

PART III: EXHIBITS

State Timber Sale Contract
No. 341-18-110
Ice Hole

EXHIBIT B

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

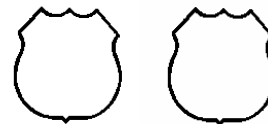
OREGON DEPARTMENT OF FORESTRY

TIMBER SALE OPERATIONS PLAN

(See Page 2 for instructions)

Date Received by STATE: _____

(5) State Brand Information (complete):



(1) Contract No.: 341-18-110

(2) Sale Name: Ice Hole

(3) Contract Expiration Date: October 31, 2020

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.



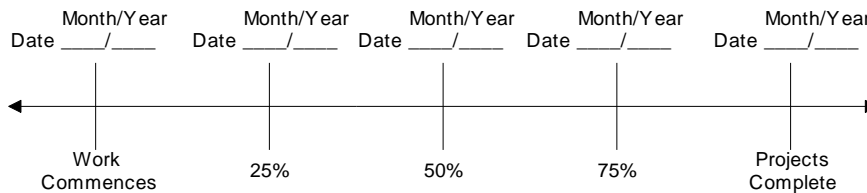
Temporary stream crossings.

EXHIBIT B
OPERATIONS PLAN

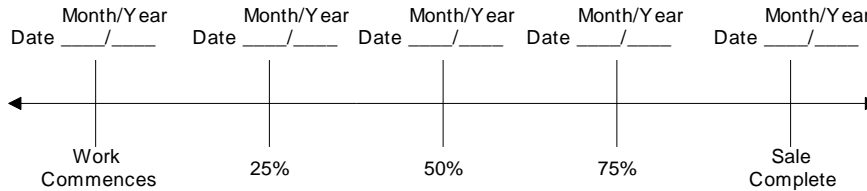
Completion Timeline

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
Unit
Purchaser
Operator
(Purchaser Representative) _____

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: West Oregon (01) Phone (541)-929-3266
(State Forestry District)
Address 24533 Alsea Hwy. Philomath, OR 97370

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

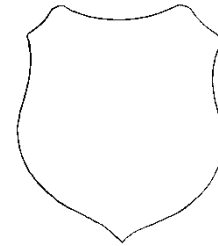
(9) SALE NAME: Ice Hole

COUNTY: Lincoln

(10) STATE CONTRACT NUMBER: 341-18-110

(11) STATE BRAND REGISTRATION NUMBER: _____

(12) STATE BRAND INFORMATION (COMPLETE):



(13) PAINT REQUIRED: YES ☒
COLOR: Orange

(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 ☐ ☒

(14) SPECIAL REQUESTS	(Check applicable)
PEELABLE CULL (all species)	<input checked="" 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 "Mule Train" loads require a load ticket for each set of bunks.

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 <\\WP0DFILL01\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)

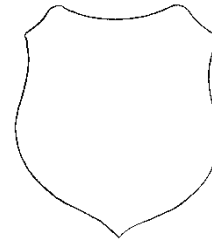
(3) FROM: West Oregon (01) Phone (541)-929-3266
(State Forestry District)
Address 24533 Alsea Hwy. Philomath, OR 97370

(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 8 inches marked with blue paint.

(9) SALE NAME: Ice Hole
COUNTY: Lincoln

(10) STATE CONTRACT NUMBER: 341-18-110

(11) STATE BRAND REGISTRATION NUMBER _____

(12) STATE BRAND INFORMATION: (COMPLETE BELOW)

(13) REMARKS: "Mule Train" loads require a load ticket for each set of bunks.

(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 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

- (6) **Must Complete.** Big end log not to exceed _____ 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
16 feet	12 feet	1 to 2	0+00 to 144+30	Ditch
16 feet	12 feet	2 to 3	0+00 to 37+70	Ditch
16 feet	12 feet	2 to 4	0+00 to 95+50	Ditch
14 feet	N/A	5 to 6	0+00 to 16+20	Outslope
14 feet	N/A	7 to 8	0+00 to 6+80	Outslope
14 feet	12 feet	9 to 10	0+00 to 6+80	Outslope
16 feet	12 feet	11 to 14	0+00 to 57+90	Ditch
14 feet	12 feet	12 to 13	0+00 to 14+30	Outslope
14 feet	12 feet	14 to 15	0+00 to 1+00	Outslope
16 feet	12 feet	16 to 17	0+00 to 120+50	Ditch
14 feet	12 feet	18 to 19	0+00 to 9+70	Outslope
14 feet	12 feet	20 to 21	0+00 to 14+50	Outslope
14 feet	12 feet	22 to 23	0+00 to 10+60	Outslope
14 feet	12 feet	24 to 25	0+00 to 7+90	Outslope
14 feet	12 feet	26 to 27	0+00 to 13+50	Outslope

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 clearing limits shall extend 5 feet back of the top of the cut slope and 5 feet out from the toe of the fill slope, or as directed by STATE. The "Road Brushing Specifications" in Exhibit E 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 cut slopes 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 cut slope 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.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

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.

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.

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 or outsloped at 3 to 4 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 50 feet, or as staked on the ground, plus 25-foot approaches at each end.

SLOPES

Soil - side slopes 50% and over
Soil - side slopes less than 50%

Back Slopes

$\frac{3}{4}$:1
1:1

Fill Slopes

1½:1
1½:1

Top of cut slope shall be rounded.

