

PART III: EXHIBITS

State Timber Sale Contract
No. 341-16-12
Salander Ridge

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 Brand Information (complete):

(1) Contract No.: 341-16-12

(2) Sale Name: Salander Ridge

(3) Contract Expiration Date: February 28, 2017 Project Completion Dates: _____

(4) Purchaser: _____

(6) Purchaser Representatives:

Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Projects: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Logging: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Logging: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Logging: _____	Phone: _____	Cell/Other Phone: _____	Home: _____
Logging: _____	Phone: _____	Cell/Other Phone: _____	Home: _____

(7) State Representatives:

Projects: _____	Phone: _____	Cell/Other 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 _____	Date: _____	Phone: _____
Yarding: _____	Date: _____	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.



Cable Landing, with numbers for sequence.



Tractor Landing with alphabetical sequence.



Approximate setting boundary.



Spur truck roads.



Tractor yarding roads.



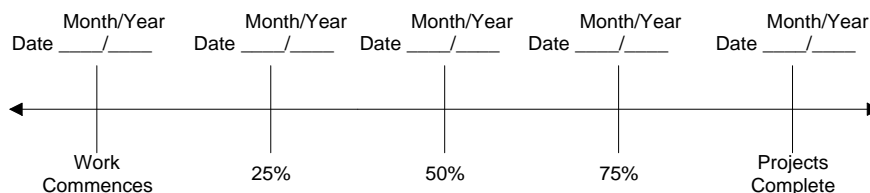
Temporary stream crossings.

EXHIBIT B
OPERATIONS PLAN

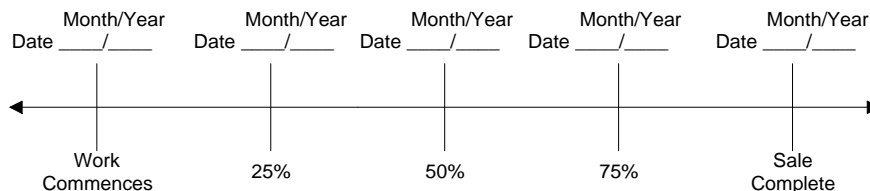
Completion Timeline

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: _____

SUBMITTED BY:
PURCHASER

STATE OF OREGON - DEPARTMENT OF FORESTRY

Title _____

Title _____

Original: Salem
cc: District File
Purchaser

EXHIBIT C – SAWMILL GRADE (WESTSIDE SCALE)

SCALING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION

(1) ORIGINAL REGISTRATION ☐ Date _____
REVISION NUMBER _____ ☐ Date _____
CANCELLATION ☐ Date _____

(2) TO: _____
(Third Party Scaling Organization)

(3) FROM: Coos (07) Phone 541-267-4136
(State Forestry District)
Address 63612 Fifth Road, Coos Bay, OR 97420

(4) PURCHASER: _____
Mailing Address: _____
Phone Number: _____

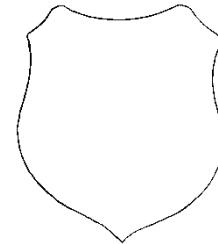
(9) SALE NAME: Salander Ridge

COUNTY: Douglas

(10) STATE CONTRACT NUMBER: 341-16-12

(11) STATE BRAND REGISTRATION NUMBER: _____

(12) STATE BRAND INFORMATION (COMPLETE):



(5) MINIMUM SCALING SPECIFICATIONS	
SPECIES	MINIMUM NET VOLUME
Conifers	10
Hardwoods	10

* Apply minimum volume test to whole logs over 40' Westside

(6) WESTSIDE SCALE: YES ☒ NO ☐
Use Region 6 actual taper rule. Logs over 40'.

(7) Weight Scale Sample ☐ ☒

(13) PAINT REQUIRED: YES ☒
COLOR: Orange

(14) SPECIAL REQUESTS	(Check applicable)
PEELABLE CULL (all species)	<input type="checkbox"/>
NO DEDUCTIONS ALLOWED FOR MECHANICAL DAMAGE	<input checked="" type="checkbox"/>
ADD-BACK VOLUME - Deductions due to delay	<input checked="" type="checkbox"/>
OTHER:	

(8) APPROVED SCALING LOCATIONS (as shown on the ODF Approved Locations web-site)	Species	Yard	Truck	Weight

(15) REMARKS _____

Operator's Name (Optional inclusion by District): _____

(16) 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.

