

VOLUME 1 EXHIBITS

- A TMP and SA Implementation Summary
- B Settlement Agreement (Section 15)
- C Rolling 5-Year Transportation Action Plan Framework
- D Land Use Authorization (LUA) Between PacifiCorp and the USDA – FS for Roads outside the FERC Project Boundary
- E Grant of Right-of-Way to PacifiCorp by the USDI-BLM
- F Cooperative Road Agreement between PacifiCorp and the USDA – FS
- G USDA-FS Road Use Permit for Joint T-line Roads outside the FERC Boundary
- H USDA-FS – PacifiCorp Road Operational Maintenance Responsibilities (Modified SA Sch. 15.2)
- I USDI-BLM – PacifiCorp Road Operational Maintenance Responsibilities
- J Road Decommissioning Responsibilities and Prescriptions (Modified SA Sch. 15.4)
- K USDA-FS Level 1 Roads with Mitigation Prescriptions
- L USDA-FS Road Barriers
- M Bridge and Major Culvert Maintenance Responsibilities (Modified SA Sch. 15.5)
- N USDA-FS System Management Handbook FSH 7709.58 and Maintenance Specifications for Level 1-5 Roads
- O USDI-BLM Road Capital Improvement and Maintenance Specifications
- P National Bridge Inspection Specifications (NBIS)
- Q Bridge Ownership Transfers, Requirements, and Design Standards
- R Hazard Analysis
- S USDI-BLM Road Maintenance Levels
- T Joint Use Roads outside the FERC Boundary Subject to the Land Use Authorization (LUA)
- U USDA-FS Commercial Road Rules and Snow Plowing Restrictions

**Exhibit O USDI-BLM Road Capital Improvement and Maintenance
Specifications**

Exhibit O - Section 1
USDI-BLM Maintenance Prescription Guidelines
for Level 1 Through 3 Roads

USDI-BLM MAINTENANCE PRESCRIPTION GUIDELINES FOR LEVEL 1 ROADS

Objectives: To maintain roads in a manner which provides for water quality protection by minimizing surface erosion, rutting failures, sidecasting, and blockage of drainage facilities.

1. Provide the basic custodial required to protect the road investment and to ensure that the damage to adjacent land and resources is held to a minimum.
2. Grading, brushing, or slide removal is not performed unless roadbed drainage is being adversely affected, causing erosion.
3. Barricade or block road surface using gates, guard rails, earth/log barricades, boulders, logging debris or a combination of these methods. Avoid blocking roads that will need future maintenance (i.e. culverts, potential slides, ect.) with unremovable barricades. Use guardrails, gates or other barricades capable of being opened for roads needing future maintenance.
4. Maintain waterbars, cross drains, cross sloping, or drainage dips, or install if not already on the road. Drainage spacing shall be according to Table 1.
5. Exposed soil shall be seeded or protected when necessary to keep surface erosion within accepted standards.

USDI-BLM MAINTENANCE PRESCRIPTION GUIDELINES FOR LEVEL 2 AND 3 ROADS

Objectives: To maintain roads in a manner which provides for water quality protection by minimizing surface erosion, rutting failures, sidecasting, and blockage of drainage facilities.

1. Provide the basic custodial required to protect the road investment and to ensure that the damage to adjacent land and resources is held to a minimum.
2. Perform blading and shaping in such a manner as to conserve existing surface material, retain the original crowned or out-sloped self-drainage cross section, prevent or remove rutting berms (except those designed for slope protection) and other irregularities that retard normal surface runoff. Avoid wasting loose ditch or surface material over the shoulder where it will cause stream sedimentation or weaken slump prone areas. Avoid undercutting of back-slopes.
3. Keep road inlet and outlet ditches, catch-basins, and culverts free of obstructions, particularly before and during prolonged winter rainfall. However, hold routine machine cleaning of ditches to a minimum during wet weather.
4. Remove slide material when it is obstructing road surface and ditch-line drainage and either utilize for needed road improvement elsewhere or place in a stable waste area. Avoid side-casting of slide material where it will damage, overload, or saturate embankments, or flow into down-slope drainage courses.
5. Retain vegetation on cut slopes, unless it poses a safety hazard or restricts maintenance activities. Accomplish roadside brushing by cutting vegetation rather than pulling it out and disturbing the soil.
6. Patrol areas subject to road damage during periods of high runoff.
7. Reclaim/revegetate all roads not needed for future management activities.
8. Exposed soil shall be seeded or protected when necessary to keep surface erosion within accepted standards.
9. Stabilize major failures (landslides) by subsurface drainage, rock blankets, or other methods.

10. Maintain water-bars, cross drains, cross sloping, or drainage dips, or install if not already on the road. Drainage spacing shall be according to Table 1 below.

Table 1. Guide for Drainage Spacing by Soil Erosion Classes and Road Grade

<u>Gradients (%)</u>	<u>Water Bar Spacing (in feet)</u>		
	<u>Erosion Class</u>		
	<u>High</u>	<u>Moderate</u>	<u>Low</u>
3-5	200	300	400
6-10	150	200	300
11-15	100	150	200
16-20	75	100	150
21-35	50	75	100
36+	50	50	50

Spacing is determined by slope distance and is the maximum allowed for the grade.

Exhibit O - Section 2
Specifications That Apply To
Maintenance Level
1 Through 3 Roads

All work shall be performed according to the following specifications:

**USDI-BLM LANDS - SPECIAL PROJECT SPECIFICATION 841-1 –
VEGETATION ESTABLISHMENT**

1. MATERIALS AND APPLICATION RATES

The contractor shall provide the following listed materials:

- a. Fertilizer: Fertilizer shall be a standard commercial grade which will release slowly over an eight to nine month period and provide the minimum percentage of available nutrients designated.

Available Nitrogen.....20%
Available Phosphorus..... 5%
Available Potassium.....17%
Available Boron.....0.5%

No sulphur will be allowed in the fertilizer when using a copolymer tacifier.

Fertilizer shall be furnished in sealed containers with the composition, weight, and guaranteed analysis of contents clearly marked.

Fertilizer shall be applied at the rate of 165 lbs. per acre.

- b. Seed: Grass seed shall be packaged separately from fertilizer and contain the designated types of seed for application at the designated rates. The contractor shall supply source identified certified native seed. The seed may be available from the government or the Contractor will supply the seed.

Blue Wild Rye (*Elymus glaucus*).....40lbs of seed per acre.
California Brome (*Bromus carinatus*).....40lbs of seed per acre.

Other appropriate native seed may be available and used when approved or directed by the BLM's authorized officer.

c. Mulch

1. Hydro Mulch:

Hydro mulch will be applied on slopes greater than 45 percent.

Hydro-mulch shall be 100% virgin wood fibers colored with non-toxic green dye when using a copolymer tacifier. Paper mulch is not acceptable.

Mulch shall be a commercially produced and marketed product appropriate for mixing in a homogeneous slurry suitable for application with power sprayer. It shall be thermally produced (steamed/defibrillated) and air-dried. It shall not be produced by a hammer-milled process.

Fibers shall have an equilibrium air-dried moisture content of 12% plus or minus 3% at the time of manufacture.

Mulch shall be delivered to the slurry mix site in new, dry, clean, equal net weight sealed containers. Containers shall be clearly labeled with the name and weight of the contents.

No field adjustments will be made for fiber, which does not meet the moisture content limits, packaging requirements, or any other, specified requirements.

2. Dry Mulch

Mulch: Hay mulch shall be from perennial grass or, if specified, an annual Rye Grass, from which the seed has been removed. Straw mulch is also acceptable. The hay or straw shall be free from noxious weed seed, mold or other objectionable material. PP&L shall furnish the authorized officer with a copy of the seed certification from each field from which the hay or straw was obtained. The hay or straw shall be from fields, which have passed the current years field inspection of the Oregon Grass Seed Certification Program, or from fields certified by the County Agent, or by seed companies purchasing the seed. Commercial products may be used in lieu of straw upon written approval by the BLM's authorized officer.

Mulch: Immediately after seeding a 4-inch thick layer of mulch shall be applied.

Exhibit P National Bridge Inspection Specifications (NBIS)

CODE OF FEDERAL REGULATIONS

23 HIGHWAYS - PART 660

Subpart C - National Bridge Inspection Standards

§ 650.301 Application of Standards.

The National Bridge Inspection Standards in this part apply to all structures defined as bridges located on all public roads. In accordance with the AASHTO (American Association of State Highway and Transportation Officials) Transportation Glossary, a "bridge" is defined as a structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening.

§ 650.303 Inspection procedures.

- (a) Each highway department shall include a bridge inspection organization capable of performing inspections preparing reports, and determining ratings in accordance with the provisions of the AASHTO Manual¹ and the Standards contained herein.
- (b) Bridge inspectors shall meet the minimum qualifications stated in §650.307. National Bridge Inspection Standards.
- (c) Each structure required to be inspected under the Standards shall be rated as to its safe load carrying capacity in accordance with Section 4 of the AASHTO Manual. If it is determined under this rating procedure that the maximum legal load under State law exceeds the load permitted under the Operating Rating, the bridge must be posted in conformity with the AASHTO Manual or in accordance with State law.
- (d) Inspection records and bridge inventories shall be prepared and maintained in accordance with the standards.
- (e) The individual in charge of the organizational unit that has been delegated the responsibilities for bridge inspection, reporting and inventory shall determine and designate on the individual inspection and inventory records and maintain a master list of the following:
 - (1) Those bridges which contain fracture critical members, the location and description of such members on the bridge and the inspection frequency and procedures for inspection of such members. (Fracture critical members are tension members of a bridge whose failure will probably cause a portion of or the entire bridge to

NATIONAL BRIDGE INSPECTION STANDARDS (Cont')

- collapse.)
- (2) Those bridges with underwater members which cannot be visually evaluated during periods of low flow or examined by feel for condition, integrity and safe load capacity due to excessive after depth or turbidity. These members shall be described, the inspection frequency stated, not to exceed five years, and the inspection procedure specified.
 - (3) Those bridges which contain unique or special features requiring additional attention during inspection to ensure the safety of such bridges and the inspection frequency and procedure for inspection of each such feature.
 - (4) The date of last inspection of the features designated in paragraphs (e)(1) through (e)(3) of this section and a description of the findings and follow-up actions, if necessary, resulting from the most recent inspection of fracture critical details, underwater members or special features of each so designated bridge.

