

PART III: EXHIBITS

State Timber Sale Contract
No. 341-17-49
Doe Over

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.: 341-17-49

(2) Sale Name: Doe Over

(3) Contract Expiration Date: December 31, 2018

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.



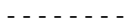
Cable Landing, with numbers for sequence.



Tractor Landing with alphabetical sequence.



Approximate setting boundary.



Spur truck roads.



Tractor yarding roads.



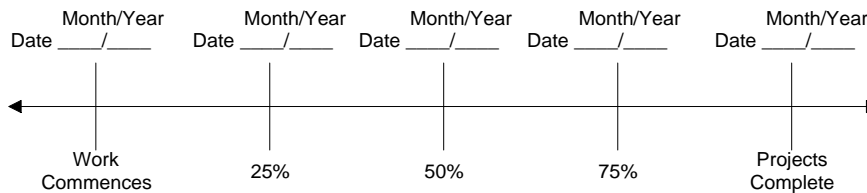
Temporary stream crossings.

EXHIBIT B
OPERATIONS PLAN

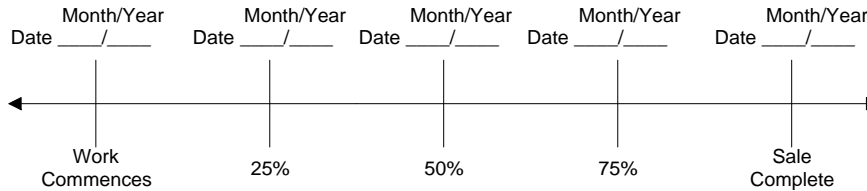
Completion Timeline

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 _____

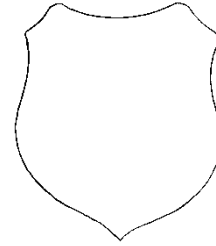
Title _____

Original: Salem
cc: District File
Unit
Purchaser
Operator
(Purchaser Representative) _____

SCALING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION

- (9) SALE NAME: Doe Over
COUNTY: Lincoln
- (10) STATE CONTRACT NUMBER: 341-17-49
- (11) STATE BRAND REGISTRATION NUMBER:

- (12) STATE BRAND INFORMATION (COMPLETE):



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

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

(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: | |

- (15) **REMARKS** "Mule train" loads require a load ticket
for each set of bunks.

(16) SIGNATURES:

State Forester Representative PRINT NAME

[illegible]

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: West Oregon Phone (541) 929-3266
(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 8 inches marked with blue paint.

(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.

(8) TPSO PROCESSING INSTRUCTIONS

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

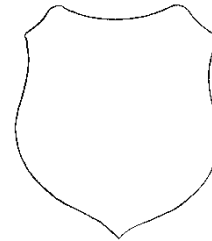
(9) SALE NAME: Doe Over

COUNTY: Lincoln

(10) STATE CONTRACT NUMBER: 341-17-49

(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.

Operator's Name (Optional inclusion by District):

(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	I1 to I2	0+00 to 149+80	Ditch
16 feet	12 feet	I2 to I10	149+80 to 164+30	Ditch
16 feet	12 feet	I2 to I3	0+00 to 6+30	Ditch
16 feet	12 feet	I3 to I4	6+30 to 14+30	Outslope
16 feet	12 feet	I3 to I5	0+00 to 8+10	Ditch
16 feet	--	I5 to I6	8+10 to 14+50	Ditch; Waterbar
16 feet	12 feet	I7 to I8	0+00 to 17+60	Ditch
16 feet	12 feet	I8 to I9 ¹	17+60 to 40+00	Ditch
16 feet	--	1A to 1B	0+00 to 32+50	Outslope; Waterbar
16 feet	--	1C to 1D	0+00 to 3+50	Outslope; Waterbar

1 - Dry weather haul only.

