## PART III: EXHIBITS

State Timber Sale Contract No. 341-13-39 Clear Creek Alley

## **EXHIBIT B**

Page 1 of 3 629-Form 341-203 Revised 06/97

## OREGON DEPARTMENT OF FORESTRY

## **TIMBER SALE OPERATIONS PLAN**

(See Page 2 for instructions)

Date !	Received by STATE:	(5) State Bra	nd Information (complete):	
(1)	Contract No.: 341-12-39			
(2)	Sale Name: Clear Creek Alley			_
(3)	Contract Expiration Date: October 31, 2015	Project Comple	etion Dates:	
(4)	Purchaser:			
(6)	Purchaser Representatives:			
	Projects:	Phone:	Cell/Other Phone:	Home:
	Projects:	Phone:	Cell/Other Phone:	Home:
	Projects:		Cell/Other	
	Projects:		Cell/Other	
	, <u> </u>		Cell/Other	
	Logging:	Phone:	Phone: Cell/Other	
	Logging:	Phone:	Phone: Cell/Other	Home:
	Logging:	Phone:	Phone: Cell/Other	Home:
	Logging:	Phone:		Home:
(7)	State Representatives:		a wa .	
	Projects:	Phone:		Home:
	Logging:	Phone:	Cell/Other Phone:	Home:
(8)	Name of Subcontractors & Starting Dates:			
` /	Projects: No(s)	Date:	Phone:	
	No(s)	Date:	Phone:	
	No(s)	Date:	Phone:	
	No(s)	Date:	Phone:	
	Logging: Felling Yarding:	Date:	Phone:Phone:	
(9)	Comments:			
(/)				

(10) Operations Map: Attach a copy of timber sale Exhibit A or other suitable map which plainly shows the items listed on the instruction sheet.

#### **EXHIBIT B**

#### INSTRUCTION SHEET FOR OPERATIONS PLAN

#### SUBMIT ONE COPY OF PLAN TO STATE

Operations shall be limited to the work shown in the plan until a revised plan or supplemental plan is submitted covering additional work. Compliance with this plan is not in lieu of compliance with any federal requirements related to the federal Endangered Species Act. If STATE has prepared a required Forest Practices Act (FPA) "Written Plan" for operations, PURCHASER shall comply with all provisions of the Written Plan.

#### **Explanation of Item No. (from Page 1)**

- (5) All sales require you to use a brand furnished by STATE. If the State brand has not been assigned when the plan is submitted, it will be furnished and assigned later. Complete drawing. If more than one brand is assigned to the sale, complete both drawings.
- (6) The contract requires you to have a designated representative available on the sale area or work location who is authorized to receive in your behalf any notice or instruction given by STATE and to take action in regard to performance under the contract. If logging and project work is widely separated, a representative is required for each.
- (7) The STATE representative will be designated when your plan is approved and is the person who will inspect and issue instructions regarding performance.
- (8) Show names of subcontractors to be used for any or all phases of the operations. If subcontractors are not known, or are changed later, give notification to the STATE representative prior to commencement of work by subcontractor.
  - Show projected dates for commencement of both projects and logging. If projected dates need to be changed at a later date, notification must be given to the STATE representative by supplemental plan or otherwise, prior to commencement of such operations.
- (10) The STATE representative will furnish extra copies of Exhibit A of the contract for your use in preparing the operations map. The map shall use the following legend and show:
  - 1. Landing locations, approximate setting boundaries, and probable sequence of logging the settings. Number the settings in sequence.
  - 2. Locations of spur roads planned for construction, other than those required by the timber sale contract. Provide spur road specifications.
  - 3. Location of proposed tractor yarding roads. Show if and how marked on the ground.
  - 4. Location of temporary stream crossings.
  - 5. List the sequence of performing project work.
  - 6. Location of rock sources attach pit development plans.

1	Cable Landing, with numbers for sequence.
A	Tractor Landing with alphabetical sequence.
	Approximate setting boundary.
	Spur truck roads.
~~	Tractor yarding roads.
X	Temporary stream crossings.

#### **EXHIBIT B**

#### **OPERATIONS PLAN**

#### **Completion Timeline**

Indicate on the appropriate timeline below, the dates by which you plan to complete the work as required under this contract. The purpose of this section is to develop a plan that will ensure you complete the work as required, and meet the interim completion date(s) and contract expiration date. This plan is incorporated and made a part of the contract. When, in the opinion of STATE, operations are not commencing in a manner that meets the intent of this plan, you may be placed in violation of contract and your operations suspended until an amended plan is submitted and approved by STATE.

