

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

Flight Path Timber Sale
ORN02-TS-2019.0202
Date: March 27, 2019

PROSPECTUS

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, April 24, 2019.

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 Itemizer Observer on or about March 27, 2019. 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 Northwest Oregon District Office.

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 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 District Office. The prospectus for this/these sale(s) is also available online at: <https://www.blm.gov/or/resources/forests/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

TIMBER SALE NOTICE

NORTHWEST OREGON DISTRICT
MARYS PEAK FIELD OFFICE
ALSEA-RICKREALL MASTER UNIT

SALE DATE: April 24, 2019

CONTRACT NO. ORN02-TS-2019.0202, FLIGHT PATH

POLK COUNTY, OREGON: O&C: ORAL AUCTION: BID DEPOSIT REQUIRED: \$262,400.00

All timber designated for cutting on:

NW1/4SW1/4, Section 5; Lots 5, 6, 7, SE1/4 NW1/4, E1/2 SW1/4, NE1/4 SE1/4, S1/2SE1/4 Section 6; Lots 1, 2, NW1/4 NE1/4, NE1/4 NW1/4, Section 7, T. 7 S., R. 6 W., W.M.

S1/2 NE 1/4, S1/2 NW1/4, SW1/4, SE1/4, Section 1, SE1/4 NE1/4, Section 2; T. 7 S., R. 7 W., W.M.

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
60,903	12,044	Douglas-fir	15,055	\$165.50	\$2,491,602.50
6,078	940	grand fir	1,176	\$85.10	\$100,077.60
3,722	102	big leaf maple	133	\$28.80	\$3,830.40
547	53	red alder	67	\$189.60	\$12,703.20
149	30	western hemlock	37	\$93.90	\$3,474.30
61	19	western red cedar	24	\$494.50	\$11,868.00
71,460	13,188	Totals	16,492		\$2,623,556.00

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 were based on variable plot cruise in the Regeneration Harvest areas and 100% cruise in the Right-of-way and special mark area, for estimated board foot volumes of trees in 16-foot logs. Approximately 0% of the total sale volume is salvage material. With respect to merchantable trees of all species; the average tree is 14.6 inches DBHOB; the average log contains 57 bd. ft.; the total gross volume is approximately 17,530 MBF; and 94% recovery is expected.

CUTTING AREA: Seven units totaling approximately 331 acres shall be Regeneration Harvest. Approximately 10 acres of Right-of-Way and 1 acre of Special Mark area shall be cut. Acres shown on Exhibit A have been computed using a Trimble R1 Global Positioning System receiver. Acreage was calculated based on Global Positioning System traverse procedures including differential correction.

DURATION OF CONTRACT: Will be 36 months for cutting and removal of timber.

LOCATION: The Flight Path Timber Sale is located approximately five (5) air miles South of Willamina, Oregon. From the Oregon Highway 22 West-bound, turn left onto Gooseneck road. Drive approximately three (3) miles and turn left onto BLM road 6-6-31. Continue on BLM road 6-6-31 for approximately three (3) miles to the sale area. See general vicinity map and Exhibit E for details.

ACCESS AND ROAD MAINTENANCE: Access is provided on Bureau of Land Management controlled roads. In the use of Bureau of Land Management controlled roads – Bureau of Land Management Maintenance, the Purchaser shall pay the Government a road maintenance obligation of \$58,441.48.

In the use of Bureau of Land Management controlled roads – Purchaser Maintenance the Purchaser will be required to perform maintenance on approximately 7.43 miles of road. The Purchaser shall pay the Government a road maintenance obligation for rockwear of \$13,726.80 for timber and mineral haul associated with the contract.

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.

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. Construction:

P1, Station 0+00 – Station 5+70, 16-foot subgrade

Grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

P2, Station 0+00 – Station 10+45, 16-foot subgrade

Grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

P3, Station 0+00 – Station 26+30, 16-foot subgrade

Culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 12 inches, useable width 15 feet

P4, Station 0+00 – Station 2+66, 16-foot subgrade with 1-foot ditch

Culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

P5, Station 0+00 – Station 3+00, 16-foot subgrade with 1-foot ditch

Culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

P6, Station 0+00 – Station 8+49, 16-foot subgrade with 1-foot ditch

Culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 12 inches, useable width 15 feet

P7, Station 0+00 – Station 2+95, 16-foot subgrade with 1-foot ditch

Culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

P8, Station 0+00 – Station 1+50, 16-foot subgrade with 1-foot ditch

Culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

P11, Station 0+00 – Station 4+40, 16-foot subgrade with 1-foot ditch
Grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

P12, Station 0+00 – Station 1+95, 16-foot subgrade with 1-foot ditch
Grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

P13, Station 0+00 – Station 24+44, 16-foot subgrade with 1-foot ditch
Culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 12 inches, useable width 15 feet

P14, Station 0+00 – Station 4+20, 16-foot subgrade with 1-foot ditch
Grading and compacting; erosion control; Surfacing – Aggregate base course, depth 10 inches, useable width 15 feet

2. Renovation/Improvement:

R6, MP 0.00 – 0.05, 16-foot subgrade with 1-foot ditch
Roadside brushing; culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

R8, MP 0.00 – 0.09, 16-foot subgrade with 1-foot ditch
Roadside brushing; culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

R11, MP 0.00 – 0.05, 16-foot subgrade with 1-foot ditch
Roadside brushing; culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

R12, MP 0.00 – 0.18, 16-foot subgrade with 1-foot ditch
Roadside brushing; culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

R13, MP 0.00 – 0.04, 16-foot subgrade with 1-foot ditch
Roadside brushing; culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

6-6-31 Road, MP 0.00 – 0.35, 16-foot subgrade with 1-foot ditch
Roadside brushing, Sweeping; Pavement

6-6-31 Road, MP 0.35 – 2.62, 16-foot subgrade with 1-foot ditch
Roadside brushing; culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course

6-6-32.1 Road, Segment A, MP 2.30 – 2.37, 16-foot subgrade with 1-foot ditch
Roadside brushing; grading and compacting; erosion control; Surfacing – Aggregate base course

6-6-32.1 Road, Segment B, Station 0.00 – 43+95, 16-foot subgrade with 1-foot ditch
Roadside brushing; culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 12 inches, useable width 15 feet

6-6-32.2 Road, MP 0.64 – 0.69, 16-foot subgrade with 1-foot ditch

Roadside brushing; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

7-6-6 Road, Segment A, MP 0.00 – 0.51, 16-foot subgrade with 1-foot ditch

Roadside brushing; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

7-6-6 Road, Segment B, MP 0.85 – 1.07, 16-foot subgrade with 1-foot ditch

Roadside brushing; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 8 inches, useable width 15 feet

7-6-6.1 Road, MP 0.00– 0.31, 16-foot subgrade with 1-foot ditch

Roadside brushing; culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 12 inches, useable width 15 feet

7-6-7.2 Road, MP 0.00 – 0.29, 16-foot subgrade with 1-foot ditch

Roadside brushing; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 12 inches, useable width 15 feet

7-7-1 Road, MP 0.00 – 1.71, 16-foot subgrade with 1-foot ditch

Roadside brushing; culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 6 inches, useable width 15 feet

7-7-2 Road, MP 0.00 – 2.24, 16-foot subgrade with 1-foot ditch

Roadside brushing; culvert installation; grading and compacting; erosion control; Surfacing – Aggregate base course, depth 6 inches, useable width 15 feet

40. Estimated Quantities:

Clearing and grubbing

18 acres

Excavation

27,582 cubic yards of common

7,216 cubic yards of rock

1,518 cubic yards of end haul

Culvert and Flume:

2,937 feet of 24 inch CPP

262 feet of 30 inch CPP

110 feet of 36 inch CPP

40 feet of 42 inch CMP

60 feet of 72 inch CMP

30 feet of 18 inch CPP

85 Culvert Markers

Aggregate Material:

Quantity:

Description:

330 cubic yards

1 1/2 inch-minus crushed rock

25,819 cubic yards

3 inch-minus crushed rock Ex. C

70 cubic yards

1 1/2 inch-minus crushed rock (select)

7,576 cubic yards

6 inch base rock

40 cubic yards

Riprap

Miscellaneous

Brushing 14.0 acres

Soil stabilization 22.2 acres

Blading 7.7 miles

Rock Source: Commercial source, or source that meets specs and is approved by the Authorized Officer.

Special Attention Items:

Special Mark Areas (sec.42.e.)

Tree topping/girdling (sec.42.f.)

Road construction completion date (sec.42.r.)

Cutting and decking of private timber (sec.42.s.)

SEASONAL RESTRICTION MATRIX

[illegible]

Sec. 41.