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 cutslope and 5 feet out from the toe of the fill slope, or as directed by STATE. Clearing debris shall not be placed or permitted to remain in or under any road embankment sections. Clearing debris shall not be left lodged against standing trees.

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

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

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

GRUBBING CLASSIFICATION.

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

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

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, dimensions, and plans when provided. Plans are provided between points 1A to 1B.

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 if ditched or outsloped at 2 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.

Location: 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

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

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

Fill Slopes

1½:1

1½:1

Top of cutslope 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 to fit terrain 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 this Exhibit, and blocked from vehicular traffic prior to October 1, annually and as directed by STATE.

EXHIBIT D
FOREST ROAD SPECIFICATIONS

GENERAL ROAD CONSTRUCTION INSTRUCTIONS:

- (1) Timber Removal. Remove all trees within posted right-of-way boundary as specified in Section 2210, "Designated Timber."
- (2) 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. Excess excavated material not used for embankment shall be end hauled to waste areas as shown on Exhibit A and marked in the field or be used for fill at landings.
- (3) Stripping material (stumps, duff, topsoil, tops, cull wood) shall not be sidecast in areas where downslope gradient exceeds 60%, but shall be hauled and placed in stable locations outside clearing limits.

SPECIFIC ROAD CONSTRUCTION INSTRUCTIONS

<u>Segment</u>	<u>Station</u>	<u>Work Description</u>
1A to 1B	0+00 to 5+30	Endhaul or drift to balance construction.
1A to 1B	5+30 to 13+80	Endhaul approximately 1200 CY or use to level landings.
1A to 1B	13+80 to 32+50	Endhaul or drift to balance construction.
1A to 1B	15+60, 19+00, 22+70, 26+60, and Point 1B	Construct 5 landings, stations are approximate, locations are posted in the field.
1A to 1B	0+00 to 32+50	Maximum grades should not exceed 16% adverse or 20% favorable.
1C to 1D	0+00 to 3+50	Excess material from 1A to 1B may be used to build up subgrade and landing as needed.
1C to 1D	Point 1D	Construct landing.

EXHIBIT D
FOREST ROAD SPECIFICATIONS

GENERAL ROAD IMPROVEMENT INSTRUCTIONS:

- (1) Excavated Materials. Excavated materials shall be utilized for road and fill construction and hauled in where necessary. Surplus excavation materials shall be hauled to the waste areas as marked in the field and/or designated on Exhibit A. Waste materials shall be sloped and compacted for drainage. Fills shall be thoroughly compacted in accordance with Exhibit D.
- (2) Drainage Ditches and Culverts. Restore or construct ditchlines, including ditchouts, as directed by STATE. Clean out all culvert inlets and outlets as directed by STATE. 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. Notify STATE of missing culvert markers.
- (3) Subgrade Preparation and Application of Surfacing Rock.
 - (a) Complete drainage ditches, fill reconstruction, ditchouts, and other specified work prior to the application of new surfacing rock.
 - (b) Cut out all potholes and/or washboard sections from the existing surfacing.
 - (c) Apply required patching and leveling rock, as directed by STATE.
 - (d) Process (grade and mix) the existing surface and added base rock. Provide for a crown or outslope of 4 to 6 percent to match existing road template and compact in accordance to the "Compaction and Processing Requirements" in this Exhibit.
 - (e) Upon completion of above required work, apply, process, and compact surfacing rock in accordance to this Exhibit.
- (4) Push or buck logs, tops, or brush at least 8 feet back from edge of rock.

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

<u>Segment</u>	<u>Station</u>	<u>Work Description</u>
I1 to I2	225+60 to I2	Clean 2 culverts as marked in field.
I2 to I10		Clean 2 culverts as marked in field.
I7 to I8		Clean 4 culverts as marked in field.
I8 to I9		Clean 2 culverts as marked in field.
I2 to I10 I2 to I3	151+20, 155+80 3+60	Construct 3 landings at locations marked in field.