## **Projects**



#### Harvest & Other Requirements



The Federal Endangered Species Act (ESA) prohibits a person from taking any federally listed threatened or endangered species. Taking under the federal ESA may include alteration of habitat. STATE's approval of this plan does not certify that PURCHASER's operation under the plan is lawful under the federal ESA. As provided in the timber sale contract, PURCHASERS must comply with all applicable state, federal, and local laws.

PURCHASER's compliance with this plan is not in lieu of compliance with any federal requirements related to the federal Endangered Species Act.

APPROVED: Date: STATE OF OREGON - DEPARTMENT OF FORESTRY	SUBMITTED BY: PURCHASER
Title	Title

Original: Salem cc: District File Purchaser

Operations Plan.doc/Jaz B (TS)

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## EXHIBIT C - SAWMILL GRADE (WESTSIDE SCALE)

## SCALING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION

(1)		REGISTRATION NUMBER ATION		ate ate ate			(9) (10)	SALE NAME: <u>Clear Creek Alley</u> COUNTY: <u>Clatsop, Columbia</u> STATE CONTRACT NUMBER: 341-13-39	_
(2)	TO:	(Third Party Scal	ing Organiz	ation)			(11)	STATE BRAND REGISTRATION NUMBER:	_
(3)	Address 8 E PURCHAS Mailing Ad	orest Grove (05) P State Forestry District) 601 Gales Creek Ro Forest Grove, OR 91 SER:	oad 7116				(12)	STATE BRAND INFORMATION (COMPLETE):	
(5)	MINIM	UM SCALING SPE	CIFICAT	IONS					
(	SPECIES Conifers ardwoods	MINIMUN	10 10	UME			(13)	PAINT REQUIRED: YES 🗵 COLOR: Orange	
							(14)	SPECIAL REQUESTS (Check applicable)	
(6) (7)	Use Region 6 ac	E SCALE: tual taper rule. Logs over 40'.		YES	N(	]	NO MEG ADD OTH	DEDUCTIONS ALLOWED FOR CHANICAL DAMAGE  D-BACK VOLUME - Deductions due to delay	
(8) (as sh	LOCATION	/ED SCALING ONS pproved Locations web-site)	Species	Yard	Truck	Weight	(15)	REMARKS	_ _ _
							-	or's Name (Optional inclusion by District):  SIGNATURES:	_
								Purchaser or Authorized Representative Date	_
								State Forester Representative Date	_
								State Forester Representative PRINT NAME	_

Notify the District within one hour when branding or painting is inadequate for quick identification, the receipts are missing, not correctly or completely filled out, and/or when logs presented for scaling are impossible to scale accurately.

#### **EXHIBIT C - SAWMILL GRADE**

INSTRUCTIONS FOR FORM 343-307a (rev. 11/11)

Check appropriate box. REVISION NUMBER requires comments. CANCELLATION requires logging and hauling to be complete, recall branding hammers, date and sign where indicated, write diagonally across page "CANCEL", and send to TPSO.

Designate Third Party Scaling Organization (TPSO).

Columbia River Log Scaling & Grading Bureau

P.O. Box 7002, Eugene, OR 97401

Phone: (541) 342-6007 Fax: (541) 342-2631

Email: services@crls.com

Southern Oregon Log Scaling & Grading Bureau

P.O. Box 580, Roseburg, OR 97470

Phone: (541) 673-5571 Fax: (541) 672-6381

Email: info@southernoregonlogscaling.com

Northwest Log Scalers, Inc . 5526 NE 122<sup>nd</sup> Ave, Portland, OR 97230

Phone: (503) 254-0600 Fax: (503) 408-0919

Email: info@nwlogscalers.com

Pacific Rim Log Scaling Bureau, Inc.

