

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Northwest Oregon District Office
1717 Fabry Road, S.E.
Salem, Oregon 97306

ORN04-TS-2017.0402
Quarry 5 Timber Sale

Date: February 10, 2017

PROSPECTUS
SBA SET-ASIDE
SCALE SALE

THIS IS A PROSPECTUS ONLY. ATTACHMENTS MAY NOT INCLUDE ALL EXHIBITS REFERRED TO IN THE CONTRACT. THE COMPLETE CONTRACT, INCLUDING ALL EXHIBITS, IS AVAILABLE FOR INSPECTION AT THE NORTHWEST OREGON DISTRICT OFFICE.

NOTICE IS HEREBY GIVEN that the Bureau of Land Management will offer for sale timber as described herein for oral auction, pursuant to Instructions to Bidders, as stated on Form No. 5440-9, attached. Written and oral bids will be received by the District Manager, or his representative, in the timber sale room at the District Office, 1717 Fabry Road, S.E., Salem, Oregon. Written bids and deposits will be accepted beginning at 8:30 a.m. and the timber sale oral auction will commence at 9:00 a.m., on Wednesday, March 15, 2017.

THIS TIMBER SALE NOTICE does not constitute the decision document for purposes of protest and appeal of a forest management decision. Consistent with 43 CFR Subpart 5003-Administrative Remedies, the notice of a timber sale, when published as a legal ad in a newspaper of general circulation shall constitute the decision document for purposes of protest and appeal. Protests may be filed with the Contracting Officer within 15 days of the publication of the aforementioned decision document in the newspaper. It is anticipated that the decision document will be published in the South County Spotlight on or about February 17, 2017. BLM does not warrant publication on this exact date. All parties considering protest of the timber sale decision document are encouraged to review the aforementioned newspaper(s) to ensure accurate knowledge of the exact publication date.

AN ENVIRONMENTAL ASSESSMENT was prepared for each timber sale tract, and a Finding of No Significant Impact has been documented. These documents are available for inspection as background for each timber sale tract at the Tillamook Field Office.

FOR SBA SET-ASIDE TRACTS, the bidder must not have been determined by the Small Business Administration to be ineligible for preferential award for set-aside sales and must accompany his deposit with a self-certification statement that he is qualified as a small business concern as defined by the Small Business Administration in its regulations, Title 13, Chapter I, Part 121 (Revision 7) as amended, of the Code of Federal Regulations. The Form 5430-1 Self Certification Statement is attached hereto. The successful bidder will be required to sign SBA Form 723 "Small Business Certification Required on All Preferential Sales of Set-Aside Timber" at the time he signs the timber sale contract. Section 2(a) of Form 723 requires that successful bidders of SBA set-aside tracts must comply with delivery requirements pertaining to sawtimber volume. No more than 30 percent of the timber volume from a set-aside sale may be delivered for manufacturing to a business that is not a small business, as defined by the SBA (13 CFR 121.507 (a)). A copy of SBA form 723 is attached.

A WRITTEN BID on Form 5440-9 at not less than the advertised appraised price on a unit basis per species and the required minimum bid deposit shall be required to participate in oral bidding.

THE SUCCESSFUL BIDDER, as a condition of award, will be required to sign Form 5430-11, a certification that the bid was arrived at by the bidder or offeror independently, and was tendered without collusion with any other bidder or offeror. Also, Form 5450-17, Export Determination must be completed by the successful bidder. To expedite procedure, this form should be completed and submitted with the written bid.

THE VOLUMES LISTED herein are estimates only. The sale volumes listed are based on 16-foot taper breaks which must be taken into consideration if comparisons are made with volume predictions based on other standards. The volumes based on 32-foot taper breaks are shown for comparison purposes. No sale shall be made for less than the

advertised appraised price. The Purchaser shall be liable for the total purchase price, without regard to the amount bid per unit, even though the quantity of timber actually cut or removed or designated for taking is more or less than the estimated volume or quantity so listed.

THIS TIMBER SALE has been cruised based upon Eastside Scribner board foot measure. The minimum bid figures shown by species are dollars per thousand board feet (MBF). The minimum bid increment will be \$0.10 per MBF.

A PERFORMANCE BOND in an amount not less than 20 percent of the total purchase price will be required for all contracts of \$2,500 or more. A minimum performance bond of not less than \$500 will be required for all installment contracts less than \$2,500.

QUALIFIED SMALL BUSINESS concerns may apply to SBA for a loan to provide financing for access road construction required under the terms of qualifying timber sale contracts, and necessary contract changes will be made. Approval of loan applications rests with SBA and may be contingent on availability of funds. Applicants for such loans shall notify BLM of their intention to apply for a loan.

PRE-AWARD QUALIFICATIONS. The high bidder may be required to furnish information to determine the ability to perform the obligations of the contract. If the high bidder is determined not qualified, responsible or refuses to respond within fifteen (15) days of a request for information pertaining to qualifications, the contract may be offered and awarded for the amount of the high bid to the highest of the bidders who is qualified, responsible, and willing to accept the contract.

LOG EXPORT AND SUBSTITUTION: All timber sales, including timber from Federal rights-of-ways, shall be subject to the restrictions relating to the export and substitution of unprocessed timber from the United States in accordance with P.L. 94-165 and 43 CFR 5400 and 5420, as amended.

LOG EXPORT AND SUBSTITUTION RESTRICTIONS: Excepting Port-Orford-cedar, all timber offered for sale hereunder is restricted from export from the United States in the form of unprocessed timber and is prohibited from being used as a substitute for exported private timber. The BLM has revised the log export restrictions special provision to reduce the log branding and painting requirements. The new requirements include branding of one end of all logs with a scaling diameter of over 10 inches. All loads of 11 logs or more, regardless of the diameter of the logs, will have a minimum of 10 logs branded on one end. All logs will be branded on loads of 10 logs or less. One end of all branded logs will be marked with yellow paint. At the discretion of the Contracting Officer, the Purchaser may be required to brand and paint all logs. The Purchaser shall bear any increased costs for log branding and painting.

CONTRACT MODIFICATION, SUSPENSION OR TERMINATION: A revised Special Provision has been added to the contract which enables the Contracting Officer to suspend the contract to facilitate protection of certain plant or animal species, and/or to modify or terminate the contract when necessary to: (1) Comply with the Endangered Species Act or to prevent incidental take of northern spotted owls in accordance with management direction in the Record of Decision (ROD) and Resource Management Plan (RMP), or; (2) Comply with a court order, or; (3) Protect species which were identified for protection through survey and manage and/or protection buffer standards and guidelines or management direction established in the ROD and RMP.

ADDITIONAL INFORMATION Additional information concerning this timber sale tract is available at the above District Office. A copy of the timber sale contract is also available for inspection at the Tillamook Field Office. The prospectus for this sale is also available online at: <http://www.blm.gov/or/districts/salem/timbersales/index.php>. The prospectus includes maps and tables that cannot be made Section 508 compliant. For help with its data or information, please contact the Northwest Oregon District Office at 503-375-5646.

Attachments:

Form 5450-17
Form 5430-11
Form 5440-9
Form 5430-1
SBA Form 723

TIMBER SALE NOTICE
THIS IS A SCALE SALE
SBA SET-ASIDE SALE

THIS IS A SMALL BUSINESS SET-ASIDE SALE FOR PREFERENTIAL BIDDING BY SMALL BUSINESS CONCERNS AS DEFINED BY THE SMALL BUSINESS ADMINISTRATION.

NORTHWEST OREGON DISTRICT
TILLAMOOK FIELD OFFICE
COLUMBIA MASTER UNIT

Sale Date: March 15, 2017

CONTRACT NO.: ORN04-TS-2017.0402, Quarry 5 Timber Sale, Scale Sale
COLUMBIA COUNTY, OREGON: O&C: **ORAL AUCTION**: BID DEPOSIT REQUIRED: \$235,500.00.

All timber designated for cutting on: W½NE¼, SE¼NE¼, W½, SE¼, Sec. 5, T. 4 N., R. 3 W., WM., Oregon

THIS TIMBER SALE HAS BEEN CRUISED BASED UPON EASTSIDE SCRIBNER MEASURE.

Minimum bid figures shown by species are dollars per thousand board feet (MBF). The minimum bid increment will be \$0.10 per MBF.

Approx. No. Merchantable Trees	Est. Vol. MBF 32' Log	Species	Est. Vol. MBF 16' Log	Appraised Price Per MBF	Estimated Volume Times Appraised Price
17,331	5,212	Douglas-fir	6,694	\$312.80	\$2,093,883.20
1,166	199	western red cedar	271	\$485.30	\$131,516.30
513	220	grand fir	270	\$211.90	\$57,213.00
5,773	138	red alder	195	\$171.90	\$33,520.50
1,108	125	western hemlock	159	\$187.50	\$29,812.50
25,891	5,894	Totals	7,589		\$2,345,945.50

Product	Unit of Measure	Number of Units	Appraised Price per Unit	Estimated Volume Times Appraised Price
Clean Chips	Green Tons	1,740	\$5.00	\$8,700.00
	Total	1,740		\$8,700.00

Total Appraised Value:	\$2,354,645.50
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LOG EXPORT AND SUBSTITUTION RESTRICTIONS: All timber offered for sale hereunder is restricted from export from the United States in the form of unprocessed timber and also prohibited from substitution of exported private timber.

CRUISE INFORMATION: The timber volumes for the partial cut units were based on a variable plot cruise for estimating the board foot volume of trees. Plots were measured using a 20 basal area factor (BAF) for partial cut units. None of the total sale volume is salvage material. For merchantable Douglas-fir trees the average DBHOB is 17.5 inches; the average gross merchantable log contains 83 bf; the total gross volume is approximately 6,941 MBF; and 96% recovery is expected. The Right-of-Way volume is based on a 100% cruise for estimating the board foot volume of trees.

CUTTING AREA: Four (4) units totaling approximately two hundred forty-six (246) acres, of which, one hundred forty (140) acres shall be partial cut and one hundred three (103) acres shall be regeneration harvest. In addition, approximately three (3) acres of right-of-way shall be cut. Acres shown on Exhibit A have been computed using a Trimble Pro XH Global Positioning System receiver. Acreage was calculated based on Global Positioning System traverse procedures including differential correction.

DURATION OF CONTRACT: Contract length will be thirty-six (36) months for cutting and removal of timber.

ADDITIONAL INFORMATION: This timber sale includes remnants of a previous unoperated timber sale. Some trees within the units may have faded orange paint, which are not reserved from harvest of the Quarry 5 Timber Sale. Trees that are reserved include the following: timber sale boundary trees that have been posted with tyvek boundary tags and painted orange, all orange painted trees within posted leave islands, and trees within the Riparian Reserve that have been painted with red paint above and below stump height. Upland partial cut areas and regeneration areas have not been reserve tree painted and will be harvested as designation by prescription (Exhibit F).

SAFETY: This contract includes an additional special provision to ensure the Purchaser understands he/she is required to conduct all operations in compliance with Contract Section 12 (Purchaser's Contractual Responsibilities for Liability) and Contract Section 29 (Safety and Health) and the Special Provisions included in Section 42 of this Contract.

LOCATION: The contract area is located approximately 12 air miles northwest of Scappoose, Oregon. From Highway 30 just north of Scappoose, head west on Scappoose-Vernonia Highway for 15 miles. Approximately ¼ mile east of Scaponia County Park, turn north on Hawkins Quarry Road (4N-3-7), (Weyerhaeuser gate, BLM key needed), continue for 0.6 miles until you enter the sale area, then consult a project map.

ACCESS AND ROAD MAINTENANCE: Access is provided by Bureau of Land Management (BLM), Salmon Timberlands, LLC, and Weyerhaeuser Company controlled roads. All roads used in conjunction with this sale will be maintained by the Purchaser. Purchaser will be required to pay a rock wear obligation of four thousand two hundred sixty-two and 12/100 dollars (\$4,262.12) to the Government, two thousand seven hundred eighty-one and 76/100 dollars (\$2,781.76) to Weyerhaeuser Company, and Fifty-five and 91/100 dollars (\$55.91) to Salmon Timberlands, LLC. Purchaser will be required to pay a road usage obligation of Nine hundred eighty-five and 00/100 dollars (\$985.00) to Salmon Timberlands, LLC. There are no road usage fees for use of Weyerhaeuser Company Roads. Purchaser will be required to spread crushed rock on all surfaced roads for maintenance. Timber volumes are based on the estimated BLM timber sale cruise volume. This volume may vary when actual scale tickets are tallied at the end of the sale. Actual volume hauled will be reported and differences in fees will be paid accordingly, as described in the License Agreements.

Purchaser maintenance shall include frequent blading and shaping of road surface; ditch, culvert, and catch basin cleaning; removal of minor slides and other debris. Roads shall be left in a condition to withstand adverse weather at the end of the seasonal operations. It shall also include the spreading of **500 CY** crushed rock on Purchaser maintained roads as needed and instructed by Authorized Officer.

Alternate access is available but will require a contract modification. Contact Engineers at the Tillamook Field Office for more detailed information.

ROAD CONSTRUCTION AND RENOVATION: The Purchaser will be required to do all work set forth below. The Purchaser shall supply all materials unless otherwise indicated.

1. New Road Construction:

Road Spur B- 271 feet, 14-foot subgrade, Natural surfacing, Construct Landing.
Road Spur C- 1,700 feet, 14-foot subgrade, Natural surfacing, Construct Landing & Turnaround.
Road Spur D- 742 feet, 14-foot subgrade, Natural surfacing, Construct Landing.
Road Spur E- 461 feet, 14-foot subgrade, Natural surfacing, Construct Landing & Turnaround.
Road Spur F- 495 feet, 14-foot subgrade, Natural surfacing, Construct Landing.
Road Spur H- 160 feet, 14-foot subgrade, Natural surfacing, Construct Landing.

2. Renovation:

Road Spur A- 724 feet, 14-foot outsloped subgrade, Natural surfacing, Blade, Clearing and Grubbing, and Landing Construction as marked in field.
Road Spur B- 570 feet, 14-foot outsloped subgrade, Natural surfacing. Blade, Clearing and Grubbing, and Turnaround construction as marked in field.
Road Spur G- 372 feet, 14-foot ditched subgrade/12 foot surfaced. Blade, Install Culvert, Install inlet marker on culvert, Clearing and Grubbing, and Landing construction as marked in field.
Road 4N-3-4.4- 0.29 miles, 14-foot ditched subgrade/12 foot surfaced. Blade, Install Culverts, Install inlet markers on culverts, Brush, Some Clearing and Grubbing, Ditchline Re-establishment by bunching and hauling to waste area, Excavation and hauling for widening required in two locations marked in field, and Spread/Place Rock types and quantities as directed in rock sheets.
Road 4N-3-4.5- 802 feet, 14-foot outsloped subgrade, natural surfaced. Blade, Clearing and Grubbing, and Turnaround construction as marked in field.
Road 4N-3-5.0- 0.24 miles, 14-foot ditched subgrade/12 foot surfaced. Blade, Install Culverts, Install inlet markers on culverts as directed, Brush, Some Clearing and Grubbing, Ditchline Re-establishment by bunching and hauling to waste area, Excavation and hauling for fill over large stream culvert replacement required, and Spread/Place Rock types and quantities as directed in rock sheets.
Road 4N-3-5.0- 0.26 miles, 14-foot outsloped subgrade/12 foot surfaced. Blade, Clearing and Grubbing, and Turnaround construction as marked in field. Spread Spot Rock as directed in rock sheets.
Road 4N-3-5.0- 0.44 miles, 14-foot outsloped subgrade, Natural surfacing, Blade, Clearing and Grubbing, and Landing and Turnaround Construction as marked in field.
Road 4N-3-5.1- 0.43 miles, 14-foot ditched subgrade/12 foot surfaced. Blade, Install Culverts, Install inlet markers on culverts as directed, Brush, Some Clearing and Grubbing, Ditchline Re-establishment by bunching and hauling to waste area, Turnaround construction, and Spread/Place Rock types and quantities as directed in rock sheets.
Road 4N-3-5.2- 0.78 miles, 14-foot ditched subgrade/12 foot surfaced. Blade, Install Culverts, Install inlet markers on culverts as directed, Brush, Some Clearing and Grubbing, Ditchline Re-establishment by bunching and hauling to waste area, Turnaround construction, re-use existing culvert flumes as directed, and Spread/Place Rock types and quantities as directed in rock sheets.
Road 4N-3-5.4- 1,035 feet, 14-foot outsloped subgrade, Natural surfacing. Blade, Clearing and Grubbing, and Turnaround and Landing construction as marked in field.
Road 4N-3-5.6- 944 feet, 14-foot outsloped subgrade/12 foot surfaced. Blade, Install Culvert, Clearing and Grubbing, Turnaround and Landing construction as marked in field, and Spread/Place Rock types and quantities as directed in rock sheets.

