FORK FIVEMILE	4895
Decom 4923C	EAST WYOMA C	3820
Decom 4951	WEST WEIGEL MTN	3000

PREPARED BY:

 DISTRICT HYDROLOGIST

 DATE

REVIEWED BY:

 ZONE ENGINEERING TEAM LEADER

 DATE

MULTIPLE RESOURCE REVIEW BY:

 DISTRICT RANGER

 DATE

I certify that this project has been designed in accordance with sound engineering practice.

 FOREST ENGINEER

 DATE

Index & General Notes

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Construction Staking: Stations will be flagged on the ground before work begins.

Project work identified in the Work Logs is stationed from the beginning of each road to the end, but work will generally be accomplished from the end of each road (last station) back to the beginning.

Mobilization (Pay Item 15101): Mobilization cost includes tracking equipment from lowboy drop points to work areas and transporting equipment by lowboy between work areas. It is the Contractor's responsibility to verify the suitability and accessibility of drop points sites selected.

Incidental work to this Pay Item includes removal of existing earth berms and light clearing unless shown otherwise in the work logs. Existing waterbars and drivable dips that require little modification for access will be restored to their original condition if altered or damaged by the Contractor, incidental to this Pay Item, unless shown otherwise in the work logs.

Roadway Clearing (Pay Item 21160): The roads in this contract have been closed to vehicle traffic for many years and have revegetated. Vegetation varies from light (scattered small brush) to heavy (dense 2-3" diameter alder and 4-8" diameter conifers). Logs and rocks in the roadway may need to be removed. Existing earth barriers will need to be removed (if reinstalled they will be paid for under Pay Item 20427). Clearing and grubbing for all other required work is included in this pay item.

Culvert disposal (Pay Item 20301): All removed culverts will be disposed of off of National Forest.

Drainage Construction, Stream Channel Categories I & II (Pay Items 21161 and 21162): The stream Category (I or II) was determined during the design by measuring the vertical distance from the road surface to the expected final stream grade elevation below the culvert outlet; Category I is 10 feet or less and Category II is 10 to 20 feet. Excavate the road fill down the the original stream channel or as directed in the plans. Provide for the channel width shown on the Stream Channel Reconstruction List. The Contractor will determine where to start the excavation and how far back to place the fill so that the finished excavation results in the slopes being laid back to the natural contour or 2:1, whichever is less.

Culverts being excavated at stream crossings will require Special Erosion Control Measures where shown on the Stream Channel Reconstruction List. These sites have legal requirements to protect water quality. In order to minimize sedimentation in flowing streams all possible excavation needs to be completed prior to culvert removal. Rocks of required size and number for grade control structures and armoring will be staged at inlet and outlet areas.

Before the culvert is removed side slopes will be excavated down to the final stream elevation allowing for the required channel width. The last fill material removed before pulling the culvert will be at the inlet end so as to allow the machine to cross over the culvert to the approach side of the stream crossing. The culvert will not be removed from the stream until the COR or Hydrologist verifies the excavation beyond the culvert has been completed to specification.

Stream Grade Control Structures (Pay Item 21175): It is anticipated that on site rock salvaged from the roadbed excavation will be sufficient to construct stream grade control structures. Rock may be sorted from road fill material excavated during the prosecution of the work or excavated and hauled from rock sources found along the project roads. Sites developed for rock borrow must be approved by the CO and shall be left in stable condition following rock collection.

Application of Slash and Duff: Slash and duff application is incidental other pay items. Where slash placement on disturbed soils is required in the plans, use the excavator bucket to collect and scatter a light layer of duff material evenly over disturbed soils before applying slash. Obtain duff from the ground in naturally forested areas where possible and adjacent to the road above the top of the cut slope or below the toe of the fill slope. Smooth duff collection holes over by knocking down sharp edges and lightly raking adjacent material back into holes.

Seeding (Pay Item 62501): Areas where bare soil is exposed as a result of project activities will be hand seeded at a rate of approximately 25 pounds per acre using the KNF seed mix. Seed will be applied uniformly and in a manner that allows supplied seed to cover the anticipated acreage.

Summary of Quantities

Item No.	Item Description	Method of Measurement	Unit Measurement	Road 4893A	Road 4923C	Road 4951	Total Quantity
15101	Mobilization	LSQ	LS				All
20301	Culvert Disposal	AQ	EA	3	10	9	22
21160	Roadway Clearing	AQ	LF	3420	3820		7240
21161	Stream Channel Excavation - Category I	AQ	EA	2	1		3
21166	Partial Road Recontour, 3:1 Outslope	AQ	LF	940	265		1205
21165	Full Road Recontour, 1:1 Outslope	AQ	LF			291	291
21167	Road Decompaction	AQ	LF		3550		3550
21169	Ditch Relief Culvert Removal	AQ	EA		7	6	13
21170	Cross Channel	AQ	EA		1	9	10
21171	Ditch Intercept Waterbar	AQ	EA	3	1		4
21172	Surface Waterbar	AQ	EA	3		3	6
21174	Double Earth Barrier	AQ	EA		1		1
21175	Grade Control Structure	AQ	EA	6	3	21	30
62501	Seeding Application	AQ	AC	2.09	1.75	1.72	5.56
62201	Medium Excavator	AQ	HR	8			8

Stream Channel Reconstruction List

Road Number	PAY ITEM NO.	STA	CMP DIAM (IN)	CMP LENGTH (FT)	INLET ROAD FILL DEPTH (FT)	OUTLET ROAD FILL DEPTH (FT)	ROAD WIDTH (FT)	CHANNEL WIDTH (FT)	SPECIAL EROSION CONTROL REQUIRED?	COMMENTS
4951	21170	2+91	18	33	3	5	15	2	No	
4951	21170	4+77	none				18	2	No	No CMP, Restore Stream Channel
4951	21170	5+32	18	24	3	5	18	2	No	
4951	21170	6+79	none				24	2	No	No CMP, Restore Stream Channel
4951	21170	25+66	none		1	2	18	2	No	No CMP, Restore Stream Channel
4951	21170	26+00	none		1	2	18	2	No	No CMP, Restore Stream Channel
4951	21170	26+63	18	30	2	3	24	2	No	Restore Wetland
4951	21170	29+50			1	1	18		No	Restore Wetland
4951	21170	30+00			1	1			No	Restore Wetland
4923C	21161	28+40	24	30	3	5	18	4	Yes	
4893A	21161	91+90	Two 36" pipes	45	8	8	22	8	Yes	Some water flows to ditch 25 feet before pipe. Leave this portion of ditch open to channel.
4893A	21161	103+43	36	46	9	9	27	8	Yes	Double 36 inch diameter culverts have washed out and are located immediately downstream of road. Approximately half of the road fill is gone. Remove remaining road fill to match natural flood plain elevations. Flood plain will extend approximately 12 feet ahead and 30 feet behind.
										Fill ditch before crossing to prevent stream water from entering ditch and flowing back to gully that crosses the road approximately 100 feet before this site.

Road Storage and Decommissioning Log

Road #4893A

STATION	PAY ITEM	DESCRIPTION OF WORK	STATION	PAY ITEM	DESCRIPTION OF WORK
61+75		Potential rock source.	87+07	21172	Install surface waterbar.
69+80	21160	Begin light clearing for project vehicle access.	90+08	62501	Seeding application
	21166	Begin partial road recontour 3:1 outslope.			Wide spot in road - Potential dump truck turn around area if needed.
	62501	Seeding application	91+90		Excavate remaining road fill and remove two 36" culverts at stream channel. See Stream Channel List for more details.
74+10		End partial road recontour (total 430 feet)		21161	Salvage and stockpile all 12" plus diameter rock during fill excavation.
		Existing ditch relief culvert. Armor outlet with 1 CY 6"-8" dia. Rock. Will require some hand placement of rock up under the pipe.		21175	Install three grade control structures when restoring the stream channel
75+40	25170			20301	Remove culvert from project area.
76+30	21166	Begin partial road recontour 3:1 outslope.	92+50	62501	Seeding application
	62501	Seeding application		21171	Install ditch intercept waterbar just ahead of waste area.
77+55		End partial road recontour (total 125 feet).		62501	Seeding application
			94+23	23060	Ditch Relief Culvert. Clean brush out of inlet by hand.
77+70	21172	Install surface waterbar.	95+75	21171	Install ditch intercept waterbar just ahead of waste area.
	62501	Seeding application		62501	Seeding application
78+00		Wide spot on road for turnaround.	103+43	21161	Excavate road fill and remove 36" culvert at stream channel. See Stream Channel List for more details.
78+80	21172	Improve existing surface waterbar.		21175	Salvage and stockpile all 12" plus diameter rock during fill excavation.
	62501	Seeding application		20301	Install three grade control structures when restoring the stream channel
80+20	21166	Begin partial road recontour 3:1 outslope.		62501	Remove culvert from project area.
	62501	Seeding application	104+00	62501	Seeding application
82+25		End partial road recontour (total 205 feet).		21171	Install ditch intercept waterbar just ahead of waste area.
				62501	Seeding application
84+70	21166	Begin partial road recontour 3:1 outslope.			End light clearing that began at Sta. 69+80 (total 3420 feet)
	62501	Seeding application			End of work on this road.
86+50		End partial road recontour (total 180 feet).			

Road Storage and Decommissioning Log

Road #4923C

STATION	PAY ITEM	DESCRIPTION OF WORK	STATION	PAY ITEM	DESCRIPTION OF WORK
0+00		Begin work	25+28	21169	Remove 18" diameter ditch relief culvert.
	21160	Ditch relief culvert - leave in place. Begin clearing (light clearing 0+00 - 27+00, moderate clearing beyond).		20301	Remove culvert from project area.
0+05	21167	Begin road decompaction - do not damage pipe at Sta. 0+00	28+40	62501	Seeding application
	62501	Seeding application		21161	Excavate road fill and remove 24" culvert at stream channel. See Stream Channel List for more details.
0+10	21174	Construct double earth berm where flagged by CO.		21175	Salvage and stockpile all 12" plus diameter rock during fill excavation.
	62501	Seeding application		20301	Install three grade control structures when restoring the stream channel
3+65	21169	Remove 18" diameter ditch relief culvert.	31+56	20301	Remove culvert from project area.
	20301	Remove culvert from project area.		62501	Seeding application
	62501	Seeding application		21169	Remove 18" diameter ditch relief culvert.
6+80	21169	Remove 18" diameter ditch relief culvert.	34+90	20301	Remove culvert from project area.
	20301	Remove culvert from project area.		62501	Seeding application
	62501	Seeding application		21169	Remove 18" diameter ditch relief culvert.
10+36	21169	Remove 18" diameter ditch relief culvert.	38+20	20301	Remove culvert from project area.
	20301	Remove culvert from project area.		62501	Seeding application
	62501	Seeding application			End clearing (total 38+20)
12+75		End decompaction (total 1270 feet).			End decompaction (total 2280 feet)
	21166	Begin partial recontour 3 to 1 outslope.			End of road.
	62501	Seeding application			
13+00		Remove 18" ditch relief culvert (Incidental to partial recontouring - Item 21166)			
	20301	Remove culvert from project area.			
	62501	Seeding application			
15+40		End partial recontour (total 265 feet).			
	21167	Begin decompaction.			
	62501	Seeding application			
19+70	21171	Install ditch intercept water bar.			
	62501	Seeding application			
20+65	21169	Remove 18" diameter ditch relief culvert.			
	20301	Remove culvert from project area.			
	62501	Seeding application			
23+60	21170	Swale - remove 18' diameter culvert. Install cross channel (Channel width 3 feet)			
	20301	Remove culvert from project area.			
	62501	Seeding application			

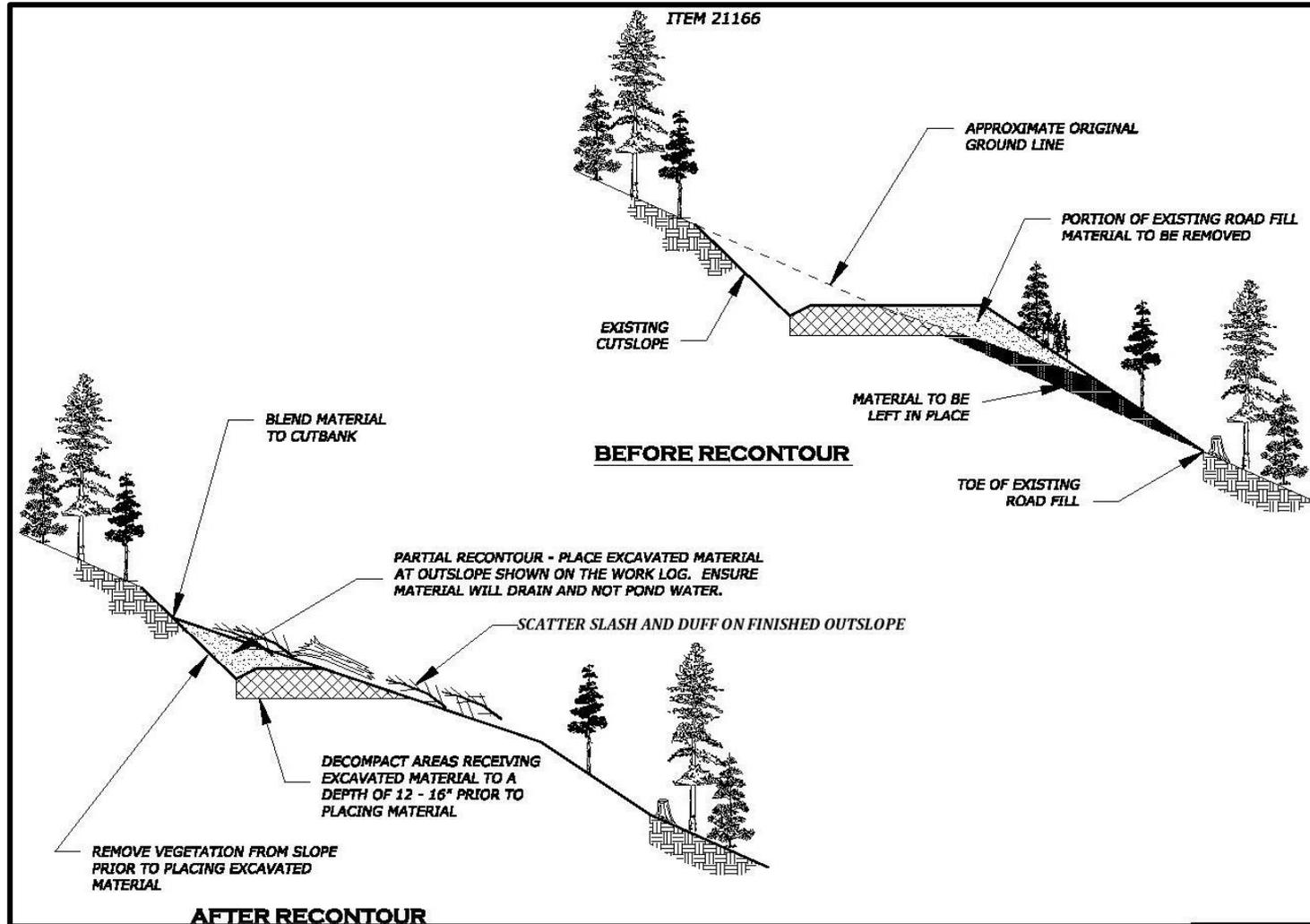
Road Storage and Decommissioning Log

Road #4951

STATION	PAY ITEM	DESCRIPTION OF WORK	STATION	PAY ITEM	DESCRIPTION OF WORK
ROAD 4951 STA 0+00	21165	Start full road recontour for 291 feet	21+80	21169	Remove ditch relief culvert, install ditch drain waterbar
2+91	21170	Restore stream crossing, remove cmp		20301	Remove cmp from project area
	20301	Remove cmp from project area		62501	Seeding application
	62501	Seeding application	25+66	21170	Restore stream crossing, no cmp
4+77	21170	Restore stream crossing, no cmp		62501	Seeding application
	62501	Seeding application	26+00	21170	Restore stream crossing, no cmp
5+32	21170	Restore stream crossing, remove cmp		62501	Seeding application
	20301	Remove cmp from project area	26+63	21170	Restore stream crossing, remove cmp
	62501	Seeding application		20301	Remove cmp from project area
6+79	21170	Restore stream crossing, no cmp		62501	Seeding application
	62501	Seeding application	29+50	21170	Reconnect wetland, remove entire roadbed, create uniform elevation between wetland components, waste roadbed material beyond station 30+00
7+32	21169	Remove ditch relief culvert, install ditch drain waterbar	30+00	21170	Reconnect wetland, remove entire roadbed, create uniform elevation between wetland components, waste roadbed material beyond station 30+00
	20301	Remove cmp from project area		62501	Seeding application
	62501	Seeding application			

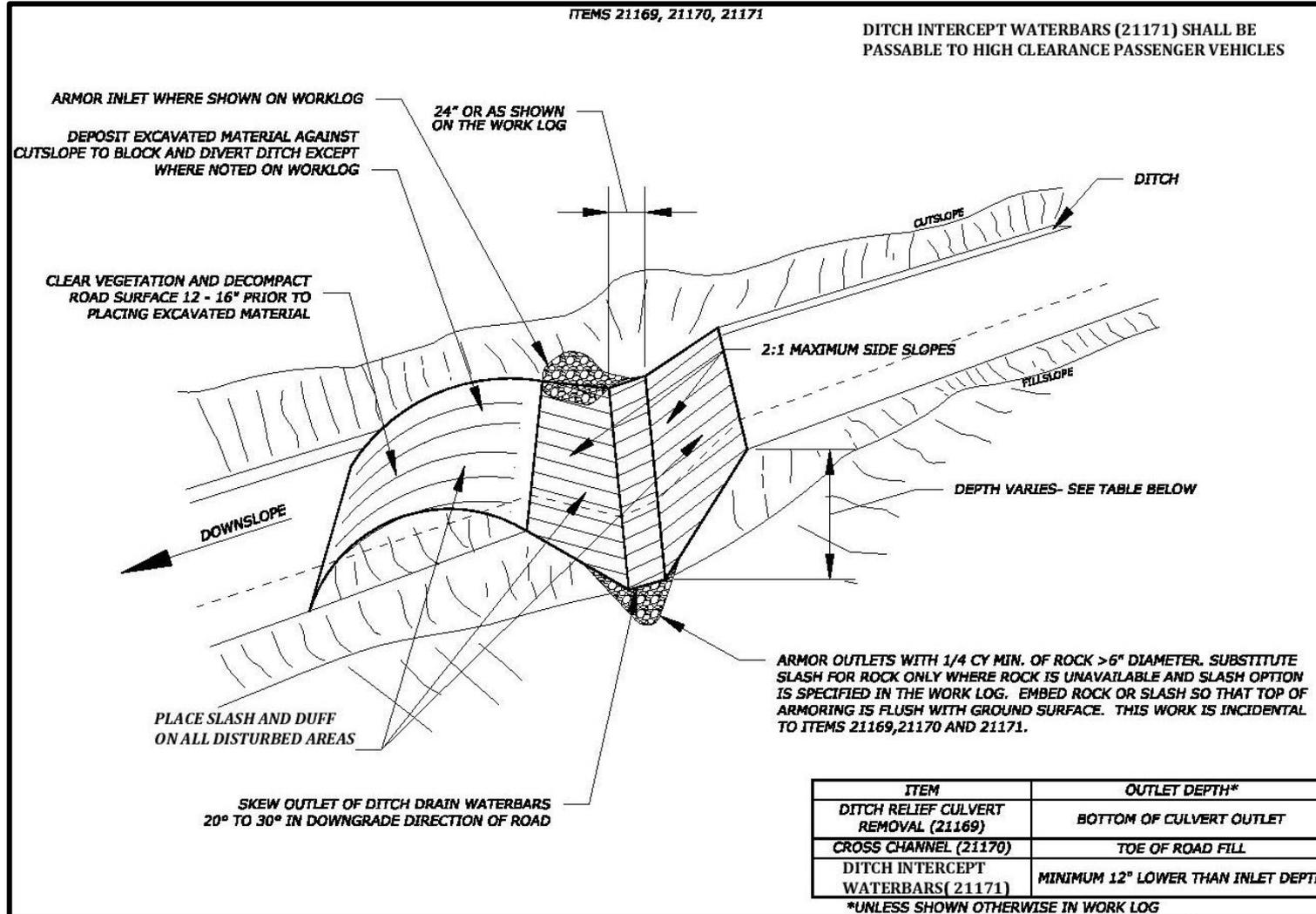
Road Obliteration

Partial Re-contour 3:1 (Item # 21166), Full Re-contour 1:1 (Item #21165)



