



Oregon Department of Forestry
 2600 State St Salem OR 97310
 PART III: EXHIBITS

EXHIBIT B
TIMBER SALE OPERATIONS PLAN
 (See page 2 for instructions)

Date Received by State: _____

(5) State Brand Information (Complete)

(1) Contract Number: KL-341-2026-GF7525-01

(2) Sale Name: Pint - GNA

(3) Contract Expiration Date: 12/01/2029

(4) Purchaser Name: _____

(6) State Representatives:

<u>Name</u>	<u>Circle One</u>	<u>Phone No.</u>	<u>Cell No.</u>	<u>Alt Phone</u>
	Logging Projects All			
	Logging Projects All			
	Logging Projects All			
	Logging Projects All			

(7) Purchaser Representatives:

<u>Name</u>	<u>Circle One</u>	<u>Phone No.</u>	<u>Cell No.</u>	<u>Alt Phone</u>
	Logging Projects All			
	Logging Projects All			
	Logging Projects All			
	Logging Projects All			
	Logging Projects All			
	Logging Projects All			
	Logging Projects All			

(8) Name of Subcontractors and Start Dates:

<u>Project No.</u>	<u>Subcontractor Name.</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Cell No.</u>	<u>Alt Phone</u>

	<u>Subcontractor Name.</u>	<u>Start Date</u>	<u>Cell No.</u>	<u>Alt Phone</u>
FELLING				
YARDING				

(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.



Oregon Department of Forestry
2600 State St Salem OR 97310
PART III: EXHIBITS

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 including without limitation PURCHASER'S independent obligation to avoid take of a T&E species and PURCHASER'S obligation to comply with terms and conditions of any incidental take Permit(s) that include required minimization and mitigation measures in any applicable Habitat Conservation Plan. 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.
- (9) 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 required by the timber sale contract. Provide spur road specifications
 3. Locations of proposed tractor yarding roads. Show if and how marked on the ground.
 4. Locations of temporary stream crossings.
 5. List the sequence of performing project work.
 6. Location of rock sources - attach pit development plans.



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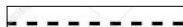
Cable Landing, with numbers for sequence.



A

Tractor Landing with alphabetical sequence.

Approximate setting boundary.



Spur truck roads.



Tractor yarding roads.

X

Temporary stream crossings.

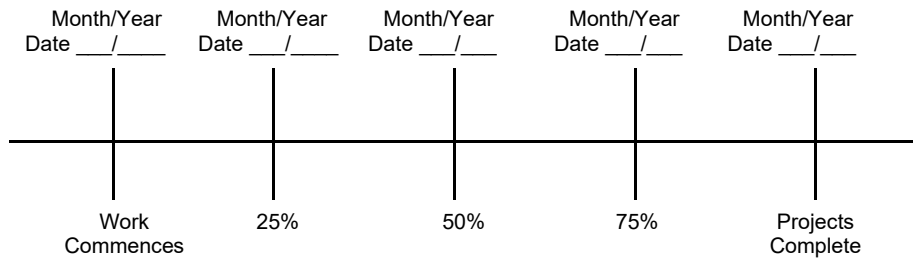


Oregon Department of Forestry
2600 State St Salem OR 97310
 PART III: EXHIBITS
EXHIBIT B
OPERATIONS PLAN

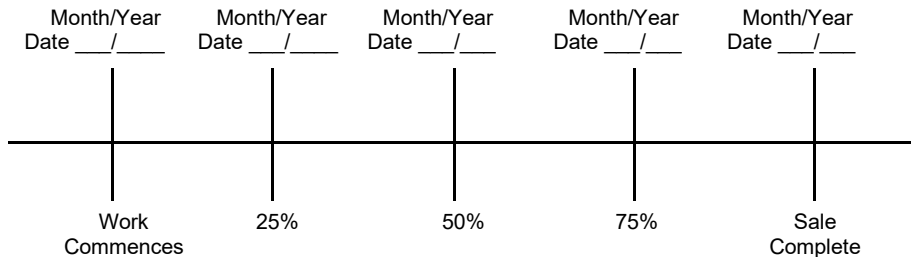
Completion Timeline

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 or that the plan is consistent with the terms and conditions of any applicable incidental take Permit(s) including any required minimization and mitigation measures proposed in the applicable Habitat Conservation Plan. As provided in the timber sale contract, PURCHASER's must comply with all applicable state, federal, and local laws, including without limitation any Permit(s) issued thereunder.

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 _____



Oregon Department of Forestry
EXHIBIT C - SAWMILL GRADE
INSTRUCTIONS FOR EXHIBIT C
Klamath-Lake - EOA

- (1) Check appropriate box. REVISION NUMBER requires comments. CANCELLATION requires logging and hauling to be complete, recall branding hammers.
- (2) Designate Third Party Scaling Organization (TPSO).

<p>Columbia River Log Scaling & Grading Bureau P.O.Box 7002, Eugene, OR 97401 Phone: (541) 342-6007 Fax: (541) 342-2631 Email: services@crls.com</p> <p>Mountain Western Log Scaling & Grading Bureau 2560 NW Medical Park Drive, Roseburg, OR 97471 Phone: (541) 673-5571 Fax: (541) 672-6381 Email: info@mountainwestern.com</p> <p>Northwest Log Scalars Inc. 6137 NE 63rd St, Vancouver, WA, 98661 Phone: (360) 553-7212 ext. 4 Fax:(360) 553-7213 Email: info@nwlogscalars.com</p>	<p>Pacific Rim Log Scaling Bureau, Inc. 8288 28th Court North East, Lacey, WA 98516 Phone: (360) 528-8710 Fax: (360) 528-8718 Email: office@prlsb.com</p> <p>Yamhill Log Scaling & Grading Bureau P.O.Box 709, Forest Grove, OR 97116 Phone: (503) 359-4474 Fax: (503) 359-4476 Email: yamhilllog@frontier.com</p>
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- (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. Scaling diameter inches is used for pencil buck minimum diameter.
- (6) Eastside - 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 (Northwest Log Rules Eastside). Items with * follow U.S. Forest Service Eastside rules.
- (7) Weight Scale Sample - Check box if sale is to be a Weight Scale Sample. All specifics for handling, scaling and processing will be attached or explained in the Remarks section item (15).
- (8) Show scaling locations only applicable to TPSO. Location name should appear as it does on the ODF Approved Scaling Location web site: https://apps.odf.oregon.gov/Divisions/management/asset_management/scalinglocation.asp Locations with scaling and processing directions specific to their location should be on a separate form. Species should be identified if not capable of receiving "all" species. Check appropriate box for either: yard, truck scale, or weight. Refer to the web site listed above for the locations approval status.
- (9) Enter sale name and county.
- (10) Enter sale Contract number.
- (11) Enter Oregon's State Brand Registry Number (**REQUIRED**).
- (12) Show brand assigned to timber sale. One brand only. If more than one brand is assigned to the sale: (1) make a separate form for each brand and (2) on each form, explain and show other brand(s) in the Remarks section item (15).
- (13) Check yes for Paint Required and designate "Orange" for color. Non required removal volumes may sometimes require blue paint.
- (14) Special Requests. These are requests that will be applied to ODF timber sales. All boxes applicable to the timber sales designated in the Exhibit C form must be "marked". If "Other" is indicated, it must contain a description and any necessary comments.
- (15) Use this space to designate any weight scale sample instructions or any other explanations to clarify scaling, processing and/or mailing requirements. If additional scaling locations are approved, revise original or current form showing all (old and new) locations. Check REVISION box at top of form and explain under remarks. Route as indicated.
- (16) Require purchaser to sign and date completed form in addition to State Forester Representative, sign and print name on the form. Signatures not required on revisions.