Distribution (See specific instructions on pg. 2): ORIGINAL: Salem / COPIES: TPSO, Approved Scaling Location, Purchaser, District, Mgmt. Unit

EXHIBIT C – SAWMILL GRADE
INSTRUCTIONS FOR FORM 343-307a (rev. 11/11)

- (1) 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.
- (2) 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

Pacific Rim Log Scaling Bureau, Inc.
8288 28th Court North East, Lacey, WA 98516
Phone: (360) 528-8710 Fax: (360) 528-8718
Email: office@prlsb.com

Mountain Western Log Scaling & Grading Bureau
P.O. Box 580, Roseburg, OR 97470
Phone: (541) 673-5571 Fax: (541) 672-6381
Email: info@mwlsqb.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

Northwest Log Scalpers, Inc.
5526 NE 122nd Ave, Portland, OR 97230
Phone: (503) 254-0600 Fax: (503) 408-0919
Email: info@nwlogscalpers.com

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.
- (4) Enter Purchaser's business name, address, and phone number as it appears on the Contract.
- (5) Minimum Scaling Specifications.
- (6) 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).
- (7) 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).
- (8) 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 <\\WPODFILL01\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.

Distribution (See specific instructions on pg. 2): ORIGINAL: Salem / COPIES: TPSO, Approved Scaling Location, Purchaser, District, Mgmt. Unit

EXHIBIT C – PULP SORT

PROCESSING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION

(1) ORIGINAL REGISTRATION ☐ Date _____
REVISION NUMBER _____ ☐ Date _____
CANCELLATION ☐ Date _____

(2) TO: _____
(Approved Pulp Processing Facility)

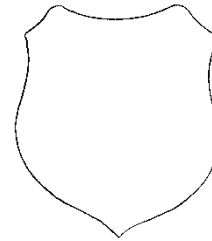
(3) FROM: Coos (07) Phone 541-267-4136
(State Forestry District)

(4) PURCHASER: _____

(5) Scaling Bureau (TPSO) Processing Weight receipts:

Mailing Address: _____

Phone Number: _____



(6) **STATE Definition of Approved Pulp Sort:**

- Top portion of the tree (tops).
- All logs with a diameter (Big End) greater than 7 inches marked with blue paint.

(9) SALE NAME: Salander Ridge
COUNTY: Douglas

(10) STATE CONTRACT NUMBER: 341-16-12

(11) STATE BRAND REGISTRATION NUMBER _____

(12) STATE BRAND INFORMATION: (COMPLETE BELOW)

(13) REMARKS: _____

(7) **PULP FACILITY PROCESSING INSTRUCTIONS:**

- Pulp loads shall be weighed in lieu of scaling.
- One Ton = 2000 lbs (Short Ton).
- Pulp loads shall have a yellow Log Load Receipt attached.
- Gross weight and truck tare weight for each load shall be machine printed on the weight receipt.
- Weigher shall sign the weight receipt.
- Weigher shall record the Log Load Receipt number on the weight receipt.
- Weigher shall attach the Weight receipt to the Log Load Receipt and mail them weekly to the TPSO processing the Weight receipt.

Operator's Name (Optional inclusion by District):

(8) **TPSO PROCESSING INSTRUCTIONS**

- Mail to ODF weekly.
- Convert to mbf using 10 tons per mbf.

(14) SIGNATURES:

Purchaser or Authorized Representative Date

State Forester Representative Date

State Forester Representative PRINT NAME

Notify the District within one hour when branding is inadequate for quick identification, the logs are marked with orange paint, the receipts are missing, not correctly or completely filled out, and/or logs do not meet the specifications of the STATE definition of Approved Pulp Sort.

Distribution: ORIGINAL: Salem / COPIES: TPSO, Approved Pulp Processing Location, Purchaser, District, Mgmt. Unit

EXHIBIT C – PULP SORT
INSTRUCTIONS FOR FORM 343-307b (rev. 11/11)

- (1) **Must Complete.** Check appropriate box. REVISION NUMBER requires comments in the Remarks Section (13). 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.
- (2) **Must Complete.** Approved Pulp Processing Facility. Write in as written in the Approved Log Delivery Location http://www.odf.state.or.us/DIVISIONS/management/asset_management/ScalingLocation.asp
- (3) **Must Complete.** State Forestry District and District Phone Number.
- (4) **Must Complete.** Purchaser's business name as it appears on the Contract.
- (5) **Must Complete.** Third Party Scaling Organization that will be processing the weight tickets, mailing address, and phone number.

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

Pacific Rim Log Scaling Bureau, Inc.
8288 28th Court North East, Lacey, WA 98516
Phone: (360) 528-8710 Fax: (360) 528-8718
Email: office@prlsb.com

Mountain Western Log Scaling & Grading Bureau
P.O. Box 580, Roseburg, OR 97470
Phone: (541) 673-5571 Fax: (541) 672-6381
Email: info@mwlsbg.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

Northwest Log Scalers, Inc.
5526 NE 122nd Ave, Portland, OR 97230
Phone: (503) 254-0600 Fax: (503) 408-0919
Email: info@nwlogscalers.com

