

TRAFFIC CONTROL PLAN AND SPECIFICATIONS PURSUANT TO BT6.33 SAFETY

Unless otherwise agreed, the following measures are required to provide adequate warning of hazards for users of roads and trails adjacent to Purchaser's Operations.

Part I. Signing and Other Warning Methods:

(a) Signs. The following signs are required when Purchaser's Operations are in progress adjacent to or on Forest Service controlled roads and trails:

<u>MINIMUM LETTER SIZE AND LEGEND</u>	<u>MINIMUM SIZE AND SHAPE</u>	<u>WHEN AND WHERE REQUIRED</u>
1. LOGGING OPERATIONS NEXT _____ MILES (4" letters)	24" (rectangle) 36"	Min. 100 ft. outside of any continuous work areas, on roads listed in CT5.31# and trails listed in Part II.
2. LOGGING OPERATIONS (3" letters)	24" (diamond) 24"	To be used in conjunction with "Logging Operations Next _____ Miles" and where work area is not continuous.
3. FOR LOGGING USE ONLY (3" letters)	24" (diamond) 24"	Required where roads listed in CT5.31# and temporary roads intersect with CT5.31# roads. Install a cross ditch to discourage use when sign is covered or removed for extended periods.
4. TRUCKS (4" letters)	24" (diamond) 24"	At critical intersections on roads listed in CT5.31# when traffic is heavy or otherwise exceeds volumes stated in Part II below. Remove or cover when the sign is not applicable.
5. END LOGGING OPERATIONS (4" letters)	24" (rectangle) 36"	Use in conjunction with "Logging Operations Next _____ Miles" and "Logging Operations."
6. TREE FELLING AHEAD (3" letters)	24" (diamond) 24"	Required 200 feet in advance of danger area where timber is being felled adjacent to all roads, including temporary roads, and trails.
7. ROAD MACHINERY AHEAD (3" letters)	24" (diamond) 24"	Required at least 200 feet in advance of Purchaser road maintenance operations on roads listed in Schedule CT5.31#.

TRAFFIC CONTROL PLAN AND SPECIFICATIONS - BT6.33 Safety (continued)

All signs shall meet requirements as specified in Parts I and VI of the Manual of Uniform Traffic Control Devices (MUTCD).

Sign borders and lettering shall be black. Borders are 1/2 inch wide, inset 1/2 inch from outside edge of sign. All sign backgrounds shall be orange, except signs #1 and 5 which shall be reflectorized orange.

Signs shall be installed on posts, with a 5 foot minimum ground clearance, or on temporary supports complying with MUTCD standards.

All signs are to be removed or covered when operations are interrupted for seasonal nonuse or other extended periods.

Purchaser shall furnish flag personnel and advance warning signs when cable or helicopter logging above roads or trails, felling adjacent to roads or trails, where logs being bucked may roll into roads or trails, and in areas where fallout from blasting may occur. On roads listed in CT5.31# and temporary roads, Purchaser may temporarily block the road in lieu of furnishing flag personnel.

(b) Barricades. On roads listed in CT5.31#, if Purchaser's Operations cause the traveled way or road shoulders to be constricted overnight, or longer, by such obstructions as decked logs, parked equipment, or piled slash, Purchaser shall place barricades on both sides of the encroaching obstruction to safely channel traffic around such obstructions. Barricades shall remain in place until the obstruction is removed.

Barricades shall be Type II and meet specifications in MUTCD, Part VI. Barricades must be at least 3 feet high. Rails must be at least 2 feet long. Striping shall be alternating orange and white, sloping at a 45 degree angle, and reflectorized. For rails 2 feet to 3 feet long, striping shall be 4 inches wide. For rails longer than 3 feet, striping shall be 6 inches wide. Two rails, 8-12 inches in width, must face each direction.

Barricades shall be equipped with warning lights which shall be Type A low intensity flashing and shall be maintained so as to be capable of being visible on a clear night from a distance of 3,000 feet.

(c) Other Traffic Control Methods. The posting of CB channel signs may be authorized.

On roads listed in CT5.31#, Purchaser may be authorized to install temporary gates, barricades (except cables), or natural barriers. The devices must be installed with the necessary hazard markers, be reasonably passable by Forest Service, and be removed prior to acceptance of the subdivision being served by the road.

**Sale Name:**        Finley U 5

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TRAFFIC CONTROL PLAN AND SPECIFICATIONS - BT6.33 Safety (continued)

Part II. Specific Requirements:

Purchaser and Forest Service agree to the above stated requirements of  
the Traffic Control Plan:

_____	_____
Name	Name
_____	_____
Title	Title
_____	_____
Date	Date

TABLE A PURSUANT TO CT5.12# - USE OF ROADS BY PURCHASER (06/1999)

Restricted Road List

Road Number	Road Name	Termini		Map Legend	Description of Restrictions
		From	To		
4100370		Jct C1519/4100 370	Jct 370/380	None	Closed to motorized wheeled vehicles and not snowplowed from December 1 through March 31, except as authorized. Refer to authorization letter shown on following page.
4100375		Jct 370/375	Jct 370/375	None	Closed year-round.
4100380		Jct 370/380	Terminus		
All system roads shown on Sale Area Map				None	Log haul prohibited on weekends (beginning 4:00 PM Friday to 3:00 AM Monday) and national holidays.
Existing temporary roads and private roads shown on Sale Area Map				P	Use prohibited