§ 650.305 Frequency of inspections.

- (a) Each bridge is to be inspected at regular intervals not to exceed 2 years in accordance with Section 2.3 of the AASHTO Manual.
- (b) Certain types or groups of bridges will require inspection at less than 2-year intervals. The depth and frequency to which bridges are to be inspected will depend on such factors as age, traffic characteristics, state of maintenance, and known deficiencies. The evaluation of these factors will be the responsibility of the individual in charge of the inspection program.
- (c) The maximum inspection interval may be increased for certain types or groups of bridges where past inspection reports and favorable experience and analysis justifies the increased interval of inspection. If a State proposes to inspect some bridges at greater than the specified 2-year interval, the State shall submit a detailed proposal and supporting data to the Federal Highway Administrator for approval.

§ 650.307 Qualifications of personnel.

- (a) The individual in charge of the organizational unit that has been delegated the responsibilities for bridge inspection, reporting, and inventory shall possess the following minimum qualifications:
 - (1) Be a registered professional engineer; or
 - (2) Be qualified for registration as a professional engineer under the laws of the State: or

NATIONAL BRIDGE INSPECTION STANDARDS (Cont')

- (3) Have a minimum of 10 years experience in bridge inspection assignments in a responsible capacity and have completed a comprehensive training course based on the, "Bridge Inspector's Training Manual"², which has been developed by a joint Federal State task force, and subsequent additions to the manual³.
- (b) An individual in charge of a bridge inspection team shall possess the following minimum qualifications:
 - (1) Have the qualifications specified in paragraph (a) of this section; or
 - (2) Have a minimum of years experience in bridge inspection assignments in a responsible capacity and have completed a comprehensive training course based on the "Bridge Inspectors Training Manual", which has been developed by a joint Federal State task force.
 - (3) Current certification as a Level III or IV Bridge Safety Inspector under the National Society of Professional Engineer's program for National Certification in Engineering Technologies (NICET)⁴ is an alternative acceptable means for establishing that a bridge inspection team leader is qualified.

§650.309 Inspection Report.

The findings and results of bridge inspections shall be recorded on standard forms. The data required to complete the forms and the functions which must be performed to compile the data are contained in Section 3 of the AASHTO Manual.

§660.311 Inventory.

(a) Each State shall prepare and maintain an inventory of all bridge structures subject to the Standards. Under these Standards, certain structure inventory and appraisal data must be collected and retained within the various departments of the State organization for collection by the Federal Highway Administration as needed. A tabulation of this data is contained in the structure inventory and appraisal sheet distributed by the Federal Highway Administration as part of the Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges (Coding Guide) in January of 1979. Reporting procedures have been developed by the Federal Highway Administration.

NATIONAL BRIDGE INSPECTION STANDARDS (Cont')

(b) Newly completed structures, modification of existing structures which would alter previously recorded data on the inventory forms or placement of load restriction signs on the approaches to or at the structure itself shall be entered in the State's inspection reports and the computer inventory file as promptly as practical, but no later than 90 days after the change in the status of the structure for bridges directly under the State's jurisdiction and no later than 180 days after the change in status of the structure for all other bridges on public roads within the State.

¹The "AASHTO Manual" referred to in this part is the 'Manual for Maintenance Inspection of Bridges 1983' together with subsequent Interim changes or the most recent version of the AASHTO manual published by the American Association of State Highway and Transportation Officials. A copy of the Manual may be examined during normal business hours at the office of each Division Administrator of the Federal Highway Administration, at the office of each Regional Federal Highway Administrator, and at the Washington Headquarters of the Federal Highway Administration. The addresses of those document inspection facilities are set forth in Appendix D to Part 7 of the regulations of the Office of the Secretary (40 CFR Part 7). In addition, a copy of the Manual may be secured upon payment in advance by writing to the American Association of State Highway and Transportation Officials, 444 N. Capitol, Street, N. W, suite 225, Washington, D.C. 20001

²The "Bridge Inspector's Training Manual" may be purchased from the Superintendent of Documents, V. S. Government Printing Office, Washington, D.C. 20402.

³The following publications are supplements to the "Bridge Inspector's Training Manual"., "Bridge Inspector's Manual for Movable Bridges, " 1977, GPO Stock No. 050-002-00103-5,, "Culvert Inspector's Training Manual, " July 1986, GPO Stock No. 050-001-0030-7, and "Inspection of Fracture Critical Bridge Members, " 1986, GPO Stock No. 050-001-00302-3.

⁴For information on NICET program certification contact: National Institute for Certification in Engineering Technologies, 1420 King Street, Alexandria, Virginia 22314. Attention: -John D. Antrim, P.E., Phone (703) 684-2835.

Effective date October 25, 1988.

NATIONAL BRIDGE INSPECTION STANDARDS (Cont')

Amendment (July 27, 1994)

7736.04b - Regional Foresters. (FSM 7731.04a).

7736.04c - Regional Staff Directors for Engineering Activities. It is the responsibility of the Regional Staff Director for engineering activities to certify in writing the qualifications of the following (23 CFR 650.307):

1. The individual in charge of the organizational unit who has been delegated the responsibilities for bridge inspection, reporting, and inventory.
2. The individuals in charge of bridge inspection teams.

7736.04d - Forest Supervisors. It is the responsibility of each Forest Supervisor to:

1. Ensure that technical inspections are performed on all structures meeting the definition of a bridge (FSM 7705).
2. Ensure that those bridges subject to the National Bridge Inspection Standards (NBIS) are identified.
3. Ensure that all bridges are inventoried in accordance with direction in FSM 7736.4.
4. Ensure that the bridge inventory and permanent bridge records are maintained in accordance with direction in FSH 7709.56b, Sec. 8.2, including documentation of the bridge condition and appraisal.
5. Ensure that annual reports for bridges subject to the NBIS are prepared and submitted to the State Bridge Engineer.
6. Ensure that structural load rating analyses are performed on all road bridges and, where needed, the safe load carrying capacity of all restricted bridges are posted.

NATIONAL BRIDGE INSPECTION STANDARDS (Cont')

7736.05 - Definitions. (FSM 7705).

77356.1 - Bridges Subject to the National Bridge Inspection Standards. Bridges and culverts on Forest Service development roads "open to public travel" (FSM 1535.11), and having a total length exceeding 20 feet (6.1 m) are subject to the NBIS (23 CFR 650.301).

In general, for bridge inspection program purposes, bridges subject to the NBIS are located on Forest Service development roads that have a Road Maintenance Level 3, 4, or 5 (FSH 7709.58, sec. 12.3); or a designated Traffic Service Level A, B, or C (FSH 7709.56, Sec. 4.1, Exhibit 01). There may be minor exceptions to this direction for bridges on such roads not open to public travel that are used for contractual and administrative purposes only, such as PacifiCorp.

7736.2 - Technical Inspections. Perform technical inspections for all bridges, including trail bridges, to identify actual conditions that may lead to structural or functional restrictions. Update inventory records, and establish maintenance priorities. In addition, use technical inspection reports of all road bridges to provide the basis for conducting structural analysis to determine the safe load carrying capacity.

7736.21 - Technical Inspection of Bridges Subject to the National Bridge Inspection Standards. Refer below:

7736.21a - Inspection. Inspect all road bridges subject to the NBIS (FSM 7736.01) in accordance with 23 CFR 650.303, paragraphs (a) through (e); except in paragraph (c), posting restricted bridges shall be in accordance with direction in FSM 7736.52.

7736.21b - Inspection Intervals. Inspect bridges subject to the NBIS at 2-year intervals (23 CFR 650.307). Submit all requests to increase the inspection interval for eligible bridges through the Regional Staff Director for engineering activities to the Director of Engineering, Washington Office (FSM 7736.04a), for approval in accordance with FSH 7709.56b, Section 8.12.

7736.22 - Technical Inspection of Bridges Not Subject to the National Bridge Inspection Standards. Refer below:

7736.22a - Inspection. Inspection procedures for bridges not subject to the NBIS shall be the same as in 7736.21a, except as follows:

- a. 23 CFR 650.303, paragraph (c). Inspect and rate trail bridges for load carrying capacity in accordance with Regional guidance (FHS 7709.56b, sec. 05).

NATIONAL BRIDGE INSPECTION STANDARDS (Cont')

- b. 23 CFR 650.303, paragraph (e). Application of the requirements to list bridges requiring special inspections shall be in accordance with Regional guidance (FSH 7709.56b, sec. 05).

7736.22b - Inspection Intervals. Inspect road bridges not subject to the NBIS at 2-year intervals, except when increases up to 4 years have been granted in accordance with Regional guidance (FHS 7709.56b, sec. 05). Inspection intervals for trail bridges must not exceed 4 years.

7736.23 - Inspection Reports. Record findings and results of inspections of all bridges in accordance with Regional guidance (FSH 7709.56b, sec. 05 and 8.15). Record data items compatible with the inventory requirements in FSM 7736.4.

Annually, submit a report of data required by the Federal Highway Administration (FHWA) (FHWA Coding Guide, FSM 7736.4) to the local State Bridge Engineer for each bridge subject to the NBIS. Do not report any inventory data not listed in the FHWA Coding Guide to the State of Oregon (FSM 1535.11; FSM 7736.04d, para. 6).

