

C2.301#- Cutting Unit Boundary Designation Table

Cutting Unit	Paint Color	Designation
All Units	Orange	Boundaries are designated with ORANGE tracer paint. Boundary trees are marked with two vertical stripes 1 to 2 feet in length facing in the direction of the next boundary tree, one mark facing into the cutting unit, and a stump mark. Unit numbers are painted on approximatley every 5 <sup>th</sup> boundary tree. Boundary trees are not marked along the road with the exception of a painted boundary tree at each end of the unit where the painted boundary line meets the road.

C2.3521# – Designation By Species And Diameter. (11/2007)

Tree Designation Table

Subdivision(s) or Cutting Unit(s)	Designated Species	More Than Stump Diameter (inches)	Less Than Stump Diameter (inches)
All	Live & Dead Lodgepole Pine and Live and Dead Subalpine fir and other conifer	9.0	N/A

C5.12#-Restricted Road List Table

Road Number	Termini		Map	Description of
	From	To	Legend	Restrictions
NFSR 830	NFSR 452	NFSR 801	A	Closed to public use during purchaser operations from November 1 to September 31 annually.

C5.31# Road Maintenance Requirements Purchaser shall maintain roads in accordance with the following Contract Road Maintenance Requirements Summary:

**Contract Road Maintenance Requirements Summary**

Road	Termini		Miles	Applicable During Haul Road Maintenance Specifications									
	From	To		T-800	T-801	T-802	T-803	T-804	T-805				
NFSR 830	NFSR 452	NFSR 801	13.6		P	P	P	P	P				
NFSR 452	CO RD 500	NFSR 830	9.5		P	P	P	P	P				

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		T-800	T-801	T-802	T-803	T-804	T-805				
NFSR 830	NFSR 452	NFSR 801	13.6		P	P	P	P	P				
NFSR 452	CO RD 500	NFSR 830	9.5		P	P	P	P	P				

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

**Road Maintenance T-Specifications**

**for**

**Timber Sale Contracts**

No.	Specification Title
T-800	Definitions
T-801	Slide and Slump Repair
T-802	Ditch Cleaning
T-803	Surface Blading
T-804	Surfacing Repair
T-805	Drainage Structures

### SPECIFICATION T-800 DEFINITIONS

Wherever the following terms or pronouns are used in Specifications T-801 through T-811, the intent and meaning shall be interpreted as follows:

800-1.1 - Agreement. Maintenance projects require a mutually acceptable method to resolve the problems which arise when incompatible situations arise between drawings and specifications and actual conditions on the ground to allow orderly and satisfactory progress of the maintenance.

These specifications have been developed in anticipation of those problem areas and have provided that such changes will be by Agreement.

It is intended that drawings and specifications will govern unless "on-the-ground" conditions warrant otherwise, when specifications call for "Agreement", "agreed", or "approval" such Agreement or approval shall be promptly confirmed in writing.

800-1.2 - Annual Road Maintenance Plan. A plan prepared by various users of one or several roads. The plan is an Agreement on maintenance responsibilities to be performed for the coming year.

800-1.3 - Base Course. Material used to reinforce Subgrade or, as shown on drawings, placed on Subgrade to distribute wheel loads.

800-1.4 - Berm. Curb or dike constructed to prevent Roadway runoff water from discharging onto embankment slope.

800-1.5 - Borrow. Select Material taken from designated borrow sites.

800-1.6 - Crown, Inslope, and Outslope. The cross slope of the Traveled Way to aid in drainage and traffic maneuverability.

800-1.7 - Culverts. A conduit or passageway under a road, trail, or other obstruction. A culvert differs from a bridge in that it is usually entirely below the elevation of the Traveled Way.

800-1.8 - Drainage Dip. A dip in the Traveled Way which intercepts surface runoff and diverts the water off the Traveled Way. A Drainage Dip does not block the movement of traffic.

### T-800-1

800-1.9 - Drainage Structures. Manufactured structures which control the runoff of water from the Roadway including Inslope, overside drains, aprons, flumes, downdrains, downpipes, and the like.

800-1.10 - Dust Abatement Plan. A table which lists the road, dust palliative, application rates, and estimated number of subsequent applications.

800-1.11 - Lead-off Ditches. A ditch used to transmit water from a Drainage Structure or Drainage Dip outlet to the natural drainage area.