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

- (6) **Must Complete.** Big end log not to exceed 7 inches. Big end of log is not to exceed 2 inches greater than the minimum removal specifications in the contract. Example: Minimum removal specifications 6 inches and 20 board feet, then the Big end of log not to exceed 8 inches. When conifer and hardwood removal specifications are different, use the smaller removal diameter to determine this specification.
- (9) **Must Complete.** Enter sale name and county. If more than one county write in all the counties that the sale is located in.
- (10) **Must Complete.** Enter sale Contract number.
- (11) **Must Complete.** Enter Oregon's State Brand Registry Number **(REQUIRED)**.
- (12) **Must Complete.** 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 (13).
- (13) Use this section to list any special instructions or the reason for any revisions in section item (1).
- (14) **Must Complete.** Purchaser required 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
14 feet	12 feet*	A to G	0+00 to 53+18	Ditch/Outslope**
14 feet	12 feet*	H to P	0+00 to 32+86	Outslope**
14 feet	12 feet*	I to K	0+00 to 12+85	Outslope**
14 feet	12 feet*	D to E	0+00 to 3+75	Outslope**

*Surfaced width only applies if "WINTER AND WET WEATHER OPTION" is chosen.

**Drainage shall be changed to Ditch if "WINTER AND WET WEATHER OPTION" is chosen.

CLEARING. 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 "Road Brushing Specifications" in Exhibit G shall apply. 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.

CLEARING AND GRUBBING DISPOSAL. 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.

EXHIBIT D

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, and dimensions when provided.

Unless otherwise directed, 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.

Curve Widening. 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.

Ditch. 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.

TURNOUTS. 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 and as marked in the field.

SLOPES

Solid Rock

Fractured Rock

Soil - side slopes 50% and over

Soil - side slopes less than 50%

Back Slopes

Vertical to $\frac{1}{4}$:1

$\frac{1}{2}$:1

$\frac{1}{2}$:1

$\frac{1}{2}$:1

Fill Slopes

$1\frac{1}{2}$:1

$1\frac{1}{2}$:1

LANDINGS. Landings shall be constructed as posted in the field. Surface is to be crowned for drainage with general grade no more than 6 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.

SEASONAL WINTERIZATION. All unsurfaced roads or unfinished subgrades shall be waterbarred in accordance with the specifications in Exhibit H, and blocked from vehicular traffic in accordance with the specifications in Exhibit I prior to October 15 annually and as directed by STATE.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

GENERAL ROAD CONSTRUCTION INSTRUCTIONS:

1. Excavated Materials. 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.

SPECIFIC ROAD CONSTRUCTION INSTRUCTIONS

<u>Segment</u>	<u>Work Description</u>
B	This is a landing to construct. All material generated from the construction of the landing shall be used on site as fill on the outside edge of the landing area. If dirt needs to be removed from the excavation of the landing, it will need to be end hauled to the waste area at Point C.
J	This is a landing to construct. All material generated from the construction shall be used on site as fill around the landing area. If there is excess dirt, it will need to be end hauled to Point N.
K	This is a landing to construct. All excess material shall be removed and end hauled to Point N.
G	This is a step landing to construct. A landing pad shall be excavated adjacent to the 1960 road at this point. Excavated material shall be placed at point M and D. Excavated material lost over the outside edge of the road shall not exceed 3 feet in depth.
D to E	This is a road and landing to construct. Any waste material should be used in the construction. Woody debris shall be piled separately as directed by State.
L and O	These are temporary low water crossings. Logs shall be used to fill the stream channel. Woven Geotextile fabric shall cover the logs preventing soil from entering the stream channel. Once logging operations are complete, soil and fabric shall be removed from the logs so as to prevent soil from entering the stream channel. Logs shall be removed from the stream channel carefully to minimize disruption to the stream channel.

Containment/Sidecast

- (1) Full: No excavation materials below the road.
- (2) Normal/Incidental: The amount of excavated material lost over the outside edge of the road shall not exceed 3 feet in depth.
- (3) Sidecast: Material shall be spread evenly below the road so that it does not build up behind trees, snags or other debris, and shall not exceed 3 feet in depth.

Any amount of material exceeding the containment requirements shall be removed by whatever means necessary and end hauled to a designated waste area.

Waste Area Location

- (1) Point C, M, or N
- (2) Setback from side slope break shall be a minimum of 5 feet, horizontal measurement.

Waste Area Treatment

- (1) Deposit at waste area, spread evenly, compact, and provide adequate drainage.
- (2) Pile woody debris separate from other waste material.

EXHIBIT D

GEOTEXTILE SPECIFICATIONS

GEOTEXTILE SPECIFICATIONS - shall be woven geotextile fabric designed for forest road subgrade surfacing purposes and shall meet or exceed the following requirements, unless otherwise approved in writing by STATE:

- | | | |
|-----------------------|----------|-----------------|
| 1. Grab Tensile | 300 lbs. | ASTM D4623; |
| 2. Puncture strength | 110 lbs. | ASTM D4833; |
| 3. Mullen Burst | 600 lbs. | ASTM D3786; and |
| 4. Width – 12.5 feet. | | |

INSTALLATION REQUIREMENTS - fabric shall be installed according to the following requirements:

1. Subgrade surface shall be logs from the harvest unit placed in the stream channel.
2. Fabric shall be installed directly on the prepared surface. Longitudinal and traverse joints shall be overlapped at least 3 feet.
3. Torn, punctured, or separated sections of the fabric shall be repaired by installing a fabric patch over the break prior to placing the surfacing course material. The patch shall be at least 4 feet larger in horizontal dimensions than the break to be repaired.
4. Fabric locations:

Road Point
Point L
Point O

EXHIBIT D

FOREST ROAD SPECIFICATIONS

WINTER AND WET WEATHER OPTION

Subgrade Preparation and Application of Surfacing Rock.