8288 28th Court North East, Lacey, WA 98516 Fax: (360) 528-8718

Phone: (360) 528-8710

Email: office@prlsb.com

Yamhill Log Scaling & Grading Bureau P.O. Box 709, Forest Grove, OR 97116

Phone: (503) 359-4474 Fax: (503) 359-4476

Email: yamhill@attglobal.net

Pacific Log Scaling & Grading Bureau, Inc. P.O. Box 23939, Portland, OR 97281

Phone: (503) 684-5599 Fax: (503) 639-4880

Email: PacLogScale@aol.com

- (3) State District office, address and phone.
- Enter Purchaser's business name, address, and phone number as it appears on the Contract. (4)
- Minimum Scaling Specifications.
- Westside Region 6 actual taper segment scale. Check Yes or No. Special Service Rules on file with TPSO. See: Segment Scaling and Grading of Long Logs -- All Species -- State Forestry Department Scaling Practices (Westside).
- Weight Scale Sample Check box if sale is to be a Weight Scale Sample. All specifics for handling, scaling and processing will be attached or explained in the Remarks section Item (15).
- Show scaling locations only applicable to TPSO. Location name should appear as it does on the ODF Approved Scaling Location web site: http://www.odf.state.or.us/DIVISIONS/management/asset management/ScalingLocation.asp Locations with scaling and processing directions specific to their location should be on a separate form. Species should be identified if not capable of receiving "all" species. Check appropriate box for either: yard, truck scale, or weight. Refer to the web site listed above for the locations approval status.
- (9) Enter sale name and county.
- (10) Enter sale Contract number.
- (11) Enter Oregon's State Brand Registry Number (REQUIRED).
- (12) Show brand assigned to timber sale. One brand only. If more than one brand is assigned to the sale: (1) make a separate form for each brand and (2) on each form, explain and show other brand(s) in the Remarks section Item (15).
- (13) Check yes for Paint Required and designate "Orange" for color. Non required removal volumes may sometimes require blue paint.
- (14) Special Requests. These are requests that will be applied to ODF timber sales. All boxes applicable to the timber sales designated in the Exhibit C form must be "marked". If "Other" is indicated, it must contain a description and any necessary comments.
- (15) Use this space to designate any weight conversion factors, per load volumes, weight scale sample instructions or any other explanations to clarify scaling, processing and/or mailing requirements. If additional scaling locations are approved, revise original or current form showing all (old and new) locations. Check REVISION box at top of form and explain under remarks. Route as indicated.
- (16) Require purchaser to sign and date completed form in addition to State Forester Representative, sign and print name on the form.

Salem Distribution Instructions: Original will be mailed to Salem after it is electronically scanned and placed in the Salem transfer drive \\WPODFFILL01\Transfer\ScalingInstructions or e-mailed directly to scaling@odf.state.or.us. Scaling instructions for each brand should be scanned separately, for each approved TPSO.

# EXHIBIT D FOREST ROAD SPECIFICATIONS

SUBGRADE WIDTH	SURFACED WIDTH	POINT TO POINT	STATION TO STATION	DRAINAGE
16 feet	12 feet	A to B	0+00 to 22+50	Ditch
16 feet	12 feet	B to C	0+00 to 16+00	Ditch
-	Match Existing	D to E	0+00 to 63+40	Match Existing
12 feet	-	E to F	0+00 to 10+30	Ditch

<u>CLEARING</u>. This work shall consist of clearing, removing, and disposing of all trees, Snags, Down Timber, brush, surface objects, and protruding obstructions within the clearing limits.

Where clearing limits have not been marked, the clearing limits shall extend 10 feet back of the top of the cutslope and 5 feet out from the toe of the fill slope, or as directed by STATE. Clearing debris shall not be placed or permitted to remain in or under any road embankment sections. Clearing debris shall not be left lodged against standing trees.

All danger trees, leaners, and Snags outside the clearing limits which could fall and hit the road shall be felled.

GRUBBING. This work shall consist of the removal or digging out of stumps and protruding objects.

All stumps shall be completely removed within the limits of required grubbing. Stumps overhanging cutslopes shall be removed. Grubbing debris shall not be placed or permitted to remain in or under any road embankment sections. Grubbing debris shall not be left lodged against standing trees.

#### GRUBBING CLASSIFICATION.

New construction - from the top of the cutslope to the toe of the fill.

Improvements and reconstructions - 4 feet back from the shoulder of the subgrade or ditch, whichever is widest, or as marked in the field.

<u>CLEARING AND GRUBBING DISPOSAL</u>. Scatter in stable locations through openings in the timber outside of the cleared right-of-way, except areas where end-haul is required. In areas where end-haul is required, clearing and grubbing debris shall be fully contained and hauled to a designated waste area. Clearing and grubbing debris shall be left in a stable location, and not left lodged against standing trees.

#### FOREST ROAD SPECIFICATIONS

EXCAVATION. Excavation and grading shall not be done when weather and/or ground conditions are such that damage will result to existing subgrade or cause excessive erosion.

Excavation shall conform to STATE-specified lines, grades, dimensions, and plans when provided.

Unless road plans show otherwise, all roads shall be on a balanced cross section, except when the slope is over 50 percent, the road shall be on full bench for the width specified.

Suitable excavated material shall be used for the formation of fills, shoulders, and drainage structure backfills. Embankment materials shall be free of woody debris, brush, muck, sod, frozen material, and other deleterious materials.

Sidecast includes any road generated excess excavation material which is not essential as part of the road prism, is not compacted, and is below the roadway. Sidecast shall not be placed where it will enter a stream course. Leaving sidecast below the road is only permissible if specifically allowed in "Full Bench and End Haul Requirements" in this Exhibit.

All fills shall be machine compacted according to the "Compaction and Processing Requirements" in this Exhibit.

