

PART III: EXHIBITS

State Timber Sale Contract
No. 341-12-09
Cat's Eye

EXHIBIT B

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

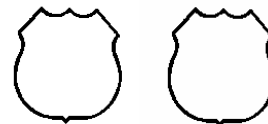
OREGON DEPARTMENT OF FORESTRY

TIMBER SALE OPERATIONS PLAN

(See Page 2 for instructions)

Date Received by STATE: _____

(5) State Brand Information (complete):



(1) Contract No.: 341-12-09

(2) Sale Name: Cat's Eye

(3) Contract Expiration Date: October 31, 2014

Project Completion Dates: October 31, 2013

(4) Purchaser: _____

(6) Purchaser Representatives:

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

(7) State Representatives:

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

(8) Name of Subcontractors & Starting Dates:

Projects: No(s) _____ - _____	Date: _____	Phone: _____
No(s) _____ - _____	Date: _____	Phone: _____
No(s) _____ - _____	Date: _____	Phone: _____
No(s) _____ - _____	Date: _____	Phone: _____
Logging: Felling _____	Date: _____	Phone: _____
Yarding: _____	Date: _____	Phone: _____

(9) Comments: _____

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

EXHIBIT B
INSTRUCTION SHEET FOR OPERATIONS PLAN

SUBMIT ONE COPY OF PLAN TO STATE

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

Explanation of Item No. (from Page 1)

- (5) All sales require you to use a brand furnished by STATE. If the State brand has not been assigned when the plan is submitted, it will be furnished and assigned later. Complete drawing. If more than one brand is assigned to the sale, complete both drawings.
- (6) The contract requires you to have a designated representative available on the sale area or work location who is authorized to receive in your behalf any notice or instruction given by STATE and to take action in regard to performance under the contract. If logging and project work is widely separated, a representative is required for each.
- (7) The STATE representative will be designated when your plan is approved and is the person who will inspect and issue instructions regarding performance.
- (8) Show names of subcontractors to be used for any or all phases of the operations. If subcontractors are not known, or are changed later, give notification to the STATE representative prior to commencement of work by subcontractor.

Show projected dates for commencement of both projects and logging. If projected dates need to be changed at a later date, notification must be given to the STATE representative by supplemental plan or otherwise, prior to commencement of such operations.

- (10) The STATE representative will furnish extra copies of Exhibit A of the contract for your use in preparing the operations map. The map shall use the following legend and show:
 - 1. Landing locations, approximate setting boundaries, and probable sequence of logging the settings. Number the settings in sequence.
 - 2. Locations of spur roads planned for construction, other than those required by the timber sale contract. Provide spur road specifications.
 - 3. Location of proposed tractor yarding roads. Show if and how marked on the ground.
 - 4. Location of temporary stream crossings.
 - 5. List the sequence of performing project work.
 - 6. Location of rock sources - attach pit development plans.



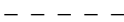



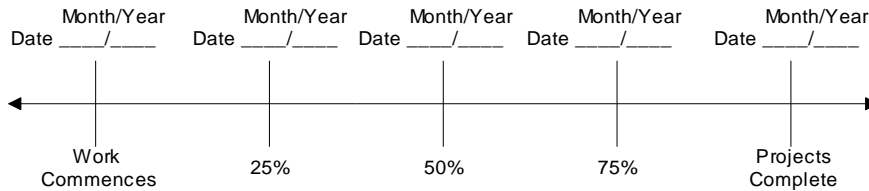
-  Cable Landing, with numbers for sequence.
-  Tractor Landing with alphabetical sequence.
-  Approximate setting boundary.
-  Spur truck roads.
-  Tractor yarding roads.
-  Temporary stream crossings.

EXHIBIT B
OPERATIONS PLAN

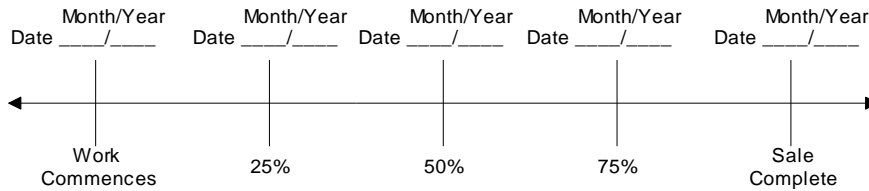
Completion Timeline

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

Projects



Harvest & Other Requirements



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

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

APPROVED: Date: _____

SUBMITTED BY:
PURCHASER

STATE OF OREGON - DEPARTMENT OF FORESTRY

Title _____

Title _____

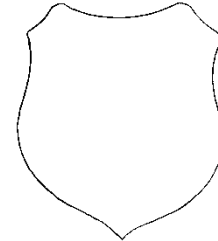
Original: Salem
cc: District File
Purchaser

EXHIBIT C – SAWMILL GRADE

SCALING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION

- (1) ORIGINAL REGISTRATION Date _____
 REVISION NUMBER _____ Date _____
 CANCELLATION Date _____
- (2) TO: _____
 (Third Party Scaling Organization)
- (3) FROM: Forest Grove (05) Phone 503-357-2191
 (State Forestry District)
 Address 801 Gales Creek Road
Forest Grove, OR 97116
- (4) PURCHASER: _____
 Mailing Address: _____
 Phone Number: _____

- (13) SALE NAME: Cat's Eye
 COUNTY: Washington
- (14) STATE CONTRACT NUMBER: 341-12-09
- (15) STATE BRAND REGISTRATION NUMBER _____
- (16) STATE BRAND INFORMATION (COMPLETE):



(5) MINIMUM SCALING SPECIFICATIONS			CLASS		
SPECIES	SCALING DIAMETER INCHES	*NET SCALE VOLUME	PER MBF	** SUM	SUB
Conifers		10	X		
Hardwoods		10	X		

- (17) PAINT REQUIRED: YES
 COLOR: Orange

* Apply minimum volume test to whole logs over 40' Westside; 20' Eastside.
 ** Sum (if indicated): see instructions and explain in Item (19).

- (6) WESTSIDE SCALE: YES NO
 Use Region 6 actual taper rule. Logs over 40'.
- (7) EASTSIDE SCALE: YES NO
 Use Region 6 actual taper rule. Logs over 40'.
- (8) Weight Scale Sample YES NO
 (6) – (8), pink log load receipts
- (9) Weight Sale YES NO
- (10) Per Load YES NO
- (9) and (10), yellow log load receipts

(18) SPECIAL REQUESTS (Check applicable)

PEELABLE CULL (all species)

NO DEDUCTIONS ALLOWED FOR MECHANICAL DAMAGE

PENCIL BUCK.....