800-1.12 - Material. Any substances specified for use in the performance of the work.

800-1.13 - Prehaul Maintenance. Road maintenance work, which must be accomplished to maintain the roads to a satisfactory condition commensurate with the Purchaser's use, provided Purchaser's Operations do not damage improvements under B6.22 or National Forest resources and hauling can be done safely. This work will be shown in the Annual Road Maintenance Plan as provided in C5.31#.

Prehaul Maintenance work the Purchaser elects to perform will be in compliance with the Road Maintenance T-Specifications.

800-1.14 - Roadbed. The portion of a road between the intersection of Subgrade and sideslopes, excluding that portion of the ditch below Subgrade.

800-1.15 - Road Maintenance Plan. A table which shows applicable road maintenance specifications to be performed by Purchaser on specific roads.

800-1.16 - Roadside. A general term denoting the area adjoining the outer edge of the Roadway.

800-1.17 - Roadway. The portion of a road within the limits of excavation and embankment.

800-1.18 - Shoulder. That portion of Roadway contiguous with Traveled Way for accommodation of stopped vehicles, for emergency use, and lateral support of base and Surface Course, if any.

800-1.19 - Slide. A concentrated deposit of Materials from above or on backslope extending onto the Traveled Way or Shoulders, whether caused by mass land movements or accumulated ravelling.

800-1.20 - Slough. Material eroded from the backslope which partially or completely blocks the ditch, but does not encroach on the Traveled Way so as to block passage of traffic.

800-1.21 - Slump. A localized portion of the Roadbed which has slipped or otherwise become lower than that of the adjacent Roadbed and constitutes a hazard to traffic.

800-1.22 - Special Project Specifications. Specifications which detail conditions and requirements peculiar to the individual project.

800-1.23 - Subgrade. Top surface of Roadbed upon which Base Course or Surface Course is constructed. For roads without Base Course or Surface Course, that portion of Roadbed prepared as the finished wearing surface.

800-1.24 - Surface Course. The Material placed on Base Course or Subgrade primarily to resist abrasion and the effects of climate. Surface Course may be referred to as surfacing.

800-1.25 - Surface Treatment Plan. A table which lists the roads and surface treatments to be applied.

800-1.26 - Traveled Way. That portion of Roadway, excluding Shoulders, used for the movement of vehicles.

800-1.27 - Turnouts. That portion of the Traveled Way constructed as additional width on single lane roads to allow for safe passing of vehicles.

800-1.28 - Water Source. A place designated on the Road Maintenance Map for acquiring water for road maintenance purposes.

800-1.29 - Waterbar. A dip in the Roadbed which intercepts surface runoff and diverts the water off the Roadway. A Waterbar is not designed to be traversable by logging trucks.

## SPECIFICATION T-801 SLIDE AND SLUMP REPAIR

### DESCRIPTION

1.1 Slide removal is the removal from Roadway and disposal of any Material, such as soil, rock, and vegetation that cannot be routinely handled by a motorgrader during Ditch Cleaning, T-802, and Surface Blading, T-803 Operations.

Slump repair is the filling of depressions or washouts in Roadway which cannot be routinely filled by a motor grader during Surface Blading, T-803 Operations.

Slide removal and Slump repair includes excavation, loading, hauling, placing, and compacting of waste or replacement Material and the development of disposal or borrow areas.

### REQUIREMENTS

3.1 Slide Material, including soil, rock and vegetative matter which encroaches into the Roadway, shall be removed. The slope which generated the Slide Material shall be reshaped during the removal of the Slide Material with the excavation and loading equipment. Slide Material deposited on the fillslope and below the Traveled Way will not be removed unless needed for slope stability or to protect adjacent resources.

Surface and Base Courses shall not be excavated during Slide removal operations.

Slide Material which cannot be used for other beneficial purposes shall be disposed of at disposal sites shown on Sale Area Map. Material placed in disposal sites will not require compaction unless compaction is shown on Road Maintenance Plan.

## SPECIFICATION T-802 DITCH CLEANING

### DESCRIPTION

1.1 Ditch cleaning is removing and disposing of all Slough Material from Roadway ditches to provide a free-draining waterway.