**Oregon Department of Forestry
 EXHIBIT C - PULP SORT
 PROCESSING INSTRUCTIONS - LOCATION APPROVAL
 BRAND INFORMATION**

Klamath-Lake, EOA

(1) ORIGINAL REGISTRATION Date _____
 REVISION NUMBER 000 Date _____
 CANCELLATION Date _____

(2) TO: _____
 (Approved Pulp Processing Facility)

(3) FROM: Klamath-Lake Phone (541) 883-5681
 (State Forestry District)
 Address: 3200 DELAP RD
KLAMATH FALLS, OR 97601

(4) PURCHASER: _____

(5) Scaling Bureau (TPSO) Processing Weight receipts:

Mailing Address: _____

Phone Number: _____

(6) **STATE Definition of Approved Pulp Sort:**

- Top portion of the tree (tops).
- All logs with a diameter (Big End) greater than 8 inches marked with blue paint.

(7) PULP FACILITY PROCESSING INSTRUCTIONS:

- Pulp loads shall be weighed in lieu of scaling.
- One Ton = 2000 lbs (Short Ton).
- Pulp loads shall have a yellow Log Load Receipt attached.
- Gross weight and truck tare weight for each load shall be machine printed on the weight receipt.
- Weigher shall sign the weight receipt.
- Weigher shall record the Log Load Receipt number on the weight receipt.
- Weigher shall attach the Weight receipt to the Log Load Receipt and mail them weekly to the TPSO processing the Weight receipt.

(8) TPSO PROCESSING INSTRUCTIONS

- Submit data files daily (or each day of activity).
- Mail or deliver scale tickets weekly to ODF Headquarters in Salem.

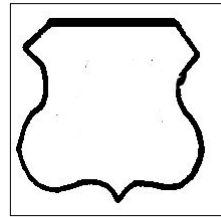
(9) **SALE NAME:** Pint - GNA

COUNTY: Crook

(10) **STATE CONTRACT NUMBER:**
KL-341-2026-GF7525-01

(11) STATE BRAND REGISTRATION NUMBER: _____

(12) STATE BRAND INFORMATION:



(13) **REMARKS: *Mule Trains***
1. Loads are required to have load tickets for each set of bunks
2. If truck and pup are to be weighed, weigh and process separately for gross and tare weights.

“Mule Trains”

1. Loads are required to have load tickets for each set of bunks.
2. Truck and pup are to be weighed and processed separately for gross and tare weights.

Operator's Name (Optional inclusion by District):

(14) SIGNATURES:

 Purchaser or Authorized Representative Date

 State Forester Representative Date

 State Forester Representative PRINT NAME

Notify the District within one hour when branding is inadequate for quick identification, the logs are marked with orange paint, the receipts are missing, not correctly or completely filled out, and/or logs do not meet the specifications of the STATE definition of Approved Pulp Sort.



**Oregon Department of Forestry
EXHIBIT C - PULP SORT
INSTRUCTIONS FOR EXHIBIT C**

Klamath-Lake, EOA

- (1) Check appropriate box. REVISION NUMBER requires comments. CANCELLATION requires logging and hauling to be complete, recall branding hammers.
- (2) Approved Pulp Processing Facility. Write in as written in the Approved Log Delivery Location https://apps.odf.oregon.gov/Divisions/management/asset_management/scalinglocation.asp
- (3) State District office, address and phone.
- (4) Enter Purchaser's business name, address, and phone number as it appears on the Contract.
- (5) Third Party Scaling Organization that will be processing the weight tickets, mailing address, and phone number.

Columbia River Log Scaling & Grading Bureau
P.O.Box 7002, Eugene, OR 97401
Phone: (541) 342-6007 Fax: (541) 342-2631
Email: services@crls.com

Pacific Rim Log Scaling Bureau, Inc.
8288 28th Court North East, Lacey, WA 98516
Phone: (360) 528-8710 Fax: (360) 528-8718
Email: office@prlsb.com

Mountain Western Log Scaling & Grading Bureau
2560 NW Medical Park Drive, Roseburg, OR 97471
Phone: (541) 673-5571 Fax: (541) 672-6381
Email: info@mountainwestern.com

Yamhill Log Scaling & Grading Bureau
P.O.Box 709, Forest Grove, OR 97116
Phone: (503) 359-4474 Fax: (503) 359-4476
Email: yamhilllog@frontier.com

Northwest Log Scalars Inc.
6137 NE 63rd St, Vancouver, WA, 98661
Phone: (360) 553-7212 ext. 4 Fax:(360) 553-7213
Email: info@nwlogscalars.com

- (6) Big end of log is not to exceed 2 inches greater than the minimum removal specifications in the contract. Example: Minimum removal specifications 6 inches and 20 board feet, then the Big end of log not to exceed 8 inches. When conifer and hardwood removal specifications are different, use the smaller removal diameter to determine this specification.
- (9) Enter sale name and county.
- (10) Enter sale Contract number.
- (11) Enter Oregon's State Brand Registry Number **(REQUIRED)**.
- (12) Show brand assigned to timber sale. One brand only, if more than one brand is assigned to the sale: (1) make a separate form for each brand and (2) on each form, explain and show other brand(s) in the Remarks section Item (13).
- (13) Use this section to list any special instructions or the reason for any revisions in section item (1).
- (14) Require purchaser to sign and date completed form in addition to State Forester Representative, sign and print name on the form. Signatures not required on revisions.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

IMPROVEMENT

SUBGRADE WIDTH	RUNNING WIDTH	POINT TO POINT	DRAINAGE
15 feet	12 feet	A to B	Shape to Drain
15 feet	12 feet	C to D	Shape to Drain
15 feet	12 feet	E to F	Shape to Drain
15 feet	12 feet	G to H	Shape to Drain
15 feet	12 feet	I to J	Shape to Drain
15 feet	12 feet	K to L	Shape to Drain
15 feet	12 feet	M to N	Shape to Drain
15 feet	12 feet	O to P	Shape to Drain

At **Point Q** construct Ditchout to drain cattle watering pond into nearby RHCA. Construct a ditch so that the pooled water can effeciently and effectivly drain into the adjacent streambed. Once the cattle watering pond has been drained, fill in the hole with dirt created from grading and improving the road. Allow adequate time for the soil to drain before beginning hauling to prevent unnecessary damage to the road bed and runoff into the adjacent RHCA. Upon log haul completion, when closing the road, ensure that the ditchout is filled back in and the cattle watering pond is restored as it was before harvesting activities.

EXHIBIT D

FOREST ROAD SPECIFICATIONS

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 4 feet back of the top of the cutslope and 4 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.