ROAD WIDTH LIMITATIONS. PURCHASER shall obtain advance written approval from STATE to construct the road to a greater width than specified. Extra subgrade width shall be required for:

Fill Widening. Add to each fill shoulder 1 foot for fills 3 feet to 6 feet high; 2 feet for fills over 6 feet high.

<u>Curve Widening</u>. Widen the inside shoulder of all curves as specified in the plans or as follows: 400 divided by the radius of the curve equals the amount of extra width.

#### **DRAINAGE**

Subgrade. Subgrade shall be crowned at 4 to 6 percent as shown on the "Forest Road Specifications" table in this Exhibit.

<u>Ditch</u>. Construct "V" shaped ditch 3 feet wide and to a depth of 1 foot below subgrade.

Ditchouts. Construct ditchouts to drain away from subgrade at locations marked in the field or as directed by STATE.

<u>TURNOUTS</u>. Increase roadbed width an additional 8 feet for both subgrade and surfacing. Length shall be at least 25 feet, or as staked on the ground, plus 25-foot approaches at each end.

Location: Intervisible but not greater than 750 feet apart.

<u>SLOPES</u>	Back Slopes	<u>Fill Slopes</u>
Solid Rock	Vertical to 1/4:1	
Fractured Rock	1/4:1	
Soil - side slopes 50% and over	1⁄2:1	1½:1
Soil - side slopes less than 50%	<sup>3</sup> ⁄ <sub>4</sub> :1	1½:1

Top of cutslope shall be rounded.

<u>LANDINGS</u>. Landings shall be constructed as posted in the field, no less than 50 feet wide and no more than 70 feet wide unless otherwise approved by STATE. Surface is to be crowned for drainage with general grade no more than 3 percent. Surface as shown in the "Road Surfacing" table in this Exhibit.

TURNAROUNDS. Increase subgrade width an additional 20 feet for a length of 20 feet at locations marked in the field.

<u>SEASONAL WINTERIZATION</u>. All unsurfaced roads or unfinished subgrades shall be waterbarred in accordance with the specifications in Exhibit E, and blocked from vehicular traffic prior to October 31, annually and as directed by STATE.

#### FOREST ROAD SPECIFICATIONS

#### GENERAL ROAD CONSTRUCTION INSTRUCTIONS:

- 1. <u>Excavated Materials</u>. Excavated materials shall be utilized for road construction and hauled in where necessary. Surplus excavation materials shall be hauled to the waste areas as marked in the field and/or designated on Exhibit A. Surplus excavated materials and waste materials shall be sloped and compacted for drainage. Fills shall be thoroughly compacted in accordance with this Exhibit.
- 2. <u>Subgrade Preparation and Application of Surfacing Rock.</u>
  - (a) Complete drainage ditches, ditchouts, fill construction, and other specified work prior to the application of surfacing rock.
  - (b) Subgrade shall be crowned at 4 to 6 percent.
  - (c) Upon completion of above required work, apply, process, and compact surfacing rock in accordance with specifications in the "Compaction and Processing Requirements" in this Exhibit. Final road surface shall be crowned at 4 to 6 percent.
- 3. Grass seed and fertilizer. Apply grass seed and fertilizer in accordance with Exhibit F.

#### SPECIFIC ROAD CONSTRUCTION INSTRUCTIONS

<u>Segment</u>	<u>Station</u>	Work Description:
B to C	0+00 3+50 4+00 16+00	Point B. Begin road construction; crown road, begin ditch. Begin drifting material to 4+00 to reduce grade. End drift, begin balanced construction. Point C. End road construction, construct landing.