Exhibit Q Bridge Ownership Transfers, Requirements and Design Standards



United States
Department of
Agriculture

Forest
Service

Umpqua
National
Forest

2900 NW Stewart Parkway
Roseburg, Oregon 97470
(541) 672-6601 FAX 957-3495
TDD 957-3459

File Code: 2770

Date: March 1, 2004

Jim Waslaw
PacifiCorp
825 NE Multnomah Street, Suite 1500
Portland, OR 97232

Dear Jim:

This letter is in response to a question that came up during the December 19, 2003 meeting with Chuck Everett and Diane Barr on the final draft of the Transportation Management Plan for the North Umpqua Hydropower Project. The question was regarding the process required to transfer ownership of PacifiCorp owned bridges on National Forest System land within the North Umpqua Hydroelectric Project, to the Forest Service.

The Forest Service may accept transfer of ownership of PacifiCorp bridges on joint-use hydro-maintained roads following completion of all deferred maintenance work, as required by Section 15.5.1 of the Settlement Agreement. The identification of deferred maintenance is to be based on then current structural safety inspections by a qualified bridge engineer.

Jurisdiction of the PacifiCorp owned bridges on joint-use hydro-maintained roads is the responsibility of the Forest Service, since these bridges are located on National Forest Roads. Jurisdiction is the legal right to control and regulate the use of transportation facilities. Traffic control over these bridges will require close coordination by the Forest Service and PacifiCorp.

To transfer ownership to the Forest Service, we will need a letter from PacifiCorp requesting transfer of ownership to the Forest Service. The letter must include the following items.

1. Request for the Forest Service to accept ownership of the bridge in question.
2. Current picture of the bridge.
3. Design/Construction as-built drawings of the bridge.
4. Records indicating the year the bridge was built and any records indicating the initial cost of the bridge.
5. Drawings and any records for any modification or major maintenance work on the bridge, including the cost of the heavy maintenance or modification.
6. Drawings and records of any stream-channel work performed in association with the bridge construction or maintenance.
7. Inspection Records for the last ten years (including structural load ratings).
8. An AD-107 form (Report of Transfer or other Disposition or Construction of Property)



completed and signed by PacifiCorp's authorized officer (Sample copy attached)

9. Records documenting the completion of deferred maintenance work and the cost thereof

Prior to the Forest Service acceptance of the bridge, PacifiCorp must correct structural and safety deficiency items contained in the current N.B.I.S. inspection reports. The bridge(s) must also be capable of carrying live loads equivalent to the AASHTO design vehicle HS 20-44 as determined by a Professional Engineer. Upon acceptance of the bridge, the Forest Service will sign the AD-107 form and transmit a copy to PacifiCorp for their records.

Should you have further questions, please contact Jake O'Dowd (541) 957-3354, or John Ulicny (541) 957-3424.

Sincerely,

/S/ JAMES A. CAPLAN

/s/ James A. Caplan
JAMES A. CAPLAN
Forest Supervisor

cc: Pam Sighting, John J Sloan, John E Ulicny, Raquel M O'Connor

United States Department of Agriculture

REPORT OF TRANSFER OR OTHER DISPOSITION OR CONSTRUCTION OF PROPERTY

Report No.

Date

1. Type of Transaction *(Report Each Type Separately)*

- Transfer Sale Trade In Donation
 Construction Temporary Loan Record

2. Authorization Reference

3. Proceeds Received

\$

4. Reporting Agency

5. Receiving Agency *(Or Name of Purchaser or Donee)*

A. Organizational Unit

A. Organizational Unit *(Or Address of Purchaser)*

B. Location

B. Location

C. Signature

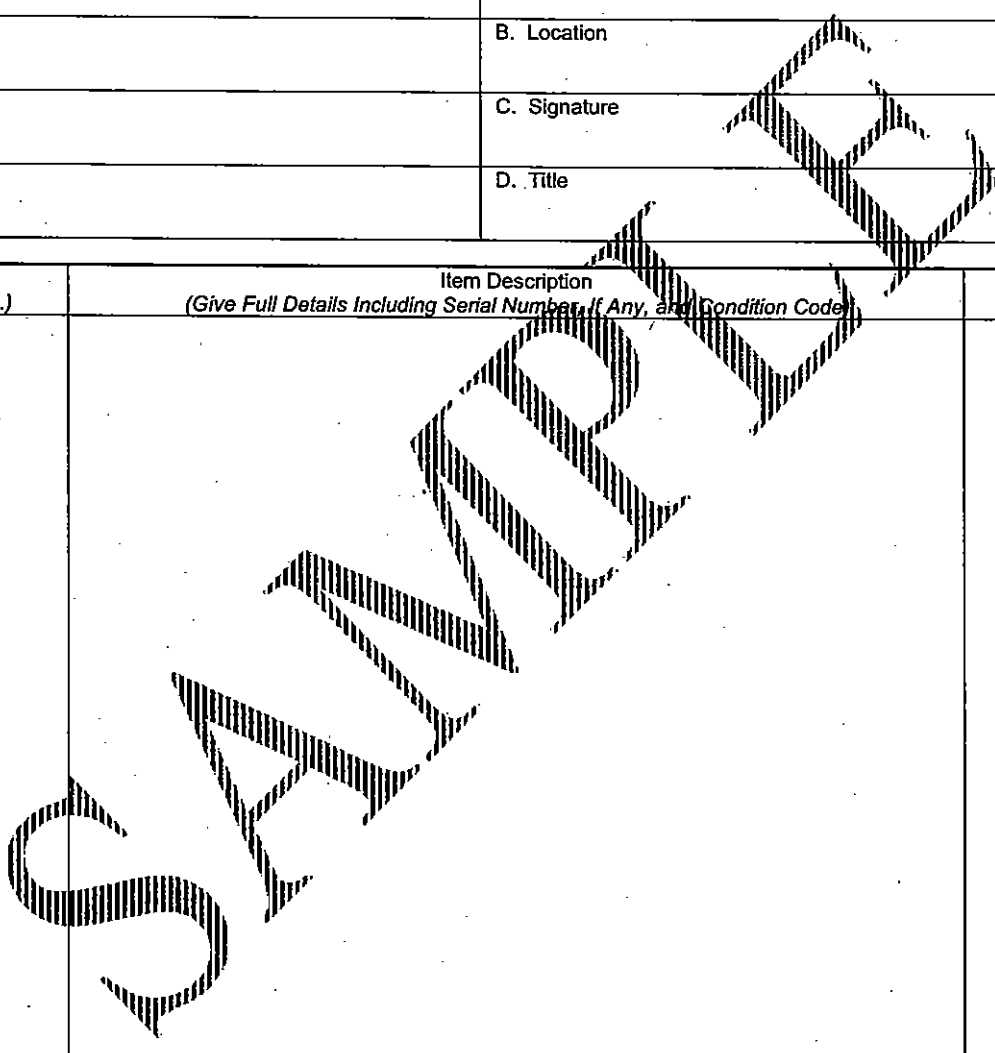
C. Signature

D. Title

D. Title

E. Date

6. Property Items

Quantity <i>(Or Property No.)</i>	Item Description <i>(Give Full Details Including Serial Number, If Any, and Condition Code)</i>	Inventory Value
		

Certification of Property and Fiscal Officers

7. Property Officer: This transaction is completed and the necessary entries have been made to adjust the Property Records. Proceeds, if any, are to be deposited to:

8. Fiscal Officer

- A. The sum indicated below has been received in payment for the property disposed of.
 B. The necessary entries have been made to adjust accounting records.

Amount (\$)

Schedule No.

Signature

Date

Signature

Date

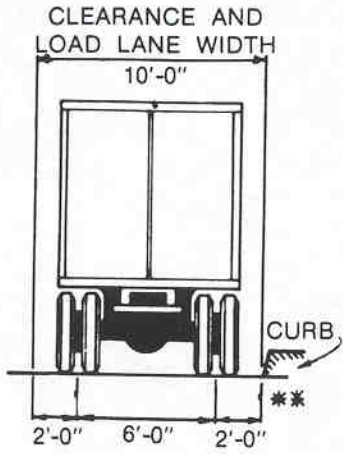
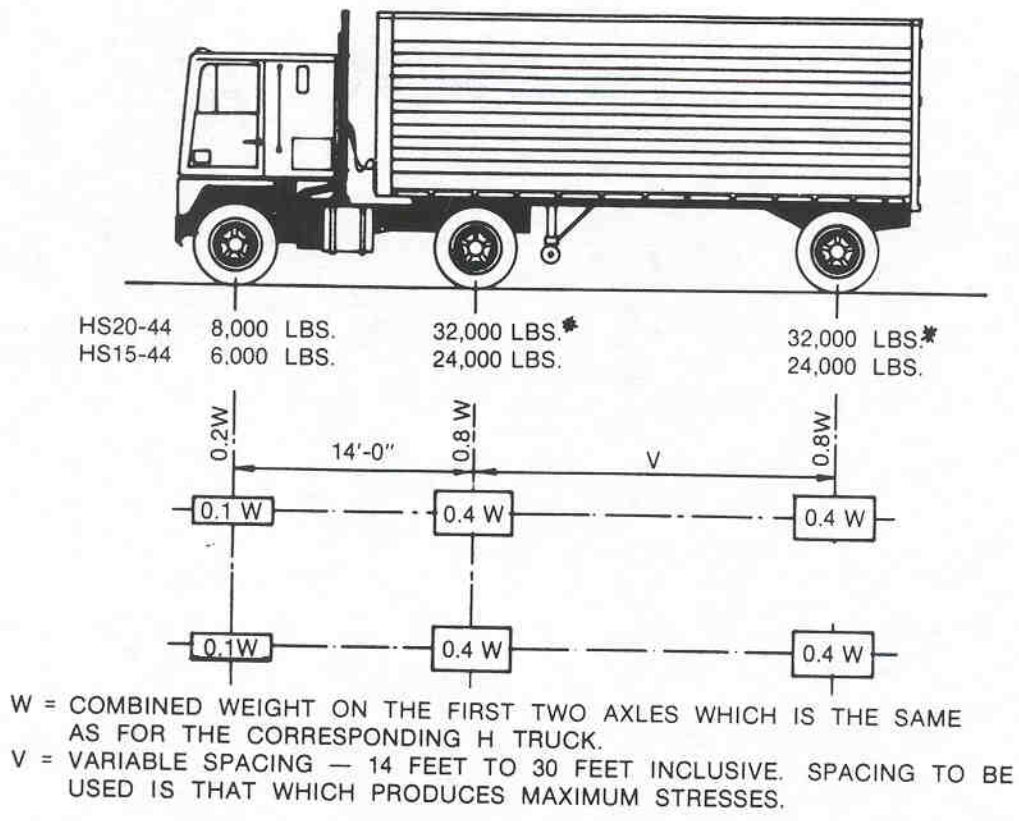


FIGURE 3.7.7A Standard HS Trucks

*In the design of timber floors and orthotropic steel decks (excluding transverse beams) for H 20 Loading, one axle load of 24,000 pounds or two axle loads of 16,000 pounds each, spaced 4 feet apart may be used, whichever produces the greater stress, instead of the 32,000-pound axle shown.