For road segments with abundant down trees across the road surface this material will be removed and piled to burn in stand openings adjacent to the right of way prior to grubbing work.

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 left lodged against standing trees.

GRUBBING CLASSIFICATION.

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. Clearing and grubbing debris shall be left in a stable location, and not left lodged against standing trees.

Clearing and grubbing debris may be scattered through openings in the timber outside of the cleared right-of-way, except for the following areas where debris shall be fully contained and hauled to a designated waste area:

- Where end haul is required
- On side slopes exceeding 50%
- On unstable areas

- In any stream channel or where material may enter the stream channel.

Clearing, grubbing, and associated disposal shall be completed prior to subgrade approval.

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.

Unless road plans show otherwise, all roads shall be on a balanced cross section, except when the slope is over 60 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 and directed by STATE.

ROAD WIDTH LIMITATIONS. PURCHASER shall obtain advance written approval from STATE to construct the road to a greater width than specified.

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 or outsloped at 4 to 6 percent as shown on the "Forest Road Specifications" table in this Exhibit.

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 50ft, or as staked on the ground, plus 25 foot approaches at each end.

Landings. Landings surface is to be crowned for drainage with general grade no more than 3%.

Seasonal Winterization. All unsurfaced roads or unfinished subgrades shall be waterbarred in accordance with the specifications in Exhibit F and blocked from vehicular traffic prior to December 1, annually and as directed by STATE.

EXHIBIT E

SPECIFICATIONS FOR BRUSH AND SLASH PILING

Description of Work to be Done

Areas designated for work under the contract shall be treated according to the specifications given below:

Clearing - Brush, logging Slash, and other debris shall be cleared and piled, so that 80 percent or more of the soil organic layer is exposed. All woody vegetation other than trees is defined as brush in this exhibit.

Piles - Piles shall be located inside the project area designated for piling and shall be more than 30 feet from any edge or standing conifer tree. All piles shall be compact and contain a minimum of soil. Height of the piles shall be no less than eight (8) feet. Diameter of piles shall be no less than ten (10) feet. Piles shall be located in the center of the landing.

Conifer and Hardwood Trees - shall be saved, unless otherwise directed by STATE.

Protective Measures - shall comply with Oregon Forest Practice Rules issued per ORS 527.610 to 527.992. Examples of protective measures are: (1) waterbarring tractor trails where necessary to prevent runoff toward streams; (2) not windrowing in streams or streamways; and (3) leaving Stream Buffers along designated streams.

Work specifications may be modified or waived only upon written notice from STATE.

EXHIBIT E

SPECIFICATIONS FOR BRUSH AND SLASH PILING

Equipment Type, Equipment Operation, and Conduct of Work

The specifications given below are requirements for equipment type, equipment operation, and conduct of work under the contract.

Equipment - shall be a track-mounted machine with a ground-pressure rating of not more than 6.8 PSI and a net horsepower of 70 or more. The machine shall be capable of a minimum horizontal reach of 26 feet and a minimum vertical reach of 16 feet.

- Excavator-shovel: Bucket shall be a hydraulically controlled, "clamshell-style bucket with rake arms," with a 360-degree continuous rotation, and tooth length on rake arm shall be greater than 12 inches long, unless otherwise approved in writing by STATE. "Clamshell-style bucket with rake arms" shall be hydraulically controlled to operate bucket in a horizontal position for piling Slash.
- Cat: Blade shall be hydraulically controlled, with the ability to tilt and move side to side. Machine shall be track mounted and able to push fire trail at least 8 feet wide around slash piles once they are completed. Unless otherwise approved in writing by STATE.

Equipment	Rate	Landings	Hours Per Landing	Appraised Value
Excavator/Shovel	\$150	30	2	\$9,000
Cat	\$150	30	0.5	\$2,250
Total Value				\$11,250

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.

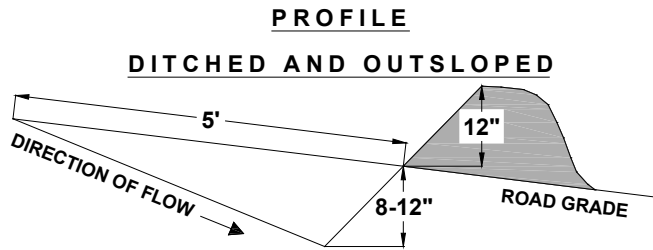
Support - including transport, other equipment, replacements, supplies, maintenance, and repairs shall be furnished as required to complete work; and shall be furnished without cost to STATE, other than as agreed under the contract terms.

Work Scheduling - work shall be accomplished only during favorable weather conditions and started within 14 calendar days after completion of yarding activities on the Timber Sale Area. Operations shall provide for continual operation until contract work is completed, unless interrupted by poor weather, fire closures, wildlife closures, or other uncontrollable circumstances. Equipment breakdowns shall be repaired without undue delay, and provisions shall be made for replacement of equipment to prevent prolonged delays. Piling operation shall not be allowed when operations might damage sites or affect stream flows, or when there is active nesting, feeding, and fledging of birds of prey Any exception to these instructions must be authorized in writing by STATE.

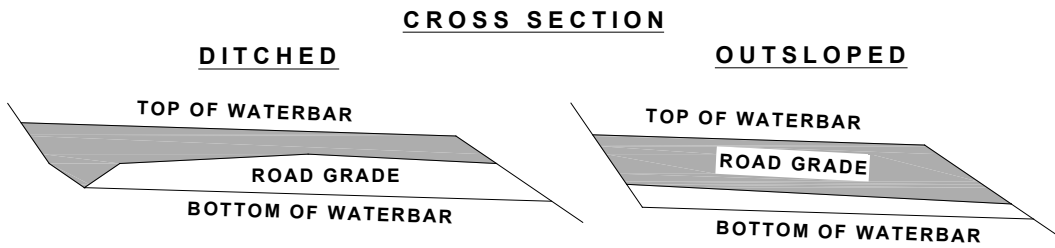
STATE Representative - shall provide directions for the conduct of work according to specifications

EXHIBIT F

WATERBAR SPECIFICATIONS



SPACING OF WATERBARS	
ROAD GRADE	DISTANCE
< 6 %	400'
6 - 10 %	200'
11 - 15 %	150'
> 15 %	100'



CONSTRUCT DITCHOUT THRU ANY EXISTING BERM.
 CROSS DRAINAGE GRADIENT MINIMUM 3%.

