

EXHIBIT "B"

FOREST ROAD SPECIFICATIONS

SUBGRADE WIDTH	SURFACED WIDTH	POINT TO POINT	STA. TO STA.	DITCH REQ.	OUTSLOPE/WATERBAR
14 feet	N/A	1A to 1B	0+00 to 31+60	No	Yes
14 feet	N/A	1C to 1D	0+00 to 3+25	No	Yes
14 feet	N/A	2A to 2B	0+00 to 13+90	No	Yes
14 feet	N/A	2C to 2D	0+00 to 35+00	No	Yes
16 feet	12 feet	I1 to I2	0+00 to 66+50	Yes	No
16 feet	12 feet	I2 to I3	66+50 to 268+90	Yes	No
16 feet	12 feet	I3 to I4	268+90 to 375+00	Yes	No
16 feet	12 feet	I5 to I6	0+00 to 30+00	Yes	No

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 staked, 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 classifications are as follows:

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 through openings in the timber outside of the cleared right-of-way, except areas where end-haul is required.

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-engineered lines, grades, dimensions, and plans when provided.

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All suitable excavated material shall be used where possible 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. All fills and drainage structure backfills shall be machine compacted in lifts not to exceed 8 inches in depth.

Unless road design 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.

Excess excavation shall not be sidecast where material will enter a stream course or where material will accumulate in areas deemed a high-risk site by STATE.

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 follows: 400 divided by the radius of the curve equals the amount of extra width.

DRAINAGE

Ditches. Construct "V" ditch 3 feet wide and to a depth of 1 foot below subgrade. Subgrade shall be crowned at 4 to 6 percent.

Outslope. Road subgrade shall be outsloped at 4 to 6 percent.

TURNOUTS. Increase roadbed width an additional 8 feet for both subgrade and surfacing. Length shall be a minimum 50 feet, or as staked on the ground, plus 25-foot approaches at each end.

Location: As marked in the field.

GRADING

Rock
Common – side slopes 50% and over
Common – side slopes less than 50%
Common – turnpike (level) section

Back Slopes

Vertical to ¼:1
1:1
1:1
2:1

Fill Slopes

Not steeper
than 1½:1

Top of cutslope shall be rounded.

LANDINGS. Landings shall be constructed no less than 50 feet wide and no more than 70 feet wide. Surface is to be crowned for drainage, with general grade no more than 3 percent. Surface as shown on Exhibit B.

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

SEASONAL WINTERIZATION. All unrocked or unfinished subgrade shall be waterbarred in accordance with specifications in Exhibit "I", and blocked from vehicular traffic, prior to October 1, annually, and as directed by STATE.

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FOREST ROAD SPECIFICATIONS

GENERAL ROAD CONSTRUCTION INSTRUCTIONS:

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 B. Full bench road construction shall be performed in accordance with Exhibit B, page 6.

Specific Road Construction Instructions

<u>Segment</u>	<u>Station</u>	<u>Work Description:</u>
1A to 1B	1+10	Begin 65 foot radius curve.
	2+20	Begin full bench truck end haul.
	2+50	End 65 foot radius curve.
	3+60	End full bench truck end haul.
	7+40	Construct split level landing on right.
	10+40	Construct landing on left.
	13+45	Begin full bench truck end haul. Begin 65 foot radius curve.
	14+10	End 65 foot radius curve.
	18+10	End full bench truck end haul.
	23+00	Waste Area on left.
	30+30	Construct landing on right.
2A to 2B	9+40	Begin 95 foot radius curve.
	10+55	End 95 foot radius curve.

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FOREST ROAD SPECIFICATIONS

GENERAL ROAD IMPROVEMENT INSTRUCTIONS:

- (1) Culvert Replacement and Culvert Installation. 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. Fill reconstruction backfill shall consist of select materials and be obtained from borrow pits, as directed by STATE. Backfill materials shall be hauled in where necessary and thoroughly compacted in accordance with Exhibit B. Crushed rock shall be used for backfilling excavation trenches less than 3 feet deep. Removed culverts shall be hauled to an approved refuse site off of STATE land.
- (2) Riprap Rock Use. Where rock is used for an energy dissipator, rock shall be placed below the culvert outlet and embedded for a minimum of 3 feet.
- (3) Drainage Ditches. Restore or construct ditchlines, including ditchouts, as directed by STATE. Clean out all culvert inlets and outlets for a 10-foot radius. Re-establish or construct culvert sediment basins. Waste materials from drainage ditches and sediment basins shall not be pulled across existing surfacing rock, but shall be placed in nearby waste areas and uniformly sloped and compacted for drainage, as directed by STATE. Damaged culvert inlets and/or outlets shall be repaired by opening them with a hydraulic jack, or cutting off the culvert end to allow for free passage of water at peak flow levels. Install a culvert marker at each newly installed culvert and at 32 existing cross drainage culverts, as directed by STATE.
- (4) Subgrade Preparation and Application of Surfacing Rock.
 - (a) Complete culvert installations, drainage ditches, and other specified work prior to the application of new surfacing rock.
 - (b) Cut out all chuckholed and/or washboard sections from the existing surfacing.
 - (c) Apply required ¾"-0" or 4"-0" base patching and leveling rock, as directed by STATE.
 - (d) Process (grade+mix) the existing surfacing and added base rock. Provide for a crown of ½ inch per foot, and compact in accordance with Exhibit B.
 - (e) Upon completion of above required work, apply, process, and compact surfacing rock in accordance with Exhibit B.

Specific Road Improvement Instructions

<u>Segment</u>	<u>Station</u>	<u>Work Description:</u>
11 to 12	0+00	Culvert replacement/fill reconstruction. Utilize 12 cubic yards of 1½"-0" rock for culvert bedding, and 20 cubic yards of 4"-0" rock for surface base course replacement.
	7+70	Culvert replacement. Utilize 20 cubic yards of 1½"-0" rock for culvert backfill.

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Specific Road Improvement Instructions

<u>Segment</u>	<u>Station</u>	<u>Work Description:</u>
12 to 13	233+00	Culvert replacement. Utilize 12 cubic yards of 1½"-0" rock for culvert backfill.
	257+70	Remove existing culvert and utilize 20 cubic yards of 4"-0" rock for surface base course replacement. Utilize 30 cubic yards of 24"- 0" riprap rock to repair road shoulder. Install new cross drain culvert 30 feet north of existing culvert inlet. Utilize 10 cubic yards of 1½"- 0" crushed rock for backfill, and 20 cubic yards of 24"- 0" riprap rock to construct an energy dissipator.
13 to 14	276+35	Culvert replacement. Utilize 20 cubic yards of 1½"-0" rock for culvert backfill.
	279+90	Culvert replacement/fill reconstruction. Utilize 20 cubic yards of 1½"-0" rock for culvert bedding, and 30 cubic yards of 4"-0" rock for surface base course replacement. Utilize 80 cubic yards of 24"-6" riprap rock for fill armor, and 10 cubic yards of 24"-6" to construct an energy dissipator. Finished subgrade width shall be 20 feet.
	285+00	Culvert replacement/fill reconstruction. Utilize 12 cubic yards of 1½"-0" rock for culvert bedding, and 20 cubic yards of 4"-0" rock for surface base course replacement. Utilize 30 cubic yards of 24"-6" riprap rock for fill armor, and 10 cubic yards of 24"-6" to construct an energy dissipator. Finished subgrade width shall be 20 feet.
	291+40	Culvert replacement. Utilize 12 cubic yards of 1½"-0" rock for culvert bedding, and 20 cubic yards of 1½"-0" rock for culvert backfill.
	295+90	Culvert replacement. Utilize 12 cubic yards of 1½"-0" rock for culvert backfill.
	309+85	Culvert replacement. Utilize 12 cubic yards of 1½"-0" rock for culvert backfill.
	362+40	Culvert replacement. Utilize 12 cubic yards of 1½"-0" rock for culvert backfill.
	365+30	Culvert replacement/fill reconstruction. Utilize 12 cubic yards of 1½"-0" rock for culvert bedding, and 20 cubic yards of 4"-0" rock for surface base course replacement. Utilize 30 cubic yards of 24"-6" riprap rock for fill armor, and 10 cubic yards of 24"-6" to construct an energy dissipator. Finished subgrade width shall be 20 feet.