EXHIBIT D
FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

<u>Segment</u>	<u>Station</u>	<u>Work Description</u>
I1 to I2 I2 to I10 I2 to I3 I3 to I5	0+00 to 149+80 149+80 to 164+30 0+00 to 6+30 0+00 to 8+10	Shape surfaced, ditched roads with a grader. Spot rock should be added in conjunction with initial grading. Add spot rock to turnouts as posted in the field. Correct potholes and level or crown prior to adding lifts of rock.
I5 to I6	8+10 to 14+50	Re-open road with a dozer. Shape unsurfaced, ditched road with a grader.
I5 to I6	Point I6	Re-open existing landing with a dozer.
I5 to I6		Clean 1 culvert as marked in field.
I3 to I4	6+30 to 14+20	Re-open road with dozer. Shape outsloped subgrade with a dozer.
I3 to I4	Point I4	Re-open existing landing with a dozer.
I3 to I4	10+20	Construct 1 landing as marked in field.
I3 to I4	6+30 to 14+20	Add and process a 6 inch lift of base rock.
I2 to I3, I3 to I4	0+00 to 13+70	Add and process a 4 inch lift of surface rock. Add junction rock to create a 2 way junction / turnaround at Point I3.
I2 to I10 I2 to I3 I3 to I4	151+20, 155+80 3+60 10+20, Point I4	Add jaw run rock to landings off existing rock surface. Spread and compact with dozer.
I2 to I4	0+00 to 14+30	This spur will be improved to wet weather haul status. (Note: Salmon Creek Road will still have a wet weather hauling restriction.)

EXHIBIT D
FULL BENCH AND END-HAUL REQUIREMENTS

POINT TO POINT	STA. TO STA.	CONTAINMENT - SIDECAST	WASTE AREA LOCATION	WASTE AREA TREATMENT
1A to 1B	0+00 to 5+30	2	1, 3	1, 2
1A to 1B	5+30 to 13+80	1	1, 3	1, 2
1A to 1B	12+00 to 32+50	2, 3	1, 2, 3	2

Full Bench and End-Haul Areas General Requirements

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. Material shall not be sidecast unless specified above.

Clearing and grubbing debris shall be placed in stable locations or end-hauled.

When controlled blasting is required, it shall be accomplished using timing devices, delayed charges, low intensity shots, or other suitable means to contain material within the road prism.

Containment/Sidecast

- (1) Full: No excavated material remains below the road.
- (2) Normal/Incidental: The amount of excavated material lost over the outside edge of the road shall not exceed 1 foot 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) As shown on Exhibit A and as marked in the field.
- (2) Setback from slope break shall be a minimum of 20 feet horizontal measurement.
- (3) Clean fill material may be used in subgrade construction or to level landings.

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

ROAD SURFACING [VOLUME MEASUREMENT]

ROAD PROJECT: 2 - Improvement				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)
Application	Rock Size and Type	Location	Depth of Rock (inches)	I1 to I10		0+00 to 164+30		
				Volume (CY) Per		Number of		
Spot Rock	1½-0" crushed	0+00 to 149+80	n/a	mile	100	Miles	3.1	280
Spot Rock	1½-0" crushed	149+80 to 164+30	n/a	Mile	100	Miles	0.3	30
Landing rock	Jaw run	151+20, 155+80	n/a	Landing	20	Landings	2	40
Total Rock for Road Segment:			0+00 to 164+30					350
ROAD PROJECT: 3 – Post Harvest				Volume (CY) Per		Number of		TOTAL VOLUME (CY)
Landing patch	1½-0" crushed	149+80 to 164+30	n/a	Landing	10	Landings	2	20
Total Rock for Road Segment:			289+10 to 303+60					20