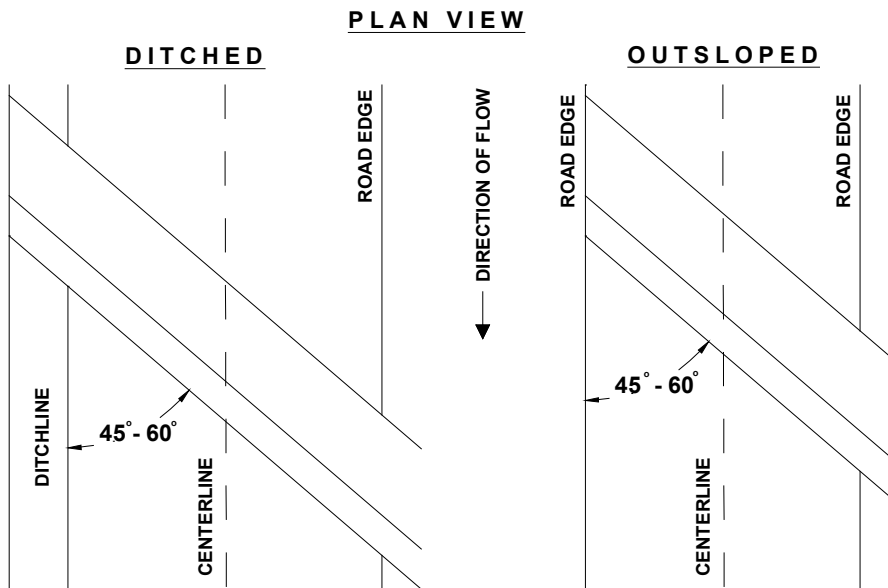


EXHIBIT F

CORDUROY CROSSING SPECIFICATIONS

Description of Work to be done

Areas designated for work under the contract shall be treated according to the specifications given below:

Constructing Corduroy Crossing- Using cut timber material from the surrounding area (i.e. bole wood from pulp logs, cull logs, saw logs, timber removed from road opening, etc.) place logs parallel through the streambed until the approach in and out of the stream are level with each other. Place the material parallel with the flow of water to allow for any water that may be flowing through the stream to pass through and continue down the stream channel. Place enough material in the streambed to allow for the weight of logging equipment and yarding to take place across the stream without damaging the streambed. For corduroy crossings on temp roads (i.e. haul routes) ensure that log trucks can safely use the crossing without impact to the truck or streambed. Along temp roads, when conducting road improvement, a dozer may be used to shape and grade the approach to the corduroy crossing to create a more gradual and safer entry and exit with log trucks.

Width- The width of these crossings should be as wide as the skid trail (10 feet) or temp road (12 feet) with which the activity is taking place on.

Location of work- The locations of STATE approved corduroy crossings are marked in the field with yellow flagging and identified with a yellow cross in Exhibit A of this contract. There are 11 approved Corduroy crossings identified within the scope of this contract in Exhibit A. If additional Corduroy crossings are needed, locations must be marked in the field by PURCHASER and approved by STATE before construction or use.

Deconstruction- If the crossing is within a unit and used for skidding and felling access. Once all skidding and felling is complete, immediately remove the corduroy crossing and restore the streambed back to its natural form before logging activities.

If the crossing falls along a temp/access road, remove the crossing once all logging operations, log hauling, and project work is complete, and access behind the crossing is no longer needed. ALL CROSSINGS MUST BE REMOVED BY DECEMBER 1 for seasonal closure even if operations are not complete, unless otherwise approved by STATE.

Protection Measures- PURCHASER shall comply with Oregon Forest Practice Rules issued per ORS 527.610 to 527.992. Examples of protective measures are: (1) waterbarring and preventing runoff into nearby streams. (2) Only crossing at designated crossings approved by STATE (3) Not windrowing in streams or skidding down streamways

Work specifications may be modified or waived only upon written notice from STATE.

Corduroy Crossing Locations

Crossing Number	Use Type	Unit Number
1	Temp Road/Log Haul	2
2	Temp Road/Log Haul	2
3	Felling/Skidding	16
4	Felling/Skidding	16
5	Temp Road/Log Haul	N/A
6	Temp Road/Log Haul	N/A
7	Temp Road/Log Haul	N/A
8	Temp Road/Log Haul	N/A
9	Felling/Skidding	33
10	Felling/Skidding	33
11	Felling/Skidding	33

Specific Instructions:

Crossing #7: This crossing falls along the haul route leading to units 336.1 and 6. The crossing is located on a switchback turn and the stream crossing the road has washed away the roadbed. This crossing will require more material in order to bring the roadbed up to a height which is passable for log hauling. When constructing, fill the stream bed with bole wood from saw log or pulp material cut from the right-of-way when opening the road to a minimum depth of 4 feet. Once the logs are secure and in place, using a dozer or skidder blade, push and compact dirt over the top of logs until the road surface is level. Once complete, compact the dirt to ensure it is safe for log hauling. After completion of all logging, log hauling, and project work is done in units 336.1 and unit 6, remove the dirt and logs from the streambed and restore it to how it was before any logging activities. Riparian material (i.e. bushes and shrubs) may be cut back to allow room for the crossing and right of way for trucking but must leave the root wad in place within the streambed throughout construction and use.

Equipment Type, Equipment Operation, and Conduct of Work

Crossings 1, 2, 5, 6, and 7- Shall use a track mounted Excavator , shovel, or skidder to place wood parallel in the streambed neatly for temp road crossings for log hauling. A dozer shall be used to shape and grade the approach in and out of the corduroy crossing, in order to create the most gradual approach for impacts to the stream and ease of log hauling. For Crossing 7, a dozer shall be used to push and compact fill dirt on top of the corduroy crossing.

Crossings 3, 4, 9, 10, 11- Shall use a skidder, shovel, or excavator to place logs parallel in the streambed for use of crossing for felling and skidding. Ensure the approach is as gradual as possible as to not impact the streambed and create excess damage to the area. Once skidding and felling is complete, remove the crossing and restore the streambed to its natural state.

Operator – must be experienced in operating similar equipment on log placement and decking operations, able to operate equipment proficiently and build crossings 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 be accomplished only during favorable weather conditions and started before felling and yarding activities take place across RHCA buffers on the Timber Sale Area. Operations shall provide for continual operation 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 provisions shall be made for replacement of equipment to prevent prolonged delays. Crossing construction operation 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.

STATE Representative - shall provide directions for the conduct of work according to specifications.

EXHIBIT G

Specifications for Road Closing, Scarification, and Grass Reseeding

Scarification and Road Closure Specifications

Scarification may be necessary to loosen compacted soils where detrimental soil conditions exceed 20 percent of the unit area or as deemed necessary by STATE, to mitigate effects from current and historic harvesting activities and fuels treatments. Scarification may be used to decommission temporary roadbeds, landings, and primary skid trails. Scarification may not be appropriate in all instances (i.e. high surface and or subsurface rock content, areas that are shallow to bedrock, areas where excessive damage to root system of the residual stand may occur). Scarification will occur along the entire length of temporary roads (unless specified to remain open), 300 linear feet up primary skid trails, and on landings (accessible area not encumbered with slash piles), if determined to be appropriate for treatment by STATE.

- (1) Recommended Scarification Equipment Specifications: Scarifier design should consider the ability to place slash where needed to close temporary roads and return the road back to its former state prior to operations. Bulldozer mounted ripper is NOT desirable for this work due to their diminished maneuverability, greater likelihood for root system damage to the residual stand, and inability to place slash in the same pass. Use of an excavator with a brush rake attachment in place of a bucket to move slash and scarify soil was appraised for this project.
- (2) Definition of Scarification: Scarification is defined as the process of removing the upper organic layers of soil to uncover bare soil, which is essential for improving conditions for reseeded grass and regeneration of native trees. This technique is used to break up compacted soils and enhance infiltration, allowing for better nutrient availability and moisture status. Soil shall be scarified a **minimum of 6 inches deep and a maximum of 12 inches deep**, except where STATE agrees to lesser depths. Disturbance of surface organics and remaining vegetation will be minimized. Treated areas shall span the total width of the compacted ground surface. In some instances, where machine capability allows, the full width of the skid trail may not warrant treatment (i.e. scarification of the two-track surface may be preferred). The distance between scarification rake passes shall not exceed 6 inches unless inspection by Soil Scientist determines greater distance between passes is effective at treating soil. Scarification shall not occur when ground is frozen, unless approved by STATE, to prevent unwanted displacement and mixing.