LANDINGS. 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 outsloped or 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.

SEASONAL WINTERIZATION. All unsurfaced roads or unfinished subgrades shall be waterbarred in accordance with the specifications in Exhibit D, and blocked from vehicular traffic prior to October 1, annually and as directed by STATE.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

GENERAL ROAD IMPROVEMENT INSTRUCTIONS:

- (1) Sod Removal. Scrape off sod and grass from road surfacing where needed. Do not leave berms along road edges and ditch lines.
- (2) Excavated Materials. Excavated materials shall be utilized for fill reconstruction 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.
- (3) 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.
- (4) Roadside Brushing. Conduct roadside brushing as specified in Exhibit E.
- (5) Drainage Ditches. Restore or construct ditch lines, 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.
- (6) Subgrade Preparation and Application of Surfacing Rock.
 - (a) Complete drainage ditches, ditchouts, culvert installations, 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 or outslope of 3 to 4 percent.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

<u>Segment</u>	<u>Station</u>	<u>Work Description</u>
1 to 2	0+00 to 144+30	Clean out culvert inlets and outlets (12). Replace culverts at Stations 27+20 and 119+80. Apply 280 CY of 1½"-0" spot rock from Point 1 to Point 2. Apply a 4 inch lift of 1½"-0" rock from Station 46+20 to 47+20. Apply 10 CY of 3-0" rock to turnouts (8). Process and compact road surface and turnouts with grader and vibratory roller from Point 1 to Point 2.
2 to 3	0+00 to 37+70	Clean out culvert inlets and outlets (2). Construct 3 roadside landings. Apply 20 CY of Jaw-run rock to each landing. Apply 50 CY of 1½"-0" spot rock from Point 2 to Point 3. Process and compact road surface with grader and vibratory roller from Point 2 to Point 3.
2 to 4	0+00 to 95+50	Clean out culvert inlets and outlets (7). Apply 50 CY of 1½"-0" spot rock from Point 2 to Station 21+70. Process and compact road surface with grader and vibratory roller from Point 2 to Point 4.
5 to 6	0+00 to 16+20	Re-open outsloped unsurfaced road and landing. Install a 24" x 40' culvert at Station 2+70. Use 20 CY of 1½"-0" crushed rock for culvert bedding and backfill. Grade and compact subgrade. Rock the junction and the first 75 feet of road with Jaw-run rock (50 CY).
Instream working period is July 1 through September 15.		
7 to 8	0+00 to 6+80	Re-open outsloped unsurfaced road and landing. Grade and compact subgrade.
9 to 10	0+00 to 6+80	Remove grass and sod from road surface and landing with road grader. Apply 40 CY of 3"-0" spot rock. Apply 10 CY of 1½"-0" junction rock at Point 9. Rock Landing at Point 10 with 20 CY of 3"-0" rock. Process and compact road surface with grader and vibratory roller from Point 9 to Point 10.
11 to 14	0+00 to 57+90	Remove 2 stumps and bank slough at Station 20+80. Round the top of the cutslope with excavator. Endhaul waste material to Waste Area (W1). Apply 50 CY of 1½"-0" spot rock from Point 11 to Point 12. Process and compact road surface with grader and vibratory roller from Point 11 to Point 14.
12 to 13	0+00 to 14+30	Remove grass and sod from road surface and landing with road grader. Apply 100 CY of 3"-0" spot rock. Apply 20 CY of 1½"-0" junction rock at Point 12. Rock Landing at Point 13 with 40 CY of 3"-0" rock. Rock turnaround at Station 13+30 with 10 CY of 3"-0" rock. Process and compact road surface with grader and vibratory roller from Point 12 to Point 13.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

<u>Segment</u>	<u>Station</u>	<u>Work Description</u>
14 to 15	0+00 to 1+00	Remove grass and sod from road surface with road grader. Improve pump chance by excavating approximately 20 CY of material to a depth of 5 to 6 feet with an excavator and haul waste to Waste Area (W1). (De-water pump chance with a volume pump). Apply a 4 inch lift of 3'-0" rock (20 CY) from point 14 to point 15. Apply 20 CY of 1½'-0" junction rock a point 14. Process and compact road surface with grader and vibratory roller from Point 14 to point 15. Block end of spur by constructing an impassable barrier between end of spur and pump chance using 24-6" boulders (5 CY).
16 to 17	0+00 to 120+50	Clean out culvert inlets and outlets (9). Clear brush from Waste Area (W2). Replace culvert and fill at Station 109+50. Re-construct pump chance at Station 109+50 by excavating approximately 30 CY of material to a depth of 5 to 6 feet with an excavator and haul waste to Waste Area (W1). (De-water pump chance with a volume pump). Remove old culvert and dispose of at a refuse site off State land. Re-construct fill and place new culvert (24" x 40') 2 feet below road surface at the inlet and 3 feet below road surface at the outlet. Bed and cover culvert with 20 CY of 1½'-0" rock. Armor fill slopes with Jaw run rock (30 CY). Utilize 10 CY pit run rock to construct an energy dissipater below culvert outlet. Apply an 8 inch lift of Jaw run base rock to cover the fill. Compact base rock with vibratory roller. Apply a 4 inch lift of 1½'-0" surfacing and curve widening rock to cover the base rock. Apply 280 CY of 1½'-0" spot rock from Point 16 to Point 17. Process and compact entire road surface with grader and vibratory roller from Point 16 to Point 17. Instream working period is July 1 through September 15.
18 to 19	0+00 to 9+70	Remove sod and any brushing debris from road surface and ditches with road grader.
20 to 21	0+00 to 14+50	Remove sod and any brushing debris from road surface and ditches with road grader.
22 to 23	0+00 to 10+60	Remove sod and any brushing debris from road surface and ditches with road grader.
24 to 25	0+00 to 7+90	Re-open landing at Point 25 with road grader. Apply 80 CY of 3'-0" spot rock from Point 24 to Point 25. Apply 20 CY of 1½'-0" junction rock at Point 24. Rock Landing at Point 25 with 20 CY of 3'-0" rock. Process and compact road surface with grader and vibratory roller from Point 24 to Point 25.
26 to 27	0+00 to 13+50	Remove sod and any brushing debris from road surface and ditches with road grader.