Road 4N-3-5.8- 0.21 miles, 14-foot ditched subgrade/12 foot surfaced. Blade, Install Culverts, Install inlet markers on culverts as directed, Brush, Some Clearing and Grubbing, Ditchline Re-establishment by bunching and hauling to waste area, Turnaround construction, and Spread/Place Rock types and quantities as directed in rock sheets.

Road 4N-3-7.0- 1.92 miles, 14-foot ditched subgrade/12 foot surfaced. Blade, Install Culvert, Install inlet markers on culverts as directed, Brush, Some Clearing and Grubbing, Ditchline Re-establishment by bunching and hauling to waste area, and Spread/Place Rock types and quantities as directed in rock sheets.

3. Estimated Quantities:

a. Clearing, Grubbing, and Brushing:

15.9 acres of Clearing and Grubbing (new construction and renovation)

3.87 miles brushing

b. Culverts:

548 feet of 18 inch Corrugated Plastic Pipe (CPP) – Type S

66 feet of 36 inch Corrugated Plastic Pipe (CPP) – Type S

c. Aggregate Material:

<u>Quantity</u>	<u>Description</u>
390 cubic yards	1-1/2” minus crushed rock – construction rock
270 cubic yards	Pit-Run –construction rock
215 cubic yards	1-1/2” minus crushed rock -- Culvert bedding material
500 cubic yards	1-1/2” minus crushed rock – Maintenance rock
50 cubic yards	Riprap – (Class 3)

Rock Source: Commercial; (Oak Ranch Pit)

OTHER:

Compaction of all final subgrades will be required.

Right of way debris will be disposed of by scattering adjacent to all roads, outside of clearing limits.

All natural surface roads will be water barred and blocked at the end of seasonal operations.

Spurs B & C will be renovated/constructed and decommissioned in a single operating season. These roads shall not be used over multiple operating seasons.

Roads Spur A, Spur B, Spur C, Spur D, Spur E, Spur F, Spur H, 4N-3-5.0 (MP 0.501 – 0.942), and 4N-3-5.4 will be subsoiled to a depth of 18 inches, culverts removed, slash spread over road prism, water barred & blocked upon completion of logging. Clearing debris shall be placed on and around the barriers so as to prevent further use of the road by vehicles. Roads Spur G, 4N-3-4.5, 4N-3-5.0 (MP 0.240 – 0.501), 4N-3-5.2 (MP 0.566 – 0.775), 4N-3-5.6, and 4N-3-5.8 shall be decommissioned as described above (but without the subsoiling). The 4N-3-4.4, 4N-3-5.0 (MP 0.000 – 0.240), 4N-3-5.1, and 4N-3-5.2 (MP 0.000 – 0.566) will be stabilized by installing drivable waterbars.

Grass seeding will be required on all newly disturbed areas. Grass seed will be furnished by the Government.

Straw mulch will be required on all disturbed/seeded soils that are wet and/or within 50 feet each side of “live stream” locations and all disposal sites. Grass Straw will be furnished by the Government.

All waste from re-establishing ditchlines on rock surfaced roads shall be bunched and end-hauled to designated waste areas.

All slide removal material shall be end-hauled to designated waste areas.

All culverts removed upon road decommissioning shall be salvaged and delivered to the BLM Maintenance Facility at the SW1/4 of Section 5, T3S,R6W,WM.

SPECIAL ATTENTION ITEMS:

42.j. - 42.m. Seasonal Restrictions

42.l. All operations, including road activities, in Unit 2 that are accessed by Spur B and Spur C shall be completed within one operating season (June 1 to October 15).

42.x. SBA Set-Aside Sale Requirements

DESIGNATION AND SALE OF ADDITIONAL TIMBER (Sec. 42.j.):

This contract contains provisions for the sale and removal of additional timber necessary to facilitate safe and efficient purchaser operations. These provisions include:

- The designation and sale of additional timber, such as corridor and guyline trees, at contract price, as necessary to facilitate safe and efficient logging. Such trees may be felled and removed when they are painted by the Authorized Officer;
- Government reservation of trees previously marked for cutting (replacement) when the Authorized Officer determines that it is necessary in order to maintain stand densities consistent with objectives set forth in management prescriptions;
- Revocation of the purchaser's right to cut additional timber if the Authorized Officer determines that trees have been cut and removed that were not previously marked and approved for cutting and removal by the Authorized Officer; and,
- The designation and sale of additional timber described in this section is not included in the advertised sale volume nor was it included in the timber sale appraisal.

SEASONAL RESTRICTION MATRIX:

Activity	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC	
	1	16	1	16	1	16	1	16	1	16	1	16	1	16	1	16	1	16	1	16	1	16	1	16
All yarding, hauling and mechanized falling operations											Season of Operation													
Hand Falling (Does not include mechanized falling).	Season of Operation - Provided excessive damage to reserve timber is not occurring.																							
Road Construction, Renovation & Decommissioning											Season of Operation													
Live Stream Culvert Replacement or Removal													Instream Work Period											

Dates are approximate – Restrictions would be dependent on actual weather conditions
Shaded Areas are restricted periods

TIMBER SALE CONTRACT SPECIAL PROVISIONS

Sec. 41. Timber and Area Reservation Provisions

RESERVED

- a. All timber in the reserve area(s) shown on Exhibit A, and all trees that are painted orange and posted, which mark the boundaries of the reserve areas.
- b. All trees painted orange within boundaries of posted Leave Islands shown on Exhibit A.
- c. All trees marked with red paint above and below stump height in the Riparian Reserve Areas shown on Exhibit F.
- d. All trees required to meet residual tree requirements set forth in Exhibit F Designation by Prescription, which is attached hereto and made a part hereof.
- e. All trees less than six (6) inches DBH not designated for cutting in Sec. 42.aa.
- f. All existing down logs and snags in the Sale Areas shown on Exhibit A, which do not present a safety hazard as determined by the Authorized Officer. All snags felled shall be retained on site.

Sec. 42. Special Provisions

LOGGING

- a. Before beginning operations on the Contract Area for the first time or after a shutdown of seven (7) or more days, the Purchaser shall notify the Authorized Officer in writing of the date he plans to begin operations. This written notification must be received by the Authorized Officer no less than seven (7) days prior to the date the Purchaser plans to begin or resume operations. The Purchaser shall also notify the Authorized Officer in writing if he intends to cease operations for any period of seven (7) or more days.
- b. Prior to the commencement of operations, the Purchaser shall obtain from the Authorized Officer approval of a written operations and logging plan commensurate with the terms and conditions of the contract which shall include measures needed to assure protection of the environment and watershed. A pre-work conference between the Purchaser's authorized representative and the Authorized Officer must be held before the logging plan will be approved. All logging shall be done in accordance with the approved logging plan. The Purchaser shall provide a minimum of seven (7) days notice when requesting the scheduling of a pre-work conference.
- c. All trees designated for cutting shall be cut so that the resulting stumps shall not be higher than twelve (12) inches measured from the ground on the uphill side of the trees unless otherwise approved by the Authorized Officer.

d. Excessive damage to reserve timber, as determined by the authorized officer, will result in suspension of yarding operations until corrective measures to prevent further damages have been approved by the Authorized Officer.

e. No falling, yarding, or loading is permitted in or through the reserve area and posted Leave Islands, shown on Exhibit A, unless otherwise approved by the Authorized Officer.

f. In the skyline yarding areas shown on Exhibit A, all yarding shall be done with a skyline or similar cable system equipped with a slackpulling carriage capable of transporting logs completely clear of the ground and capable of yarding one thousand five hundred (1,500) feet slope distance from the landing and at least seventy-five (75) feet laterally from the skyline to the designated skyroad and with minimum damage to reserved trees. The carriage shall be capable of being held in position on the skyline during all lateral yarding and shall be able to pass intermediate support jacks as required.

Additionally, the following conditions apply to skyline yarding:

1. Skyline yarding roads shall be located perpendicular to the yarding slope unless otherwise approved by the Authorized officer.
2. The leading end of all logs shall be transported free of the ground during yarding. The rigging of tail or lift trees, intermediate supports and use of tail holds outside the Partial Cut Areas shall be required where necessary to meet this requirement.
3. Skyline corridors would generally not exceed twelve (12) feet in width and would be located at least one hundred fifty (150) feet apart at one end of the yarding area.
4. If the skyline must pass through a riparian no-harvest buffer, the skyline would remain stationary after the initial elevation. If trees are cut within the no harvest buffer for operational purposes, they would remain on site.

g. In the Partial Cut Area - Ground Based shown on Exhibit A, all yarding shall be done by equipment operated entirely on designated skid trails approved by the Authorized Officer. The area composed of skid trails and landings shall not exceed twelve (12) percent of the total ground based yarding area. Generally, skid trails would not exceed fifteen (15) feet in width and be spaced no closer than one hundred fifty (150) feet apart. Ground based operations shall be limited to slopes of thirty-five (35) percent or less. Excavation on designated skid trails shall be limited to a maximum cut of one foot unless otherwise approved by the Authorized Officer. All trees that must be removed to facilitate construction of these skid trails shall be felled prior to falling operations in the remainder of this area. The Purchaser shall directionally fall trees into the lead with the skidding direction and winch or carry the logs to the skid trails. Temporary logging roads, skid trails, and harvester/forwarder trails would be waterbarred and blocked after each operating season before the fall wet season begins as designated by the Authorized Officer.

Additionally, the following conditions apply to ground based yarding:

1. A self-propelled mechanical harvester or other specialized equipment may be used if:
 - a. It is boom mounted with a minimum reach of twenty (20) feet using a single grip rotating harvester head.
 - b. It operates on existing disturbed trails to the extent possible, and where not possible, proceeds only on slash mats with a minimum number of passes necessary to process the timber.
 - c. Harvester trails are generally spaced at least fifty (50) feet apart.
2. A forwarder may be used if:
 - a. Forwarder trail locations are approved by the Authorized Officer prior to any operations, and generally do not exceed fifteen (15) feet in width.
 - b. When leaving multi-pass trails to retrieve logs, the machine proceeds over a slash mat and is limited to two passes over the same ground.
3. Skidding:
 - a. Skidding shall be done so that the leading end of the log is lifted fully off the ground.
 - b. Ground based skidding equipment would not be permitted to leave approved skid trails to retrieve logs, but must either pull a winch line to the logs or work in conjunction with specialized harvester equipment described above.

h. Before cutting and removing any trees necessary to facilitate logging in the Partial Cut Areas shown on Exhibit A, the Purchaser shall identify the location of skid trails, cable yarding roads, and tailhold, tieback, guyline, lift, intermediate support, and danger trees on the ground in a manner approved by the Authorized Officer at the pre-work conference, and documented in the Logging Plan. Said Purchaser identification of trees to be cut and removed does not constitute authority to proceed with cutting and removal. In addition, before proceeding the following conditions must be met:

1. All skid trails and/or cable yarding roads upon which timber is identified by the Purchaser to be cut and removed in accordance with this special provision must be necessary for the safe and expeditious removal of timber sold under this contract and shall be limited to the minimum width necessary for yarding of logs with a minimum of damage to reserve trees.
2. The Purchaser may immediately cut and remove additional timber to clear skid trails and cable yarding roads; and provide tailhold, tieback, guyline, lift and intermediate support trees when the trees have been marked with blue or green paint above and below stump height by the Authorized Officer and thereby approved for cutting and removal by the Authorized Officer. When trees are marked with yellow paint above and below stump height they may be cut, but must remain on site.

SAFETY

i. Purchaser's operations shall facilitate BLM's safe and practical inspection of Purchaser's operations and BLM's conduct of other official duties on Contract Area. Purchaser has all responsibility for compliance with safety requirements for Purchaser's employees, contractors and subcontractors.

In the event that the Authorized Officer identifies a conflict between the requirements of this contract or agreed upon methods of proceeding hereunder and State or Federal safety requirements, the contract may be modified. If the cost of such contract modification is of a substantial nature (\$2,000.00 or more), the Purchaser may request, in writing, an adjustment in the Total Purchase Price specified in Section 2 of the timber sale contract, as amended, to compensate for the changed conditions.

Unless otherwise specified in writing, when operations are in progress adjacent to or on roads and/or trails in the harvest unit area, Purchaser shall furnish, install, and maintain all temporary traffic controls that provide the road or trail user with adequate warning of and protection from hazardous or potentially hazardous conditions associated with its operations. Purchaser shall prepare a Traffic Control Plan, which the Purchaser has determined is compliant with state and local OSHA and Transportation standards no later than the pre-work meeting and prior to commencing operations. Traffic control devices shall be appropriate to current operating and/or weather conditions and shall be covered or removed when not needed. Flagmen and devices shall be as specified in state OSHA and Transportation standards for logging roads or the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD) published by the U.S. Department of Transportation - Federal Highway Administration. Included in the Traffic Control Plan, Purchaser shall note traffic control device locations on a Purchaser produced copy of the contract Exhibit "A" Map.

SEASONAL RESTRICTIONS

j. No ground based yarding, mechanized falling, cable yarding, or haul shall be conducted in the Partial Cut Areas shown on Exhibit A outside of dry season, generally between October 16 of one calendar year and May 31 of the following calendar year, both days inclusive.

k. No road renovation, road construction, road decommissioning/stabilization, sub-soiling, or road maintenance shown on Exhibit C, Exhibit D, or Exhibit E shall be conducted outside of dry season, generally between October 16 of one calendar year and May 31 of the following calendar year, both days inclusive.

l. All operations, including road activities, in Unit 2 that are accessed by Spur B and Spur C shall be completed within one operating season (June 1 to October 15).

m. No work required in live streams (culvert replacement or removal) shall be conducted between September 1 of one calendar year and June 30 of the following calendar year, both days inclusive, unless a specific waiver is received from the Oregon Department of Fish and Wildlife.

ROAD CONSTRUCTION, IMPROVEMENT, RENOVATION, MAINTENANCE AND USE

n. The Purchaser shall construct natural surfaced roads: Spur B (Sta. 5+70 – 8+41), Spur C, Spur D, Spur E, Spur F, and Spur H. The Purchaser shall renovate natural surfaced roads: Spur A, Spur B (0+00 – 5+70), 4N-3-4.5, 4N-3-5.0 (MP 0.501 - 0.942), and 4N-3-5.4. The Purchaser shall renovate surfaced roads: 4N-3-4.4, 4N-3-5.0, 4N-3-5.1, 4N-3-5.2, 4N-3-5.6, 4N-3-5.8, and 4N-3-7.0 (MP 0.000 – 1.922) . Construction and renovation shall be done in strict accordance with the plans and specifications shown on Exhibit C, which is attached hereto and made a part hereof.

o. Any required construction and renovation of roads shall be completed and accepted prior to the removal of any timber, except right-of-way timber, over that road.

p. Construction, renovation, use, and decommissioning of Spurs B and C, as shown on Exhibits C and E are to be accomplished in a single operating season. This road segment shall not be used during multiple operating seasons.

q. The Purchaser shall decommission Spur A, Spur B, Spur C, Spur D, Spur E, Spur F, Spur H, 4N-3-5.0 (MP 0.501 - 0.942), and 4N-3-5.4 as shown on Exhibit C, by subsoiling, removing culverts, installing non-drivable waterbars, scattering slash, and blocking. Purchaser shall decommission roads Spur G, 4N-3-4.5, 4N-3-5.0 (MP 0.240 – 0.501), 4N-3-5.2 (MP 0.566 – 0.775), 4N-3-5.6, and 4N-3-5.8 as shown on Exhibit C, by removing culverts, installing non-drivable waterbars, scattering slash, and blocking. Purchaser shall stabilize roads 4N-3-4.4, 4N-3-5.0 (MP 0.000 – 0.240), 4N-3-5.1, 4N-3-5.2 (MP 0.000 – 0.566) as shown on Exhibit C, by installing drivable waterbars. Subsoiling shall consist of loosening the soil to a depth of eighteen (18) inches utilizing excavator attachments, log loader tongs or other approved equipment acceptable to the Authorized Officer. No subsoiling shall be required where the road traverses rock outcroppings. All natural water courses shall be opened to prevent erosion of the road. Barriers shall be constructed and clearing debris shall be placed on and around the barriers so as to prevent further use of the road by vehicles as shown on Exhibit C. Decommissioning and stabilization shall be completed within thirty (30) days of completion of yarding and hauling operations on that road.

r. The Purchaser is authorized to use the roads listed below and shown on Exhibit E for the removal of Government timber sold under the terms of this contract, provided that the Purchaser pay the required rockwear fees described in Section 42.s. Any road shown on Exhibit E and requiring improvement or renovation in Exhibit C of this contract, shall be maintained by the Purchaser until receiving written acceptance of the improvement or renovation from the Contracting Officer. The Purchaser shall pay current Bureau of Land Management rockwear fees for the sale of additional timber under modification to the contract.