- (a) Complete culvert installations, 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.

GENERAL ROAD IMPROVEMENT INSTRUCTIONS:

1. Roadside Brushing. Conduct roadside brushing as specified in Exhibit G.

2. Bank Slough Removal. Dig out all bank slough. 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.

3. Drainage Ditches. Restore or construct ditchlines, including ditchouts, as directed 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.

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS:

- | | |
|--------|--|
| A to G | This is an existing road shall be improved. Road sloughs shall be removed and the road widened by going into the cutbank. Debris shall be end hauled to Point C or M. The road shall be opened by removing brush and small trees. The road surface shall be smoothed for haul. Some of the cut banks in this area have a fair amount of rock that can be cleaned up with the bucket on the excavator and end hauled. |
| H to P | This is an existing road to be improved. The slough needs to be cleaned up from the road grade and end hauled to Point N. This road shall be opened by removing the brush and small trees. The road surface shall be smoothed for haul. All woody vegetation will need to be end hauled and piled at Point N, separate from soil. |
| I to K | This road shall be improved. Road slough shall be removed and end hauled to Point N. Brush shall be removed and the road shall be bladed to achieve a smooth running surface. |

EXHIBIT D

ROAD SURFACING
(WINTER AND WET WEATHER OPTION)

TYPE OF ROCK	SIZE OF ROCK	DEPTH	POINT TO POINT	STATION TO STATION	APPROX. TOTAL TRUCK MEASURE	
					WEIGHT (ton)	VOLUME (cu yds)
Hard Crushed Quarry	2½"-0"	10" compacted	A to G	0+00 to 53+18		2872
Hard Crushed Quarry	2½"-0"	10" compacted	D to E	0+00 to 3+75		202
Hard Crushed Quarry	2½"-0"	10" compacted	H to I	0+00 to 18+60		1005
Hard Crushed Quarry	2½"-0"	10" compacted	I to K	0+00 to 12+85		694
LANDINGS:		PER LANDING				
		Ton	Yds			
Hard Crushed Quarry	6" Jaw Run	94	72			

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

A non-spec base rock may be substituted for a portion of the 2 ½"-0", as approved by STATE.

Rock surfacing volumes include turnouts.

EXHIBIT D

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.

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

Load Records. Notify STATE before spreading or stockpiling the rock and maintain a record of all rock delivered. Make the record available for STATE inspection. Copies of load tickets and a report listing the amount of rock delivered must be submitted at the completion of rocking.

EXHIBIT D

COMPACTION AND PROCESSING REQUIREMENTS

Moisture Content. 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.

Fills. 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
D to E	2

WINTER AND WET WEATHER OPTION

Subgrade. 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 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:

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All roads to be rocked	1

Crushed Rock. 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. 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.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All roads to be rocked	1

EXHIBIT D

COMPACTION EQUIPMENT OPTIONS

- (1) Vibratory Rollers. 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 miles to 1.8 miles per hour, as directed by STATE.
- (2) Crawler Tractors. D-7 Caterpillar or equivalent or larger.

EXHIBIT E

CULVERT SPECIFICATIONS

All culvert materials shall be furnished and installed by PURCHASER, unless otherwise specified in the Contract.

Culverts shall be constructed of corrugated double-walled polyethylene.

Polyethylene culverts shall be double-walled and meet the requirements of AASHTO M-294-06, Type S Culvert.

Polyethylene joints shall be made with split couplings, corrugated to engage the culvert corrugations, and shall engage a minimum of 4 corrugations, 2 on each side of the culvert joint.

Culverts shall be located according to the alignment and grade as shown on the Plan and Profile, and/or as staked in the field, or as specified in special instructions.

The STATE Representative shall determine final culvert locations and stake the locations in the field prior to installation.

Cross drain culverts on road grades in excess of 3 percent shall be skewed at least 30 degrees from perpendicular to the road centerline, except that cross drain culverts at the low point of dips in roads shall not be skewed.

Cross drain culverts shall be installed at a slope steeper than the incoming ditch grade, but not less than 3 percent or greater than 10 percent.

The foundation and trench walls for all culverts shall be free from logs, stumps, limbs, stones, and other objects which would dent or damage the culvert. The culvert trench shall be excavated 3 culvert diameters wide to permit compaction and working on each side of the culvert. Tamping shall be done in 6-inch lifts, 1 culvert diameter each side of the culvert. Bedrock shall be excavated as required to provide a uniform foundation for the full length of the culvert.