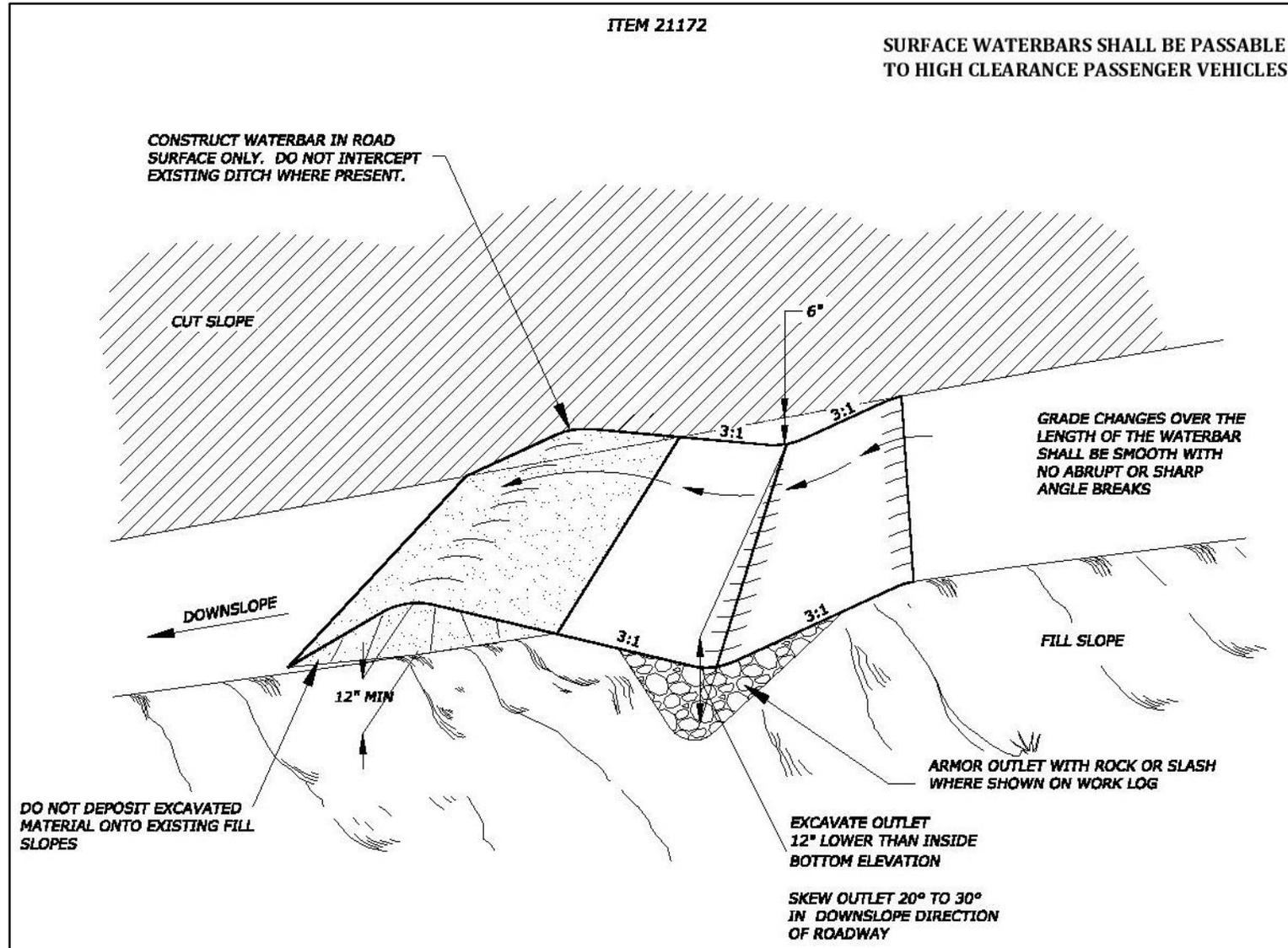
Cross Drainage Details

Removal of Ditch Relief Culvert (Item #21169)
 Drainage Excavation Cross Channel (Item #21170)
 Drainage Excavation Ditch Intercept Waterbar (Item #21171)



Nondriveable Waterbar

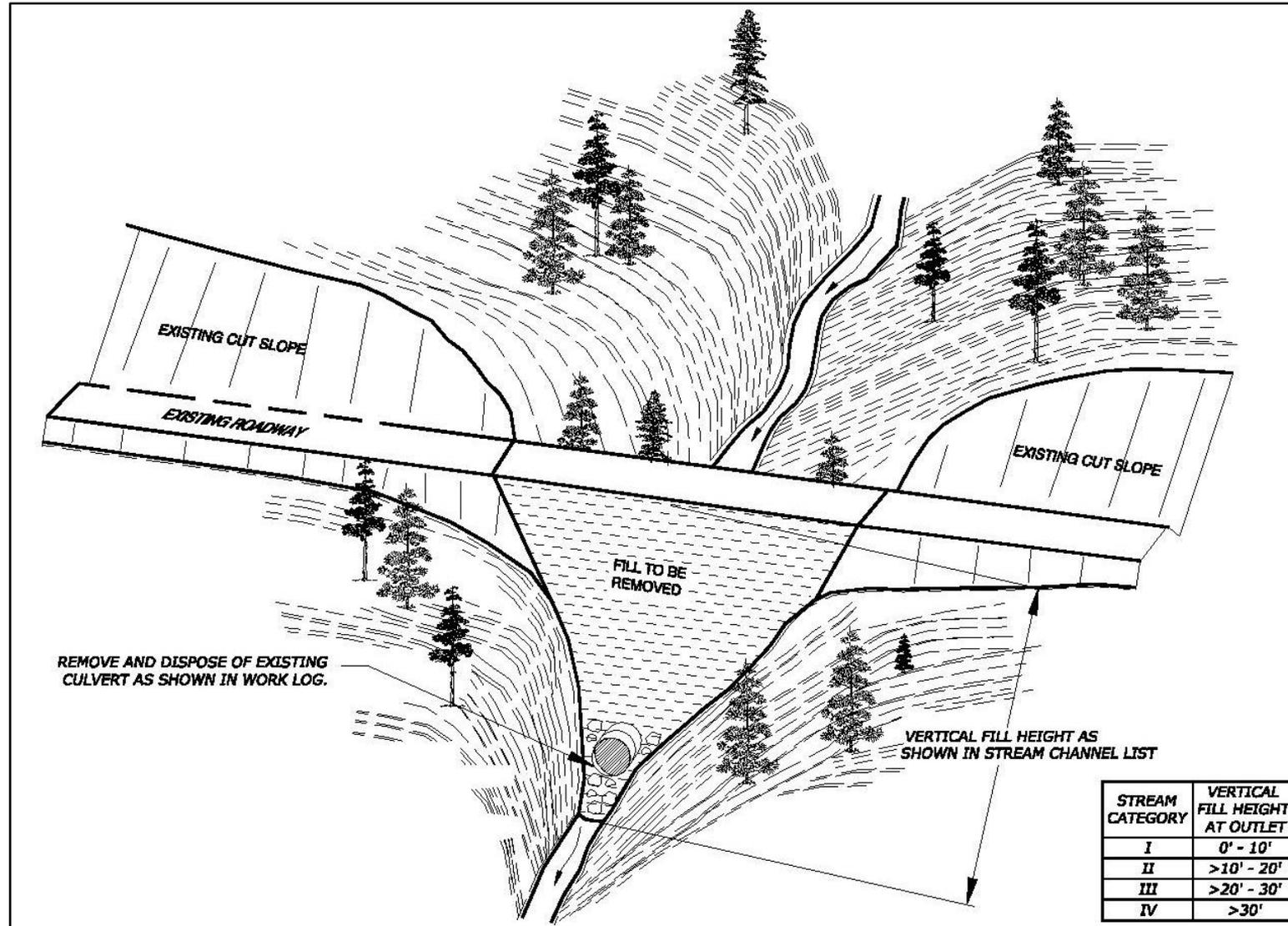
Drainage Excavation, Surface Waterbar (Item #21172)



Stream Channel Restoration - Before

Stream Channel Excavation Category 1 (Item #21161)

Stream Channel Excavation Category 2 (Item #21162)

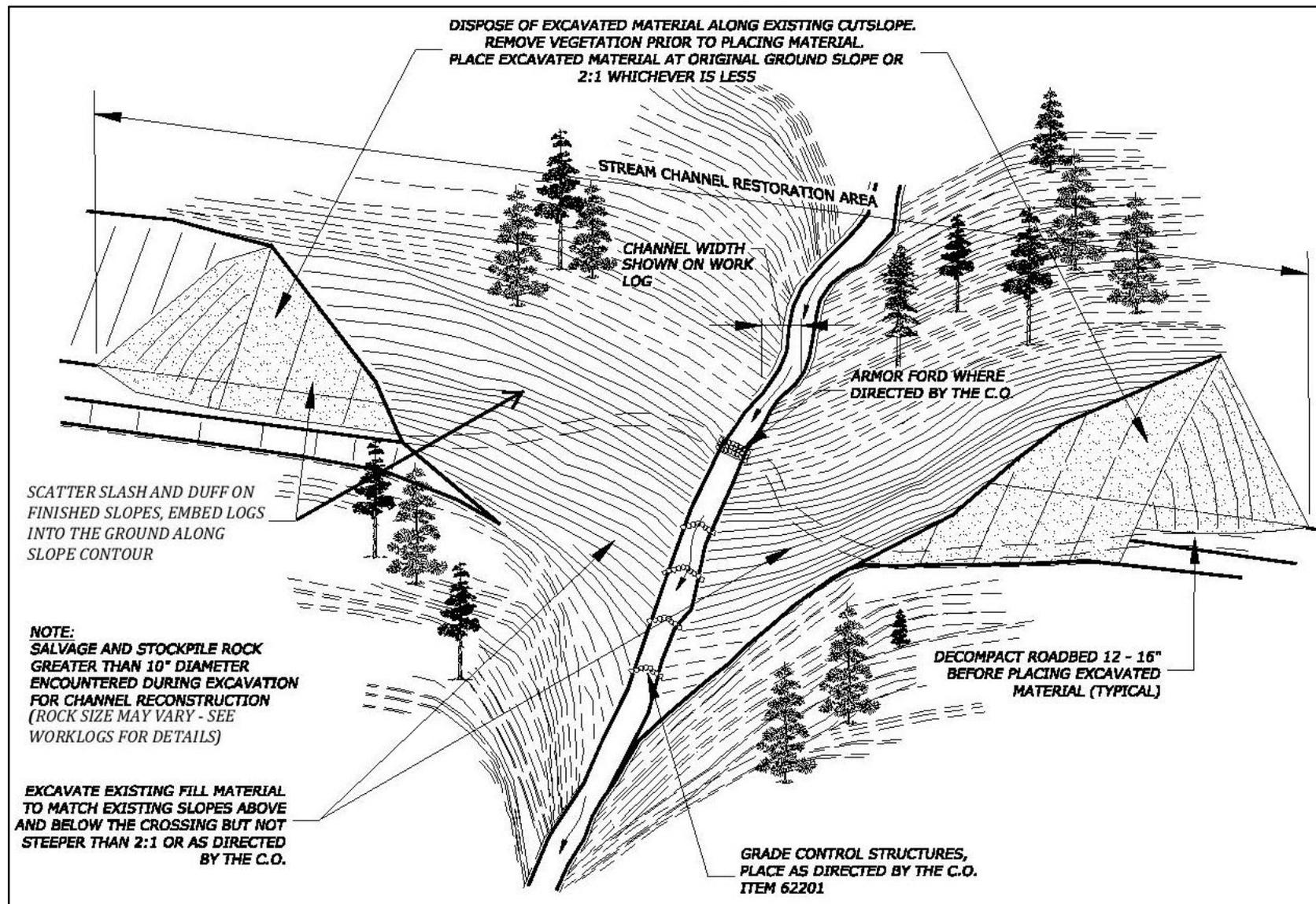


CLOONEY-BECK ROAD STORAGE AND DECOMMISSIONING PROJECT, SHEET NUMBER 12, TOTAL SHEETS 15

Clooney Beck Stewardship

Stream Channel Restoration - After

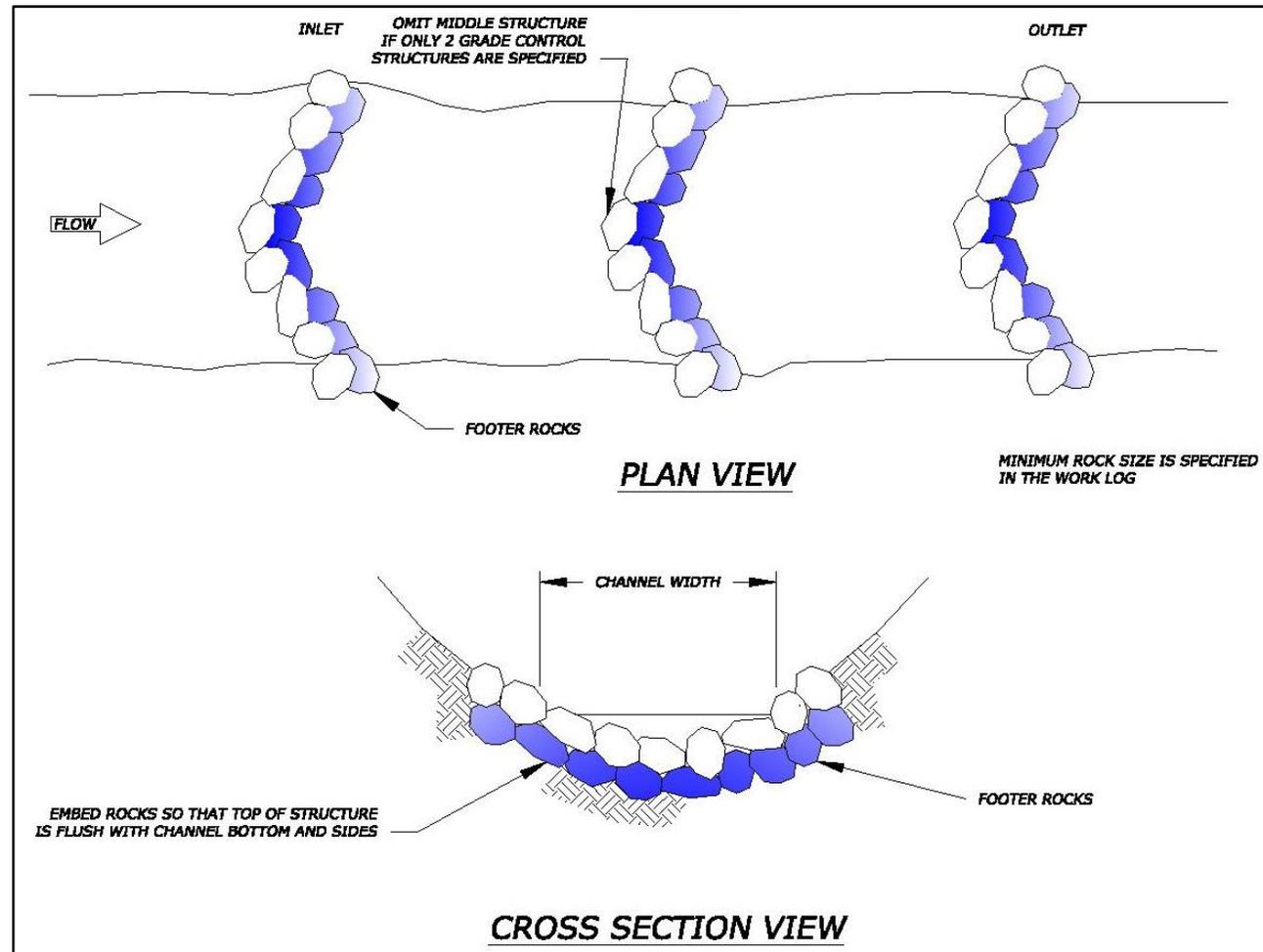
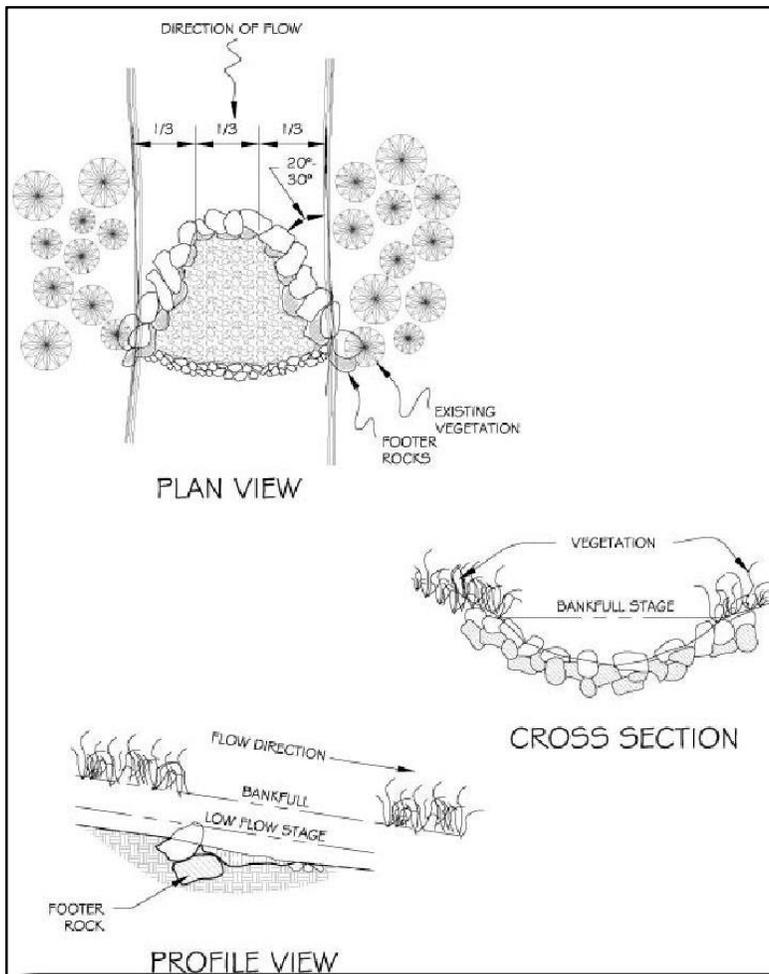
Stream Channel Excavation Category 1 (Item #21161)
Stream Channel Excavation Category 2 (Item #21162)