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END-HAULING REQUIREMENTS

POINT TO POINT	STA. TO STA.	CONTAINMENT	WASTE AREA LOCATION	WASTE AREA TREATMENT
1A to 1B	2+20 – 3+60	Full	1, 2	1, 2
1A to 1B	13+45 – 18+10	Full	1, 2	1, 2

End-Haul Areas General Requirements

Material shall not be intentionally sidecast.

Clearing and grubbing debris shall be end-hauled.

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

Containment

Full containment: The amount of material lost over the outside edge of the road shall not exceed 6 inches in depth measured perpendicular to the natural ground slope. Pioneer excavation shall be removed by digging, loading, and hauling rather than by pushing or scraping methods.

Trees and stumps may have up to 12 inches of material directly above them. Any amount of material exceeding the containment requirements shall be removed by operator from the slope, by whatever means necessary, and end-hauled to a designated waste area.

Waste Area Location

- (1) Between Stations 4+10 and 7+30 on Road 1A to 1B.
- (2) Station 23+00 on Road 1A to 1B.

Waste Area Treatment

- (1) Use suitable excavated materials for fill and subgrade construction on Road 1A to 1B.
- (2) Deposit at waste area, spread evenly, compact, and provide adequate drainage. Pile woody debris on top of waste area.

EXHIBIT "B"
 ROAD SURFACING

TYPE OF ROCK	SIZE OF ROCK	CUBIC YARDS PER STA.	COMPACTED DEPTH (INCHES)	POINT TO POINT	STATION TO STATION	TOTAL TRUCK MEASURE VOLUME (CY)
Crushed	¾"-0"	20	3	11 to 12	0+00 to 66+50	1,330
Crushed	¾"-0"	20	3	15 to 16	0+00 to 30+00	600
TURNOUTS		CY PER T.O.	COMPACTED DEPTH (INCHES)	NO. OF T.O.	POINT TO POINT	TOTAL TRUCK MEASURE VOLUME (CY)
Crushed	¾"-0"	10	3	8	11 to 12	80
Crushed	¾"-0"	10	3	4	15 to 16	40
JUNCTIONS		CY PER JCT.	COMPACTED DEPTH (INCHES)	NO. OF JCTS.		TOTAL TRUCK MEASURE VOLUME (CY)
Crushed	¾"-0"	10	3	3	11 to 12	30
Crushed	¾"-0"	10	3	2	15 to 16	20
MISCELLANEOUS:			USE			APPROX. CUBIC VOLUME (TRUCK MEAS.)
Crushed	¾" - 0"		Sub Grade Leveling	11 to 12		200
Crushed	4" - 0"		Sub Grade Leveling	12 to 13		1,200
Crushed	4" - 0"		Sub Grade Leveling	13 to 14		400
Crushed	¾" - 0"		Sub Grade Leveling	15 to 16		100
Crushed	¾" - 0"		Curve Widening	11 to 12		60
Crushed	¾" - 0"		Curve Widening	15 to 16		30
Crushed	1 ½" - 0"		Culvert Backfill	11 to 12		20
Crushed	1 ½" - 0"		Culvert Backfill	12 to 13		32
Crushed	1 ½" - 0"		Culvert Backfill	13 to 14		76
Crushed	1 ½" - 0"		Culvert Bedding	11 to 12		12
Crushed	1 ½" - 0"		Culvert Bedding	13 to 14		56
Crushed	1 ½" - 0"		Base Reconstruction	BR1 to BR2		100
Crushed	4" - 0"		Base Reconstruction	11 to 12		20
Crushed	4" - 0"		Base Reconstruction	12 to 13		20
Crushed	4" - 0"		Base Reconstruction	13 to 14		70
Riprap	24" - 6"		Fill Armor	12 to 13		30
Riprap	24" - 6"		Fill Armor	13 to 14		140
Rip Rap	24" - 6"		Energy Dissipator	12 to 13		10
Rip Rap	24" - 6"		Energy Dissipator	13 to 14		30
Rip Rap	24" - 6"		Embankment Protection	BR1 to BR2		200

Roads shall be uniformly graded and approved by STATE prior to rocking. For typical cross section, see Forestry Department Drawing Nos. 351-C and 351-D at the Forestry Department district office.

EXHIBIT "B"

ROCK SUMMARY FOR PROJECT NOS. 1 AND 2

<u>ROCK SIZE</u>	<u>APPROX. TOTAL TRUCK MEASURE VOLUME (CY)</u>
¾"-0"	2,490
1½"-0"	296
4"-0"	1,710
24"- 6"	410
<u>TOTAL</u>	4,906

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ROCK ACCOUNTABILITY

The rock shall meet the quality and size specifications in Exhibit E. A sample of the rock must be supplied to STATE for testing and approval prior to rocking. Subgrades must be approved by STATE prior to rocking. Rocking must be done only when weather conditions are acceptable to STATE, and must be suspended when muddy water could enter streams from runoff.

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

Rock Checking. All rock spreading shall be done only when a STATE representative is present. STATE shall issue a receipt for each load delivered, and rock shall be measured without allowance for shrinkage or shakedown during hauling. Total truck measure volume for each road segment shall be as shown on Exhibit B. Deliver at least 450 cubic yards per 8-hour shift, unless otherwise approved by STATE. A penalty of \$10 for each 10 cubic yards which are not delivered during a single shift shall be billed, and payment shall be required prior to final acceptance of the project by STATE.

Depth Measurement. Rock shall be spread and compacted according to the depths specified in Exhibit B. 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. If additional rock is required because of insufficient depth, it shall be added by truck measure to those areas that were slighted. The conversion from compacted yardage to truck yardage is 1.3 multiplied by the compacted yardage equals truck yardage.

The depth of compacted aggregates shall not vary more than 1 inch from the depth specified in Exhibit B. The average depth for each road segment shall be the specified depth or greater. Surfacing areas shall be staked 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.

COMPACTION AND PROCESSING REQUIREMENTS

Subgrade. Subgrade surfaces of the road segments listed below shall be graded and compacted prior to rocking. Compaction shall be accomplished by traveling all surfaces from shoulder to shoulder until visible deformation ceases, or in the case of a sheepsfoot roller, the roller "walks out." A minimum of 3 passes shall be made over the entire width and length of the road. A pass is defined as traveling a road section in one direction and then back over that same section again. Compaction shall be accomplished by using one or more of the approved equipment options listed below

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
I1 to I2, I2 to I3, I3 to I4, I5 to I6, and BR1 to BR2	1

EXHIBIT "B"

COMPACTION AND PROCESSING REQUIREMENTS

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 or, in the case of a sheepsfoot roller, the roller "walks out." A minimum of 3 passes shall be made over the entire width and length of each layer. A pass is defined as traveling a fill layer in one direction and then back over that same layer again.