ROAD PROJECT: 2 - Improvement				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)
Application	Rock Size and Type	Location	Depth of Rock (inches)	I2 to I4		0+00 to 14+30		
				Volume (CY) Per		Number of		
Base Rock	3-0" crushed	6+40 to 13+80	6"	Station	33	Stations	7.4	260
Surface Rock	1½-0" crushed	0+00 to 13+40	4"	Station	22	Stations	13.4	300
Turnouts	3-0" crushed	3+60, 10+20	6"	Turnout	10	Turnouts	2	20
Junctions	1½-0" crushed	I3	8"	Junction	20	Junctions	1	20
Landings	Jaw run	3+60, 10+20	n/a	Landing	20	Landings	2	40
Landings	Jaw run	I4	n/a	Landing	40	Landings	1	40
Total Rock for Road Segment:			I2 to I4					680
ROAD PROJECT: 3 – Post Harvest				Volume (CY) Per		Number of		TOTAL VOLUME (CY)
Landing patch	1½-0" crushed	3+60, 10+20	n/a	Landing	10	Landings	2	20
Turnarounds	3-0" crushed	I4	n/a	TA	40	TAs	1	40
Total Rock for Road Segment:			I2 to I4					60

EXHIBIT D

ROAD SURFACING [VOLUME MEASUREMENT]

ROAD PROJECT: 2 - Improvement				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)
Application	Rock Size and Type	Location	Depth of Rock (inches)	I7 to I9		0+00 to 40+00		
				Volume (CY) Per		Number of		
Surface Rock	1½-0" crushed	0+00 to 17+60	2"	Station	11	Stations	17.6	190
Curve widening	1½-0" crushed	0+00 to 17+60	2"	As needed				10
Turnouts	3-0" crushed	As marked	n/a	Turnout	10	Turnouts	3	30
Base Rock	3-0" crushed	17+60 to 40+00	4"	Station	22	Stations	22.4	490
Curve Widening	3-0" crushed	17+60 to 40+00	4"	As needed				20
Turnaround	3-0" crushed	Point 1A	4"					10
Total Rock for Road Segment:			I7 to I9					750

ROCK TOTALS	Jaw run	3-0"	1½-0"	1½-0" Final Maintenance
Cubic yards	120	870	870	200
Tons ¹	162	1175	1175	270

1 – Rock Conversion for this contract 1.35 tons per cubic yard.

Roads shall be uniformly graded, shaped and approved by STATE prior to rocking.
Volumes rounded to 10 cubic yards per load.

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

CRUSHED ROCK SPECIFICATIONS

Source. Crushed rock shall be obtained from a STATE approved commercial rock source.

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 30 percent Maximum.

DURABLE CRUSHED ROCK SPECIFICATIONS

<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%

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 or outsloped as specified in the "Forest Roads Specifications" table in Exhibit D.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
1A to 1B, 1C to 1D	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
1A to 1B, 1C to 1D (less than 24" total fill depth)	1 and/or 3
1A to 1B, 1C to 1D (more than 24" total fill depth)	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 until the surface is smooth and hard and visible deformation ceases. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

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

Rock shall be shaped to match subgrade as specified in the "Forest Roads Specifications" table in Exhibit D.

EXHIBIT D

COMPACTION AND PROCESSING REQUIREMENTS

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
Spot Rock, Landing patch, and turnaround	1 or 2
I2 to I4	1
I7 to I9	1

Jaw Run Rock. The rock shall be uniformly mixed and spread in layers on the approved roadbed. Each layer of jaw run rock shall be moistened or dried to uniform moisture content suitable for maximum compaction and compacted in layers not to exceed 8 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:

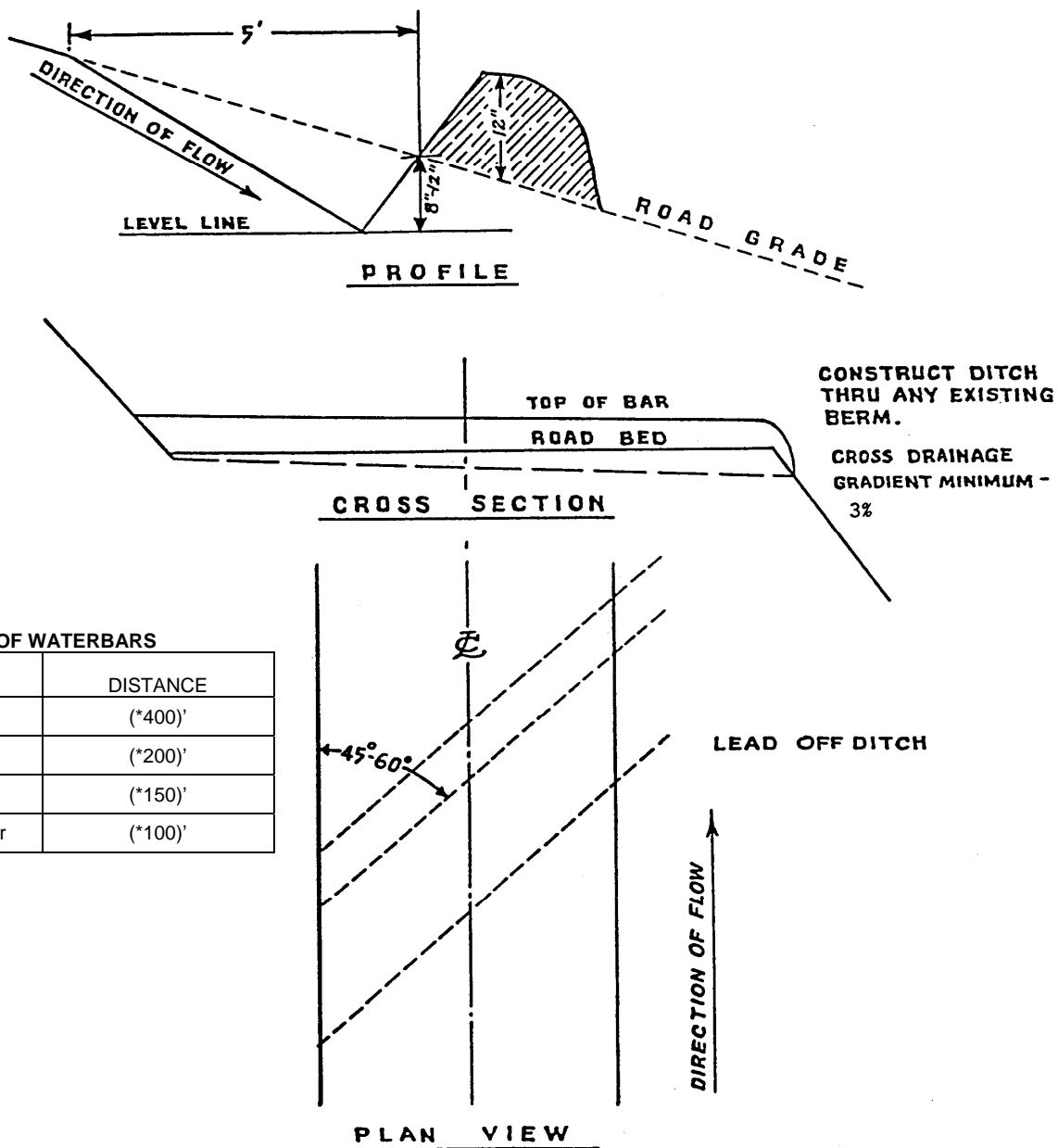
ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
Landing at I4	1 or 3

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) Loaded Dump Trucks. Dump trucks shall be routed over the entire cross section of the road surface. Loaded trucks shall cover all of the subgrade with a minimum of three passes.
- (3) Tractor D-7 or equivalent. Tractor shall be routed over the entire cross section of the road surface. Tractor shall cover all of the subgrade with a minimum of three passes.
- (4) Compaction not required.