Road No. and Segment	Length Miles Used	Road Control	Road Surface Type	Maintenance Responsibility
Spur A	0.137	BLM	Natural	Purchaser
Spur B	0.159	BLM	Natural	Purchaser
Spur C	0.322	BLM	Natural	Purchaser
Spur D	0.141	BLM	Natural	Purchaser
Spur E	0.087	BLM	Natural	Purchaser
Spur F	0.094	BLM	Natural	Purchaser
Spur H (Seg. B)	0.030	BLM	Natural	Purchaser
4N-3-5.0 (Seg. B2 - B3)	0.441	BLM	Natural	Purchaser
4N-3-5.4	0.196	BLM	Natural	Purchaser
Spur G	0.070	BLM	Rocked	Purchaser
4N-3-5.0 (Seg. A - B1)	0.501	BLM	Rocked	Purchaser
4N-3-5.1	0.427	BLM	Rocked	Purchaser
4N-3-5.2	0.775	BLM	Rocked	Purchaser
4N-3-5.6	0.179	BLM	Rocked	Purchaser
4N-3-5.8	0.210	BLM	Rocked	Purchaser
4N-3-7.0 (Seg. C - E)	1.129	BLM	Rocked	Purchaser

s. The Purchaser shall pay a rockwear fee of sixty cents (\$0.60) per thousand board feet log scale per mile for the use of roads. The total rockwear fee due shall be based upon volumes determined pursuant to Exhibit B of this contract and mileage of roads used as determined by the Authorized Officer. Prior to the use of such roads, the Purchaser shall give written notice to the Authorized Officer of the roads intended for use in the removal of timber purchased under this contract, together with an estimate of the volume to be hauled over such roads. If it is determined by the Authorized Officer, after all merchantable timber has been cut and scaled, that the total rockwear payments made under this contract exceed the total rockwear payment due, such excess shall be returned to the Purchaser after such determination is made.

t. The Purchaser shall perform any required road repair and maintenance work on roads used by them which are deemed as Purchaser Maintenance in Section 42.r. and 42.u. of this contract, and under the terms of Exhibit D, Road Maintenance Specifications, which is attached hereto and made a part thereof. Purchaser shall spread **500** cubic yards of spot rock on the roads used for timber sale, as directed by Authorized Officer as part of maintenance requirements.

u. In the use of Road Numbers 4N-3-4.4, 4N-3-4.5 Segment A, 4N-3-7.0 Segment F, and Spur B Segment A, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. S-531/OR 044581 dated June 26, 1963, between the United States of America and Salmon Timberlands, LLC. In use of Road Numbers 4N-3-4.5 Segment B and 4N-5-7.0 Segment A-B, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. S-

522B/OR 046337B dated July 6, 1962, between the United States of America and Weyerhaeuser Company. These documents are available for inspection at the Bureau of Land Management, Tillamook Field Office.

These conditions include:

1. The Purchaser shall pay a road use fee of five dollars (\$5.00) per thousand board feet log scale for the use of Salmon Timberland roads. The Purchaser shall also pay a road rockwear fee of sixty cents (\$0.60) per thousand board feet log scale per mile for the use of Weyerhaeuser Company and Salmon Timberland, LLC roads. The total fees due shall be based on the volumes specified in Exhibit B of this contract, and mileage of roads used, as determined by the Authorized Officer. Prior to use of such roads, the Purchaser shall give written notice to the Contracting Officer of the roads intended for use in the removal of timber purchased under this contract, together with an estimate of the volume to be hauled over such roads. The Contracting Officer shall establish an installment schedule of payment of the road (use and) rockwear obligation.
2. Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer properly signed copies of the executed License Agreements.
3. Prior to cutting or removing any timber from the road right-of-way on the 4N-3-4.4, 3N-3-4.5 Segment A roads and Spur H Segment A, the Purchaser shall pay Salmon Timberlands, LLC the cruised and appraised timber value based upon the fair market value of the species price per unit used.
4. Timber cut and removed from the road right-of-way on the 4N-3-4.5 Segment A (outer edge that is Weyerhaeuser Property) and Segment B shall be decked separately from BLM and Salmon Timberland, LLC timber. It shall be decked on Weyerhaeuser Company Property and reported to the Authorized Officer.
5. Default by the Purchaser of said Right-of-Way and Road Use Agreement, or any License Agreements executed pursuant thereto, for failure to pay appropriate road use and rockwear fees shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision.

ENVIRONMENTAL PROTECTION

- v. In order to prevent the spread of noxious weeds, the Purchaser shall pressure wash all road construction and ground-based logging equipment that will be used off of existing roads, as well as loaders and mechanically propelled brush cutters, prior to entry onto BLM lands as directed by the Authorized Officer. Cleaning shall be defined as removal of all dirt, grease, plant parts and material that may carry noxious weed seeds.

w. The Purchaser shall immediately discontinue specified construction or timber harvesting operations upon written notice from the Contracting Officer that:

1. threatened or endangered plants or animals protected under the Endangered Species Act of 1973, as amended, may be affected by the operation, and a determination is made that consultation or reinitiation of consultation is required concerning the species prior to continuing operation, or;
2. when, in order to comply with the Endangered Species Act or to prevent incidental take of northern spotted owls in accordance with management direction in the Record of Decision (ROD) and Resource Management Plan (RMP), or to protect occupied marbled murrelet sites in accordance with the Standards and Guidelines or management direction of the ROD and RMP, the Contracting Officer determines it may be necessary to modify or terminate the contract, or;
3. federal proposed, federal candidate, Bureau sensitive or State listed species protected under BLM Manual 6840 - Special Status Species Management - have been identified, and a determination is made that continued operations would affect the species or its habitat, or;
4. other active raptor nests have been discovered, and a determination is made that continued operations under this contract would adversely affect the present use of the discovered nesting area by the raptor, or;
5. when, in order to comply with a court order which enjoins operations on the sale or otherwise requires the Bureau of Land Management to suspend operations, or;
6. when, in order to comply with a court order, the Contracting Officer determines it may be necessary to modify or terminate the contract, or;
7. species have been discovered which were identified for protection through survey and manage and/or protection buffer standards and guidelines, or management direction established in the ROD and RMP, and the Contracting Officer determines that continued operations would affect the species or its habitat, or;
8. when, in order to protect species which were identified for protection through survey and manage and/or protection buffer standards and guidelines, or management direction established in the ROD and RMP, the Contracting Officer determines it may be necessary to modify or terminate the contract.

Those operations necessary for a safe removal of personnel and equipment from the contract area and those directed by the Contracting Officer which are required in order to leave the contract area in an acceptable condition will be permitted. Discontinued operations may be resumed upon receipt of written instructions and authorization by the Contracting Officer.

During any period of suspension, the Purchaser may withdraw performance and payment bond coverage aside from that deemed necessary by the Authorized Officer to secure cut and/or

removed timber for which the Bureau of Land Management has not received payment, and/or unfulfilled contract requirements associated with harvest operations that have already occurred and associated post-harvest requirements.

In the event of a suspension period or a combination of suspension periods that exceed a total of thirty (30) days, the First Installment held on deposit may be temporarily reduced upon the written request of the Purchaser. For the period of suspension extending beyond thirty (30) days, the First Installment on deposit may be reduced to five (5) percent of the First Installment amount listed in Section 3(b) of the contract. Any First Installment amount temporarily reduced may be refunded or transferred to another BLM contract at the request of the Purchaser. However, if the Purchaser has outstanding debt owing the United States, the Contracting Officer must first apply the amount of First Installment that could be refunded to the debt owed in accordance with the Debt Collection Improvement Act, as amended (31 USC 3710, *et seq.*). Upon Purchaser's receipt of a bill for collection and written notice from the Contracting Officer lifting the suspension, the Purchaser shall restore the First Installment to the full amount shown in Section 3(b) of the contract within fifteen (15) days after the bill for collection is issued, subject to Section 3(h) of the contract. The Purchaser shall not resume contract operations until the First Installment amount is fully restored.

In the event of a suspension period or a combination of suspension periods that exceed a total of thirty (30) days, the unamortized Out-of-Pocket Expenses for road or other construction required pursuant to Exhibit C of the contract shall be refunded or transferred to another BLM contract at the request of the Purchaser. Upon written notice from the Contracting Officer lifting the suspension, the Purchaser shall reimburse the Government the amounts refunded or transferred. The Purchaser may choose to pay this reimbursement at once or in installments payable at the same time as payments are due for the timber under the contract and in amounts approximately equal to the expenses associated with the timber for which payment is due.

In the event that operating time is lost as a result of the incorporation of additional contract requirements, or delays due to Endangered Species Act consultation with the U.S. Fish and Wildlife Service or U.S. National Marine Fisheries Service, or court-ordered injunctions, the Purchaser agrees that an extension of time, without reappraisal, will constitute a full and complete remedy for any claim that delays due to the suspension hindered performance of the contract or resulted in damages of any kind to the Purchaser.

The Contracting Officer may determine that it is necessary to terminate the cutting and removal rights under the contract in order to comply with the Endangered Species Act, prevent incidental take of northern spotted owls in accordance with the ROD and RMP, protect occupied marbled murrelet sites in accordance with the ROD and RMP, protect species that have been discovered which were identified for protection through survey and manage and/or protection buffer standards and guidelines established in the ROD and RMP, or comply with a court order. Following the issuance of a written notice that cutting and removal rights will be terminated, the Purchaser will be permitted to remove timber cut under the contract, if allowed by the Endangered Species Act, if able to proceed without causing incidental take of northern spotted owls in accordance with the ROD and RMP, consistent with marbled murrelet occupied site protection in accordance with the ROD and RMP, consistent with survey and manage and/or

protection buffer standards and guidelines established in the ROD and RMP, or court order requirements necessitating the modification or termination.

In the event the contract is modified or cutting and removal rights are terminated under this subsection, the Purchaser agrees that the liability of the United States shall be limited to the actual costs incurred by the Purchaser which have not been amortized by timber removed from the contract area. This calculation of liability shall utilize actual Purchaser costs and Government estimates of timber volumes. At the Authorized Officer's request, the Purchaser agrees to provide documentation of the actual costs incurred in the performance of the contract. In addition, the Purchaser shall be released from the obligation to pay the contract price for any timber which is not authorized to be removed from the contract area.

The Purchaser specifically and expressly waives any right to claim damages, other than those described in the preceding paragraphs, based on an alleged breach of any duty to the Purchaser, whether express or implied, in regard to the manner in which the Government defended the litigation which resulted in the court order affecting the operation of the contract. This waiver also extends to any claims based on effects on the operation of the contract that arise from litigation against another agency. Furthermore, the Purchaser specifically acknowledges and agrees that a court ruling that the Government violated the Administrative Procedures Act cannot be interpreted, in itself, to mean that the Government had not acted reasonably in regard to its duties to the Purchaser under this contract.

MISCELLANEOUS

x. The Purchaser agrees not to sell and/or exchange more than thirty (30) percent of the timber or log volume from this preferential sale to concerns that do not meet the Small Business Administration small business size standard (13 CFR 121). The Purchaser understands that in addition to other penalties which may be imposed for violating the foregoing, the Purchaser may be declared ineligible to participate in future Federal timber sales that are set-aside for preferential bidding by small business qualified concerns for two semi-annual triggered periods succeeding the violation. Purchaser shall provide a current, interim Long Scale and Disposition of Timber Removed Report (Form 5460-15) upon request by the Authorized Officer at any time during the contract period for cutting and removal specified in Section 4 of this contract as amended.

FIRE PREVENTION

y. Primarily for purposes of fire prevention and control, the Purchaser shall, prior to the operation of power driven equipment in construction or logging operations under this contract during the closed fire season or periods of fire danger, prepare a fire prevention and control plan to the satisfaction of the Authorized Officer. The Purchaser shall take such measures for prevention and suppression of fire on the contract area and other adjacent Government lands used or traversed by the Purchaser in connection with operations as are required by applicable laws and regulations. However, when in the opinion of the Authorized Officer, weather and other conditions affecting fire incidence and control make special precautions necessary to protect the contract area and said Government lands, Purchaser

shall take such additional or other fire prevention and control measures as may be required by the Authorized Officer. The Purchaser shall comply with Oregon Department of Forestry Industrial Fire Precaution Level (IFPL) I (Closed Fire Season) requirements. At IFPL II and III, additional fire prevention and control provisions may be added as determined by the Authorized Officer and specified in written instructions to the Purchaser to mitigate dry fuel and weather conditions.

LOGGING RESIDUE REDUCTION

z. In addition to the requirements of Sec. 15 and 25 of this contract, and notwithstanding the Purchaser's satisfactory compliance with the State laws and regulations regarding offsetting or abating the additional fire hazard created by this operation and the State's willingness to release the Purchaser from liability for such hazard, the Purchaser shall remain responsible to the Government for performance of the following logging residue reduction and site preparation measures required by this contract:

1. Prior to commencement of any operation under this Section of the contract, a slash disposal and pre-work conference between the purchaser's representative and the Authorized Officer must be held at a location designated by the Authorized Officer. All slash disposal shall be done in accordance with the plans developed at this pre-work conference. Slash, as defined for this section, shall mean all material (brush, limbs, tops, unmerchantable stems, and chunks) severed or knocked over as a result of purchasers operations under the terms of this contract.

2. Immediately upon completion of harvest on any individual units, logging slash at all landings within the contract area shall be machine piled and the Purchaser shall complete site preparation within the sale area shown on Exhibit A.

- a. Within thirty (30) feet of the edge of each landing, all tops, broken pieces, limbs and debris less than eight (8) inches in diameter at the large end and shorter than eight (8) feet in length shall be piled within fifteen (15) days of completion of hauling logs from that landing. Landing piles shall be kept free of dirt and other non-woody debris, constructed as compactly as possible with an adequate supply of finer fuels located within and under the covered area of the pile to ensure ignition of the larger fuels, and shall be located as far as possible from any Reserve Tree and/or as directed by the Authorized Officer.

Upon completion of landing piling, the Purchaser shall prepare the landing piles for burning by covering them with plastic. The total surface area of each pile shall be covered at least seventy-five (75%) percent with four (4) mil. (0.004) inch thick black plastic. The plastic shall be oriented southwest to northeast. Placement of the plastic shall start two (2) feet above the ground at the south and west sides of each pile and extend over the top and go three-quarters (3/4) the distance to the ground on the opposite north and east sides. Woody debris shall then be placed on top of the plastic so that both sides and the middle are held in place during strong wind conditions or the corners of the

plastic shall be tied down. The Purchaser is required to furnish the covering materials. The timing of this covering work shall be in accordance with instructions from the Authorized Officer. If the structure of the landing piles will not permit adequate consumption of piled debris by burning, the Purchaser shall re-pile them at the direction of the Authorized Officer.

SLASHING AND LOPPING

1. Slashing shall be completed in all areas designated for hand piling and machine piling as shown in Exhibit G, which is attached hereto and made a part hereof. Lopping shall be completed in all areas designated for hand piling.

- a. All standing woody vegetation (brush), whips, and designated trees over one (1) foot in height and less than six (6) inches diameter shall be felled (slashed) and lopped into six (6) foot or smaller lengths. Designated trees to be slashed include red alder and big leaf maple.
- b. All logging slash and slashed woody vegetation that is greater than six (6) feet in length and between one (1) inch and six (6) inches in diameter shall be lopped. Larger material which has a portion meeting this specification must be bucked at the six (6) inch diameter.
- c. All woody vegetation, whips, and designated trees shall be completely severed from the stump(s). Stump height shall not exceed six (6) inches measured on the uphill side.
- d. All Western redcedar and Western hemlock trees shall be reserved and undamaged.

CONSTRUCTION AND COVERING OF MACHINE PILES

2. In areas designated for machine piling as per Exhibit G, machine piles should be located as far as possible from green trees to minimize damage. Machine piles should be free of dirt and other non-wood debris, constructed as compactly as possible, with an adequate supply of finer fuels located within and under the covered area of the pile to ensure ignition of the larger fuels. The total surface area of each pile shall be covered at least seventy-five percent (75%) with four (4) mil. (0.004) inch thick black plastic. Placement of the plastic shall start two (2) feet above the ground on the south and west sides of each pile and extend over the top and go three-quarters (3/4) the distance to the ground on the opposite north and east sides. Woody debris shall then be placed on top of the plastic so that both sides and the middle are held in place during strong wind conditions. If wood placed on top of the plastic isn't sufficient to hold the plastic down, the corners of the plastic shall be required to be tied down.