**For slab design, the center line of wheels shall be assumed to be 1 foot from face of curb. (See Article 3.24.2.)

Bridge Ownership Transfers

Bridge Name	Bridge Road Name	Bridge	Map #	Maint. Level	Last Inspection Date	Score*	Owner	Maintenance Responsibility
Charlie Camp @Charlie Cr.	3400100-1.5	U-12	54	2	Oct-03	7	PPL	JMH
Clearwater Canal Culvert	4776300-2.2	U-24	47	2	Oct-03	6	PPL	JMH
Cottage (west of Guest House)	4776000-0.3	U-29	43	5	Oct-03	6	PPL	JMH
Deer Cr./Toketee Rigdon	3400000-6.6	U-15	52, 53	5	Oct-03	6	PPL	JMH
Fish Creek Canal @ Forebay	3701300-3.3	U-34	37, 40	2	Oct-03	7	PPL	JMH
Fish Creek Canal upstream of FL5	3701000-3.6	U-32	41, 42	4	Oct-03	7	PPL	JMH
Lemolo #1- Canal #2	2610672-2.7	U-02	62	2	Oct-03	6	PPL	JMH
Lemolo #1 Spillway	2610000-5.1	U-44	63	5	Oct-03	8	PPL	JMH
Lemolo #1-Canal #1	1414000-0.1	U-01	63	2	Oct-03	7	PPL	JMH
Mowich Creek Culvert	4776300-3.5	U-22	47, 48	2	Apr-95		PPL	JMH
Needle (east of Guest House)	4776000-0.4	U-28	43	5	Oct-03	7	PPL	JMH
Nurse Cr. @ Fl. 10	3400115-0.0	U-11	54	2	Oct-03	7	PPL	JMH
Soda Springs-below dam	4775011-1.7	U-42	35	4	Oct-03	5	PPL	JMH
Warm Springs Cr. Culvert	2610680-2.0	U-03	56	2	Nov-94		PPL	JMH
Washout Arch Culvert	4776000-1.2	U-53	43, 46	5	Nov-94		PPL	JMH
* Assessment Score Description (NBIS)								
0-4 = Critical								
5-6 = Fair								
7-9 = Good								

Exhibit R Hazard Analysis

Exhibit R Hazard Analysis

FSH 7709.59 - TRANSPORTATION SYSTEM OPERATIONS HANDBOOK
WO AMENDMENT 7709.59-91-1
EFFECTIVE 3/1/91

CHAPTER 50 - TRAFFIC STUDIES AND OTHER ROAD OPERATION
CONSIDERATIONS

Contents

51	TRAFFIC STUDIES
51.1	Traffic Surveillance
51.2	Accident Surveillance
51.3	Accident Investigations
51.4	Hazard Analysis
52	COORDINATION OF USES
52.1	Consistency
52.2	Mixed Use on Forest Development Roads
53	PUBLIC INFORMATION
53.1	Advance Notice of Changes
53.2	Maps and Signs

This chapter describes traffic studies for use in road operations and provides additional information for other road operations factors such as coordination of uses and public information.

51 - TRAFFIC STUDIES. This section describes traffic engineering studies that are frequently used in transportation system operations. Results of these studies may apply to design and maintenance, as well as to operations.

Traffic studies should be oriented toward achieving specific objectives. Before initiating traffic studies, develop an objective statement identifying the purpose of the study and the use to be made of the collected data. Such a statement facilitates designing an effective study.

51.1 - Traffic Surveillance. Traffic surveillance provides insight into the relative magnitude of road use. Traffic is measured and analyzed to determine the volume and/or classification of road uses.

Traffic surveillance is typically used to:

1. Identify traffic requirements used to establish design, operation, and maintenance criteria.

2. Estimate human-related resource use, such as camping, fishing, hunting, and wilderness visits on National Forest land.
3. Determine weights and repetitions of vehicle axle loads for pavement structure design.
4. Develop traffic patterns and growth trends for economic analyses and set priorities for investments.
5. Verify the suitability of road management objectives.
6. Determine the financial responsibility of the various road users for road investments and road maintenance (FSM 7731.51, FSH 7709.58, Transportation System Maintenance Handbook, and chapter 30 of this Handbook).

Traffic surveillance may require long-term analysis. Consider the purpose of the study, the means of carrying it out, the need to provide continuing information, and the method of financing it.

When a description of the character of traffic is needed, conduct a classification survey to identify vehicle types and uses. Origin-destination and travel time studies provide information for special transportation analysis purposes.

51.2 - Accident Surveillance. Highway Safety Program Standard No. 9, Identification and Surveillance of Accident Locations, of the Highway Safety Act (FSM 7701.3) requires a program for identifying accident locations and for maintaining surveillance of these locations. Implement this program (FSM 7731.52) to reduce accidents and their severity.

The following are minimum requirements of the accident surveillance program:

1. Develop a procedure to identify accident locations.
2. In coordination with State and local law enforcement authorities, develop an inventory of accident locations, emphasizing high frequency and severe (serious bodily injury or death) accident sites. Often, State and local law enforcement officials investigate accidents on Forest development roads and their records may be the best source of information for such an inventory.
3. Develop procedures for analyzing design and operating features associated with accident locations.
4. Identify and prioritize actions for eliminating or mitigating hazards to reduce accidents. Take action first on those cost-effective actions having the greatest potential to reduce the frequency or severity of possible accidents.
5. Develop measures to evaluate the effectiveness of the program.

Documenting and maintaining current accident surveillance data can be useful in tort claim situations.

51.3 - Accident Investigations. As a minimum, obtain a copy of the investigation report prepared by State or local law enforcement authorities. In the case of severe accidents (potentially disabling injury or death) additional accident investigation should be conducted by either Forest Service personnel or legally recognized experts, such as State or county investigators or private consultants. This investigation should be done while evidence at the accident site still exists, normally within 24 hours of the accident.

1. Accident Data. At a minimum, gather the following information:
 - a. Time and location.
 - b. Driver and passengers--age, condition (any obvious factors such as pre-existing physical impairments or use of alcohol or drugs), and injuries.
 - c. Vehicles---type, condition, and damage.
 - d. Weather conditions.
 - e. Road conditions and geometrics (measurements).
 - f. Probable causes and accident sequence.
 - g. Diagrams and photos.
 - h. Names of witnesses, attending medical personnel, and responding law enforcement and rescue personnel.

2. Road Data. As part of the accident investigation, obtain and include in the report information about the road's characteristics and its operation, including the following:
 - a. Design standards and traffic volumes.
 - b. Traffic control devices and their condition.
 - c. Maintenance standards and records for the specific site.
 - d. Improvements that have been programmed.

This information may be available from previous studies, inventories, and project records retained on the forest.

Retain all accident investigation information for at least 5 years. Consider including copies of applicable FSM and FSH direction and Regional and Forest supplements.

51.4 - Hazard Analysis. Analyze road features and traffic operations that have caused or have the potential to cause accidents as part of planning and programming for road development and maintenance projects and as part of periodic condition surveys.

On low-volume roads, accident frequency may not be high enough to indicate any significant safety problems. Making comparative analyses between hazardous sites also may be difficult because of the infrequency of accidents. Accordingly, use common sense and judgment to determine safety deficiencies and the priority for corrective action. Accident rate comparison formulas commonly used for high-volume highways are not appropriate.

Roads that are open should have a condition survey at least annually. Roads that have been closed should be checked for obvious hazards prior to being opened. Roads open to travel should also be checked following major storms or similar events that could significantly affect their condition, result in changes in their traffic service level, or have created new safety hazards.

52 - COORDINATION OF USES.

52.1 - Consistency. Regulation of use on Forest development roads should be consistent with State laws. Provide consistent travel management (signs, maps, enforcement) within the same political jurisdiction (that is, State) to avoid confusing users and other agencies that assist in administering and enforcing laws and regulations on National Forest lands. When deviating from State law by an order, the Forest Service accepts the enforcement responsibility for that order.

52.2 - Mixed Use on Forest Development Roads. Limit use on Forest development roads to "street-legal" vehicles and licensed operators, except where authorized by order or State law. ("Street legal" vehicles are those vehicles that can be operated on the streets, roads, and highways under the jurisdiction of the State, county, or other public road agency.)

In those circumstances where road use by unlicensed operators and/or non-"street legal" vehicles may be appropriate, consider the probabilities and consequences of accidents associated with such use, whether it be mixed use or sole use (Exhibit 01).

52.2 - Exhibit 01

GUIDELINE FOR MANAGEMENT OF MIXED USE

<u>PROBABILITY</u> <u>OF</u> <u>ACCIDENTS</u>	HIGH		PROHIBIT MIXED USE	
	MEDIUM		RESTRICT MIXED USE	
	LOW	ACCEPT USE WITH MONITORING		
		Minor	Moderate	Severe

53 - PUBLIC INFORMATION.