RESERVED

a. All timber on the Reserve Areas shown on Exhibit A and all painted orange and posted trees which are on or mark the boundaries of the Reserve Area shown on Exhibit A, except approximately one thousand one hundred eighty-five (1185) trees marked heretofore by the Government with blue, yellow or pink paint above and below stump height in the Special Mark Areas shown on Exhibit A.

b. All trees marked with orange paint above and below stump height located on the Regeneration Harvest Area shown on Exhibit A.

c. All snags and downed logs greater than twenty (20) inches diameter on the small end and greater than twenty (20) feet in length in Regeneration Harvest Area, as shown on Exhibit A, which do not present a safety hazard as determined by the Authorized Officer. All snags and downed logs cut or moved for safety reasons shall be retained on site.

d. All trees on the Regeneration Harvest Area less than seven (7) inches DBH.

Sec. 42. Special Provisions

LOGGING

a. Before beginning the 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 they plan to begin 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 written approval of a written operations and logging plan commensurate with the terms and conditions of the contract, which shall include measures needed to ensure protection of the environment and watershed. A pre-work conference between the Purchaser's authorized representative and the Authorized Officer must be held at a location designated by the Authorized Officer before the logging plan will be approved. All logging shall be done in accordance with the plan.

c. Excessive damage to reserve timber, as determined by the Authorized Officer, will result in suspension of the yarding operations until mitigation measures are in place to prevent further damage as approved by the Authorized Officer.

d. No trees may be felled, yarded, decked or loaded in or through the Reserve Area, as shown on Exhibit A, or adjacent private land. Trees will be directionally felled to lead for skidding and skyline yarding to minimize ground disturbance and entry into the Riparian Reserve. Tops, limbs, and other logging debris entering the Reserve Area from felling operations shall be pulled back into the Regeneration Harvest Area shown on Exhibit A, unless expressly authorized by other provisions of this contract. Where a cut tree does fall outside the unit boundary, into the Riparian Reserve, the tree will be bucked at the unit boundary line, the portion of the tree in the Riparian Reserve will remain in place.

e. In the Special Mark Areas – Trees painted blue, yellow or pink above and below stump height shall be treated as follows:

1. Trees painted blue shall be felled and removed.
2. Trees painted yellow shall be felled and scattered on site as directed by the Authorized Officer. Trees felled within the Riparian Reserve that can not be scattered on site, shall be used to construct windrows on the fill slopes near stream crossings. Windrows constructed within the Riparian Reserve shall have the following general specifications, or be approved by the authorized officer.
 - a. Anchor logs 12-30 feet in length should be placed perpendicular to the hillside and serve as a windrow anchor at the toe of the fill slope.
 - b. Logging slash, less than 6 inches in diameter, shall be piled upslope of the anchor logs and tamped down. Logging slash shall not be piled higher than 3 feet in height, after tamping.
 - c. Constructed windrows on the fill slopes shall be no more than 10 feet in width, from edge of road to anchor logs.
 - d. Construct windrows no closer than twenty-five (25) feet from the stream crossing.
3. Trees painted pink shall be felled and bucked to a length not less than forty (40) feet and not more than sixty (60) feet with a minimum small end diameter of six (6) inches. Logs will be decked in areas designated by the Authorized Officer.

f. Approximately three-hundred and forty-seven (347) trees designated for snag creation, all trees painted with an orange “S”, shall be either Base-Girdled, High-Girdled, or Topped using the following general specifications. Approximately one-third of the trees to be treated shall be High-Girdled. Approximately one-third of the trees to be treated shall be Base-Girdled. Approximately one-third of the trees to be treated shall be Topped.

1. High-Girdled – Girdling height of live trees will vary by stand age and should range from 50-120 feet, or the top-third of the tree. Trees High-Girdled shall retain 15-25 live limbs that are at least 5 feet in length below the girdled site. All cuts will completely sever the cambium, but not exceed ½ inch depth into the wood of the tree. High-Girdled trees shall be marked with high visibility glo-type flagging around the bole at DBH and two pieces of flagging tied to a branch, or bole, directly below the girdling site.
2. Base-Girdled – Girdle site height shall be at or below DBH. All cuts will completely sever the cambium, but not exceed ½ inch depth into the wood of the tree. All cuts will be free of sawdust and debris.
3. Topped - Topping height of live trees will vary by stand age and should range from 50-120 feet, or the top-third of the tree. Trees Topped shall retain 15-25

live limbs that are at least 5 feet in length below the Topped site. Topped trees shall be marked with high visibility glo-type flagging around the bole at DBH.

g. No ground-based yarding shall be conducted on the Regeneration Harvest – Ground-based Yarding area, as shown on Exhibit A, between October 15 of one calendar year and May 15 of the following calendar year, both days inclusive, or during any period of wet soil conditions as determined by the Authorized Officer.

h. In all Harvest Areas – All yarding shall be done by equipment capable of transporting the leading end of logs clear of the ground and operated entirely on designated skid roads and/or skyline corridors. Before felling and yarding any timber, except road right-of-way timber, the Purchaser shall locate designated skid trails and/or skyline corridors as follows:

1. Mark the location of designated skid roads and/or skyline corridors on the ground in a method approved by the Authorized Officer.

2. Space designated skid roads and/or skyline corridors at a minimum of one-hundred and fifty (150) feet apart unless otherwise agreed to in writing by the Authorized Officer.

3. Limit width of skid roads to a maximum of twelve (12) feet.

4. Obtain approval from the Authorized Officer of the location of all designated skid roads and/or skyline corridors.

5. Ground-based operations are limited to slopes of thirty-five (35) percent or less. Ground-based operations may be approved on slopes up to fifty (50) percent when using specialized equipment, operating on previously constructed skid trails, or accessing isolated areas over steep pitches. Existing skid roads should be used to the greatest extent possible and be located perpendicular to the slope to minimize road cutting.

6. In areas where skyline yarding is necessary across stream channels, full suspension yarding is required within one hundred and twenty (120) feet each side of the stream channel.

i. At all landings in the sale area, all non-merchantable logs more than eight (8) inches in diameter at the large end and exceeding eight (8) feet in length shall be decked at a location designated by the Authorized Officer.

SAFETY

j. 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 contract purchase price specified in Sec. 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.

ROAD CONSTRUCTION, RENOVATION, MAINTENANCE AND USE

k. The Purchaser shall renovate approximately 7.72 miles of road in strict accordance with the plans and specifications shown on Exhibit C, which is attached hereto and a made a part hereof.

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

m. No road renovation, improvement or construction shall be conducted on the Contract Area shown on Exhibit A between November 1 of one calendar year and April 30 of the following calendar year, both days inclusive, or during other periods of wet soil conditions as determined by the Authorized Officer.

n. No instream work shall be conducted on the Contract Area shown on Exhibit A between September 30 of one calendar year and July 15 of the following calendar year, both days inclusive, or during other periods of wet conditions as determined by the Authorized Officer.

o. The Purchaser is authorized to use the roads shown on Exhibit E for the removal of Government timber sold under the terms of this contract and the hauling of rock as required in Exhibit C, provided that the Purchaser pay the required maintenance obligation for road maintenance and rockwear described in Sec. 42.p. 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 Authorized Officer.

p. The Purchaser shall pay the Government a road maintenance obligation for rockwear of thirteen thousand seven hundred twenty-six and 80/100 dollars (\$13,726.80) for the transportation of timber included in the contract area for the use of Purchaser maintained roads. The Purchaser shall pay the Government a road maintenance obligation of fifty eight thousand four hundred forty-one and 48/100 dollars (\$58,441.48) for the transportation of timber included

in the contract area for the use of Purchaser maintained roads. If the total road maintenance obligation for rockwear does not exceed five hundred and 00/100 dollars (\$500.00), the Purchaser shall pay such amount in full prior to use of such roads. If the total road maintenance obligation for rockwear exceeds five hundred and 00/100 dollars (\$500.00), the Authorized Officer shall establish an installment schedule of payments of the maintenance obligation for rockwear.

q. The Purchaser shall perform any required road repair and maintenance work on the roads identified as Purchaser maintenance, under the terms of Exhibit D, Road Maintenance Specifications, of this contract, which is attached hereto and made a part hereof.

r. The Purchaser shall construct P3, as well as renovate and improve BLM Road No. 6-6-32.1, by October 31st, 2020 or by the end of the same respective operating season, unless approved by the Authorized Officer.

s. During the construction of P13, the Purchaser shall cut and deck approximately eighty-seven (87) trees. Private trees cut during the construction of P13 will be left whole tree and decked on private land.

t. The Purchaser agrees that if they elect to use any other private road, which is the subject of a right-a-way agreement with the Government for the removal of Government timber sold under the terms of this contract, Purchaser shall request and agree to the modification of this contract to provide for such use and for allowances for amortization of the Government's shares of the capital investment of any such road.

u. With the prior written approval of the Authorized Officer, the Purchaser may arrange for cooperative maintenance with other users of roads included in Exhibit E; provided, that such cooperative arrangement shall not relieve the Purchaser of his liability for the maintenance and repair of such roads resulting from wear or damage, in accordance with this contract. The Purchaser shall furnish the Authorized Officer a copy of any cooperative maintenance agreements entered into with other users of these roads.

v. The Purchaser shall be required to secure written approval to use vehicles or haul forest products and equipment over Government owned or controlled roads when such vehicles or equipment exceeds the maximum allowable weights or dimensions established by the State for vehicles operating without a permit or if vehicles meet allowable non-permitted State vehicle weights, but the haul route crosses a structure or segment of road that is posted for reduced weights. The Purchaser agrees to abide by any special requirements included in said written approval. Details of such equipment shall be furnished to the Authorized Officer for evaluation of load characteristics at least fifteen (15) days prior to proposed move in.