Backfill shall consist of, job-excavated soil free of stumps, limbs, rocks, or other objects which would damage the culvert.

Transporting of the culvert shall be done carefully. Dragging or allowing free fall from trucks or into trenches shall not be permitted.

Minimum height of cover over top of culvert to subgrade when road is to be rockered shall be as follows: 12" for culverts 18" to 36". Minimum vertical cover for other designs shall be as specified by STATE.

Lengths of individual culvert sections shall be not less than 10 feet, unless otherwise provided for in special instructions.

The ends of each culvert shall be free of logs and debris which would restrict the free flow of water.

CULVERT LIST
(WINTER AND WET WEATHER OPTION)

CULVERT NO.	DIAMETER (Inches)	LENGTH (Feet)	MATERIAL TYPE	ROAD SEGMENT POINT TO POINT
1	18	40	CPP	As Directed
2	18	40	CPP	As Directed

CPP = Polyethylene

State Timber Sale Contract
No. 341-16-12
Salander Ridge

EXHIBIT F

CRUSHED ROCK SPECIFICATIONS

Materials. The material shall be fragments of rock crushed to the required size. The material shall be free from vegetation and lumps of clay. STATE may require screening and/or rejecting of materials utilized for production of crushed rock for the purpose of removing excess fine material.

Quality and Grading Requirements. The base material shall be rock. River gravel shall not be used. Crushed rock shall meet the grading requirements that follow.

Rock strength: for rock not produced from STATE quarries, the material from which base material is produced or manufactured shall meet the following test requirement for Aggregate Hardness - Test Method AASHTO T 96 35 percent Maximum.

The referenced sieve shall have square openings as set forth in AASHTO M 92, Woven Cloth Series. The determinations of size and gradation shall be as set forth in AASHTO T 27.

Control of gradation shall be by visual inspection by STATE.

Grading Requirements

<u>For 2½" – 0"</u>	Passing	3" sieve retained on 2 ½" sieve	10-20%
	Passing	2½" sieve retained on 1 ½" sieve	30-60%
	Passing	1½" sieve retained on ¾" sieve	20-30%
	Passing	1/4" sieve	10-20%

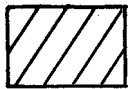
CRUSHED ROCK SPECIFICATIONS
(WINTER AND WET WEATHER OPTION)

Grading Requirements

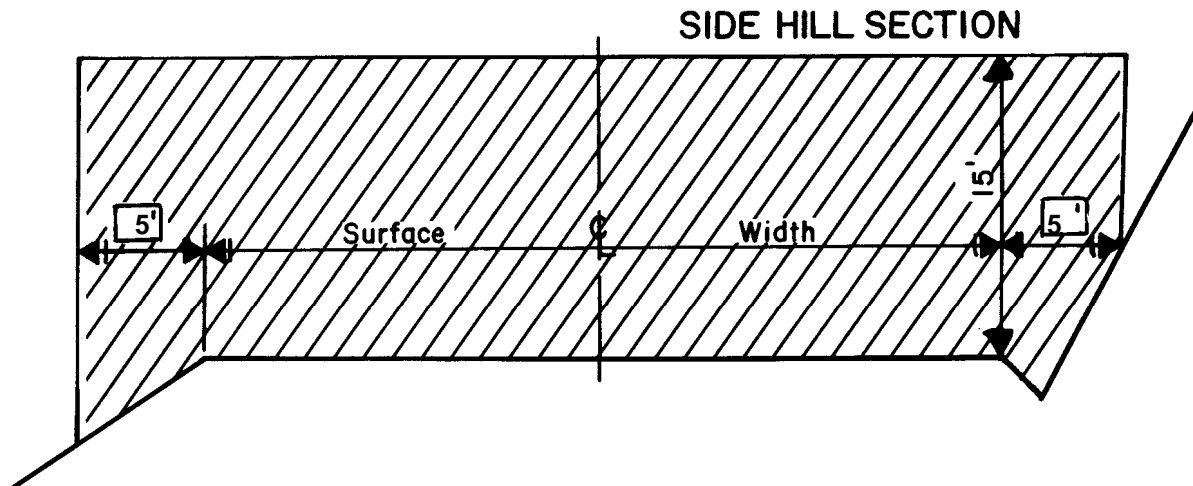
<u>For Jaw-Run</u>	Passing	6" sieve	100%
	Passing	3" sieve	45-65%

EXHIBIT G

ROAD BRUSHING SPECIFICATIONS



Clearing Limits



REQUIREMENTS

The minimum height of clearing shall be 15 feet from the road surface, and the minimum width of clearing on the cutslope sides of the road shall be 5 feet horizontal distance from the shoulder of the road and 5 feet horizontal on the down slope side from the road shoulder. The minimum width of brushing on the cutslope side of the road shall be dictated by the height of the cutslope as indicated in the drawing above. In situations where site distance is an issue brushing heights on the cutslope may vary from the drawing, as directed by STATE.

