PART III: EXHIBITS

State Timber Sale Contract No. 341-09-02 Biker Baber

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 Brane	d Information (complete):	
(1)	Contract No.: 341-09-02	<u> </u>		-
(2)	Sale Name: Biker Baber	<u> </u>		
(3)	Contract Expiration Date: December 31, 2010	Project Complet	ion Dates:	
(4)	Purchaser:			
(6)	Purchaser Representatives:			
	Projects:	Phone:	Cell/Other Phone:	Home:
	Projects:	Phone:	Cell/Other	
			Cell/Other	
	Projects:	Phone:	Cell/Other	
	Projects:	Phone:	Phone: Cell/Other	Home:
	Logging:	Phone:		Home:
	Logging:	Phone:	Phone:	Home:
	Logging:	Phone:	Cell/Other Phone:	Home:
	Logging:	Phone:	Cell/Other	
(5)		i none.	I none.	nome.
(7)	State Representatives:		Cell/Other	
	Projects:	Phone:	Phone: Cell/Other	Home:
	Logging:	Phone:		Home:
(8)	Name of Subcontractors & Starting Dates:			
	Projects: No(s)	Date:	Phone:	
	No(s)	Date:	Phone:	
	No(s) No(s)	Date:	Phone: Phone:	
	Logging: FellingYarding:	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.

1	Cable landing, with numbers for sequence.
А	Tractor landing with alphabetical sequence.
	Approximate setting boundary.
	Spur truck roads.
	Tractor yarding roads.
X	Temporary stream crossings.

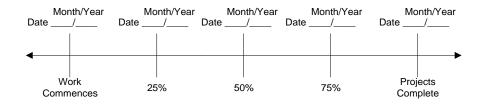
EXHIBIT B

OPERATIONS PLAN

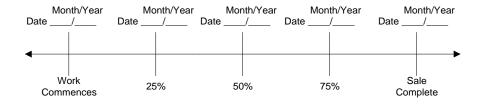
Completion Timeline

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: STATE OF OREGON - DEPARTMENT OF FORESTRY	SUBMITTED BY: PURCHASER
Title	Title

Original: Salem
cc: District File
Purchaser

EXHIBIT C

SCALING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION

(1)	ORIGINAL REGISTRATION REVISION NUMBER CANCELLATION) 		, ,	SALE NAME Biker Baber COUNTY Lincoln
(0)							(13)	STATE CONTRACT NUMBER 341-09-02
(2)	10:	(Third Pa	arty Scaling Or	nanizatio	nn)		(14)	SCALE: westside [*] ⊠ eastside □ cubic foot □
(3)					ne <u>541-929-3266</u>			STATE BRAND REGISTRATION NUMBER
(5)		State Forestry D		110 <u>0 1 </u>	323	<u> </u>	(16)	BUREAU BRAND CODE NUMBER
	Address 2	4533 Alsea I	Hwy., Philor	nath, C	OR 97	<u>370</u>	(17)	STATE BRAND INFORMATION:
(4)	PURCHASER:						(17)	\
` ,								(COMPLETE)
(5)	MINIMUM SCALING SPECIFICATIONS			CLASS]	
S	PECIES	SCALING DIAMETER INCHES	*NET SCALE VOLUME	PER MBF	** SUM	SUB		
	Conifers		10	Х			_	
На	irdwoods		10	Х			_	
*	Apply minimum v Sum (if indicated	olume test to whole I): see instructions ar	logs over 40' Wests nd explain in Item (2	ide; 20' Ea:	stside.		_	
(6)	WESTSID	E SCALE:		Υ	ES	NO		~
(7)	Actual taper a	ıll logs over 40' scalir E SCALE:	ng length			(18)	PAINT REQUIRED: YES ⊠ COLOR <u>Orange</u>	
	*Actual taper	butt logs over 40' sca	aling length				<u> </u>	
(8)	PENCIL B	UCK						SPECIAL SCALES
(0)		ium Scaling Diamete K VOLUME				\boxtimes		ELABLE CULL (all species)
(9)	Deductions do				\boxtimes		NO	LITY/PULP (all species) DEDUCTIONS ALLOWED R MECHANICAL DAMAGE
(10)	APPROVE	ED SCALING	3					HER:
	LOCATIO	NS	Species	Yard	l Ti	ruck	ОТІ	HER:
							(20)	REMARKS:
								-
							Opera	tor's Name (Optional inclusion by District):
							(21)	SIGNATURES:
(11)		OF CANCELL Date:			D:			Purchaser or Authorized Representative Date
		er's Representa						State Forester Representative 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

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 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 (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 subspecies 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 (Northwest Log Rules 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.