Title and Date of Governing Road Rules Document:  
 Okanogan-Wenatchee National Forest Road Use Rules  
 Commercial Road Rules

July 1, 2010  
 Effective Date

CONTRACT ROAD MAINTENANCE REQUIREMENTS SUMMARY TABLE PURSUANT TO  
CT5.31# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

**Contract Road Maintenance Requirements Summary**

Road	Termini		Miles	Applicable Pre-haul Road Maintenance Specifications													
	From	To		T-803	T-831	T-832	T-834	T-835	T-836	T-841							
4100300	End Cnty. Rd. 1590	Jct. 4100370	1.35														
4100370	Jct. 4100300	Jct. 4100375	0.59														
4100370	Jct. 4100375	Jct. 4100380	0.53														
4100375	Jct. 4100370	Jct. 4100370	0.36														
4100380	Jct. 4100370	End of Road	1.00														

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

Road	Termini		Miles	Applicable During-haul Road Maintenance Specifications													
	From	To		T-803	T-831	T-832	T-834	T-835	T-836	T-841							
4100300	End Cnty. Rd. 1590	Jct. 4100370	1.35	P													
4100370	Jct. 4100300	Jct. 4100375	0.59	P													
4100370	Jct. 4100375	Jct. 4100380	0.53	P													
4100375	Jct. 4100370	Jct. 4100370	0.36	P													
4100380	Jct. 4100370	End of Road	1.00	P													

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

CONTRACT ROAD MAINTENANCE REQUIREMENTS SUMMARY TABLE PURSUANT TO  
CT5.31# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

**Contract Road Maintenance Requirements Summary**

Road	Termini		Miles	Applicable Post-haul Road Maintenance Specifications														
	From	To		T-803	T-831	T-832	T-834	T-835	T-836	T-841								
4100300	End Cnty. Rd. 1590	Jct. 4100370	1.35		P		P		P									
4100370	Jct. 4100300	Jct. 4100375	0.59				P		P									
4100370	Jct. 4100375	Jct. 4100380	0.53				P		P									
4100375	Jct. 4100370	Jct. 4100370	0.36			P			P									
4100380	Jct. 4100370	End of Road	1.00					P		P								

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

Description of work required by the above listed T-specs is shown in the following ROAD MAINTENANCE REQUIREMENTS SPECIFICATION table, and included in the timber sale contract.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION TABLE  
PURSUANT TO CT5.31# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

1		2	3			4	5	6			7	8	9		
Road No.	Termini From	Termini To	Special Project Specification	Travel Way			Brushing And Log Out	Surfac-ing	Dust Abatement			Seasonal Maintenance	Snow Removal	Post Haul	
				Width	X Slope	Comp			Product	Applic. Rate	Width			Block	Treat
4100300	End Cnty. Rd. 1590	Jct. 4100370		EX	AI	A						JU		PR	
4100370	Jct. 4100300	Jct. 4100375		EX	AI	A						JU		PR	
4100370	Jct. 4100375	Jct. 4100380		EX	AI	A						TS		PR	
4100375	Jct. 4100370	Jct. 4100370		EX	AI	A						TS		PR	
4100380	Jct. 4100370	End of Road	T-835-01f T-841-01f	EX	AI	A					W	TS	PR	PR	

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO  
CT5.31# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

Column No.	Heading	Entry	Explanation
	Any	Blank	Except as otherwise described, no entry indicates Purchaser is not authorized or required to perform the work item(s).
	Any	RC	This work requirement applies only when haul of sale related construction materials occurs.
2	Special Project Specification	Number	Entry indicates Special Project Specification which applies.
3	Travel Way	EX	Purchaser shall maintain the traveled way to the width existing upon entry, or at the completion of Specified Road work.
		Numbers	Purchaser shall maintain the traveled way to the standard width indicated by the entry, plus curve widening, in accordance with Section T-811. If required, the road template shall be shaped to this width and to the designated cross slope before haul and during recurring maintenance.
		IS, C, OS, F, or AI	Cross slopes are designated as: IS (Inslope), C (Crown), OS (Outslope), F (Flat), AI (As Is).
		A or B	If compaction is required.
4	Brush and Log Out	Numeric & R and or L	Purchaser shall remove brush for specified width on either or both the right (R) side or left (L) side of road.
		As Staked	Limits of brushing are as staked or marked in the field.
		OPT	Purchaser may use hand or mechanical means of brushing.
		H	Only hand brushing may be used.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO  
CT5.31# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