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, or 3, and 4

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 a 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. A pass is defined as traveling a road section in one direction and then back over that same section again. Compaction shall be accomplished by using one or more of the approved equipment options listed below

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
All road segments requiring rock	1

COMPACTION EQUIPMENT OPTIONS

- (1) Vibratory Rollers. The drum shall have a smooth surface, a diameter not less than 48 inches, a width not less than 58 inches, and a turning radius of 15 feet or less. Vibration frequency shall be regulated in steps to 1400, 1500, and 1600 VPM, corresponding to engine speeds of 1575, 1690, and 1800 RPM. The centrifugal force developed shall be 7 tons at 1600 VPM. It shall be activated by a power unit of not less than 25 horsepower. The vibratory roller shall be self-propelled and operated at speeds ranging from 0.9 miles to 1.8 miles per hour, as directed by STATE.
- (2) Rubber-Tired Skidders. A rubber-tired skidder weighing a minimum of 20,000 pounds shall be operated over the fill layers so that the entire layered surface comes in contact with the tires. Skidders with oversized tires (high flotation) are not acceptable for compaction.
- (3) Tampingfoot Compactors. Tampingfoot or sheepsfoot 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.
- (4) Vibratory Hand-Operated or Backhoe-Mounted Tamper. Vibratory hand held or hydraulic tampers shall be used for compaction of backfill around culverts. The tamper shoe dimensions shall be a minimum of 10" X 13" and capable of a centrifugal force of 2,250 pounds.

EXHIBIT "C"

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, unless use of other culvert materials with an equivalent life expectancy is approved in writing by STATE. Pipe and fittings shall be made of polyethylene compounds which meet or exceed the requirements of Type III, Category 4 or 5, Grade P33 or P34, Class C per ASTM D-1248 with the applicable requirements defined in ASTM D-1248. Double-walled polyethylene pipe shall meet the requirements of AASHTO M-294-901, Type S.

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

The foundation and trench walls for all culverts shall be free from logs, stumps, limbs, stones over 3 inches, and other objects which would dent or damage the pipe during installation or use. If tamping is required, the trench shall be excavated wide enough to permit working on each side of pipe. Bedrock shall be excavated as required to provide a uniform foundation for the full length of the culvert.

A bedding of granulated material or job-excavated soil shall be placed to provide a wide band of support and to transmit the load from above evenly over the entire length of the pipe.

Transporting of the pipe shall be done carefully. Dragging or allowing free fall from trucks or into trenches shall not be permitted. Damage to bituminous coating shall be repaired before the pipe is covered.

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

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

Tamping shall be done in 8-inch lifts, 1 pipe diameter each side of the pipe to 85 percent density or over, and to the minimum fill height as specified below. Additional fill shall be embankment material.

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

Minimum height of cover over top of culvert to subgrade when road is to be rocked shall be 12 inches for polyethylene culverts (add 6" for roads which will not be rocked). Minimum vertical cover for other steel or aluminum 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. Culverts in Type F streams must allow free passage of fish as provided in the Oregon Forest Practice Rules. 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 into waters of the State shall be provided with a downspout or other approved slope protection device.

This specification applies to high density polyethylene corrugated pipe with an integrally formed smooth interior.

EXHIBIT "C"
CULVERT LIST

CULVERT NO.	DIAMETER (Inches)	LENGTH (Feet)	ROAD SEGMENT POINT TO POINT	STATION
1	18	30	2C to 2D	1+90
2	18	40	2C to 2D	27+90
3	18	40	I1 to I2	0+00
4	18	36	I1 to I2	7+70
5	18	30	I2 to I3	233+00
6	18	40	I2 to I3	257+70
7	18	36	I3 to I4	276+35
* 8	18	60	I3 to I4	279+90
* 9	18	40	I3 to I4	285+00
10	18	36	I3 to I4	291+40
11	18	30	I3 to I4	295+90
12	18	30	I3 to I4	309+85
13	18	32	I3 to I4	362+40
* 14	18	40	I3 to I4	365+30

The intake ends of culverts in fills less than 3 feet shall be marked by driving or placing white fiberglass posts within 6 inches of the downgrade side. Posts shall be a minimum of 6 feet long and 2 ½ inches wide, with the spade driven 2 feet into the ground. Culverts in fills over 3 feet in height do not need culvert markers.

All culverts shall be constructed of corrugated, double-walled polyethylene.

Tamping is required.

* Indicates culverts that do not require culvert markers.

EXHIBIT "D"

ROCK PIT DEVELOPMENT AND USE

- (1) PURCHASER shall conduct the operations relative to the disposal of waste material in such manner that silt, rock, debris, dirt, or clay shall not be washed, conveyed, or otherwise deposited in any stream. All waste shall be deposited at an approved "waste disposal site."
- (2) Benches shall be constructed at intervals of 40 feet or less in height and shall be a minimum of 20 feet in width. Any gravel or talus slopes shall be left with a working face at an angle of 60 degrees or less. There shall be a minimum of 1 bench with an access road to it. Said bench shall be easily accessible with tractors.
- (3) Pit face shall be developed in a uniform manner.
- (4) The pit site shall be left in a condition free from overburden and debris. Access roads to the pit, and the pit floor, shall be cleared at the termination of use. Overburden shall be removed for a distance of 20 feet beyond the developed rock source.
- (5) PURCHASER shall prepare a written development plan for the pit area. The plan shall be submitted to STATE for approval prior to conducting any operation in the pit area. The plan shall include, but not be limited to:
 - (a) Location of benches and roads to benches
 - (b) Disposal site for debris and overburden.
 - (c) Time lines for rock quarry use.
 - (d) Erosion control measures.
 - (e) Coordination with other users.
- (6) The quarry floor shall be developed to provide for drainage away from the quarry. All quarry and stockpile site drainage ditches shall be maintained. Quarry access roads shall be cleared and blocked upon completion of quarry use as directed by STATE.
- (7) Proper winterization and storm-water control measures such as waterbarring, drainage, utilization of filter bales, mulching and/or blocking access shall be constructed and maintained to protect the watershed and project work, as directed by STATE.

State Timber Sale Contract
No. 341-02-21
East Deep Creek

EXHIBIT "E"

RIPRAP ROCK SPECIFICATIONS

Grading Requirements

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 "F"

BRIDGE CONSTRUCTION SPECIFICATIONS

BRIDGE DESIGN. PURCHASER shall design a pre cast, pre stressed concrete slab bridge with a span long enough to preserve a minimum natural stream channel width of 22 feet under the bridge. The road and bridge location(s), alignment and elevations are shown on Page 3.

PURCHASER is responsible for performing all necessary Site Investigation(s). Site Investigation(s) shall be made prior to any project design and shall include, but not be limited to:

- (1) Sub-surface exploration.
- (2) Determination of the depth and orientation of stream bedload, erodible rock (soft, decomposed or fractured) and scour resistant bedrock foundation materials.
- (3) Determination of the scour potential and bearing capacity of bedrock foundation materials.

The bridge deck running surface width shall be 16 feet. The bridge shall have pre cast back walls, wing walls and one-foot high concrete curbs. The back walls and wing walls shall extend a minimum of 3 feet below the natural stream bottom elevation and be sufficient to retain road/bridge approach embankment(s) and prevent scour of the bridge substructure(s) and/or roadway embankment(s). The wing walls shall be skewed to protect road approach embankments and extend away from the bridge deck for a minimum length of 10 feet. The curbs shall be located on the outside slabs or other retaining structure. The bridge shall be designed for HS25 loads.