CONSTRUCTION AND COVERING OF HAND PILES

3. In areas designated for hand piling as per Exhibit G, all logging slash and slashed woody vegetation greater than two (2) feet long and between one (1) inch and six (6) inches in diameter at the large end should be hand piled and burned. Larger material which has a portion meeting this specification must be bucked at the six (6) inch diameter and that portion piled and burned.

PRESCRIBED BURNING

aa. Notwithstanding the provisions of Section 15 of this contract, the Government shall assume all obligations for the disposal or reduction of the fire hazards caused by slash created by the Purchaser's operations on Government lands, except for logging residue reduction operations listed above, and burning and fire control assistance as required herein. Upon phone notification by the Authorized Officer of required performance prior to ignition, the Purchaser shall, under supervision of the Authorized Officer or his designated representative, assist in, hand pile burning, landing pile burning, and fire control on the day of ignition. In addition, debris which has been buried at landings and is determined to be the source of holdover fire shall be excavated by the Purchaser with a tractor and/or hydraulic excavator as directed by the Authorized Officer.

The Purchaser shall furnish, at his own expense, the services of personnel and equipment on all units requiring burning as shown below.

- a. One (1) work leader (Firefighter Type 1 (FFT1)) to supervise crew and to serve as Purchaser's representative.
- b. A five (5) person crew (Firefighter Type 2 (FFT2)) for ignition of hand piles, machine piles, or landing piles
- c. Five (5) drip torches with thirty-five (35) gallons of slash fuel (4:1 ratio of diesel to gasoline).
- d. Aluma-gel or other incendiary thickener.
- e. One (1) chain saw with fuel.
- f. One (1) hand tool per above listed personnel on the day of ignition.

All listed personnel shall be physically fit, experienced and fully capable of functioning as required. In addition, all listed personnel shall be qualified according to the National Wildfire Coordinating Group (NWCG) Wildland Fire Qualification System Guide, PMS-310-1 and provide documentation of these qualifications. On the day of ignition all listed personnel shall be fluent in speaking and understanding English, clothing shall consist of long pants and long sleeved shirts, and be of approved aramid fabric (Nomex™ or equivalent), as well as being free of diesel fuel oil. All personnel shall wear lug sole boots with minimum eight (8) inch tall uppers that provide ankle support, approved hardhats and leather gloves. Personnel who do not meet these requirements or do not have proper clothing and personal protective equipment (PPE) will not be allowed to participate.

All listed tools and equipment shall be in good usable condition. All power-driven equipment shall be fully fueled and available for immediate use. During periods of use under this subsection, the Purchaser shall provide fuel and maintenance for all such power-driven equipment.

In the event of a fire escapement, the Purchaser's personnel and equipment shall, under supervision of the Authorized Officer or his designated representative, take action to control and mop-up the escaped fire until released from such service by the Government. If it becomes necessary to suppress a fire which escapes from the prescribed fire area for a period beyond midnight of ignition day, then the Government shall, at its option: (1) reimburse the Purchaser for such additional use of personnel and equipment at wage rates shown in the current Administratively Determined Pay Rates for the Western Area and at equipment rates shown in the current Oregon-Washington Interagency Fire Fighting Equipment Rental Rates schedule until the Purchaser is released from such service by the Government or (2) release the Purchaser from additional suppression work and assume responsibility for suppressing the escaped fire.

In case of injury to personnel or damage to equipment furnished as required by this subsection, liability shall be borne by the Purchaser, unless such injury or damage is caused by Government negligence.

Time is of the essence in complying with this provision. In the event the Purchaser fails to provide the personnel and equipment required herein, the Purchaser shall be responsible for all additional cost incurred by the Government in disposing of slash including but not limited to the wages and other costs of providing federal employees and others as substitute labor force, the cost of providing substitute equipment and appropriate additional overhead expenses. If the Purchaser's failure results in a deferral of burning and new conditions necessitate additional site preparation work and/or the use of additional personnel and equipment to accomplish the planned burn, the Purchaser also shall be responsible for such additional costs.

LOG EXPORT RESTRICTION

bb. All timber sold to the Purchaser under the terms of the contract, except exempted species, is restricted from export under the United States in the form of unprocessed timber, and is prohibited from being used as a substitute for exported private timber. For the purpose of this contract, unprocessed timber is defined as (1) any logs except those of utility grade or below, such as sawlogs, peeler logs, and pulp logs; (2) cants or squares to be subsequently remanufactured exceeding eight and three-quarters (8-3/4) inches in thickness; (3) split or round bolts or other round wood not processed to standards and specifications suitable for end-product uses; or (4) western redcedar lumber which does not meet lumber of American Lumber Standards Grades of Number 3 dimension or better, or Pacific Lumber Inspection Bureau R-List Grades of Number 3 Common or better. Thus, timber manufactured into the following will be considered processed: (1) lumber and construction timbers, regardless of size, manufactured to standards and specifications suitable for end product uses; (2) chips, pulp and pulp products; (3) green or dry veneer and plywood; (4) poles and piling cut or treated for use as such; (5) cants, squares, and lumber cut for remanufacturing of eight and three-quarters (8-3/4) inches in thickness or less; (6) shakes and shingles. Substitution will be determined under the definition found in 43 CFR 5400.0-5(n).

The Purchaser is required to maintain and upon request to furnish the following information:

1. Date of last export sale.
2. Volume of timber contained in last export sale.
3. Volume of timber exported in the past twelve (12) months from the date of last export sale.
4. Volume of Federal timber purchased in the past twelve (12) months from date of last export sale.
5. Volume of timber exported in succeeding twelve (12) months from date of last export sale.
6. Volume of Federal timber purchased in succeeding twelve (12) months from date of last export sale.

In the event the Purchaser elects to sell any or all of the timber sold under this contract in the form of unprocessed timber, the Purchaser shall require each party buying, exchanging, or receiving such timber to execute a "Certificate as to Nonsubstitution and Domestic Processing of Timber." The original of such certification shall be filed with the Authorized Officer.

Additionally, when the other party is an affiliate of the Purchaser, the Purchaser will be required to update information under item (2) of Form 5450-17 (Export Determination) and file the form with the Authorized Officer.

In the event an affiliate of the Purchaser has exported private timber within twelve (12) months prior to purchasing or otherwise acquiring Federal timber sold under this contract, the Purchaser shall, upon request, obtain from the affiliate information in the form specified by the Authorized Officer and furnish the information to the Authorized Officer.

Prior to the termination of this contract, the Purchaser shall submit to the Authorized Officer Form 5460-15 (Log Scale and Disposition of Timber Removed Report) which shall be executed by the Purchaser. In addition, the Purchaser is required under the terms of this contract to retain for a three-year period from the date of termination of the contract the records of all sales or transfer of logs involving timber from the sale for inspection and use of the Bureau of Land Management.

Unless otherwise authorized in writing by the Authorized Officer, the Purchaser shall, prior to the removal of timber from the contract area, brand with Purchaser's registered log brand at least one end of each log, bolt, or other roundwood and identify each of these by painting with highway yellow paint.

In the event of the Purchaser's noncompliance with this subsection of the contract, the Authorized Officer may take appropriate action as set forth in Section 10 of this contract. In addition, the Purchaser may be declared ineligible to receive future awards of Government timber for a period of one year.

Unless otherwise authorized in writing by the Contracting Officer, the Purchaser shall brand clearly and legibly one end of all logs with a scaling diameter (small end inside bark) of over 10 inches, prior to the removal of timber from the contract area. All loads of 11 logs or more will have a minimum of 10 logs clearly and legibly branded on one end regardless of the diameter of the logs. All logs will be branded on loads of 10 logs or less. One end of all branded logs to be processed domestically will be marked with a 3 square inch spot of highway yellow paint. The Purchaser will stop trucks for accountability monitoring at mutually agreed upon locations when notified by the Authorized Officer.

If multiple trailers (mule trains) are used, each bunked load shall be considered an individual load, and these guidelines will apply to each bunked load. If a flatbed stake trailer is used, each bundle will be treated as a separate load.

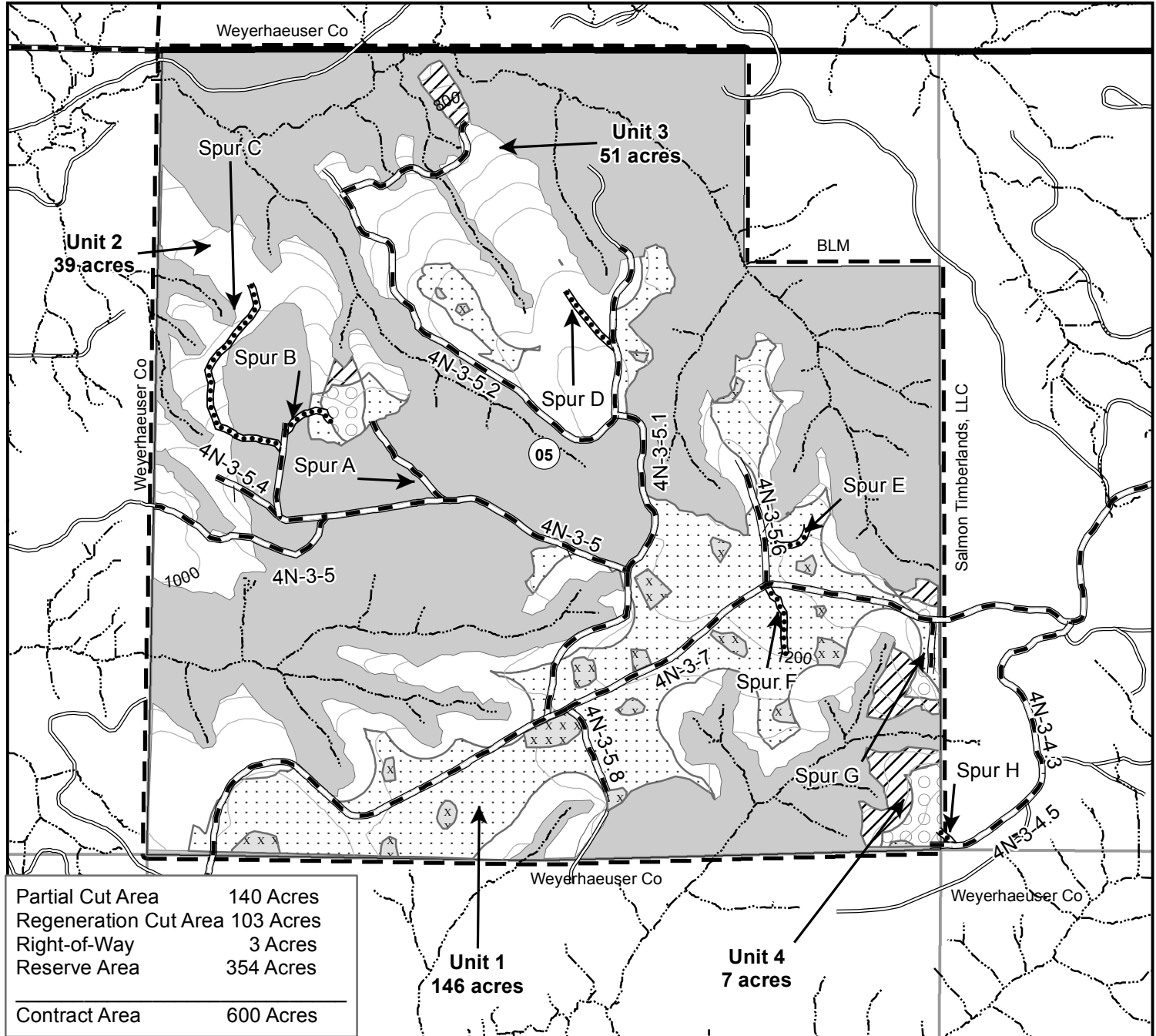
At the discretion of the Contracting Officer, the Purchaser may be required to brand and paint all logs. Any increased costs for log branding and painting shall be the responsibility of the Purchaser.



TIMBER SALE CONTRACT MAP-CONTRACT NO. ORN04-TS-2017.0402

2/8/2017

T. 4N. R. 3W, Section 5 W. M. - NORTHWEST OREGON DISTRICT - OREGON



0 500 1,000 2,000 3,000 Feet

Contour Interval: 40 feet 1 inch = 1,000 feet

- Partial Cut Area-Ground Based
- Partial Cut Area-Skyline
- Regeneration Harvest Area-Ground Based
- Regeneration Harvest Area-Skyline
- Leave Islands
- Reserve Area

- Contract Area
- Road to be constructed
- Road to be renovated
- Existing Roads
- Streams

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification. Note: Boundaries of harvest area and rights-of-ways (ROW) are painted orange and posted. Harvest area acres do not include existing roads or previously harvested patch cuts. Acres shown on Exhibit A for harvest area have been computed using a Trimble Geo 6000 GPS Unit.

Prepared By: csween

UNITED STATES DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT (BLM)

EXHIBIT B

SCALE SALE PURCHASE PRICE SCHEDULE AND MEASUREMENT SPECIFICATIONS

I. Total Actual Purchase Price – In accordance with Sections 2 and 3 of the contract, the Purchaser agrees to pay the Government for the forest products sold under the contract in accordance with the following schedule and measurement requirements. Forest products sold are comprised of *Merchantable Timber, Other Timber, Other Forest Products, Remaining Volume, and Defect Caused by Abnormal Delay* as defined in this Exhibit. In the event an Extension of Time is approved, the prices per measurement unit are subject to readjustment (refer to Section 9 of the contract).

Schedule of Products, Species, Measurement Units, and Prices		
Species	Measurement Units	Price Per Measurement Unit
Merchantable Timber:		
Douglas-fir	MBF	\$312.80
western red cedar	MBF	\$485.30
grand fir	MBF	\$211.90
red alder	MBF	\$171.90
western hemlock	MBF	\$187.50
Other Wood Products:		
Clean Chips	Green Tons	\$5.00

II. Merchantable Timber – All timber which can be cut into logs, which equal or exceed the following specifications, shall be considered merchantable timber. Purchaser shall pay for same in accordance with Section 3 of the contract at the prices per measurement unit shown in Section I of this Exhibit.

Schedule of Minimum Merchantable Log Specifications			
Species and Products	Length	Diameter (inside bark at small end)	Net Scale
All	16 Feet	6 inches	20 bf

III. Other Timber – If Purchaser elects to remove any logs which do not meet the above minimum merchantable log specifications in Section II of this Exhibit, are not designated as other forest products in Section I of this Exhibit, and have not been reserved to the Government in Section 41 of the contract, such logs shall be scaled for their merchantable content as provided herein and be paid for in accordance with Sections 2 and 3 of the contract and the prices per measurement unit in Section I of this Exhibit. If

any timber is of a species or size not listed in Section II of this Exhibit (above) or is of a quality different from merchantable timber described herein, the Authorized Officer shall establish volumes and values in accord with BLM prescribed procedures.

IV. Deterioration Caused by Abnormal Delay – Scaling deductions made for rot, checks, or other deterioration resulting from abnormal delay in scaling caused by Purchaser shall be recorded separately and charged to the Purchaser in accordance with Section 3.(e). of the contract.

V. Remaining Volume – *Remaining volume* is defined in Section 3.(e). of the contract. The remaining volume of any forest products sold under the contract, and any deterioration due to abnormal delay shall be determined as provided in Section 3.(e). of the contract. Purchaser shall pay for same in accordance with Section 3 of the contract at the prices per measurement unit shown in Section I of this Exhibit. To maximize utilization, the Purchaser shall buck logs to variable merchantable lengths. If the Purchaser fails to buck logs to variable merchantable lengths, the Contracting Officer may measure unyarded log segments and bill the Purchaser for their value.

The Contracting Officer may determine during operations that the amount of remaining volume found is excessive and/or preventing the attainment of BLM treatment objectives. Upon such determination as directed in writing by the Contracting Officer, the Purchaser shall restring cable yarding lines, re-traverse ground-based yarding areas, and/or re-fly aerial yarding areas; and yard, remove, and present for scaling the material which would otherwise be designated as remaining volume.

VI. Scaling

A. Scaling Service – Log scaling services shall be provided and performed by Government scalers or parties under contract to BLM, as determined by the Contracting Officer. Purchaser shall notify the Authorized Officer three (3) days prior to commencing any hauling, including any hauling shutdowns longer than two (2) days, and at the earliest opportunity when ceasing hauling operations performed under the contract.

A Scaling Authorization must be completed and approved by the Authorized Officer prior to beginning operations. A Yard Scaling Agreement must be completed for each utilization facility that will receive logs from the sale, which must be scaled, and executed by the Purchaser, Scale Site Owner, and Contracting Officer prior to the delivery of any logs to that facility. Government scalers or contract scalers are authorized to collect scale data from all loads.