Brush and trees shall be cut to a maximum height of 6 inches above the ground surface or obstructions such as rocks or existing stumps.

Debris resulting from the brushing operation shall be removed from the roadway, cutslope, ditches, water courses, culvert inlets and outlets and sediment catching basins. Debris shall be scattered downslope from the road or placed in other stable locations. Large debris, 6 inches or larger in diameter, shall be cut into lengths 6 feet or less to facilitate rapid decay, unless otherwise approved by STATE.

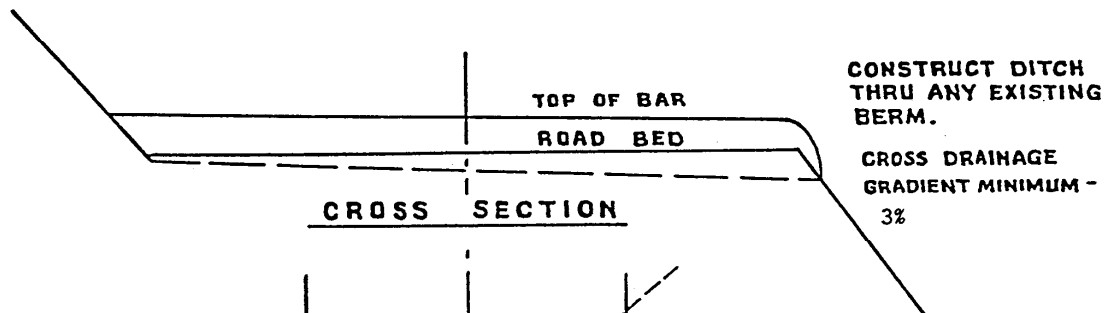
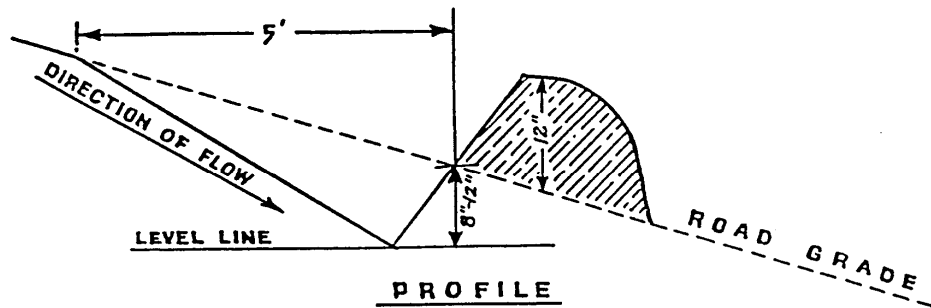
Trees larger than 6 inches in diameter at stump height, located within clearing limits but outside of the ditchline or shoulder, shall not be cut down, but shall be limbed for road visibility. Planted or established conifers, located within brushing limits but outside of the ditchline or shoulder, shall not be cut down, but shall be limbed for road visibility unless otherwise directed by STATE.

Existing debris on the roadway, cutslope, ditchline, or catch basin shall be removed and treated. Debris shall be scattered downslope from the road or placed in other stable locations. Large non-merchantable debris, 6 inches or larger in diameter, shall be cut into lengths 6 feet or less to facilitate rapid decay, unless otherwise approved by STATE.

Merchantable blown down trees encountered shall be bucked in lengths as directed by STATE, and placed in locations acceptable to STATE, or pushed out of the road prism.