Details shall include:

- A. Axle weights when fully loaded.
- B. Axle spacing.
- C. Transverse wheel spacing.
- D. Tire size.
- E. Outside width of vehicle.
- F. Operating speed.
- G. Frequency of use.

H. Special features (e.g., running tracks, overhang loads, etc.).

The Purchaser shall be responsible for repair of any damage to roads or structures caused by the use of overweight or over-dimension vehicles or equipment: (1) without written approval; (2) in violation of the conditions of a written approval; or, (3) in a negligent manner. The amount of actual damage shall be determined by the Authorized Officer following a technical inspection and evaluation.

ENVIRONMENTAL PROTECTION

w. In addition to the requirements set forth in Sec. 26 of this contract, the Purchaser shall complete grass seeding on exposed soil on all skyline roads, ground-based skid roads, landings, and any other exposed soil caused by contract obligations as directed by the Authorized Officer. Grass seed and suitable equipment to apply seed shall be furnished by the Purchaser.

Seed to be supplied shall meet the following requirements:

<u>SPECIES</u>	<u>RATE</u>
Red Fescue (<i>Festuca rubra</i>)	100%
Oregon Certified Seed (Blue Tag)	
Purity	97% minimum
Germination	85% minimum
Noxious Weed Content	None (Tested: None Found)

The Purchaser shall apply grass seed uniformly on the designated areas at a rate equal to ten (10) pounds per acre. Evidence of seed certification shall be furnished to the Authorized Officer prior to application. Grass seed which has become wet, moldy or otherwise damaged shall not be provided.

x. In addition to the requirements set forth in Sec. 26 of this contract, in order to reduce or prevent the spread of noxious weeds to BLM lands, all road construction, piling, and ground-based logging equipment including loaders shall be cleaned of all plant parts and soil prior to entry onto BLM lands. Equipment shall be inspected by the Authorized Officer at a site approved by the Authorized Officer to verify that the equipment had been reasonably cleaned prior to entry onto BLM lands.

y. Immediately following ground-based yarding activities for any operating season, the Purchaser shall construct water bars, as shown on Exhibit C, on ground-based skid roads and block them to vehicular traffic as directed by the Authorized Officer. The location of water bars shall be approved by the Authorized Officer prior to construction.

z. The Purchaser shall immediately discontinue specified construction or harvesting operations upon written notice from the Authorized 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 of the Northwest Oregon District Record of Decision (ROD) and Resource Management Plan (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 Sec. 3.a. 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 Sec. 3.a. of the contract within fifteen (15) days after the bill for collection is issued, subject to Sec. 3.i. 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, marbled murrelet occupied site protection in accordance with the ROD and RMP, 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 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.

FIRE PREVENTION

aa. 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 fire season or periods of fire danger, prepare a fire prevention and control plan to the satisfaction of the Authorized Officer. Purchaser shall take such measures for prevention and suppression of fire on the contract area and other adjacent Government lands used or traversed by 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 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

bb. In addition to the requirements of Sec. 15 of this contract, and notwithstanding the Purchaser's satisfactory compliance with 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 hazard reduction measure(s) required by this contract: Perform logging residue reduction and site preparation work on approximately seventy six (76) acres of harvest area located within harvest units. The required work shall consist of any treatment or combination of treatments, as determined by the Authorized Officer and specified in writing by the Contracting Officer. The number of acres of each treatment shall be determined by the Authorized Officer. 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. The number of acres of each treatment shall be determined 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 purchaser's operations under the terms of this contract.

1. Excavator pile and burn slash within Regeneration Harvest – Ground-based Yarding area from skid trails and within twenty-five (25) feet of 6-6-31, 6-6-32.1, 6-6-32.2, 7-6-6, 7-6-6.1, 7-6-6.2, 7-6-7.2, 7-7-1, and 7-7-2 roads in harvest areas. Slash shall be piled by an excavator equipped with a hydraulic thumb. Finished piles shall be tight and free of dirt.

a. Unmerchantable logs greater than six (6) inches on the small end shall be left in place, or positioned so that they will not be burned.

b. Machine piles shall be located as far as possible from green trees, snags, or unit boundaries to minimize damage.

c. Machine piles shall be kept free of dirt and other non-wood debris and constructed as compactly as possible. There should be an adequate supply of finer fuels located within and under the covered area of the pile to ensure ignition of the larger fuels.

d. A minimum 10-foot by 10-foot cover of four (4) mil. polyethylene shall cap each machine pile to maintain a dry ignition point. The cover shall be firmly fixed to each pile to hold it in place. Plastic shall be held in place with woody debris or tied with rope or twine. The plastic must be secured so that it is held in place during strong wind conditions. The Purchaser is required to furnish the covering materials. Covering shall be completed as directed by the Authorized Officer.

e. Cutting Areas shall be piled during the same season that they are logged.

2. Pile and burn landing slash within thirty (30) feet of the edge of each landing, all tops, broken pieces, limbs and debris more than one (1) inch in diameter at the large end and longer than three (3) 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 located adjacent to roads at least twenty (20) feet 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 securely covering each landing pile by securely covering each pile with four (4) mil. thick polyethylene plastic film at least twenty (20) feet wide. Landing piles shall be seventy-five (75) percent covered with the covering extending three-quarters of the way down all sides. The plastic shall be oriented southwest to northeast. Pieces of burnable material shall be placed on top of the plastic to secure it from moving and to prevent it from blowing off during strong wind episodes. 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. No landing debris shall be dozed off the landing and covered with dirt. Debris which has been buried and is determined to be the source of holdover fire shall be excavated by the Purchaser, at the Purchaser's expense, with a tractor and/or hydraulic excavator as directed by 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.

cc. Notwithstanding the provisions of Sec. 15 of this contract, the Government shall assume all obligations for disposal or reduction of fire hazards created by Purchaser's operations on Government lands, except for burning and mop-up assistance as required herein and measures required in Sec. 42.v. The Purchaser shall, under supervision of the Authorized Officer or designated representative, assist in preparing units for burning, burning, mop-up, and patrol by furnishing, at the Purchaser's own expense, the services of personnel and equipment on each unit as shown below:

1. For Igniting, Burning, Mop-up of Piles on Units:

a. One work leader(s) Firefighter Type 1 (FFT1) qualified according to National Wildfire Coordinating Group (NWCG) Wildland Fire Qualifications System guide, PMS 310-1) to supervise crew and equipment operations, and to serve as Purchaser's representative.

b. Ten-person crew Firefighter Type 2 (FFT2) qualified according to National Wildfire Coordination Group (NWCG) Wildland Fire Qualifications System guide, PMS 310-1, with sufficient fuel for burning, eleven (11) drip torches, one (1) power saw, and one (1) backpack pump, one (1) tool for each crew member.

c. The crew shall arrive on the project area with radios capable of inter-crew communications and communication with a BLM representative at a ratio of one (1) radio per every five (5) crew members.

d. All ignition and mop-up personnel will be directly supervised by a BLM representative.

Aircraft and pilots used for Logging Residue Reduction or the suppression of escaped fires from Logging Residue Reduction operations, shall be acquired from a list of aircraft and pilots approved (i.e., carded for these specific activities) by the Office of Aircraft Services or the U.S. Forest Service. This list is available from BLM District Offices upon request.

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.

Except as provided hereafter for fire escapement, the Purchaser shall continue the required assistance in mop up on each cutting unit shown on Exhibit A for seventy-two (72) hours, as directed by the Authorized Officer within a five (5) day period commencing at 8:00 a.m. the day following the completion of ignition in that unit, or until released from such service by the Government, whichever occurs first.

In event of a fire escapement, the Purchaser's personnel and equipment shall, under supervision of the Authorized Officer, take action to control and mop up the escaped fire until released from such service by the Government. If it becomes necessary to use furnished personnel and equipment for the suppression of a fire which escapes from the prescribed fire area for a period beyond the remainder of the day in which the fire escapes, 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 situations where an escaped fire is controlled and contained by an adequate fire break (i.e., trail, road, stream, rock formation, etc.), the Government may permit the Purchaser to remove personnel for that day; provided that all mop up work on the escaped fire is included with mop up work on the prescribed fire area. In such an event, the Purchaser must sign a statement of agreement to complete mop up work on all escaped fire areas concurrently with mop up work on the prescribed fire area.

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 personnel and equipment to accomplish the planned burn, the Purchaser also shall be responsible for such additional costs.