CLOONEY-BECK ROAD STORAGE AND DECOMMISSIONING PROJECT, SHEET NUMBER 13, TOTAL SHEETS 16

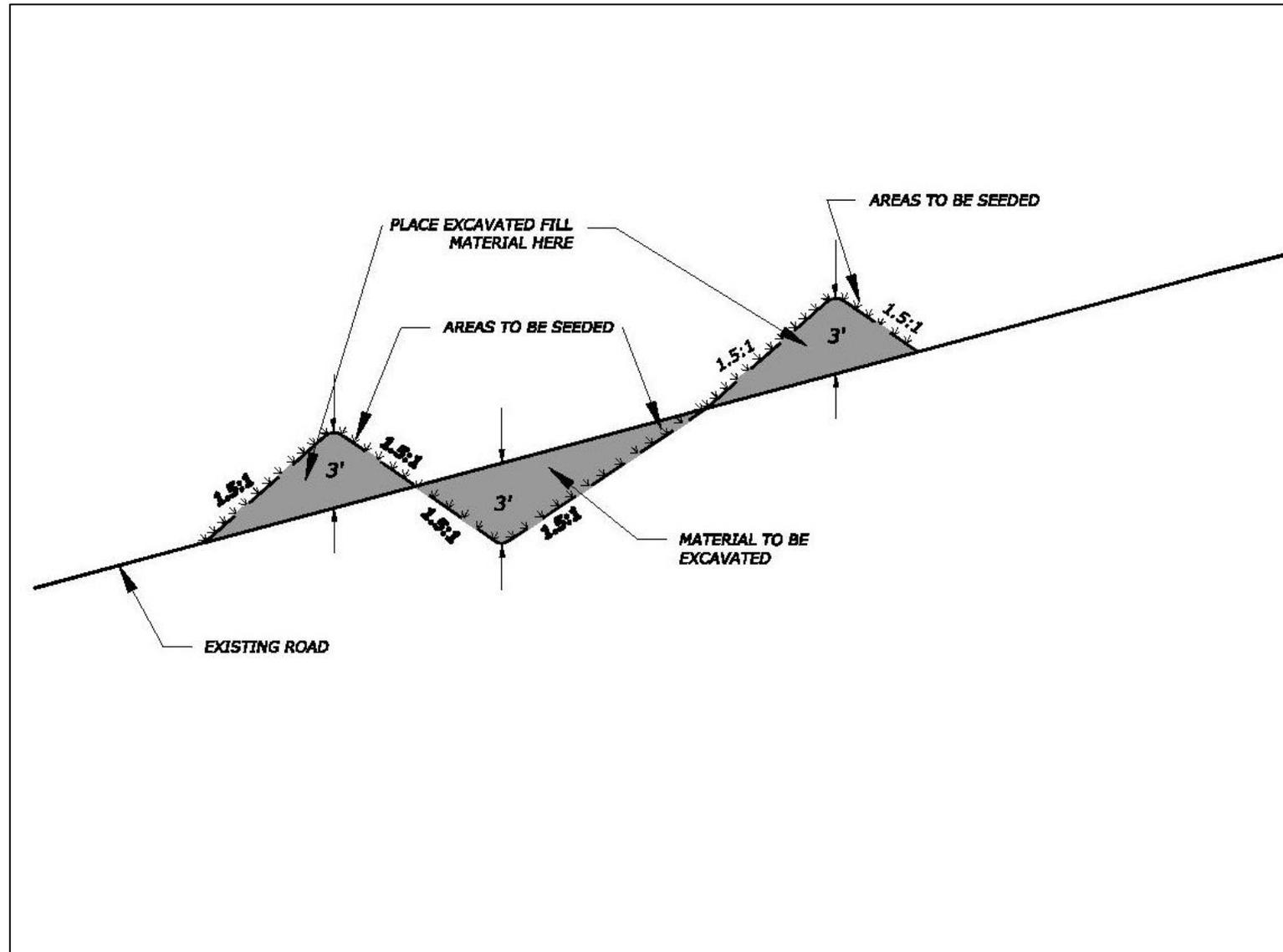
Clooney Beck Stewardship

Grade Control Structure (Item #21175)



Double Earth Barrier

Barrier Excavation (Item #21174)



SEE ATTACHED MAP

PROJECT NUMBER 002 - (MANDATORY)

FUEL REDUCTION

Fuels Reduction Units (F11, F12, F19, F535, F536, F53401, F53402, F53403)

Mandatory Stewardship Project 002				
Fuel Reduction				
002	Unit F11, F12			
Item			UOM	Quantity
002-1	Hand Fireline/8 Foot Fuelbreak		Mile	0.12
002-2	Excavator Fireline/15 Foot Fuelbreak		Mile	1.16
	Unit F19			
002-3	Excavator Fireline/15 Foot Fuelbreak		Mile	1.85
	Unit F19			
002-4	Excavator Fireline/15 Foot Fuelbreak		Mile	1.85
	Unit F 535			
002-5	Hand Fireline/8 Foot Fuelbreak		Mile	0.94
002-6	Excavator Fireline/15 Foot Fuelbreak		Mile	0.55
	Unit F 536			
002-7	Hand Fireline/8 Foot Fuelbreak		Mile	0.78
002-8	Refurbish Hand Fireline/8 Foot Fuelbreak		Mile	0.71
002-9	Excavator Fireline/15 Foot Fuelbreak		Mile	1.51
	Unit F 53401			
002-10	Slashing		Acre	429
002-11	Hand Fireline/8 Foot Fuelbreak		Mile	1.2
002-12	Excavator Fireline/15 Foot Fuelbreak		Mile	1.25
	Unit F 53402			
002-13	Slashing		Acre	518
002-14	Hand Fireline/8 Foot Fuelbreak		Mile	1.83
002-15	Refurbish Hand Fireline/8 Foot Fuelbreak		Mile	0.1
002-16	Excavator Fireline/15 Foot Fuelbreak		Mile	1.35
	Unit F 53403			
002-17	Hand Fireline/8 Foot Fuelbreak		Mile	2.41
002-18	Excavator Fireline/15 Foot Fuelbreak		Mile	1.38

GENERAL SPECIFICATIONS

SCOPE OF CONTRACT. This contract requires Fuel Reduction Treatments and related work in compliance with its terms, specifications and provisions. This includes furnishing all labor, equipment, supervision, transportation, operating supplies, and incidentals required to accomplish the work.

OPERATIONAL RESTRICTIONS

N/A

PERFORMANCE STANDARD (Machine Piling). Acceptable equipment for slash piling is an excavator equipped with a bucket and a thumb approved by the Contracting Officer. Other equipment may be approved in writing by the Forest Service. This work may occur on slopes up to 35% and on rocky terrain.

TECHNICAL SPECIFICATIONS

Slashing: Slash ladder fuels in fuel reduction units. Refer to Contract Area Map for locations of Slashing units outside of the harvest units.

- Ladder fuels consist of all live and dead coniferous trees **3 foot** and greater in height and equal to or less than **6 inches** in diameter at breast height. Directionally fell all slash away from leave trees. Buck all created slash to a maximum of **10 foot** lengths.
- Boundary of fuel reduction units are marked with either Pink Flagging and/or Pink Flagging with Black lettering.
- Stump height shall not exceed **6 inches** from the ground surface as measured from the uphill side. Trees shall be completely severed from the stump below the lowest live limb, leaving no sharp angles.
- Fuels reduction slash not to exceed **18 inches** in height, buck the slash to a maximum length of **10 foot** lengths if necessary to achieve required slash height.
- Any tree felled on private land shall be pulled back into the slashing unit.

Hand-Constructed Fireline and Fuel Break: Refer to Contract Area Map for locations of Fireline and Fuel Breaks.

Firelines shall be constructed at least 30 feet from adjacent Private Property or lands managed by the Montana Department of Natural Resources, on the interior of the Fuels Units. Fireline construction is accomplished by removing all material (down logs/branches, live and dead vegetation, forest surface litter and duff) down to bare mineral soils, free from organic debris (roots, rotten logs). Material produced from scraping down to mineral soils shall be placed on the outside of the line/unit. Hand Fireline clearing shall be at least **12 inches** in width, but may be wider (up to 18 inches width) depending on individual units and location along each portion of each unit (e.g. wider at the top of units with steep slopes or having heavy fuel loading immediately outside the unit).

Portions of hand Fireline along the bottom of units with steep slopes shall have “cup trench” Fireline to catch rolling materials, where the depth of the line is at least ½ the width of the line (e.g. 12” wide line shall have at least 6” depth cup trench). When Fireline is located on steep slopes, installation of waterbars will be required to mitigate erosion potential. Spacing and the degree of angle will be designated by the COR. Waterbars will be installed to slope to the outside of the unit with no residual materials blocking any potential flow of water.

Fuel Breaks shall be required for every Fuels unit and along every section of Fireline. Fuel Breaks shall be cleared of all concentrations of vegetative debris by hand around the perimeter, or portions of the perimeter of each Fuels unit. Locations of Fuel Breaks are shown on the Hazard Reduction and Site Preparation Map.

All concentrated vegetative debris (fuel) that will easily ignite, maintain or increase fire intensity, contribute to fire spread or hinder mop up operations shall be removed.

Fuel Break construction is accomplished by removing all materials (live and dead) above ground, clearing an area along the Fireline for at least **8 feet** from the Fireline toward the interior of the unit and up to **8 feet** in height. Larger trees, greater than **6 inches** DBH (diameter at breast height) shall not be removed but the live and dead limbs shall be removed along the tree trunk, without damage to the trunk, to a height of **8 feet**. Other live vegetation may remain intact but, is not to exceed **3 feet** in height. All vegetative material removed from the Fuel Breaks shall be scattered within the unit, shall **not** be placed in concentrated piles **nor** in windrows, shall be relatively free of mineral soil and scattered to avoid concentrations greater than **2 feet** in height next to the Fireline. Stumps and stubs from cutting small trees in the Fuel Break shall not be greater than **6 inches** in height from ground/rock level. Fuel Breaks located along the top of units with steep slopes may be wider than **8 feet** in width.

Refurbish Hand Fireline: Maintenance work (Refurbishing) will occur in areas where the Firelines and Fuel Breaks have been previously constructed, but need to be improved due to ingrowth of grass and shrubs and fallen trees into the Fireline and/or Fuel Break. The Fireline and Fuel Break shall be improved to the same standards described in the Fireline/Fuel Break Construction standard shown above. Fireline and Fuel Break constructed by hand crews shall be maintained using hand crews. Other equipment or methods may be approved in writing by the Contracting Officer during the pre-work meeting.

Machine-Constructed Fireline and Fuel Break: Refer to Contract Area Map for locations of fireline and fuel breaks.

Firelines shall be constructed at least **30 feet** from adjacent **Private Property or lands managed by the Montana Department of Natural Resources**, on the interior of the Fuels Units. In areas where Fireline will be constructed, a continuous mineral soil line not less than **18 inches** and not greater than **2 feet** in width shall be cleared completely to expose mineral soil. The mineral Fireline will be constructed on the exterior edge of the Fuel Break. Slash will not be buried or covered with dirt during the construction of the Fireline. The mineral soil line shall not be any deeper than is necessary to expose mineral soil. When Fireline is located on steep slopes, installation of waterbars will be required to mitigate erosion potential. Spacing and the degree of angle will be designated by the COR. Waterbars will be installed to slope to the outside of the unit with no residual materials blocking any potential flow of water.

All material removed in the construction of the Fireline shall be placed outside of the Fireline and scattered so concentrations do not exist next to the Fireline.

Fuel Breaks shall be required along all Firelines. Fuel Breaks shall be cleared of all concentrations of vegetative debris by an excavator around the perimeter, or portions of the perimeter of each Fuels unit. Locations of Fuel Breaks are shown on the Hazard Reduction and Site Preparation Map.

All concentrated vegetative debris (fuel) that will easily ignite, maintain or increase fire intensity, contribute to fire spread or hinder mop up operations shall be removed.

Fuel Breaks shall be constructed not less than **15 feet** in width where all woody debris (fuels larger than 1 inch diameter and 4 feet in length) are removed to break the continuity of the fuel bed. Live vegetation may remain intact but, is not to exceed **3** feet in height. All vegetative material removed from the Fuel Breaks shall be scattered within the unit, relatively free of mineral soil and scattered to avoid concentrations greater than **2** feet in height.

PROTECTION OF EXISTING FACILITIES, DEVELOPMENTS AND RESOURCES.

Resource Protection. The Contractor shall exercise extreme care to prevent damage to existing facilities, developments, and resources. Any damages caused by the Contractor shall be corrected at the sole cost of the Contractor.

Existing Facilities. If existing facilities, such as roads, culverts, erosion dips, drainage facilities, barriers, fences, any other improvements, section corners, and bearing trees are damaged by the Contractor's operations, they shall be replaced or repaired to original condition by the Contractor at no cost to the Government.

Protection of Streamcourses. The Contractor shall minimize damage to streamcourses. Machinery shall not enter closer than 50 feet of any intermittent stream, 150 feet of any year round non-fish bearing stream, and 300 feet of any fish bearing stream. Slash shall be pulled out of dry draws with defined channels, and out of draws that have the potential to flow water. Piling in, or crossing of any intermittent stream, year-round streams, or wet areas is strictly prohibited.

AGAR 452.236-73 ARCHAEOLOGICAL OR HISTORICAL SITES (FEB 1988). If a previously unidentified archaeological or historic site(s) is encountered, the Contractor shall discontinue work in the general area of the site(s) and notify the Contracting Officer immediately.

CULTURAL RESOURCES. The Contractor shall protect all "Areas to Protect", and all known and identified or discovered historic or prehistoric sites, buildings, objects, and properties related to American history, architecture, archaeology and culture against destruction, obliteration, removal or damage during Contractor's operations. The Contractor shall immediately notify the Forest Service if damage occurs to any Cultural Resources and shall immediately halt operations in the vicinity of the Resource where damage occurred until the Forest Service authorizes the Contractor to proceed. If such damage is negligently or willfully caused by the Contractor's operations, the Contractor shall bear costs of investigation and restoration in accordance with 36 CFR 296.14(c), provided that such payment shall not relieve Contractor from civil or criminal remedies otherwise provided by law. Wheeled or track-laying equipment shall not be operated within such areas except on approved roads, landings, tractor roads or skid trails. Unless agreed otherwise, trees shall not be felled into such areas.

GOVERNMENT QUALITY ASSURANCE. Quality assurance will be performed by the Government during the contract at regular intervals. Methods may include visual survey and review of Contractor quality control documents. Deduction for work may include rework at no cost to the Government or Government acceptance with price reduction.

INSPECTION PROCEDURES. The Government will perform a visual examination of the work. If the visual examination shows the work does not conform with the contract specifications, a systematic inspection will be made. The Government will make an inspection of each individual contract item to determine acceptability. The results will not be averaged with any other item for payment purposes. The Contractor is encouraged to observe the inspection. Inspections may consist of checking piles for compaction, size, and non-burnable materials, conducting Browns Down Woody Fuels Surveys, or conducting formal silvicultural plots to calculate trees per acre and spacing and to determine if the silvicultural prescription is being met.

CONTRACTOR QUALITY CONTROL

The Contractor shall provide quality control for all thinning operations. The Contractor is expected to conduct their own prompt inspections to ensure that all thinning and slash treatment requirements are being met. Government inspections are for payment determination only, and are not intended to be used as a quality control by the Contractor. Any delay in Government inspections will not cause the Government to be responsible for the Contractors thinning quality. The Contractor's onsite representative shall be fully conversant in the English language.

DELIVERIES OR PERFORMANCE REQUIREMENTS

(1) Additional Performance Requirements: The Work Plan and Production Schedule submitted in the offeror's Technical Proposal shall describe the workforce to be provided and production rates to be achieved, and include specific dates of performance. This schedule shall be made part of the contract requirements, so that the Government may plan for inspection personnel.

FIRE PRECAUTIONS

Contractor shall comply with specific fire precautionary measures set forth in K-H.2 – Normal

PROJECT NUMBER 001 - (OPTIONAL)
WEED SPRAYING/ROADSIDE BRUSHING

OPTIONAL STEWARDSHIP PROJECT 001

ROADSIDE BRUSHING AND NOXIOUS WEED TREATMENT

The Contractor shall perform general roadside brushing.

In addition:

- Contractor shall treat noxious weeds along the same National Forest System Roads (NFSR) that require roadside brushing.

Note:

1. Complete roadside brushing 1 growing season prior to noxious weed treatment.
2. Roads with seasonal travel restrictions are listed in the in the table below – Optional Stewardship Project 001. Contractor will be required to obtain a road use permit prior to operations on roads listed as closed during the normal season of operations.

The Contractors Technical Proposal shall include a Work Plan and Production Schedule describing the workforce to be provided and production rates to be achieved in order to meet the performance schedule.

GENERAL SPECIFICATIONS

OPTIONAL STEWARDSHIP PROJECT 001

ROADSIDE BRUSHING AND NOXIOUS WEED TREATMENT

GENERAL SPECIFICATIONS

ITEM 1-- MACHINE/HAND ROAD BRUSHING

Scope of Contract. The performance based services covered in this solicitation and resultant contract require the Contractor to furnishing of all labor, equipment, supervision, transportation, operating supplies, and incidentals necessary to perform machine/hand road brushing and clearing on roads specified herein, in compliance with the terms, specifications, and conditions stated herein.

Location and Description. Machine/hand road brushing to be accomplished under this contract is located on the Libby District of the Kootenai National Forest. The location of each road is shown on the attached maps'.

Moving of Equipment and Supplies. The moving of equipment and supplies between job sites defined in each item shall be the Contractor's responsibility and is incidental to brushing.

Replacement of Equipment. Contractor shall provide quality equipment capable of safely performing the work under the terms of the contract. If equipment is rejected because it does not meet minimum requirements, including but not limited to safety and operability, or if it becomes inoperative, the Contractor shall correct the deficiencies or furnish replacement equipment meeting contract requirements within 2 days. All repairs are the total responsibility of the Contractor. Contractor shall not be compensated for mobilization of replacement equipment.