Available slash from skidding or road improvement operations shall be placed in conjunction with scarification. Scarified areas must not be re-trafficked with machinery to place slash/surface cover.

- (3) Location and quality of work: Anticipated acreage of scarification needed for temp roads, landings, and skid trails is listed in the table below for the entire Timber Sale Area. However, on the ground work will be planned by consulting with STATE to determine the most appropriate areas to treat to meet soil restoration objectives. Actual acreage requiring treatment in each area may be more or less than the amounts estimated below. Contractor will track work as it is accomplished and will adhere to the amounts listed in the table below unless different amount is agreed upon by STATE. Skid trails will be credited at 10 feet width by total length treated, and temp roads will be credited 12 feet width by total length of road treated, unless otherwise agreed to in writing. Segments of skid trail up to 300 linear feet where excessive rock or other site conditions preclude effective treatment may be credited toward treatment acreage where they fall within a segment that is otherwise acceptably treated. Estimated acres of treatment across the Timber Sale Area is summarized in the table below.

Location	Estimated Acreage
Landings	3.44
Skid Trails	8.26
Temp Roads	2.04
Total Acreage	13.7

Scarification Locations	
Points	Distance (ft)
C to D	1960
E to F	1260
G to H	1936
M to N	864
O to P	1402
Total	7422

- (4) Road Closure: The acreage for road closure is accounted for in the estimated acreage for scarification. When scarifying temp roads, scarification will occur for the length of the road, defined as the last point of use to where the temp road meets the main surface road. Road closure will occur where the temp road leaves the main surface road. Objectives for road closure include (1) Making the road trafficable by highway vehicle or OHV (2) impassible/immovable with winch or chainsaw. This is recommended to be achieved by scarifying the temp road and placing slash, root

wads, downed wood, large rocks that may have been brought up during road improvement, etc. for the first 100 linear feet where the temp road leaves the surface road. As a final measure of insurance, a berm of dirt a minimum of 3 feet high for the width of the road will be built, where the temp road leaves the surface road, to ensure the road is trafficable by vehicle. ROADS TO BE CLOSED AT POINTS C, G, I, and O.

Exhibit G

Grass Reseeding Specifications

Grass reseeded will be required on every scarified acre on the Timber Sale Area. This includes all scarified landings, length of scarified skid trails, and the entire length of temp roads. Total acreage for grass reseeded is estimated at the same acreage as scarification, matching the table above. All grass seed will be furnished by the Ochoco National Forest, given to the STATE to be distributed to the PURCHASER. Type of grass seed to be spread will be selected by the Ochoco National Forest, based on native grasses expected to grow within the Timber Sale Area. Estimated amount of grass seed to be spread is **15 lbs. per acre +/- 10% on each acre**. Grass seed shall be spread using a method selected by the PURCHASER. Recommended equipment for spreading grass seed includes hand spreader, bag spreader, push spreader, four-wheeler mounted spreader, tow behind spreader, etc. Type of spreader is to be discussed with STATE before operations begin.

Reseeding Locations	
Points	Distance (ft)
C to D	1960
E to F	1260
G to H	1936
M to N	864
O to P	1402
Total	7422

Location	Estimated Acreage
Landings	3.44
Skid Trails	8.26
Temp Roads	2.04
Total Acreage	13.7

EXHIBIT H

Guide for Identifying Mature Trees

Trees over 150 years old are considered “old trees” in the scope of this contract, while those same trees considered “mature trees > 150 years old” in the Vanpelt guide referenced below. For contracting purposes, a score of 7 or greater in Ponderosa pine and 7 or greater in Douglas fir is considered to be a tree that is visually greater than 150 years old. Visual estimates should be utilized based on crown form, bark patterns/color, branching structure, and other visual characteristics.

Ponderosa Pine

Rating system for determining the general age of ponderosa pine trees

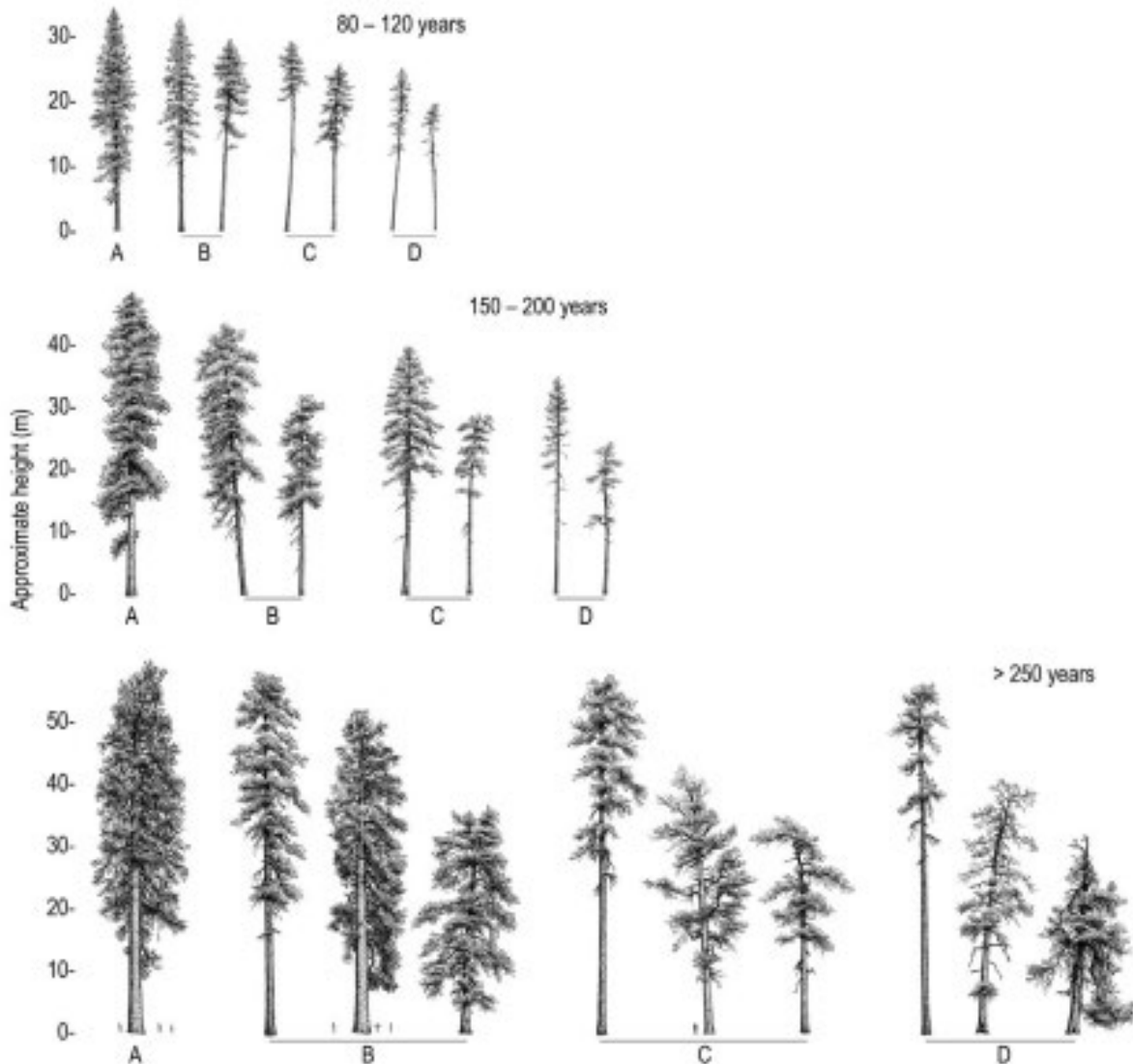
(Choose one score from each category and sum scores to determine developmental stage)