ADD-BACK VOLUME - Deductions due to delay

OTHER: _____

- (19) REMARKS _____

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

(11) APPROVED SCALING LOCATIONS (as shown on the ODF Approved Locations website)	Species	Yard	Truck	Weight

- (20) SIGNATURES:
- _____
 Purchaser or Authorized Representative Date
- _____
 State Forester Representative Date
- _____
 State Forester Representative PRINT NAME

- (12) NOTICE OF CANCELLATION OF BRAND:
 Effective Date: _____

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

EXHIBIT C– SAWMILL GRADE
INSTRUCTIONS FOR FORM 343-307 (rev. 01/09)

- (1) Check appropriate box. REVISION NUMBER requires comments. CANCELLATION requires Item (12). Complete date.
- (2) Designate Third Party Scaling Organization (TPSO).
- (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. Review Section 2040 or 2045, "Log Removal," of the Contract. Species, or combined species can be separate entries. Information serves as a basis for scaling (see also Items (16) thru (18)), and is required to show existence on the sale. **SUM** (lump sum material). **SUB** (sub-merchantable material). SUB, as used by the State, references that material containing at least 10 bf (net) but less than the lower merchantable net volume limit or grade requirements for other merchantable (Per MBF) entries. Per MBF, SUM, and SUB must be indicated by checking the appropriate column. Species with the same specifications and value are combined into one entry. Per MBF and SUB require scaling therefore complete specifications. SUM need not be scaled, hence no specifications. Loads containing only SUM are to be ticketed if so instructed in Item (19). Mixed loads of SUM, Per MBF and/or subspecies will always be scaled.
- (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) Eastside – Region 6 actual taper/taper table segment scale. Special Service Rules on file with TPSO. See: Segment Scaling and Grading of Long Logs -- All Species -- State Forestry Department Scaling Practices (Northwest Log Rules Eastside). Items with * follow U.S. Forest Service Eastside rules.
- (8) 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 (19).
- (9) Weight Sale – Check box if sale is to be sold as a weight sale. Processing procedures from approved locations to TPSO's will be explained in the Remarks section of Item (19).
- (10) Per Load – Check box if volumes on sale are per load. Specific instructions for handling and processing will be fully explained in the Remarks section of Item (19).
- (11) 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.
- (12) When logging and hauling is complete, recall branding hammers, date and sign where indicated, check CANCELLATION box in Item (1), and send to TPSO.
- (13) Enter sale name and county.
- (14) Enter sale Contract number.
- (15) Enter Oregon's State Brand Registry Number **(REQUIRED)**.
- (16) Show brand assigned to timber sale. One brand only. If more than one brand is assigned to the sale: (1) make separate form for each brand and (2) on each form, explain and show other brand(s) in the Remarks section Item (19).
- (17) Check yes for Paint Required and designate "Orange" for color. Non required removal volumes may sometimes require blue paint.
- (18) 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.
- (19) 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.
- (20) 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 e-mailed directly to the State Forests Program/Asset Management Unit to both Timber Revenue Specialists. Scaling instructions for each brand should be scanned separately, for each approved TPSO.

EXHIBIT D
FOREST ROAD SPECIFICATIONS

SUBGRADE WIDTH	SURFACED WIDTH	POINT TO POINT	STATION TO STATION	DRAINAGE
16 feet	12 feet	A to B	0+00 to 38+90	Ditch
16 feet	12 feet	C to D	0+00 to 20+75	Ditch
16 feet	12 feet	E to F	0+00 to 6+65	Ditch
16 feet	12 feet	G to H	0+00 to 20+00	Ditch
16 feet	12 feet	I to J	0+00 to 6+80	Ditch
16 feet	12 feet	K to L	0+00 to 1+30	Ditch

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

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

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

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

GRUBBING CLASSIFICATION.

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

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

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.

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 as shown on the "Forest Road Specifications" table in this Exhibit.

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

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

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

Location: Intervisible but not greater than 750 feet apart.

<u>SLOPES</u>	<u>Back Slopes</u>	<u>Fill Slopes</u>
Solid Rock	Vertical to ¼ :1	
Fractured Rock	½ :1	
Soil - side slopes 50% and over	½ :1	1½:1
Soil - side slopes less than 50%	¾ :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 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 I, and blocked from vehicular traffic prior to October 31, annually and as directed by STATE.

EXHIBIT D
FOREST ROAD SPECIFICATIONS

GENERAL ROAD CONSTRUCTION INSTRUCTIONS:

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

SPECIFIC ROAD CONSTRUCTION INSTRUCTIONS

<u>Segment</u>	<u>Station</u>	<u>Work Description:</u>
C to D	0+00	Point C. Begin construction. Junction with A to B at 23+65.
	2+90	Begin excavating and drifting material forward to lessen grade.
	3+90	End drifting.
	7+00	Point E. Junction right.
C to D	20+75	Point D. End construction. Construct Landing.
E to F	0+00	Point E. Begin construction. Junction with C to D at 7+00.
	1+00	Excavate and drift material back towards 0+00 to construct grade.
	3+60	Construct roadside Landing.
E to F	6+65	Point F. End construction. Construct Landing.
G to H	0+00	Point G. Begin construction. Junction with A to B at 36+60.
	6+60	Point I. Junction right.
	9+80	Install Culvert No. 10 (18" x 30').
	11+00	Point K. Junction right.
G to H	20+00	Point H. End construction. Construct Landing.
I to J	0+00	Point I. Begin construction. Junction with G to H at 6+60.
	3+60	Construct roadside Landing.
I to J	6+80	Point J. End construction. Construct Landing.
K to L	0+00	Point K. Begin construction. Junction with G to H at 11+00.
K to L	1+30	Point L. End construction. 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. Culvert Replacement, Culvert Installation, Fill Reconstruction, and Fill Removal. Existing culvert geometry shall be modified to provide for optimum drainage and culvert performance. Modifications may include, skewing the culvert and/or installing the culvert at gradients equal to or exceeding the drainage (or ditch) gradient. Where fill reconstruction or culvert replacement is specified, fills shall be excavated to natural stream course levels. All woody debris encountered during fill excavation shall be removed. All waste materials shall be hauled to nearby waste areas and shall be uniformly sloped and compacted for drainage. Waste materials shall be seeded and mulched in accordance with specifications in Exhibit K. Fill reconstruction backfill shall consist of select materials and may be obtained from borrow pits, as directed by STATE. Backfill materials shall be hauled in where necessary and thoroughly compacted in accordance with this Exhibit. Crushed rock shall be used for backfilling excavation trenches less than 3 feet deep. STATE may require the use of crushed rock for culvert bedding.
3. Fill Armor and Energy Dissipator Construction. Where rock is specified for fill armor, rock shall be machine placed and tamped at a 1½:1 slope, beginning at the toe of the fill. Where rock is used for an energy dissipator, rock shall be placed below the culvert outlet and embedded for a minimum of 3 feet, in accordance with Exhibit H.

EXHIBIT D
FOREST ROAD SPECIFICATIONS

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

<u>Segment</u>	<u>Station</u>	<u>Work Description:</u>
A to B	0+00	Point A. Begin road improvement. Grade and spot rock existing road.
	7+10	Remove tank trap. Begin lift of 3"-0 crushed rock according to Exhibits D, E and H.
	7+30	Install Culvert No. 1 (18" x 30"). Install energy dissipator by placing 20 cubic yards of 24"-6" riprap according to Exhibit H. Begin widening grade by moving centerline 5 feet left. Use suitable material for fill construction at 11+08.
	9+50	End widening.
	11+08	Project No. 3. Install Culvert No. 3 (95" x 67") according to Exhibit E. Excavate and end-haul unsuitable material to Waste Area No. 1. Fill height at road centerline shall be 8.7 feet. Final subgrade fill width shall be 26 feet. Place 60 cubic yards of 24"-6 riprap as fill armoring.
	12+40	Install Culvert No. 4 (18" x 30'). Install energy dissipator by placing 20 cubic yards of 24"-6" riprap according to Exhibit H.
	15+90	Install Culvert No. 5 (18" x 30'). Install energy dissipator by placing 20 cubic yards of 24"-6" riprap according to Exhibit H.
	20+66	Install Culvert No. 6 (18" x 30').
	23+65	Point C. Junction right.
	28+70	Install Culvert No. 7 (18" x 30').
	30+30	Project No. 4. Point G. Bridge installation.
	31+75	Install Culvert No. 8 (18" x 30').
	34+10	Install Culvert No. 9 (18" x 30').
	36+60	Point G. Junction right.
	38+90	Point B. End improvement.