PERFORMANCE SPECIFICATIONS

(a) **Clearing and Brushing.** The area to be cleared and brushed is shown on Exhibit A - Typical Clearing Details. This area includes turnouts and curve widening. This area is to be cleared of all trees 6 inches diameter or less, without exception, at stump height, all brush, limbs on trees outside the clearing area which obtrude upon the clearing area, all downed trees which are within or obtruding upon the clearing area, and all vegetative material within or obtruding upon the clearing area. Vegetative material (alive or dead) includes grass, weeds, residual brush, live brush and trees. Brush and trees shall be cut off and completely severed from the stump no higher than 6 inches above the ground or rocks and other obstructions when encountered. Limbs cut from trees which will remain standing shall be severed as close to the trunk as practical. Maximum stump/cut heights may only increase while transitioning over obstacles and only for a maximum distance equal to the length of the mower head before and after the obstacle. Additional clearing shall be required as shown on the exhibit to obtain sight distance.

(b) **Disposal.** All cleared material as described in paragraph (a) above shall be disposed of outside the area to be brushed on the fill or downhill side of the road. This cleared material shall be scattered and not concentrated. Cleared material shall not be deposited in any watercourses.

(c) **Barricades, Warning Signs, and other Devices.** The Contractor shall provide, erect and maintain manufactured (not handmade) warning signs to read "**MEN WORKING**" or "**ROAD MACHINERY AHEAD**" at the beginning and end of the daily work area. All warning signs and/or other protective devices shall conform with Part VI of the Manual on Uniform Traffic Control Devices (2003 Edition) for Streets and Highways, published by the Federal Highway Administration and applicable safety codes. Through traffic must be maintained during brush and clearing operations.

OTHER CONSTRAINTS ON PERFORMANCE

(a) **Existing Facilities.** All existing facilities such as signs, cattleguards, and drainage structures damaged by the Contractor shall be replaced or repaired by the Contractor at no additional cost to the Government.

(b) **Motorized Equipment**. Use of motorized equipment other than hand held equipment such as powersaws and brush cutters shall not be permitted off designated roads in the project area without approval of the Contracting Officers Representative.

GOVERNMENT RESPONSIBILITIES

(a) **Performance Assessment**. The Contracting Officers Representative will inspect the Contractor's performance on a "PER ITEM" basis under this contract via visual inspection to ensure compliance with any and all specifications for the entirety of the item, and that the dimensions of the area to be cleared are being met, the materials to be cleared and brushed from the area are being cut and removed, that disposal is being properly scattered outside the area to be cleared, and that signs and traffic control devices are properly in place during periods of Contractor performance.

Unacceptable performance occurs when the Contractor responsibilities fail to meet stated **Performance Standards**. The Government will not pay for unacceptable performance. When unacceptable performance is observed, the Contracting Officers Representative will document the unacceptable performance on a work order as well as meet with the Contractor at the job site to ensure the Contractor is aware of the unacceptable service. The Governments inspection of the work does not relieve the Contractor of its responsibility to provide an inspection system as stated in paragraph (b) of the clause referenced above.

PERFORMANCE REQUIREMENTS SUMMARY

Requirement	Performance Standard	Method of Assessment	Incentive/Deduction
Clearing & Brushing	Cut all trees, without exception, 6 inches diameter at stump height, brush and vegetative material within the clearing limit as shown on Exhibit A. Cut material to within 6 inches above the ground or obstructions, and remove from the clearing limits. Remove downed trees from the clearing limits shown on Exhibit A. Cut limbs which obtrude into the clearing limits as close to the tree trunk as practical on trees that remain standing. Maximum stump/cut heights may only increase while transitioning over obstacles and only for a maximum distance equal to the length of the mower head before and after the obstacle.	Visual Inspection	The area shall be reworked to meet performance standards.
Disposal	Slash with a length greater than 36 inches (diameter less than 2 inches) or with a length greater than 24 inches (diameter greater than 2 inches), is to be scattered so as not to produce concentrations and shall not be deposited in watercourses. All slash shall be removed at the end of each work day.	Visual Inspection	The area shall be reworked to meet performance standards.
Signing	Adequate signing to protect users of the road	Visual inspection and verification	Performance shall not be allowed until proper signing is in place.

	is in place whenever the Contractor is working.		
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NOXIOUS WEED CONTROL

In order to prevent the spread of noxious weeds the Contractor shall clean all construction equipment prior to moving it to the project area. This cleaning shall remove all soil, plant parts, seeds, vegetative matter, or other debris that could contain or hold seeds. 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 shall be treated in the same manner as the initial move-in. This requirement does not apply to service vehicles, water trucks, pickups, cars, and/or similar vehicles.

Equipment shall 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 Contracting Officers Representative in writing at least 24 hours before moving any 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 each subsequent cleaning.

The Contractor shall only use methods of cleaning and locations for cleaning approved by the Contracting Officers Representative.

New infestations of noxious weeds of concern to Forest Service and identified by either Contractor or Forest Service, on the project area or on the haul route, shall be promptly reported to the other party. The Contractor and Forest Service 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 Forest Service is available at each Forest Service office.

The initial cleaning will not be included in the measurement for payment. Payment under this item will only be made if subsequent cleanings are ordered by the Contracting Officers Representative. Measurement shall be on an "each" basis, meaning one complete cleaning of all equipment required for this contract. Additional cleanings required by the Contracting Officer as a result of the Contractors failure to properly clean/remove vegetation will not be included for payment. Subsequent cleanings necessitated by the Contractor's actions, but not directed by the Contracting Officers Representative, will not be included in the measurement for payment. Equipment may not be removed from the wash site until it has been inspected and approved. Should equipment be moved without approval, Contractor shall bear all costs of treatment to potential newly infected areas traveled by unapproved equipment. Treatment performed by FS personnel, with FS supplies and equipment. Treatment shall mean weeds mitigation, spraying, and/or any other means deemed necessary by the Government to prevent weed migration.

INSPECTION AND ACCEPTANCE

- (a) - Contractor Quality Control Inspection. The Contractor shall ensure that performance meets contract specifications prior to requesting the Government to inspect for payment or acceptance.
- (b) – Request for Government Inspection: Upon completion of an entire road, or segment of road not less than 5 miles in length, the Contractor shall contact the Contracting Officer's Representative (ER) to set a mutually agreed upon date for inspection of completed work.
- (c) - Acceptance. Acceptance of the work under the contract will be made after the ER has made the determination of satisfactory compliance with the specifications. For acceptance purposes, complete segments as defined in (b) above, shall be satisfactorily completed before acceptance will be made. Acceptance will not be made for segments broken by unacceptable portions of work.

SPECIAL CONTRACT REQUIREMENTS

LOSS, DAMAGE, OR DESTRUCTION

Equipment furnished with operator. The Government shall not be liable for loss, damage, or destruction of equipment furnished under this contract except for such loss, damage, or destruction resulting from the negligent or wrongful act(s) of Government employee(s) while acting within the scope of their employment.

USE OF PREMISES (AGAR 452.236-72 (NOV 1996))

(a) Before any camp, quarry, borrow pit, storage, detour, or bypass site, other than shown on the drawings, is opened or operated on USDA land or lands administered by the USDA, the Contractor shall obtain written permission from the Contracting Officer. A camp is interpreted to include a campsite or trailer parking area of any employee working on the project for the Contractor.

(b) Unless accepted elsewhere in the contract, the Contractor shall (i) provide and maintain sanitation facilities for the work force at the site and (ii) dispose of solid waste in accordance with applicable Federal, State and local regulations.

FIRE PRECAUTIONS

Contractor shall comply with specific fire precautionary measures set forth in K-H.2 – Normal Precautions.

CONTRACT ADMINISTRATION DATA

MEASUREMENT AND PAYMENT

(a) - Measurement. Accepted work will be measured in miles to the nearest tenth mile along the centerline of the roadway, and shall include only those roads or road portions which are authorized under the contract and completed in accordance with the specifications. Measurement will be by a Forest Service vehicle. Mileage is per Exhibit A, and includes brush cutting/tree de-limbing both sides of the road, any brush growing on the road surface, removal of all downed trees, and debris removal as outlined above under Performance Requirements Summary.

(b) – Stewardship Credits. Stewardship Credits will be made for completed and accepted mileage to the nearest tenth of a mile, at the contract unit price per mile for the applicable item.

OPTIONAL STEWARDSHIP PROJECT 001

ROAD MAINTENANCE AND NOXIOUS WEED TREATMENT

GENERAL SPECIFICATIONS

ITEM 2-- NOXIOUS WEED TREATMENT

GENERAL SPECIFICATIONS

SCOPE OF CONTRACT. This contract requires herbicide application for noxious weed control in compliance with its terms, specifications and provisions. This includes furnishing all supervision, personnel, personal protective equipment, transportation, equipment, chemicals, operating supplies, mobilization, and all elements required to perform the work except those listed as Government-furnished property. ***The Contractor shall also furnish the herbicides, surfactants and dyes.*** Methods of herbicide application may include vehicle-mounted spray tanks, ATV-mounted spray tanks and backpack spray tanks. In project areas, noxious weed infestations occur in densities from a few occasional plants to continuous coverage.

LOCATION AND DESCRIPTION. The work is located on the Libby District of the Kootenai National Forest, Lincoln County, Montana.

Contractor shall noxious weeds from the toe of the slope to the top of the cut, including turns outs on the roads include in the Performance Schedule and Restricted Operations table.

(a) - Project Location. Locations are identified on the Contract Area Map.

(b) -Accessibility. Generally noxious weed treatment occurs on open roads. Roads with limited access are identified and listed in the Performance Schedule and Restricted Operations table.

(c) - Boundaries. Boundaries of treatment areas that are existing features – Forest Service system roads.

TECHNICAL SPECIFICATIONS

1. The Contractor shall give the Forest Service 48 hours notification prior to spraying.
2. Spraying will be done by a State of Montana licensed commercial applicator, and only by personnel under the direct supervision of the licensed applicator.3. The following herbicides are approved for use on the Kootenai National Forest. All herbicide applications shall follow EPA label requirements.

Herbicide (Common Name)	Herbicide
Milestone	Aminopyralid or approved equal
Picloram	Tordon 22K or approved equal.
Dicamba	Vanquish or approved equal.
Clopyralid + 2,4-D	Curtail or approved equal.
Glyphosate	Roundup or approved equal.
Clopyralid	Transline or approved equal.
Dicamba + 2,4-D	Weedmaster or approved equal.
2,4-D	Weedar 64 or approved equal.
Metsulfuron	Escort or approved equal.
Triclopyr	Garlon 3A or approved equal.
Imazapic	Plateau or approved equal.
Sulfometuron	Oust or approved equal.

4. Target species to be treated are:

- St. Johnswort (*Hypericum perforatum*)
- spotted knapweed (*Centaurea maculosa*)
- sulfur cinquefoil (*Potentilla rectum*)
- Yellow hawkweed (*Hierachium pratense*)
- Orange hawkweed (*Hierachium aurantiacum*)
- Common speedwell (*Veronica officianalis*)
- Oxeye daisy (*Chrysanthemum leucanthemum*)
- Canada thistle (*Cirsium arvense*)

Areas without target species shall NOT be sprayed. Reasonable care shall be exercised to limit application so that spraying does not contact native forbs, grasses, herbs, and trees.

5. Noxious weeds treated shall be treated between June 1st and September 30th. A treatment period that is more responsive to the actual weed seed development and/or treatment method may be agreed to in writing between the Contractor and the Forest Service.

Treatment shall consist of spot applications that target those noxious weeds identified on the State of Montana insert Idaho's or Montana's Noxious weed list that occur from the toe of the fill to the top of the cut, including the running surface and turnouts on the listed roads.

6. All herbicides shall have a surfactant and dye added prior to application. Contractor shall apply the following herbicide with a truck mounted applicator at the specified rates.

Herbicide (Common Name): See Herbicide List under #2

Application Rate: Per Directions on Herbicide Container.

8. No spraying will take place within **50 feet of open water** without prior approval of the Forest Service. No spray shall come in contact with open water at any time.
9. No spraying shall occur when rain is expected within six (6) hours of completion of the treatment.
10. Nozzles shall be made of stainless steel or ceramic material.
11. All equipment shall be in good mechanical condition and will be inspected prior to work. The spray pattern, application rates, and calibration shall also be checked before beginning the job and thereafter as deemed necessary by the Forest Service.
12. A tight-fitting lid on all spray tanks is OPTIONAL.
13. Mixing, loading, and equipment cleaning shall be done more than 200 feet from private land or open water. Mixing and cleaning water shall come from public or cooperator supplies, and shall be transported to the site in labeled containers separate from water used for other purposes.
14. Weather conditions shall be monitored before and during all spraying projects. Spraying is NOT allowed when any of the following conditions exist:
 - a. Hand-held equipment: temperature greater than 98 degrees F.; humidity less than 20 percent, or wind greater than 15 MPH.
 - b. Truck-mounted equipment: temperature greater than 95 degrees F.; humidity less than 30 percent; or wind greater than 10 MPH.
15. Herbicides shall be transported daily to the project site with the following conditions: Transport only the quantity needed for that day's work; transport concentrate containers only in a manner that will prevent spills; and transport spray in a compartment that is isolated from food, clothing, and safety equipment.
16. Mixing shall only occur on site.
17. The Contractor shall inspect equipment daily for leaks.
18. The Contractor shall remove all herbicide containers from national forest land and dispose of them in accordance with all local, state, and federal requirements.
19. Applicators will complete a daily pesticide application report as required by the Montana Department of Agriculture. Daily application reports shall be made available to the Forest Service within 45 days of application.

INSPECTION AND ACCEPTANCE REQUIREMENTS

- (a) Inspection Procedure. The Government will inspect application procedures and the areas sprayed as the work proceeds to ensure that treatment areas are fully covered. The Government will also periodically inspect spray equipment and the mixing of
- (b) chemicals. Depending on the timing of herbicide application, final inspections will occur within 10 to 20 calendar days after completion of a sub-item. For applications occurring during July, final inspections will be done within 15 calendar days. For applications

occurring from August to September, final inspections will be done within 20 calendar days.

- (c) Visual inspection of the target species, noxious weeds, will occur. Ninety percent (90%) or greater death of target species will be considered acceptable by the Government. Less than 90% death of target species will entail rework of the untreated area by the contractor with the original prescribed herbicide. Rework shall be performed at the next available opportunity and as agreed to by the Government. All rework will be at the contractor's expense.

ROADSIDE BRUSHING AND NOXIOUS WEED TREATMENT

The Contractor shall perform:

- Roadside brushing.
- Contractor shall treat noxious weeds along the same National Forest System Roads (NFSR) that require roadside brushing.

PERFORMANCE SCHEDULE AND RESTRICTED OPERATIONS

Complete all roadside brushing and weed spraying treatments prior to the contract termination date of October 31, 2021.

Weed spray treatment should occur one (1) growing season after each roadside brushing treatment.

Prior to operations the Forest Service will designate on-the- ground the beginning and ending locations of work zones in areas of mixed ownership.

See map for Specific Locations

Road #	NAME	Miles	Closure	Open Dates
278	BEAR CREEK	8.40		
278	BEAR CREEK	5.10		
402	CEDAR CREEK	0.10		
402	CEDAR CREEK	2.00	yes	07/01-08/30
402	CEDAR CREEK	2.00	yes	07/01-08/30
402	CEDAR CREEK	2.60	yes	07/01-08/30
533	SWEDE GULCH BUCK CR	5.50		
533	SWEDE GULCH BUCK CR	0.20		
533	SWEDE GULCH BUCK CR	0.70		
533	SWEDE GULCH BUCK CR	0.30		
533	SWEDE GULCH BUCK CR	0.10		
536	CABINET VIEW	8.20		
808	SCHRIEBER CREEK	0.10		

808	SCHRIEBER CREEK	3.30		
808	SCHRIEBER CREEK	0.40		
866	COWELL CR MCMILLAN RIDGE	2.20		
866	COWELL CR MCMILLAN RIDGE	0.50		
867	CHERRY CREEK	4.50		
867	CHERRY CREEK	0.30		
2316	UPPER LIBBY CREEK	0.90		
2332	BRAMLET CREEK	2.40		
2332	BRAMLET CREEK	0.60		
4400	HOODOO CREEK	2.20	yes	12/01-10/14
4400	HOODOO CREEK	3.20	yes	12/01-10/14
4674	BIG SWEDE LOOKOUT	1.20	yes	07/01-10/14
4720	SWAMP RIDGE	3.80		
4727	CEDAR PARMENTER	2.30	yes	07/01-08/30
4727	CEDAR PARMENTER	3.50	yes	07/01-08/30
4745	UPPER HORSE MTN	1.90		
4745	UPPER HORSE MTN	1.50		
4768	WILLIAMS CREEK	8.5		
4769	MCMILLAN MTN	4.50		
4770	SOUTH MCMILLAN	1.90		
4772	DETGEN CR	0.90	yes	07/01-10/14
4772	DETGEN CR	0.20	yes	07/01-10/14
4772	DETGEN CR	0.60	yes	07/01-10/14
4772	DETGEN CR	0.30	yes	07/01-10/14
4772	DETGEN CR	2.90	yes	07/01-10/14
4774	LIBBY CREEK SWAMP CR	5.50		
4774	LIBBY CREEK SWAMP CR	0.30		
4776	HORSE MTN LOOKOUT	4.40		
4778	MIDAS HOWARD CREEK	5.40	yes	6/16-3/31
4778	MIDAS HOWARD CREEK	1.30	yes	6/16-3/31
4778	MIDAS HOWARD CREEK	0.30	yes	6/16-3/31
4779	HOWARD LAKE CAMP	1.10	yes	6/16-3/31
4780	HOWARD LAKE-MILLER CR	1.16		
4781	RAMSEY CR	1.20		
4784	UPPER BEAR CREEK	0.90	yes	07/01-10/14
4784	UPPER BEAR CREEK	2.80	yes	07/01-10/14
4785	UPPER BIG CHERRY	0.90	yes	07/01-10/14
4785	UPPER BIG CHERRY	0.60	yes	07/01-10/14
4785	UPPER BIG CHERRY	1.10	yes	07/01-10/14
4786	LEIGH CREEK	1.80		
4791	LOWER GRANITE	5.20		
4792	DEEP CREEK	0.30	yes	07/01-11/30
5182	LITTLE CHERRY BEAR CR	0.95		