Column No.	Heading	Entry	Explanation
5	Surfacing	Aggregate Grading	Purchaser shall place surfacing on roads listed according to the grading indicated.
		D	Purchaser is to make deposits for listed road maintenance, including surface rock replacement.
6	Dust abatement	OPT	Product selection is Purchaser's choice from those listed in Section T-812.
		Product Abbr.	Unless otherwise agreed, Purchaser is restricted to product listed corresponding to the abbreviation shown in Section T-812; (i.e., LigS = Lignon Sulfonate) Application rates are estimated amounts.
		EX	Purchaser shall abate dust on the existing width
		Numbers	Purchaser shall abate dust to the width indicated by entry.
7	Seasonal Maintenance	W	Waterbars and/or crossditching shall be required prior to expected seasonal precipitation.
		B	Entrance barriers shall be installed by Purchaser prior to nonuse periods.
8	Snow Removal	TS	Snowplowing authorized for Purchaser's Operations without recreation access being provided per Section T-803 requirements.
		JU	Snowplowing authorized, but must provide for recreation joint use per Section T-803 requirements.
		Blank	Snowplowing is not authorized. Forest Service may authorize plowing by permit when not in conflict with other uses.
9	Post Haul	PR	PR denotes that work is Purchaser's Responsibility to perform.

SCHEDULE PURSUANT TO CT6.315# - SALE OPERATION SCHEDULE (06/1994)

<u>Payment Unit</u>	<u>Operating Conditions</u>	<u>Purpose</u>
5	Mechanized felling and Skidding operations will Be restricted to when Winter conditions are as Described in CT6.42#.	Protection of the Soil resource.
5	Closed to motorized wheeled Vehicles from December 1 Through March 31 except as Authorized. Refer to authorization letter.	Minimize disturbance to mule deer habitat and lynx habitat.



TABLE PURSUANT TO CT6.405# - ALTERNATE REMOVAL OF INCLUDED TIMBER (05/2005)  
(continued)

Value of Material Alternatively Removed:

Saw \$ /CCF x CCF = \$  
 Nonsaw \$ /CCF x CCF = \$ , TOTAL \$  
 Haul/Scale Cost from Appraisal: \$ /CCF x CCF = \$  
 Haul by Purchaser to the Alternate Disposal Site: \$ /CCF x CCF = \$  
 Loading Cost from Appraisal: /CCF  
 Loading of Alternate Material by Purchaser: \$ /CCF  
 Purchaser Work: (description of work): , \$

Description of Alternate Removal Requirements:

Costs to be Paid by Purchaser For Additional Forest Service Disposal:

Stumpage	+	\$	
Burn Pile by Forest Service	+	\$	
Loading	+	\$	
Haul allowed in appraisal	+	\$	
Haul by Purchaser to Alternate Disposal Site	-	\$	
Purchaser seed, scarify, and close Road #	-	\$	_____
 Total Owed by Purchaser (to be billed through TSA)		 \$	

Name	Name
Title	Title
Date	Date

TABLE PURSUANT TO CT6.42# - YARDING/SKIDDING REQUIREMENTS (06/2010)

YARDING/SKIDDING REQUIREMENTS

PAYMENT UNITS

YARDING/SKIDDING REQUIREMENTS CUTTING UNITS

Unit 5

GENERAL:

Skid trails will be located on old skid trails wherever possible.

Adequate rub trees will be used to protect the residual stand and are to be left until after other included timber has been skidded.

No machinery, including skidding and felling equipment will be permitted off designated skid trails.

Skid trail width shall not exceed 12 feet.

WINTER LOGGING:

Winter logging operations are allowed when a snow pack or combination of snow pack and frozen ground is sufficient to prevent soil damage.

Rutting, mixing of soil and snow, or visible displacement of the soil are signs that soil compaction or displacement are taking place.

As a guideline, 8 inches of either compacted snow, hard frozen ground, or a combination of compacted snow and hard frozen ground can provide adequate protection. Construct trails prior to operations to allow the soil to freeze.

In order to maintain the strength of this bearing surface, air temperatures should generally average less than 25 degrees Fahrenheit overnight and be no more than 35 degrees Fahrenheit during the day.

Unit 5

TABLE PURSUANT TO CT6.42# - YARDING/SKIDDING REQUIREMENTS (06/2010)  
(Continued)

<u>YARDING/SKIDDING REQUIREMENTS</u>	<u>CUTTING UNITS</u>
<p><b><u>HAND FELLING AND WINCHLINE SKIDDING:</u></b></p> <p>Tracked or rubber-tired skidding (multiple pass) equipment is allowed with multiple pass trails spaced at a minimum of 100 feet apart except where they converge at a landing.</p> <p>Winchline skidders will be equipped with an integral arch or other means to suspend one end of all logs. A winching (line-pulling) capability is necessary if logs are winched to the skid trails. Grapple skidders are allowed if logs are first placed along skid trails.</p> <p>One end of all logs will be suspended during skidding (not winchline pulling) operations.</p> <p>Additional equipment may be required to yard tree crowns to landings.</p>	<p>Unit 5.</p>
<p><b><u>MECHANIZED FELLING &amp; SKIDDING:</u></b></p> <p>Harvester-processor, feller-buncher (single pass) equipment is allowed with single pass trails spaced at a minimum of 40 feet apart. Skidding (multiple pass) equipment is allowed with multiple pass trails spaced at a minimum of 100 feet apart except where they converge at a landing.</p> <p>Winchline skidders will be equipped with an integral arch or other means to suspend one end of all logs. A winching (line-pulling) capability is necessary if logs are winched to the skid trails. Grapple skidders are allowed if logs are placed by feller-buncher (or similar equipment) at skid trails.</p> <p>One end of all logs will be suspended during skidding.</p> <p>If a harvester-processor is used, additional equipment may be required to yard tree crowns to landings.</p>	<p>Unit 5.</p>