LOG EXPORT RESTRICTION

dd. All timber sold to the Purchaser under the terms of the contract, except exempted species, 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. 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 roundwood not processed to standards or specifications suitable for end-product uses; or (4) western red cedar lumber which does not meet lumber of American 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; or (6) shakes and shingles.

Substitution will be determined under the definition found in 43 CFR 5400.0-5.

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 the 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 Form 5460-16 (Certificate as to Non-substitution and the 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. The purchaser shall also provide a current, interim Log 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 Sec. 4 of this contract as amended. 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 Contracting Officer, the Purchaser shall brand clearly and legibly one end of all logs with a scaling diameter (small end inside bark) of over ten (10) inches, prior to the removal of timber from the contract area. All loads of eleven (11) logs or more will have a minimum of ten (10) logs clearly and legibly branded on one end regardless of the diameter of the logs. All logs will be branded on loads of ten (10) logs or less. One end of all branded logs to be processed domestically will be marked with a three (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.

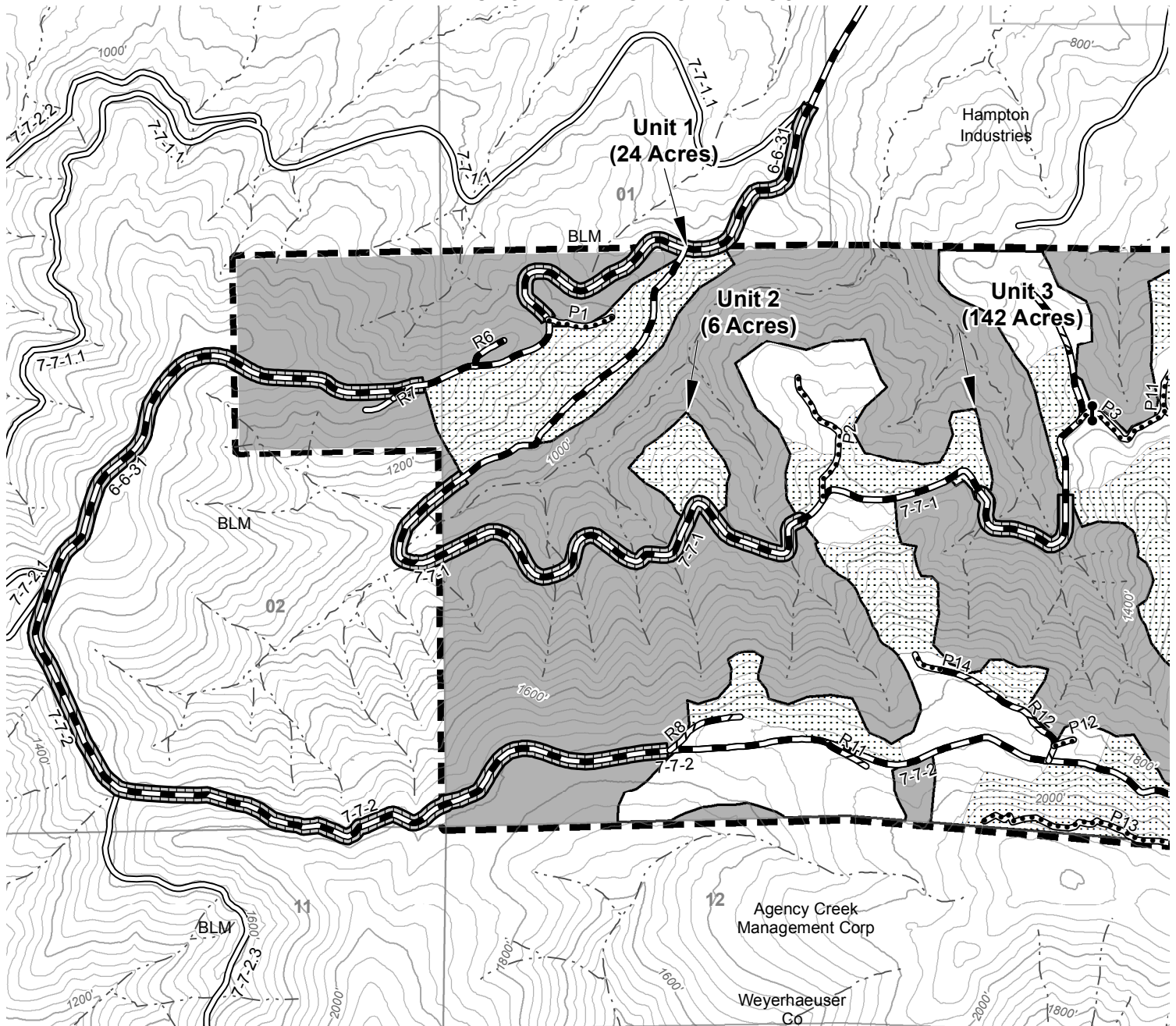
If multiple trailers (mule trains) are used, each bunked load shall be considered an individual load, and these guidelines will apply to each bunked load. If a flatbed stake trailer is used, each bundle will be treated as a separate load.

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.

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 Sec. 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.

TIMBER SALE CONTRACT MAP - ORN02-TS-2019.0202

T. 07 S. - R. 07 W., Sections 01, 02 - T. 07 S. - R. 06 W., Sections 05, 06, 07 W.M.
NORTHWEST OREGON DISTRICT - OREGON

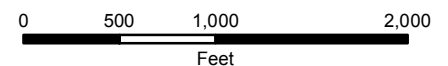


Contour Interval: 40ft (LiDAR)

- | | |
|------------------------|---|
| Road to be Constructed | Special Mark Area |
| Road to be Improved | Regeneration Harvest - Ground-Based Yarding |
| Road to be Renovated | Regeneration Harvest - Skyline Yarding |
| Existing Road | Reserve Area |
| Stream | Land Ownership |
| Boundary Contract Area | Gate to be Installed |
| Boundary Cutting Area | |

NOTES: Boundary of Partial Cut Areas are painted orange and posted. Unit acres do not include existing roads or Rights-of-Way. Acres shown on Exhibit A have been computed using a Trimble R1 Global Positioning System receiver. Acreage was calculated based on Global Positioning System traverse procedures including differential correction.

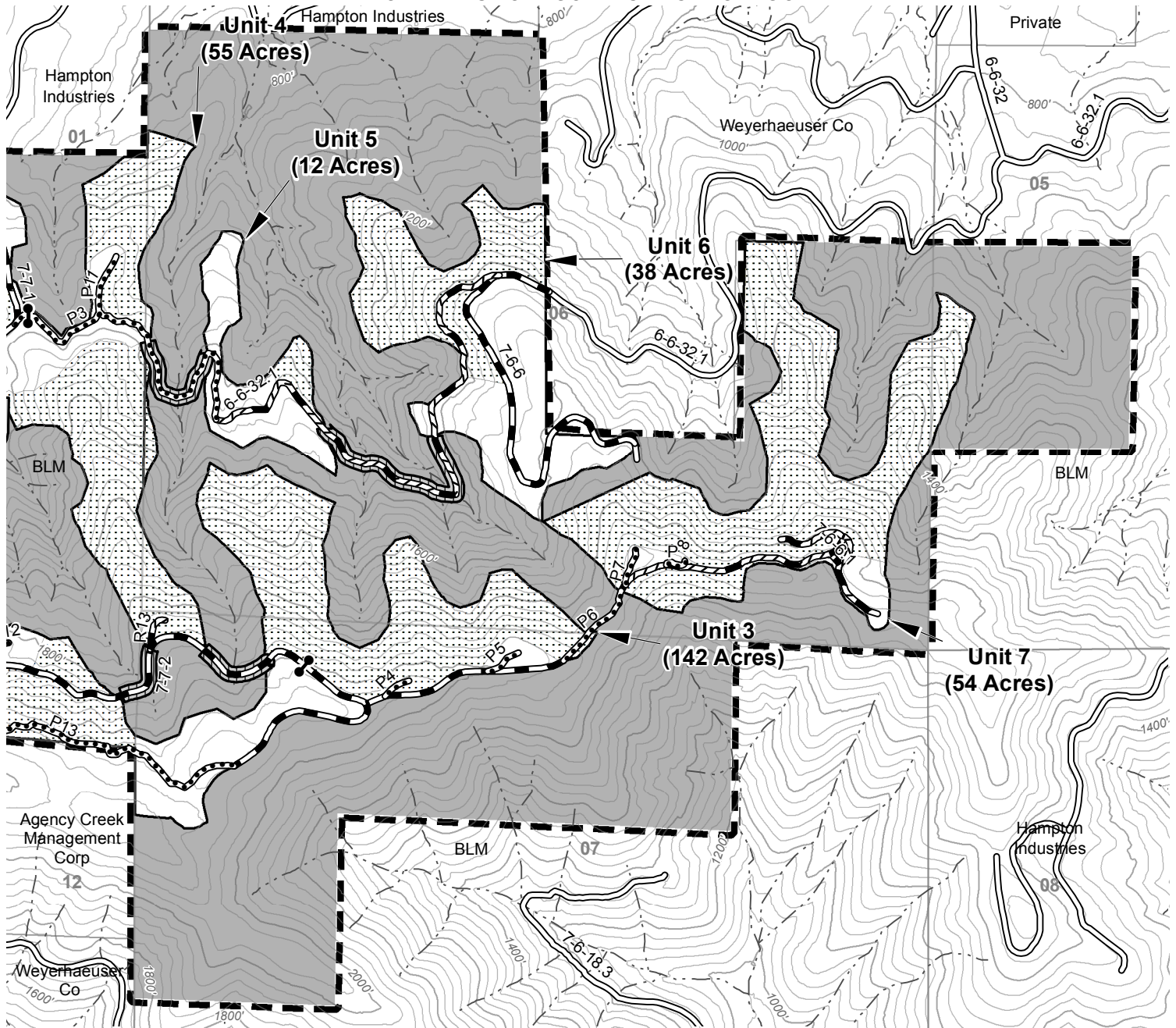
Special Mark Area	1.00 Acre
Harvest Area	331.00 Acres
Right of Way Area	10.00 Acres
Reserve Area	698.25 Acres
Total Contract Area	1040.25 Acres