EXHIBIT D
FOREST ROAD SPECIFICATIONS

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)
Application	Rock Size and Type	Location	Depth of Rock (inches)	1 to 2		0+00 to 144+30			
				Volume (CY) per		Number of			
Surface rock	1 1/2-0"	46+20 to 47+20	4	20	Station	1	Station	20	27
Turnout rock	3-0"			10	Turnout	8	Turnouts	80	108
Spot rock	1 1/2-0"			100	Mile	2.8	Miles	280	378
Culvert bedding rock	1 1/2-0"	27+20 & 119+80		20	Culvert	2	Culverts	40	54
Total Rock for Road Segment		1 to 2						420	567

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)
Application	Rock Size and Type	Location	Depth of Rock (inches)	2 to 3		0+00 to 37+70			
				Volume (CY) per		Number of			
Landing rock	jaw-run			20	Landing	3	Landings	60	81
Spot rock	1 1/2-0"	0+00 to 37+70		70	Mile	0.7	Miles	50	68
Total Rock for Road Segment		2 to 3						110	149

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)
Application	Rock Size and Type	Location	Depth of Rock (inches)	2 to 4		0+00 to 95+50			
				Volume (CY) per		Number of			
Spot rock	1 1/2-0"	0+00 to 21+70		100	Mile	0.5	Miles	50	68
Total Rock for Road Segment		2 to 4						50	68

EXHIBIT D
FOREST ROAD SPECIFICATIONS

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)
Application	Rock Size and Type	Location	Depth of Rock (inches)	5 to 6		0+00 to 16+20			
				Volume (CY) per		Number of			
Junction rock	jaw-run	0+00 to 0+75	8	60	Station	0.75	Stations	50	68
Culvert bedding rock	1 1/2-0"	109+50		20	Culvert	1	Culvert	20	27
Total Rock for Road Segment		5 to 6						70	95

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)
Application	Rock Size and Type	Location	Depth of Rock (inches)	9 to 10		0+00 to 6+80			
				Volume (CY) per		Number of			
Landing rock	3-0"	6+80		20	Landing	1	Landing	20	27
Spot rock	3-0"	0+00 to 6+80		6	Station	6.8	Stations	40	54
Junction rock	1 1/2-0"	0+00		10	Junction	1	Junction	10	14
Total Rock for Road Segment		9 to 10						70	95

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)
Application	Rock Size and Type	Location	Depth of Rock (inches)	11 to 14		0+00 to 57+90			
				Volume (CY) per		Number of			
Spot rock	1 1/2-0"	0+00 to Pt. 12		60	Mile	0.8	Miles	50	68
Total Rock for Road Segment		11 to 14						50	68

EXHIBIT D

FOREST ROAD SPECIFICATIONS

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)
Application	Rock Size and Type	Location	Depth of Rock (inches)	12 to 13		0+00 to 14+30			
				Volume (CY) per		Number of			
Landing rock	3-0"	14+30		40	Landing	1	Landing	40	54
Turnaround rock	3-0"	13+30		10	Turnaround	1	Turnaround	10	14
Spot rock	3-0"	0+00 to 14+30		400	Mile	0.25	Mile	100	135
Junction rock	1 1/2-0"	0+00		20	Junction	1	Junction	20	27
Total Rock for Road Segment		12 to 13						170	230

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)
Application	Rock Size and Type	Location	Depth of Rock (inches)	14 to 15		0+00 to 1+00			
				Volume (CY) per		Number of			
Surface rock	3-0"	0+00 to 1+00	4	20	Station	1	Station	20	27
Junction rock	1 1/2-0"	0+00		20	Junction	1	Junction	20	27
Boulders	24-6"	1+00						5	7
Total Rock for Road Segment		14 to 15						45	61

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)
Application	Rock Size and Type	Location	Depth of Rock (inches)	16 to 17		0+00 to 120+50			
				Volume (CY) per		Number of			
Base rock	jaw-run	109+50	8	60	Station	0.5	Stations	30	41
Surface rock	1 1/2-0"	109+50	4	40	Station	0.5	Stations	30	41
Turnout rock	3-0"			10	Turnout	4	Turnouts	40	54
Turnaround rock	3-0"	W2		20	Turnaround	1	Turnaround	20	27
Spot rock	1 1/2-0"	0+00 to 120+50		50	Mile	2.25	Miles	120	162
Fill armor rock	jaw-run	109+50		30	Culvert	1	Culvert	30	41
Dissipater rock	pit run	109+50		10	Culvert	1	Culvert	10	14
Culvert bedding rock	1 1/2-0"	109+50		20	Culvert	1	Culvert	20	27
Total Rock for Road Segment	16 to 17						300	405	