**APPLICATION SCHEDULE PURSUANT TO CT6.6# -  
EROSION CONTROL AND SOIL TREATMENT BY PURCHASER (07/2001)**

PAYMENT UNIT OR UNIT NUMBER	AREAS	SEED APPLICATION		FERTILIZER APPLICATION		MULCH APPLICATION	
	A) SKID TRAILS B) FIRELINES C) TEMP. ROADS D) LANDINGS E) OTHER	<u>1</u> / SPECIES MIXTURE	LBS/AC	<u>2</u> / TYPE	LBS/AC	<u>3</u> / TYPE	LBS/AC
5	A	Fescue/Bluegrass/Wheatgrass	8	N/A	N/A	N/A	N/A
5	D	Fescue/Bluegrass/Wheatgrass	8	N/A	N/A	N/A	N/A

For sales in Washington, the seed shall be labeled as "Prohibited and Restricted Noxious Weed Free for the State of Washington." The purchaser shall furnish a copy of the seed analysis.

For mixtures of seed, each ingredient in excess of 5 percent must be listed with its percentage by weight and its germination percentage.

All seed treated with a fungicide or pesticide must be labeled that it is "treated" giving the name of the chemical used, and an appropriate warning or a caution statement.

SPECIFICATIONS PURSUANT TO CT6.74# -  
SLASH TREATMENT REQUIREMENTS (02/2002)

Yarding of Tree Crowns

In all cutting units, tree crowns of included timber, including tops and branches, shall be brought to landings for piling so as to reduce the amount of logging slash left in the unit. The tree crowns may be left attached to the tree during felling and skidding operations and brought to landings as part of harvest operations. If the tree crowns are bucked or purposefully detached from the included timber as part of harvesting operations, the detached tree crowns shall be brought to landings using other methods approved by the Forest Service.

Landing Area Slash

During landing slash piling operations, Purchaser shall keep slash free of dirt.

Leave approximately 2 to 3 tons of slash unplied at each landing so that this material is available to scatter on the burn pile areas following burning to provide additional organic material for site recovery. Preferred slash pieces are 2 to 6 inches in diameter and 4 to 8 feet in length, but slash down to 1 inch diameter and up to 8 inches diameter and down to 2 feet in length and up to 10 feet in length are acceptable. Approximately 25 to 30 pieces will be needed to have 2 to 3 tons of slash for a landing 1/4 acre in size. If landing is larger than 1/4 acre, provide the additional pieces as needed.

This scattered slash material should not be left in close proximity to the landing pile(s) so as to avoid ignition when the landing pile(s) is burned. Purchaser is not required to cut pieces to desired lengths nor to pull slash material from the unit in order to have the desired amounts.

T-803 - SNOW REMOVAL (05/07)

803.01 Description

This Section provides for removal of snow from roads to facilitate logging operations and safe use.

803.02 Maintenance Requirements

- (1) Erect signs required by the Sign Plan in the SUPPLEMENTAL SPECIFICATIONS.
- (2) Perform work in a manner to preserve and protect roads and appurtenances, and prevent erosion damage to roads, streams, and other Forest values.
- (3) Do not undercut banks. Do not blade gravel or other surfacing material off the road.
- (4) Keep roadbed drainage ditches, drain dips, and culverts functional when needed during operations and upon completion of operations.
- (5) Control snow removal to identify the usable traveled way having roadbed support. Reshape over-width plowing as necessary to define the usable width.
- (6) Space, construct, and maintain drainage holes in the dike of snow or berm caused by snow removal operations. Place drain holes to obtain surface drainage without discharging on erodible fills.
- (7) Close roads to wheeled vehicles at times and in the manner specified in C(T)5.12 or the Road Rules document.
- (8) Upon seasonal completion of Purchaser's Operations, effectively block the road by a snow barricade, unless otherwise approved by the Contracting Officer.
- (9) Remove snow for either public access or project use as established in the SUPPLEMENTAL SPECIFICATIONS and meet the following requirements:

- (a) Removal for Public Access (Method JU) - Remove snow from all of the traveled way, including turnouts, for safe and efficient use for both timber transportation and the public. Remove intruding windfalls, debris, or slough and slide material for the full width of the traveled way and deposit out of drainage's at locations designated by the Contracting Officer.
  - (b) Removal for Project Use (Method TS) - Remove snow from all or part of the traveled way, including sufficient turnouts for safe and efficient use for timber transportation and to protect the road. Remove intruding windfalls, debris or slough and slide material and dispose of only as necessary to provide passage for timber transportation. Removed materials may be deposited off the traveled way or outside the traveled way at locations designated by the Contracting Officer.
- (10) When directed by the Contracting Officer, replace in kind, within sixty (60) days after the start of Normal Operating Season, any surfacing material which has been bladed off the road, unless otherwise agreed. Contracting Officer will notify Purchaser in writing as to the cubic yard equivalent of bladed off material by the start of the normal operating season.