TIMBER SALE CONTRACT MAP - ORN02-TS-2019.0202

T. 07 S. - R. 07 W., Sections 01, 02 - T. 07 S. - R. 06 W., Sections 05, 06, 07 W.M.

NORTHWEST OREGON DISTRICT - OREGON

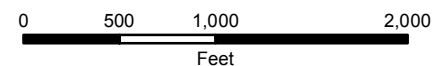


Contour Interval: 40ft (LiDAR)

- | | |
|------------------------|---|
| Road to be Constructed | Special Mark Area |
| Road to be Improved | Regeneration Harvest - Ground-Based Yarding |
| Road to be Renovated | Regeneration Harvest - Skyline Yarding |
| Existing Road | Reserve Area |
| Stream | Land Ownership |
| Boundary Contract Area | Gate to be Installed |
| Boundary Cutting Area | |

NOTES: Boundary of Partial Cut Areas are painted orange and posted. Unit acres do not include existing roads or Rights-of-Way. Acres shown on Exhibit A have been computed using a Trimble R1 Global Positioning System receiver. Acreage was calculated based on Global Positioning System traverse procedures including differential correction.

Special Mark Area	1.00 Acre
Harvest Area	331.00 Acres
Right of Way Area	10.00 Acres
Reserve Area	698.25 Acres
Total Contract Area	1040.25 Acres



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

EXHIBIT B / PRE-SALE

5450-3

Contract No.

ORN02-TS-2019.0202

Flight Path

The following estimates and calculations of value of timber sold are made solely as an administrative aid for determining: (1) adjustments made or credits given in accordance with Secs. 6, 9, or 11; (2) when payments are due; and (3) value of timber subject to any special bonding provisions. The value of timber will be determined by multiplying the value per acre as shown below, times the amount of acreage as determined by the Authorized Officer, which has been cut or removed or designated for taking. Except as provided in Sec. 2, Purchaser shall be liable for total purchase price even though quantity of timber actually cut or removed or designated for taking is less than the estimated volume or quantity shown. Cutting areas are shown on **Exhibit A**.

SPECIES	ESTIMATED VOLUME OR QUANTITY (Units Specified)		PRICE PER UNIT	ESTIMATED VOLUME OR QUANTITY X UNIT PRICE
Douglas Fir	15,055.0	MBF	\$165.50	\$2,491,602.50
Grandfir	1,176.0	MBF	\$85.10	\$100,077.60
Bigleaf Maple	133.0	MBF	\$28.80	\$3,830.40
Red Alder	67.0	MBF	\$189.60	\$12,703.20
Western Hemlock	37.0	MBF	\$93.90	\$3,474.30
Western Redcedar	24.0	MBF	\$494.50	\$11,868.00
TOTALS	16,492.0	MBF		\$2,623,556.00

The apportionment of the total purchase price is as follows:

Unit 1

Douglas Fir	1,023.0 MBF	X	\$165.50	=	\$169,306.50
Grandfir	87.0 MBF	X	\$85.10	=	\$7,403.70
Bigleaf Maple	8.0 MBF	X	\$28.80	=	\$230.40
Red Alder	4.0 MBF	X	\$189.60	=	\$758.40
Western Hemlock	3.0 MBF	X	\$93.90	=	\$281.70
Western Redcedar	2.0 MBF	X	\$494.50	=	\$989.00
Total	1127.0 MbF				\$178,969.70 ÷ 24.0 acres = \$7,457.07/Acre

Unit 2

Douglas Fir	258.0 MBF	X	\$165.50	=	\$42,699.00
Grandfir	22.0 MBF	X	\$85.10	=	\$1,872.20
Bigleaf Maple	2.0 MBF	X	\$28.80	=	\$57.60
Red Alder	1.0 MBF	X	\$189.60	=	\$189.60
Total	283.0 MbF				\$44,818.40 ÷ 6.0 acres = \$7,469.73/Acre

Unit 3

Douglas Fir	6,108.0 MBF	X	\$165.50	=	\$1,010,874.00
Grandfir	501.0 MBF	X	\$85.10	=	\$42,635.10
Bigleaf Maple	54.0 MBF	X	\$28.80	=	\$1,555.20
Red Alder	20.0 MBF	X	\$189.60	=	\$3,792.00
Western Hemlock	15.0 MBF	X	\$93.90	=	\$1,408.50
Western Redcedar	8.0 MBF	X	\$494.50	=	\$3,956.00
Total	6706.0 MbF				\$1,064,220.80 ÷ 142.0 acres = \$7,494.51/Acre

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

EXHIBIT B / PRE-SALE

5450-3

Contract No.

ORN02-TS-2019.0202

Flight Path

The following estimates and calculations of value of timber sold are made solely as an administrative aid for determining: (1) adjustments made or credits given in accordance with Secs. 6, 9, or 11; (2) when payments are due; and (3) value of timber subject to any special bonding provisions. The value of timber will be determined by multiplying the value per acre as shown below, times the amount of acreage as determined by the Authorized Officer, which has been cut or removed or designated for taking. Except as provided in Sec. 2, Purchaser shall be liable for total purchase price even though quantity of timber actually cut or removed or designated for taking is less than the estimated volume or quantity shown. Cutting areas are shown on **Exhibit A**.

Unit 4

Douglas Fir	2,343.0 MBF	X	\$165.50	=	\$387,766.50
Grandfir	184.0 MBF	X	\$85.10	=	\$15,658.40
Bigleaf Maple	20.0 MBF	X	\$28.80	=	\$576.00
Red Alder	8.0 MBF	X	\$189.60	=	\$1,516.80
Western Hemlock	6.0 MBF	X	\$93.90	=	\$563.40
Western Redcedar	5.0 MBF	X	\$494.50	=	\$2,472.50
Total	2566.0 Mb				\$408,553.60 ÷ 55.0 acres = \$7,428.25/Acre

Unit 5

Douglas Fir	515.0 MBF	X	\$165.50	=	\$85,232.50
Grandfir	42.0 MBF	X	\$85.10	=	\$3,574.20
Bigleaf Maple	5.0 MBF	X	\$28.80	=	\$144.00
Red Alder	2.0 MBF	X	\$189.60	=	\$379.20
Western Hemlock	1.0 MBF	X	\$93.90	=	\$93.90
Western Redcedar	1.0 MBF	X	\$494.50	=	\$494.50
Total	566.0 Mb				\$89,918.30 ÷ 12.0 acres = \$7,493.19/Acre

Unit 6

Douglas Fir	1,619.0 MBF	X	\$165.50	=	\$267,944.50
Grandfir	111.0 MBF	X	\$85.10	=	\$9,446.10
Bigleaf Maple	15.0 MBF	X	\$28.80	=	\$432.00
Red Alder	5.0 MBF	X	\$189.60	=	\$948.00
Western Hemlock	4.0 MBF	X	\$93.90	=	\$375.60
Western Redcedar	4.0 MBF	X	\$494.50	=	\$1,978.00
Total	1758.0 Mb				\$281,124.20 ÷ 38.0 acres = \$7,398.01/Acre

Unit 7

Douglas Fir	2,236.0 MBF	X	\$165.50	=	\$370,058.00
Grandfir	188.0 MBF	X	\$85.10	=	\$15,998.80
Bigleaf Maple	21.0 MBF	X	\$28.80	=	\$604.80
Red Alder	7.0 MBF	X	\$189.60	=	\$1,327.20
Western Hemlock	6.0 MBF	X	\$93.90	=	\$563.40
Western Redcedar	4.0 MBF	X	\$494.50	=	\$1,978.00
Total	2462.0 Mb				\$390,530.20 ÷ 54.0 acres = \$7,232.04/Acre

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

EXHIBIT B / PRE-SALE

5450-3

Contract No.