Lower trunk bark condition	Score
Dark bark with small fissures . . . . .	.0
Outermost bark ridge flakes reddish, fissures small. . . . .	.1
Colorful plates, width about equal to fissure widths . . . . .	.2
Maximum fissure to fissure plate width \geq 15 cm (6 in) and $<$ 25 cm (10 in) . . . . .	.3
Maximum fissure to fissure plate width \geq 25 cm (10 in) . . . . .	.5
Knot indicators on main trunk below crown	
Dead branches below main crown, whorl indicators extending nearly to tree base . . . . .	.0
Old knot/whorl indicators visible below main crown . . . . .	.1
No knot/whorl indicators visible . . . . .	.3
Crown form (refer to Figure 69)	
Similar to a tree in top row . . . . .	.0
Similar to a tree in middle row . . . . .	.3
Similar to a tree in bottom row . . . . .	.5

Scoring Key

- < 2 Young tree
- 2-5 Mature tree < 150 years
- 6-10 Mature tree \geq 150 years
- > 10 Old tree \geq 250 years

Figure 69. Ponderosa pine crown form and tree vigor in eastern Washington. Idealized forms represent three age and four vigor classes (A-high vigor to D-low vigor). Vigor is a function of site productivity and response to disturbance and environmental stress. More than one individual is shown for vigor classes B-D to illustrate possible variations. Competition-based mortality usually ensures that most trees in vigor classes C and D do not survive to the next age class. The trees depicted are the same scale in the first image, and at differing scales on the following pages.



Bark characteristics

The orange-yellow bark, comprised of a myriad of small, puzzle-piece flakes, is characteristic of older ponderosa pines (Figure 58). When warmed by the sun, the bark has an aroma of vanilla, butterscotch, pineapples, or even cream soda, caused by the presence of terpenes – complex hydrocarbons that are the source of scent for many herbs, spices, and perfumes.

The thick bark of ponderosa pine is key to its ability to survive fire. For the first century, the bark is dark brown to nearly black and begins to break up into thick, vertical fissures. During the second century, the outer layers of the bark ridges begin to flake off, revealing the reddish brown color characteristic of mature trees (Figure 59). As the tree ages, the outermost bark continues to flake off, causing the colorful plates of outer bark to get wider, while the width of the dark fissures



Figure 59. A maturing pine is just beginning to develop color in the outer bark.

in between remain relatively constant (Figure 60). By the third century, the bark plates have become substantially wider than the fissures, a sign of old age (Figure 61). Foresters often affectionately refer to these old, valuable trees as **yellow-bellies**. Unlike trunk diameter, maximum plate width is well correlated with tree age—a feature we will use to help us in aging trees (Figure 62).



Figure 60. Bark patterns on mature ponderosa pine. Note residual charcoal in the center photo.

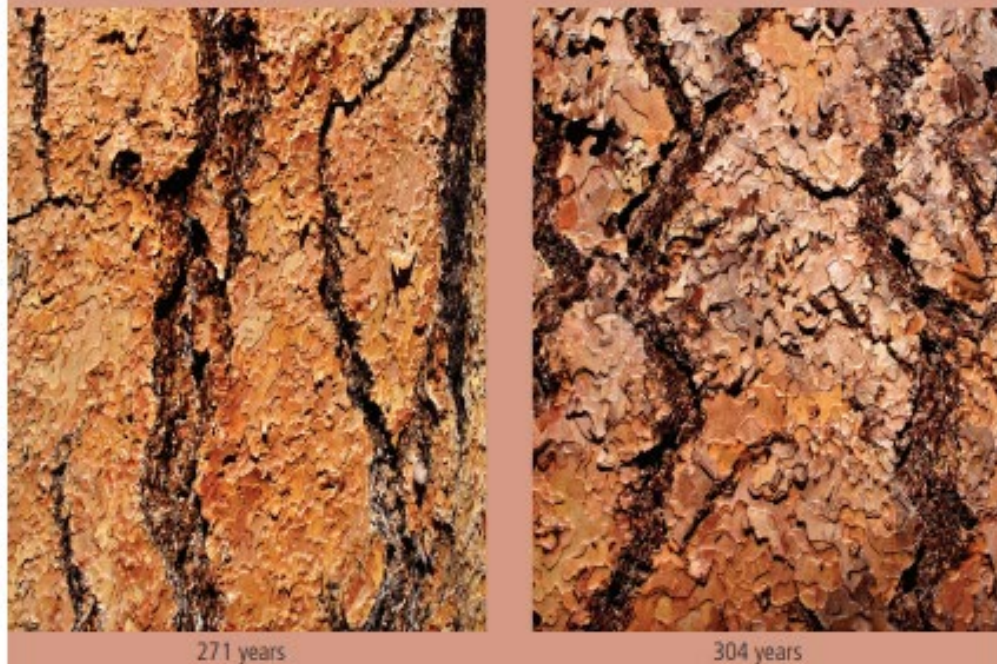


Figure 61. Bark patterns on old ponderosa pine. The colorful bark plates are generally more than three times wider than the darker fissures that separate them.