B. Log Rule and Measurement

All logs shall be scaled according to the Eastside Scribner Log Rules found in the Northwest Log Rules Eastside and Westside Log Scaling Handbook in the Official Rules for Log Scaling and Grading Bureaus developed by the Northwest Log Rules Advisory Group dated July 1, 2003 (reprinted June 1, 2006). The Contracting Officer may elect to utilize sample scaling in lieu of 100 percent scaling of log loads. The sample log scaling procedures, including sample design and number of log sorts, will be determined by the Authorized Officer in accordance with BLM prescribed procedures.

C. Log Presentation – Purchaser shall present logs so that they may be scaled in an economical and safe manner in accordance with the Yard Scaling Agreement(s) required in Section VI.A. of this Exhibit.

D. Check Scale – Government scalers will conduct check scales as set forth below:

1. Check scale shall include at least 200 logs or at least 50 MBF.
2. Utilize a sample that will accurately represent the species and defect associated with the sale.
3. For complex scaling situations, conduct the appropriate analysis to determine sample size. Increase the number of logs check scaled if sample size analysis deems it necessary.
4. Use the following standards to determine the proficiency of individual Government scalers or scalers under contract to BLM:
 - a. Gross Scale. A variance of one point five percent (1.5%) in gross scale is the standard unless otherwise justified.
 - b. Net scale. The allowable variance is as follows:

Check Scaler's Percent Defect in Logs	Scalers Allowable Variance
0-10 percent	2 percent
over 10 percent	.2 x percent defect to a maximum of 5 percent

5. Determinations as to volume of timber made by a Government check scaler in conformance with the standards as set forth herein shall be final. All loads check scaled by Government scalers will be identified with the check scaler's initials legibly marked or painted in the face of the first log in each load. When such checks show a variance in scale in excess of acceptable standards, in two or more consecutive check scales, an adjustment to the volume reported as scaled will be made by BLM. Such adjustments will be made based on the difference between available Government check scales and the original scale during the period covered by the unsatisfactory check scales. Unless otherwise approved in writing by the Contracting Officer, the volume to which this difference will be applied will be 50 percent of the volume scaled between the last satisfactory check and the first unsatisfactory check, 100 percent of the volume scaled during the unsatisfactory check, and 50 percent of the volume between the last unsatisfactory check scale and the next satisfactory check scale.

E. Accountability

1. All logs will be painted and branded at the landing and accounted for in accordance with Section 42.bb of the contract. Each truck driver shall obtain a load receipt and a

BLM scaler receipt from the Log Truck Ticket Book issued by the Authorized Officer and comply with the instructions specified on the cover of said book. All log/load tickets will be marked with the Exhibit A unit number using a permanent marker or indelible stamp as directed by the Authorized Officer. While products are in transit, the truck driver shall display the load receipt and BLM scaler receipt on the bunk or wing log at the front of the load on the driver's side, or as directed by the Authorized Officer in the case of other forest products. All forest products on each load shall be delivered to the destination listed on the load receipt. The BLM scaler receipt shall be surrendered at the location of BLM scaling, the unloading location, or as requested by BLM.

2. The Purchaser shall not haul forest products from the contract area on weekends, Memorial Day, Fourth of July, Labor Day, Thanksgiving, Christmas, and New Year's holidays; or outside the hours of 4:00 am to 8:00 pm daily, unless otherwise approved in writing by the Authorized Officer or designated in the Approved Logging Plan.

3. The Purchaser shall furnish BLM a map showing the route which shall be used to haul forest products from the forest product sale area to the scaling location(s). Such route shall be the most direct haul route between the two points, unless another route is approved by BLM. The route of haul may be changed only with advance notice to the Authorized Officer and approval by BLM. The haul route map shall be attached to the Scaling Authorization.

4. All log loads will be scaled at scale locations listed on the Scaling Authorization as approved by the Authorized Officer. The Purchaser shall ensure that all scale site owners listed on the Scaling Authorization enter into a Yard Scaling Agreement before requesting BLM approval of the Scaling Authorization. Areas for scaling BLM logs will be designated on the ground and identified on the yard map as required in the Yard Scaling Agreement.

5. Any removal of logs from loaded trucks prior to their arrival at the delivery point as required by the contract shall be considered a willful trespass and render the Purchaser liable for damages under applicable law. Any payment made for purchase of such logs shall be deducted from the amount due because of trespass.

F. Scaling Lost Forest Products – The value of forest product loads represented by missing load tickets shall be equal to the highest value load for the month in which the lost load is hauled regardless of where the highest value load is scaled. If no loads have been scaled in that month, value will be determined from the closest month in which loads were scaled.

(VII.) Estimated Volumes and Values – The following volume estimates and calculations of value of forest products sold are made solely as an administrative aid for determining payment amounts, when payments are due, the value of forest products subject to any special bonding provisions, and other purposes specified in various portions of the contract. The cutting areas are shown on Exhibit A of the contract.

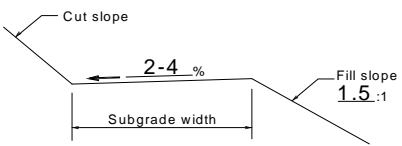
A. Forest Product Volume Removed from Contract Area – The total volume of removed forest products shall be determined using the Government's records of scaled volumes of forest products skidded or yarded monthly, or a shorter period if agreed to by the Purchaser and Government, to loading points or removed from the contract area.

B. Forest Products Not Yet Removed from Contract Area – The value of forest products which have not been removed will be determined by multiplying the value per acre as shown below times the amount of acreage subject to the purpose of the value determination, as determined by the Authorized Officer. The estimated volume and value per acre used for determining payment amounts may be modified by the Authorized Officer based upon scale report data on forest product volume removed from the contract area.

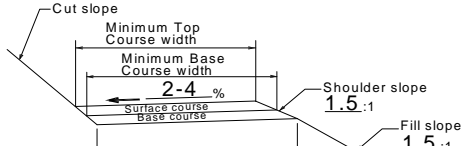
Total Estimated Purchase Price and/or Schedule of Volumes and Values for Forest Products Not Yet Removed from Contract Area					
Cutting Area		Total Estimated Volume (MBF)		Total Estimated Purchase Price	
Cutting Area Number	Exhibit A Acres	Volume per Acre	Total Volume	Value per Acre	Total Value
Unit 1	146	35.7	5208	\$11,065.26	\$1,615,528.00
Unit 2	39	23	897	\$7,030.24	\$274,179.30
Unit 3	51	23.7	1210	\$7,280.93	\$371,327.60
Unit 4	7	28	196	\$8,644.60	\$60,512.20
Right-of-way	3	26	78	\$8,132.80	\$24,398.40
Clean Chips	0	0	1740 Green Tons	0	\$8,700.00
Sale Total	246	-----	7,589 MBF	-----	\$2,354,645.50

150: ROAD PLAN AND DETAIL SHEET

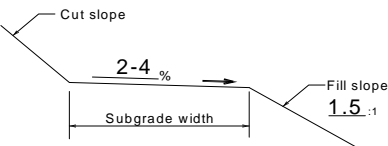
Road Number	Start Station or Milepost	End Station or Milepost	Total Length	Typical Cross Section	Min. Curve Radius	ROAD WIDTH		GRADIANT		SURFACING (*5)										Remarks	
						Subgrade	Ditch	Max. Favorable	Max. Adverse	BASE COURSE					SURFACE COURSE						
										Min. Width	Comp. Depth	Surface Type (*3)	Grading Size (*3)	Number of Lifts	Min. Width	Comp. Depth	Surface Type (*3)	Grading Size (*3)	Number of Lifts		
Spur A	0+00	7+24	7+24	3		14	0	--	--												Renovation. Construct Landing as marked (approx. 50 ft diameter).
Spur B	0+00	5+70	5+70	3		14	0	--	--												Renovation. Construct Turnaround as marked.
	5+70	8+41	2+71	3		14	0	15%	15%												New Construct. Construct Landing as marked. (Landing approx. 40 ft diameter)
Spur C	0+00	17+00	17+00	3		14	0	18%	18%												New Construction. Construct Turnaround and Landing as marked (approx. 50 ft diameter).
Spur D	0+00	7+42	7+42	3		14	0	16%	16%												New Construct. Construct Landing as marked (approx. 40 ft diameter).
Spur E	0+00	4+61	4+61	3		14	0	10%	10%												New Construct. Construct turnaround and Landing as marked. (Landing approx. 50 ft diameter).
Spur F	0+00	4+95	4+95	3		14	0	12%	12%												New Construct. Construct Landing as marked (approx. 40 ft diameter).
																					Renovation. Spread 20 CY crushed Spot Rock as marked. Spread 20 CY Pit-Run Spot/Base Rock as marked. Place 20 CY Crushed Bedding/Backfill Rock. Re-establish ditchline and haul material to WA as directed. Construct ditchouts as needed. Construct turnouts as needed. Construct waste area @ Sta 3+72, and as directed. Install metal inlet markers on all existing and installed culverts.
Spur G	0+00	3+72	3+72	6		14	2	--	--												
Spur H	0+00	1+60	1+60	3		14	0	--	--												New Construct. Construct Landing as marked (approx. 50 ft diameter).



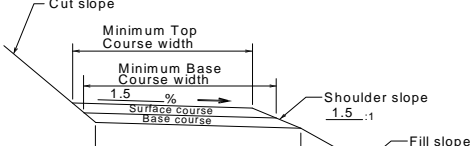
Type 1
Typical Grading Section
Insloped



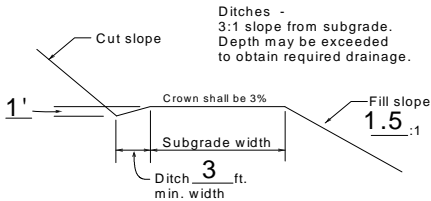
Type 2
Typical Surfacing Section
Insloped



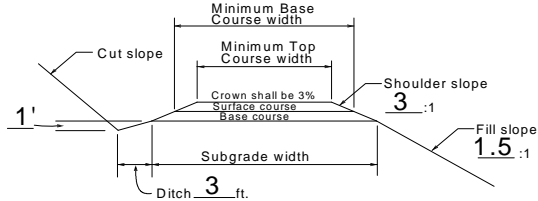
Type 3
Typical Grading Section
Outsloped



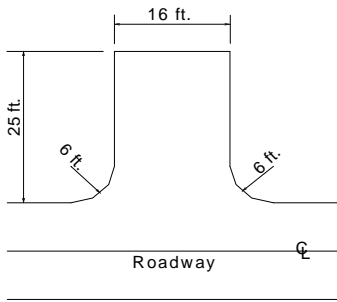
Type 4
Typical Surfacing Section
Outsloped



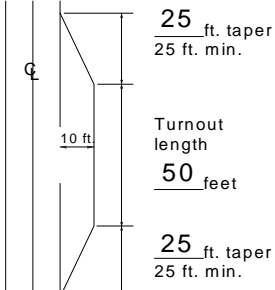
Type 5
Typical Grading Section
w / Ditch



Type 6
Typical Surfacing Section



PLAN
Typical Truck



PLAN
Typical Turnout

*NOTES

- Extra subgrade widths.**
Add to each shoulder: 1 ft. for fills of 1-6 ft. and 2 ft. for fills over 6 ft. Widen the inside shoulder of curves as follow:
(See Road Plan Map, Exhibit C)
- Backslopes.**

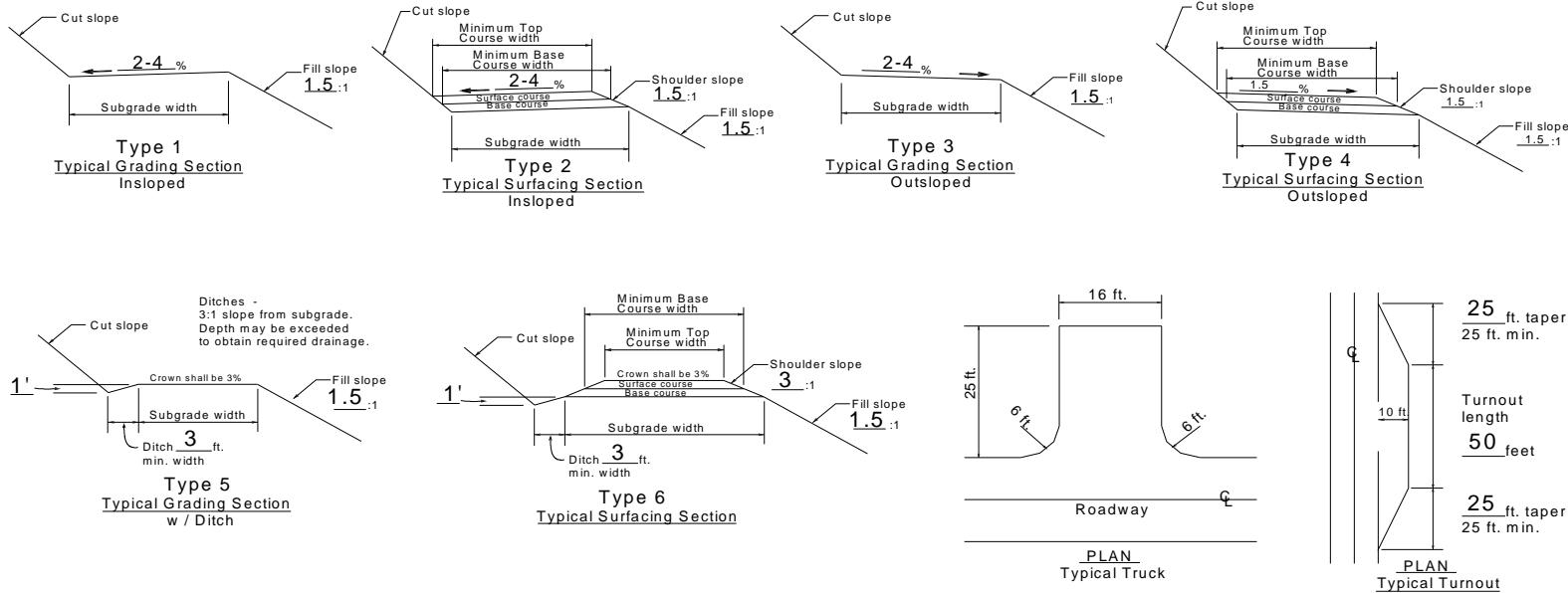
Materials	Cut slopes	Fill slopes
Solid rock	1/4:1	Angle of repose
Soft rock and shale	1/2:1	
Common		
Slopes under 55%	1:1	1-1/2:1
Slopes over 55%	3/4:1	1-1/2:1
- Surface type.**

	Grading
PRR - Pit run rock	A - 3"
GRR - Grid rolled rock	B - 2"
SRN - Screened rock	C - 3" jaw run (base course)
JRR - Jaw run rock	
ABC - Aggr. base course	C - 1-1/2"
ASC - Aggr. surface course	D - 1" (surface course)
WC - Wood chips	E - 3/4"
- Turnouts.**
Width - 10 ft. in addition to subgrade width, or as shown on the plans.
Located approximately as shown on the plans.
Intervisible and not more than 750 ft. apart.
- Surfacing.**
Turnouts, curve widening and road approach aprons shall be surfaced.
- Clearing width.**
See Section 200.
- As posted and painted for Right-of-Way:
- Drainage.**
See Culvert List
- Compaction.**
See Sections 300 and 400.