BRIDGE PLANS. PURCHASER shall submit bridge plans to STATE for approval, prior to commencement of any work on the project. The plans shall include design calculations, scaled drawings, elevations and section drawings for the structure, including sizes and dimensions of bridge components. The plans shall also include a description of special tools, equipment, the required lifting capacity and the general process to install and connect the bridge components. Plans must contain all information necessary for the administration and inspection of the project by STATE. The plans shall be stamped and signed by a professional engineer licensed in Oregon.

BRIDGE CONSTRUCTION

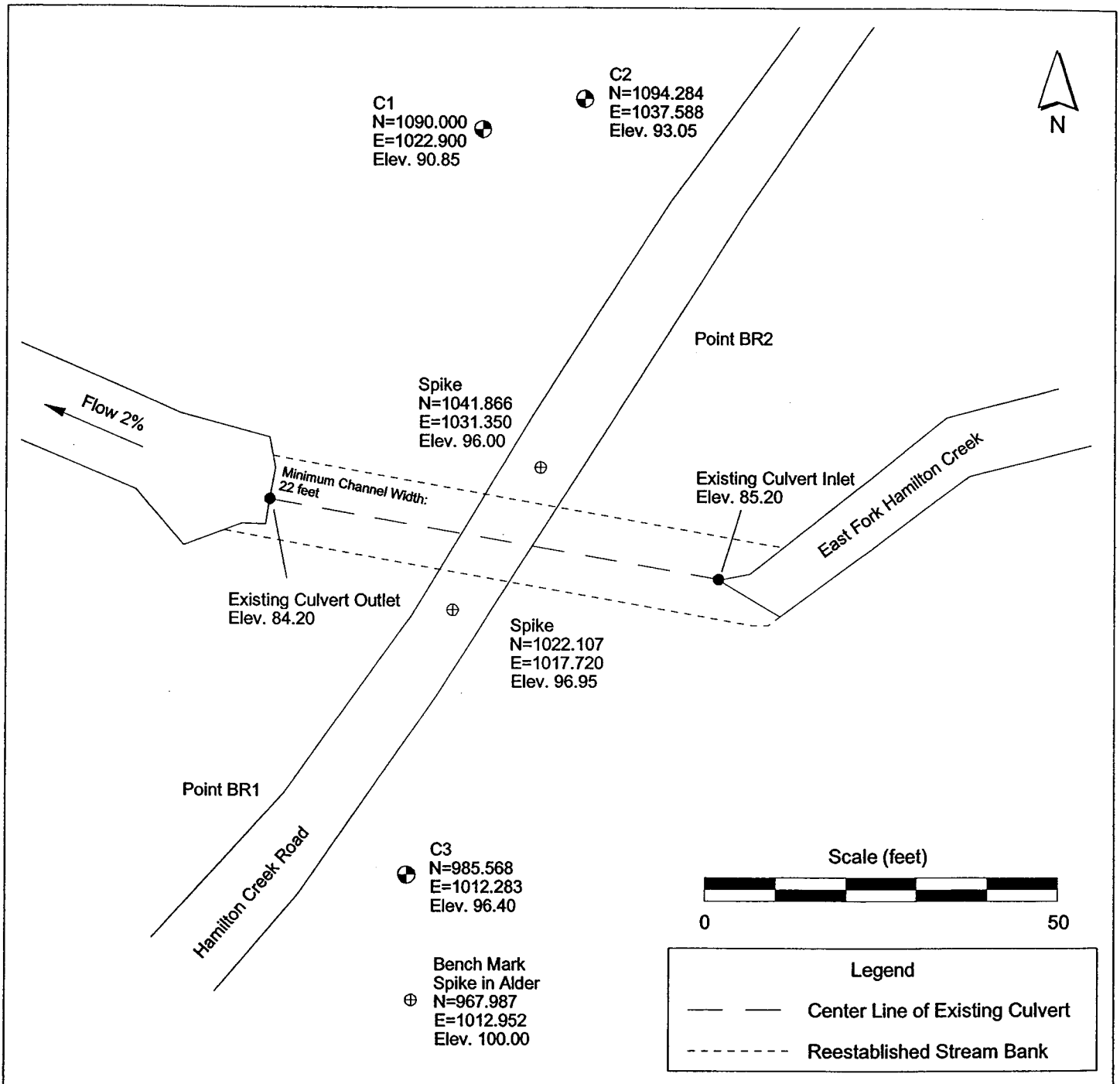
- (1) Work shall be conducted only during periods of low water flows and between July 1 and August 31, annually. STATE shall be notified a minimum of 48 hours prior to beginning work. STATE has prepared the required FPA "Written Plan" for this work.
- (2) Remove existing embankment and culvert to accommodate the work area for bridge construction. Existing embankment(s) shall be excavated to the natural stream course level. All woody debris encountered during excavation shall be removed. Excavated debris and materials unsuitable for embankment construction shall be end hauled to a designated waste area. The existing, removed culvert shall be hauled to an approved refuse site off of STATE land.
- (3) Waste materials shall be sloped for drainage and stability, as directed by STATE. Prior to hauling waste materials, the waste area shall be cleared of large woody debris. The debris shall be piled adjacent to the waste area. All exposed excavation areas and waste materials shall be mulched with straw. Applied mulch shall be a minimum of 2 inches deep and provide a uniform cover. Large woody debris shall be redistributed over the waste area after all waste materials have been hauled.

EXHIBIT "F"

BRIDGE CONSTRUCTION SPECIFICATIONS

- (4) Construct the bridge and the bridge approach embankments in accordance with approved bridge plans. Bridge approach embankments shall consist of select materials, hauled in where necessary, and shall be thoroughly compacted in accordance with Exhibit B.
- (5) Utilize 200 cubic yards of 24"-6" riprap rock for road approach embankment protection and for upstream bank protection, as directed by STATE. Riprap rock shall be placed and tamped at a 1½:1 slope, beginning at the toe(s).
- (6) A minimum 1½ cubic-yard, track-mounted excavator shall be used for all excavation, stream channel development, and rip rap placement.
- (7) Upon completion of the above required work, apply, process, and compact surfacing rock in accordance with Exhibit B. Utilize 100 cubic yards of 1½"-0" crushed rock for bridge approach surfacing base restoration and to provide for a smooth and uniform transition from the existing road surfacing, restored road surfacing and the bridge deck/running surface. Compact crushed rock in accordance with Exhibit B.
- (8) PURCHASER is responsible for scheduling, supervision and certification of the bridge construction work, including, but not limited to:
 - (a) Coordination of the site investigation(s), bridge design and bridge construction work.
 - (b) Performing any necessary field surveys and staking.
 - (c) Scheduling and supervision of construction work.
 - (d) Upon completion of the project, the engineer shall issue written certification that construction work was completed in accordance with the approved Bridge Plans.