EXHIBIT D FOREST ROAD SPECIFICATIONS

SUBGRADE WIDTH	SURFACED WIDTH	POINT TO POINT	STATION TO STATION	DRAINAGE
14 feet	12 feet	A to B	0+00 to 123+90	Ditch
14 feet	12 feet	B to C	0+00 to 47+50	No Ditch
14 feet	12 feet	C to D	0+00 to 40+70	No Ditch
14 feet	12 feet	D to E	0+00 to 11+20	No Ditch

<u>CLEARING</u>. 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 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.

<u>CLEARING AND GRUBBING DISPOSAL</u>. Scatter through openings in the timber outside of the cleared right-of-way, except areas where end-haul is required.

EXHIBIT D

END-HAULING REQUIREMENTS

POINT TO POINT	CONTAINMENT	WASTE AREA LOCATION	WASTE AREA TREATMENT
Point F	1	1	1 and 2

End-Haul Areas General Requirements

Material shall not be intentionally side cast.

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 whatever means necessary and end-hauled to a designated waste area.

Waste Area Location

(1) As shown on Exhibit A and marked in the field.

Waste Area Treatment

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

EXHIBIT E ROAD SURFACING

ROAD SEGMENT		A to B							
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of		TOTAL VOLUME (CY)	
Spot rock	1½"-0"	haul route						234	

ROAD SEGMENT		B to C							
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume	Volume (CY) per Number of		TOTAL VOLUME (CY)		
Surface rock	1½"-0"	haul route	4	22	station	47.5	stations	1,045	
Curve Widening	1½"-0"	haul route	4					107	
Turnout rock	2½"-0"	haul route		18	turnout	3	turnouts	54	

ROAD SEGMENT		C to D							
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		olume (CY) per Number of		TOTAL VOLUME (CY)	
Surface rock	1½"-0"	20+50 to Pt. D	4	22	station	20.2	stations	444	
Curve Widening	1½"-0"	20+50 to Pt. D						24	

ROAD SEGMENT		D to E							
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume	Volume (CY) per Number of		TOTAL VOLUME (CY)		
Surface rock	1½"-0"	0+00 to 6+60	4	22	station	6.6	stations	144	
Surface rock	3⁄4"-0"	6+60 to Pt. E	2	11	station	4.6	stations	54	
Landing rock	jaw-run	Pt. E		54	landing	1	landing	54	

EXHIBIT E ROAD SURFACING

ROAD SEGMENT		Point F							
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of		TOTAL VOLUME (CY)	
Road base rock	2½"-0"	Pt. F						18	
Bearing pad base rock	jaw- run	Pt. F						36	
Bearing pad surface rock	1½"-0"	Pt. F						18	
Rip-rap	24"-6"	Pt. F						36	

ROAD SEGMENT		Maintenance						
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of		TOTAL VOLUME (CY)
Surface rock	1½"-0"	haul route						288

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

Additional rock for curve widening is required and has been included in the volume estimates.

Any additional turnarounds or turnouts created during any operation associated with this timber sale shall be rocked at PURCHASER's expense and as instructed by STATE.

Turnouts and turnarounds shall be rocked concurrently with the road.

End-dumping of riprap shall not be allowed, unless otherwise approved in writing by STATE.

Rock volumes rounded to nearest 9 or 18 CYD load.

45-65%

EXHIBIT E

CRUSHED ROCK SPECIFICATIONS

Materials. The material shall be well graded and consistent.

Quality and Grading Requirements. The stone base materials shall be crushed rock. River gravel shall not be used.