* Clearing Limits as posted on ground

150: ROAD PLAN AND DETAIL SHEET

Road Number	Start Station or Milepost	End Station or Milepost	Total Length	Typical Cross Section	Min. Curve Radius	ROAD WIDTH		GRADIANT		SURFACING (*5)										Remarks	
						Subgrade	Ditch	Max. Favorable	Max. Adverse	BASE COURSE					SURFACE COURSE						
										Min. Width	Comp. Depth	Surface Type (*3)	Grading Size (*3)	Number of Lifts	Min. Width	Comp. Depth	Surface Type (*3)	Grading Size (*3)	Number of Lifts		
4N-3-4.4	0.000	0.291	0.291	6		14	2						PRR	A				ASC	C		Renovation. Spread 70 CY Crushed Spot Rock as marked and needed. Spread 35 CY Pit-Run Base Rock as marked. Place 35 CY Crushed Bedding/Backfill Rock. Re-establish ditchline and haul material to WA as directed. Construct ditchouts as marked and needed. Widen Road as marked between MP 0.061 - 0.080 & 0.160 - 0.190. Install metal inlet markers on all installed culverts.
4N-3-4.5	0+00	8+02	8+02	3		14	0														Renovation. Construct turnouts as needed and a turnaround @ Sta. 8+02 as marked. DO NOT Disturb property corner or bearing trees.
4N-3-5.0	0.000	0.245	0.245	6		14	2						PRR	A				ASC	C		Renovation. Spread 60 CY Crushed Spot Rock as marked and needed. Spread 80 CY Pit-Run Base/Backfill Rock as marked. Place 45 CY Crushed culvert bedding as marked. Place 10 CY Class 3 RipRap @ Culvert inlet and 20 CY Class 3 RipRap @ Culvert outlet @ MP 0.190, as directed. Re-establish ditchline and haul material to WA as directed. Construct ditchouts as marked and needed. Install metal inlet markers on all installed and existing culverts.
	0.245	0.501	0.256	4		14	0											PRR	A		Renovation. Spread 20 CY Pit-Run Spot Rock as needed. Construct ditchouts as marked and needed. Construct turnouts as marked and a turnaround at MP 0.501.
	0.501	0.942	0.441	3		14	0														Renovation. Construct ditchouts as marked and needed. Construct turnouts as marked and a turnaround at MP 0.835. Construct a Landing (approx. 40' diameter) at MP 0.942.
4N-3-5.1	0.000	0.427	0.427	6		14	2						PRR	A				ASC	C		Renovation. Spread 30 CY Crushed Spot Rock as marked and needed. Spread 25 CY Pit-Run Base Rock as marked. Place 25 CY Crushed Rock as Culvert Bedding/Backfill as marked. Re-establish ditchline and haul material to WA as directed. Construct Turnouts as needed and a Turnaround @ MP 0.310 as directed. Install metal inlet markers on all installed culverts.
4N-3-5.2	0.000	0.775	0.775	6		14	2						PRR	A				ASC	C		Renovation. Spread 40 CY Crushed Spot Rock as marked and needed. Spread 30 CY Pit-Run Base Rock as marked. Place 30 CY Crushed Rock as Cuvlert Bedding/Backfill as marked. Place 10 CY Class 3 RipRap @ outlets of culverts @ MP 0.090 & 0.639 as directed. Re-establish ditchline and haul material to WA as directed. Construct Turnouts as needed and a Turnaround @ MP 0.566 as directed. Install metal inlet markers on all existing and installed culverts. Re-use existing flumes on replaced culverts as directed.
4N-3-5.4	0+00	10+35	10+35	3		14	0														Renovation. Construct ditchouts as marked and needed. Construct a turnaround at Sta. 8+40. Construct a Landing (approx. 40' diameter) at Sta. 10+35.



- *NOTES
- Extra subgrade widths**
Add to each shoulder: 1 ft. for fills of 1-6 ft. and 2 ft. for fills over 6 ft. Widen the inside shoulder of curves as follow:
(See Road Plan Map, Exhibit C)
 - Backslopes**

Materials	Cut slopes	Fill slopes
Solid rock	1/4:1	Angle of repose
Soft rock and shale	1/2:1	
Common		
Slopes under 55%	1:1	1-1/2:1
Slopes over 55%	3/4:1	1-1/2:1

Note:
Full bench construction is required on side slopes exceeding 60%.
 - Surface type**

	Grading
PRR - Pit run rock	A - 3"
GRR - Grid rolled rock	B - 2"
SRN - Screened rock	C - 3" jaw run (base course)
JRR - Jaw run rock	
ABC - Aggr. base course	C - 1-1/2"
ASC - Aggr. surface course	D - 1" (surface course)
WC - Wood chips	E - 3/4"
 - Turnouts**
Width - 10 ft. in addition to subgrade width, or as shown on the plans.
Located approximately as shown on the plans. Intervisible and not more than 750 ft. apart.
 - Surfacing**
Turnouts, curve widening and road approach aprons shall be surfaced.
 - Clearing width**
See Section 200.
 - As posted and painted for Right-of-Way:
 - Drainage**
See Culvert List
 - Compaction**
See Sections 300 and 400
- * Clearing Limits as posted on ground

150: ROAD PLAN AND DETAIL SHEET

Road Number	Start Station or Milepost	End Station or Milepost	Total Length	Typical Cross Section	Min. Curve Radius	ROAD WIDTH		GRADIANT		SURFACING (*5)										Remarks	
						Subgrade	Ditch	Max. Favorable	Max. Adverse	BASE COURSE					SURFACE COURSE						
										Min. Width	Comp. Depth	Surface Type (*3)	Grading Size (*3)	Number of Lifts	Min. Width	Comp. Depth	Surface Type (*3)	Grading Size (*3)	Number of Lifts		
4N-3-5.6	0+00	9+44	9+44	5		14	0						PRR	A				ASC	C		Renovation. Spread 30 CY Crushed Spot Rock as marked and needed. Spread 20 CY Pit-Run Base Rock as marked. Place 20 CY Crushed Rock as Cuvlert Bedding/Backfill as marked. Construct Turnouts as needed and a Turnaround @ Sta. 7+67 as directed. Construct Landing (approx. 40' diameter) @ Sta. 9+44 as marked.
4N-3-5.8	0.000	0.210	0.210	6		14	2						PRR	A				ASC	C		Renovation. Spread 40 CY Crushed Spot Rock as marked and needed. Spread 30 CY Pit-Run Base Rock as marked. Place 30 CY Crushed Rock as Cuvlert Bedding/Backfill as marked. Construct Turnouts as needed and a Turnaround @ MP 0.170 as directed. Install metal inlet markers on installed culverts as directed.
4N-3-7.0	0.000	1.922	1.922	6		14	2						PRR	A				ASC	C		Renovation. Spread 100 CY Crushed Spot Rock as marked and needed. Spread 10 CY Pit-Run Spot/Base Rock as marked. Place 10 CY Crushed Bedding/Backfill Rock. Place 10 CY Class 3 RipRap @ outlet of culvert @ MP 0.090 as directed. Re-establish ditchline and haul material to WA as directed. Construct ditchouts as marked and needed. Construct turnouts as marked and needed. Construct waste areas as marked and directed. Construct Lead-off ditches at culvert outlets as directed. Install metal inlet markers on all existing and installed culverts.

Type 1
Typical Grading Section
Insloped

Type 2
Typical Surfacing Section
Insloped

Type 3
Typical Grading Section
Outsloped

Type 4
Typical Surfacing Section
Outsloped

Type 5
Typical Grading Section
w / Ditch

Type 6
Typical Surfacing Section

PLAN
Typical Truck

PLAN
Typical Turnout

***NOTES**

- Extra subgrade widths**
Add to each shoulder: 1 ft. for fills of 1-6 ft. and 2 ft. for fills over 6 ft. Widen the inside shoulder of curves as follow:
(See Road Plan Map, Exhibit C)
- Backslopes**

Materials	Cut slopes	Fill slopes
Solid rock	1/4:1	Angle of repose
Soft rock and shale	1/2:1	
Common		
Slopes under 55%	1:1	1-1/2:1
Slopes over 55%	3/4:1	1-1/2:1

Note:
Full bench construction is required on side slopes exceeding 60%.
- Surface type**

	Grading
PRR - Pit run rock	A - 3"
GRR - Grid rolled rock	B - 2"
SRN - Screened rock	C - 3" jaw run
JRR - Jaw run rock	
ABC - Aggr. base course	C - 1-1/2"
ASC - Aggr. surface course	D - 1"
WC - Wood chips	E - 3/4"
- Turnouts**
Width - 10 ft. in addition to subgrade width, or as shown on the plans.
Located approximately as shown on the plans.
Intervisible and not more than 750 ft. apart.
- Surfacing**
Turnouts, curve widening and road approach aprons shall be surfaced.
- Clearing width**
See Section 200.
- As posted and painted for Right-of-Way:
- Drainage**
See Culvert List
- Compaction**
See Sections 300 and 400

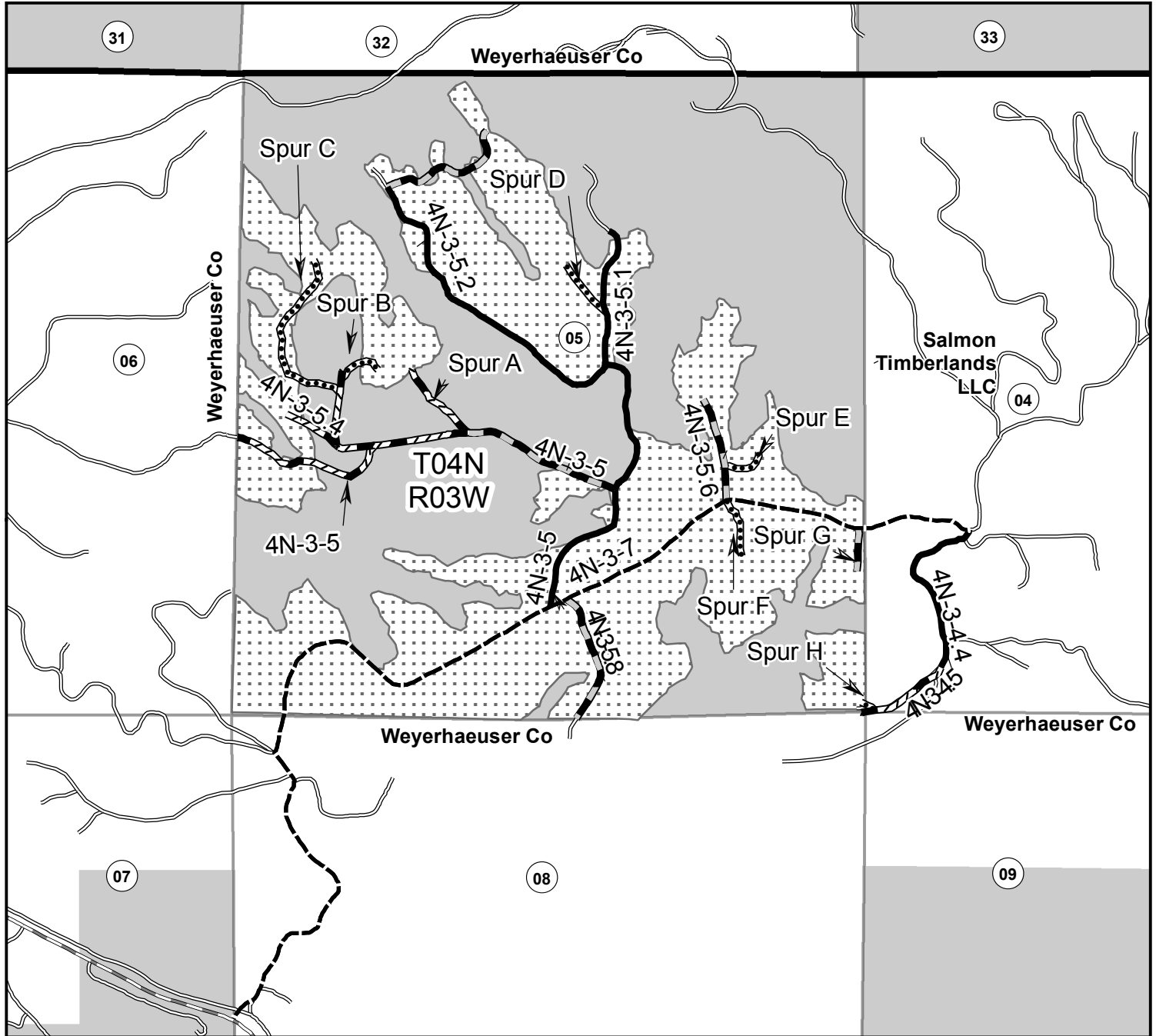
* Clearing Limits as posted on ground



Road Plan Map

12/15/2016

T. 4N. R. 3W, Section 5 W. M. - NORTHWEST OREGON DISTRICT - OREGON



0 650 1,300 2,600 3,900 Feet

1 inch = 1,250 feet

- | | |
|--|---------------------------|
| Natural surface road to be constructed-
Decommission after use | Scappoose Vernonia Hwy |
| Natural surface road to be renovated-
Decommission after use | Existing Roads |
| Existing rock surfaced road to be renovated-
Decommission after use | Quarry 5 Project Area |
| Existing rock surface road to be renovated-
Stabilize after use | Bureau of Land Management |
| Existing rock surface road to be renovated | |

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

Prepared By: csween

Culvert List

CULVERT LOCATIONS											ROCK			REMARKS *6					
DESIGNED *2							DOWNSPOUT(d) or STANDPIPE(s) *4				AS BUILT						RIP RAP (GRADING)		
																	(a)		(b)
Road #	Sta./ M.P	SIZE	GAGE	LENGTH	CULVERT GRADE	INSTALL TYPE *3	SIZE	TYPE	LENGTH	TYPE OF ELBOW *5	SIZE	GAGE	LENGTH	INLET	OUTLET	Stucture inside pipe			
4N-3-4.4	0.132	18"	--	40'	--	--	--	--	--	--	--	--	--	--	--	--	Install New Culvert as marked in field. Place 15 CY Crushed Bedding/Backfill. Spread 15 CY Pit-Run Base Rock over Pipe as Surfacing capped with 5 CY Crushed Rock. Install metal inlet marker.		
	0.211	18"	--	32'	--	--	--	--	--	--	--	--	--	--	--	--	Install New Culvert as marked in field. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over Pipe as Surfacing capped with 5 CY Crushed Rock. Install metal inlet marker.		
	0.283	18"	--	32'	--	--	--	--	--	--	--	--	--	--	--	--	Install New Culvert as marked in field. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over Pipe as Surfacing capped with 5 CY Crushed Rock. Install metal inlet marker.		
4N-3-5.0	0.000	18"	--	40'	--	--	--	--	--	--	--	--	--	--	--	--	Replace existing culvert in ditchline. Place 15 CY Crushed Bedding/Backfill. Spread 15 CY Pit-Run Base Rock over Pipe as Surfacing capped with 5 CY Crushed Rock. No culvert marker to be installed.		
	0.190	36"	--	66'	--	--	--	--	--	--	--	--	--	10	20	--	Replace existing culvert. Place 30 CY Crushed Bedding/Backfill. Spread 65 CY Pit-Run Base Rock over pipe as Surfacing capped with 30 CY Crushed Rock. Place 20 CY RipRap at culvert outlet as Fill Slope Stabilization/energy dissipater. Place 10 CY RipRap at culvert inlet as fill armor. Install metal inlet marker.		
4N-3-5.1	0.296	18"	--	40'	--	--	--	--	--	--	--	--	--	--	--	--	Install New Culvert as marked in field. Place 15 CY Crushed Bedding/Backfill. Spread 15 CY Pit-Run Base Rock over Pipe as Surfacing capped with 5 CY Crushed Rock. Install metal inlet marker.		
	0.427	18"	--	30'	--	--	--	--	--	--	--	--	--	--	--	--	Replace existing culvert as marked in field. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over Pipe as Surfacing capped with 5 CY Crushed Rock. Install metal inlet marker.		
4N-3-5.2	0.090	--	--	--	--	--	--	--	--	--	--	--	--	--	5	--	Place 5 CY RipRap as dissipater under outlet of existing culvert. Install metal inlet marker.		
	0.170	18"	--	32'	--	--	--	--	--	--	--	--	--	--	--	--	Replace existing culvert. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over pipe as Surfacing capped with 5 CY Crushed Rock. Re-use existing flume. Install metal inlet marker.		
	0.618	18"	--	36'	--	--	--	--	--	--	--	--	--	--	--	--	Install New Culvert as marked in field. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over Pipe as Surfacing capped with 5 CY Crushed Rock. Install metal inlet marker.		
	0.639	--	--	--	--	--	--	--	--	--	--	--	--	--	5	--	Place 5 CY RipRap as dissipater under outlet of existing culvert. Install metal inlet marker.		
	0.741	18"	--	40'	--	--	--	--	--	--	--	--	--	--	--	--	Replace existing culvert. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over pipe as Surfacing capped with 5 CY Crushed Rock. Install metal inlet marker.		
	Gage Chart			<div><div>1. Designed culvert lengths and locations are approximate.</div><div>*2. all culverts have 2 2/3" x 1/2"</div><div>unless otherwise noted.</div><div>**** Corrugated plastic pipe (CPP), Type S (double wall) shall be used for culvert sizes 36" and smaller. All larger culvets shall be aluminized steel. Culverts 20' in length or smaller shall be one piece (no joints). No Culvert piece shall be shorter than 6 foot. Minimization of banding is required.</div></div> <div><div>*4. Downspout or Standpipe Types</div><div>1) Full</div><div>2) Half</div><div>3) Flume</div><div>*** Downspouts and stand pipes (under 36" diameter) shall be CPP, Type C (single wall).</div></div> <div><div>*5. 1) Conventional or Fabricated</div><div>2) Turner type</div><div>3) Slip joint</div><div>*6. Include special sections, structures, headwalls, footings & other data.</div></div>															
		Dec. Inches																	
	Gage	Steel	Alum.																
	10	.138	.135																
	12	.109	.105																
	14	.079	.075																
	16	.064	.060																