6199	BEAR CR CANYON	3.10		
6203	LITTLE HOODOO	3.50	yes	07/01-11/30
6205	BIG HOODOO	3.90		
6212	LITTLE CHERRY LOOP	5.00		
6738	COWELL TEPEE CONN	4.30		
6740	TEPEE CREEK	0.20		
6740	TEPEE CREEK	0.80		
6740	TEPEE CREEK	6.50		
6741	SCHRIEBER MILLER CR	1.20		
6744	STANDARD CR W FISHER	1.40		
6745	STANDARD CREEK	1.40		
6746	TWIN PEAKS	1.20		
6746	TWIN PEAKS	2.80		
6746	TWIN PEAKS	1.20		
6746	TWIN PEAKS	0.10		
6748	SILVER DOLLAR	1.60		
6752	COYOTE SPRING CR	1.90	yes	05/01-11/30
6787	HOODOO BEAR	3.30		
6787	HOODOO BEAR	2.50		
14426	MIDDLE SWEDE GULCH	0.30	yes	07/01-10/14
14464	HOODOO CR RIDGE	1.30	yes	07/01-10/14
14468	UPPER HORSE TRAIL	1.70	yes	07/01-10/14
14464A	HOODOO CR RIDGE A	0.60	yes	07/01-10/14
14468A	UPPER HORSE TRAIL A	1.40	yes	07/01-10/14
4400B	HOODOO CREEK B	2.50		
4400C	HOODOO CREEK C	3.20	yes	12/01-10/14
4745A	UPPER HORSE MTN A	2.00	yes	07/01-10/14
4745C	UPPER HORSE MTN C	0.30		
4768F	WILLIAMS CREEK F	1.70	yes	07/01-10/14
4768G	WILLIAMS CREEK G	1.40	yes	07/01-10/14
4768K	WILLIAMS CREEK K	2.80	yes	07/01-10/14
4768N	WILLIAMS CREEK N	1.20	yes	07/01-10/14
4769B	MCMILLAN MTN B	0.30		
4772C	DETGEN CR C	2.30	yes	07/01-10/14
4774D	LIBBY CREEK SWAMP CR D	0.50	yes	12/01-10/14
4776A	HORSE MTN LOOKOUT A	2.70		
4776B	HORSE MTN LOOKOUT B	2.80		
4778C	MIDAS HOWARD CREEK C	1.80		
4778E	MIDAS HOWARD CREEK E	0.80		
4779A	HOWARD LAKE CAMPGROUND	0.20		
4792D	DEEP CREEK D	0.40	yes	
533D	SWEDE GULCH BUCK CR D	1.60	yes	07/01-10/14
533E	SWEDE GULCH BUCK CR E	3.50	yes	07/01-10/14

533F	SWEDE GULCH BUCK CR F	0.60	yes	07/01-10/14
533G	SWEDE GULCH BUCK CR G	2.90	yes	07/01-10/14
533K	SWEDE GULCH BUCK CR K	1.0	yes	07/01-10/14
533L	SWEDE GULCH BUCK CR L	1.2	yes	07/01-10/14
533M	SWEDE GULCH BUCK CR M	0.90	yes	07/01-10/14
6203B	LITTLE HOODOO B	1.80	yes	07/01-11/30
6203D	LITTLE HOODOO D	0.80	yes	07/01-11/30
6203E	LITTLE HOODOO E	2.10	yes	07/01-11/30
6205D	BIG HOODOO D	4.00		
6752A	COYOTE SPRING CR A	0.30	yes	05/01-11/30
6752A	COYOTE SPRING CR A	0.10	yes	05/01-11/30
6787B	HOODOO BEAR B	1.60		
808A	SCHRIEBER CREEK A	1.00	yes	07/01-10/14
808A	SCHRIEBER CREEK A	0.30	yes	07/01-10/14
808B	SCHRIEBER CREEK B	0.80	yes	07/01-10/14
808B	SCHRIEBER CREEK B	1.60	yes	07/01-10/14
808C	SCHRIEBER CREEK C	0.30		
	Total Miles	227.8		

PROJECT NUMBER 002 - (OPTIONAL)
AGGREGATE PLACEMENT/ CRUSH AND STOCKPILE AGGREGATE

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Preface

Preface_wo_03_15_2004_m

Delete all but the first paragraph and add the following:

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

101 - Terms, Format, and Definitions

101.00_nat_us_07_25_2005

101.01_nat_us_01_22_2009

101.01 Meaning of Terms

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

101.03_nat_us_06_16_2006

101.03 Abbreviations.

Add the following to (a) Acronyms:

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

Add the following to (b) SI symbols:

mp	Milepost
ppm	Part Per Million

101.04_nat_us_03_29_2007

101.04 Definitions.

Delete the following definitions and substitute the following:

Bid Schedule--The Schedule of Items.

Bridge--No definition.

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

Culvert--No definition.

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

Add the following:

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

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

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

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

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

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

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

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

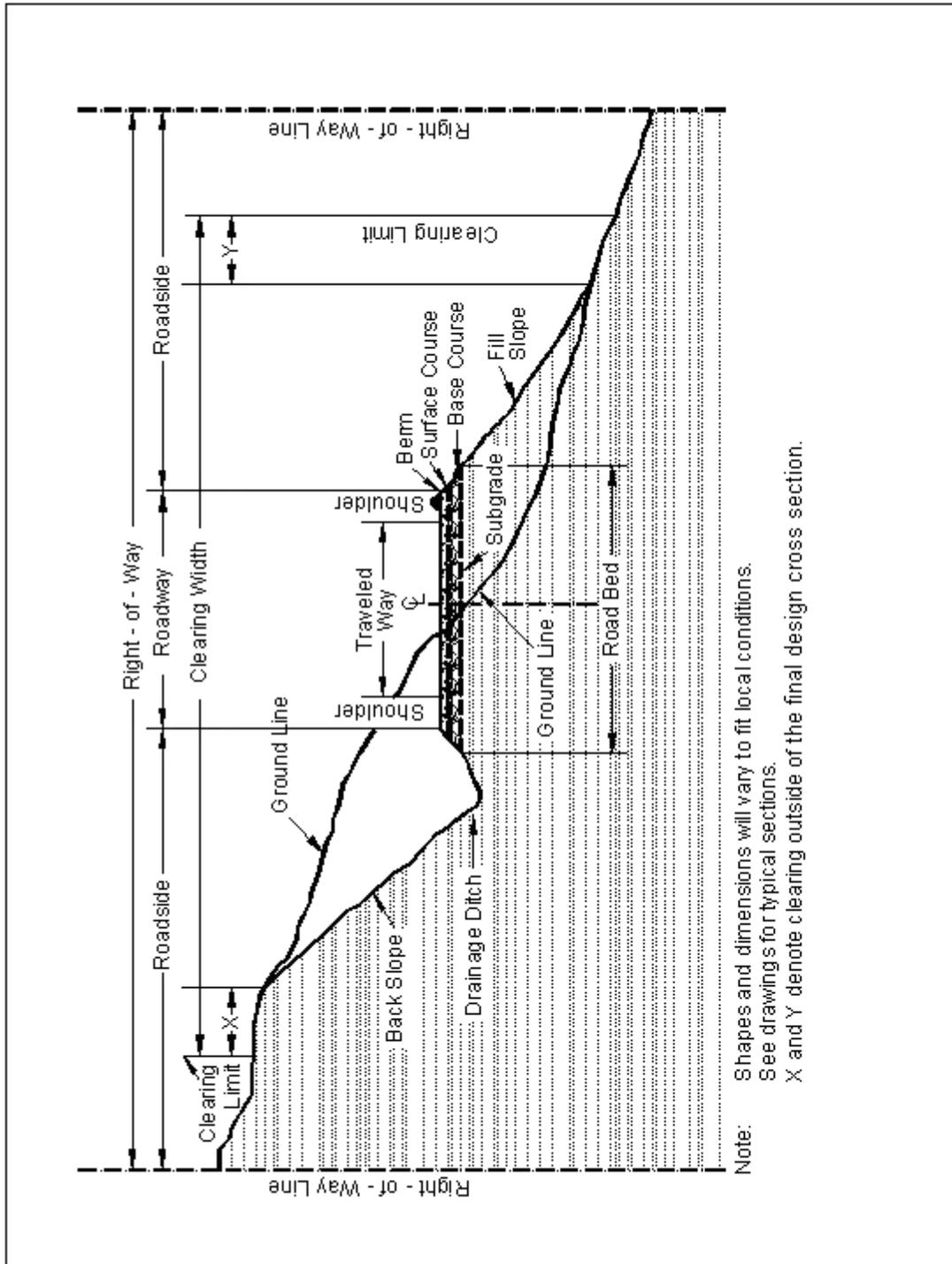
Road Order--An order affecting and controlling traffic on roads under Forest Service jurisdiction. Road Orders are issued by a designated Forest Officer under the authorities of 36 CFR, part 260.

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

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

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

Figure 101-1—Illustration of road structure terms.



102 - Bid, Award, and Execution of Contract

102.00_nat_us_02_16_2005

102 Bid, Award, and Execution of Contract

Delete Section 102 in its entirety.

103 - Scope of Work

103.00_nat_us_02_16_2005

Deletions

Delete all but subsection 103.01 Intent of Contract.

104 - Control of Work

104.00_nat_us_06_16_2006

Deletions

Delete Sections 104.01, 104.02, and 104.04.

104.06_nat_us_02_17_2005

Add the following subsection:

104.06 Use of Roads by Contractor

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

105 - Control of Material

105.02_nat_us_01_18_2007

105.02 Material Sources.

105.02(a) Government-provided sources.

Add the following:

Comply with the requirements of 30 CFR 56, subparts B and H. Use all suitable material for aggregate regardless of size unless otherwise designated. When required, re-establish vegetation in disturbed areas according to section 625.

105.05_nat_us_05_12_2004

105.05 Use of Material Found in the Work.

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

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

106 - Acceptance of Work

106.07_nat_us_05_11_2004

106.07 Delete

Delete subsection 106.07.

107 - Legal Relations and Responsibility to the Public

107.05_nat_us_05_11_2004

107.05 Responsibility for Damage Claims.

Delete the entire subsection.

107.06_nat_us_06_16_2006

107.06 Contractor's Responsibility for Work.

Delete the following from the first paragraph.

"except as provided in Subsection 106.07".

107.09_nat_us_06_16_2006

107.09 Legal Relationship of the Parties.

Delete the entire subsection.

107.10_nat_us_06_16_2006

107.10 Environmental Protection.

Add the following:

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

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

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

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

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

108 - Prosecution and Progress

108.00_nat_us_02_16_2005

108 Delete.

Delete Section 108 in its entirety.

109 - Measurement and Payment

109.00_nat_us_02_17_2005

109 Deletions

Delete the following entire subsections:

109.06 Pricing of Adjustments.

109.07 Eliminated Work.

109.08 Progress Payments.

109.09 Final Payment.

109.02_nat_us_06_16_2006

109.02 Measurement Terms and Definitions.

(b) Contract quantity.

Add the following:

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

Change the following:

“(b) Cubic yard” to “(c) Cubic yard”.

Add the following definition:

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

109.02_0114_us_06_09_2008

109.02 Measurement Terms and Definitions.

Add the following definition:

(q) Actual quantity. (AQ) These quantities are determined from measurements of completed work.

151 - Mobilization

151.01_0114_us_08_04_2005

151.01 Description

Add the following:

This work consists of 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.

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 CO in writing at least 24 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 C.O.

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, on 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.

151.02 Measurement

Add the following:

Clean equipment prior to moving onto this project. The initial cleaning will not be included in the measurement for payment. Payment under this item will only be made if subsequent cleanings are ordered by the CO. 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 CO will not be included in the measurement for payment.

155 - Schedules for Construction Contracts

155.00_nat_us_05_11_2004

155 Delete.

Delete Section 155 in its entirety.

204 - Excavation and Embankment

204.00_01_us_10_11_2006

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

Description

204.01 This work consists of excavating material, constructing embankments and drainage excavation. This 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. All material excavated from within the right-of-way or easement areas, except subexcavation covered in (2) below 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 groundline in embankment sections. Subexcavation does not include the work required by Subsections 204.05, 204.06(b), and 204.06(c).

(3) Borrow excavation. Material used for embankment construction that is obtained from outside the roadway prism. Borrow excavation includes unclassified borrow, select borrow, and select 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:

Backfill material	704.03
Select borrow	704.07
Select topping	704.08
Topping	704.05

Unclassified borrow

704.06

Water

725.01

Construction Requirements

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

204.05 Reserved.

204.06 Roadway Excavation. Excavate as follows:

(a) General. Do not disturb material and vegetation outside the construction limits.

Incorporate only suitable material into embankments. Replace any 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. Eliminate all ruts and low spots that could hold water.

Retrieve material deposited outside of the clearing limits as directed by the CO.

(b) Rock cuts. Blast rock according to Section 205. Excavate rock cuts to 6 inches below subgrade within the roadbed limits. Backfill to subgrade with topping or with other suitable material. Compact the material according to Subsection 204.11 When blasting rock, use blasting methods according to Subsection 205.08.

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

(d) Pioneer Roads. Road pioneering, slash disposal, and grubbing of stumps may proceed concurrently with excavation. 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.

(e) Drainage Excavation. Drainage excavation includes construction of all ditches, minor channel changes, drainage dips, catchbasins, surface water deflectors, and other minor drainage structures. Compact by Method (f) unless otherwise shown on the plans. Excavate on a uniform grade between control points.

204.07 Subexcavation. Excavate material to the limits as designated. Take cross-sections according to Section 152. Prevent unsuitable material from becoming mixed with the backfill. Dispose of unsuitable material according to Subsection 204.14. Backfill the subexcavation with topping, or other suitable material. Compact the material according to Subsection 204.11.

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

Obtain borrow source acceptance according to Subsection 105.02. Develop and restore borrow sources according to Subsection 105.03. 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 less than 4 feet high over natural ground. Unless otherwise designated by the CO, remove topsoil. Break up the ground surface to a minimum depth of 6 inches 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. Scarify or pulverize asphalt and concrete roads to 6 inches below the pavement. Reduce all particles to a maximum size of 6 inches 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 benches in the existing slope to a sufficient width to accommodate placement and compaction operations and equipment. Bench the slope as the embankment is placed and compacted in layers. Begin each bench at the intersection of the original ground and the vertical cut of the previous bench.

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 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 all 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 flatter than 1V:1.75H with a tamping type roller or by walking with a dozer. For slopes 1V:1.75H or steeper, compact the slopes as construction of the embankment progresses.

Where placing embankment on one side of abutments, wing walls, piers, or culvert headwalls, compact the material using methods that prevent excessive pressure against the structure.

Where placing embankment material on both sides of a concrete wall or box structure, conduct operations so compacted embankment material is at the same elevation on both sides of the structure.

Where structural pilings are placed in embankment locations, limit the maximum particle size to 4 inches.

(b) Embankment within the roadway prism. Place embankment material in horizontal layers not exceeding 12 inches in compacted thickness. Incorporate oversize boulders or rock fragments into the 12-inch layers by reducing them in size or placing them individually as required by (c) 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 layers may be placed in layers up to 24 inches thick. Incorporate oversize boulders or rock fragments into the 24-inch layer by reducing them in size or placing them individually according to (c) below. Place sufficient earth and smaller rocks to fill the voids. Compact each layer according to Subsection 204.11 before placing the next layer.

(c) Individual rock fragments and boulders. Place individual rock fragments and boulders greater than 24 inches in diameter as follows:

- (1) Reduce rock to less than 48 inches 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 by (b) above. Fill all the voids between rocks.
- (4) Compact each layer according to Subsection 204.11 before placing the next layer.

(d) Embankment outside of roadway prism. Where placing embankment outside the staked roadway prism, place material in horizontal layers not exceeding 24 inches 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) Compaction A. Use AASHTO T 27 to determine the amount of material retained on a Number 4 sieve. If there is more than 80 percent retained on the No. 4 sieve use procedure (1). If there is 50 to 80 percent retained on the No. 4 sieve use procedure (2). If there is less than 50 percent retained on the No. 4 sieve use procedure (3).

(1) 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 per second and vibratory rollers at speeds less than 3 feet 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 impact per vibration and a minimum frequency of 1000 vibrations per minute.

(b) Eight roller passes of a 20-ton compression-type roller.

(c) Eight roller passes of a vibratory roller having a minimum dynamic force of 30,000 pounds impact per vibration and a minimum frequency of 1000 vibrations per minute.

Increase the compactive effort for layers deeper than 12 inches as follows:

- For each additional 6 inches or fraction thereof, increase the number of roller passes in (a) above by four passes.
- For each additional 6 inches or fraction thereof, increase the number of roller passes in (b) and (c) above, by eight passes.

(2) Use AASHTO T 99 to determine the optimum moisture content of the portion of the material passing a No. 4 sieve. Multiply this number by the percentage of material passing a No. 4 sieve, and add 2 percent to determine the optimum moisture content of the material. 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 rollers at speeds less than 6 feet per second and vibratory rollers at speeds less than 3 feet per second. Compact each layer of material full width according to (1) above.

(3) 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 180, method D. For other material classifications, determine the optimum moisture content and 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) Compaction B. 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 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.

(c) Compaction C. Place material by end dumping to the minimum depth needed for operation of spreading equipment. Level and smooth each embankment layer before placing the next layers. Operate hauling and spreading equipment uniformly over the full width of each layer. Construct a solid embankment with adequate compaction by working smaller rock and fines in with the larger rocks to fill the voids, and by operating hauling and spreading equipment uniformly over the full width of each layer as the embankment is constructed.

(d) Compaction D. Hauling and Spreading Equipment. Adjust the moisture content to a level suitable for compaction. Compact the material by operating equipment over the full width of the roadway.

(e) Compaction E. Roller Compaction. Adjust the moisture content to a level suitable for compaction. Operate Rollers over the full width of each layer until visual displacement ceases, but not fewer than three complete passes. Use rollers that meet the following requirements:

(1) Steel wheeled rollers, other than vibratory, capable of exerting a force of not less than 250 pounds per inch of width of the compression roll or rolls.

(2) Vibratory steel wheeled rollers equipped with amplitude and frequency controls with a minimum weight of 6 tons, 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.

(4) Sheepsfoot, tamping, or grid rollers capable of exerting a force of 250 lbs/inch of width of roller drum.

(f) **Compaction F.** Mechanical Tamper. Adjust the moisture content of the backfill material to a moisture content suitable for compaction. Compact each 6 inch layer with a minimum of three complete passes with a mechanical tamper.

204.12 Ditches. Slope, grade, and shape ditches. Remove all projecting roots, stumps, rock, or similar matter. Maintain all ditches in an open condition and free from leaves, sticks, and other debris.

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

204.13 Sloping, Shaping, and Finishing. Complete slopes, ditches, culverts, riprap, and other underground minor structures before placing aggregate courses. Slope, shape, and finish as follows:

(a) **Sloping.** Leave all earth slopes with uniform roughened surfaces, except as described in (b) below, with no noticeable break as viewed from the road. Except in solid rock, round tops and bottoms of all slopes including the slopes of drainage ditches. Round material overlaying solid rock to the extent practical. Scale all rock slopes. Slope rounding is not required on tolerance class D though M roads.

If a slide or slipout occurs on a cut or embankment slope, remove or replace the material, and repair or restore all 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 by the contract, construct steps on slopes of 1½V:1H to 1V:2H. Construct the steps approximately 18 inches high. Blend the steps into natural ground at the end of the cut. If the slope contains nonrippable 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.** Finish the roadbed to be smooth and uniform, and shaped to conform to the typical sections. Remove unsuitable material from the roadbed and replace it with suitable material. Finish roadbeds to the tolerance class shown in table 204-2. Ensure that the subgrade is visibly moist during shaping and dressing. Scarify to 6 inches below the bottom of low sections, holes, cracks, or depressions and bring back to grade with suitable material. Maintain proper ditch drainage.

For surfaced roads, remove all material larger than 6 inches from the top 6 inches of the roadbed.

For unsurfaced roads, use one of the following methods to finish the roadbed:

(1) **Method A.** Remove all material larger than 6 inches from the top 6 inches of the roadbed and replace with suitable material.