If material is specified as durable, it must meet the following test requirements:

Hardness - Test Method AASHTO T 96: 30% Maximum

Durability - Test Method ODOT TM 208

Passing No. 20 Sieve: 30% Maximum

Grading Requirements

	<u> </u>		
For 3/4"-0"	Passing	1" sieve	100%
	Passing	3/4" sieve	90-100%
	Passing	3/8" sieve	55-75%
	Passing	1/4" sieve	40-60%
Of the fraction passir	ng 1/4" sieve, 40% to 60% sha	II pass the No. 10 sieve.	
For 1½"-0"	Passing	2" sieve	100%
	Passing	1½" sieve	95-100%
	Passing	3/4" sieve	55-75%
	Passing	1/4" sieve	35-50%
Of the fraction passir	ng 1/4" sieve, 40% to 60% sha	II pass the No. 10 sieve.	
For 2½"-0"	Passing	3" sieve	100%
	Passing	2½" sieve	95-100%
	Passing	1¼" sieve	55-75%
	Passing	1/4" sieve	30-45%
Of the fraction passir	ng 1/4" sieve, 40% to 60% sha	Ill pass the No. 10 sieve.	
For Jaw-Run	Passing	6" sieve	100%

For 24"-6" Riprap 50 percent or more of the material shall measure at least 24 inches in one dimension. Material shall be clean, well graded, and free of 2"-0" fines.

3" sieve

Control of riprap gradation shall be by visual inspection by STATE.

Passing

EXHIBIT E

ROCK ACCOUNTABILITY

The rock shall meet the quality and size specifications in Exhibit E. A copy of the rock test sheets shall be supplied to and approved by STATE prior to rocking. 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 sediments will not enter streams.

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

<u>Depth Measurement</u>. Rock shall be spread and compacted according to the depths specified in Exhibit E. 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 E. The average depth for each road segment shall be the specified depth or greater.

<u>Load Records</u>. 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 1st and 15th of each month.

<u>Curve Surfacing</u>. Extra surface width shall be required for the inside of all curves as follows: 400 divided by the radius of the curve equals the amount of extra width to be surfaced at the depths shown in Exhibit E.

EXHIBIT E

COMPACTION AND PROCESSING REQUIREMENTS

<u>Crushed Rock</u>. 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:

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 unless otherwise specified.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS	
B to C, C to D Station 20+50 to Pt. D, and D to E	1 and 3	
Point F	2	
Spot and maintenance	3	

- (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 mile to 1.8 miles per hour as directed by STATE.
- (2) <u>Vibratory Hand-Operated or Backhoe-Mounted Tamper</u>. 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.
- (3) Rock Trucks. Rock spreading shall begin at the nearest point to the rock source and progress toward the end of the project. Rock trucks shall be routed over the entire cross section of rock layers.

EXHIBIT F

FLATCAR STREAM CROSSING STRUCTURE

CROSSING DESIGN, PLANS, AND CONSTRUCTION REQUIREMENTS

Crossing Structure. PURCHASER shall install a railroad flatcar, as shown in Exhibit F, which has been modified and prepared for use as a stream crossing structure. The flatcar will have a minimum 13-foot running surface constructed of 4" x 12" rough cut #2 and better Douglas-fir pressure treated lumber with 6" x 8" rub rails set on blocks on each side. Pre-cast concrete abutments will set on a graded footing foundation constructed with a jawrun rock base and a 1½-0" crushed rock leveling course. Finished grade shall match existing grade. Structure will be installed in accordance with FPA guidelines that will accommodate the 50-year flood event for a drainage basin area of 340 acres and a 50-year peak flow of 210 cfs/mi². The structure shall be designed to maintain a minimum 14 foot stream channel width with cut slopes at 1½ to 1.

STATE will supply site surveys for the purpose of establishing the road and crossing locations, alignment and elevations.

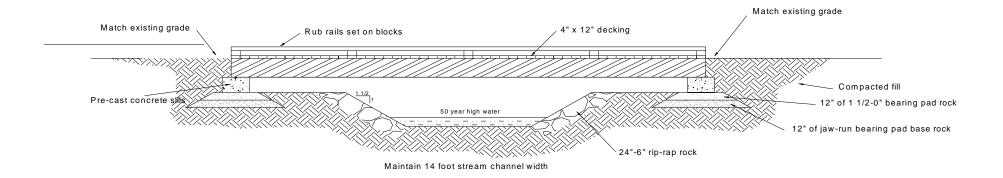
PURCHASER is responsible for any site investigations including, but not limited to, sub-surface exploration deemed necessary.