ORN02-TS-2019.0202

Flight Path

The following estimates and calculations of value of timber sold are made solely as an administrative aid for determining: (1) adjustments made or credits given in accordance with Secs. 6, 9, or 11; (2) when payments are due; and (3) value of timber subject to any special bonding provisions. The value of timber will be determined by multiplying the value per acre as shown below, times the amount of acreage as determined by the Authorized Officer, which has been cut or removed or designated for taking. Except as provided in Sec. 2, Purchaser shall be liable for total purchase price even though quantity of timber actually cut or removed or designated for taking is less than the estimated volume or quantity shown. Cutting areas are shown on **Exhibit A**.

Unit RW1

Douglas Fir	40.0 MBF	X	\$165.50	=	\$6,620.00
Grandfir	3.0 MBF	X	\$85.10	=	\$255.30
Total	43.0 Mbf				\$6,875.30 ÷ 1.0 acres = \$6,875.30/Acre

Unit RW3

Douglas Fir	313.0 MBF	X	\$165.50	=	\$51,801.50
Grandfir	10.0 MBF	X	\$85.10	=	\$851.00
Bigleaf Maple	2.0 MBF	X	\$28.80	=	\$57.60
Red Alder	14.0 MBF	X	\$189.60	=	\$2,654.40
Western Hemlock	1.0 MBF	X	\$93.90	=	\$93.90
Total	340.0 Mbf				\$55,458.40 ÷ 4.0 acres = \$13,864.60/Acre

Unit RW4

Douglas Fir	122.0 MBF	X	\$165.50	=	\$20,191.00
Grandfir	5.0 MBF	X	\$85.10	=	\$425.50
Bigleaf Maple	1.0 MBF	X	\$28.80	=	\$28.80
Total	128.0 Mbf				\$20,645.30 ÷ 1.0 acres = \$20,645.30/Acre

Unit RW6

Douglas Fir	182.0 MBF	X	\$165.50	=	\$30,121.00
Grandfir	11.0 MBF	X	\$85.10	=	\$936.10
Bigleaf Maple	3.0 MBF	X	\$28.80	=	\$86.40
Red Alder	5.0 MBF	X	\$189.60	=	\$948.00
Total	201.0 Mbf				\$32,091.50 ÷ 2.0 acres = \$16,045.75/Acre

Unit RW7

Douglas Fir	172.0 MBF	X	\$165.50	=	\$28,466.00
Grandfir	8.0 MBF	X	\$85.10	=	\$680.80
Bigleaf Maple	1.0 MBF	X	\$28.80	=	\$28.80
Western Hemlock	1.0 MBF	X	\$93.90	=	\$93.90
Total	182.0 Mbf				\$29,269.50 ÷ 2.0 acres = \$14,634.75/Acre

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

EXHIBIT B / PRE-SALE

5450-3

Contract No.

ORN02-TS-2019.0202

Flight Path

The following estimates and calculations of value of timber sold are made solely as an administrative aid for determining: (1) adjustments made or credits given in accordance with Secs. 6, 9, or 11; (2) when payments are due; and (3) value of timber subject to any special bonding provisions. The value of timber will be determined by multiplying the value per acre as shown below, times the amount of acreage as determined by the Authorized Officer, which has been cut or removed or designated for taking. Except as provided in Sec. 2, Purchaser shall be liable for total purchase price even though quantity of timber actually cut or removed or designated for taking is less than the estimated volume or quantity shown. Cutting areas are shown on **Exhibit A**.

Unit SM

Douglas Fir	124.0 MBF	X	\$165.50	=	\$20,522.00
Grandfir	4.0 MBF	X	\$85.10	=	\$340.40
Bigleaf Maple	1.0 MBF	X	\$28.80	=	\$28.80
Red Alder	1.0 MBF	X	\$189.60	=	\$189.60
Total	130.0 Mbf				\$21,080.80 ÷ 1.0 acres = \$21,080.80/Acre

U.S. DEPT. OF THE INTERIOR
Bureau of Land Management
NORTHWEST OREGON DISTRICT OFFICE - OREGON
150: ROAD PLAN AND DETAIL SHEET