EXHIBIT D
 ROAD SURFACING

ROAD SEGMENT: A to B				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)
Application	Rock Size and Type	Location	Depth of Rock (inches)	A to B		0+00 to 38+90		
				Volume (CY) Per		Number of		
Spot Rock	Crushed 3"-0	0+00 to 7+10	N/A					200
Base Rock	Crushed 3"-0	7+10 to 38+90	8"	Station	42	Stations	38.9	1,336
Turnouts	Crushed 3"-0	A to B	8"	Turnout	14	Turnouts	5	70
Junctions	Crushed 3"-0	Pt. C, Pt. E	8"	Junction	20	Junctions	2	40
Curve Widening	Crushed 3"-0		8"	Station	10	Stations	3	30
Fill Widening	Crushed 3"-0	11+08	8"	Fill	30	Fills	1	30
Culvert Bedding	Crushed 1½"-0	11+08		Culvert	60	Culverts	1	65
Select Pit-run	Pit-run 6"-0	11+08	18"	Culvert	30	Culverts	1	30
Fill Armoring	Riprap 24"-6"	11+08	N/A	Fill	60	Fills	1	60
Energy Dissipators	Riprap 24"-6"	7+30, 12+40, 15+90	N/A	Energy Dissipator	20	Energy Dissipators	3	60
Total Rock for Road Segment:				A to B				1,921
ROAD SEGMENT: C to D				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)
Application	Rock Size and Type	Location	Depth of Rock (inches)	C to D		0+00 to 20+75		
				Volume (CY) Per		Number of		
Base Rock	Crushed 3"-0	C to D	6"	Station	31	Stations	20.75	612
Turnouts	Crushed 3"-0	C to D	6"	Turnout	11	Turnouts	2	22
Junctions	Crushed 3"-0	Pt. E	6"	Junction	20	Junctions	1	20
Turnaround	Crushed 3"-0		6"	Turnaround	10	Turnarounds	1	10
Landings	Crushed 3"-0	Pt. D	6"	Landing	47	Landings	1	47
Total Rock for Road Segment:				C to D				711
ROAD SEGMENT: E to F				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)
Application	Rock Size And Type	Location	Depth of Rock (inches)	E to F		0+00 to 6+65		
				Volume (CY) Per		Number Of		
Base Rock	Crushed 3"-0	E to F	6"	Station	31	Stations	6.65	206
Turnaround	Crushed 3"-0		6"	Turnaround	10	Turnarounds	1	10
Landings	Crushed 3"-0	3+60, Pt. F	6"	Landing	47	Landings	2	94
Total Rock for Road Segment:				E to F				310

EXHIBIT D
 ROAD SURFACING

ROAD SEGMENT: G to H				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)
Application	Rock Size and Type	Location	Depth of Rock (inches)	G to H		0+00 to 20+00		
				Volume (CY) Per		Number of		
Base Rock	Crushed 3"-0	G to H	6"	Station	31	Stations	20.0	620
Turnouts	Crushed 3"-0	G to H	6"	Turnout	11	Turnouts	1	11
Curve Widening	Crushed 3"-0		6"	Station	8	Stations	1	8
Junctions	Crushed 3"-0	Pt. I, Pt. K	6"	Junction	20	Junctions	2	40
Turnaround	Crushed 3"-0		6"	Turnaround	10	Turnarounds	1	10
Landings	Crushed 3"-0	Pt. H	6"	Landing	47	Landings	1	47
Total Rock for Road Segment:				G to H				736
ROAD SEGMENT: I to J				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)
Application	Rock Size And Type	Location	Depth of Rock (inches)	I to J		0+00 to 6+80		
				Volume (CY) Per		Number Of		
Base Rock	Crushed 3"-0	I to J	6"	Station	31	Stations	6.8	211
Curve Widening	Crushed 3"-0		6"	Station	8	Stations	1	8
Turnaround	Crushed 3"-0		6"	Turnaround	10	Turnarounds	1	10
Landings	Crushed 3"-0	Pt. J	6"	Landing	47	Landings	2	94
Total Rock for Road Segment:				I to J				323
ROAD SEGMENT: K to L				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)
Application	Rock Size And Type	Location	Depth of Rock (inches)	K to L		0+00 to 1+30		
				Volume (CY) Per		Number Of		
Base Rock	Crushed 3"-0	K to L	6"	Station	31	Stations	1.3	40
Turnaround	Crushed 3"-0		6"	Turnaround	10	Turnarounds	1	10
Landings	Crushed 3"-0	Pt. L	6"	Landing	47	Landings	1	47
Total Rock for Road Segment:				K to L				97
Point M				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)
Application	Rock Size And Type	Location	Depth of Rock (inches)	M				
				Volume (CY) Per		Number Of		
Abutments	Crushed 1½"-0	Pt. M	N/A	Abutment	10	Abutments	2	20
Approaches	Crushed 1½"-0	Pt. M	N/A	Approaches	20	Approaches	1	40
Armoring	Riprap 24"-6"	Pt. M	N/A	N/A				50
Total Rock for Point M:								110

ROCK TOTALS (CY)	24"-6"	6"-0	3"-0"	1½"-0"
	170	30	3,883	125

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.

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

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments that require rock surfacing.	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
All road segments.	1, 2, 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 and compacted before the succeeding layer is placed. Any irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and adding or removing material until the surface is smooth and uniform. Each layer shall be compacted with a minimum of 3 passes over the entire width and length of the road until the surface is smooth and hard and visible deformation ceases. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

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

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

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

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) Tampingfoot Compactors. Tampingfoot compactors shall exert a minimum pressure of 250 pounds per square inch on the ground area in contact with the tamping feet. The compactor shall cover a minimum width of 60 inches per pass and weigh a minimum of 16,000 pounds.
- (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 E
CULVERT SPECIFICATIONS

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

Culverts shall be constructed of corrugated double-walled polyethylene or corrugated aluminized (Type 2) steel.

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

Aluminized (Type 2) steel culverts shall meet the requirements of AASHTO M-36-03¹.

Polyethylene culverts shall not be used where required culvert diameter is over 36 inches.

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 stream crossing culverts.

Backfill shall consist of, 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 E
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". 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 dissipator, half round, or other approved slope protection device. Construct lead-off ditches away from culvert outlets where the slope gradients restrict the free flow of water.

Culverts 24 inches in diameter or larger shall have 1:1 step beveled inlets.