EXHIBIT D

FOREST ROAD SPECIFICATIONS

ROAD SEGMENT				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)
Application	Rock Size and Type	Location	Depth of Rock (inches)	24 to 25		0+00 to 7+90			
				Volume (CY) per		Number of			
Landing rock	3-0"	7+90		20	Landing	1	Landing	20	27
Junction rock	1 1/2-0"	0+00		20	Junction	1	Junction	20	27
Spot rock	3-0"	0+00 to 7+90		10	Station	7.9	Stations	80	108
Total Rock for Road Segment		24 to 25						120	162

ROCK CONVERSION FACTORS

Size	3/4-0"	1 1/2-0"	3-0"	4-0"	jaw-run	pit run
Tons/CY	1.35	1.35	1.35	1.35	1.35	1.35

(Conversion factors from Wild Rose Quarry)

Maintenance Rock Volumes in CY							
Rock Size	3/4 - 0"	1 1/2-0"	3-0"	4-0"	jaw-run	pit run	other
Rock Totals		200					

PROJECT NO. 1 ROCK VOLUMES							
Rock Size	3/4 - 0"	1 1/2-0"	3-0"	4-0"	jaw-run	pit run	36"-24"
Rock Totals CY	0	750	470	0	170	10	5
Rock Totals TONS	0	1013	635	0	230	14	7

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

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. 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.

Depth Measurement. 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.

Load Records. Notify STATE before spreading the rock and maintain a record of all rock delivered for spreading. Make the record available for STATE inspection. A report listing the amount of rock delivered the prior month must be submitted no later than the 15th of each month.

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.

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 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 or outsloped at 3 to 4 percent as specified in the "Forest Roads Specifications" table in Exhibit D.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
Points 5 to 6 and 7 to 8	1

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
Points 5 to 6 and 16 to 17	1, 2, and 3

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, compacted, and approved by STATE 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 crowned at 4 to 6 percent or outsloped at 3 to 4 percent as specified in the "Forest Roads Specifications" table in Exhibit D.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments requiring crushed rock.	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) Rubber-Tired Skidders. A rubber-tired skidder weighing a minimum of 20,000 pounds shall be operated over the fill layers so that the entire layered surface comes in contact with the tires. Skidders with oversized tires (high flotation) are not acceptable for compaction.
- (3) Vibratory Hand-Operated or Backhoe-Mounted Tamper. Vibratory hand-held or hydraulic tampers shall be used for compaction of backfill materials around culverts (and/or bridge approach embankment materials around abutments). The tamper shoe dimensions shall be a minimum of 10" X 13" and capable of a centrifugal force of 2,250 pounds.

EXHIBIT D

DURABLE CRUSHED ROCK SPECIFICATIONS

Grading Requirements

<u>For 1½"-0"</u>	Passing	2" sieve	100%
	Passing	1½" sieve	90-100%
	Passing	¾" sieve	60-90%
	Passing	¼" sieve	30-50%
	Passing	No. 10 sieve	15-30%
	Passing	No. 40 sieve	7-15%
<u>For 3"-0"</u>	Passing	4" sieve	100%
	Passing	3" sieve	90-100%
	Passing	1½" sieve	60-90%
	Passing	¾" sieve	40-60%
	Passing	¼" sieve	20-40%
	Passing	No. 10 sieve	5-20%
<u>For Jaw-Run</u>	Passing	6" sieve	100%
	Passing	3" sieve	45-65%
<u>For 6"-0" Pit-Run</u>	Passing	10" sieve	100%
	Passing	6" sieve	60-85%
	Passing	3" sieve	30-50%
	Passing	1/4" sieve	0-20%

For 24"-6" Riprap A minimum of 50 percent of the material shall measure a minimum of 24 inches, measured in one dimension. Material shall be clean, well graded, and free of 2"-0" fines.

Control of gradation shall be by visual inspection by STATE.

EXHIBIT D

CULVERT SPECIFICATIONS

All culvert materials except for the temporary culvert on Road Segment 5 to 6 (No. 3) shall be furnished and installed by PURCHASER, unless otherwise specified in the Contract. Culvert no. 3 (24" x 40') may be obtained at the ODF culvert stockpile located at the Philomath District Office.

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, **or** ASTM F2648 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 drains shall be skewed to fit the required culvert length to the road prism.

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.

A bedding of crushed rock as specified shall be placed to provide a wide band of support and to transmit the load from above evenly over the entire length of the culvert for all culverts.

Backfill shall consist of, crushed rock, rock crusher reject, or 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.

EXHIBIT D

CULVERT SPECIFICATIONS

Minimum height of cover over top of culvert to subgrade when road is to be rocked shall be as follows: 12" for culverts 18" to 36" and 18" for culverts 42" to 96" [add 6" for roads which will not be rocked]. 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.

The intake end of relief culverts shall be provided with a sediment catching basin 3 feet in diameter at the bottom. The outlet end of any culvert which would allow water to erode embankment soil shall be provided with an energy dissipater, or other approved slope protection device. Construct lead-off ditches away from culvert outlets where the slope gradients restrict the free flow of water.

Compaction by tamping utilizing a Vibratory Hand-Operated or Backhoe-Mounted Tamper is required for all culverts.