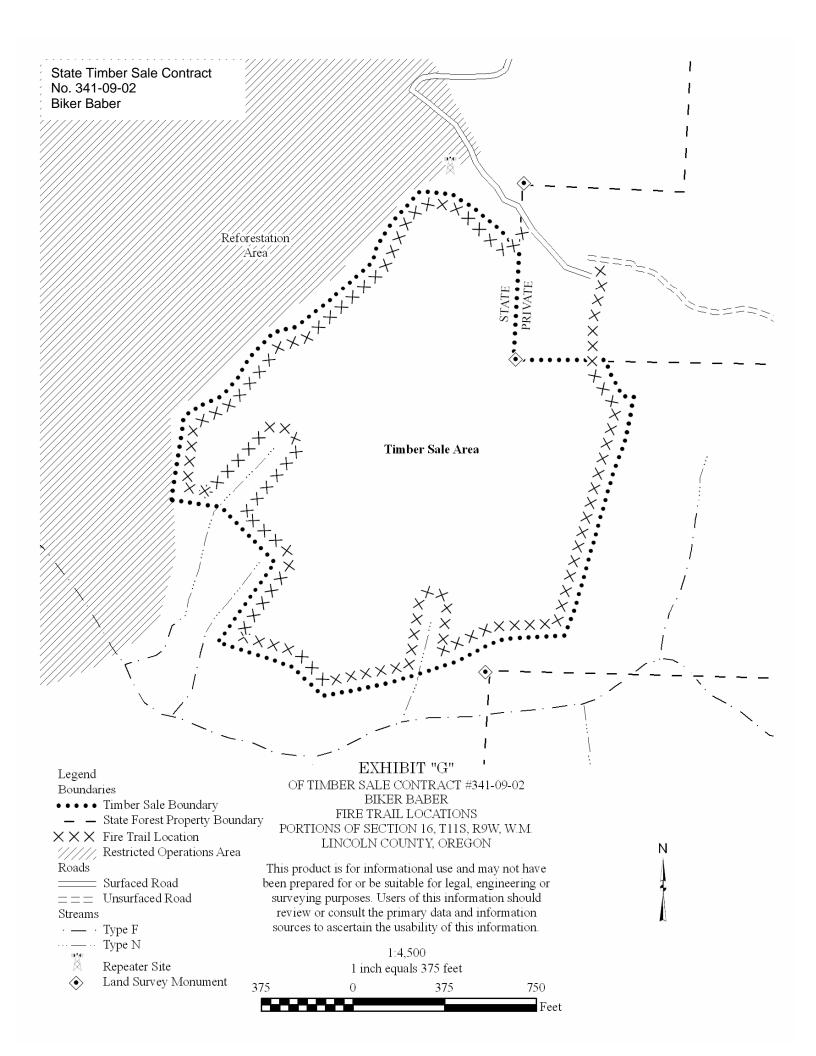
<u>Crossing Plans</u>. PURCHASER shall submit crossing structure plans to STATE for approval prior to commencement of any work on the project. The plans shall include a scaled drawing including sizes and dimensions of structure components. The plans shall also include a description of special tools, equipment, the required lifting capacity and the general process to install the structure. Plans must contain all information necessary for the administration and inspection of the project by STATE.