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

All culverts scheduled for replacement shall become property of the PURCHASER and be removed from STATE land in the same project period in which replacement occurred.

The intake ends of culverts in fills less than 3 feet to the top of the culvert shall be marked by driving steel posts within 6 inches of the downgrade side. Posts shall be painted with a rust-resistant paint and be a minimum of 5 feet long, with the spade driven 2 feet into the ground.

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

Following are the minimum standard gauges for steel culvert and coupling bands. Some culverts may require different gauges and may be found in the culvert listing.

Culverts larger than 60" in diameter shall have 3" x 1" corrugations.

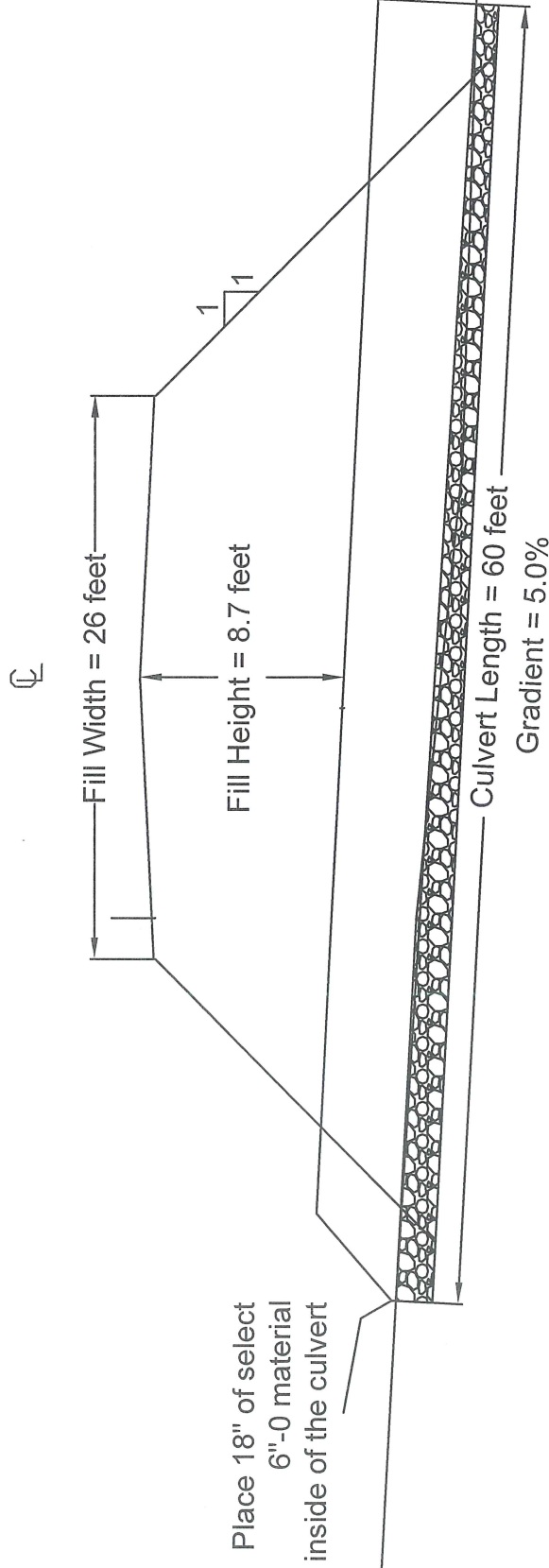
EXHIBIT E
CULVERT LIST

CULVERT NO.	DIAMETER (Inches)	LENGTH (Feet)	MATERIAL TYPE	GAUGE	ROAD SEGMENT POINT TO POINT	STATION
1	18	30	CPP		A to B	7+30
3	95 x 67	60	ACSP	12	A to B	11+08
4	18	30	CPP		A to B	12+40
5	18	30	CPP		A to B	15+90
6	18	30	CPP		A to B	20+66
7	18	30	CPP		A to B	28+70
8	18	30	CPP		A to B	31+75
9	18	30	CPP		A to B	34+10
10	18	30	CPP		G to H	9+80

ACSP = Aluminized, CPP = Polyethylene

Cat's Eye No. 341-12-09

Exhibit E
Culvert No. 3 Profile



RP#1 Elevation = 101.47
RP#2 Elevation = 94.86

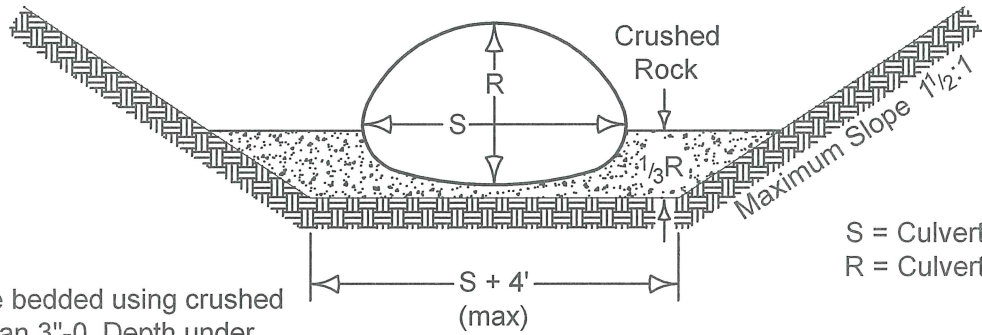
Inlet Elevation = 87.0 feet
Outlet Elevation = 83.9 feet

Oregon Department Forestry
Forest Grove District

No Scale

T2N, R5W, Sec. 11, NW SE, Washington County

BEDDING DETAILS



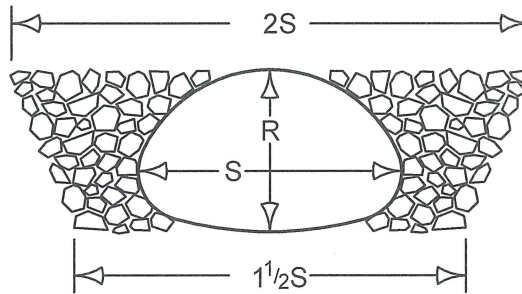
S = Culvert Span
R = Culvert Rise

Culverts shall be bedded using crushed rock no larger than 3"-0. Depth under the culvert may vary, but shall be a minimum of 6". Rock shall be machine compacted.

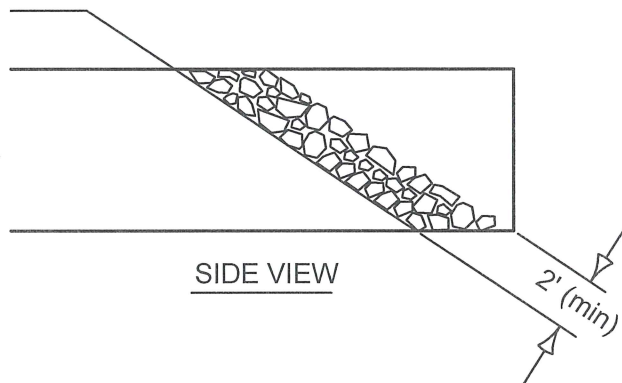
END VIEW

RIP RAP DETAILS

Culverts shall be armored at both the inlet and outlet by machine placing 24" - 12" rip rap as shown.