#### FOREST ROAD SPECIFICATIONS

#### GENERAL ROAD IMPROVEMENT INSTRUCTIONS:

- 1. <u>Excavated Materials</u>. Excavated materials shall be utilized for road and fill construction and hauled in where necessary. Surplus excavation materials shall be hauled to the waste areas as marked in the field and/or designated on Exhibit A. Waste materials shall be sloped and compacted for drainage. Fills shall be thoroughly compacted in accordance with Exhibit D.
- 2. <u>Bank Slough Removal</u>. Dig out all bank slough with an excavator, graders shall not be used unless preapproved by STATE. Bank slough material shall not be pulled across existing surfacing rock, but shall be placed in nearby waste areas and uniformly sloped and compacted for drainage, as directed by STATE. Waste materials shall be seeded and mulched in accordance with specifications in Exhibit F.
- 3. <u>Drainage Ditches</u>. Restore or construct ditchlines, including ditchouts with an excavator, graders shall not be used unless preapproved by STATE. Clean out all culvert inlets and outlets for a 10-foot radius. Re-establish or construct culvert sediment basins. Waste materials from drainage ditches and sediment basins shall not be pulled across existing surfacing rock, but shall be placed in nearby waste areas and uniformly sloped and compacted for drainage, as directed by STATE. Damaged culvert inlets and/or outlets shall be repaired by opening them with a hydraulic jack, or cutting off the culvert end to allow for free passage of water at peak flow levels. Install a culvert marker at each newly installed culvert and at each existing culvert that is missing a marker that could be reached by a grader blade.
- 4. <u>Subgrade Preparation and Application of Surfacing Rock.</u>
  - (a) Complete drainage ditches, fill reconstruction, ditchouts, and other specified work prior to the application of new surfacing rock.
  - (b) Cut out all potholes and/or washboard sections from the existing surfacing.
  - (c) Apply required patching and leveling rock, as directed by STATE.
  - (d) Process, grade and mix the existing surface and added base rock. Provide for a crown of 4 to 6 percent, and compact in accordance to the "Compaction and Processing Requirements" in this Exhibit.
  - (e) Upon completion of above required work, apply, process, and compact surfacing rock in accordance to this Exhibit.

#### SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

<u>Segment</u>	<u>Station</u>	Work Description:
A to B	0+00 2+45 22+50	Point A. Begin road improvement; crown road, clean ditch. Existing culvert. Point B. End road improvement.
D to E	0+00	Point D. Begin road improvement; grade and shape road maintaining existing drainage, pull ditch and brush as needed. Construct two roadside landings where needed. Apply spot rock as directed by STATE.
	63+40	Point E. End road improvement.
E to F	0+00	Point E. Begin road improvement; crown road, begin ditch. Construct ditch on both sides of road in thrucuts.
	10+30	Point F. End road improvement, improve landing. Construct ditchout across old road bed.

# EXHIBIT D FOREST ROAD SPECIFICATIONS

## **GENERAL ROAD VACATING INSTRUCTIONS:**

- 1. <u>Road Blocking</u>. Roads shall be blocked to all vehicles by constructing tank traps and using local materials such as stumps, logs, and boulders. Construct tank traps according to the specifications in Exhibit E.
- 2. <u>Waterbars</u>. Construct waterbars according to the specifications in Exhibit E and as directed by STATE.
- 3. <u>Dry Conditions</u>. All work shall be performed during dry conditions acceptable to STATE.
- 4. Grass seed, fertilizer and mulch. Apply grass seed, fertilizer and mulch in accordance with Exhibit F.

#### SPECIFIC ROAD VACATING INSTRUCTIONS

<u>Segment</u>	<u>Station</u>	Work Description
F to G	0+00	Point F. Construct tank trap and block vehicle access. Begin road vacating, rip road surface and construct waterbars as directed by STATE.
	1+30	Point G. Construct tank trap and block vehicle access.

## **ROAD SURFACING**

<b>ROAD SEGME</b>	NT: A to B			POINT TO P	OINT	Sta. to Sta.		TOTAL
Rock Size			Depth of	A to B		0+00 to 22+50		TOTAL VOLUME
Application	and Type	Location	Rock	Volume (CY)		Number		(CY)
	and Type		(inches)	Per		of		(01)
Base Rock	4"-0 Crushed Rock	A to B	8	Station	42	Stations	22.5	945
Turnouts	4"-0 Crushed Rock		8	Turnout	14	Turnouts	3	42
Junctions	4"-0 Crushed Rock	Point A	8	Junction	20	Junctions	1	20
Total Rock for F	Road Segment:			A to	В			1,007
<b>ROAD SEGME</b>	NT: B to C			POINT TO P	OINT	Sta. to	Sta.	TOTAL
	Rock Size		Depth of	B to C		0+00 to 1	6+00	TOTAL
Application	and Type	Location	Rock	Volume (CY)		Number		VOLUME (CY)
	and Type		(inches)	Per		Of		(01)
Base Rock	4"-0 Crushed Rock	B to C	8	Station	42	Stations	16	672
Turnouts	4"-0 Crushed Rock		8	Turnout	14	Turnouts	2	28
Turnarounds	4"-0 Crushed Rock		8	TA	14	TAs	1	14
Roadside	4"-0 Crushed Rock		8	Roadside	50	Roadside	2	100
Landing	4 -0 Crushed Rock		0	Landing	30	Landings		100
Landings	4"-0 Crushed Rock	Point C	8	Landing	120	Landings	1	120
Total Rock for F	Road Segment:		B to C					934
ROAD SEGME	NT: D to E			POINT TO POINT		Sta. to Sta.		TOTAL
	Rock Size		Depth of			0+00 to 63+40		VOLUME
Application	and Type	Location	Rock	Volume (CY)		Number		(CY)
	and Type		(inches)	Per		of		(01)
Spot Rock	4"-0 Crushed Rock	D to E	Varies					150
Roadside	4"-0 Crushed Rock		8	Roadside	50	Roadside	2	100
Landing			O	Landing	50	Landings		100
Total Rock for F	Road Segment:			D to	Е			250

ROCK TOTALS (CY)	4"-0"
	2,191

Roads shall be uniformly graded, shaped and approved by STATE prior to rocking.