Crossing Construction

- (1) Work shall be conducted only during periods of low water flows and between July 1 and September 15, 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) The stream flow will be protected from sedimentation during construction activities.
- (3) Remove existing embankment and culvert to accommodate the work area for construction. Existing embankment(s) shall be excavated to a 1 ½ to 1 slope. All woody debris encountered during excavation shall be removed. Excavated debris and materials will be end-hauled to the waste area at the location shown on Exhibit A, pg. 2. The existing removed culvert shall be hauled to an approved refuse disposal site off STATE land.
- (4) Install the structure in accordance with approved plans. Riprap rock shall be utilized for protection of cut banks and stream banks, as directed by STATE. Riprap rock shall be placed and tamped at a 1 ½ to 1 slope with a thickness of 2 feet, beginning at the bank toe(s).
- (5) A minimum 1½ cubic-yard, track-mounted excavator shall be used for all excavation, stream channel development, and riprap placement.
- (6) 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 vegetation and woody debris.
- (7) Straw mulch shall be applied to all exposed excavation areas, bare soils and waste materials to a minimum depth of 3 inches, and shall provide a uniform cover.
- (8) 2½"-0" crushed rock shall be used for restoration of the road surfaces and shall provide a smooth and uniform transition from the existing road surfacing to the restored road surfacing. Crushed rock shall be applied, processed and compacted in accordance with Exhibit E.

EXHIBIT F





PART IV: OTHER INFORMATION

State Timber Sale Contract No. 341-09-02 Biker Baber Page 1 of 2

FPA Written Plan for Timber Harvest Biker Baber Timber Sale

Portion of Section 16, T11S, R9W, W.M., Lincoln County, Oregon.

Protected Resource: A small Type F stream south of the timber sale area.

<u>Situation</u>: A small Type F stream runs south of the timber sale area. The Timber Sale Boundary is posted an average of 100 feet horizontal distance from the stream. Skylines will be required to pass over the stream.

Resource Protection Measures:

- 1. When skylines pass over the stream, pull cables out of the streamside vegetation prior to rigging the next yarding road.
- 2. Do not lower skyline cables into streamside vegetation during the yarding cycle.
- 3. Space skyline corridors passing over stream a minimum of 100 feet apart.
- 4. Do not fell any trees within the stream buffer.
- 5. Fell trees adjacent to the stream buffer so that they do not fall into the stream buffer.
- 6. Yard all logs away from the stream.
- 7. Tail hold stumps/equipment will be located at least 100' away from the stream.

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

Attachment: Exhibit A

FPA "Written Plan" for State Timber Sale Project No. 2 <u>Biker Baber Timber Sale</u> SE ¹/₄ of Section 16, T.11S., R.9W., W.M. <u>Lincoln County, Oregon</u>

<u>Protected Resources</u>: an un-named tributary to Bear Creek, a medium Type F stream. A "written plan" is required for any activity within 100 feet of any Type F stream.

<u>Situation</u>: An existing round culvert is deteriorated and hinders juvenile fish passage. The existing culvert will be removed and replaced with a bridge. The work is planned to enhance fisheries habitat. Further detailed work specifications for this project are shown/described in the attached exhibit F.

<u>Drainage Area</u>: Current FPA guidelines were used to calculate flow requirements for this crossing. The drainage area is 340 acres. The 50-year peak flow for this drainage is 210 cfs per square mile. Therefore, the 50-year flow for this stream crossing is 112 cfs. A stream channel width of 14 feet will be maintained. Cut banks will be excavated to a 1 ½ to 1 slope. After installation of the structure, the cross sectional area will be 67.4 sq. ft. with a wetted perimeter of 26.6 feet. Stream channel slope is 4%. This gives a flow of 754 cfs which exceeds the required 50-year peak flow.

<u>Alternative Locations</u>: Alternative locations for this stream crossing were investigated but no satisfactory alternatives were identified. The original finished grade elevation will be maintained in order to minimize direct runoff from the road surface into the stream.

Resource Protection Measures:

- (1) All in-stream work will be performed only during dry weather periods, low water stream flows and between July 1 and September 15, annually.
- (2) The stream flow will be protected from sedimentation during construction activities.
- (3) Riprap rock will be used to armor stream banks.
- (4) Machine activity in stream channels will be minimized. All excavation and riprap rock placement will be performed using a track mounted excavator with a bucket size of at least 1 ½ cubic yards.
- (5) Selected native earth materials free from woody debris will be used for backfilling. Fill material will be thoroughly compacted.
- (6) All bare soils will be covered with scattered straw to prevent erosion.

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

PURCHASER REPRESENTATIVE	DATE
STATE REPRESENTATIVE	DATE

Attachments: Exhibit F