A manufacturer's certification that the product was manufactured, tested, and supplied in accordance with this specification shall be furnished to STATE upon request.

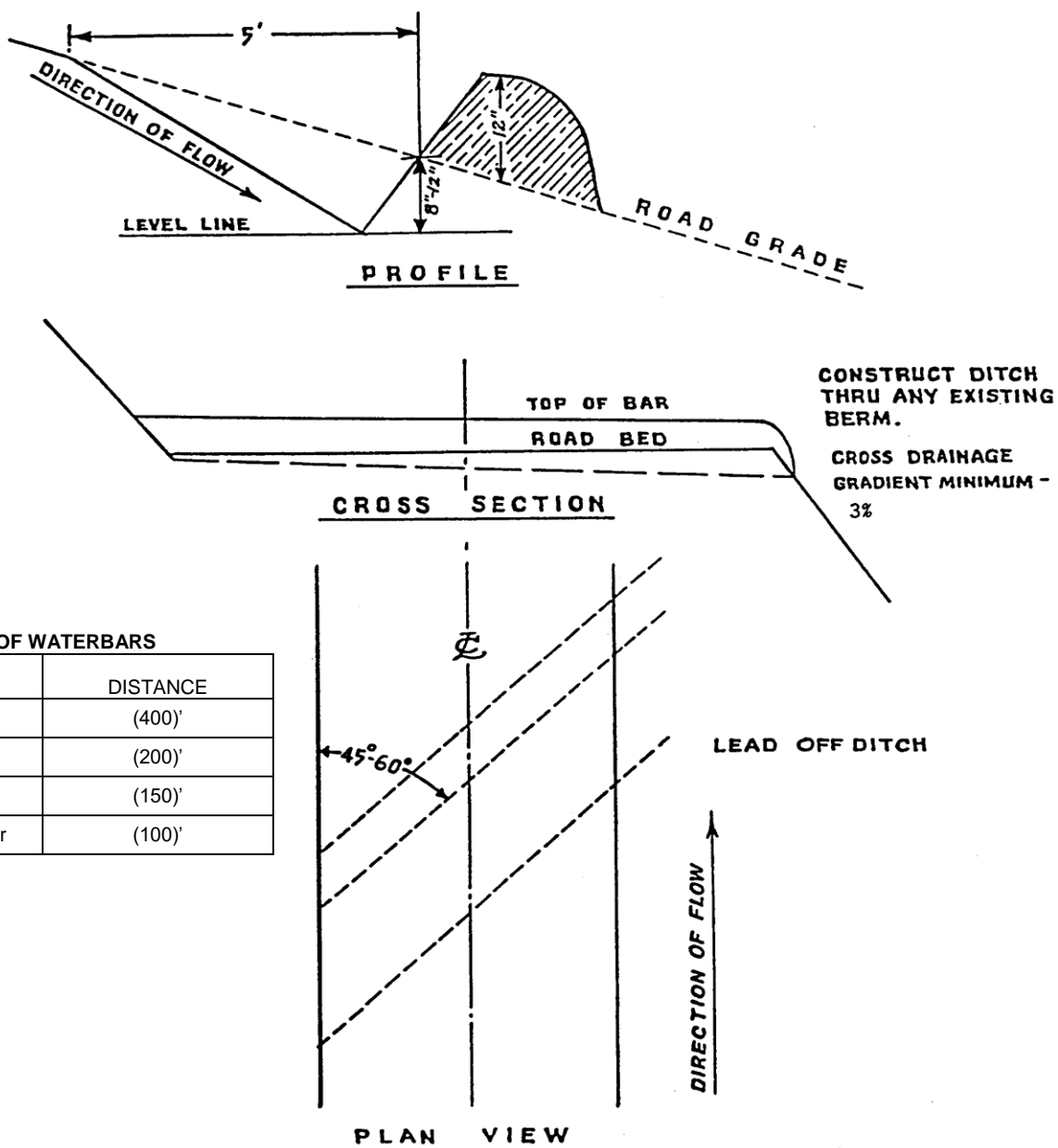
CULVERT LIST

CULVERT NO.	DIAMETER (Inches)	LENGTH (Feet)	MATERIAL TYPE	GAUGE	ROAD SEGMENT POINT TO POINT	STATION
1	18	40	CPP		1 to 2	27+20
2	18	40	CPP		1 to 2	119+80
3	24	40	CPP		5 to 6	2+70
4	24	40	CPP		16 to 17	109+50