EXHIBIT "F"
 BRIDGE CONSTRUCTION SPECIFICATIONS



Oregon Department of Forestry
 Astoria District
 Engineering Unit

Hamilton Creek Bridge Site
 SW1/4, Section 28, T6N, R7W, W. M.
 Clatsop County, Oregon

EXHIBIT "G"

ROAD VACATING AND FILL REMOVAL SPECIFICATIONS

GENERAL SPECIFICATIONS

- (1) Tree Removal. Cut or remove all trees necessary to access the project area and to facilitate vacating operations, as directed by STATE. Timber shall NOT be removed as designated timber, unless located within posted timber sale boundaries or right-of-way boundaries.
- (2) Culvert Removal. Remove all drainage structures and culverts. Removed culverts shall be hauled to an approved refuse site off of STATE Land.
- (3) Fill Removal and Stream Channel Development. Remove fills to the natural stream course level(s). Stream channel(s) shall be excavated/developed to specified minimum width(s). Developed stream banks shall be sloped at natural contours or no steeper than 1½:1, as directed by STATE.
- (4) Sidecast Pullback. Excavate/pullback previously sidecast materials below the road at designated locations. Developed slopes shall be pulled back to a 1½:1 slope or to natural ground contours. The beginning position for sidecast pullback shall be no greater than 20 feet vertical distance from the existing road surface, in accordance with the specifications in Exhibit H.
- (5) Use of Excavated Materials.
 - (a) Sidecast Pullback. All excavated materials shall be placed on the interior (cut) side of the road, and utilized to restore the cutslope to natural contours or to a minimum 10% outsloped surface for drainage.
 - (b) Fill Excavation. Excavated materials shall be placed and compacted on the roadway a minimum of 10 feet back from the top of the developed stream bank.
 - (c) Woody Debris and cut trees may be incorporated in embankment material and/or placed on the surface of compacted embankment material.
- (6) Construct Waterbars at designated locations and a maximum of 100-foot intervals, and as directed by STATE. Construct waterbars according to the specifications in Exhibit I.
- (7) Block Roads. Use excavated material to block roads from vehicle access at designated locations, as directed by STATE.
- (8) Erosion Control. Erosion control efforts utilizing grass seed and mulch application shall be completed in a progressive manner. Grass seed and mulch shall be applied for every 500 feet of road vacated, prior to continuing work.
 - (a) Sidecast Pullback. Seed and mulch all excavated material and bare soil in accordance with the specifications in Exhibit J.
 - (b) Fill Removals. All exposed excavation areas shall be mulched with a straw mulch approved by STATE, immediately upon completion of the fill removal. Applied mulch shall be a minimum of 2 inches deep and provide a uniform cover.
- (9) Equipment. Minimum 1½ cubic-yard, track mounted excavators shall be used for all excavation, sidecast pullback, fill removal, culvert removal, streambed preparation, road blocking, and waterbarring, unless otherwise approved in writing by STATE. A minimum of **two** excavators shall be supplied and utilized simultaneously to complete the project in one operating season and to efficiently accomplish some required fill removals. All work shall be performed during dry conditions acceptable to STATE.

EXHIBIT "G"

ROAD VACATING AND FILL REMOVAL SPECIFICATIONS

FPA Written Plan. STATE has prepared the required FPA Written Plan for this work and the Plan is on file at the Astoria District, Oregon Department of Forestry. Fill removal, stream channel development, and/or in-stream work shall be conducted between July 1 and September 15, annually.

Progressive Operations. The project shall be started no later than July 1, 2002, and progress continuously until completed and approved. The project shall be completed in the following priority sequence, unless otherwise approved by STATE in writing:

- Priority No. 1: X2-X3 and X3-X6
- Priority No. 2: X11-X12 and X13-X14
- Priority No. 3: X7-X8 and X9-X10
- Priority No. 4: X1-X2
- Priority No. 5: X1-X5
- Priority No. 6: X2-X4

Credit for Project Work. The final credit for Project No. 3 shall not exceed \$180,000 per Section 71, "Credit for Project Work," in the Timber Sale Contract. STATE may adjust the credit in Section 71 in the event that the work is completed prior to using all available credit rates.

Credit Rates. Rates credited toward completion of the project will be applied for periods of active operation on the project work only. The method of crediting PURCHASER will be determined by applying the following credit rates for equipment, personnel, and supplies:

(1)	Excavator and operator	\$105 per operating hour
(2)	D7 dozer, or equivalent, and operator	\$ 95 per operating hour
(3)	Heavy Equipment transport and operator (Excludes initial move-in.)	\$500 per authorized move
(4)	Laborer(s)	\$ 25 per working hour
(5)	Timber Faller(s)	\$ 30 per working hour
(6)	Straw Mulch	\$ 3 per bale
(7)	Grass seed	\$ 2 per pound

Record Keeping. PURCHASER shall keep an accurate log of operating time (exclusive of standby time, repair delays, down time, etc.) and invoices for all equipment, personnel, straw bales, and grass seed on a daily basis, and submit it to the STATE Representative upon request. STATE shall provide the form for recording the required log. If the log is determined by STATE to not be complete or accurate, then PURCHASER will not get credited for all or a portion work, as determined by STATE.

Verification. The STATE representative shall provide direction for the conduct of work according to the specifications, verify hours of operation, verify required record keeping, and determine credits for project work.

Continuous Operations. Operations shall provide for continual operation on the project, 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.

A Penalty of \$250 per day shall be assessed for any 8-hour work day that an excavator is not operating due to failure to supply an approved and acceptable excavator or operator. STATE may terminate the project in the event that work progress is not satisfactory to STATE.

EXHIBIT "G"

ROAD VACATING AND FILL REMOVAL SPECIFICATIONS

Operators shall be experienced in operating the required equipment and be able to operate the equipment proficiently and efficiently. If STATE determines that an operator(s) is not operating in a proficient and efficient manner, STATE considers the operator not approved and not acceptable and may require the PURCHASER to do one or more of the following measures:

- Replace operator(s);
- Replace equipment;
- Terminate operations.

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

SPECIFIC INSTRUCTIONS/SPECIFICATIONS

<u>Point</u>	<u>Station</u>	<u>Work Description</u>
X1 to X2	0+00	Point X1. Remove south half of fill from the south side of the stream only. Remove the north side of the fill from the north side of the stream only. Excavate stream width to a minimum of 25 feet. Begin sidecast pullback to the south.
	1+00	End sidecast pullback.
	3+10	Begin sidecast pullback.
	4+65	End sidecast pullback.
	5+25	Remove fill. Excavate stream width to a minimum of 4 feet.
	5+45	Begin sidecast pullback.
	6+00	End sidecast pullback. Remove fill. Excavate stream width to a minimum of 25 feet.
	13+60	Remove fill. Excavate stream width to a minimum of 16 feet.
	15+00	Slide area. Cross area with the minimum of disturbance. Leave slide debris in place.
	15+55	Begin sidecast pullback
	20+85	Excavate 3 foot deep diversion ditch across road to ditch-out spring water.
	21+85	End sidecast pullback. Remove fill. Excavate stream width to a minimum of 4 feet.
	23+00	Excavate 3 foot deep diversion ditch across road to ditch-out spring water.