(2) **Method B.** Use a vibratory grid roller or approved equal with a minimum weight of 10 tons. Roll at least 5 full-width passes or until there is no visible evidence of further consolidation.

(3) Method C. For roads designated as Construction Tolerance Class K, L, or M, finish the roadbed by spreading the excavation. Eliminate rock berms.

204.14 Disposal of Unsuitable or Excess Material. Dispose of unsuitable or excess material at designated sites or legally off of the project.

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 and testing 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.

Clearing and removal of obstructions will be evaluated under Sections 201 and 203.

Measurement

204.16 Measure the Section 204 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 shown in the bid schedule;
- (d) Ditches, except furrow ditches measured under a separate bid item;
- (e) Topsoil;
- (f) Borrow material used in the work when a pay item for borrow is not shown in the bid schedule;
- (g) Loose scattered rocks removed and placed as required within the roadway;
- (h) Conserved material taken from stockpiles and used in Section 204 work; 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; and
- (l) Material excavated outside the established slope limits.

(3) When both roadway excavation and embankment construction pay items are shown in the bid schedule, measure the following as roadway excavation only:

- (a) Unsuitable material below subgrade in cuts and unsuitable material beneath embankment areas when a pay item for subexcavation is not shown 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, select borrow, and select topping. When measuring by the cubic yard measure in its original position. If borrow excavation is measured by the cubic yard 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 used in place of excess roadway excavation.

(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. Measure rounding cut slopes horizontally along the centerline of the roadway if a pay item for slope rounding is included in the bid schedule. If a pay item for slope rounding is not included in the bid schedule slope rounding will be considered subsidiary to excavation.

(e) Waste. Measure waste by the cubic yard 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 in the hauling vehicle.

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 and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Topping (704.05) & unclassified borrow (704.06)	Measured and tested for conformance (106.04)	Classification	—	AASHTO M 145	1 per soil type	Processed material before incorporating in	Yes, when requested	Before using in work
		Moisture-density	—	AASHTO T 180, method D ⁽¹⁾ or T 99	1 per soil type but not less than 1 per 6000 yd ² but not less than 1	"	"	"
		Compaction	—	AASHTO T 310 or other approved	1 per 6000 yd ² but not less than 1	In-place	—	Before placing next
Select borrow (704.07) & Select topping (704.08)	Measured and tested for conformance (106.04)	Classification	—	AASHTO M 145	1 per soil type but not less than 1 for each day of	Processed material before	Yes, when requested	Before using in work
		Gradation	—	AASHTO T 27	"	"	"	"
		Liquid Limit	—	AASHTO T 90	"	"	"	"
		Moisture-density	—	AASHTO T 180, method D ⁽¹⁾ or T 99	1 per soil type but not less than 1 per 6000 yd ² but not less than 1	"	"	"
Compaction	—	—	AASHTO T 310 or other approved	1 per 6000 yd ² but not less than 1	In-place	—	Before placing next	

(1) Minimum of 5 points per proctor

**Table 204-1 (continued)
Sampling and Testing Requirements**

Material or Product	Type of Acceptance	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Earth embankment (204.11, Compaction A)	Measured and tested for conformance (106.04)	Classification Moisture-density	—	AASHTO M 145 AASHTO T 180, method D ⁽¹⁾ or T 99, method	1 per soil type 1 per soil type but not less than 1 per 13,000 yd ³	Source of Material “	Yes, when requested “	Before using in work “
		Compaction	—	AASHTO T 310 or other approved	1 per 3500 yd ² but not less than 1 per	In-place	—	Before placing next layer
Top of subgrade (204.11 Compaction	Measured and tested for conformance	Compaction	—	AASHTO T 310 or other approved procedures	1 per 2500 yd ²	In-place	—	Before placing next layer

(1) Minimum of 5 points per proctor.

**Table 204-2
Construction Tolerances**

	Tolerance Class (a)												
	A	B	C	D	E	F	G	H	I	J	K	L	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	+1.0	+1.5	+2.0	+3.0	+2.0	+3.0	(c)
Centerline alignment (ft)	+0.2	+0.2	+0.5	+0.5	+1.0	+1.0	+1.5	+1.5	+2.0	+3.0	+3.0	+5.0	(c)
Slopes, excavation, and	+3	+5	+5	+5	+5	+5	+10	+10	+10	+10	+20	+20	+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

204.06 Roadway Excavation

Add the following:

- (d) **Drainage Excavation.** Drainage excavation includes construction of side ditches, minor channel changes, inlet and outlet ditches, furrow ditches, rolling drainage dips, surface water deflectors and other minor earth drainage structures as shown on the plans. Compaction for drainage excavation is as shown on the plans.

204.11 Compaction

Delete the first paragraph and replace it with the following:

For compaction according to method (a), (b), or (c), use AASHTO T 27 to determine the amount of material retained on a Number. 4 sieve. For compaction methods (d), (e), or (f) no sieve test is required.

Add the following compaction methods:

(d) **Hauling and Spreading Equipment.** Adjust the moisture content to a level suitable for compaction. Compact the material by operating equipment over the full width of the roadway.

(e) **Roller Compaction.** Adjust the moisture content to a level suitable for compaction. Operate Rollers over the full width of each layer until visual displacement ceases, but not fewer than three complete passes. Use rollers that meet the following requirements:

- (1) Steel wheeled rollers, other than vibratory, capable of exerting a force of not less than 250 pounds per inch of width of the compression roll or rolls.
- (2) Vibratory steel wheeled rollers equipped with amplitude and frequency controls with a minimum weight of 6 tons, 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.
- (4) Sheepsfoot, tamping, or grid rollers capable of exerting a force of 250 lbs/inch of width of roller drum.

(f) **Mechanical Tamper.** Adjust the moisture content of the backfill material to a moisture content suitable for compaction. Compact each 6 inch layer with a minimum of three complete passes with a mechanical tamper, approved by the CO.

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 legally off the project.

204.15 Acceptance

Delete the first paragraph.

204.16_0114_us_02_25_2005

204.16 Measurement.

b) Unclassified borrow, select borrow, and select topping

Delete first paragraph and add the following:

Measure by the cubic yard in place.

303 - Road Reconditioning

303.00_01_us_10_11_2006

Delete Section 303 in its entirety and replace with the following.

Description

303.01 This work consists of reconditioning ditches, shoulders, roadbeds, parking areas, turnouts, approach road intersections, cattleguards, asphalt surfaces and aggregate surfaces. Construct outslopes, clean and maintain all roadbed drainage structures when shown on the plans.

Material

303.02 Conform to the following Subsection:

Water 725.01

Construction Requirements

303.03 Ditch Reconditioning. Remove all slide material, sediment, vegetation, and other debris from the existing ditches and culvert inlets and outlets. Reshape ditches and culvert inlets and outlets to achieve positive drainage and a uniform ditch width, depth, and grade. Dispose of waste as shown on the plans.

303.04 Shoulder Reconditioning. Repair soft and unstable areas according to Subsection 204.07. Remove all slide material, vegetation, and other debris from existing shoulders including shoulders of parking areas, turnouts, and other widened areas. Dispose of waste as shown on the plans.

303.05 Roadbed Reconditioning Repair soft and unstable areas according to Subsection 204.07. Remove all organic, deleterious material larger than 6 inches from the top 6 inches of subgrade. Dispose of waste as shown on the plans. Scarify, rip and shape the traveled way and shoulders at locations and to the depth and width designated on the plans. Remove surface irregularities and shape to provide a uniform surface.

Dispose of rock larger than 4 inches brought to the surface during scarification in areas designated on the plans.

For portions of roads not requiring scarification, the roadbed may contain rocks larger than 4 inches provided they do not extend above the finished roadbed surface. Reduce in place or remove rock extending above the finished roadbed surface. Dispose of removed rock in areas designated on the plans.

Compact using the following method as specified:

- (a) Compaction A. Operate equipment over the full width.
- (b) Compaction B. Operate rollers over the full width of each layer until visual displacement ceases, but not fewer than three complete passes. Use rollers that meet the following requirements:

(1) Steel wheeled rollers, other than vibratory, capable of exerting a force of not less than 250 pounds per inch of width of the compression roll or rolls.

(2) Vibratory steel wheeled rollers equipped with amplitude and frequency controls with a minimum weight of 6 tons, 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.

303.06 Aggregate Surface Reconditioning. Repair soft and unstable areas to the full depth of the aggregate surface and according to Subsection 204.07. Scarify to the depth of the aggregate surface or to a depth of 8 inches, whichever is less, and remove surface irregularities. Reshape, finish, and compact the entire aggregate surface according to Section 308.

303.07 Roadway Reconditioning. Perform all the applicable work described in Subsections 303.03 through 303.06.

Maintain the existing cross slope or crown unless otherwise shown on the plans. Establish a blading pattern that will retain the surfacing on the roadbed and provide a through mixing of the materials within the completed surface width.

Blade and shape the subgrade for both surfaced and unsurfaced roads when moisture content is suitable for compaction.

303.08 Pulverizing. Scarify the surface to the designated depth and width. Pulverize all material to a size one and one half times the maximum sized aggregate or to 1½ inches, whichever is greater. Mix, spread, compact, and finish the material according to Section 301.

303.09 Acceptance. See Table 303-1 for sampling and testing requirements. Road reconditioning work will be evaluated under Subsections 106.02 and 106.04.

Measurement

303.10 Measure the Section 303 items listed in the Schedule of Items according to Subsection 109.02 and the following as applicable.

Measure ditch reconditioning and shoulder reconditioning by the mile, by the station or foot horizontally along the centerline of the roadway for each side of the roadway.

Measure roadbed reconditioning, aggregate surface reconditioning, roadway reconditioning, and pulverizing by the mile, by the station, or by the square yard.

Payment

303.11 The accepted quantities will be paid at the contract price per unit of measurement for the Section 303 pay items listed in the bid schedule. Payment will be full compensation for the

work prescribed in this Section. See Subsection 109.05.

303.03_0114_us_08_04_2005

303.03 Ditch Reconditioning

Delete the last sentence and add the following:

Dispose of waste as shown on the plans.

303.04 Shoulder Reconditioning

Delete the last sentence and add the following:

Dispose of waste as shown on the plans.

303.05 Roadbed Reconditioning

Delete and add the following:

Repair soft and unstable areas according to Subsection 204.07. Remove all organic, deleterious material larger than 6 inches from the top 6 inches of subgrade. Dispose of waste as shown on the plans. Scarify and shape the traveled way and shoulders at locations and to the depth and width designated on the plans. Remove surface irregularities and shape to provide a uniform surface.

Dispose of rock larger than 4 inches brought to the surface during scarification in areas designated on the plans.

For portions of roads not requiring scarification, the roadbed may contain rocks larger than 4 inches provided they do not extend above the finished roadbed surface. Reduce in place or remove rock extending above the finished roadbed surface. Dispose of removed rock in areas designated on the plans.

Compact using the following method as specified:

- (a) Compaction A. Operate equipment over the full width.
- (b) Compaction B. Operate rollers over the full width of each layer until visual displacement ceases, but not fewer than three complete passes. Use rollers that meet the following requirements:
 - (1) Steel wheeled rollers, other than vibratory, capable of exerting a force of not less than 250 pounds per inch of width of the compression roll or rolls.
 - (2) Vibratory steel wheeled rollers equipped with amplitude and frequency controls with a minimum weight of 6 tons, 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.

303.07 Roadway Reconditioning

Add the following:

Blade and shape the subgrade for both surfaced and unsurfaced roads when moisture content is suitable for compaction.

303.09 Acceptance

Delete the first sentence.

303.10 Measurement

Delete the first sentence of the third paragraph and replace with:

Measure roadbed reconditioning, aggregate surface reconditioning, roadway reconditioning, and pulverizing by the mile, by the station, or by the square yard.

306 - Dust Palliative

306.03_nat_us_03_02_2005

306.03 General.

Add the words “or rainy” after the word “foggy” in the third sentence.

306.04_nat_us_03_02_2005

306.04 Preparation and Application.

Add the following to the last paragraph:

When designated, begin compaction as soon as palliative has penetrated enough to prevent pickup of material. Operate rollers over the full width of each layer until visual displacement ceases.

306.06_nat_us_03_02_2005

306.06 Acceptance.

Add the following:

Submit certification and samples as specified in Table 306-1.

Add Table 306-1:

Table 306-1—Sampling and Testing.

Material or Product	Type of Acceptance (Subsection)	Characteristic	Test Method Specification	Sampling Frequency	Point of Sampling	Spilt	Reporting Time
	Production Certification (Subsection 106.03)	Chemical Composition	Subsection 725	1 per type of material	Source of materials	No	Prior to construction
		Toxicity Tests(1)	EPA Standard Operating Procedure 2022	"	"	"	"
		Specific Gravity Chart (2) (liquid non-petroleum products only)	-	"	"	"	"
		Material Safety Data Sheet	-	"	"	"	"
		Quality	-	First load and determined by the CO thereafter	Hauling vehicle (3)	Samples submitted to the Government	During construction

Note: 1) 96-Hour static toxicity test using Daphnia and juvenal rainbow trout (*Oncorhynchus mykiss*).

2) Specific Gravity Chart: Correlation of Specific Gravity with percent solids of constituent presented in 1 percent increments beginning with a 5 percent solution up to, including, and exceeding 5 percent (or the solubility limit of the product) the proposed concentration of the undiluted product.

3) If the product is liquid, obtain a two-liter sample from the transfer load. If the product is solid obtain a 1-pound sample from the load.

320 - Stockpiled Aggregates

320.00_nat_us_12_19_2008

Description

320.01 This work consists of furnishing and placing aggregate in a stockpile at an existing site or constructing a new site and placing the aggregate at the new site.

Material

320.02 Conform to the following Section:

Aggregate 703

Provide the gradation and quality requirements specified in the Section identified in the pay item.

Construction Requirements

320.03 Stockpile Site. Prepare existing sites as necessary to accommodate the quantity of aggregate to be stockpiled.

For new sites, clear and grub according to Section 201. Grade and shape the site to a uniform cross-section that drains. Compact the floor of the site with at least three passes using compaction equipment conforming to Subsection 204.11. Place, compact, and maintain a minimum 6 inches of crushed aggregate over the stockpile site and access roads. Prevent contamination of the stockpiles.

320.04 Stockpile. After a representative quantity of aggregate is produced, submit proposed target values for the appropriate sieve sizes along with a representative 350-pound sample.

Set target values within the gradation ranges shown in Table 703-2 or 703-3 for the required grading.

Request site approval before stockpiling aggregates. Make the stockpiles neat and regular in shape. Make the side slopes no flatter than 1:1.5.

Build the stockpiles in layers not exceeding 3 feet thick. Complete each layer before depositing aggregates in the next layer. Do not allow aggregates from the one layer to run down over lower layers of the stockpile. Do not drop aggregates from a bucket or spout in one location to form a cone-shaped pile.

Construct stockpile layers by spreading aggregates with trucks or other approved pneumatic-tired equipment. Do not push aggregates into piles.

When operating trucks on stockpiles, avoid tracking dirt or other deleterious material onto the stockpiled material.

Space stockpiles far enough apart or separate stockpiles by suitable walls or partitions to prevent the mixing of the different aggregate gradations.

320.05 Acceptance. Aggregate for stockpiling will be evaluated under Subsection 301.08 and Table 301-1. The point of sampling will be the belt or stockpile.

Preparation of stockpile sites and construction of stockpiles will be evaluated under Subsections 106.02 and 106.04.

Clearing will be evaluated under Section 201.

Measurement

320.06 Measure the 320 items listed in the bid schedule according to subsection 109.02.

Payment

320.07 The accepted quantities, measured as provided in subsection 109.02 and above, will be paid at the contract price per unit of measurement for the Section 320 pay items listed in the bid schedule except the stockpiled aggregate.

320.00_01_us_10_11_2006

Description

320.01. This work consists of furnishing and placing aggregate in a stockpile at an existing site or constructing a new site and placing the aggregate at the new site.

Material

320.02. Conform to the following Section:

Aggregate	703
-----------	-----

Provide the gradation and quality requirements specified in the Section identified in the pay item.

Construction Requirements

320.03 Stockpile Site. Prepare existing sites as necessary to accommodate the quantity of aggregate to be stockpiled.

For new sites, clear and grub according to Section 201. Grade shape and compact the site to a uniform cross-section that drains. Place, compact, and maintain a minimum of 6 inches of crushed aggregate over the stockpile site and access roads. Prevent contamination of the stockpiles.

320.04 Stockpile. After producing a representative quantity of aggregate, submit initial gradation test results, including the size ratio calculations or proposed target values outlined in FSSS 703.05, as applicable for approval by the C.O.

Request site approval before stockpiling aggregates. Make the stockpiles neat and regular in shape. Make the side slopes no flatter than 1:1.5.

Build the stockpiles in layers not exceeding 3 feet thick. Complete each layer before depositing aggregates in the next layer. Do not allow aggregates from the one layer to run down over lower layers of the stockpile. Do not drop aggregates from a bucket or spout in one location to form a cone-shaped pile.

Construct stockpile layers by spreading aggregates with trucks or other approved pneumatic-tired equipment. Do not push aggregates into piles.

When operating trucks on stockpiles, avoid tracking dirt or other deleterious material onto the stockpiled material.

Space stockpiles far enough apart or separate stockpiles by suitable walls or partitions to prevent the mixing of the different aggregate gradations.

320.05 Acceptance. Aggregate for stockpiling will be evaluated under Table 301-1 of FSSS 703.05, Table 301-1 and Subsection 106.04. The point of sampling will be the belt or stockpile.

Preparation of stockpile sites and construction of stockpiles will be evaluated under Subsections 106.02 and 106.04.

Clearing will be evaluated under Section 201.

Measurement

320.06. Measure the 320 items listed in the bid schedule according to subsection 109.02.

Payment

320.07. The accepted quantities, measured as provided in subsection 109.02 and above, will be paid at the contract price per unit of measurement for the Section 320 pay items listed in the bid schedule.

Description

321.01 This work consists of constructing one or more courses of aggregate on a prepared surface. Work includes producing aggregate by grid rolling, screening, or crushing methods, or placing pit-run or Government-furnished aggregate. Work may include additive mineral filler, or binder.

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

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

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

Material

321.02 Conform to the following Subsections:

Aggregate	703.05
Water	725.01
Bentonite	725.30
Calcium Chloride flake	725.02
Magnesium Chloride or Calcium Chloride liquid	725.02
Lignin Sulfonate	725.20

Construction Requirements

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

Request approval of the roadbed in writing before placing aggregate.

Develop and use Government provided sources according to Section 105.

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

Submit a written quality control plan and perform the Contractor quality control and inspections according to Section 153.

After a representative quantity of subbase, base, or surface aggregate is produced, submit proposed target values for the appropriate sieve sizes along with a representative 75-pound sample at least two days before incorporating the aggregate into the work. Submit target values within the gradation ranges shown in Table 703-2 or 703-3 for the required grading. After reviewing the Contractor’s proposed target values the CO will determine the final values for the gradation and notify the Contractor in writing.

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

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

Provide additives or binder, if required, at the proportions specified.