END VIEW



SIDE VIEW

No Scale

EXHIBIT F

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%

PIT-RUN AND RIPRAP ROCK SPECIFICATIONS

<u>For Select 6"-0" Pit-Run</u>	Passing	10" sieve	100%
	Passing	6" sieve	60-85%
	Passing	3" sieve	30-50%
	Passing	¼" 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 G

GEOTEXTILE SPECIFICATIONS

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

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

EXHIBIT H

TYPICAL EMBEDDED ENERGY DISSIPATOR

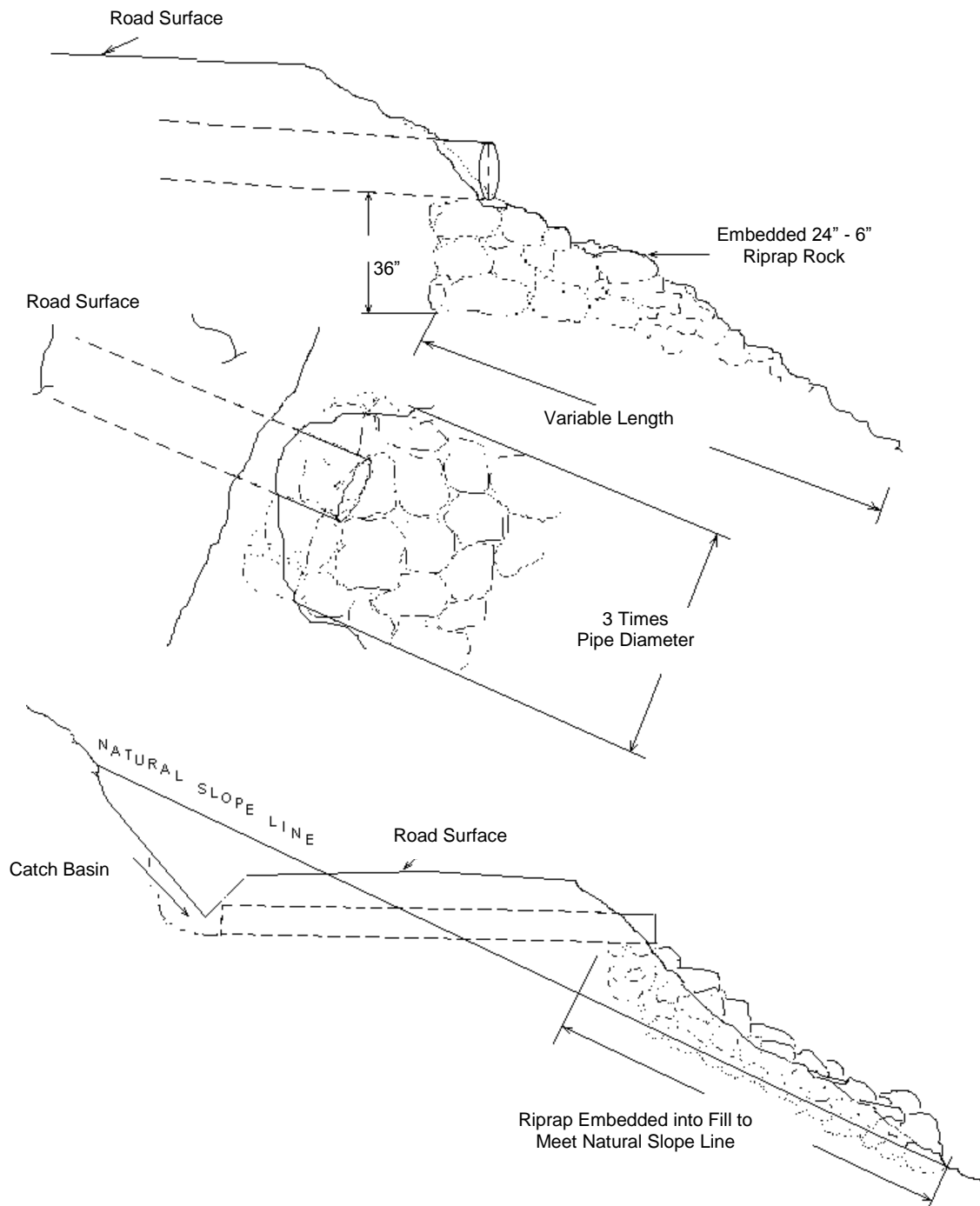
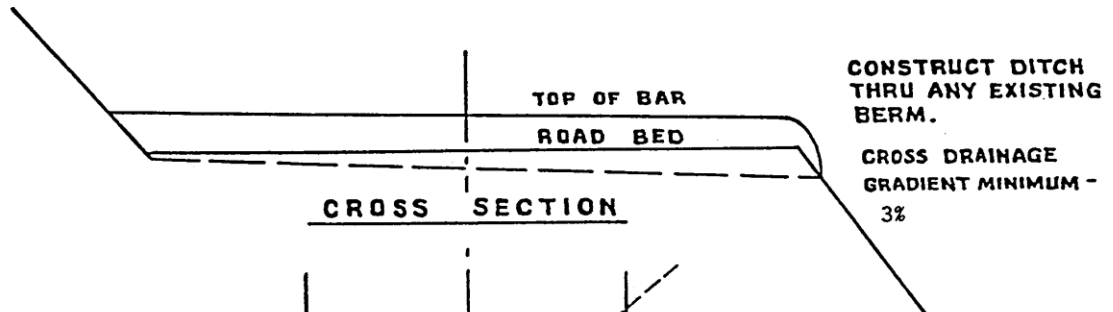
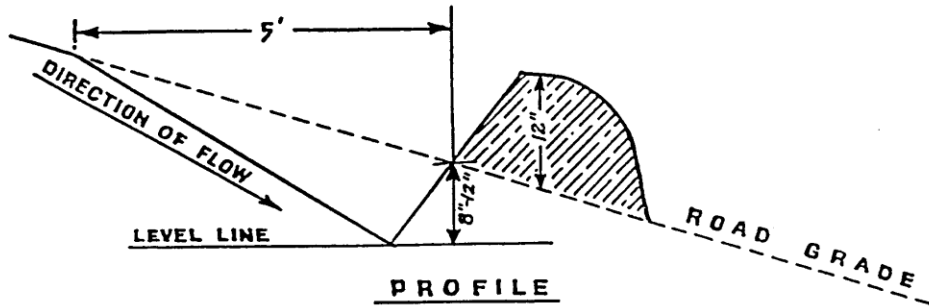
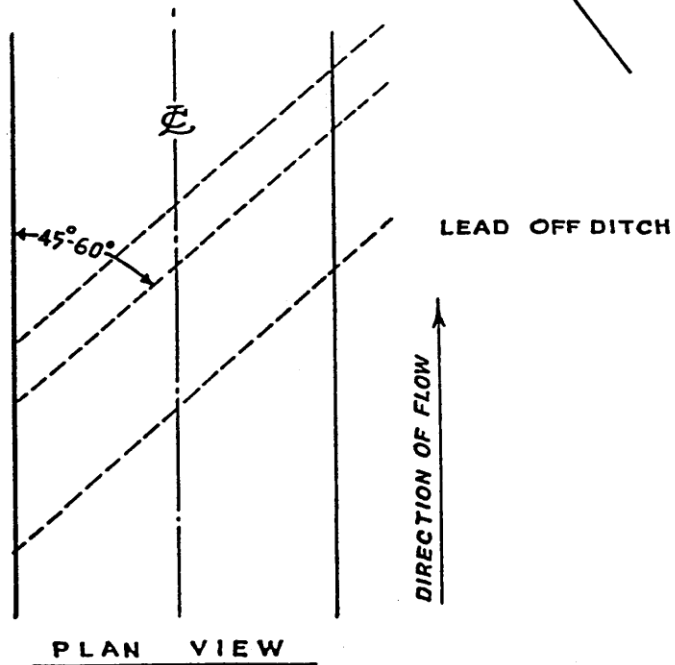