CULVERT LOCATIONS											ROCK			REMARKS *6			
DESIGNED *2							DOWNSPOUT(d) or STANDPIPE(s) *4				AS BUILT						RIP RAP (GRADING)
														(a)		(b)	
Road #	Sta./ M.P	SIZE	GAGE	LENGTH	CULVERT GRADE	INSTALL TYPE *3	SIZE	TYPE	LENGTH	TYPE OF ELBOW *5	SIZE	GAGE	LENGTH	INLET	OUTLET	Stucture inside pipe	
4N-3-5.6	0+00	18"	--	50'	--	--	--	--	--	--	--	--	--	--	--	--	Install New culvert in ditchline. Place 20 CY Crushed Bedding/Backfill. Spread 20 CY Pit-Run Base Rock over Pipe as Surfacing capped with 10 CY Crushed Rock. No culvert marker to be installed.
4N-3-5.8	0.010	18"	--	60'	--	--	--	--	--	--	--	--	--	--	--	--	Replace existing culvert in ditchline. Place 20 CY Crushed Bedding/Backfill. Spread 20 CY Pit-Run Base Rock over Pipe as Surfacing capped with 10 CY Crushed Rock. No culvert marker to be installed.
	0.130	18"	--	30'	--	--	--	--	--	--	--	--	--	--	--	--	Install New culvert as marked in field. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over pipe as Surfacing. Place 5 CY RipRap at culvert outlet as energy dissipater. Install metal inlet marker.
4N-3-7.0	0.090	18"	--	36'	--	--	--	--	--	--	--	--	--	--	10	--	Install New Culvert as marked in field. Place 10 CY Crushed Bedding/Backfill. Spread 10 CY Pit-Run Base Rock over Pipe as Surfacing capped with 5 CY Crushed Rock. Place 10 CY RipRap @ culvert outlet as dissipater. Install metal inlet marker.
Spur G	0+25	18"	--	50'	--	--	--	--	--	--	--	--	--	--	--	--	Install New Culvert as marked in field. Place 20 CY Crushed Bedding/Backfill. Spread 20 CY Pit-Run Base Rock over Pipe as Surfacing capped with 10 CY Crushed Rock. Install metal inlet marker.
	Gage Chart			<div><div>1. Designed culvert lengths and locations are approximate.</div><div>*2. all culverts have 2 2/3" x 1/2"</div><div>unless otherwise noted.</div><div>**** Corrugated plastic pipe (CPP), Type S (double wall) shall be used for culvert sizes 36" and smaller. All larger culverts shall be aluminized steel. Culverts 20' in length or smaller shall be one piece (no joints). No Culvert piece shall be shorter than 6 foot. Minimization of banding is required.</div></div> <div><div>*4. Downspout or Standpipe Types</div><div>1) Full</div><div>2) Half</div><div>3) Flume</div><div>*** Downspouts and stand pipes (under 36" diameter) shall be CPP, Type C (single wall).</div></div> <div><div>*5. 1) Conventional or Fabricated</div><div>2) Turner type</div><div>3) Slip joint</div><div>*6. Include special sections, structures, headwalls, footings & other data.</div></div>													

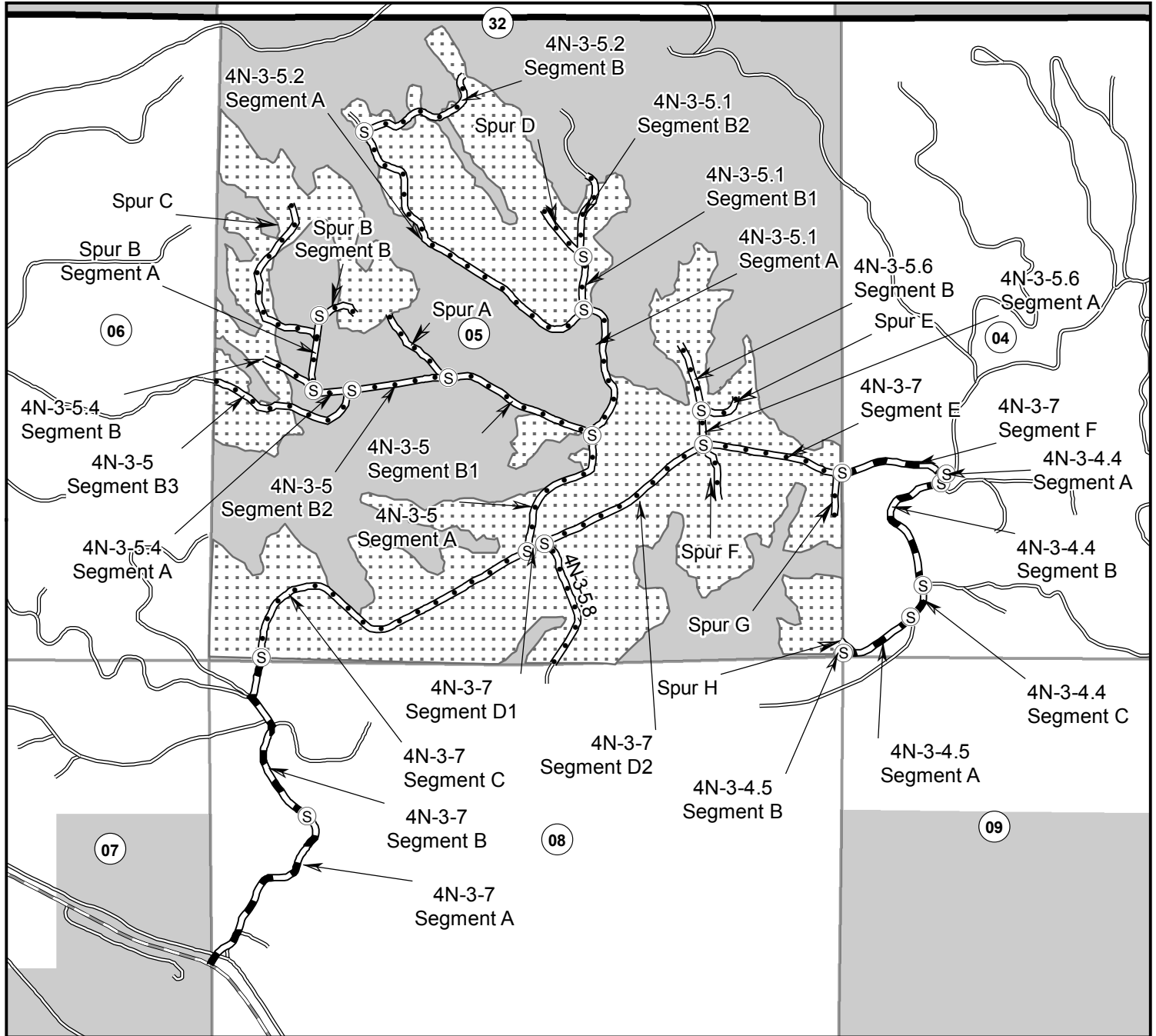
United States Department of the Interior
BUREAU OF LAND MANAGEMENT
NORTHWEST OREGON DISTRICT-OREGON
MAINTENANCE AND ACCESS MAP

Contract No. ORN04-TS-2017.0402
Quarry 5 Timber Sale
Exhibit E
Page 1 of 1



12/15/2016

T. 4N. R. 3W, Section 5 W. M. - NORTHWEST OREGON DISTRICT - OREGON



- Ⓢ Road segment breaks
- Scappoose Vernonia Hwy
- ▬ BLM controlled road- Purchaser maintenance
- ▬ Privately controlled road-Purchaser maintenance
- Existing Roads
- ▨ Quarry 5 Project Area
- Bureau of Land Management

0 650 1,300 2,600 3,900 Feet
1 inch = 1,250 feet

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

Prepared By: csween

EXHIBIT F

Designation by Prescription (DxP) Scale Timber Sale Requirements

I. Cutting Operations

- a. Prior to any cutting operations in the DxP Cutting Areas, the Purchaser shall provide to the Authorized Officer a list of timber fallers and/or mechanical harvester operators who will be conducting the cutting operations.
- b. The Purchaser shall notify the Authorized Officer at least 48 hours in advance of replacement or addition of a timber faller and/or mechanical harvester operator.
- c. Prior to any harvesting operations in a DxP Cutting Area, the Authorized Officer will designate test mark areas. Any timber faller and/or mechanical harvester operator designated to conduct falling operations within a DxP Cutting Area will be required to mark (with paint or flagging) a two (2) acre test mark area to demonstrate their ability to meet the Selection Criteria stated below. The test mark area marking must be approved by the Authorized Officer prior to any falling in the DxP Cutting Area.
- d. No yarding of cut timber will be allowed in the DxP Cutting Areas until the cutting operations have been approved by the Authorized Officer.
- e. In the event the Purchaser elects to pre-mark (paint) the DxP Cutting Areas prior to falling timber, the Authorized Officer shall approve such marking prior to the start of falling operations.

II. Prescription by Unit

- a. **Unit 1.2** - Residual Basal Area Per Acre target shall be **160** square feet +/- 20 square feet
- b. **Unit 2.2** - Residual Basal Area Per Acre target shall be **160** square feet +/- 20 square feet
- c. **Unit 2.3** - Residual Basal Area Per Acre target shall be **180** square feet +/- 20 square feet
- d. **Unit 3.2** - Residual Basal Area Per Acre target shall be **180** square feet +/- 20 square feet
- e. **All Regeneration Harvest Areas:** Retention target of 578 trees (5.6 TPA +/- 1 TPA), consisting of 462 (4.5 TPA +/- 1 TPA) conifers and 116 (1.1 TPA +/- 1 TPA) bigleaf maple, outside of posted Leave Islands.
- f. **All Riparian Reserve Areas:** Reserve trees are marked with red paint above and below stump height.

III. Selection Criteria

- a. **Reserve Tree Selection Criteria for Thinning Units (Units 1.2, 2.2, 2.3, and 3.2):**
 1. Thin from below favoring the largest and healthiest trees to remain. Acceptable residual trees are those that have a live crown ratio of at least thirty (30) percent, and do not lean more than ten (10) degrees from vertical.

2. Trees greater than sixteen (16) inches DBH with wildlife characteristics such as dead, broken, or forked tops, or cavities, and/or complex crown structure may be selected as reserve trees.
3. Trees less than eight (8) inches DBHOB shall not be counted when calculating the residual tree basal area listed above.
4. Species Preference for Retention: Use the following list to choose leave trees when an option is present. The higher a tree species appears in the list indicates it being more favored to leave. For example a western redcedar should be reserved instead of a western hemlock or a grand fir should be reserved instead of a Douglas-fir.

1) **western redcedar**

2) **western hemlock** or any conifer with significant damage such as dead, broken, or forked tops, or cavities, and/or complex crown structure

3) **grand fir** or any conifer with significant damage such as dead, broken, or forked tops, or cavities, and/or complex crown structure

4) **Douglas-fir** or any conifer with significant damage such as dead, broken, or forked tops, or cavities, and/or complex crown structure

5) **bigleaf maple**

6) **red alder**

If a choice presents itself between two acceptable selections, the cutter can make the decision. For example, when choosing between a western redcedar and a Douglas-fir that has significant damage, cutting either tree is acceptable.

5. Conifer snags greater than twenty (20) inches DBH and twenty (20) feet in height would be protected by reserving four (4) live trees around them that are at least sixteen (16) inches DBH or greater. Where necessary for safety or operational reasons, snags may be felled, but must be left on site.

b. *Reserve Tree Selection Criteria for all Regeneration Harvest Areas:*

1. Within the one hundred three (103) acres of regeneration harvest areas outside of posted Leave Islands, approximately five hundred seventy-eight (578) trees need to be reserved. These trees should be fairly well distributed across the regeneration harvest areas, and can be left individually or in clumps of two (2) to four (4) trees.
 - a. Of the five hundred seventy-eight (578) reserved trees, approximately four hundred sixty-two (462) of those trees (4.5 TPA +/- 1 TPA) will be the largest, healthiest conifers in the stand.
 1. Conifers that have wildlife characteristics such as dead, broken, or forked tops, or cavities, leaning orientation, or complex crown structure that are at least sixteen (16) inches DBH are acceptable.

2. Of the four hundred sixty-two (462) reserved conifers, approximately ninety-two (92) trees (1 TPA +/- 1 TPA) should be species other than Douglas-fir, that are at least sixteen (16) inches DBH.
 - b. The other one hundred sixteen (116) reserve trees (1.1 TPA +/- 1 TPA) will be large (at least 20 inches DBH) bigleaf maple, with large well developed crowns. No more than two (2) bigleaf maples may be left on any given acre.
2. Species Preference for Retention: Use the following list to choose leave trees when an option is present. The higher a tree species appears in the list indicates it being more favored to leave. For example a Douglas-fir should be reserved instead of a western redcedar or a western hemlock should be reserved instead of a grand fir.
 - 1) **the largest Douglas-fir**
 - 2) **western redcedar** (16 + inches DBH)
 - 3) **western hemlock** (16 + inches DBH)
 - 4) **grand fir** (16 + inches DBH)
 - 5) **bigleaf maple** (20 + inches DBH)
 - 6) **red alder** (20 + inches DBH)
3. Conifer snags greater than twenty (20) inches DBH and twenty (20) feet in height would be protected by reserving three (3) live trees around the snag that are at least sixteen (16) inches DBH or greater. This applies to all large snags unless otherwise directed by the authorized officer.

IV. Compliance Inspection

- a. Compliance inspection by the government will consist of visual observation of on-going cutting operations and collecting plot data after the trees have been cut. Non-compliance with the Selection Criteria shall constitute a contract violation which may result in a suspension of operations as provided in Section 10 of the contract. Plot records may include:
 1. Diameter and species of both cut trees (stumps) and residual trees to determine initial and residual basal area or trees per acre.
 2. The selection of residual trees and the work quality.
- b. The approval level for the residual conifer basal area or trees per acre target for each unit shall be considered met if the average residual conifer basal area or trees per acre of all plots measured during one inspection is within the basal area or trees per acre retention specifications stated above. If this requirement falls below the approval level, a written warning will immediately be issued to the Purchaser.
- c. If the Purchaser does not comply with the DxP "Selection Criteria" of this Exhibit to the satisfaction of the Authorized Officer after a written warning has been issued, the Authorized Officer may suspend harvest operations until corrective measures, as specified in writing by the Authorized Officer, have been taken by the Purchaser. It will be the responsibility of the

Purchaser to pay any costs incurred during the implementation of the corrective measures required by the Authorized Officer. Such corrective measures may include but are not limited to:

1. Replacement of timber faller(s) and/or mechanical harvester operator(s) by the Purchaser.
2. Approval of timber faller(s) and/or mechanical harvester operator(s) by the Authorized Officer based on the timber faller(s) and/or mechanical harvester operator(s) satisfactory completion of a BLM test plot.
3. The Purchaser will mark all reserve trees in the Density Management DXP Cutting Areas shown on Exhibit A for approval by the Authorized Officer prior to falling.

V. Reserved Timber

The provisions of Section 41 of the contract are repeated below for convenience of reference:

Section 41. Timber and Area Reservation Provisions

- a. All timber in the reserve area(s) shown on Exhibit A, and all trees that are painted orange and posted, which mark the boundaries of the reserve areas.
- b. All trees painted orange within boundaries of posted Leave Islands shown on Exhibit A.
- c. All trees marked with red paint above and below stump height in the Riparian Reserve Areas shown on Exhibit F.
- d. All trees required to meet residual tree requirements set forth in Exhibit F Designation by Prescription, which is attached hereto and made a part hereof.
- e. All trees less than six (6) inches DBH not designated for cutting in Sec. 42.aa.
- f. All existing down logs and snags in the Sale Areas shown on Exhibit A, which do not present a safety hazard as determined by the Authorized Officer. All snags felled shall be retained on site.