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

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

Do not place in layers exceeding 6 inches in compacted thickness for aggregate base and surface courses or twice the maximum particle size for screened aggregate. When more than one layer is necessary, compact each layer according to Subsection 321.05 before placing the next layer. Route hauling and leveling equipment uniformly over the full width.

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

When additives are specified ensure that aggregate, additives, and any required water, mineral filler, and binder are mixed by the specified method. Control additive proportions to 0.5 percent dry weight.

Additive Mixing Methods:

(a) Stationary Plant Method. Mix the aggregate with other required materials in an approved mixer. Add water during the mixing operation in the amount necessary to provide the moisture content for compacting to the specified density. After mixing, transport the aggregate to the jobsite while it contains the proper moisture content, and place it on the roadbed or base course using an aggregate spreader.

(b) Travel Plant Method. After placing the aggregate for each layer with an aggregate spreader or windrow-sizing device, uniformly mix it with other required materials using a traveling mixing plant or rotary mixer. During mixing, add water to provide the necessary moisture content for compacting to the specified density.

(c) Road Mix Method. After placing the aggregate for each layer, mix it with other required materials at the required moisture content for compacting to the specified density until a uniform distribution is obtained.

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

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

Compaction A. Adjust the moisture content to a level suitable for compaction. Operate spreading and hauling equipment over the full width of each layer of the aggregate.

Compaction B. Operate rollers and compact as specified in Subsection 204.11.

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

Compaction D. Compact each layer of aggregate to a density of at least 95 per-cent of the maximum density, as determined by AASHTO T 99, method C or D.

Compaction E. Compact each layer of aggregate to a density of at least 96 percent of the maximum density, as determined by the Modified Marshall Hammer Compaction Method (available upon request from USDA Forest Service, Regional Materials Engineering Center, P.O. Box 7669, Missoula, MT 59807).

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

Compaction G. Compact each layer of aggregate to a density of at least 100 percent of the maximum density as determined by the Modified Marshall Hammer Compaction Method (available upon request from USDA Forest Service, Regional Materials Engineering Center, P.O. Box 7669, Missoula, MT 59807).

Compaction H. Compact the aggregate by operating compaction equipment over the total width until visible deformation ceases. A minimum of five complete passes shall be made at a moisture content suitable for compaction.

Compaction I. Adjust the moisture content to a level suitable for compaction. Operate rollers over the full width of each layer until visual displacement ceases, but not fewer than three complete passes. Use rollers that meet the following requirements:

- (1) Steel wheeled rollers, other than vibratory, capable of exerting a force of not less than 250 pounds per inch of width of the compression roll or rolls.
- (2) Vibratory steel wheeled rollers equipped with amplitude and frequency controls with a minimum weight of 6 tons, 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.

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

321.06 Construction Tolerance. If grade finishing stakes are required, finish the surface to within ± 0.05 feet from staked line and grade elevation.

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

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

Ensure that the compacted thickness is not consistently above or below the specified thickness.

The allowable average thickness of four random measurements for any ½ mile of road segment is within + ¼ inch of the specified thickness. The maximum variation from the compacted specified thickness is ½ inch.

Ensure that the compacted width is not consistently above the specified width. The allowable average width of any four random measurements along any ½ mile of road segment is within +4 inches of the specified width. The maximum variation from the specified width will not exceed +12 inches at any point.

321.07 Maintenance. Maintain the aggregate course to the correct line, grade, and cross-section by blading, watering, rolling, or any combination thereof until placement of the next course. Correct all defects according to Subsection 321.06.

321.08 Acceptance. See Table 321-1 or Table 321-2 as applicable, for sampling and testing requirements.

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

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

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

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

Measurement

321.09 Measure the Section 321 items listed in the bid schedule according to Subsection 109.02 and the following as applicable.

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

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

Measure thickness perpendicular to the grade of the travelway.

Measure width perpendicular to the centerline.

Payment

321.10 The accepted quantities will be paid at the contract price per unit of measurement for the Section 321 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

**Table 321-1
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Aggregate source quality 703.05	Measured and tested for conformance (106.04 & 105)	LA abrasion (coarse)	—	AASHTO T 96	1 per type & source	Source of material	Yes, when request	Before using in work
		Sodium sulfate soundness	—	AASHTO T 104	“	“	“	“
		Durability index (coarse & Fractured faces)	—	AASHTO T 210	“	“	“	“
		Fractured faces	—	ASTM D 5821	“	“	“	“
Subbase, Base, and Surface courses	Measured and tested for conformance (106.04)	Gradation	—	AASHTO T 27 & T 11	1 per 1000 tons	From windrow or roadbed	Yes	48 hours
		Liquid limit	—	AASHTO T 89	“	“	“	“
Surface course	Measured and tested for conformance (106.04)	Fractured faces	—	ASTM D5821	1 per 1000 tons	From windrow or roadbed	Yes	48 hours
		Plasticity index	—	AASHTO T 90	“	“	“	“

**Table 321-1 (continued)
Sampling and Testing Requirements**

Material or Product	Type of Acceptance	Characteristic	Category	Test Methods	Sampling	Point of Sampling	Split Sample	Reporting
Subbase, Base, and Surface	Measured and tested for conformance (106.04)	Moisture-density	—	AASHTO T 99 (1)	1 per type and	Source of material	Yes, when	Before using in
		Moisture-density	—	R-1 Marshall	"	"	"	"
		Moisture-density	—	AASHTO T 180(1)	"	"	"	"
		Moisture-density	—	R-1 Marshall	"	"	"	"
		In-place density & moisture content	—	AASHTO T 310 or other approved procedure	1 per 500 tons	In-place	—	Before placing next layer
Surface	Measured and tested for conformance (106.04)	Width	—	—	4 per each 0.5 mile	Roadbed after compaction	—	4 hours
		Thickness	—	—	"	"	—	"
		Amount of additive	—	—	1 per 1000 tons	From windrow on	—	"

(1) Minimum of 5 points per proctor.

**Table 321-2
Sampling and Testing Requirements**

Material or Product	Type of Acceptance (Subsecti	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time
Screened Aggregate	Measured and tested for conformance (106.04)	Plastic Limit	—	AASHTO T 90	1 each per1000 tons	From the windrow or roadbed	Yes	48 hours
		Liquid Limit	—	AASHTO T 89	“	“	“	“
		Gradation	—	AASHTO T 27 & T 11	“	“	“	“

625 - Turf Establishment

625.00_0114_us_07_12_2007

625.03 General.

Delete the first sentence and add the following:

Apply turf establishment to portions of slopes, ditches, waste areas, and other disturbed areas within 14 days after being constructed to template lines unless otherwise specified in writing by the C.O..

625.04 Preparing Seedbed.

Delete the second sentence of the first paragraph.

Delete the third paragraph.

625.05 Watering

Delete the entire paragraph.

625.06 Fertilizing.

Delete the entire subsection and add the following.

Apply fertilizer having a chemical analysis as listed in (c) below by the following methods.

Apply seed and fertilizer in one application.

(a) Dry Method. Apply the fertilizer with approved power driven seeders, drills, fertilizer spreaders or other mechanical equipment. Hand operated methods are satisfactory on areas inaccessible to mechanical equipment.

(b) Hydraulic method. Use hydraulic-type equipment capable of providing a uniform application using water as the carrying agent. Add fertilizer to the slurry and mix before adding seed.

(c) Chemical analysis. Apply fertilizer at the rate of 240 pounds per acre. Apply fertilizer having the following chemical analysis.

Nutrient	Percent
Nitrogen, N	<u>27</u>
Phosphorus, P ₂ O ₅	<u>10</u>
Potassium, K	<u>10</u>

Fertilizer having a different chemical analysis may be used if approved in advance by the CO.

625.07 Seeding.

Delete the first sentence and add the following.

Apply seed mix shown in (c) below by the following methods.

(a) Dry method.

Delete the third sentence.

Add the following after subsection (b).

(c) Seed Mix. In terms of pure live seed, furnish and apply the following kinds and amounts of seed. Obtain the pounds of seed to furnish per acre by dividing the pounds of pure live seed required per acre by the product of the percent purity and percent germination.

Example: $\frac{5 \text{ lbs Pure Live Seed/Acre}}{0.90 \times 0.85 \text{ (Purity = 90\% and Germination = 85\%)}} = 6.55 \text{ lbs Commercial Seed/Acre}$

<u>Kind of Seed</u>	<u>Quantity of Pure Live Seed</u> <u>(Lbs/Acre)</u>
1. Annual Rye	18
2. Hard Fescue	6
3. Orchard Grass	<u>6</u>
Total	30

625.08 Mulching.

(b) Hydraulic method.

Delete the first sentence and add the following.

Apply mulch in a separate application from the seed or in a single application with the seed

using hydraulic-type equipment according to Subsection 625.07(b).

625.09 Protecting and Caring for Seeded Areas.

Delete the first sentence and add the following.

Protect and care for seeded areas until final acceptance.

625.11 Measurement

Delete the second paragraph and add the following.

Measure seeding, fertilizing, and mulching by the acre on the ground surface or by lump sum.

Description

651.01 This 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.

Construction Requirements

651.02 General. Submit a plan of operations according to Section 105. Perform all work in accordance with Sections 105, 201, 203, 204, 625, and 635, landscape preservation requirements, and the approved pit and quarry development plan of operations. Perform the work in accordance with MSHA 30 CFR, part 56.

651.03 Acceptance. Developing pits and quarries will be evaluated under Subsections 106.02 and 106.04.

651.04 Restoration. After excavation has been completed in part or all of the area, slope and grade the sides, and smooth the general pit area as shown on the plans.

Rip and drain access roads that are marked on the drawings for obliteration; block them to traffic; and seed them in Accordance with Section 625.

Payment

651.05 Pit Development is considered a subsidiary item to Sections 204, 251, 252, 253, 301, 302, 321, or 322. No separate payment will be made under this Section or Sections 204, 251, 252, 253, 301, 321, ,322, or 409.

703 - Aggregate

703.05_0114_us_08_04_2005

703.05 Subbase, Base, and Surface Course Aggregate

Delete Section 703.05(c) and add:

(c) Surface course aggregate. In addition to (a) above, conform to the following:

- | | |
|---|-------------|
| (1) Gradation and plasticity index, AASHTO T 90 | Table 703-3 |
| (2) Liquid Limit, AASHTO T 89 | 35 max. |

Do not furnish material that contains asbestos fibers.

Table 703-3.
Crushed Aggregate Grading Requirement for Surface Courses

Sieve Size	Percent Passing (AASHTO T-11 and T-27)			
	Grading D-SR	Grading D-SR with PI	Grading E-SR	Grading E-SR with PI
1 – inch	100(a)	100(a)		
¾ - inch	70 – 98	70 – 98	100(a)	100(a)
½ - inch	58 – 88	58 – 88	70 – 98	70 – 98
No. 4	36 – 60	36 – 60	44 – 70	44 – 70
No. 8	25 – 47	25 – 47	30 – 54	30 – 54
No. 30	12 – 31	12 – 31	15 – 34	15 – 34
No. 200	8 – 20(b)	6 - 15	8 – 20(b)	6 – 15

- (a) An average percent passing of greater than 98 percent is acceptable.
(b) If minus No. 40 material in finished product has a PI greater than 0, the percent pass No. 200 range is 6 to 15 percent.

The gradation will closely parallel the specification gradation curves. Percent passing ½ inch, No. 4 and No. 30 sieves will be in either the upper, middle or lower portion of the specification band. Size ratios, as defined below, will be determined for each sieve analysis test. The maximum difference between the ½ inch and No. 4 size ratio, the No. 4 and No. 30 size ratio, and the ½ inch and No. 30 size ratio, will not exceed 0.50.

$$\frac{1}{2} \text{ inch size ratio} = \frac{(\text{Test \% Pass } \frac{1}{2}'') - (\text{Min \% Pass } \frac{1}{2}'')}{(\text{Max \% Pass } \frac{1}{2}'') - (\text{Min \% Pass } \frac{1}{2}'')}$$

$$\text{No. 4 size ratio} = \frac{(\text{Test \% Pass No. 4}) - (\text{Min \% Pass No. 4})}{(\text{Max \% Pass No. 4}) - (\text{Min \% Pass No. 4})}$$

$$\text{No. 30 size ratio} = \frac{(\text{Test \% Pass No. 30}) - (\text{Min \% Pass No. 30})}{(\text{Max \% Pass No. 30}) - (\text{Min \% Pass No. 30})}$$

718 - Traffic Signing and Marking Material

718.05_nat_us_08_05_2009

718.05 Aluminum Panels

Delete the third paragraph and replace with the following:

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

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE - REGION ONE
KOOTENAI NATIONAL FOREST

Libby Ranger District

RECONSTRUCTION PLANS FOR EXISTING
NATIONAL FOREST SYSTEM ROADS



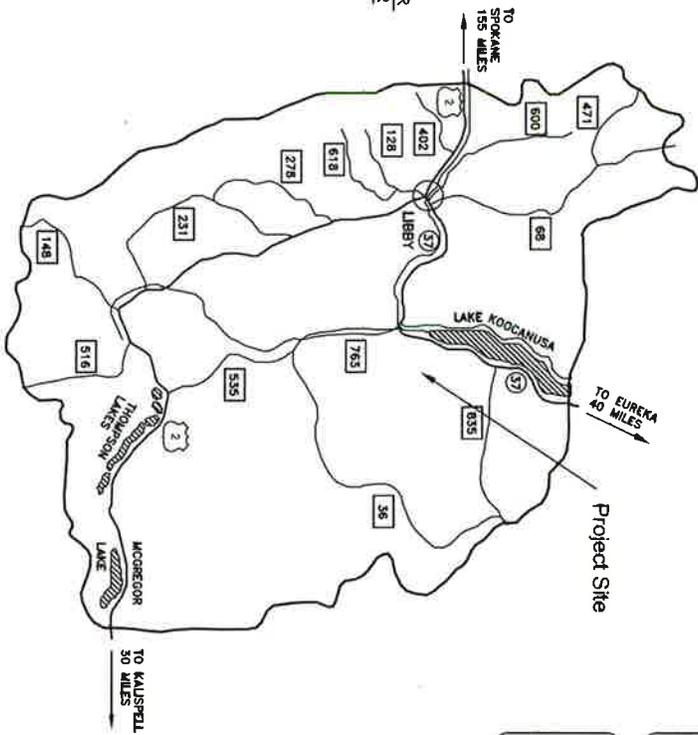
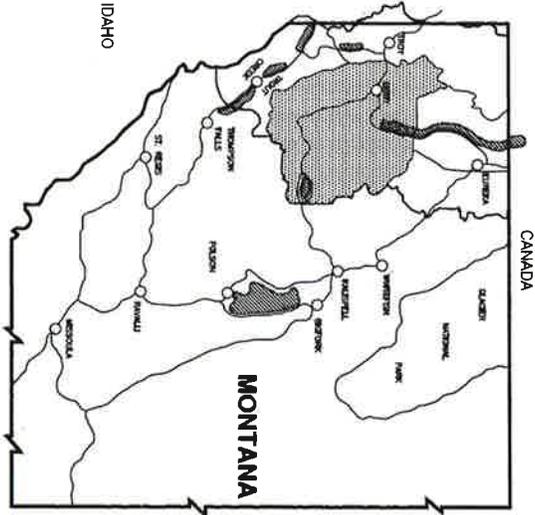
PREPARED BY: *[Signature]*
PROJECT ENGINEER
DATE: 7/19/16

REVIEWED BY: *[Signature]*
PROJECT ENGINEER, TEAM LEADER
DATE: 7-18-16

MULTIPLE RESOURCE REVIEW BY: *[Signature]*
DISTRICT RANGER
DATE: 7/18/16

I certify that this project has been designed with sound engineering practice.
FOREST ENGINEER: *[Signature]*
DATE: 7/18/16

Clooney Beck
Aggregate Placement



RD #	ROAD NAME	LENGTH	C/R
334	CRIPPLE HORSE FISHER RIVER	3.48	R

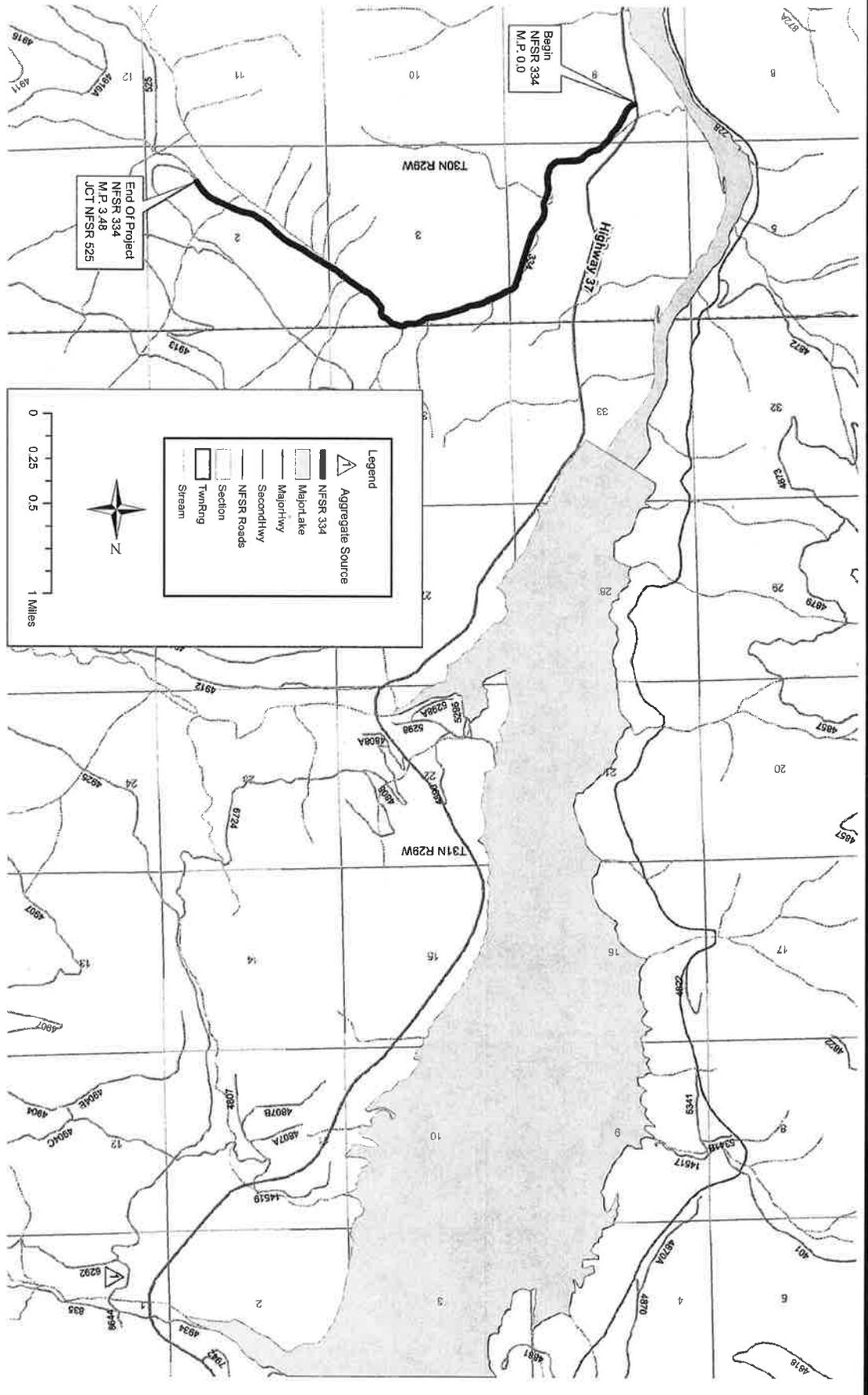
* C=CONSTRUCTION, R=RECONSTRUCTION

NOT TO SCALE

TABLE OF CONTENTS:

1. TITLE SHEET
2. VICINITY MAP
3. SUMMARY OF QUANTITIES
4. RECONSTRUCTION LOG
5. PIT PLAN FOR OPTION 1

SHEET NUMBER	TOTAL SHEETS
1	5



Clooney Beck Aggregate Placement Vicinity Map

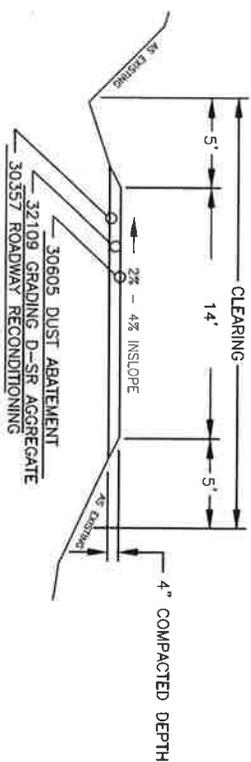
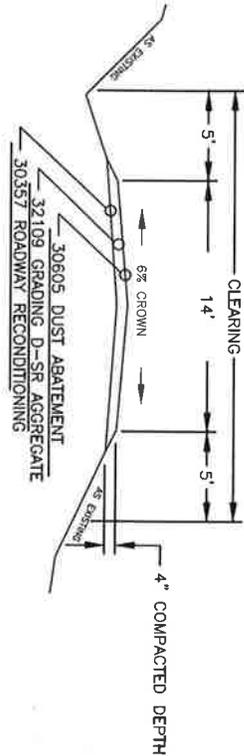
SHEET NUMBER	TOTAL SHEETS
2	5

SUMMARY OF QUANTITIES & ROAD TYPICAL

ITEM NO	ITEM DESCRIPTION	METHOD OF MEASURE	UNIT OF MEASURE	BASE QUANTITY	Option 1 QUANTITY
15101	Mobilization	LSQ	Each	1	
30357	Roadway Reconditioning, Compaction Method B	CQ	Each	3,48	
30605	Calcium Chloride Dust Abatement	AA	Ton	23	
32001	Stockpiled Aggregate, Section 703.05, Grading D-SR, Cripple Horse Pit	AA	Ton		15,000
32111	Aggregate Surface Course, Grading D-SR, Compaction Method I, Government Furnished Aggregate	CQ	CY	3,144	

Notes:

1. Schedule of Items in the Contract supersedes this Summary of Quantities.
2. Seeding and Fertilizing of all disturbed areas outside the gravelled surface per section 625 is incidental to item 30357.
3. Grading D-SR is a grading requirement with a size ratio. This grading requirement can be found in the Supplemental Specifications in Section 703.
4. Water for dust and moisture control may be drawn at the Road #334 Bridge over Dunn Creek or the Kooanusa Reservoir at the terminus of NFSR Road 4890. Watering per Section 170 is incidental to pay item 32109. Intake draft hose requires a 1/2" mesh screen filter. Contractor must obtain approval of alternative water sources from the CO before drafting and hauling water.
5. Do not recondition roadway in marked weed areas. Activity in these areas shall be limited to aggregate placement 32109 only.
6. Dispose of or utilize excess, unsuitable, or oversize material as defined in Sections 204 or 303 in an area adjacent to the excavation, as designated by the Engineer or as shown on the drawings.
7. Catch basin excavation, ditch construction, and slump removal material may be incorporated in the road surface of native surfaced roads or disposed of adjacent to the excavation as directed by the Engineer. Dispose of the material on aggregate or bituminous surfaced roads as directed by the Engineer. Do not side cast excavation within 300' of perennial streams or SWZ's as shown on the drawings or as marked on the ground.
8. Repair or replace road signs damaged or destroyed during reconstruction as directed by the Engineer at the Contractor's expense.
9. Reinstall road signs removed by the Contractor during reconstruction in accordance with MUTCD standards at the Contractor's expense.
10. Place W20-1 "ROAD CONSTRUCTION AHEAD" signs at road junctions as determined by the Engineer. All sign panels shall conform to MUTCD standards.
11. For Dust Abatement, pay item 30605, Place Calcium Chloride Pellets (94% Concentration) at a rate of 1.6 lbs/SY.
12. Tracked vehicles shall be transported by trailer over all paved surfaces.
13. The contractor will suspend all work on October 15 or as directed by the CO for weather conditions. Any unfinished work will resume when to CO deems weather conditions appropriate for the proposed activity.
14. Clearing Limits extend 5 feet beyond existing road surface, which may be greater than 14 feet.



CLEARING LIMITS EXTEND 5' BEYOND EXISTING ROAD SURFACE

Clooney Beck Aggregate Placement

SHEET NUMBER	TOTAL SHEETS
3	5

Clooney Beck Aggregate Placement

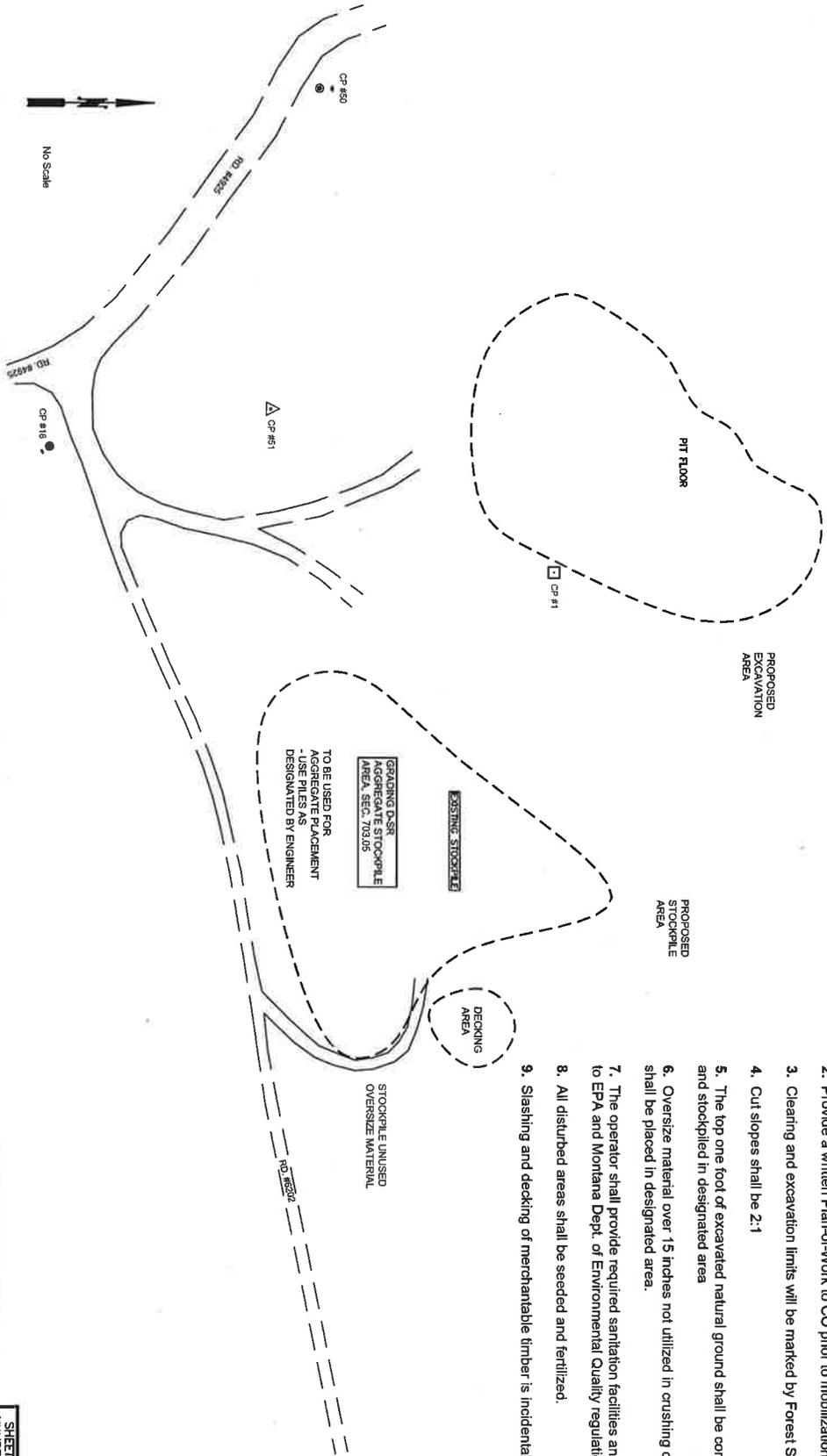
RECONSTRUCTION LOG

MILE POST	PAY ITEM NUMBER	DESCRIPTION	MILE POST	PAY ITEM NUMBER	AS-BUILT DESCRIPTION
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* CB = CATCH BASIN

SHEET NUMBER	TOTAL SHEETS
4	5

OPTION 4 - CRIPPLE HORSE PIT PLAN



Notes:

1. Crush and stockpile 15,000 Tons of aggregate; Grading D-SR, Section 703.05
2. Provide a written Plan-of-Work to CO prior to mobilization.
3. Clearing and excavation limits will be marked by Forest Service
4. Cut slopes shall be 2:1
5. The top one foot of excavated natural ground shall be conserved and stockpiled in designated area
6. Oversize material over 15 inches not utilized in crushing operation shall be placed in designated area.
7. The operator shall provide required sanitation facilities and adhere to EPA and Montana Dept. of Environmental Quality regulations.
8. All disturbed areas shall be seeded and fertilized.
9. Slashing and decking of merchantable timber is incidental.

Clooney Beck Aggregate Placement

SHEET NUMBER	TOTAL SHEETS
5	5

K-H.2 - NORMAL PRECAUTIONS (2/02).

Specific fire precautionary measures are set forth below. Upon request of Forest Service, Contractor shall permit and provide an individual to assist in periodic testing and inspection of required fire equipment. Contractor shall promptly remedy deficiencies found through such inspecting and testing.

The following requirements shall apply during the period stated in A.12 and during other such periods as specified by Forest Service.

A. Fire Extinguishers and Tools Required with Equipment. Each unit of powered equipment used in connection with this contract shall be equipped with serviceable tools and fire extinguishers acceptable to Forest Service as follows:

1. STATIONARY EQUIPMENT. Examples include yarders, log loaders, Hahn Harvester, stroke delimiters, roadside/landing based processors, whole tree chippers, rock crusher, asphalt plant, or other equipment working at fixed locations such as a landing or rock crushing site.

One - Fire extinguisher, dry chemical type of not less than 2.5-pound capacity with 4 B.C. or higher rating.

One - 5-gallon standard galvanized metal, fiber glass or rubberized backpack water container, with hand pump attached, to be filled at all times.

Weatherproofed tool box marked "FIRE ONLY," equipped with a hasp, kept sealed, and containing:

One - Axe, double bit, 3.5#

Two - Shovels (round point #0 lady or equal)

Two - Pulaskis

The tool box shall be mounted on equipment, if feasible, unless another location is agreed to in writing. The tool box shall be within 100 feet of the designated machine at all times when operating. Only one (1) tool box is required at each active fixed location site.

2. MOBILE EQUIPMENT. Examples include crawler tractors, rubber-tire skidders, soft-track skidders, forwarders, feller-bunchers, feller-processors, excavators, front-end loaders, back-hoes, scrapers, and motor graders.

One - Fire extinguisher, dry chemical type of not less than 2.5-pound capacity with a 4 B.C. or higher rating.

One - Shovel (round point #0 lady or equal). For equipping mobile equipment, an acceptable substitute is a "D-handle" round point shovel with a minimum 27-inch handle and a minimum 8- by 11-inch blade.

One - Axe, double bit, 3.5#, or one pulaski.

3. SUPPORT EQUIPMENT. Examples include trucks, low-boys, busses, pickups, panels, automobiles, service trucks, or similar equipment used in transporting logs, people, equipment, and/or materials.

One - Fire extinguisher, dry chemical type of not less than 2.5-pound capacity with 4 B.C. or higher rating

One - Shovel (round point #0 lady or equal)

One - Axe, 2# or over, 26-inch minimum length, or one pulaski

One - Bucket or similar water container (at least 1-gallon capacity)

4. POWER SAWS

One - Shovel (round point #0 lady or equal). Shovel shall be with gas containers and/or no more than 100 feet distance from where sawyer is working.

One - Fire extinguisher, containing not less than eight (8) ounces of extinguisher fluid or a dry chemical powder type of not less than one (1) pound capacity. The extinguisher shall be carried by the operator at all times.

Any fueling or refueling of a power saw shall only be done in an area which is free of or which has first been cleared of all material capable of carrying fire; such power saw shall be moved at least 10 feet from place of fueling before starting.

B. Fire Tools on Contract Area. Contractor shall furnish and maintain in serviceable condition, in quantities and at locations to be designated by Forest Service, tool boxes, fire tools and other fire equipment to be used only for suppressing forest fires. Each tool box shall be weatherproofed and marked "TOOLS FOR FIRE ONLY" and kept sealed. These requirements are in addition to fire tool requirements for mobile, stationary, support or power saw equipment.

1. Special tool caches shall not be required when less than 20 people are employed on Contract Area, excluding logging truck drivers.

2. Operations employing more than 20 individuals on Contract Area, excluding truck drivers, shall furnish a tool cache with a minimum of one serviceable tool per person in the following configuration:

Axe, double bit, 3.5#, 10%

Shovels (round point #0 lady or equal), 45%

Pulaskis, 45%

C. Spark Arresters. Each internal combustion engine shall be provided with a spark arrester or spark arresting device approved by Forest Service. Exceptions where Forest Service may approve mufflers or other equipment in lieu of spark arresters qualified and rated under Forest Service standard 5100-1a are: (a) small multi-position engines, such as chain saws, shall meet Society of Automotive Engineers J335b standards, (b) passenger-carrying vehicles and light trucks may have baffle-type muffler with tail pipe, (c) heavy-duty trucks may have a vertical stack exhaust system with muffler, provided the exhaust stack extends above the cab of the vehicle, (d) an exhaust driven turbocharger is considered to be a satisfactory

spark arrester. Internal combustion engine exhaust systems, arresters and other devices shall be properly installed and maintained.

D. Blasting. Fuse or prima cord shall not be used unless authorized in writing by Forest Service, with special precautions stated.

E. Smoking. Smoking shall not be permitted within logging operations except on surfaced or dirt roads, at landings, within closed vehicles, in camps or at other posted places. Smoking shall not be permitted while working or traveling on foot, within or through Contract Area.

F. Precautions for Stoves. Stovepipes on all temporary buildings, trailers, and tents using wood-burning stoves shall be equipped with roof jacks and serviceable spark arresters of mesh with openings no larger than 5/8 inch. All stovepipes, inside and out, shall not be closer than two (2) feet from any wood or other flammable material or one (1) foot if the combustible material is protected by a metal or asbestos shield.

G. Debris Around Buildings. The grounds around buildings, tents and other structures shall be kept free of flammable material for a distance of at least 15 feet from the wall of such structures.

H. Storage of Petroleum and Other Highly Inflammable Products. Gasoline, oil, grease, or other highly flammable material shall be stored either in a separate building or at a site where all combustible debris and vegetation is cleared away within a radius of 25 feet. Fire extinguishers and/or sand barrels may be required at such locations specified by Forest Service when unusually hazardous conditions exist.

I. Debris Burning and Warming Fires. Burning permits shall be required throughout the year for all debris burning fires. Lunch and warming fires may be allowed in fireproofed areas during periods of low fire danger as specified in the fire plan. Such fires shall not be left unattended.

J. Cable Logging. All tail blocks and corner blocks shall be of an accepted haulback design which prevents line fouling and used with line guards. Such blocks shall be located to prevent cables from rubbing against trees, snags, down logs or rock when operating.

Areas adjacent to blocks shall be cleared of flammable material within a 5-foot radius. One (1) shovel and one (1) pulaski shall be maintained within 10 feet of each block.

K. Emergency Measures. Additional measures and/or other special requirements necessary during periods of critical fire-weather conditions shall be included in the fire prevention and presuppression plan.

L. Welding. Welding and use of cutting torches or cutoff saws will be permitted only in areas that have been cleared or are free of all material capable of carrying fire. Flammable debris and vegetation must be removed from within a minimum 10-foot radius of all welding and cutting operations. A shovel and a 5-gallon standard backpack water container filled and with handpump attached shall be immediately available for use in the event of a fire start.

K-I.6.8# – USE OF TIMBER (Option 1) (9/04).

(a) This contract is subject to the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, *et seq.*).

(b) Except for **NONE** determined pursuant to public hearing to be surplus, unprocessed Included Timber shall not be exported from the United States nor used in direct or indirect substitution for unprocessed timber exported from private lands by Contractor or any person as defined in the Act (16 USC 620e).

(c) Timber in the following form will be considered unprocessed:

(i) Trees or portions of trees or other roundwood not processed to standards and specifications suitable for end product use;

(ii) Lumber, construction timbers, or cants intended for remanufacturing not meeting standards defined in the Act (16 USC 620e); and

(iii) Aspen or other pulpwood bolts exceeding 100 inches in length.

(d) Unless otherwise agreed in writing, unprocessed Included Timber shall be delivered to a domestic processing facility and shall not be mixed with logs intended for export.

(e) Prior to award, during the life of this contract, and for a period of 3 years from Termination Date, Contractor shall furnish to Forest Service, upon request, records showing the volume and geographic origin of unprocessed timber from private lands exported or sold for export by Contractor or affiliates.

(f) Prior to delivering unprocessed Included Timber to another party, Contractor shall require each buyer, exchangee, or recipient to execute an acceptable agreement that will:

(i) Identify the Federal origin of the timber;

(ii) Specify domestic processing for the timber involved;

(iii) Require the execution of such agreements between the parties to any subsequent transactions involving the timber;

(iv) Require that all hammer brands and/or yellow paint must remain on logs until they are either legally exported or domestically processed, whichever is applicable; and

(v) Otherwise comply with the requirements of the Act (16 USC 620d).

(g) No later than 10 days following the execution of any such agreement between Contractor and another party, Contractor shall furnish to Forest Service a copy of each such agreement. Contractor shall retain, for 3 years from Termination Date, the records of all sales, exchanges, or dispositions of all Included Timber.

(h) Upon request, all records dealing with origin and disposition of Included Timber shall be made available to Contracting Officer.

(i) For breach of this Subsection, Forest Service may terminate this contract and take such other action as may be provided by statute or regulation, including the imposition of penalties. When terminated by Forest Service under this Subsection, Forest Service will not be liable for any Claim submitted by Contractor relating to the termination.