Douglas Fir

Rating system for determining the general age of Douglas fir trees

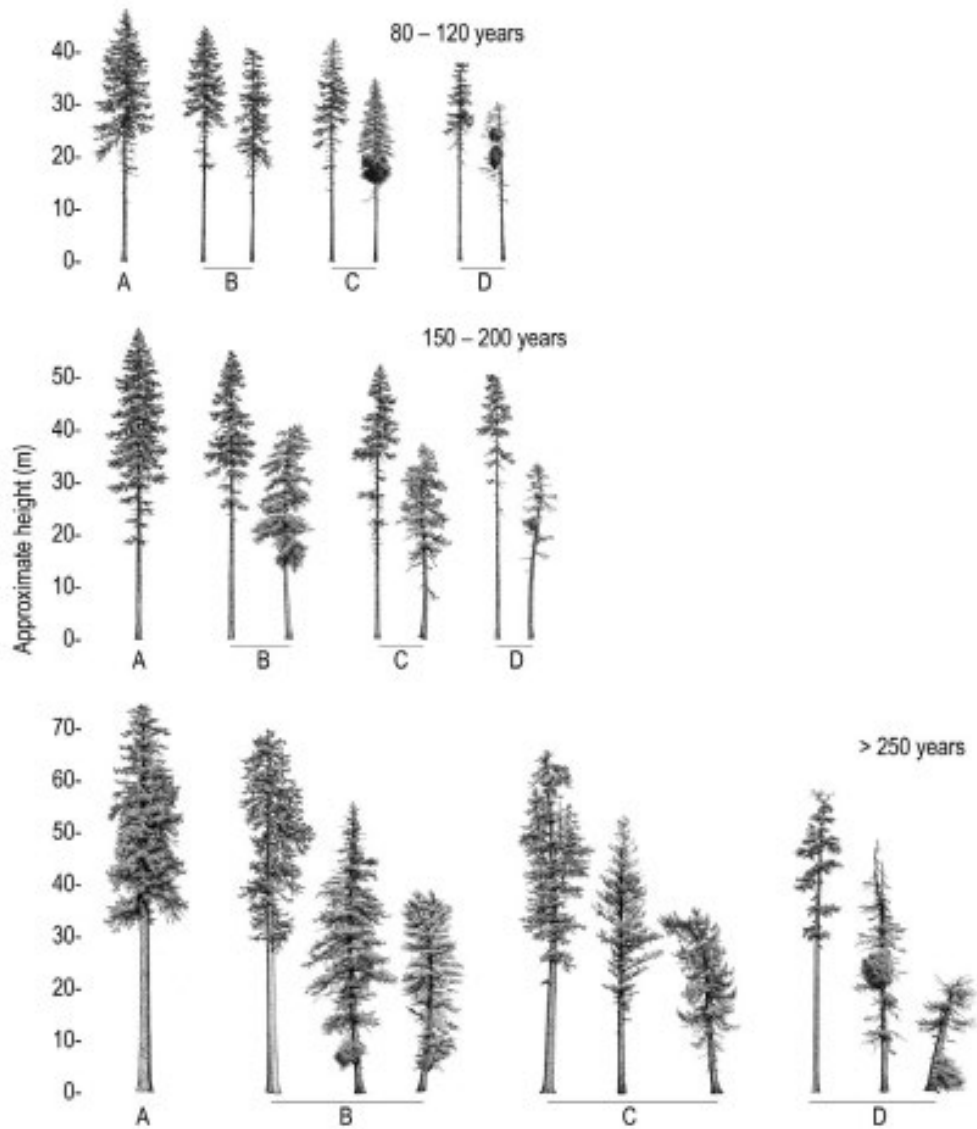
(Choose one score from each category and sum scores to determine developmental stage)

Bark condition, lower one-third of tree	Score
Hard, bony bark with small fissures . . . . .	.0
Hard bark with moderately deep fissures (4-10 cm – 2-4 in) . . . . .	.1
Deep fissures present (> 10 cm – 4 in) . . . . .	.3
Knot indicators, lower one-third of tree	
Branch stubs present. . . . .	.0
Old knot/whorl indicators visible . . . . .	.1
No knot/whorl indicators visible . . . . .	.3
Lower crown indicators	
No epicormic branches . . . . .	.0
Small epicormic branches present. . . . .	.1
Large and/or gnarly epicormic branches present . . . . .	.3
Crown form (refer to Figure 109)	
Similar to a tree in top row . . . . .	.0
Similar to a tree in middle row . . . . .	.3
Similar to a tree in bottom row. . . . .	.5

Scoring Key

< 3	Young tree
3–6	Mature tree < 150 years
7–10	Mature tree ≥ 150 years
> 11	Old tree ≥ 250 years

Figure 109. Douglas fir crown form and tree vigor in eastern Washington. Idealized forms represent three age and four vigor classes (A-high vigor to D-low vigor) in eastern Washington. Vigor is a function of site productivity and response to disturbance and environmental stress. More than one individual is shown for vigor classes B-D to illustrate possible variations. Competition-based mortality usually ensures that most trees in vigor classes C and D do not survive to the next age class. The trees depicted are the same scale in the first image, and at differing scales on the following pages.



Bark characteristics

Old Douglas firs are very fire-resistant, due largely to the protective bark that develops with age. In contrast, the thin bark of young trees offers little protection, even from low-intensity fires. The thin bark begins to thicken and develop vertical fissures as trees mature. For the first 100 to 200 years, the bark is hard and bony, and usually brown to gray (Figure 104). Old trees have very coarse and rugged



Figure 104. The hard, bony bark of mature trees. Depending on environmental conditions, Douglas fir bark is either brown or gray. In this case the gray is caused by lichens.

EXHIBIT I

Unit Specific Prescriptions

Basal Area Requirements and Unit Specific Treatments						Seasonal Restrictions	
Sale Unit	NEPA Unit	Acres	Target Residual Basal Area Per Acre	Acceptable Residual Basal Area Range	Additional Specific Treatments	Mule Deer Winter Range Dec.1 - April 31	Rapter Nesting (Northern Goshawk) March 1 - August 31
1	1	70	40 BA	30-50 BA	Thin from Below Species Preference: Preference for removal Grand Fir> Douglas Fir> Ponderosa Pine> Western Larch (if encountered)	X	
2	2, 6	71	40 BA	30-50 BA	Thin from Below Species Preference: Preference for removal Grand Fir>Douglas Fir> Ponderosa Pine> Western Larch (if encountered)	X	
3	3	11	30 BA	20-40 BA	Cut all Douglas Fir and Grand Fir up to 20.9" DBH if encountered	X	
6	6	54	30 BA	<u>20-40 BA</u> in drier pine sites, <u>30-50 BA</u> in higher productivity Douglas fir sites	Thin from Below Species Preference: Preference for removal Grand Fir> Douglas Fir> Ponderosa Pine> Western Larch (if encountered) Remove all merchantable trees wtiin 40 feet of live trees over 21.0" DBH <u>Target 40 BA</u> in higher Productivity/Douglas Fir Dominate sites UNIT AVERAGE OF 30 BA	X	
10	10	45	50 BA	30-70 BA	Thin from Below Species Preference: Preference for removal Grand Fir>Douglas Fir> Ponderosa Pine> Western Larch (if encountered)	X	
16	16	38	40 BA	<u>20-40 BA</u> in drier pine sites, <u>30-50 BA</u> in higher productivity Douglas fir sites	Thin from Below Species Preference: Preference for removal Grand Fir>Douglas Fir> Ponderosa Pine> Western Larch (if encountered) <u>Target 30 BA</u> in drier pine sites <u>Target 50 BA</u> in higher productivity/Douglas Fir sites UNIT AVERAGE OF 40 BA	X	X

Exhibit I

21	21	52	50 BA	30-70 BA	Thin from Below Species Preference: Preference for removal Grand Fir>Douglas Fir> Ponderosa Pine> Western Larch (if encountered)	X	X
33	33	89	40 BA	30-50 BA	Thin from Below Species Preference: Preference for removal Grand Fir> Douglas Fir> Ponderosa Pine> Western Larch (if encountered) Cut all Conifers within 75 feet of Quaking Aspen 2 feet tall. Do Not Cut Quaking Aspen	X	X
336.1	336.1	31	30 BA	20-50 BA	Thin from Below Species Preference: Preference for removal Grand Fir> Douglas Fir> Ponderosa Pine> Western Larch (if encountered)	X	
355	355	27	50 BA	30-80 BA	Do Not Cut any trees over 16.0" DBH Thin from below species preference: Preference for removal Grand Fir> Douglas Fir > Ponderosa Pine > Western Larch (if encountered)	X	

Refer to Exhibit I for Unit Specific Prescription requirements. For all other felling requirements common to ALL units on the Timber Sale Area refer to section 2320 "Thinning Specifications" of this contract. Seasonal Restrictions are in affect for units marked with an "X" in the table above.