EXHIBIT D

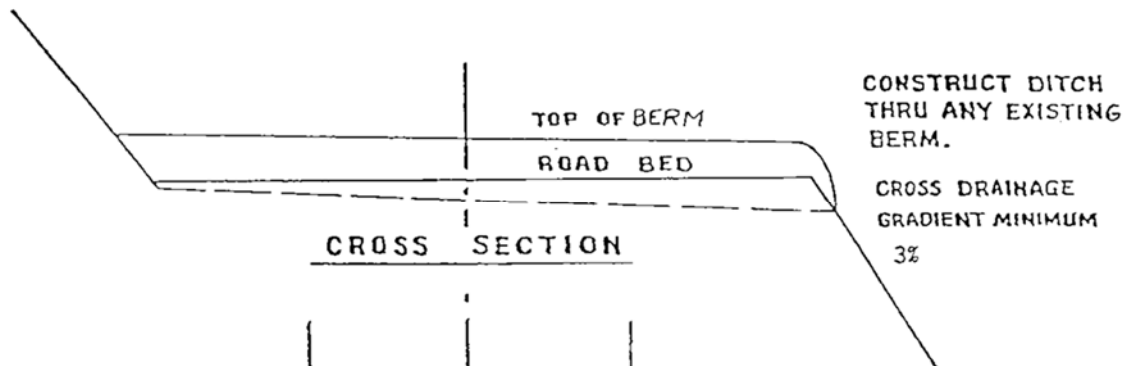
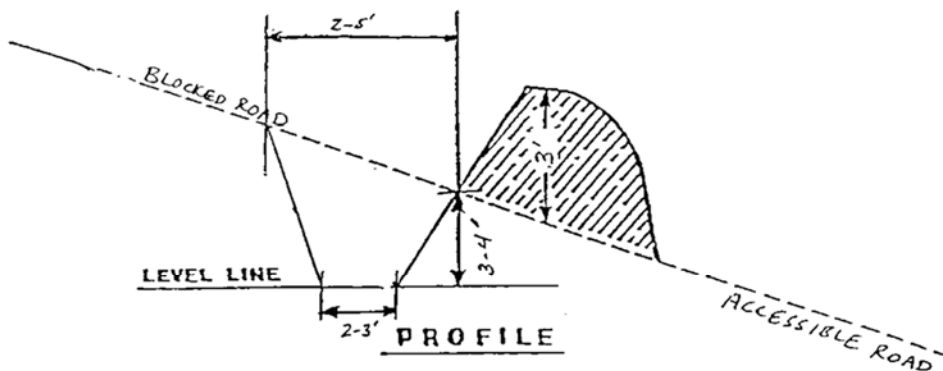
WATERBAR SPECIFICATIONS