EXHIBIT "G"

ROAD VACATING AND FILL REMOVAL SPECIFICATIONS

SPECIFIC INSTRUCTIONS

<u>Point</u>	<u>Station</u>	<u>Work Description</u>
X1 to X2	23+40	Excavate 3 foot deep diversion ditch across road to ditch-out spring water.
	26+95	Begin sidecast pullback.
	28+40	End sidecast pullback.
	29+00	Begin paralleling the Nehalem River.
	48+90	Pullback and slope the remaining fill. Leave the old logs in place.
	51+10	Begin sidecast pullback.
	52+80	End sidecast pullback.
	58+50	Remove fill. Excavate stream width to a minimum of 4 feet.
	59+30	Begin sidecast pullback.
	64+70	Remove fill. Excavate stream width to a minimum of 4 feet.
	74+20	Excavate diversion ditch across road to ditch-out spring water. Beginning of slide area.
	75+20	End of slide area. Cross slide area with a minimum of disturbance. Leave slide debris in place.
	76+80	Remove fill. Excavate stream width to a minimum of 2 feet.
	82+30	End sidecast pullback. Remove fill. Excavate stream width to a minimum of 4 feet.
	85+90	Remove small fill. Provide drainage for area.
	87+15	Begin sidecast pullback.
	89+75	Remove fill. Excavate stream width to a minimum of 6 feet.
	96+65	Remove fill. Excavate drainage bottom width to minimum of 4 feet.
	100+65	Provide 2 feet wide drainage.
	108+65	Remove fill. Excavate stream width to a minimum of 4 feet.
	111+70	Remove fill. Excavate stream width to a minimum of 4 feet.
	113+15	End sidecast pullback.

EXHIBIT "G"

ROAD VACATING AND FILL REMOVAL SPECIFICATIONS

SPECIFIC INSTRUCTIONS/SPECIFICATIONS

<u>Point</u>	<u>Station</u>	<u>Work Description</u>
X1 to X2	115+25	Begin sidecast pullback.
	117+00	End sidecast pullback.
	123+10	Point X2.
X2 to X3	0+00	Point X2. Junction of two legacy roads.
	5+80	Near section corner.
	13+20	Develop tank trap: 4 feet wide X 4 feet deep. Provide drainage.
	25+80	Develop tank trap: 4 feet wide X 4 feet deep. Provide drainage.
	33+85	Crosses Timber Sale Boundary.
	37+40	Begin sidecast pullback.
	40+70	End sidecast pullback.
	42+50	Begin sidecast pullback.
	43+00	End sidecast pullback.
	45+35	Begin sidecast pullback. Remove fill. Excavate stream width a minimum of 6 feet.
	50+60	End sidecast pullback.
	52+35	Begin sidecast pullback.
	56+00	Remove fill. Excavate stream width a minimum of 4 feet.
	58+25	End sidecast pullback.
	58+65	Begin sidecast pullback.
	61+80	End sidecast pullback.
	64+00	Remove fill. Excavate stream width a minimum of 6 feet.
64+50	Point X3	
X2 to X4	0+00	Point X2
	17+75	Begin sidecast pullback.
	20+85	Remove fill. Excavate stream width a minimum of 6 feet.

EXHIBIT "G"

ROAD VACATING AND FILL REMOVAL SPECIFICATIONS

SPECIFIC INSTRUCTIONS/SPECIFICATIONS

<u>Point</u>	<u>Station</u>	<u>Work Description</u>
X2 to X4	27+90	End sidecast pullback.
	30+00	Begin sidecast pullback.
	36+80	End sidecast pullback. Remove fill. Excavate stream width a minimum of 6 feet.
	42+10	Remove fill. Excavate stream width a minimum of 8 feet.
	51+25	Point X4. Junction with rocked road. Block road.
X6 to X3	0+00	Point X6. Near Point 5C. Block road.
	8+30	Remove fill/puncheon. Excavate stream width a minimum of 8 feet.
	10+00	Develop ditchout: 4 feet wide X 4 feet deep.
	13+00	Leave timber and enter conifer plantation.
	18+50	Point X3. Westside of old fill.
X1 to X5	0+00	Point X1. Begin sidecast pullback. Remove north side of fill. Excavate stream width a minimum of 25 feet.
	2+60	End sidecast pullback.
	4+75	Develop drainage to the west. Ditchout: 4 feet wide X 4 feet deep.
	10+20	Develop drainage to the east. Ditchout: 4 feet wide X 4 feet deep.
	13+65	Remove fill on side spur, 30 feet north of main legacy road. Excavate stream width a minimum of 4 feet.
	14+50	Begin sidecast pullback.
	20+75	End sidecast pullback.
	24+50	Begin sidecast pullback.
	29+60	End sidecast pullback.
	31+80	Remove fill. Excavate stream width a minimum of 6 feet.
32+70	Remove fill. Excavate stream width a minimum of 4 feet.	

EXHIBIT "G"

ROAD VACATING AND FILL REMOVAL SPECIFICATIONS

SPECIFIC INSTRUCTIONS/SPECIFICATIONS

<u>Point</u>	<u>Station</u>	<u>Work Description</u>
X1 to X5	34+00	Develop ditchout.
	35+35	Develop ditchout.
	35+50	Begin sidecast pullback.
	36+50	End sidecast pullback.
	39+70	Develop ditchout to the north.
	44+60	Junction with old spur.
	58+40	Remove fill. Excavate stream width a minimum of 4 feet.
	64+00	Remove fill. Excavate stream width a minimum of 4 feet.
	76+50	Point X5. Junction with rocked road. Block road.
X7 to X8	0+00	Point X7. Near Point X1.
	0+75	Begin sidecast pullback.
	1+20	End sidecast pullback. Remove fill. Excavate stream width a minimum of 4 feet.
	2+50	Point X8. Remove fill. Excavate stream width a minimum of 6 feet.
X9 to X10	0+00	Point X9. Near Point X7.
	1+60	Begin sidecast pullback. Pullback both sides of the washout.
	1+80	Remove small fill. End sidecast pullback.
	2+35	Remove fill. Excavate stream width a minimum of 4 feet.
	2+50	Point X10.
X11 to X12	0+00	Point X11. Junction with old Hopinscratchit Road.
	0+85	Begin sidecast pullback.
	2+35	Develop drainage ditchout: 4 feet wide X 4 feet deep.

EXHIBIT "G"

ROAD VACATING AND FILL REMOVAL SPECIFICATIONS

SPECIFIC INSTRUCTIONS/SPECIFICATIONS

<u>Point</u>	<u>Station</u>	<u>Work Description</u>
X11 to X12	3+00	End sidecast pullback.
	3+60	Remove fill. Excavate stream width a minimum of 6 feet.
	3+90	Point X12.
X13 to X14	0+00	Point X13. Junction with old Hopinscratchit Road.
	2+80	Point X14. Remove fill. Excavate stream width a minimum of 5 feet.