CPP = Polyethylene

EXHIBIT D

WATERBAR SPECIFICATIONS



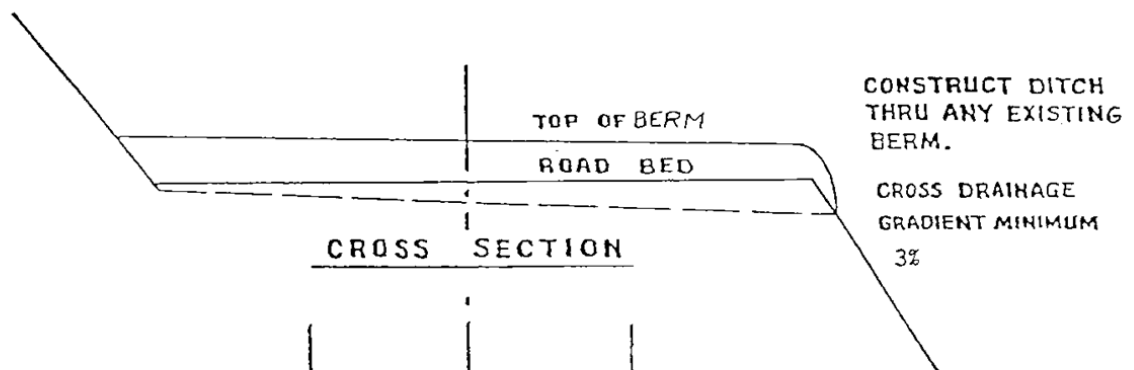
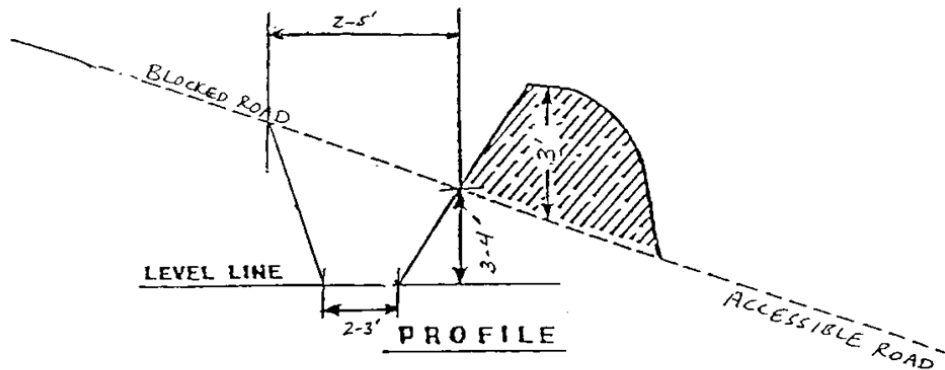
SPACING OF WATERBARS

ROAD GRADE	DISTANCE
≤ 5%	(400)'
6-10%	(200)'
11-15%	(150)'
16-20% or greater	(100)'

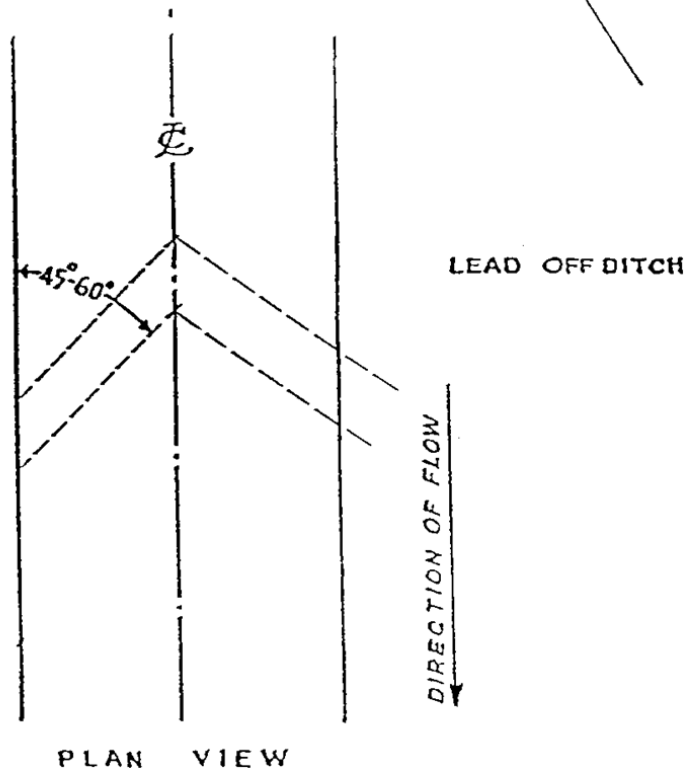
WATERBAR SPECIFICATIONS
FOR CROSS DITCHING #298

EXHIBIT D

TANK TRAP SPECIFICATIONS



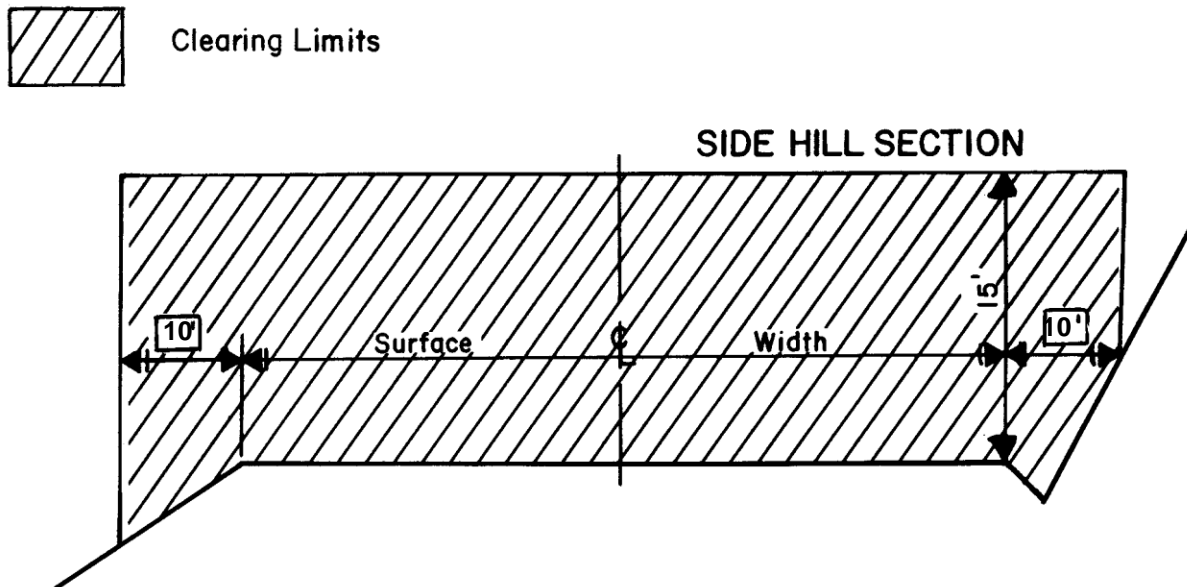
Tank trap shall be installed in a "V" shape. It should be sloped to drain with a relief ditch through the down slope edge of the road. The trench shall be behind the berm for approaching traffic.