#### **ROCK ACCOUNTABILITY**

PURCHASER shall obtain subgrade approval from STATE prior to rocking. Rocking shall be limited to periods when weather conditions are acceptable to STATE and when sediment will not enter streams. Additional surfacing needed because of construction season or construction practice is not included in the preceding ROAD SURFACING table, and shall be furnished at PURCHASER expense.

Rock accountability shall be determined by the following methods, as directed by STATE. STATE shall be given 24 hours' notice prior to rocking.

<u>Depth Measurement</u>. Rock shall be spread and compacted according to the depths specified in Exhibit D. Truck measure volumes are given, but shall not limit the amount of rock spread.

Depth shall be determined in the most compacted area of the surface cross section. The depth of compacted aggregates shall not vary more than 1 inch from the depth specified in the "Road Surfacing" table in Exhibit D. The average depth for each road segment shall be the specified depth or greater. If additional rock is required because of insufficient depth, the locations and volumes to be added shall be determined by STATE.

#### COMPACTION AND PROCESSING REQUIREMENTS

<u>Moisture Content</u>: Compaction must take place when moisture content of the materials being compacted is favorable for effective compaction as determined by STATE.

Compaction Pass: A pass is defined as traveling a road section forward and then backward over that same section.

<u>Subgrade</u>. Subgrade surfaces of the road segments listed below shall be graded and compacted prior to rocking. Compaction shall be accomplished by traveling all surfaces from shoulder to shoulder until the surface is smooth and hard and visible deformation ceases. At least 3 passes shall be made over the entire width and length of the road. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

Subgrade shall be crowned at 4 to 6 percent as specified in the "Forest Roads Specifications" table in Exhibit D.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments.	1

<u>Fills</u>. Embankments and fills shall be placed in (approximately) horizontal layers not more than 8 inches in depth. Each layer shall be separately, and thoroughly, compacted. Compaction equipment shall be operated over the entire width of each layer until visible deformation of the layers ceases. At least 3 passes shall be made over the entire width and length of each layer.

Placing individual rocks or boulders with more depth than the allowed layer thickness shall be permitted, provided the embankment will accommodate them. Such rocks and boulders shall be at least 6 inches below the subgrade. They shall be carefully distributed and the voids filled with finer material, forming a dense and compacted mass. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments.	1

<u>Crushed Rock</u>. The rock shall be uniformly mixed and spread in layers on the approved roadbed. Each layer of crushed rock shall be moistened or dried to uniform moisture content suitable for maximum compaction and compacted in layers not to exceed 6 inches in depth. When more than 1 layer is required, each shall be shaped and compacted before the succeeding layer is placed. Any irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and adding or removing material until the surface is smooth and uniform. Each layer shall be compacted with a minimum of 3 passes over the entire width and length of the road until the surface is smooth and hard and visible deformation ceases. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

Rock shall be compacted and processed during the same project period it is spread, unless otherwise approved in writing by STATE.

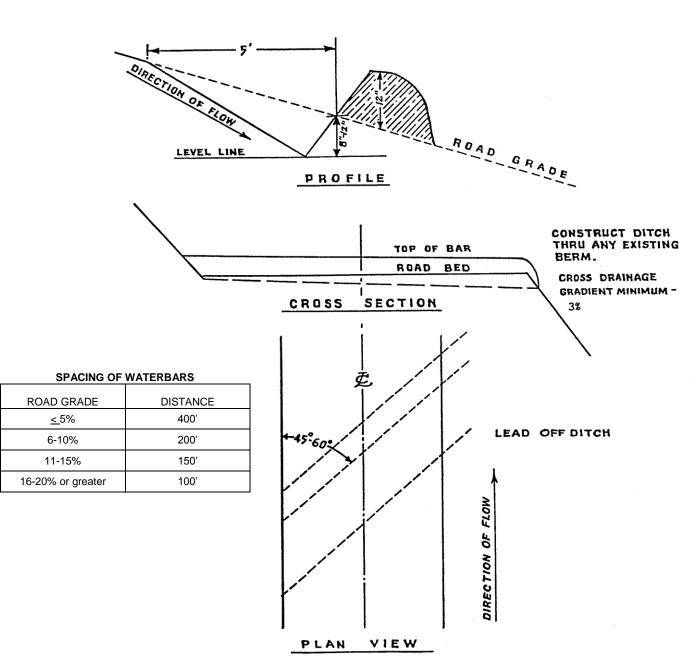
Rock shall be crowned at 4 to 6 percent as specified in the "Forest Roads Specifications" table in Exhibit D.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments requiring crushed rock.	1