Exhibit H

TYPICAL CROSS SECTION OF SIDECAST PULLBACK

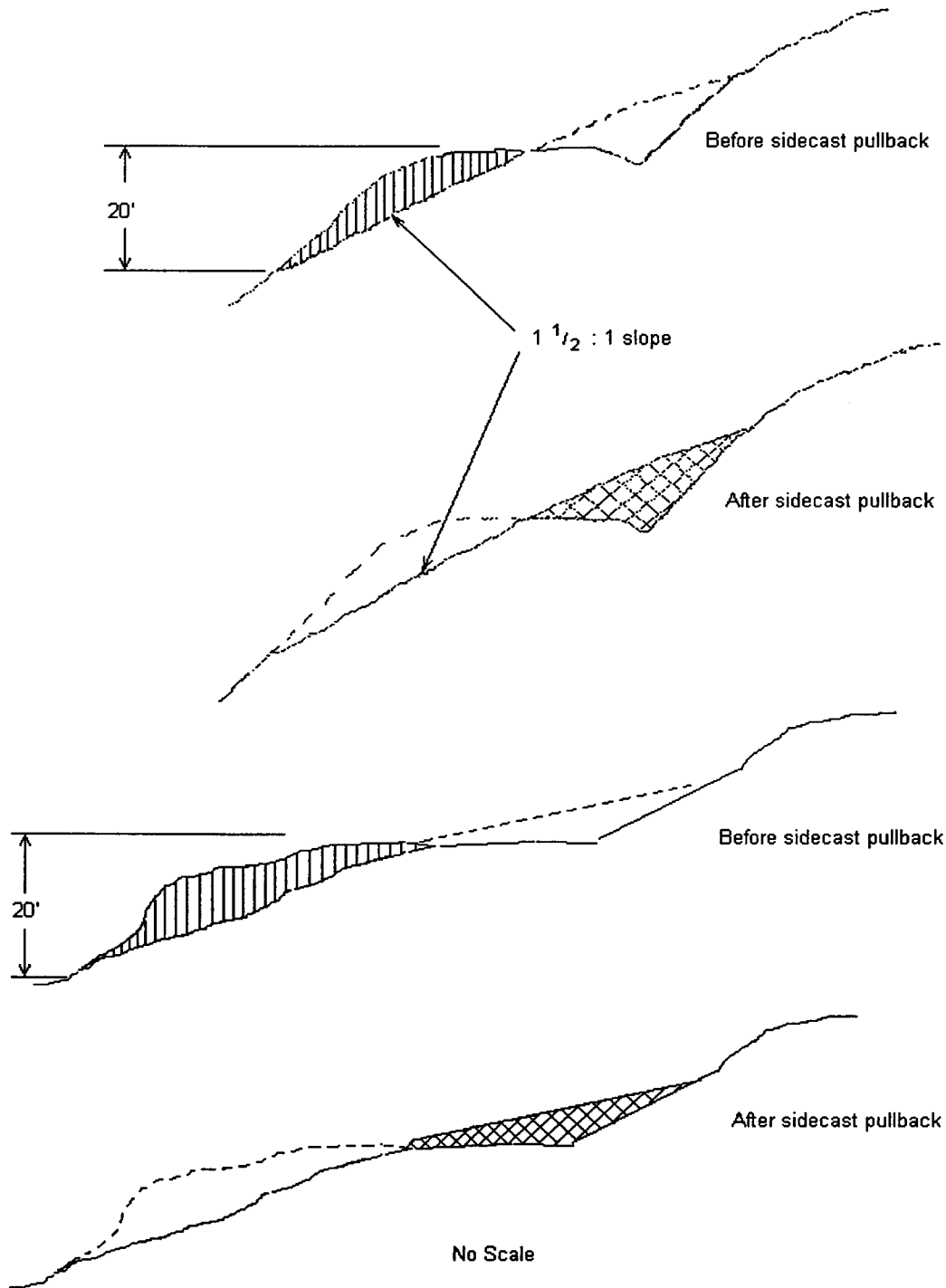


EXHIBIT "I"

WATERBAR SPECIFICATIONS

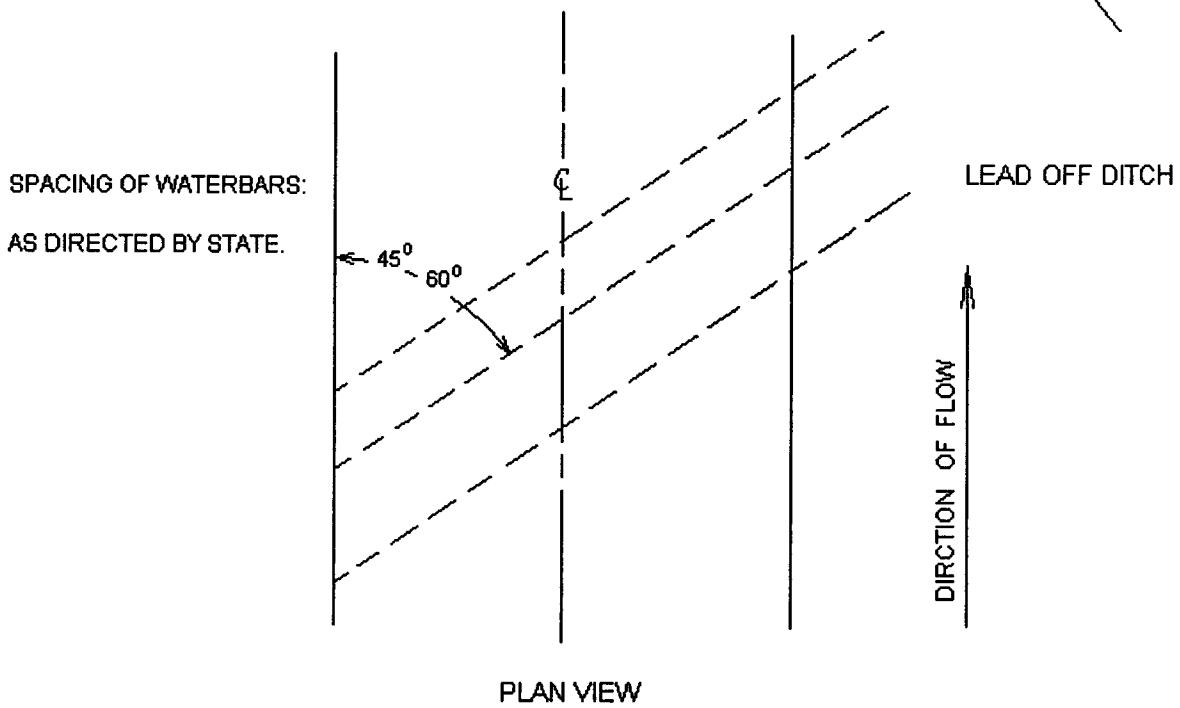
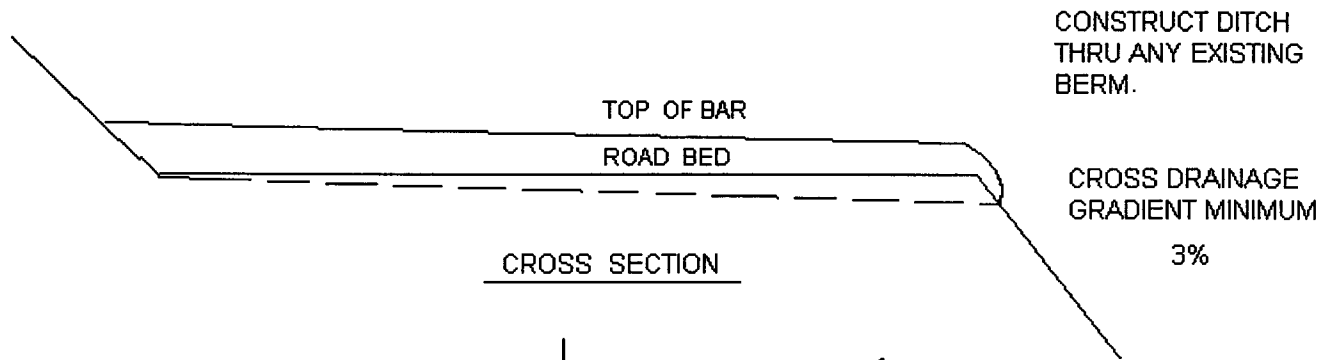
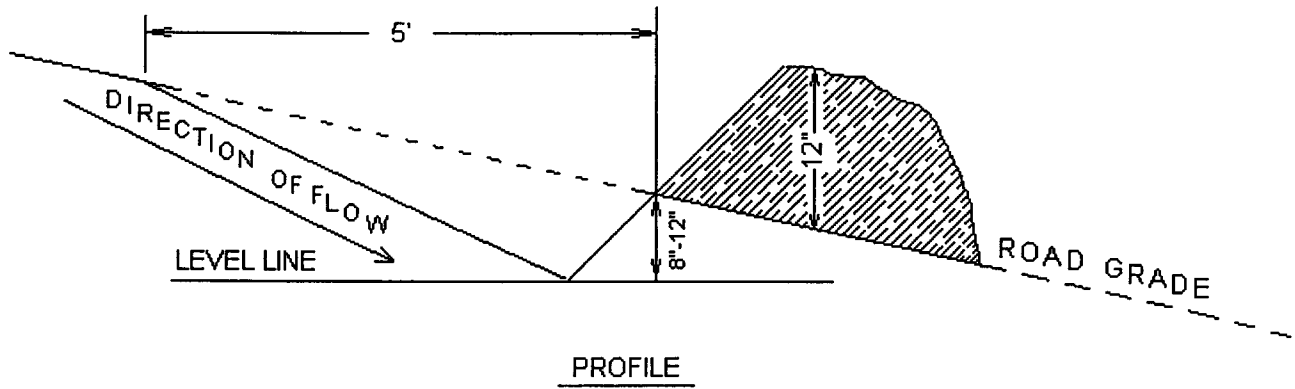