53.1 - Advance Notice of Changes. Inform users of the availability and condition of roads, including roads open to unrestricted use, roads closed, roads available with conditions on use, and road hazards. Typically, inform users through the use of maps, signs, and posters.

Provide advance notice of planned use changes on roads. Notify the public when the decision is made to implement changes in road use. If feasible, allow adequate time for users to make alternative travel plans. Emergency or unexpected changes in road availability or condition may require the use of news releases or spot announcements on radio or television.

Restrict use on new roads that are not planned to be open to the general public, prior to public use patterns becoming established.

53.2 - Maps and Signs. Use the Forest visitor map to provide travel information to users. Portray information on maps and signs in a consistent and understandable manner. Both maps and signs should portray a positive message and emphasize acceptable uses of Forest development roads (FSH 7109.11, Sign Handbook).

Exhibit S USDI-BLM Road Maintenance Levels

EXHIBIT S USDI-BLM ROAD MAINTENANCE LEVELS

There are five USDI-BLM road maintenance levels:

Level 1 – This level is assigned to roads where minimum maintenance is required to protect adjacent lands and resource values. These roads are no longer needed and are closed to traffic. The objective is to remove these roads from the transportation system.

Minimum Standards for Level 1 – Emphasis is given to maintaining drainage and runoff patterns as needed to protect adjacent lands. Grading, brushing, or slide removal is not performed unless roadbed drainage is being adversely affected, causing erosion. Closure and traffic restrictive devices are maintained.

Western Oregon Guidance – The objective of this maintenance level should also include road segments which are closed to vehicles on a long-term basis, but that may be used again in the future. This will facilitate assigning decommissioned roads at this level.

Level 2 – This level is assigned to roads where the management objectives require the road to be opened for limited administrative traffic. Typically, these roads are passable by high clearance vehicles.

Minimum Standard for Level 2 – Drainage structures are to be inspected within a 3-year period and maintained as needed. Grading is conducted as necessary to correct drainage problems. Brushing is conducted as needed to allow administrative access. Slides may be left in place provide they do not adversely affect drainage.

Western Oregon Guidance – Traffic is generally administrative with some minor specialized use, or moderate seasonal use. These are typically low standard, low volume, single lane, natural and aggregate surfaced, and are functionally classified as a resource road.

Level 3 – This level is assigned to roads where management objectives require the road to be open seasonally or year-round for commercial, recreational, or administrative access. Typically, these roads are natural or aggregate surfaced, but may included low use bituminous surfaced road. These roads have a defined cross section with drainage structures (e.g., rolling dips, culverts, or ditches). These roads may be negotiated by passenger cars traveling at prudent speeds. User comfort and convenience are not considered a high priority.

Minimum Standards for Level 3 – Drainage structures are to be inspected at least annually and maintained as needed. Grading is conducted to provide a reasonable level of riding comfort at prudent speeds for the road conditions. Brushing is conducted as needed to improve sight distance. Slides adversely affecting drainage would receive high priority for removal, otherwise they will be removed on a scheduled basis.

Western Oregon Guidance – These roads segments serve as a artery to other road networks and are functionally classified as a local road.

Level 4 – This level is assigned to roads where management objectives require the road to be open all year (except may be closed or have limited access due to snow conditions) and which connect major administrative features (recreational sites, local road systems, administrative sites, etc.) to Country, State, or Federal roads. Typically these roads are single or double lane, aggregate, or bituminous surface, with higher volume of commercial and recreational traffic than administrative traffic.

Minimum Standards for Level 4 – The entire roadway is maintained at least annually, although a preventative maintenance program may be established. Problems are repaired as discovered.

Western Oregon Guidance – These roads intersect County, State and Federal roads and connect with major recreation and administrative facilities. These roads are functionally classified as collector roads.

Level 5 – This level is assigned to roads where management objectives require the road to be open all year and are the highest traffic volume roads of the transportation system.

Minimum Standards for Level 5 – The entire roadway is maintained at least annually and a preventative maintenance program is established. Problems are repaired as discovered. These roads may be closed or have limited access due to snow conditions.

Western Oregon Guidance – Road segments assigned this maintenance level are **double lane**, paved roads that are open year-round. These roads intersect County, State and Federal roads and are functionally classified as a collector or arterial road.

**Exhibit T Joint Use Roads outside the FERC Boundary Subject to the
Land Use Authorization (LUA)**

Exhibit T Joint Use Roads Outside the FERC Boundary Subject to the Land Use Authorization (LUA)

Route	Road Name	Map #	Maintenance		Mile	
			Level	Owner		
	OLD UMPQUA HWY	25,26,28	0	USDA-FS	* JATR	5.27
	TL39_04/32	28	1	USDA-FS	JATR	0.10
	TL51_01/3	43,46	0	USDA-FS	JATR	0.09
031	TL46_02/28	26, 28	0	USDA-FS	JATR	0.15
2610000	LEMOLO LAKE	62,63	4	USDA-FS	JMH	1.71
2610000	LEMOLO LAKE	63-66	5	USDA-FS	JMH	4.95
2610680	LEM NO.1 GENERATOR	56,62	2	USDA-FS	JMH	2.78
2612000	N. SHORE LEMOLO LAKE	63-65	5	USDA-FS	JMH	2.29
2614000	S & E SHORE LEMOLO L	64,65	5	USDA-FS	JMH	2.73
2800000		38-40	0	USDA-FS	JATR	5.57
2800620		39	0	USDA-FS	JATR	0.76
2800620		40	0	USDA-FS	JATR	0.25
2800622		40	0	USDA-FS	JATR	0.07
2800700	TL39_03/46	38,39	0	USDA-FS	JATR	0.49
3400000	TOKETEE RIGDON RD	43,50-53	3	USDA-FS	JMH	2.79
3400000	TOKETEE RIGDON RD	43,50-53	5	USDA-FS	JMH	2.96
3400100	LEM.NO2. CANAL SPUR	53,54	3	USDA-FS	JMH	0.01
3400100	LEMOLO 2 CANAL	53,54	3	USDA-FS	JMH	0.55
3400101	HOT SPRINGS	53,57	2	USDA-FS	JATR	1.20
3400101	HOT SPRINGS	53,57	2	USDA-FS	JMH	0.02
3401000	THORN PRAIRIE	50,58-61	3	USDA-FS	JMH	8.62
3401000	THORN PRAIRIE	63	3	USDA-FS	JMH	0.49
3401700		59	0	USDA-FS	JATR	0.02
3401701	LEM NO.1 POWERLINE	58-61	2	USDA-FS	JATR	0.17
3401702		56,61	0	USDA-FS	JATR	0.38
3401704		61	0	USDA-FS	JATR	0.13
3401800	LEMOLO FALLS	61-63	2	USDA-FS	JMH	3.53
3402000	THORN MTN.	51	3	USDA-FS	JMH	1.15
3700000	FISH CREEK	44-46	5	USDA-FS	JMH	2.94
3700010	FISH CR FOREBAY	37,41,44	3	USDA-FS	JMH	2.12
3701000	BIG CAMAS	41,42,45	4	USDA-FS	JMH	2.68
3701220	UPPER FC CANAL ROAD	41,42	2	USDA-FS	JMH	1.45
3701300	BRINK ROAD	37	1	USDA-FS	JMH	0.63
3701300	BRINK ROAD	37,40,41	2	USDA-FS	JMH	1.46
3701381		40	0	USDA-FS	JATR	0.19
3701382	TL39_02/48	40	0	USDA-FS	JATR	0.01
3800010		26-29	0	USDA-FS	JATR	0.64
3800017		26-28	0	USDA-FS	JATR	1.05
3800026	TL46_01/28	26, 28	0	USDA-FS	JATR	0.33
3800031	TL46_02/28	26,28	0	USDA-FS	JATR	0.65
4700630	STUMP LAKE GAGE	49	2	USDA-FS	JMH	0.09
4710	BOUNDARY RD	23,24	4	USDA-FS	JATR	3.19
4710020		23	0	USDA-FS	JATR	0.09
4710021		23	0	USDA-FS	JATR	0.19
4710445		24	0	USDA-FS	JATR	0.10
4713000		29,30	0	USDA-FS	JATR	2.03
4760000	ILLAHEE RD	32,33	0	USDA-FS	JATR	1.67
4775000	MEDICINE CREEK ROAD	36	3	USDA-FS	JMH	0.06
4775011	SODA SPRINGS RD	34-36	3	USDA-FS	JMH	1.17
4776000	TOKETEE RANGER ST RD	43,46	5	USDA-FS	JMH	1.98
4776200	CLRWTR NO.2 FOREBAY	43,44,46	2	USDA-FS	JMH	1.28
4776300	CLEARWATER	46-48	2	USDA-FS	JMH	4.80

Exhibit T Joint Use Roads Outside the FERC Boundary Subject to the Land Use Authorization (LUA)

Route	Road Name	Map #	Maintenance Level	Owner	Maintenance Responsibility	Mile
4776350	CANAL T.S.	46,47	2	USDA-FS	JMH	0.59
4780000	CLEARWATER 1 CANAL	48,49	3	USDA-FS	JMH	1.25

* The JATR Maintenance Level is not provided because PacifiCorp does not have maintenance responsibility on this road type.