#### COMPACTION EQUIPMENT OPTIONS

(1) <u>Vibratory Rollers</u>. The drum shall have a smooth surface, a diameter not less than 48 inches, a width not less than 58 inches, and a turning radius of 15 feet or less. (Vibration frequency shall be regulated in steps to 1400, 1500, and 1600 VPM, corresponding to engine speeds of 1575, 1690, and 1800 RPM. The centrifugal force developed shall be 7 tons at 1600 VPM. It shall be activated by a power unit of not less than 25 horsepower.) The vibratory roller shall be self-propelled and operated at speeds ranging from 0.9 mile to 1.8 miles per hour, as directed by STATE.

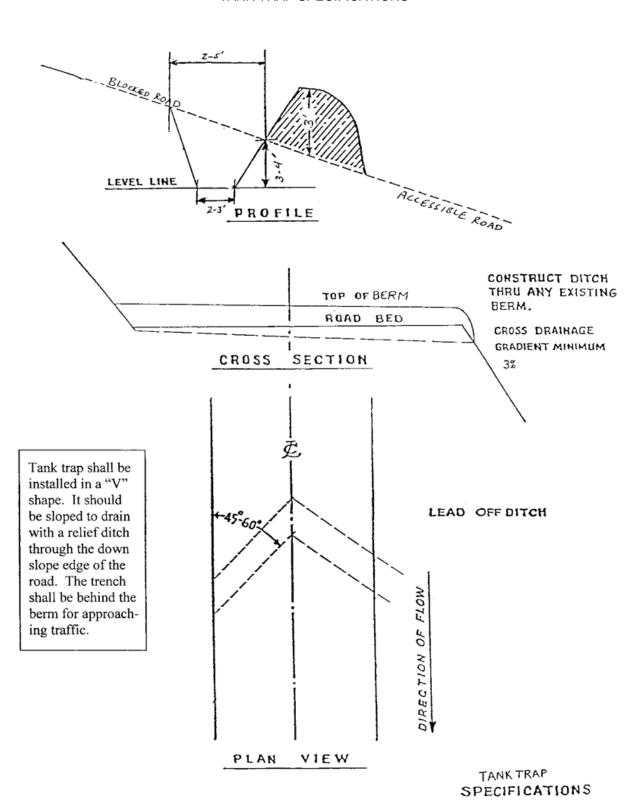
EXHIBIT E
WATERBAR SPECIFICATIONS



WATERBAR SPECIFICATIONS FOR CROSS DITCHING #298

EXHIBIT E

TANK TRAP SPECIFICATIONS



#### **EXHIBIT F**

#### SEEDING AND MULCHING

This work shall consist of preparing seedbeds and furnishing and placing required seed, fertilizer, and straw mulch. Straw mulch shall consist of straw that is free of noxious weeds. Apply seed, fertilizer, and straw mulch to all waste areas, and bare soils resulting from Project No. 1.

<u>Seeding Seasons</u>. Seeding shall be performed only from <u>March 1</u> through <u>June 15</u> and <u>August 15</u> through <u>October 31</u>. Seeding materials shall not be applied during windy weather or when the ground is excessively wet or frozen. Areas of disturbed soil shall be seeded by the end of the project period in which work was started.

#### APPLICATION METHODS FOR SEED AND FERTILIZER

<u>Dry Method</u>. Mechanical seeders, seed drills, landscape seeders, cultipacker seeders, fertilizer spreaders, or other approved mechanical seeding equipment shall be used to apply the seed and fertilizer in the amounts and mixtures specified. Hand-operated seeding devices may be used when seed and fertilizer are applied in dry form.

#### APPLICATION RATES FOR SEED AND FERTILIZER

The seed mixture listed below shall be applied at 100 lbs. per acre. The seed mixture shall be comprised of the following:

SPECIES	MIXTURE	PURE LIVE SEED	GERMINATION
Annual Rye	33%	95%	>90%
Orchard Grass	33%	95%	>90%
Perennial Rye	34%	95%	>90%

<u>Fertilizer</u>: Chemical analysis shall be 16-20-0 and shall be applied at the rate of 200 pounds per acre. Fertilizer shall not be applied within 100 feet of streams.

Mulching Period. Straw mulch shall be applied within 24 hours of spreading grass seed and fertilizer.

#### APPLICATION RATES FOR MULCH

Place straw mulch to a reasonably uniform thickness of  $1\frac{1}{2}$  to  $2\frac{1}{2}$  inches. This rate requires between 2 and 3 tons of dry mulch per acre.