EXHIBIT I
 WATERBAR SPECIFICATIONS



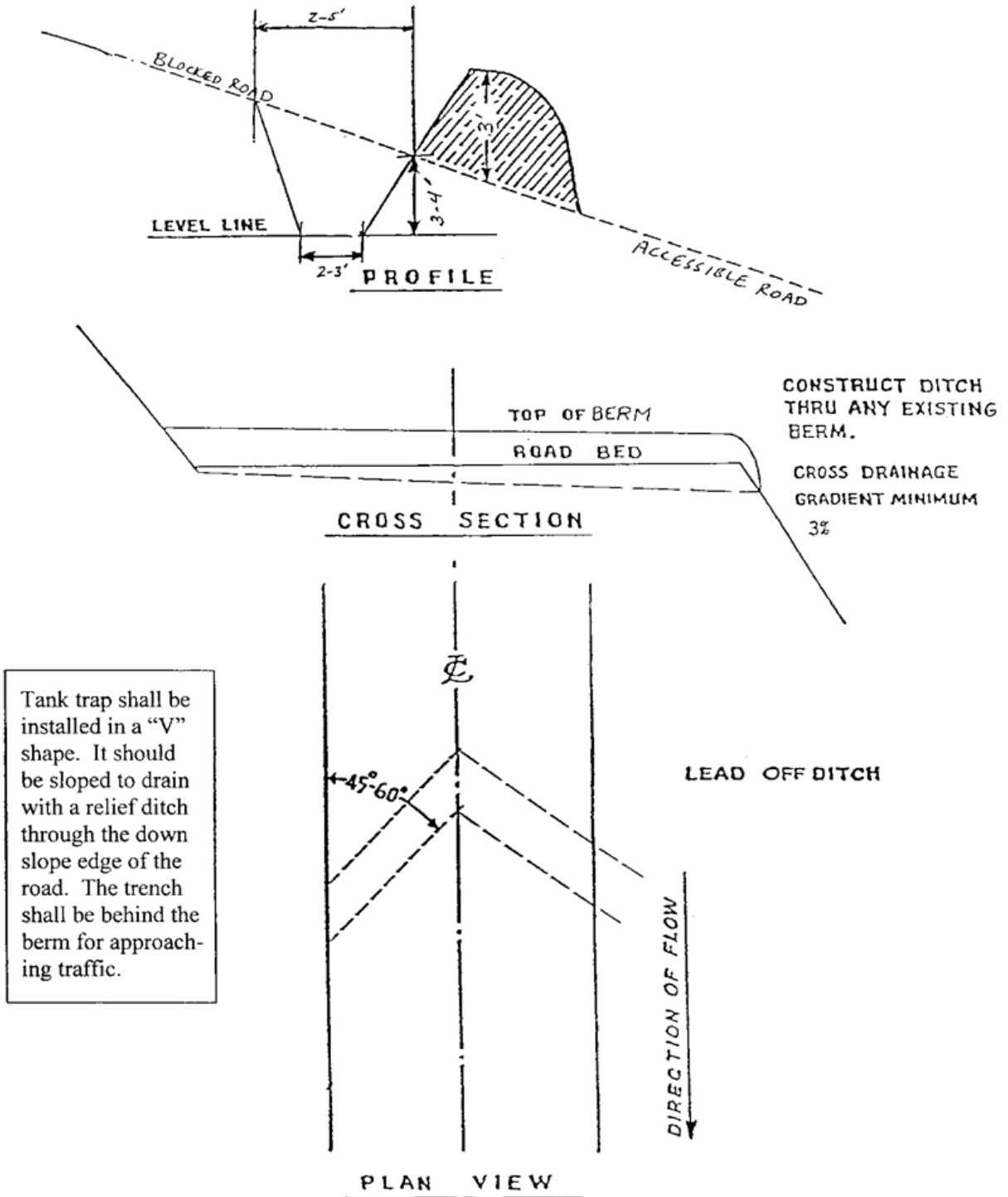
SPACING OF WATERBARS

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



**WATERBAR SPECIFICATIONS
 FOR CROSS DITCHING #298**

EXHIBIT I
TANK TRAP SPECIFICATIONS



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

TANK TRAP SPECIFICATIONS

EXHIBIT J

LOG STRINGER BRIDGE SPECIFICATIONS

PURCHASER shall provide and install a bridge that will provide an adequate crossing for all rock and log hauling activities associated with the timber sale contract. The bridge shall be at least 36 feet in length and provide a natural stream channel of at least 12 feet wide. Unsuitable material shall be excavated and end-hauled to an approved waste area.

BRIDGE REQUIREMENTS

- (a) The bridge materials and installation shall comply with all applicable OR-OSHA, Division 7 requirements.
- (b) The bridge shall be a minimum of 36 feet in length, and shall provide a running surface of 14 feet in width.
- (c) The running surface shall consist of crushed rock.
- (d) The bridge shall be installed to provide for:
 - A minimum open stream channel at least 12 feet wide, measured parallel with the bridge axis.
 - Provide a minimum clearance of five feet between the bottom of the superstructure and the elevation of the stream bottom in the low flow channel measured on the upstream side of the bridge.
 - Developed slopes shall be no steeper than 1:1.

BRIDGE MATERIALS. Logs shall be selected from trees within the marked right-of-way or timber sale area boundary adjacent to the bridge site.

- (a) SILL LOGS
Sill logs shall be Douglas-fir and shall be a minimum of 36 inches in diameter on the small end. Sill logs shall be slabbed on the sides contacting the soil to provide a flat bearing surface at least 2 feet wide. Additional logs shall be placed as wing logs if necessary to contain backfill.
- (b) STRINGERS
Stringers shall be Douglas-fir and shall be approximately 24 inches in diameter on the small end. The number of stringers shall be sufficient to provide a 14-foot surfaced road width when the brow logs are placed. Small logs shall be placed as necessary to shim between the stringers and provide a smooth surface for placing crushed rock.
- (c) BROW LOGS
Brow logs shall be Douglas-fir and shall be of a diameter sufficient to provide a rub guard height of 10 inches above the finished road surface.