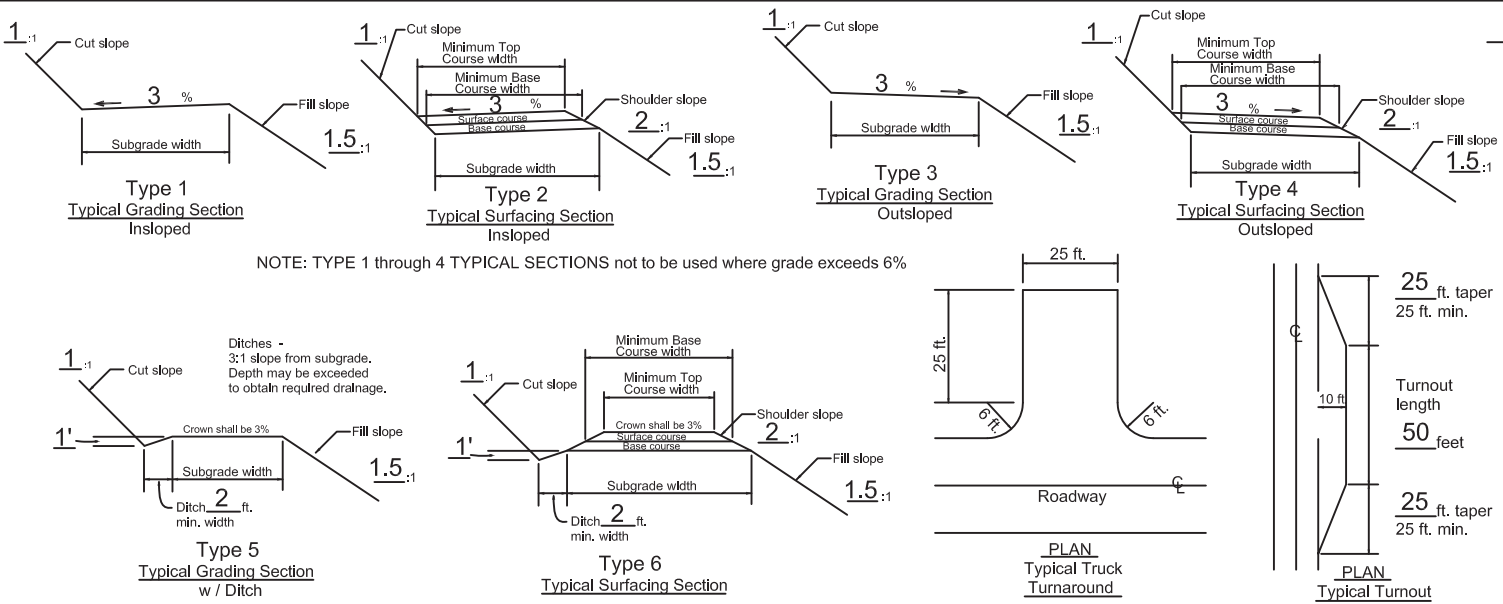
Sale Name Flight Path

EXHIBIT C

Contract No. ORN02-TS-2019.0202

Sheet 9 of 54

ROAD NUMBER	STATION OR MILE POST	TO STATION OR MILE POST	LENGTH mi. or sta.	TYPICAL SECTION TYPE	ALIGNMENT Minimum Radius of Curve	ROAD WIDTH (*1 & 4)		GRADIENT		CLEARING WIDTH (*7)				SURFACING (*5)										REMARKS
						Subgrd.	Ditch	Maximum Favorable	Maximum Adverse	Beyond		Existing roads (*6)		BASE COURSE: 1000					SURFACE COURSE: 1200					
										Top Cut	Toe Fill	L	R	Minimum Width	Comp. Depth	Surface Type (*3)	Grading Size (*3)	No. of Lifts	Minimum Width	Comp. Depth	Surface Type (*3)	Grading Size (*3)	No. of Lifts	
6-6-31	0.00	0.35	0.35	6	60'	16	1	18%	18%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6-6-31	0.35	2.62	2.27	6	60'	16	1	18%	18%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	280 cy of 1 1/2" Spot Rock and at culvert sites
6-6-32.1 A	2.30	2.37	0.07	6	60'	16	1	18%	18%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50 cy of 1 1/2" Spot Rock
6-6-32.1 B	0+00	43+95	43+95	6	60'	16	1	18%	18%	-	-	-	-	15	12	ABC	I	2	15	6	ASC	A	2	160 cy of 3" extra rock for 2 landings
6-6-32.1 B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80 cy of 3" at culvert sites
6-6-32.1 B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30 cy of select 1 1/2" for culvert bedding
6-6-32.2	0.64	0.69	0.05	6	60'	16	1	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	
7-6-6 A	0.00	0.51	0.51	6	60'	16	1	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	
7-6-6 B	0.85	1.07	0.22	6	60'	16	1	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	
7-6-6.1	0.00	0.31	0.31	6	60'	16	1	18%	18%	-	-	-	-	15	12	ABC	A	3	-	-	-	-	-	20 cy of 3" at culvert sites
7-6-7.2	0.00	0.29	0.29	6	60'	16	1	18%	18%	-	-	-	-	15	12	ABC	A	3	-	-	-	-	-	
7-7-1	0.00	1.71	1.71	6	60'	16	1	18%	18%	-	-	-	-	15	6	ABC	A	1	-	-	-	-	-	270 cy of 3" at culvert sites
7-7-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15 cy of select 1 1/2" for culvert bedding
7-7-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40 cy of Rip Rap
7-7-2	0.00	2.24	2.24	6	60'	16	1	18%	18%	-	-	-	-	15	6	ABC	A	1	-	-	-	-	-	150 cy of 3" at culvert sites
P1	0+00	5+70	5+70	3	60'	16	0	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	80 cy of 3" rock for 1 landing
P2	0+00	10+45	10+45	3	60'	16	0	18%	18%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
P3	0+00	26+30	26+30	6	60'	16	0	18%	18%	-	-	-	-	15	12	ABC	I	3	15	6	ASC	A	2	200 cy of 3" at culvert sites and rock for 1 landing
P3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25 cy of select 1 1/2" for culvert bedding
P4	0+00	2+66	3+00	6	60'	16	1	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	110 cy 3" at culvert sites and rock for 1 landing
P5	0+00	3+00	3+00	6	60'	16	1	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	95 cy 3" at culvert sites and rock for 1 landing
P6	0+00	8+49	8+49	6	60'	16	1	18%	18%	-	-	-	-	15	12	ABC	A	3	-	-	-	-	-	20 cy 3" at culvert sites
P7	0+00	2+95	2+95	6	60'	16	1	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	105 cy 3" at culvert sites and rock for 1 landing
P8	0+00	1+95	1+95	6	60'	16	1	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	95 cy 3" rock for 1 landing
P11	0+00	4+40	4+40	3	60'	16	0	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	80 cy 3" rock for 1 landing
P12	0+00	1+95	1+95	6	60'	16	1	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	95 cy 3" rock for 1 landing
P13	0+00	24+44	24+44	6	60'	16	1	18%	18%	-	-	-	-	15	12	ABC	A	3	-	-	-	-	-	155 cy 3" at culvert sites and rock for 1 landing
P14	0+00	4+20	4+20	6	60'	16	1	18%	18%	-	-	-	-	15	10	ABC	A	2	-	-	-	-	-	95 cy 3" rock for 1 landing
R6	0.00	0.05	0.05	3	60'	16	0	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	80 cy 3" rock for 1 landing
R8	0.00	0.09	0.09	3	60'	16	0	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	105 cy 3" at culvert sites and rock for 1 landing
R11	0.00	0.05	0.05	3	60'	16	0	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	95 cy 3" at culvert sites and rock for 1 landing
R12	0.00	0.18	0.18	6	60'	16	1	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	20 cy 3" at culvert sites
R13	0.00	0.04	0.04	3	60'	16	0	18%	18%	-	-	-	-	15	8	ABC	A	2	-	-	-	-	-	95 cy 3" rock for 1 landing
Note: Maintenance rock of 1000 cy, meeting Sections 1000 AND 1200 specifications, shall be placed on haul route throughout the life of the timber sale. Not required for road acceptance under Section 18 of this contract.																								



*NOTES

- Extra subgrade widths**
Add to each shoulder: 1 foot for fills of 1 to 6 feet. Widen inside or outside shoulder of tight curves as needed for log trucks to maneuver, with tires remaining on roadbed.
- Backslopes**

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

Note:
Full bench construction is required on side slopes exceeding 60%.
Slope Ratio = Horizontal Distance:Vertical Distance (HD:VD)
- Surface type**

	Grading
PRR - Pit run rock	C - 1 1/2" minus
GRR - Grid rolled rock	D - 1" minus (surface course)
SRN - Screened rock	E - 3/4" minus
JRR - Jaw run rock	
ABC - Aggr. base course	A - 3" minus
ASC - Aggr. surface course	B - 2" minus (base course)
WC - Wood chips	C - 3"
- Turnouts**
Width shall be 10 feet in addition to the subgrade width, with lengths as shown on this plan, or as directed by the Authorized Officer.
- Surfacing**
Turnouts, curve widening, and the first 50 feet of all road aprons shall be surfaced, for all road stations requiring surfacing, as listed above, and as directed by the Authorized Officer.
- Clearing width** 200
See Section
- As posted and painted for Right-of-Way, and as required in Section 2100 of this contract.
- Grading (Renovation)** 500
See Section
- Drainage** 400
See Section
Culvert site aggregate, as designated in Section 400 of this contract, does not fulfill any requirements as listed above for full lifts of surface or base applications.
- Compaction** 300 and 500
See Sections