### REQUIREMENTS

3.1 Ditch cleaning shall be repeated during the year as often as necessary to facilitate proper drainage.

3.2 All Slough Material or other debris which might obstruct water flow in the Roadway ditch shall be removed. Material removed from the ditch, if suitable, may be blended into existing native road surface or Shoulder or placed in designated Berms in conjunction with Surface Blading T-803 operations.

Material removed from ditches that is not by Agreement blended into existing roads or placed in Berms shall be loaded and hauled to the disposal site designated by the Forest Service.

3.3 Roadway backslope or Berm shall not be undercut.

## SPECIFICATION T-803 SURFACE BLADING

### DESCRIPTION

1.1 Surface blading is keeping a native or aggregate Roadbed in a condition to facilitate traffic and provide proper drainage. It includes maintaining the Crown, Inslope or Outslope of the Traveled Way, Turnouts, and Shoulder; repairing Berms; blending approach road intersections; and cleaning bridge decks, Drainage Dips, and Lead-off Ditches.

### REQUIREMENTS

3.1 Surface blading shall be performed before, during, and after Purchaser's use as often as necessary to facilitate traffic and proper drainage.

3.2 The surface blading shall preserve the existing cross-section. Surface irregularities shall be eliminated and the surface left in a free-draining state and to a smoothness needed to facilitate traffic. Surface Material which has been displaced to the Shoulders or Turnouts shall be returned to the Traveled Way. The blading operation shall be conducted to prevent the loss of surface Material and to provide for a thorough mixing of the Material being worked.

3.3 Water, taken from Water Sources designated on Sale Area Map, shall be applied during blading if sufficient moisture is not present to cut, mix, or compact the surface Material.

3.4 On native surfaced roads, Material generated from backslope Sloughing, and ditch cleaning may be blended with the surface Material being worked. On aggregate surfaced roads this Material shall not be blended with Surface or Base Course Material unless agreed otherwise.

3.5 Roadway backslopes or Berms shall not be undercut, nor shall new Berms be established unless agreed otherwise.

Berms shall be repaired by placing Material, as needed to restore the Berm, to reasonably blend with existing line, grade, and cross-section.

3.6 Drainage Dips and Lead-off Ditches shall be cleaned and maintained to reasonably blend with existing line, grade, and cross-section.

3.7 Intersecting roads shall be bladed for a distance of 50 feet to assure proper blending of the two riding surfaces.

3.8 Rocks or other Material remaining on the Traveled Way after the final pass that are larger than 4 inches in diameter or are larger than the maximum size of imported surfacing shall be removed from the Traveled Way. Unless otherwise designated by the Forest Service, the oversized Material shall be disposed of by sidecasting. Sidecasting into streams, lakes, or water courses will not be permitted.

3.9 Material resulting from work under this specification shall not remain on or in structures, such as Culverts, overside drains, cattleguards, ditches, Drainage Dips, and the like.

3.10 Material resulting from work under this specification, plus any accumulated debris, shall be removed from bridge decks and the deck drains opened.

## SPECIFICATION T-804 SURFACING REPAIR

### DESCRIPTION

1.1 Surfacing repair is repairing potholes or small soft areas in the Traveled Way. It includes area preparation and furnishing and placing all necessary Materials, and other work necessary to repair the surface.

### MATERIALS

2.1 Material used in the repair of soft areas on aggregate or native surfaced roads may be acquired from approved commercial sources, designated Forest Service Borrow areas, or Borrow sources agreed to. The quality and quantity of the imported Material used in the repair will be limited to that needed to provide a stable Traveled Way for hauling and to minimize damage to the road and adjacent resources. The quantity of imported surface repair Material used in the appraisal estimate will be shown on Road Maintenance Plan. However, the magnitude of the work may vary depending on Purchaser's hauling schedule and ground conditions.

2.2 Material used in the repair of bituminous pavements may be acquired from local commercial sources. If a mixing table is required, the location shall be approved by the Forest Service. The bituminous mixture to be used by the Purchaser shall be approved by the Forest Service. The Purchaser's share of the quantity of bituminous mixture used in the appraisal estimate will be shown on Road Maintenance Plan. However, Purchaser's share of the work may vary depending on Purchaser's hauling schedule, ground conditions, other traffic, etc.