EXHIBIT J

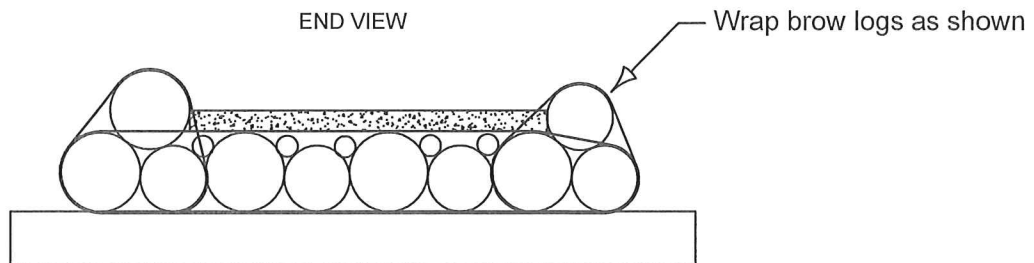
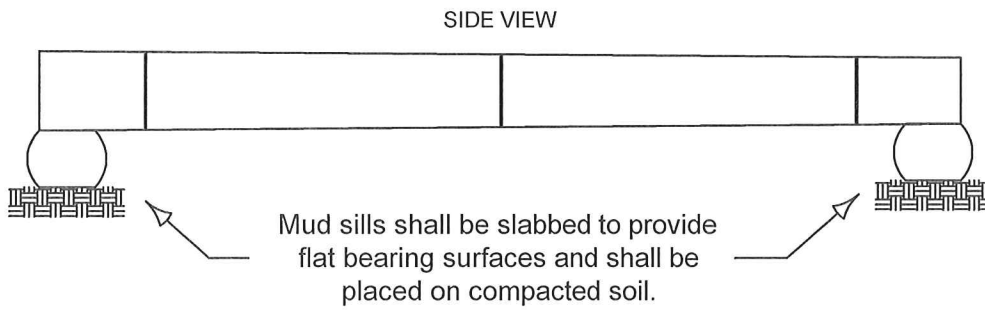
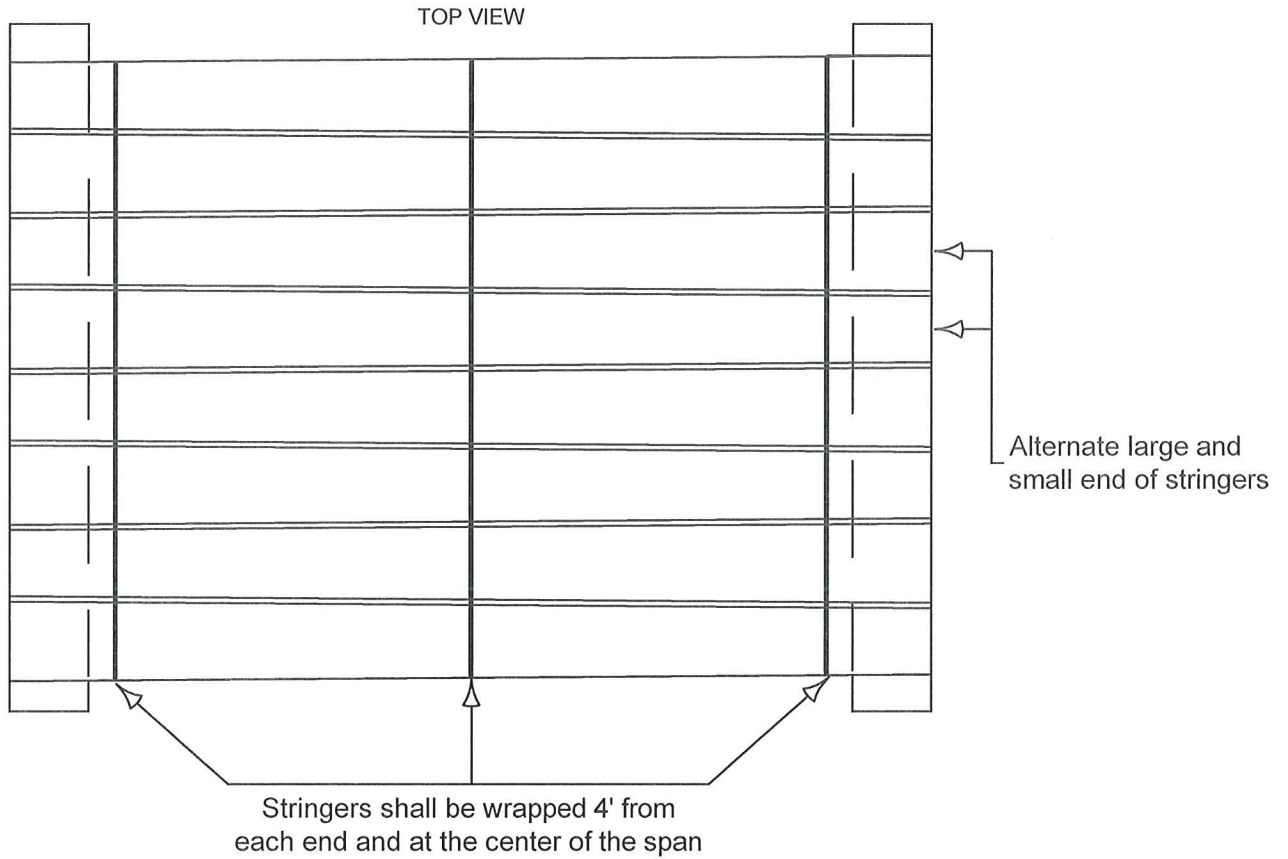
LOG STRINGER BRIDGE SPECIFICATIONS

BRIDGE INSTALLATION

- (a) "In-Stream" work shall be conducted only during periods of low water flows between July 15th and September 30th, annually. STATE shall be notified a minimum of 48 hours prior to beginning work. STATE has prepared the required Forest Practices Act "Written Plan" for this work. PURCHASER shall pump water around the construction site or divert as necessary to prevent sedimentation in the stream below during all phases of excavation and installation of the bridge.
- (b) Remove embankment as necessary to accommodate the work area for bridge construction. Excavated debris shall be end-hauled to a disposal site approved by STATE. Purchaser shall excavate as necessary to prepare a firm footing for the placement of sill logs. Native soil shall be machine compacted prior to the placement of sill logs. Borrow sites for bridge embankment material must be in locations approved by STATE.
- (c) Stringers and brow logs shall be secured by wrapping with 5/8-inch (minimum wire) rope as shown on Bridge Detail drawing in this exhibit. A minimum of three wraps shall be taken at each cabling point. Cable shall be new and shall be fastened using appropriate cable clamps.
- (d) Backfill shall be clean, well graded granular material excavated on site. Backfill shall be uniformly placed in machine-compacted lifts on both sides of the bridge. Lifts shall not exceed eight inches in depth before compaction.
- (e) Bridge shall be surfaced according the specifications in Exhibit D. Prior to placement of surfacing, geotextile fabric shall be placed over the stringers and small logs. Geotextile fabric shall meet the requirements in Exhibit G. Rock shall be walked in with machinery and shall not be compacted with a vibratory roller.

EROSION CONTROL

All areas of bare soil shall be grass seeded and mulched according to the specifications in Exhibit K. Straw mulch shall be spread over all seeded areas to a depth of 4 inches.