#### **Application Locations:**

Road Segment	Location
F to G	0+00 to 1+30

#### **EXHIBIT G**

#### SPECIFICATIONS FOR BRUSH AND SLASH TREATMENT

Operation Area: The Timber Sale Area shown on Exhibit A

Equipment Type, Equipment Operation, and Conduct of Work

Equipment- shall be a track-mounted machine with a ground-pressure rating of not more than <u>6.8</u> PSI and a net horsepower of <u>85</u> or more. The machine shall be capable of a minimum horizontal reach of <u>26</u> feet and a minimum vertical reach of 16 feet.

The bucket shall be of a hydraulically controlled "clamshell" style equipped with rake teeth and capable of 360-degree continuous rotation. The tooth length on the rake teeth shall be at least 14 inches unless otherwise approved in writing by STATE.

Operator - must be experienced in operating similar equipment on land clearing operations, be able to operate the equipment proficiently, and pile the debris on the area as directed by STATE.

Support - including transport, other equipment, replacements, supplies, maintenance, and repairs shall be furnished as required to complete work; and shall be furnished without cost to STATE, other than as agreed under the contract terms.

#### Work Scheduling

Work shall not begin until PURCHASER has arranged to have the equipment operators meet with STATE to review the requirements specified in Section 2365, "Progressive Operations", Section 2560, "Slash Disposal", and this Exhibit. Once begun, operations shall be continuous until contract work is completed, unless interrupted by poor weather, fire closures, or other uncontrollable circumstances. Equipment breakdowns shall be repaired without undue delay, and provision shall be made for replacement of equipment to prevent prolonged delays. Brush and slash treatment operation shall be accomplished only during dry weather conditions and shall not be allowed when operations might damage sites or affect stream flows. Any exception to these instructions must be authorized in writing by STATE.

#### Description of Work to be Done

Move brush and/or woody slash to create openings as planting spots in the slash and brush. Planting spots shall be a minimum of 1 foot by 1 foot in size and shall be on a 10 foot spacing. Care shall be taken to avoid creating a depression in the soil of the planting spot. Spacing may be varied to accommodate stumps, large woody material, rocky areas, etc., but 435 planting spots per acre are still required.

Piling should be avoided but may be done only as needed to create the required planting spots. If piling is necessary, piles should not exceed 10 feet in width or length. Each pile whose length <u>and</u> width dimensions exceed 10 feet shall be covered with 100 square feet of polyethylene plastic sheeting. The plastic sheeting shall be no more than 4 mil gauge. Additional woody debris shall be piled on top of the plastic sheeting to complete the piling, as directed by STATE. PURCHASER shall supply the materials used for covering the piles. Work specifications may be modified or waived only upon written notice from STATE.

## PART IV: OTHER INFORMATION

State Timber Sale Contract No. 341-13-39 Clear Creek Alley

## NOTICE OF TRANSFER OF STATE TIMBER

Instructions 629:-Form-301-010 Complete Section 1. Mark the box which applies to you/your company in Section 2. Complete Section 3 and obtain signatures. **SECTION 1** On \_\_\_\_\_\_, state timber sale purchaser (Transferor) \_\_\_\_\_, sold, exchanged or otherwise transferred to \_\_\_\_\_, (Transferee) state timber originating from State Timber Sale Contract No. Transferee hereby certifies that they: (a) Will not export the unprocessed state timber which is the subject of this transaction; (b) Will not sell, transfer, exchange or otherwise convey the unprocessed timber which is the subject of this transaction to any other person without first obtaining a like certification from that person; and Are not prohibited by OAR's 629-31-005 through 045 from purchasing state timber or logs directly from (c) the State Forester, or this is a sale of Western Red Cedar for domestic processing. **SECTION 2** Have not exported unprocessed timber originating from private lands in Oregon in the last 24 months. This is a sale of hardwood logs for domestic processing. This is a sale of Western Red Cedar for domestic processing. This is a sale of pulp logs or cull logs processed at domestic pulp mills, domestic chip plants or other domestic operations for the purpose of conversion of the logs into chips. **SECTION 3** The parties understand that falsely entering into this certification, or failure to comply with the terms of this certification is a violation of the Forest Conservation and Shortage Relief Act of 1990 and OAR Chapter 629. Division 31, and is subject to any and all penalties contained therein. Transferor: Transferee: Signed Signed Title Title Dated Dated [Note: For the purpose of this form, the definition of unprocessed timber is the same as in OAR 629-31-005] Mail To: State Forester

Notice of Transfer of State Timber Form 301-010.doc/Jaz B (SF)

2600 State Street Salem, OR 97310