### REQUIREMENTS

3.1 Work under this specification shall be performed in a timely manner to reduce further deterioration of the Traveled Way.

3.2 Soft spots on aggregate or native surfaces shall be repaired by placing the imported Surface Course on top of the soft spot. Layers of imported Material shall be placed until a firm surface is produced.

3.3 Bituminous Pavement Repairs. The areas to receive bituminous pavement repairs will be marked on the road surface by the Forest Service just prior to Purchaser performing the work.

3.4 Potholes (deep patch). Surface Course and Base Course Materials shall be excavated to a depth necessary to reach firm, suitable Material. The minimum depth of excavation shall be 2 inches and the maximum depth of excavation shall be to the top of the Subgrade.

The edges of the prepared hole shall be extended to form a vertical face in unfractured asphalt surfacing. The prepared hole shall generally be circular or rectangular in shape, dry, and cleaned of all loose Material.

Prepared potholes shall be patched or barricaded immediately.

The faces of the prepared hole shall be tacked with a slow-setting emulsified asphalt.

The bituminous mixture shall be placed in layers not exceeding a compacted depth of 2 inches. Each layer shall be compacted thoroughly with hand or mechanical tampers or rollers. Compaction shall not be done with equipment wheels.

Upon completion, the compacted patch in the pothole shall be flush, with a tolerance or approximately  $\frac{1}{4}$  inch to  $\frac{1}{2}$  inch above the level of the adjacent pavement.

3.5 Skin Patches. Bituminous mixture shall be distributed uniformly with feathered edges in layers not to exceed 2 inches compacted depth. When multiple layers are ordered, joints shall be offset at least 6 inches between layers.

Each layer shall be compacted by two passes with a 7-10 ton steel roller or comparable vibratory roller.

3.6 Asphalt Berm. Damaged segments of Berm shall be removed and the exposed ends beveled at approximately 45 degrees from vertical. The Berm foundation shall be cleaned and patched as necessary. The foundation and joining surfaces shall be coated with a slow-setting emulsified asphalt. Asphalt mix shall be placed and compacted to conform with the shape and alignment of the undamaged segment.

3.7 Disposal. All Materials removed from potholes, patches, and Berms shall be disposed of at disposal sites designated by the Forest Service.

## SPECIFICATION T-805 DRAINAGE STRUCTURES

### DESCRIPTION

1.1 This work consists of maintaining Drainage Structures and related items such as inlet and outlet channels, existing riprap, trash racks, and drop inlets.

### MATERIALS

2.1 All Materials used in the maintenance of Drainage Structures shall conform by type and specification to the Material in the structure being maintained.

### REQUIREMENTS

3.1 Drainage Structures and related items shall be cleared of all foreign Material which has been deposited above the bottom of the structure and all vegetative growth which interferes with the flow pattern. Material removed that cannot be incorporated into maintenance work shall be hauled to a disposal site designated by the Forest Service.

3.2 If outlet or inlet riprap was installed by Purchaser as a construction item or existed prior to Purchaser's haul, it shall be maintained in good condition including the replacement of riprap if necessary to previous line, grade, and cross-section.

3.3 Perform maintenance to insure the proper functioning of the head walls, aprons, inlet assemblies, overside drains, riprap, trash racks, and other facilities related to the Drainage Structure.

C5.41# Closure To Use By Others.

<b>Gate Location(s)</b>				
Road Number	Location	Gate Furnished By	Gate Installed By	In Place
NFSR 830	NFSR 452	Forest Service	Forest Service	Yes
NFSR 830	East of NFSR 462 & west of unit 821	Purchaser	Purchaser	No
NFSR 830	West of NFSR 462 & east of unit 81	Purchaser	Purchaser	No
NFSR 830	NFSR 801	Forest Service	Forest Service	Yes

<b>Percent Grade</b>	<b>Maximum Spacing</b>
N/A	N/A

1 Close and Lock Existing Gate(s)

<b>Closure Location(s)</b>				
Road Number	Location	Closure Method 2/	Furnished By 1/	In Place 3/
N/A				



RO-C6.312# - Sale Operation Restrictions. Unless otherwise agreed to in writing, sale operations will be restricted as listed below:

**Sale Operation Restriction Schedule**

<u>Subdivision/Cutting Unit</u>	<u>Restriction</u>	<u>Purpose</u>
All	From October 1 through October 31 annually; all operations are prohibited on weekdays (Monday-Friday) from 5 PM to 7 AM and all operations are prohibited on weekends (Saturday and Sunday).	Reduce conflicts with big game hunters during rifle hunting season.
All	No operations from May 15 through June 15 annually.	Elk Calving Closure
All	No operations from December 1 through April 15 annually unless the annual operating schedule is submitted prior to August 1 <sup>st</sup> with plans for operations during this period.	Reduce conflicts with Snowmobile Trails.