803.03 Equipment

Purchaser may use any type of equipment to remove snow, providing:

- a. Type or use of equipment is not restricted in C(T)5.12 or Road Rules document.
- b. Equipment is of the size and type commonly used to remove snow and will not cause damage to the road.
- c. The use of plows or dozers to remove snow requires written approval by the Contracting Officer. Equip plows or dozers with shoes or runners to keep the dozer blade a minimum of 2 inches above the road surface unless otherwise approved by the Contractor Officer.

803.04 Ice Control

Ice control may be performed by Purchaser when approved by the Contracting Officer in writing. Such approval will include ice control materials, application rates, and any specific requirements of use.

**T-831 - DITCH MAINTENANCE (10/07)**

831.01 Description

This Section provides for routine maintenance of various types of ditches to provide a waterway which is unobstructed, as shown on the ROAD LISTING or DESIGNATED ON THE GROUND.

831.02 Maintenance Requirements

- A. Maintain ditches by removing rock, soil, wood, and other materials. Maintained ditches shall function to meet the intent of the original design.
- B. Undercutting backslopes during removal operations is not permitted.
- C. Suitable material up to 4 inches in greatest dimension removed from the ditches may be blended into existing native road surface and shoulder or placed in designated berm.
- D. Do not blend material from ditch cleaning operations into aggregate surfaced roads. Do not blade material across aggregate or bituminous surfaced roads, unless approved in writing by the Contracting Officer.
- E. Haul material in excess of 831.02 D or subject to 831.02 E to a designated waste area under Section T-832. Remove excess materials temporarily stored on the ditch slope or edge of the shoulder daily.
- F. Remove limbs and wood chunks in excess of 12 inches in length or 3 inches in diameter from ditches and place outside the roadway.
- G. Clean paved surfaces of all materials resulting from ditch maintenance work.
- H. Shape lead-off ditches to drain away from the traveled way.
- I. Where DESIGNATED ON THE GROUND, included in the ROAD LISTING, SHOWN ON THE DRAWINGS or as ordered by the Contracting Officer invasive species of concern prevention practices shall be followed as listed below.

<b>Invasive Species of Concern Prevention Practices</b>
<i>Road blading, brushing and ditch cleaning in areas with high concentrations of invasive species of concern will be done in consultation with the Sale Administrator, incorporating invasive plant prevention practices recommended by the District and Forest-level Invasive Plant Specialists.</i>

T-832 - REMOVE AND END HAUL MATERIALS (05/07)

832.01 Description

Work consists of loading, hauling, and placing of slide, slough, or excess materials such as rock, soil, vegetation, and other materials to designated disposal sites.

832.02 Maintenance Requirements

A. Remove, end haul, and dispose of excess materials generated by work under other Sections of this contract.

B. Remove the slide and slough materials in the area extending approximately 6 feet vertically above the road surface and not more than 3 feet down slope from the roadbed. Dispose of material at designated sites as SHOWN ON THE DRAWINGS, identified in SUPPLEMENTAL SPECIFICATIONS, or as ordered by the Contracting Officer.

Reshape the slope which generated the slide material as nearly as practical to its original condition by equipment operating from road surface. Reshaping of roadside ditches in slide area shall be in accordance with Section T-831.

C. When approved by the Contracting Officer, fill slumps by compacting selected materials into roadway depressions. Compaction is by Method 2.

D. Place all materials in disposal sites as specified in the SUPPLEMENTAL SPECIFICATIONS, as SHOWN ON THE DRAWINGS, or as ordered by the Contracting Officer.

1. Method 1 - Side Casting and End Dumping. Material may be placed by side casting and end dumping. Where materials include large rocks, provide a solid fill by working smaller pieces and fines into voids. Shape the finished surfaces to drain.

2. Method 2 Layer Placement - Step or roughen surfaces on which materials are to be placed prior to placing any material. Place materials in approximately horizontal layers no more than 12 inches thick. Compact each layer by operating hauling and spreading equipment over the full width of each layer.

E. Repair any damage to existing aggregate or pavement surfaces.

**T-834 - DRAINAGE STRUCTURE MAINTENANCE (10/07)**

834.01 Description

This work consists of cleaning and reconditioning culverts and other drainage structures.

834.02 Maintenance Requirements

- A. Clean drainage structures, inlet structures, culverts, catch basins, and outlet channels specified in the SUPPLEMENTAL SPECIFICATIONS. Clean catch basins by removing the material within the area SHOWN ON THE DRAWINGS.
- B. Clean the transition from the ditch line to the catch basin a distance of 10 feet from the catch basin. Clean outlet channels and lead-off ditches a distance of 6 feet. Remove and place debris and vegetation so as to not enter the channel or ditch, or obstruct traffic. Haul debris and vegetation to a designated disposal area in accordance with Section T-832.
- C. Hydraulic flushing of drainage structures is not allowed unless provided for in the SUPPLEMENTAL SPECIFICATIONS.
- D. Cleaning and reconditioning are limited to the first 3 feet of inlet and outlet, determined along the top of the structure. Recondition culvert inlet and outlet by field methods such as jacking out or cutting away damaged metal which obstructs flow. Treat cut edges with a zinc rich coating, in accordance with AASHTO M 36M and ASTM A 849.
- E. Where DESIGNATED ON THE GROUND, included in the ROAD LISTING, SHOWN ON THE DRAWINGS or as ordered by the Contracting Officer invasive species of concern prevention practices shall be followed as listed below.