EXHIBIT H

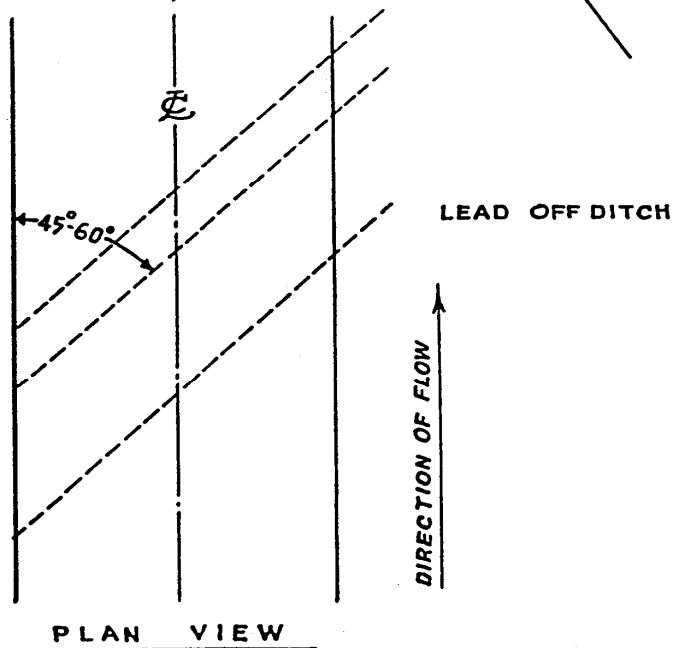
WATERBAR SPECIFICATIONS



SPACING OF WATERBARS

SPACING OF WATERBARS

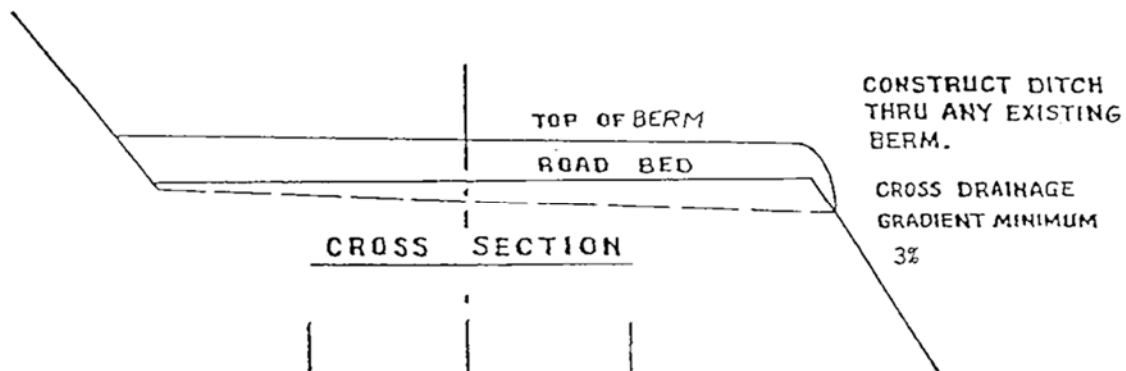
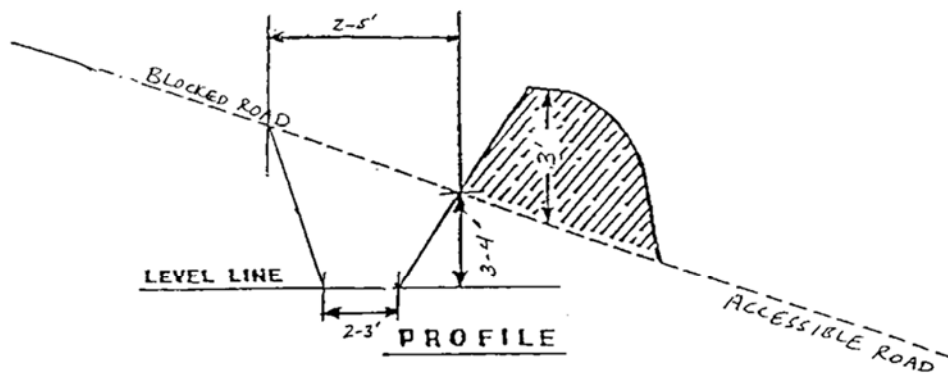
ROAD GRADE	DISTANCE
≤ 5%	300'
6-10%	200'
11-15%	100'
16-20% or greater	50'



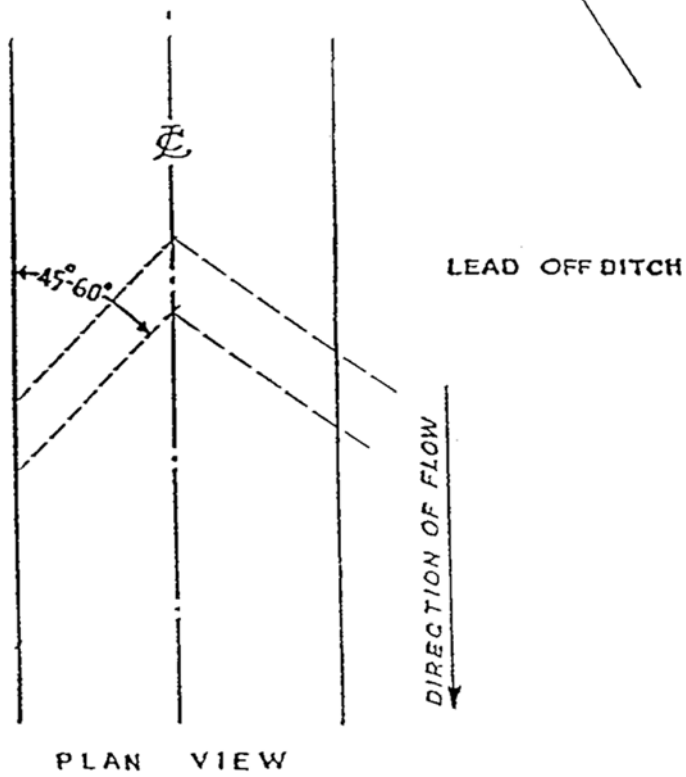
WATERBAR SPECIFICATIONS
FOR CROSS DITCHING #298

EXHIBIT I

TANK TRAP SPECIFICATIONS



Tank trap shall be installed in a "V" shape. It should be sloped to drain with a relief ditch through the down slope edge of the road. The trench shall be behind the berm for approaching traffic.