C6.50#- Streamside Management

<u>Unit(s)</u>	<u>Zone Requirements</u>
11, 22, 26, 28, 29, 31, 33, 44, 46, 62, 65, 67, 73, 75, 85, 87, 89, 230, 341, 361, 720, 741, 760, 801, & 821	Wheels or tracks of ground based equipment are prohibited in the SMZ which is defined as the entire cutting units listed. Winching may be required to remove included timber in the SMZ.
Portions of Unit 30, 41, & 86	Wheels or tracks of ground based equipment are prohibited in the SMZ's (as designated with PINK paint). Pink SMZ boundary trees are marked with 3 marks at or above DBH and a stump mark, 2 marks at or above DBH face the next SMZ boundary tree in either direction and 1 mark faces into the unit where ground based equipment is allowed.

C6.601# Erosion Control Seeding**Seed Application Table**

<u>Species of Seed</u>	<u>lbs. Per Acre</u>
Big bluegrass (Poa ampla) or Canby bluegrass (Poa canbyi)	1 lbs. (4%)
Mountain bromegrass (Bromus marginatus)	10 lbs. (40%)
Blue wildrye (Elymus glaucus)	8.25 lbs. (33%)
Slender wheatgrass (Elymus trachycaulus)	5.75 (23%)
Total	25

<u>Type of Fertilizer</u>	<u>Lbs. per Acre</u>
N/A	N/A

C6.602# Protection Of Disturbed Areas From Establishment Of Noxious Weeds**Seed Application Table**

<u>Species of Seed</u>	<u>Lbs. Per Acre</u>
Big bluegrass (Poa ampla) or Canby bluegrass (Poa canbyi)	1 lbs. (4%)
Mountain brome grass (Bromus marginatus)	10 lbs. (40%)
Blue wildrye (Elymus glaucus)	8.25 lbs. (33%)
Slender wheatgrass (Elymus trachycaulus)	5.75 (23%)
<b>Total</b>	25

<u>Type of Fertilizer</u>	<u>Lbs. per Acre</u>
N/A	N/A

C6.7#-Purchaser's Slash Responsibility Table

<u>Description Of Unit(s)</u>	<u>Type Of Slash Disposal</u>
All	A landing is considered a place where any logs or products are gathered for sorting and loading. All slash accumulated at landings shall be piled. Piles are not allowed within 100 feet of riparian areas, wetlands, live streams, or SMZ's as identified on the Sale Area Map, unless agreed upon in writing with the Forest Service.
All	Slash Piles shall be compact and free of soil to facilitate burning. Piles will not be less than 12 feet in height where sufficient material exists. All objects which extend more than 3 feet in any direction from the pile profile will be cut off and returned to the pile. Piles shall be of a size and location which will not impair road use or damage residual timber. Piles shall be located at least 20 feet from residual timber and 20 feet from improvements unless agreed upon in writing.
All	Trees not meeting utilization standards damaged through contractor's operations which are otherwise not designated for cutting, shall be felled and lopped and scattered to lie less than 24 inches above ground level. A damaged tree is one that is taller than 24" in height, 1) has the top knocked out, or 2) leans more than 10 degrees, or 3) has less than 50% of its original limbs, or 4) one with approximately 50 percent of bark removed from circumference of the bole.
All	Slash shall be lopped and scattered to within 24 inches or less above the ground.
All units Except units 21, 38, and 77	Purchaser shall leave tops and limbs of felled trees attached to included timber and yard them to landings. Tops and limbs which are lost on the way to the landing site due to normal felling, skidding operations are not required to be yarded.
Units 21, 38, 77	All Included Timber shall have tops and limbs cut from the stems prior to skidding. These tops and limbs shall be left in the cutting units where the timber is felled.