TANK TRAP
SPECIFICATIONS

EXHIBIT E

ROAD BRUSHING SPECIFICATIONS



REQUIREMENTS

The minimum height of clearing shall be 15 feet from the road surface, and the minimum width of clearing on the cutslope side(s) of the road shall be 10 feet horizontal distance from the shoulder of the road and 10 feet horizontal on the down slope side from the road shoulder. 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 mulched or scattered downslope from the road or placed in other stable locations. Large debris, 6 inches or larger in diameter, shall be mulched or cut into lengths 6 feet or less to facilitate rapid decay, unless otherwise approved by STATE.

EXHIBIT E

ROAD BRUSHING SPECIFICATIONS

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 mulched or scattered downslope from the road or placed in other stable locations. Large non-merchantable debris, 6 inches or larger in diameter, shall be mulched or 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.

When spur roads to be brushed end with a Landing, the Landing is to be brushed as directed by STATE.

CULVERT AND ROAD MARKER DAMAGES. Culvert and road markers damaged, or any portion of a marker damaged from PURCHASER activities shall be assessed a damage fee of \$25 per marker.

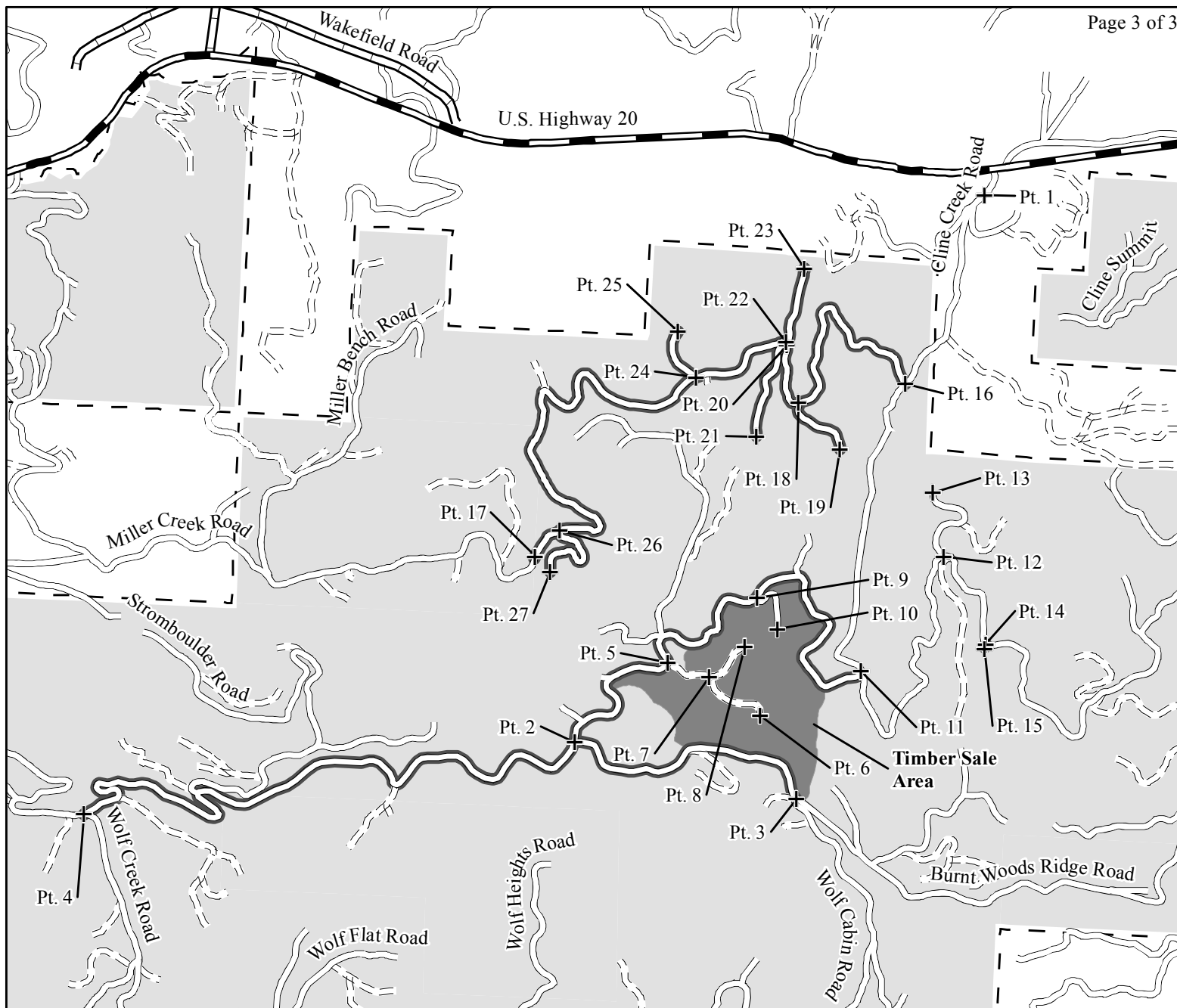


EXHIBIT "E"