Exhibit U USDA-FS Commercial Road Rules and Snow Plowing Restrictions

Exhibit U USDA-FS Commercial Road Rules and Snow Plowing Restrictions

CONTENTS

	<u>Page</u>
Road Rules Directory.....	2
Commercial Road Rules - Objectives and Definitions.....	2
General Road Rules	3
Abbreviations and Codes	4
Exhibit A - Road Distress and Damage Definitions	5
Specific Road Rules:	
North Umpqua District.....	7
Diamond Lake District	8
Drop-off Points and Bridges	10
Road Operations Permit Instructions	11
Snow Plowing Restrictions and Permit.....	13

ROAD RULES DIRECTORY

		<u>Phone</u>
Forest Engineer	John Sloan	541-957-3208
Assistant Forest Engineers		
Transportation	Bob Deane	541-957-3419
Facilities	Sue Helmuth	541-957-3401
Forest Trans. Planner/Systems Manager	Rick Nelson	541-957-3417
District Engineers		
Diamond Lake	Steve Nelson	541-498-2531
North Umpqua	Pat Cook	541-496-3532

COMMERCIAL ROAD RULES – OBJECTIVES AND DEFINITIONS

Note: This document is the Umpqua National Forest’s Road Rules Update that replaces the December 1999 road rules. New road additions or increases in previous restrictions have been identified with three asterisks (***) immediately following the road number.

Objectives

Objectives of the Road Rules and Regulations for commercial use of roads on the Umpqua National Forest are:

1. Provide commercial users with a uniform and timely system concerning use requirements on roads in advance of applying for permits or bidding on contracts.
2. Provide Forest Officers with a system to display their road use requirements and to administer them uniformly with all commercial users.
3. Implement a responsive system for issuing permits or making other arrangements for authorizing road use to meet the special needs unique to any commercial user.

Definitions

1. Road Distress: See Exhibit A.
2. Road Damage: See Exhibit A.
3. Resource Damage: See Exhibit A.
4. Road Rule - A statement defining traffic conduct expected by commercial users (or their agents) on a Forest Service road. Rules consist of General Road Rules and Specific Road Rules.
5. General Road Rules - Rules applicable to all commercial users of Forest Service Roads. The rule applies to all roads unless modified by written waiver (permit, contract easement, etc.), or by a Specific Road Rule.
6. Specific Road Rule - Rules which modify the General Road Rules and will apply only to selected roads and bridges.

7. Waiver - A permit, contract, fire order, formal letter, etc., signed by an authorized Forest officer or representative, granting approval to modify a General or Specific Road Rule.
8. Commercial User - Any traffic generated by a timber purchaser or other commercial user of the National Forest, including but not limited to log haul, rock haul, commercial firewood hauling, guides, and outfitter traffic.

GENERAL ROAD RULES

1. The Provisions of the Oregon Revised Statutes, Chapters 483 and 487, relating to the operation of motor vehicles are applicable to all Forest Service roads on the Umpqua NF and are enforceable by State or County law officers.
2. Commercial use is not permitted on any Umpqua National Forest road unless the user has a permit or other written authorization. Refer to special order issued under Regulation 36 CFR 261.54(c).
3. The load weight, height, length, and width limitations of vehicles on roads shall be in accordance with Chapter 483 of the Oregon Revised Statutes. This rule is enforceable under either Federal Regulation (Reference Regulation 36 CFR 261.12(a)) or upon written notice to a commercial user to suspend use.
4. Waivers to rules may be allowed when such permission is in writing. Permission may be granted and documented using the proper format established in contracts or road use permits. Operations not administered by contracts or road use permits will use R6-7700-465 and apply for permission through the district ranger.
6. Five (5) to fifteen (15) days will be required to process applications for variance permits depending upon the haul route and the complexity of bridges or other sensitive structures involved.
5. Snow plowing without permit is prohibited. Snow plowing permits or written authorization will be granted unless otherwise shown on road rules (Reference Regulation 36 CFR 261.10(a)).
6. When nonskid materials are used on slippery surfaces, the residual material will be removed from the pavement surface in the spring by the commercial user placing the material. Salt will not be allowed.
7. Damaging and leaving in a damaged condition any road or segment thereof is prohibited. Damage is exclusive of ordinary maintenance described in the contract or permit. Reference Regulation 36 CFR 261.12(c), (see Exhibit A).
8. Commercial use of a National Forest road must be suspended when such use causes road damage or resource damage (see Exhibit A) or when such use will result in unsafe conditions to others. Such suspension shall be effective when the user is notified in writing or by road closures per Regulation 36 CFR 261.54(b). The commercial user is responsible for repairing road damage and restoration of the road to its original load carrying ability, lines, and grades when damage is caused by commercial users' operations.

9. All Forest roads are subject to short-term traffic restrictions and/or closures by the Forest Service due to seasonal or unusual weather conditions (such as freeze/thaw cycles, heavy precipitation, etc.), user safety, emergency traffic, or when necessary to permit reconstruction and maintenance.
10. A National Forest timber purchaser is only authorized to use those roads identified in the list attached to Timber Sale Provisions C5.42 and C5.43 and SPS 104.021, and is subject to limitations and specific rules imposed on these roads in Provision C5.12, these Road Rules, and any outstanding orders issued by the Forest Supervisor.
11. No road shall be blocked by any vehicle or other object in a manner that is an impediment or a hazard to safety or conflicts with other users unless otherwise provided in a permit or written authorization. Reference Regulation 36 CFR 261.12(d).
12. All signing requirements on roads open for public use on the Forest will meet MUTCD standards.
13. All commercial users will comply with Forest fire precautions.
14. Between May 1 and October 31, lowboy jeeps and pups may be dropped off at the locations identified in the separate list following each district's road rules. Highway legal loads must be maintained up to that point. Beyond that point the limit is 160,000 pounds except that exceeding bridge limits still requires an overload permit. The affected bridges are listed after the drop-off points.

General rule 14 is only applicable between May 1 and October 31. Outside of that time period, overload permits are required on Forest roads for any loads that exceed the legal highway loads.

ABBREVIATIONS AND CODES

Abbreviations

Abbreviations used on road restriction requirements list include:

- | | |
|----------|--|
| B | - Brushing required |
| Ba | - Additional base required |
| Co. Road | - County road |
| D | - Additional drainage work required |
| Jct | - Junction of the road being addressed with another. The second road's number will appear following Jct. |
| MP | - Milepost |
| Rcst | - Reconstruction required for alignment, width, etc. |

- S - Additional surfacing required
- S.H. - State Highway
- S.R. - Slide Repair
- T.O. - Additional turnouts required
- s.p.I - Snow plowing prohibited from November 15 to March 31 (winter recreation use)
- s.p.II - Hauling operations will be restricted from November 15 to March 31. Weekend haul is prohibited between these dates.

Codes

- A - Road closed except by permit
- R - Use restricted as shown under use limitations
- U - Unsuitable for use by vehicles rated over 10,000 pounds gross vehicle weight without required reconstruction. When appropriate, such road shall be included in A9 of a timber sale contract as an alternate facility under B5.26.
- X - Equipment or vehicle rated over 10,000 pounds gross vehicle weight prohibited. Alternate haul will not be approved.
- C - Other agency road subject to restriction.
- *** - Indicates a new addition from previous issue of the Road Rules.

EXHIBIT A - ROAD DISTRESS AND DAMAGE DEFINITIONS

Haul will be permitted when facility or environmental damage will not result.

- I. **FACILITY DISTRESS**: Indicates maintenance must be performed as specified in Special Provisions C5.42 or C5.43. If maintenance cannot be performed, use must be reduced or stopped until signs of distress are no longer present unless otherwise agreed in writing by Forest Service.

A. Facility distress indicators on gravel surfaces are:

1. Surface course deformities (potholes, soft spots, ruts, etc.) greater than 2" deep.
2. Drainage not functioning as designed (surface and/or structures).
3. Slurry affecting traction or strength of road or causing environmental damage as defined below.

B. Facility distress indicators on pavement are:

1. Any perceptible change in the pavement cross section or surface (cracking, shoving, etc.) caused by contract operations.
 2. Drainage structures not functioning as designed.
- II. FACILITY DAMAGE: Is a reduction in the ability of a road or structure to carry traffic that cannot be corrected by contract maintenance methods. This definition applies to all roads not listed in C5.124, Limited Strength Roads.
- III. Facility damage exists when:
- A. Load carrying ability of the road is reduced as a result of but not limited to:
 1. Subgrade pumping and/or contamination of surfacing by subgrade.
 2. Excessive soft spots, potholes, or ruts that result in subgrade deformation.
 3. Improper maintenance practices result in premature loss of aggregate.
 - B. Maintenance methods specified in the contract cannot repair the facility. Isolated soft spots or ruts that can be repaired with incidental loads of rock are not "damage."
 - C. Failure to maintain drainage causes loss of surfacing, saturation of subgrade layers, degradation of surface course, or erosion of fill slopes.
 - D. Use of asphalt road results in permanent deformation of pavement cross section or degradation of asphalt surface.
- III. ENVIRONMENTAL DAMAGE: Is the continuous bleeding of sediment, resulting from contract operations, into running streams that results in a readily visible increase in turbidity. Environmental damage exists when **all** of the following occur:
- A. Vehicular traffic causes pumping of fines creating sediment-laden water on or from the road surface.
 - B. Sediment laden water resulting from pumping of fines is reaching running streams.
 - C. A readily visible increase in turbidity in running streams occurs at points downstream from the outfalls of culverts, ditchlines, or fords.