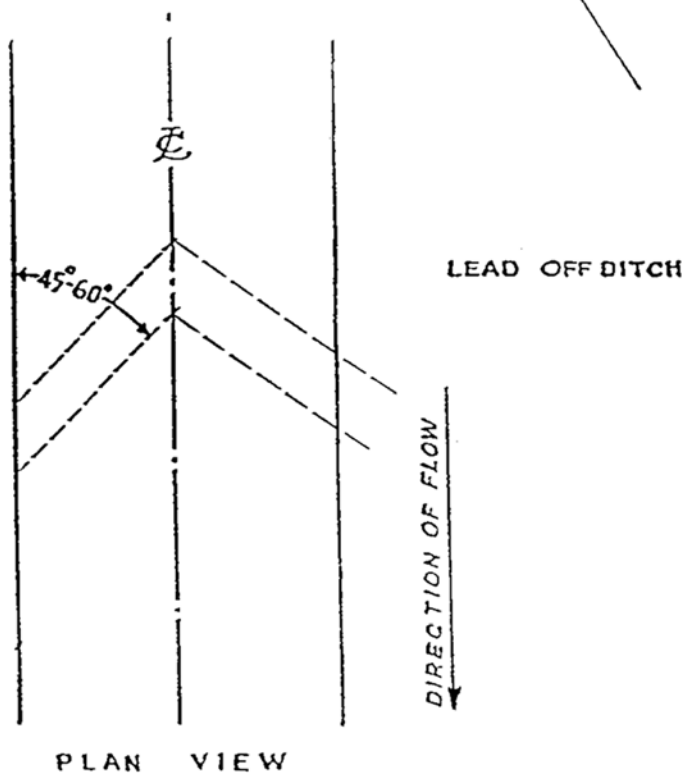
WATERBAR SPECIFICATIONS
FOR CROSS DITCHING #298

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

PART IV: OTHER INFORMATION

State Timber Sale Contract
No. 341-17-49
Doe Over

FPA Written Plan for Timber Harvest (Cable Lines in Type F Stream Buffer)

DOE OVER TIMBER SALE
Portions of Section 2, T12S, R09W, W.M.
Lincoln County, Oregon

Protected Resources: Two small Type F tributaries to Big Elk Creek, a large Type F stream.

Situation: Cable yarding skylines will likely pass over these streams and through the buffer canopy.

Resource Protection Measures:

- Trees adjacent to the stream buffers shall be felled so that they do not enter into the buffers.
- Trees will not be yarded through the buffers.
- Skyline corridors passing through the buffers will be spaced a minimum of 100 feet apart.
- Where the logging system requires the skyline to pass over the stream, cables will be pulled out of the streamside vegetation prior to rigging the next yarding road.

I, the undersigned, submit this written plan in compliance with the requirements of the Forest Practices Act, regarding operations conducted within 100 feet of Type F streams.

PURCHASER REPRESENTATIVE

DATE _____

STATE REPRESENTATIVE

DATE _____

State Timber Sale Contract
No. 341-17-49
Doe Over

FPA Plan for Alternate Practice for Timber Harvest inside Type F RMA

DOE OVER TIMBER SALE
Portions of Section 2, T12S, R9W, W.M.
Lincoln County, Oregon

Protected Resources: Big Elk Creek, a large Type F stream. Tributaries to Big Elk Creek, small Type F streams.

Situation: An approximate 450 foot long stretch of Big Elk Creek lies 30 to 100 feet outside of the timber sale boundary. Two small Type F tributaries are located on either side of the timber sale and flow into Big Elk Creek. Harvest operations will occur within 100 feet of Big Elk Creek and one of the side tributaries. The Harlan County Road (Lincoln County Road #538) runs between the timber sale boundary and Big Elk Creek. The slopes immediately above the road range from 10% to 80%, with the average being around 65%.

The Lincoln County Public Works Department has requested that ODF not leave trees above the road that could cause a public safety hazard (ORS 368.256). OAR 629-640-0100 (13) states that the State Forester may approve a plan for an alternate practice to modify the live tree retention requirements along a Type F stream, where leaving trees in a RMA on the upland side of a road may cause a safety hazard.

Resource Protection Measures:

- All trees and other vegetation located between the county road and Big Elk Creek will be left.
- A 100+ foot tree buffer has been left on the west tributary, trees in this buffer are located at the edge of the unit and are on 15 to 50% slopes.
- A 50 to 150 foot buffer has been left on the east tributary, trees in this buffer are located on the edge of the unit and are sheltered from wind by adjacent trees.
- Practices such as controlled felling and use of brush racks (i.e. high stumps) will be employed so that trees felled in Big Elk Creek RMA do not enter the stream.
- Slash resulting from harvest activities will be piled only at stable locations, 30 feet and greater from stream's edge, designated by ODF.

I, the undersigned, submit this Alternate Plan in compliance with the requirements of the Forest Practices Act, regarding retention of vegetation within a Type F stream RMA.

PURCHASER REPRESENTATIVE

DATE

STATE REPRESENTATIVE

DATE