ROADSIDE BRUSHING MAP

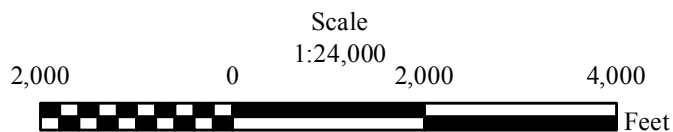
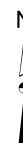
OF TIMBER SALE CONTRACT NO. 341-18-110
ICE HOLE
LINCOLN COUNTY, OREGON

Legend

- Timber Sale Area
- State Forest Property Boundary
- Roads**
- Highway
- Paved Road
- Surfaced Road
- Unsurfaced Road
- Project Point
- Roadside Brushing

This product is for informational use and may not have been prepared for or be suitable for legal, engineering or survey purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of this information.

Created By: Blake McKinley
bmckinley@odf.state.or.us
Date: 03/28/2018



PART IV: OTHER INFORMATION

State Timber Sale Contract
No. 341-18-110
Ice Hole

FPA Written Plan for Road Project Work

Ice Hole Timber Sale
Portions of Sections 19, T11S, R08W, W.M.,
Lincoln County, Oregon.

Protected Resource: A small Type F tributary to Miller Creek.

Situation: Replacement of a worn-out culvert on Miller Creek Road. The stream is a Type N at the road but becomes a Type F stream within 100 feet below the road. There is a registered pump chance immediately upstream of the road.

Resource Protection Measures:

All in-stream work will be performed only during dry weather periods, low water stream flows between July 1 and September 15.

In order to minimize sedimentation into the stream, stream flow will be diverted around culvert location using a volume pump and excess sediment above existing culvert will be excavated and end-hauled prior to culvert excavation. During in stream work, straw bales will be placed in stream channel between road and the Type F portion of the stream.

Machine activity in stream channels will be minimized. All excavation and rock placement will be performed using a 1 ½ cubic yard track mounted excavator.

Selected native earth materials free from woody debris will be used for backfilling. Fill material will be thoroughly compacted.

Excavated waste materials, not usable for fill, will be hauled to an approved waste area, as directed by STATE, shaped for drainage, and left in a stable condition.

All bare soils and waste areas will be armored with jaw-run rock or mulched with straw to prevent erosion.

I, the undersigned, submit this written plan in compliance with the requirements of the Forest Practices Act, regarding operations conducted within 300 feet of an endangered species nesting site.

PURCHASER REPRESENTATIVE _____ DATE _____

STATE REPRESENTATIVE _____ DATE _____

State Timber Sale Contract
No. 341-18-110
Ice Hole

FPA Written Plan for Timber Harvest

Ice Hole Timber Sale
Portions of Sections 19 & 20, T11S, R08W, W.M.,
Lincoln County, Oregon.

Protected Resource: Marbled Murrelet Management Area (Endangered species nesting site).

Situation: The south boundary of the timber sale area is adjacent to the Wolf Creek Marbled Murrelet Management Area (MMMA). No harvesting will occur within the MMMA, although use of guylines may be allowed in the MMMA with the following precautions.

Resource Protection Measures:

Use of Guylines in the Wolf Creek Marbled Murrelet Management Area (MMMA) shown on Exhibit A will have the following restrictions:

- (1) Consultation with STATE and approval of each Guyline and cable line placement is required before Guylining is allowed in this area. A lead time of two weeks is required to schedule a field consultation between STATE, PURCHASER, the Operator, and the person responsible for Guyline selection.
- (2) The following trees within the MMMA will not be selected for Guyline anchors:
 - (A) Trees with potential nest platforms or immediately surrounding trees that provide cover to the potential nest platforms, as determined by STATE.
 - (B) The largest trees in the areas where the number of large trees is limited.
 - (C) Minor conifer species not commonly found in the stand.
 - (D) Trees in a group of two or more.
- (3) Cables located within the MMMA will be located so that raising, lowering or use of the line will not damage trees considered to have suitable nesting platforms or associated cover trees.
- (4) The use of chainsaws within the MMMA shall not be allowed from April 1 through August 5 and from August 6 through September 15 between 2 hours before sunset to 2 hours after sunrise.
- (5) Any plans to Guyline in the MMMA must be addressed in the Operations Plan and at the Pre-Operations meeting.
- (6) Human food trash will be policed and removed from project areas adjacent to the MMMA on a daily basis. Food items and food waste will be stored inside appropriate containers or vehicles.

I, the undersigned, submit this written plan in compliance with the requirements of the Forest Practices Act, regarding operations conducted within 300 feet of an endangered species nesting site.

PURCHASER REPRESENTATIVE

DATE

STATE REPRESENTATIVE

DATE