EXHIBIT "J"

GRASS SEEDING AND MULCHING

This work shall consist of furnishing and placing required grass seed and straw mulch.

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. Work shall be performed during each specified seeding season on all completed and previously untreated sections. PURCHASER shall notify STATE 24 hours prior to seeding.

Application Methods for Grass Seed

Dry Method. Hand-operated seeding devices may be used when seed is applied in dry form.

APPLICATION RATES FOR SEED

Seed listed below shall be applied at the following rate per acre: 100

SPECIES	MIXTURE	PURE LIVE SEED	POISON AND/OR REPELLENT	GERMINATION
Annual Rye	26%	95%	0	>90%
Orchard Grass	25%	95%	0	>90%
New Zealand White Clover	17%	95%	0	>90%
Perennial Rye	15%	95%	0	>90%
Birdsfoot Trifol	07%	95%	0	>90%
Red Clover	06%	95%	0	>90%
Alsike Clover	04%	95%	0	>90%

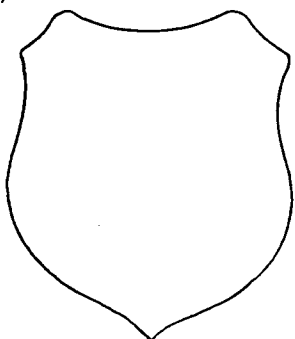
Seeding. Apply grass seed to all waste areas, and bare soils resulting from fill removals in Project No. 3.

Mulching. In addition to seeding requirements, apply straw mulch to all waste areas, and bare soils resulting from Project No. 3 South County Road Vacating. Applied straw mulch shall be a minimum of 2 inches deep and provide a uniform cover.

EXHIBIT "K"
OREGON DEPARTMENT OF FORESTRY

SCALING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION

- (1) ORIGINAL REGISTRATION Date _____
 REVISION NUMBER _____ Date _____
 CANCELLATION Date _____
- (2) TO: _____
 (Third Party Scaling Organization)
- (3) FROM: Astoria District Phone (503) 325-5451
 (State Forestry District)
 Address 92219 Highway 202, Astoria, OR 97103
- (4) PURCHASER: _____
 Address _____

- (12) SALE NAME East Deep Creek
 COUNTY Clatsop
- (13) STATE CONTRACT NUMBER 341-02-21
- (14) SCALE: westside eastside cubic foot
- (15) STATE BRAND REGISTRATION NUMBER _____
- (16) BUREAU BRAND CODE NUMBER _____
- (17) 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		

* 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
 Actual taper all logs over 40' scaling length
- (7) EASTSIDE SCALE: YES NO
 *Actual taper butt logs over 40' scaling length
- (8) PENCIL BUCK YES NO
 back to Minimum Scaling Diameter _____
- (9) ADD-BACK VOLUME -- YES NO
 Deductions due to delay

- (18) PAINT REQUIRED: YES
 COLOR Orange

(19) SPECIAL SCALES
PEELABLE CULL (all species)
UTILITY/PULP (all species)
NO DEDUCTIONS ALLOWED FOR MECHANICAL DAMAGE
OTHER: _____
OTHER: _____

(10) APPROVED SCALING LOCATIONS	Species	Yard	Truck

(20) REMARKS: _____

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

(21) SIGNATURES:
 _____ Date
 Purchaser or Authorized Representative

_____ Date
 State Forester Representative

(11) NOTICE OF CANCELLATION OF BRAND:
 Effective Date: _____

 State Forester's Representative

EXHIBIT "K"

INSTRUCTIONS FOR FORM 343-307 (rev. 5/01)

- (1) Check appropriate box. REVISION NUMBER requires comments. CANCELLATION requires Item (21). Complete date.
- (2) Designate Third Party Scaling Organization (TPSO). Send 4 copies to TPSO, 1 to purchaser, 1 to Salem, and keep such copies as to district needs.
- (3) State District office, address and phone.
- (4) Enter Purchaser's business name and address as it appears on the contract.
- (5) Minimum Scaling Specifications. Review Section 45, "Log Removal," of the contract. Species, or combined species can be separate entries. Information serves as a basis for scaling (see also Items (13) thru (17)), and is required to show existence on the sale. **PerM** (per mbf). **SUM** (lump sum material). **SUB** (submerchantable 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 (PerM) entries. PerM, SUM, and SUB must be indicated by checking the appropriate column. Species with the same specifications and value are combined into one entry. PerM 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, PERM and/or SUB species will always be scaled.
- (6) Westside -- 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 -- 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 (Eastside). Items with * follow U.S. Forest Service Eastside rules.
- (8) Pencil Buck. Check NO if a westside sale, optional for eastside sales.
- (9) Add-Back Volume. Add-Back is normally checked YES. Scaler records deductions (sap rot, weather checks, etc.) caused by an abnormal delay in removal. Enter separately on scale ticket. TPSO provides State with summaries that include this as a net volume by species. Salvage sales and certain other circumstances may require that "NO" be checked.
- (10) Show scaling locations only applicable to TPSO. Not necessary to list markets. If all species are scaled at same location, enter "ALL."
- (11) When logging is complete, recall branding hammers, date and sign where indicated, check CANCELLATION box at top of form, and send to TPSO.
- (12) Enter sale name and county.
- (13) Enter sale contract number.
- (14) Check Westside or Eastside log scale. Cubic foot refers to Northwest Log Rules Cubic Foot Scale.
- (15) Oregon Forest Products Brand Registry Number (optional).
- (16) DO NOT USE -- TPSO will fill in when applicable.
- (17) Show one brand only. Complete drawing. 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) under REMARKS, Item 19.
- (18) Check YES and designate orange.
- (19) Special Scales. These are the Special Scales that will be applied. If "Other" is indicated, please describe. Give comments in Item (19).
- (20) Use this space to designate weight conversion factors, or any other explanations to clarify scaling requirements. If additional scaling locations are approved, prepare another form showing all (old and new) locations. Check REVISION box at top of form and explain under remarks. Route as indicated.
- (21) Require purchaser to sign and date completed form.