<b>Invasive Species of Concern Prevention Practices</b>
<i>Road blading, brushing and ditch cleaning in areas with high concentrations of invasive species of concern will be done in consultation with the Sale Administrator, incorporating invasive plant prevention practices recommended by the District and Forest-level Invasive Plant Specialists.</i>

**SPECIAL PROJECT SPECIFICATION  
T-835-01F DRAINAGE STRUCTURE AND ENTRANCE BARRIER (02/06)**

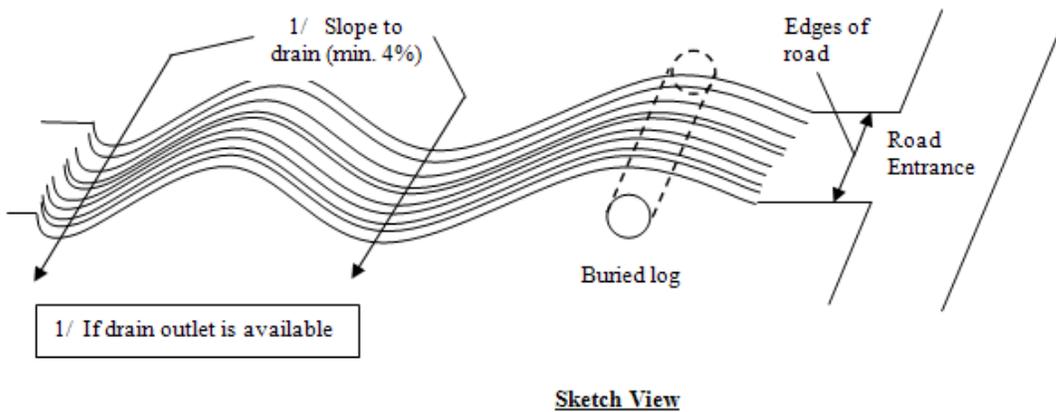
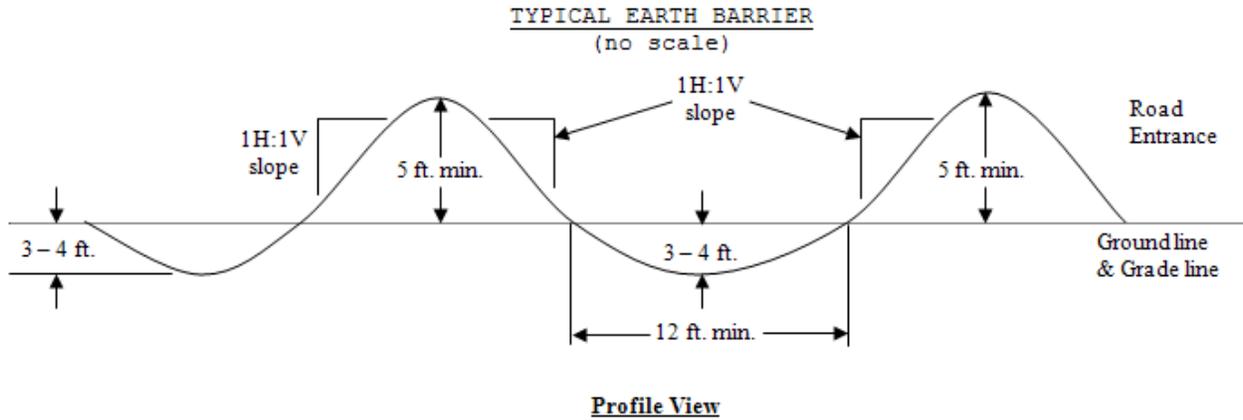
A. Drainage Structure Placement

Waterbar roadbed at intervals based on the below table:

Road Grade	Minimum Waterbar Spacing
0-3%	200 feet
3-6%	175 feet
6-9%	150 feet
9-12%	125 feet
12-15%	100 feet
Greater than 15%	75 feet

B. Entrance Devices

Any rocks placed in road must allow a minimum 60" clearance for snowmobile passage and any logs placed on roadway must be placed as flat as practicable.



**T-835 - ROADWAY DRAINAGE MAINTENANCE (05/07)**

835.01 Description

This work consists of providing post haul drainage on roads.

835.02 Maintenance Requirements

A. Drainage

1. Upon completion of work, shape the roadway to provide for the removal of surface water. The roadway need not be passable to vehicles. Repair and reinstall water bars, barriers or berms existing prior to the Purchaser's operation. Areas where water is ponded by existing centerline profile sags in through cuts may be left untreated.