SPECIFIC ROAD RULES

North Umpqua District Specific Road Rules

Road No.	Code	Termini	Requirement/Limitation
25 ***	R	MP 4.4	S.R. sp II
25 ***	U	MP 4.5	No overwidth loads allowed beyond this point. S.R. sp II
25 ***	U	MP 5.9	No overlength loads allowed beyond this point. S.R. spII
25 ***	R	MP 9.0	
2500050 ***	U	MP 1.0	Slump – passable for light vehicles only
2500050 ***	U	MP 2.8	S.R.
2700095 ***	U	MP 1.5	Slump – passable for light vehicles only
27 ***	R	MP 3.45	S.R.
27 ***	R	MP 6.8	S.R.
27 ***	R	MP 8.0	S.R.
27 ***	R	MP 8.8	S.R.
2701 ***	R	MP 3.95	S.R.
2703 ***	R	MP 9.5	S.R.
2703 ***	R	MP 13.3	S.R.
2719 ***	R	MP 4.3	S.R.
2719020 ***	R	MP 8.0	Road to be decommissioned
2792003	R	MP 0.5	Road to be decommissioned
38	R	Jct. Co. 249 to MP 16.7	All commercial traffic restricted to 30 MPH. All lowboy traffic requires a pilot car.
38 ***	R	MP 1.9	S.R.
3850 ***	U	MP 1.67	S.R.
4710 ***	R	MP 0.7	S. R. (closed by slide)
4710 ***	R	MP 2.73	S. R. (closed by slide)
4710480 ***	A	MP 1.5	S. R. (closed by slide)
4711300 ***	R	MP 1.3	S. R. (closed by slide)
4713100 ***	R	MP 0.5	S. R. (closed by slide)
4714 ***	R	MP 14.0	S. R.
4760 ***	R	MP 10.63, 10.78, 11.35	S.R.

Diamond Lake District Specific Road Rules

Road No.	Code	Termini	Requirement/Limitation
2610000	R	Jct. 2610-680 to 2154	Reconstrction. Numerous fill slope repairs.
2610-200	U	Jct. 2610 to 4780-800	Ba. S
2610-200	R	2610-270 to 3401-500	s. p. I (no snow plow on rec. trail)
2614	R	Jct. 2610 to 2612	Commercial vehicles over 20,000 lbs. prohibited.
2614	R	Jct. 2610 to 2612	s. p. I (no snow plow on rec. trail)
2614-430	R	6000-984 to 2614	s. p. I (no snow plow on rec. trail)
2610-570	R	2610 to end	s. p. I (no snow plow on rec. trail)
2610-630	U	2610 to 6000-700	S
2612	R	2614 to FDR 60	s. p. I (no snow plow on rec. trail)
2612	R	Jct. 2610 to 6000-700	Commercial vehicles over 20,000 lbs. Prohibited.
2800-620	R	MP 0.1, MP 1.0	Reconstruction
2801	R	MP 1.44	Reconstruction
2801-100	R	MP 2.94, MP 6.75, MP .85	Reconstruction
2801-150	R	MP 0.7	Reconstruction
2801-300	R	MP 3.2	Reconstruction
3400-072	R	Jct. 3400-100 to 2610-680	Pacific Power and FS admin. Vehicles only. No heavy vehicules unless associated with Pacific Power.
3400-100	U	MP 6.78 to Forest boundary	
3400-500	R	2610-200 to 3401	s. p. I (no snow plow on rec. trail)
3401	R	3401-500 to 2610	s. p. II
3401	R	MP 2.0	Reconstruction
3401-500	R	MP 0.70	Reconstruction
3401-500	R	MP 0.2	D
3401-800	R	3401-800 to 3401-861	s. p. II
3401-860	R	3401-800 to 2610	s. p. II
3401-890	R	Jct. 3401-800 to road end	s. p. II
3401-980	R	3401 to 3401-981	s. p. I (no snow plow on rec. trail)
3401-981	R	3401-980 to end	s. p. I (no snow plow on rec. trail)
37	R	MP 13.0 – 14.4	Reconstruction

Diamond Lake District Specific Road Rules (continued)

Road No.	Code	Termini	Requirement/Limitation
3700-550	R	3700 to end	s. p. I (no snow plow on rec. trail)
3700-800	R	MP 0.2	Reconstruction. Replace large CMP
3701	R	MP 2.5	Reconstruction
3701-080	R	MP 2.6	Reconstruction
3703	U	3703-350 to 3704	Ba, S
3703	R	Hwy 230 to 4786	s. p. I (no snow plow on rec. trail)
3703	R	4786 to 3703-200	s. p. II
3703-350	R	3703 to MP 1.0	s. p. I (no snow plow on rec. trail)
3704	U	Jct. 3704-600 to 3703	Ba, s. p. II
3704	R	3703 to 3704-700	s. p. II
4700-710	R	4792 to 4700-700	s. p. II
4775 ***	U	MP 0.18 to MP 4.01	Reconstruction
4775	U	MP 7.7 to 3402	Ba, S
4780-800	R	4780 to 2610-200	s. p. II
4785	U	Jct. 138 to 3701	s. p. II
4786	U	Jct. 3703 to MP 2.5	S, Ba, s. p. I
4786	R	MP 2.5 to 4785	s. p. I (no snow plow on rec. trail)
4786-600	R	4786 to end	s. p. I (no snow plow on rec. trail)
4786-700	R	4786 to end	s. p. I (no snow plow on rec. trail)
4790	U	Jct. 138 to 4785	Ba, S, s. p. I
4792	R	138 to end	s. p. I (no snow plow on rec. trail)
4793	R	138 to end	s. p. I (no snow plow on rec. trail)
4793-100	R	4793 to end	s. p. I (no snow plow on rec. trail)
4795	R	4795-026 to 230	s. p. I (no snow plow on rec. trail)
4795-300	R	4795 to 3703	s. p. I (no snow plow on rec. trail)
6000	R	138 to 2612	s. p. I (no snow plow on rec. trail)
6000	R	Jct. 2612 to Forest boundary	s. p. I (no snow plow on rec. trail)
6000-700	U	6000-892 to 6000-742	Ba, s
6000-700	R	6000 to 2612	s. p. I (no snow plow on rec. trail)
6000-770	U	Jct. 6000-700 to Forest boundary	S, s. p. I (no snow plow on rec. trail)
6000-986	R	6000-984 to 138	s. p. I (no snow plow on rec. trail)
6530-760	R	230 to Forest boundary	s. p. I (no snow plow on rec. trail)
6592	R	230 to 4795	s. p. I (no snow plow on rec. trail)
6592-100	R	6592 to 230	s. p. I (no snow plow on rec. trail)

DROP-OFF POINTS AND BRIDGES

Diamond Lake District Drop-off Points:

<u>Road No.</u>	<u>MP</u>	<u>Description</u>
28	7.24	Jct. Road 3701
2801-300	0.1	After bridge
34	6.75	After bridge
3401	0.73	After bridge
3402	0.74	After pavement
3700	7.09	After pavement
3701	3.78	Jct. Road 3701-220
3701-080	2.51	After bridge
3702	0.84	After pavement
4775	4.06	After pavement
6000	0.36	After pavement

North Umpqua District Drop-off Points:

<u>Road No.</u>	<u>MP</u>	<u>Description</u>
25	8.96	After bridge at Jct. Road 2500-425
2500-050	0.53	After Cavitt Creek
27	8.90	At Grease Rack pipe arch
2700-030	0.02	After crossing Little River
2700-165	7.59	Jct. Road 2700-111 and Road 27
2700-290	8.90	At Grease Rack pipe arch
2701	0.01	After crossing Little River
2703	0.00	Jct. Road 27 and Road 2703 on 27
2719	2.87	After crossing Black Creek
2719-003	0.57	Jct. Roads 2719, 2719-003, and 2719-020
2792	0.17	After crossing Little River
38	18.62	Jct. Road 38 and 3831
3803	0.00	Jct. Road 38 and 3803
3806	0.00	Jct. Road 38 and 3806
3809	0.00	Jct. Road 38 and 3809
3810	0.40	Middle of straight area
3811	0.00	Jct. Road 38 and 3811
3815	0.00	Jct. Road 38 and 3815
3816	0.05	After pavement
3817	0.00	Jct. Road 38 and 3817
3818	5.8	Jct. Road 3818-200
3812	0.00	Jct. Road 38 and 3821
3824	0.08	Jct. Road 3824-011
3825	0.00	Jct. Road 38 and 3825
3827	3.3	After bridge
3828	0.00	Jct. Road 38 and 3828
2829	0.00	Jct. Road 38 and 3829
4710	0.00	Jct. State Hwy 138 and 4710
4711	0.6	After bridge

North Umpqua District Drop-off Points (continued):

Overloads use Panther Creek route (State Hwy. 138 to 4714 to 4712)

4713	0.0	Jct. State Hwy 138 and Road 4713
4714	5.83	Jct. Road 4714 and 4714-330
4720	0.00	Jct. Road 4720 and 4714
4750	1.50	At rock pit
4770	0.00	Jct. State Hwy 138 and Road 4770

North Umpqua Bridges:

The following bridges are beyond the required drop-off point and require an overload permit:

25	8.36	Cavitt Creek Bridge
2703-150	1.5	Grotto Falls (Emile Creek) Bridge
3817	7.5	Washboard (Big Bend Creek) Bridge
4710	2.79	Fall Creek Bridge
4711	11.11	Emile Creek Bridge
4714	14.43	Little River Bridge
4720	1.59	Limpy Creek Bridge
4750	1.77	Third bridge (over Calf Creek)

ROAD OPERATIONS PERMIT INSTRUCTIONS

(R6-7700-465)

The R6-7700-465 permit will be used for all overweight vehicles, oversize vehicles, road maintenance or snow removal operations, and other operations such as blocking roadways, using closed roads, or where special conditions warrant special permit, unless such use is authorized in an existing contract, road use permit, or easement.

Permit Application

1. The permittee will apply at the District Office and will be given Form R6-7700-465 to complete along with a map of the area.
2. If applicant has a valid State or County permit, a copy of this permit should be included with the application. Although State or County permits are not a prerequisite, the information provided on such permits will be useful in completing the Road Operations Permit.
3. In all cases, the heading will be filled out completely. Depending on the nature of the request, Sections A, B, C, or D will also be completed. When application involves Section A or B, it will be necessary to include equipment identification by make, model, and serial number. It may be necessary to attach this information to the permit if such description is lengthy.
4. The application will then be returned to the District along with the map showing the routes involved.

When permit applications are received, several items must be considered, depending on type of permit being requested.