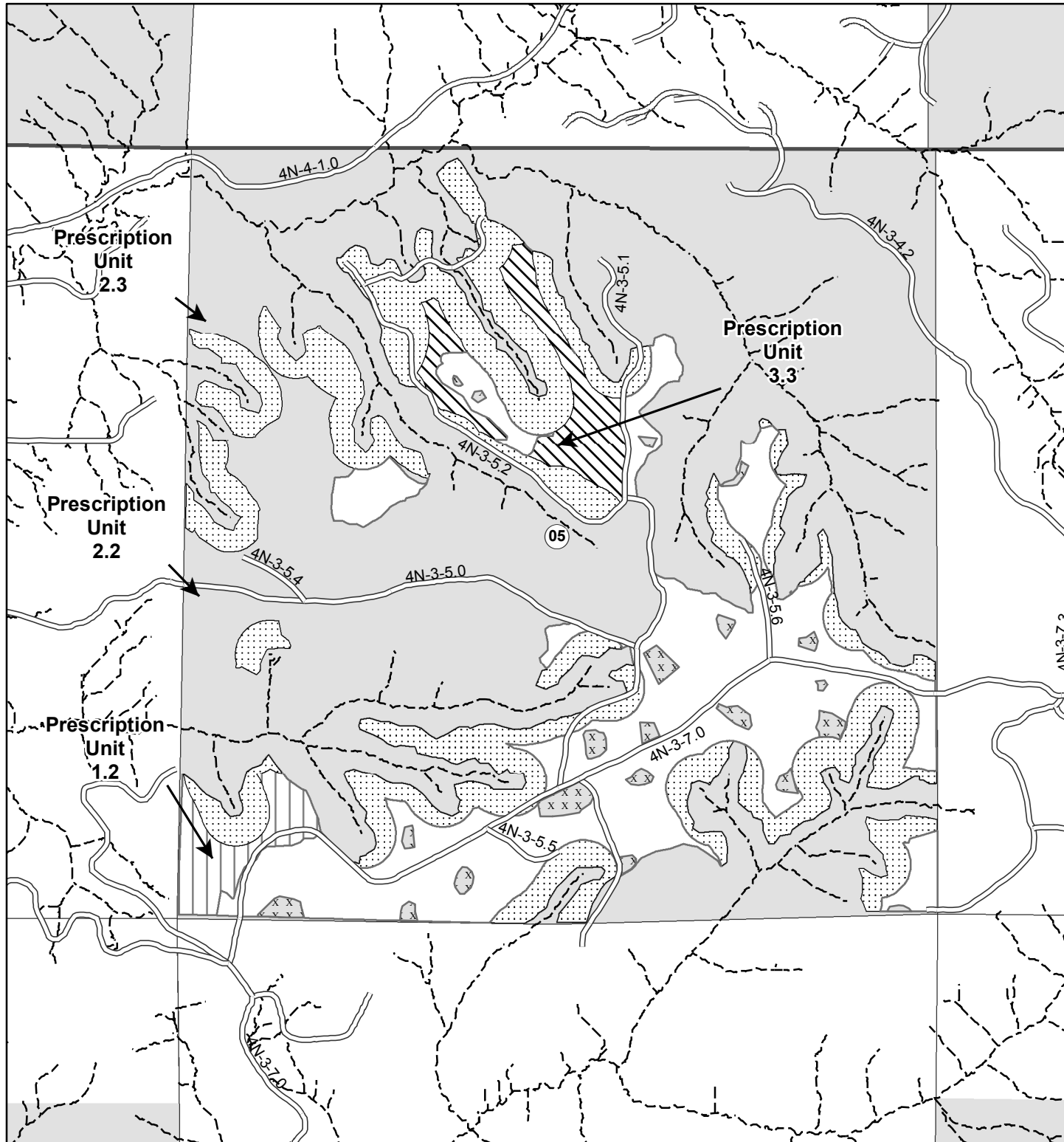
United States Department of the Interior
BUREAU OF LAND MANAGEMENT
NORTHWEST OREGON DISTRICT-OREGON

Quarry 5 Timber Sale
Contract # ORN04-TS-2017.0402
Exhibit F
Page 5 of 5

Designation by Prescription Map

2/6/2017

T. 4N. R. 3W, Section 5 W. M. - NORTHWEST OREGON DISTRICT - OREGON



- | | | |
|---------------|---------------------------|---------|
| Unit 1.2 | Riparian Reserve Area | Roads |
| Unit 3.3 | Regeneration Harvest Area | Streams |
| Leave Islands | Bureau of Land Management | |

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data of individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.

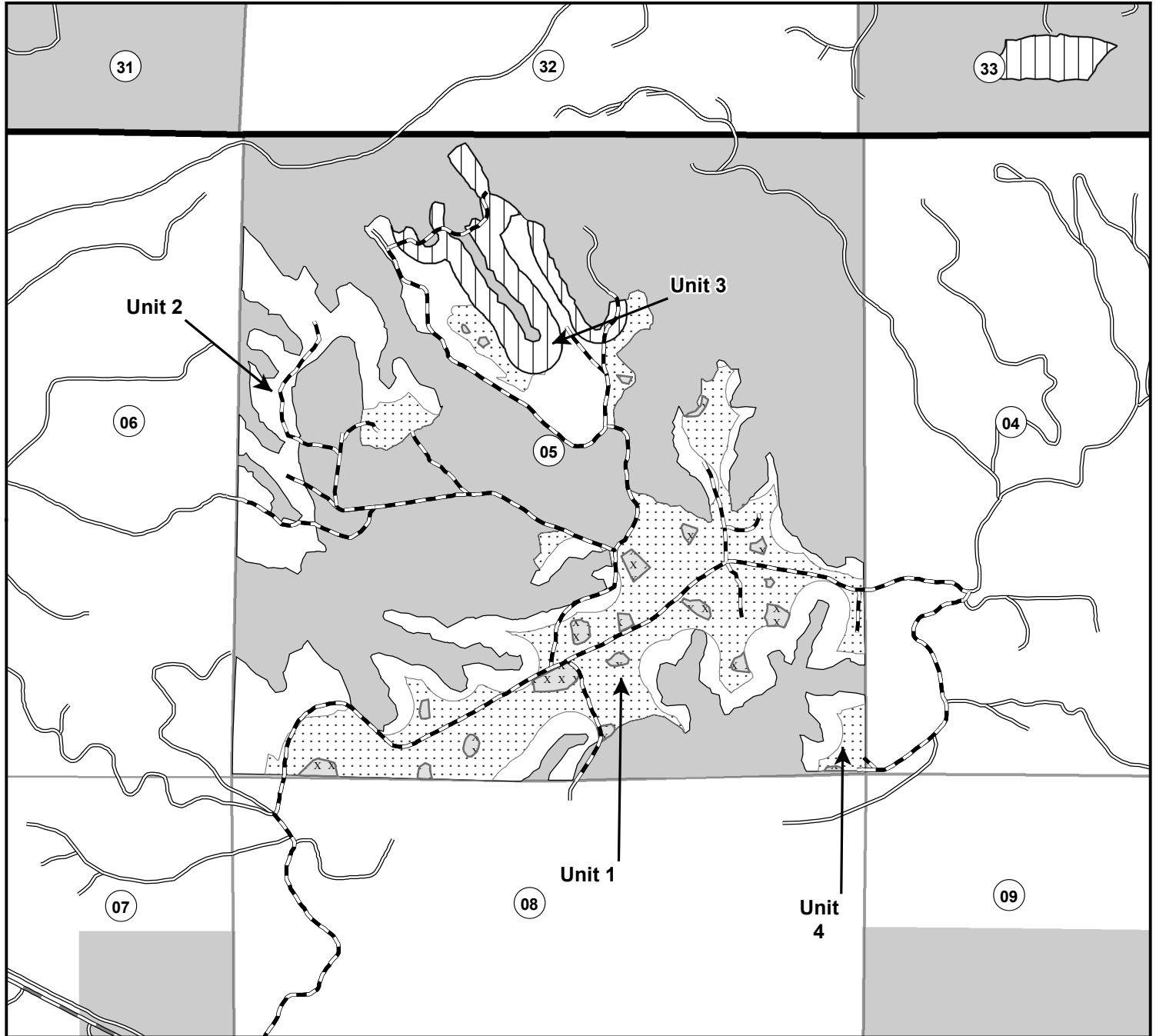
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FIRE AND FUELS MAP









2/6/2017

T. 4N. R. 3W, Section 5 W. M. - NORTHWEST OREGON DISTRICT - OREGON



0 650 1,300 2,600 3,900 Feet

1 inch = 1,250 feet

- | | | | |
|---|-------------------------|---|---------------------------|
|  | Quarry 5 Project Area |  | Quarry 5 project roads |
|  | Hand piling only |  | Scappoose Vernonia Hwy |
|  | Machine and hand piling |  | Existing Roads |
|  | Leave Islands |  | Bureau of Land Management |

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Prepared By: csween

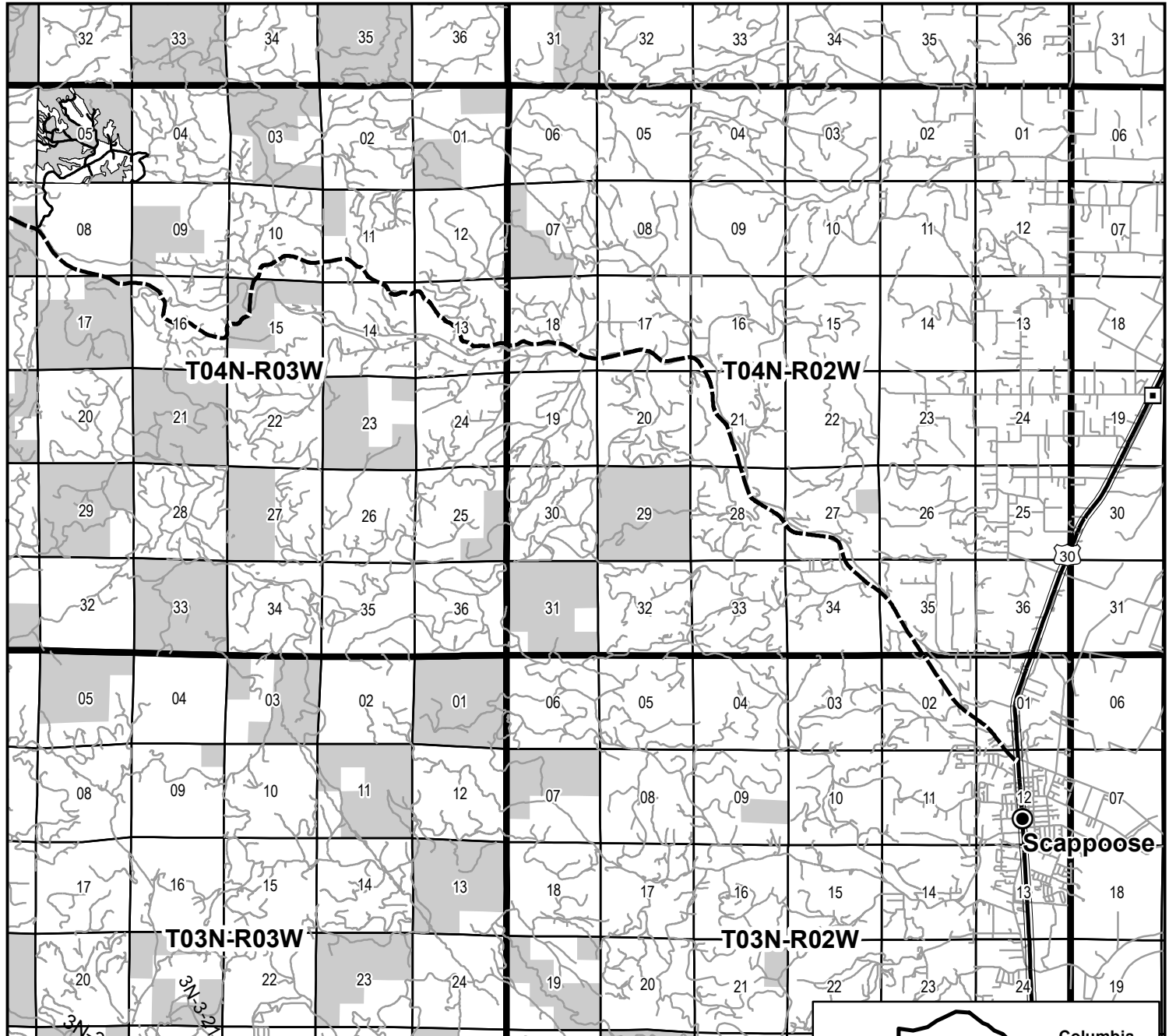


United States Department of the Interior
BUREAU OF LAND MANAGEMENT
NORTHWEST OREGON DISTRICT-OREGON
PROJECT LOCATION MAP

Quarry 5 Project Location Map
Contract No. ORNO4-TS-2017.0402
Page 1 of 1

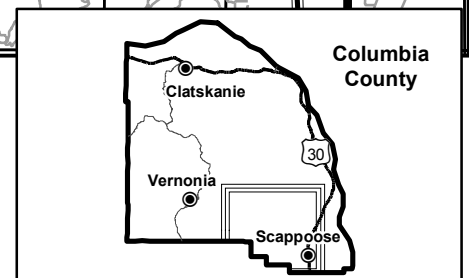
Date: 2/6/2017

T. 4N. R. 3W, Section 5 W. M. - NORTHWEST OREGON DISTRICT - OREGON



0 1 2 4 Miles 1 inch = 8,333 feet

- Quarry 5 Project Area
- Scappoose Vernonia Road
- Project Roads
- Highway
- Other Roads
- BLM Lands



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Prepared By: csween

Legal Description of Contract Area

Land Status	County	Township	Range	Section	Subdivision	Meridian
O&C	Washington	4N	3W	5	W1/2NE1/4,SE1/4NE1/4,W1/2,SE1/4	Willamette

Species Totals

Species	Net	Gross Merch	Gross	# of Merch Logs	# of Cull Logs	# of Trees
Douglas Fir	6,694.0	6,941.0	6,941.0	83,829	0	17,331
Western Redcedar	271.0	288.0	288.0	3,138	0	1,166
Grandfir	270.0	279.0	279.0	1,953	0	513
Red Alder	195.0	587.0	587.0	2,839	13,173	5,773
Western Hemlock	159.0	162.0	162.0	3,473	0	1,108
Totals	7,589.0	8,257.0	8,257.0	95,232	13,173	25,891

Cutting Area Acres

Regeneration Harvest Acres	Partial Cut Acres	Right of Way Acres	Total Acres	Net Volume per Acre
103.0	140.0	3.0	246.0	30.8

Logging Costs

Stump to Truck	\$677,155.03
Transportation	\$341,460.00
Road Construction	\$161,889.00
Maintenance/Rockwear	\$40,725.00
Road Use	\$985.00
Other Allowances	\$54,519.44
Total:	\$1,276,733.47
Total Logging Cost per MBF:	\$168.23

Utilization Centers

Location	Distance	% of Net Volume
Longview	40.0 miles	100 %

Profit & Risk

Basic Profit & Risk	8 %
Additional Risk	3 %
Total Profit & Risk	11 %

Tract Features

Quadratic Mean DBH	16.3 in
Average GM Log	87 bf
Average Volume per Acre	30.8 mbf
Recovery	91 %
<u>Net MBF volume:</u>	
Green	7,589.0 mbf
Salvage	0 mbf
Export	0 mbf
<u>Ground Base Logging:</u>	
Percent of Sale Volume	97 %
Average Yarding Slope	25 %
Average Yarding Distance	400 ft
<u>Cable Logging:</u>	
Percent of Sale Volume	3 %
Average Yarding Slope	50 %
Average Yarding Distance	325 ft
<u>Aerial Logging:</u>	
Percent of Sale Volume	0 %
Average Yarding Slope	0 %
Average Yarding Distance	0 ft

Cruise

Cruise Completed	November 2016
Cruised By	SALMON
Cruise Method	
PCMTRE & 100%	

Stumpage Computation

Species	# of Trees	Net Volume	Pond Value	(-) Profit & Risk	(-) Logging Costs	(+) Marginal Log Value	Appraised Price/MBF	Appraised Value
Douglas Fir	17,331	6,694.0	\$540.45	\$59.45	\$168.23	\$0.00	\$312.80	\$2,093,883.20
Western Redcedar	1,166	271.0	\$734.30	\$80.77	\$168.23	\$0.00	\$485.30	\$131,516.30
Grandfir	513	270.0	\$427.13	\$46.98	\$168.23	\$0.00	\$211.90	\$57,213.00
Red Alder	5,773	195.0	\$382.16	\$42.04	\$168.23	\$0.00	\$171.90	\$33,520.50
Western Hemlock	1,108	159.0	\$399.64	\$43.96	\$168.23	\$0.00	\$187.50	\$29,812.50
Totals	25,891	7,589.0						\$2,345,945.50

Other Wood Products

Product	Unit of Measure	# of Units	\$/Unit	Appraised Value
Clean Chips	Green Tons	1740	\$5.00	\$8,700.00
Totals				\$8,700.00

Total Appraised Value: \$2,354,645.50