2. Continuous blade shaping of the roadbed is not required under this specification.

3. Work to be done at staked locations shall be as indicated on the stake and/or stated in SUPPLEMENTAL SPECIFICATIONS:

4. Any of the following methods are acceptable for use at eroded or rutted locations:

Method A: Outsloping the roadbed at not less than 1/2 inch per yard of width.

Method B: Insloping the roadbed at not less than 1/2 inch per yard of.

Method C: Water bar roadbed at locations staked on the ground and construct as SHOWN ON THE DRAWINGS or as included in SUPPLEMENTAL SPECIFICATIONS.

5. Drainage structures located in through fills and natural watercourses shall be fully functional without obstructions, including inlet and outlet channel within 20 feet of the structure.

6. Either clean culverts and other fabricated structures to provide drainage from road ditches and make the ditch functional or provide water bar(s) across the roadbed. Removed structures shall become Purchaser's property to be removed from National Forest System land. Remove and replace any purchaser-installed temporary drainage structures with a water bar.

B. Slides, Slumps and Slough

1. Slides and slough may be left in place, provided they do not potentially impound water or divert water from watercourses. As necessary, reshape the various surfaces to provide drainage.

2. Provide drainage to effectively decrease or eliminate the entry of surface water into slides, slumps, and roadbed surface cracks. Place berms, waterbars or ditches as needed to intercept and remove runoff water from the roadbed. Surface seal cracks by covering over with native soil materials to prevent additional water entry and compact with equipment tires.

C. Entrance Devices

Upon completion of work, replace entrance devices to effectively eliminate access by motorized vehicles having four (4) wheels and a width in excess of 50 inches.

D. Seeding

Seed and fertilize all disturbed areas in accordance with requirements set forth in Section T-841.

**T-836 - MAINTENANCE FOR LIMITED USE (05/07)**

836.01 Description

This work consists of making limited use roads passable for joint use by Purchaser and high clearance vehicles, and providing drainage from the traveled way and roadbed.

836.02 Maintenance Requirements

A. Traveled Way

Purchaser may smooth or fill existing cross ditches and water bars and by agreement modify existing road junctions to enable vehicle access. Prior to beginning haul and resumption of haul after an extended stoppage:

1. Remove brush, fallen trees, rocks, and other debris from traveled way, including turnouts, turnarounds, and other locations that interfere with needed maintenance as follows:

- a. No object extending over 4 inches above the road surface shall remain within the 12 feet usable traveled way and 10 feet turnout widths. Center the usable width on the roadbed or position away from the fill slope.

- b. Cut and remove standing or down trees, logs, brush, and limbs from within the area described in 1 a. above. Remove encroaching limbs to a height of 14 feet above the traveled way surface. Scatter material not meeting utilization standards outside and below the roadbed on the fill side. Limb and remove timber which meets utilization standards or deck at agreed locations.

- c. Place all removed materials away from drainages.

- d. During use, maintain drainage structures, including dips, ditches and culverts in a useable condition.

2. Clean and recondition drainage facilities in accordance with: Section T-831 and T-834.

B. Slough and Slides

1. Slough and slides may be left in place, provided surface drainage is provided and at least 12 feet of width is available for vehicle passage.

2. Purchaser may reposition or ramp over slides and slough when the traveled way width is less than 12 feet providing the material is capable of supporting vehicles. Limit out slope to no more than six percent.
3. Reposition slough or slide materials on the roadbed which are not capable of supporting a vehicle to provide the 12 foot width. When directed by the Contracting Officer, slough or slide material will be removed under Section T-832.

C. Slumps and Washouts

1. Drain the roadbed immediately upgrade of slumps and longitudinal cracks to prevent water from entering slump area.
2. Slumps and longitudinal cracks at the edge of the roadbed shall not be considered a part of the usable width. Usable width may be reduced to 10 feet in the area of the slump.
3. Unless the Contractor Officer agrees to material being placed on slumps, ramp the slumps on both ends into undisturbed roadbed to provide at least 10 feet usable width. Use removed materials to guide vehicles to the ramp location or to aid in draining the area.
4. Washouts may be filled with suitable material.

D. Posthaul

At the end of hauling or prior to entering into seasonal shutdowns or a period of extended inactivity:

1. Shape the traveled way and disturbed roadbed to provide functional drainage.
2. Reinstall removed cross ditches and water bars and provide any additional drainage structures necessary to offset changes caused through use and maintenance.
3. Leave roads useable for high clearance vehicles. Remove or reshape purchaser modifications at road junctions to leave the entrance as it was before use, or as agreed at the time of improvement.

**SPECIAL PROJECT SPECIFICATION  
T-841-01F - VEGETATION ESTABLISHMENT**

Modify T-841 as follows:

Delete T-841.03.C.1.

T-841 - VEGETATION ESTABLISHMENT (05/07)

841.01 Description

This work consists of applying seed, fertilizer, mulch, and planting containerized or bare root plant stock singularly or in specified combinations to roadways and disposal areas. Work area may be limited to designated portions of the roadway and roadside or include treatment of the entire area bounded by the outer limits of the roadsides.