No Scale

EXHIBIT K

SEEDING AND MULCHING

This work shall consist of preparing seedbeds and furnishing and placing required seed, fertilizer, and straw mulch. Straw mulch shall consist of straw that is free of noxious weeds. Apply seed, fertilizer, and straw mulch to all waste areas, and bare soils resulting from Project Nos. 1, 3, and 4.

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

APPLICATION METHODS FOR SEED AND FERTILIZER

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

APPLICATION RATES FOR SEED AND FERTILIZER

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

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

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

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

APPLICATION RATES FOR MULCH

Place straw mulch to a reasonably uniform thickness of 1½ to 2½ inches. This rate requires between 2 and 3 tons of dry mulch per acre.

Application Locations:

Road Segment	Location
A to B	11+08
Point M	

EXHIBIT L

SPECIFICATIONS FOR BRUSH AND SLASH TREATMENT

Operation Area: The Timber Sale Area shown on Exhibit A

Equipment Type, Equipment Operation, and Conduct of Work

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

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

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

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

Work Scheduling

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

Description of Work to be Done

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

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

WRITTEN PLAN FOR INSTREAM ACTIVITIES – CAT'S EYE TIMBER SALE

SALE NO. 341-12-09

CULVERT and BRIDGE INSTALLATION

CULVERT NO. 3 (A to B, Sta. 11+08)

Project Description:

A culvert providing fish passage will be installed in an unnamed tributary of Beaver Creek at the following location:
A to B, Station 11+08
SE1/4, NW1/4, Section 11, T2N R5W, W.M.

The Oregon Forest Practices Act requires a written plan for operations within 100 feet of a Type F stream. This Written Plan addresses the installation of a culvert that meets current fish passage guidelines and the protection measure that will be applied to minimize impact to the streams and associated riparian areas.

Protected Resources:

The culvert structure described under this Written Plan shall provide for fish passage at the location described above. The culvert will provide fish passage for an unnamed stream that is small type F, which is a tributary to Beaver Creek, a large type F stream. This project site is within the Forest Practices Coast Range Region.

Description of the Area:

The project work area is part of a vacated road system. The culvert installation is associated with improving the road system and restoring access to the area. The old stream crossing was vacated previously and currently does not impede the flow of the stream.

Vegetation consists of an overstory of Douglas fir, Big Leaf Maple, and Red Alder along the stream channel and side slopes, with an understory consisting of blackberry and vine maple.

The stream's drainage area is 368.5 acres, or 0.58 square miles, with a mean elevation of 750 feet. The predicted 100-year peak flow, based on Campbell's equations, is 137.1 cubic feet per second. A waterway area of 23.8 square feet is required to pass this flow. Average active channel width at normal high water is estimated to be approximately 6 feet downstream of the vacated fill.

Design Strategy:

In order to provide upstream passage of juvenile fish, a countersunk pipe-arch culvert is the specified design. This design provides a 95" span X 67" rise X 60' length pipe-arch culvert to be installed at a 5.0% gradient.

The culvert will have pit-run style material placed inside the pipe to a depth of 1 ½ feet, simulating a natural stream channel through the culvert.

The resulting waterway area is 25.7 square feet, sufficient to pass the 100-year peak flow. The resultant channel width through the culvert will be 6 feet.

LOG STRINGER BRIDGE AT POINT M

Project Description:

A bridge providing for fish passage will be installed in an unnamed tributary of Beaver Creek at the following location:

Point M
SW1/4, NE1/4, Section 11, T2N R5W, W.M.

The Oregon Forest Practices Act requires a written plan for operations within 100 feet of a Type F stream. This Written Plan addresses the passage of peak flows and the protection measures that will be applied to minimize impact to the streams and associated riparian areas.

Protected Resources:

The bridge to be installed under this Written Plan will be installed at the location described above. The bridge will provide unrestricted fish passage for an unnamed stream that is small type F, which is a tributary to Beaver Creek, a large type F stream. This project site is within the Forest Practices Coast Range Region.

Description of the Area:

The project work area is part of a vacated road system. The bridge installation is associated with improving the road system and restoring access to the area. The old stream crossing was vacated previously and currently does not impede the flow of the stream.

Vegetation consists of an overstory of Douglas fir, Big Leaf Maple, and Red Alder along the stream channel and side slopes, with an understory consisting of blackberry and vine maple.

The stream's drainage area is 152 acres, or 0.24 square miles, with a mean elevation of 750 feet. The predicted 100-year peak flow, based on Campbell's equations, is 67.7 cubic feet per second. A waterway area of 23.8 square feet is required to pass this flow. Average active channel width at normal high water is estimated to be approximately 4 feet downstream of the crossing.

Design Strategy:

The project will install a bridge with a minimum length of 36 feet. The bridge will also provide a minimum of 5 feet between the bottom of the bridge structure and the stream level at peak flow. The bridge installation will provide an open stream channel of at least 10 feet wide. Developed stream banks shall be sloped at natural contours or no steeper than 1:1.

Protection Measures (Both Projects):

All in stream work associated with these plans will be accomplished from July 15 to September 30, annually. In water work will be limited to the minimum necessary to adequately prepare the site for installation of the structure. To minimize impact to the resource during all in water work, the stream will be pumped or diverted around the project site. Upon completion of installation of the structures, all areas of disturbed soil will be seeded and mulched within project site. The exposed fill slopes around each structure will be armored with riprap to protect the fill from erosion and scour. Cutting of trees within the riparian area adjacent to the site will be limited to those necessary to facilitate the installation of the culvert and bridge. At least 95 percent of the original canopy adjacent to the site will be maintained.

Prepared by: _____ Date: _____
Road Specialist

NOTICE OF TRANSFER OF STATE TIMBER

Instructions

629:-Form-301-010

Complete Section 1. Mark the box which applies to you/your company in Section 2. Complete Section 3 and obtain signatures.

SECTION 1

On _____, state timber sale purchaser (Transferor)
_____, sold, exchanged or otherwise transferred to
_____, (Transferee) state timber originating from State
Timber Sale Contract No. _____.

Transferee hereby certifies that they:

- (a) Will not export the unprocessed state timber which is the subject of this transaction;
- (b) Will not sell, transfer, exchange or otherwise convey the unprocessed timber which is the subject of this transaction to any other person without first obtaining a like certification from that person; and
- (c) Are not prohibited by OAR's 629-31-005 through 045 from purchasing state timber or logs directly from the State Forester, or this is a sale of Western Red Cedar for domestic processing.

SECTION 2

- Have not exported unprocessed timber originating from private lands in Oregon in the last 24 months.
- This is a sale of hardwood logs for domestic processing.
- This is a sale of Western Red Cedar for domestic processing.
- This is a sale of pulp logs or cull logs processed at domestic pulp mills, domestic chip plants or other domestic operations for the purpose of conversion of the logs into chips.

SECTION 3

The parties understand that falsely entering into this certification, or failure to comply with the terms of this certification is a violation of the Forest Conservation and Shortage Relief Act of 1990 and OAR Chapter 629, Division 31, and is subject to any and all penalties contained therein.

Transferor:

Transferee:

Signed

Signed

Title

Title

Dated

Dated

[Note: For the purpose of this form, the definition of unprocessed timber is the same as in OAR 629-31-005]

Mail To: State Forester
2600 State Street
Salem, OR 97310