Type A - Overweight

1. Are there any structures and what are their load limits?
2. What is the configuration of the equipment? Does it conform to the standard load rating vehicle?
3. Time of Year - Are subgrades stable or soft? Will special requirements be needed to avoid damage to the roadway?
4. Will overall length of the vehicle effectively and safely be able to negotiate the road?
5. Will this vehicle movement be a hazard to other road users?
6. Does the applicant have a valid State or County permit?

Type B – Oversize

1. Will this size vehicle cause a safety hazard for other users?
2. Will the structure, road or bridge, accommodate this size vehicle without causing damage from such things as rear wheel runout or overhang?
3. Is there adequate vertical clearance from overhead wires or other overhead structures and facilities along the route?
4. Does the applicant have a valid State or County permit?

Type C - Road Maintenance or Snow Plowing

1. Will the proposed equipment cause damage to the roadway from its grousers or through surface material removal?
2. Will the road structure support traffic during this time of year?
3. Do we want to open the area to traffic considering possible game harassment, vandalism, or resource damage from the snow berm?

Type D - Other Uses

1. Blocking Roadways
 - a. Will this blockage affect administration of the Forest; e.g., storm patrol or fire patrols?
 - b. Will this present a safety hazard?
2. Using a Closed Road
 - a. Will this use cause environmental or investment damage due to time of year or proposed use?
 - b. Will this affect wildlife?

Permit Issuance Procedure

Depending on the type of permit requested, the information map, the Road Management Prescription Data, and Road Restriction information is reviewed.

1. If no restrictions are indicated, the permit may be issued by authorized District personnel.
2. If a bridge or major culvert crossing is involved or if there are other restrictions indicated, the "recommendation" portion of the permit will be signed by the person receiving the applications and the permit will be forwarded to the Forest Bridge Engineer where loading will be recalculated and determination made as to the maximum allowable load or recommendations as to the modification required to the equipment or structures to allow the equipment the movement requested. This review will take approximately 5 to 15 days.
3. In the event that the load cannot be accommodated, the permit cannot be issued as requested.
4. Whenever possible, permits will be issued for periods of use rather than on a trip basis. When this is done, it may be necessary to provide additional special provisions with the permit.

Permit Distribution

The approved permit will be distributed as follows:

Original Copy - Permittee

1 Copy - District files with additional copies provided the appropriate TSO, ER, or District Law Enforcement Officer when applicable.

1 Copy - Road Manager

SNOW PLOWING RESTRICTIONS AND PERMIT

Snow plowing without a permit is prohibited on USDA-FS-managed lands. Snow plowing permits or written authorization will be granted by the USDA-FS unless otherwise noted in the Road Rules (Reference Regulation 36 CFR 261.10(a)), including Specific Road Rules in the previous table. Roads labeled as "s. p. I – no snow plow on rec. trail" have restrictions including snow plowing prohibited from November 15 to March 31 (winter recreation use). Refer to the attached permit application for specific requirements and FSH Section 803.01 to 803.04.

Snow Removal (FSH Section 803) (2/02)

803.01 - Description

This Section provides for the removal of snow from roads to facilitate operations, and safe use, on roads listed in parent contract or Permit. Forest Service objectives are to insure safe use to all road users, and prevent damage of roads, streams, and other Forest values from erosion, plowing equipment, placement of snow and ice, and during thawing conditions. Damage is described in the National Forest Damage Policy.

803.02 - Maintenance Requirements

- a. Operation Plan: Submit a written snow removal plan to the Forest Service for approval prior to commencement of operations. The plan will show how snow removal will be accomplished to meet

the objectives defined herein. Items to be included in this plan are: types of equipment, timing and frequency of operations, and safety items. Safety will include, but is not limited to, signing needs and locations, and other traffic control as needed.

- b. If permittee elects to remove snow, meet the following requirements:
- (1) Erect signs as per approval of operation plan as referred to in Section 2a above, and will meet MUTCD specifications.
 - (2) Perform work in a manner to preserve and protect roads and appurtenances, and to prevent erosion damage to roads, streams, and other Forest values.
 - (3) Do not undercut banks, nor blade gravel or other surfacing material off the road.
 - (4) Keep roadbed drainage ditches and culverts functional during operations and upon completion of operations. Do not plow snow into ditches and culvert inlets, nor pack the existing snow down in those locations.
 - (5) Control snow removal to identify the usable traveled way having roadbed support. Reshape over-width plowing as necessary to define the usable width. Remove snow from the total width of the travel way, including all turnouts. Plow snow away from ditches and bring across the travel way. Cast snow over the edge of fill slopes and off the shoulders whenever practical to do so, but don't deposit snow in stream channels.
 - (6) Construct and maintain drain holes in the dike of snow or berm after each snow removal operations. Place drain holes to obtain surface drainage without discharging on erodible fills. The Permittee is responsible for periodic inspections and maintenance to ensure that the drain holes, ditches, and culvert facilities remain open and functioning properly. Changes in this responsibility may occur if other use occurs and is agreed to in writing by both parties.
 - (7) After operations effectively close roads to wheeled vehicles at times, and in the manner, specified in the operation plan.
 - (8) Remove snow for either public access or project use as established in the parent contract or permit, and meet the following requirements:
 - (a) Removal for Public Access - Remove snow from all of the traveled ways including turnouts for safe and efficient use for both Permittee operation and the public. Also remove intruding windfalls, debris or slough and slide material for the full width of the traveled way and dispose of out of drainage's at agreed upon locations.
 - (b) Removal for Permittee Use - Remove snow from all the traveled ways including turnouts, for safe and efficient use and to protect the road. Also remove intruding windfalls, debris or slough and slide material and dispose of only as necessary to provide passage for Permittee operations. Removed materials may be disposed on or outside the traveled way at agreed upon locations.
 - (9) Upon notice replace in kind, within 60 days after notification, any surfacing material, which has been bladed off the road. Forest Service will notify Permittee in writing as to the cubic meter equivalent of bladed off material.

803.03 - Equipment

Permittee may use any type of equipment to remove snow providing:

- a. Type or use of equipment is not restricted in Road Rules document.
- b. The equipment is of the size and type commonly used to remove snow and will not cause damage to the road.
- c. The use of dozers to remove snow requires written Forest Service approval. Equip dozers with shoes or runners to keep the dozer blade a minimum of 50 mm (2 inches) above the road surface unless agreed otherwise.

803.04 - Ice Control

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

EXHIBIT U USDA-FS SNOW REMOVAL PERMIT

803 (2/02)

PERMITTEE: _____ Permitted Roads: _____
Address _____

803.01 Description

This Section provides for the removal of snow from roads to facilitate operations, and safe use, on roads listed in parent contract or Permit. Forest Service objectives are to insure safe use to all road users, and prevent damage of roads, streams, and other Forest values from erosion, plowing equipment, placement of snow and ice, and during thawing conditions. Damage is described in the National Forest Damage Policy.

803.02 Maintenance Requirements

- a. Operation Plan: Submit a written snow removal plan to the Forest Service for approval prior to commencement of operations. The plan will show how snow removal will be accomplished to meet the objectives defined herein. Items to be included in this plan are: types of equipment, timing and frequency of operations, and safety items. Safety will include, but is not limited to, signing needs and locations, and other traffic control as needed.
- b. If permittee elects to remove snow, meet the following requirements:
 - (1) Erect signs as per approval of operation plan as referred to in Section 2a above, and will meet MUTCD specifications.
 - (2) Perform work in a manner to preserve and protect roads and appurtenances, and to prevent erosion damage to roads, streams, and other Forest values.
 - (3) Do not undercut banks, nor blade gravel or other surfacing material off the road.
 - (4) Keep roadbed drainage ditches and culverts functional during operations and upon completion of operations. Do not plow snow into ditches and culvert inlets, nor pack the existing snow down in those locations.

- (5) Control snow removal to identify the usable traveled way having roadbed support. Reshape over-width plowing as necessary to define the usable width. Remove snow from the total width of the travel-way, including all turnouts. Plow snow away from ditches and bring across the travel-way. Cast snow over the edge of fill slopes and off the shoulders whenever practical to do so, but don't deposit snow in stream channels.
- (6) Construct and maintain drain holes in the dike of snow or berm after each snow removal operations. Place drain holes to obtain surface drainage without discharging on erodible fills. The Permittee is responsible for periodic inspections and maintenance to ensure that the drain holes, ditches, and culvert facilities remain open and functioning properly. Changes in this responsibility may occur if other use occurs and is agreed to in writing by both parties.
- (7) After operations effectively close roads to wheeled vehicles at times, and in the manner, specified in the operation plan.
- (8) Remove snow for either public access or project use as established in the parent contract or permit, and meet the following requirements:
 - (a) Removal for Public Access Remove snow from all of the traveled way including turnouts for safe and efficient use for both Permittee operation and the public. Also remove intruding windfalls, debris or slough and slide material for the full width of the traveled way and dispose of out of drainage's at agreed upon locations.
 - (b) Removal for Permittee Use Remove snow from all the traveled way, including turnouts for safe and efficient use, and to protect the road. Also remove intruding windfalls, debris or slough and slide material and dispose of only as necessary to provide passage for Permittee operations. Removed materials may be disposed on or outside the traveled way at agreed upon locations.
- (9) Upon notice replace in kind, within 60 days after notification, any surfacing material which has been bladed off the road. Forest Service will notify Permittee in writing as to the cubic meter equivalent of bladed off material.

803.03 Equipment

Permittee may use any type of equipment to remove snow providing:

- A. Type or use of equipment is not restricted in Road Rules document.

- B. The equipment is of the size and type commonly used to remove snow and will not cause damage to the road.
- C. The use of dozers to remove snow requires written Forest Service approval. Equip dozers with shoes or runners to keep the dozer blade a minimum of 50 mm (2 inches) above the road surface unless agreed otherwise.

803.04
Ice Control

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

Permittee signature and date:

Forest Service Representative