841.02 Materials and Application Rates

Provide the following listed materials:

- A. Fertilizer: Fertilizer shall be a standard commercial grade and provide the minimum percentage of available nutrients designated.

<u>% Nitrogen</u>	<u>% Phosphorus</u>	<u>% Potassium</u>	<u>% Sulfur</u>
N/A	N/A	N/A	N/A

Furnish fertilizer in sealed containers with the composition, weight, and guaranteed analysis of contents clearly marked. Apply at the rate of N/A pounds per acre.

- B. Seed:

1. This work consists of furnishing and placing required seed mix on all areas disturbed under this contract and on any other areas specified.
2. Apply the seed in the following amounts and mixtures:

<u>Species</u>	<u>Application Rate</u> (Pounds/Acre)
Idaho Fescue	3
Big Bluegrass	2
Slender Wheatgrass	8

3. Use hand-operated seeding devices, or other devices approved by the Contracting Officer, to apply seed.
4. Furnish weed-free seed, with additional requirement that no seed containing any prohibited noxious weed seed, or any restricted noxious weed seed in excess of current state standards, for those weeds as defined in the current publication commonly referred to as the "All States Noxious Weed List" while the standards for prohibited and restricted noxious weeds are to be found in the appropriate state law or regulations.

Furnish seed separately or in mixture in standard containers with (1) seed name; (2) lot number; (3) net weight; (4) percentages of purity and of germination (in case of legumes, percentage of germination to include hard seed), and (5) percentage of maximum weed seed content clearly marked for each kind of seed; (6) certification that the seed lot meets applicable State and Federal laws with regard to prohibited and restricted noxious weeds clearly marked for each kind of seed. Furnish the Contracting Officer duplicate signed copies of a certificate signed by a Registered Seed Technologist or Seed Analyst (certified through either the Association of Official Seed Analysts or the Society of Commercial Seed Technologists) certifying that each lot of seed has been tested in accordance with the Association of Official Seed Analysts standards within 12 months prior to the date of application. This certification shall include (1) name and address of laboratory, (2) date of test, (3) lot number for each kind of seed, (4) name of seed, (5) percentage of germination, (6) percentage of purity, (7) percentage of weed content, (8) certification that the seed lot meets applicable State and Federal laws with regard to prohibited and restricted noxious weeds, and (9) in the case of a mixture, the proportions of each kind of seed. Legume seed shall be inoculated with approved cultures in accordance with the instructions of the manufacturer. No seed may be applied without prior written approval from the Contracting Officer.

C. Mulch: Apply mulch materials as follows:

<u>Mulch Type</u>	<u>Application Rate</u>
N/A	N/A

D. Plant Stock: Furnish the following listed plant materials:

<u>Stock</u>	<u>Size</u>	<u>Bare Root</u>	<u>Containerized</u>
N/A	N/A	N/A	N/A

841.03 Schedules and Applications

A. Schedule

1. Seeding may not be done until all other ground-disturbing work on the road has been completed and accepted. Complete seeding as soon as other ground-disturbing work is accepted, unless a specific seeding season is listed below.

Seeding season: **Oct. 15 to March 31, with the intention of seeding after fall rains or prior to snow melt if winter logging.**

2. Do not apply the treatment when the ground is frozen or excessively wet. Terminate application during periods when there is too much wind to allow consistent treatment rates and control of the treatment area to the designated limits.

B. Roadside and Slope Treatment

1. Roadsides will not require advance preparation unless required in the SUPPLEMENTAL SPECIFICATIONS or as SHOWN ON THE DRAWINGS.
2. Apply the designated treatment by hand operated machine. When both roadbed (under 841.03C) and slopes are shown in the SUPPLEMENTAL SPECIFICATIONS for treatment, application may be done at the same time.
3. The Contractor will not be required to operate self-propelled equipment beyond the defined roadbed. Do not apply treatment materials to the foreslope of ditches unless roadbed treatment (841.03C) is also required.

C. Roadbed Treatment

1. Scarify portions of the roadbed not previously disturbed and left loose under Section T-835 to a minimum depth of 4 inches unless bedrock is encountered at a lesser depth. The maximum distance between furrows formed by scarification is 12 inches.
2. Treat barrier mounds placed under Section T-835 while in a roughened condition.

D. Planting

1. Plant designated woody plant materials at the staked locations or designated spacings.
2. Place containerized plant stock in an appropriately sized hole formed by a dibble or other device to place the roots at the proper depth.
3. Place bare root plant stock in a slotted cut formed by a mattocks, pulaski, or other edged tool. Place the crown at ground level. Do not bend or break the roots.
4. Compress the area adjacent to the hole by foot or special tool to form a depression up and down slope from the stem and force the soil against the container or roots with no air voids.
5. Hold the plantings firmly in place by the soil. When checked by pulling upward on the top ½ inch of the plant stem, the planting shall either break at the hold point or the area compressed against the roots show evidence of movement. Remove and replace with fresh stock plantings that are not held firmly by the soil.

841.04 Government Provided Materials

The Government will provide the following listed materials. At least ten (10) calendar days notice must be given to the Contracting Officer prior to actual date material will be picked up.

Materials will be provided at: **N/A**