Exhibit J

Weed Washing Specifications/Equipment

EQUIPMENT REQUIREMENTS: Equipment shall meet all standards established by specification or incorporated by reference and shall be maintained in good repair by the Contractor.

CONTRACTOR PROVIDED EQUIPMENT. (a) Weed Wash Containment Station Equipment. Wash systems shall be high pressure with low volume and may be supplemented with low pressure with high volume. High pressure systems have water pressures designated above 1000 pounds per square inch (psi), while high volume systems deliver 10 gallons of water per minute or more. The Contractor: (1) Will provide wash water to the wash site. (3) Will wash all vehicles and equipment at a single designated site. STATE: May conduct inspections of washed equipment at the STATES discretion to ensure that the wash station meets agreement requirements. If the wash station does not meet the requirements of the STATE, it may be determined to be noncompliant and replaced with a different system at discretion of STATE. (e) The Contractor shall: (1) Thoroughly wash vehicles and equipment to remove soil, mud, caked dirt, plant parts, seeds, and vegetative parts. Vehicles and equipment include, but are not limited to fire engines, heavy equipment, logging equipment; (2) Ensure that contractor services include remove of, but are not limited to, soil, mud, caked dirt, plant parts, seeds, and vegetative parts off of the undercarriage, cross members, frame, skid plates, belly pans, wheels, treads, tracks, suspension, bumpers, wheel wells, radiator grills, and the ledges on the inside of rear and front bumpers; (3) Inspect hard to reach areas to ensure that they are clean; (6) Keep the wash station in repair and fully operational during the designated assignment; (7) All vehicles and equipment will be washed in an appropriate disposal site that has been identified by the STATE. In that case, the contractor shall dispose of the solid waste at this designated site. The Contractor shall not dispose of solid waste unless an acceptable disposal site is designated by the STATE for the waste to be disposed of; otherwise this is the responsibility of the STATE (The intention is to ensure proper disposal).

Minimum Equipment Requirements. (1) Portable commercial power washers with two hand-held, high pressure wands/nozzles. These nozzles must be suitable to wash all surfaces of the vehicle or equipment that contain soil, mud, caked dirt, plant parts, seeds, and vegetative parts. (2) Underbody washer. The underbody washing system must provide water spray at such an angle to ensure complete coverage of underbody surfaces and must be suitable to wash all underbody surfaces that contain soil, mud, caked dirt, plant parts, seeds, and vegetative parts. Wash residues shall be removed from the tracking surfaces of all incident vehicles being washed before the vehicle exits the system to prevent recontamination to the exiting vehicle. (3) Process time to wash vehicles and equipment shall be sufficient to meet the requirements of this agreement. The operators shall be knowledgeable in the safe operation, maintenance, and repair of the wash system. (5) The wash system must be able to accommodate equipment up to 10' wide. (6) The wash system must comply

with all applicable OSHA regulations related to operator safety and all segments of the washer must be in operating condition with no missing parts.

**U.S. DEPARTMENT OF AGRICULTURE – FOREST SERVICE
BRIDGE USE APPLICATION AND PERMIT
36CFR 261.12, and 261.54(c)**

DATE RECEIVED: _____ **EFFECTIVE DATES OF PERMIT** (Section for Forest Service Use Only)
 PERMIT NO.: _____ BEGINNING: _____ TERMINATING: _____ EXCLUDING: _____

PERMITTEE/APPLICANT: _____ PHONE: _____
 ADDRESS: _____ FAX: _____
 REASON FOR PERMIT: TIMBER SALE: _____
 CONSTRUCTION CONTRACT: _____
 OTHER: _____
 DESIRED TRAVEL DATES: BEGIN: _____ END: _____
 DESIRED TRAVEL ROUTE (Road #'s, Termini & Bridges): _____

TYPE OF VEHICLE: _____
 TOTAL GROSS WEIGHT: _____ POUNDS LICENSE NO: _____ STATE: _____
 MAXIMUM DIMENSIONS: LENGTH: _____ WIDTH: _____ HEIGHT: _____

VEHICLE DESCRIPTION

AXLE NO.	AXLE SPACING FEET & INCHES	AXLE LOAD POUNDS	AXLE WIDTH (OUT - OUT)		TIRE WIDTH (OUT-OUT) PER WHEEL LINE INCHES	NO. OF TIRES PER AXLE	TIRE SIZE
			FEET	INCHES			
1	D1 _____	P1 _____	_____	_____	_____	_____	_____
2	D2 _____	P2 _____	_____	_____	_____	_____	_____
3	D3 _____	P3 _____	_____	_____	_____	_____	_____
4	D4 _____	P4 _____	_____	_____	_____	_____	_____
5	D5 _____	P5 _____	_____	_____	_____	_____	_____
6	D6 _____	P6 _____	_____	_____	_____	_____	_____
7	D7 _____	P7 _____	_____	_____	_____	_____	_____
8	D8 _____	P8 _____	_____	_____	_____	_____	_____
9	D9 _____	P9 _____	_____	_____	_____	_____	_____
10	D10 _____	P10 _____	_____	_____	_____	_____	_____

SIGNATURE OF APPLICANT:
 SIGNATURE: _____

 (Print Name)
 TITLE: _____
 DATE: _____

NAME OF REGISTERED PROFESSIONAL ENGINEER EVALUATING BRIDGE(S)
 FOR ABOVE VEHICLE: _____ (PE)
**FOREST BRIDGE INSPECTION PROGRAM MANAGER RECOMMENDATION
 AND REGIONAL BRIDGE ENGINEER CONCURRENCE**
 SUBJECT TO PROVISIONS AND ATTACHMENTS INCLUDED HEREIN
 SIGNATURE: _____ DATE: _____
 Forest Bridge Inspection Program Manager
 SIGNATURE: _____ DATE: _____
 R-6 Regional Bridge Engineer

APPROVAL OF PERMIT

PERMISSION IS HEREBY GIVEN TO THE ABOVE APPLICANT FOR THE USE OF THE DESIGNATED BRIDGE(S) IN THE MANNER DESCRIBED, SUBJECT TO THE PROVISIONS AND ATTACHMENTS INCLUDED WITH THIS PERMIT
 SIGNATURE: _____ DATE: _____
 TITLE: _____
 Forest Supervisor