TANK TRAP
SPECIFICATIONS

STATUTORY WRITTEN PLAN

SALE NAME: Salander Ridge

LOCATION: Portions of Sections 11 & 14, T23S, R10W, Douglas County, Oregon.

LANDOWNER: Oregon Department of Forestry; 63612 Fifth Road, Coos Bay, Oregon.

CONTRACT PURCHASER:

NOTIFICATION NO:

SITUATION AND PROTECTED RESOURCE

The eastern boundary of Area 2 contains the headwaters of a small Type D (domestic water supply) stream. The instream water intake is situated approximately 280 feet outside of Area 2 on adjacent private property.

LAYOUT

A 120-foot wide no harvest buffer (RMA) has been posted on the south side and for the entire length of the reach. The north side of the reach is outside the sale area and will not be harvested.

FELLING AND BUCKING

1. Trees shall be directionally felled parallel to away from RMA as feasible.
2. High stumps shall be left as needed to prevent logs from entering the RMA.
3. No trees within the RMA will be felled.

CABLE YARDING

1. No stringing of logging cables will be allowed through the RMA.
2. Any logs that slide into the RMA will be left unyarded.

SLOPE PROTECTION

Purchaser shall maintain plant species that will enhance slope stability in harvested areas to minimize the risk of erosion.

PURCHASER REPRESENTATIVE

DATE: _____

OPERATOR REPRESENTATIVE (if listed on notification)

DATE: _____

NON-STATUTORY WRITTEN PLAN

SALE NAME: Salander Ridge

LOCATION: Portions of Sections 11 & 14, T23S, R10W, Douglas County, Oregon.

LANDOWNER: Oregon Department of Forestry; 63612 Fifth Road, Coos Bay, Oregon.

CONTRACT PURCHASER:

NOTIFICATION NO:

SITUATION AND PROTECTED RESOURCE

The northern portion of Area 2 is within .25 mile of the Salander Creek Marbled Murrelet Management Area (MMMA).

LAYOUT

All portions of the Timber Sale Areas are at least 100 meters away from any MMMA or unsurveyed potential habitat.

PROJECT AND NON-PROJECT WORK

If Project Work and Non-Project Road Operations within the Seasonally Restricted Area will not exceed one day, daily timing restrictions shall be in effect from April 1 through September 15 during which operations may be allowed from no earlier than two hours after sunrise until no later than two hours before sunset.

If Project Work and Non-Project Road Operations will exceed one day, operations shall not be allowed within the Logging Restricted Area or Seasonally Restricted Area from April 1 through August 5. Furthermore, daily timing restrictions shall be in effect from August 6 to September 15 within the Logging Restricted Area or Seasonally Restricted Area during which Project Work and Non-Project Road Operations may be allowed from no earlier than two hours after sunrise until no later than two hours before sunset.

CABLE YARDING

Within the Salander Creek MMMA or Logging Restricted Area, no cable yarding is allowed at any time including the stringing of cables through or above, or establishing tailholds or guyline anchors.

Within the Seasonally Restricted Area tailhold or guyline anchor establishment or stringing of cables shall not be allowed from April 1 through August 5. From August 6 through September 15, tailhold and guyline anchor establishment or stringing of cables will be allowed subject to daily timing restrictions. The daily timing restriction allows operations to commence no earlier than two hours after sunrise and cease no later than 2 hours before sunset.

PURCHASER REPRESENTATIVE

DATE: _____

OPERATOR REPRESENTATIVE (if listed on notification)

DATE: _____

NON-STATUTORY WRITTEN PLAN

SALE NAME: Salander Ridge

LOCATION: Portions of Sections 11 & 14, T23S, R10W, Douglas County, Oregon.

LANDOWNER: Oregon Department of Forestry; 63612 Fifth Road, Coos Bay, Oregon.

CONTRACT PURCHASER:

NOTIFICATION NO:

SITUATION AND PROTECTED RESOURCE

Temporary low water crossings exceeding 8 feet in height are to be constructed in 2 locations over 2 seasonal Type N tributaries of Lake Creek.

PROJECT WORK

These are temporary low water crossings. Logs shall be used to fill the stream channel. Woven Geotextile fabric shall cover the logs preventing soil from entering the stream channel. Once logging operations are complete, soil and fabric shall be removed from the logs so as to prevent soil from entering the stream channel. Logs shall be removed from the stream channel carefully to minimize disruption to the stream. Soil shall be placed stable location away from stream channels.

PROJECT PERIOD

Construction and removal of the temporary low water crossings will occur only during the low water work period and will not be allowed before July 15 or after September 15 unless otherwise approved in writing by STATE.

PURCHASER REPRESENTATIVE

DATE: _____

OPERATOR REPRESENTATIVE (if listed on notification)

DATE: _____