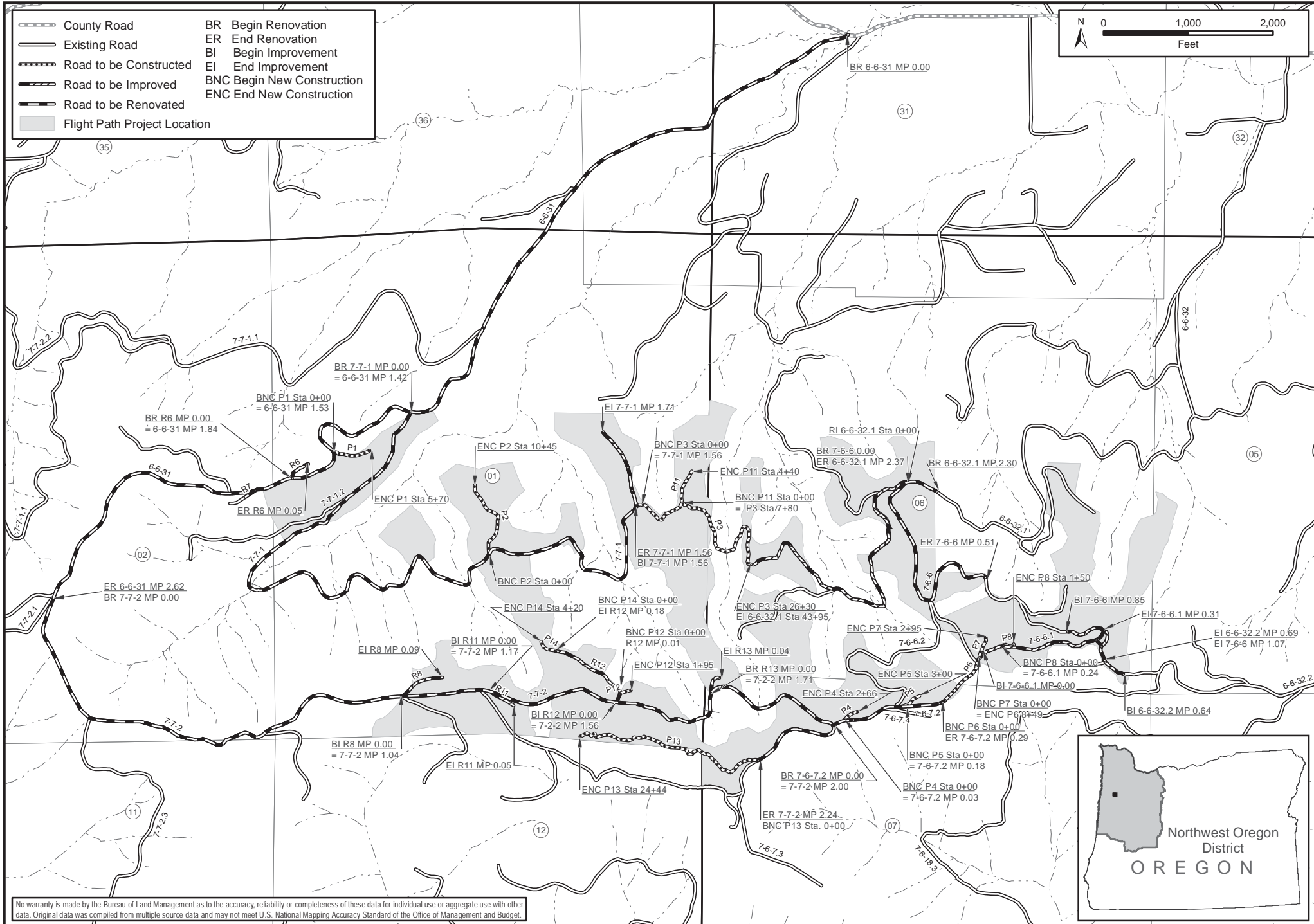


United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Road Plan Map

T. 07 S. - R. 07 W., Sections 01, 02 - T. 07 S. - R. 06 W., Sections 05, 06, 07 W.M.

Flight Path
ORN02-TS-2019.0202
EXHIBIT C

Page 54 of 54

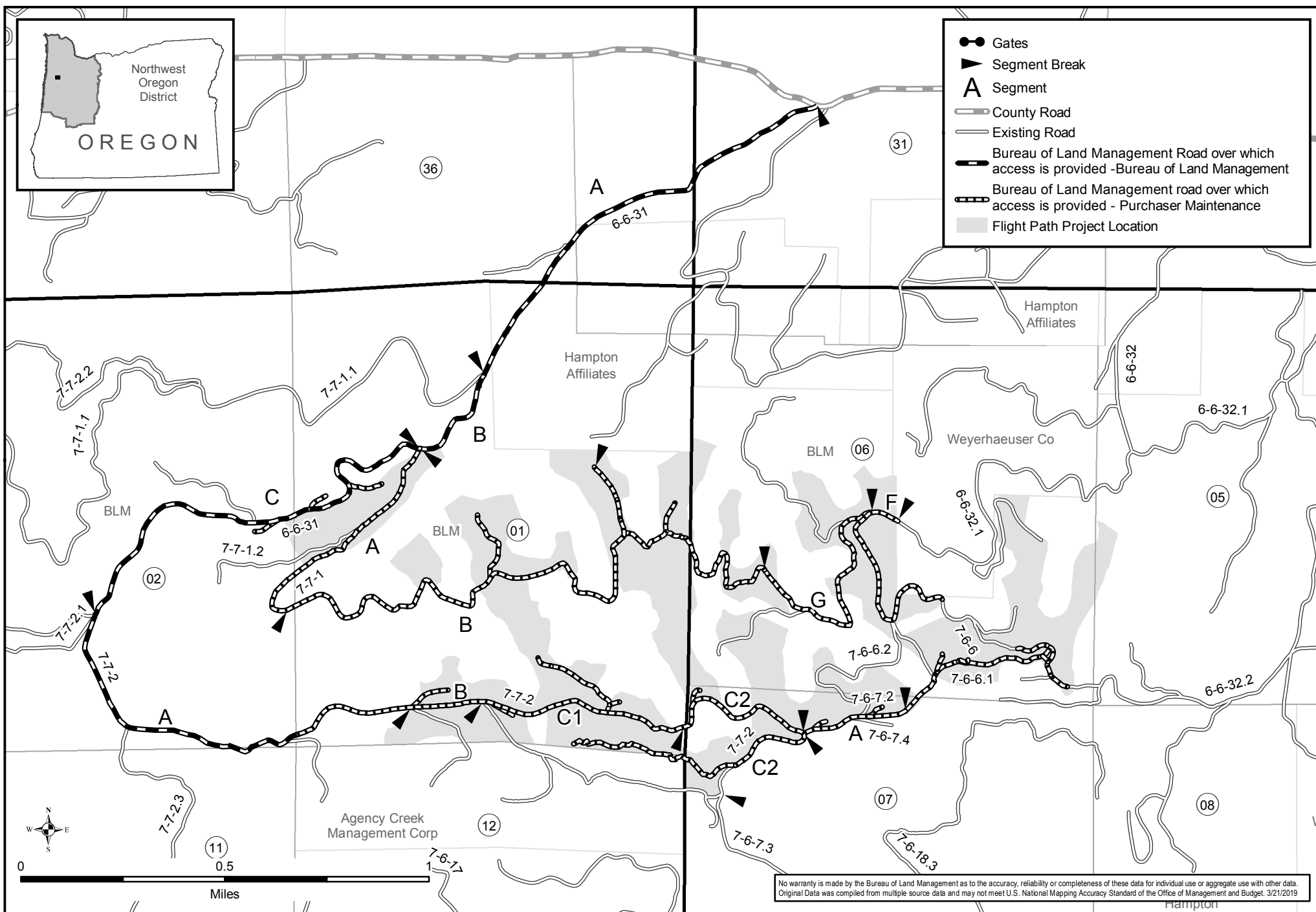




UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Road Use and Maintenance Map

Flight Path
ORN02-TS-2019.0202
EXHIBIT E

T. 07 S. - R. 07 W., Sections 01, 02 - T. 07 S. - R 06 W., Sections 05, 06, 07 W.M.





United States Department of the Interior - BUREAU OF LAND MANAGEMENT

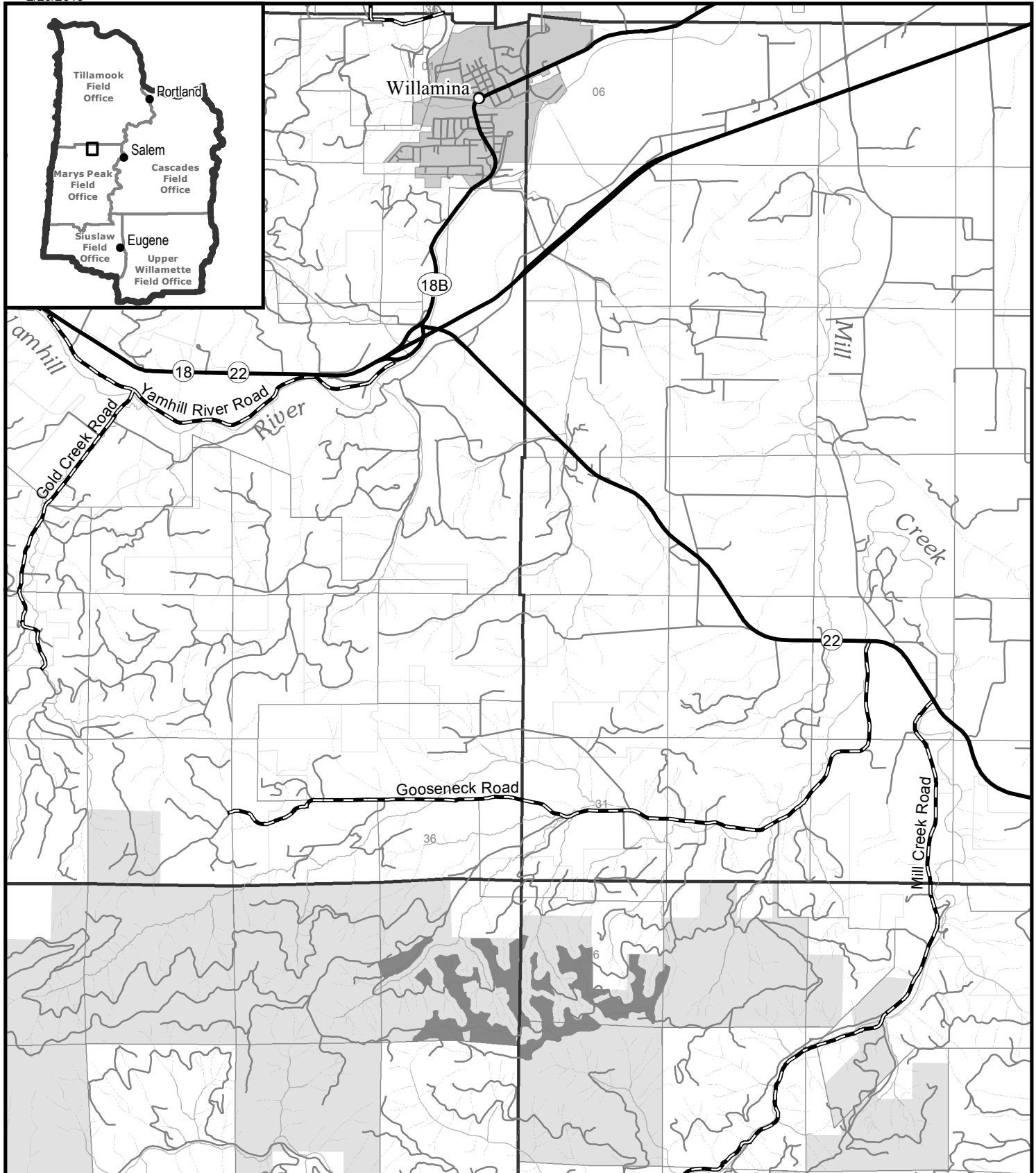
Flight Path Timber Sale Vicinity Map

T. 07 S. - R. 07 W., Sections 01, 02 - T. 07 S. - R. 06 W., Sections 05, 06, 07 W.M.

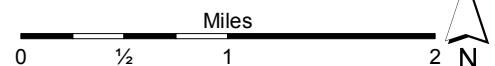
NORTHWEST OREGON DISTRICT



2/20/2019



- State Highway
- County Road
- Existing Road
- Minor Stream
- Major Stream
- Flight Path Timber Sale Area
- City Limits
- Bureau of Land Management
- Private/Unknown
- City, Town, or Community



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.

Legal Description of Contract Area

Land Status	County	Township	Range	Section	Subdivision	Meridian
O&C	Polk	7S	6W	6	Lot 5,6,7 SE1/4 NW1/4, E1/2 SW1/4, NE1/4SE1/4, S1/2SE1/4	Willamette
O&C	Polk	7S	6W	7	Lot 1,2, NW1/4 NE1/4, NE1/4 NW1/4	Willamette
O&C	Polk	7S	7W	1	S1/2NE1/4, S1/2NW1/4, SW1/4, SE1/4	Willamette
O&C	Polk	7S	7W	2	SE1/4NE1/4	Willamette
O&C	Polk	7S	6W	5	NW1/4SW1/4	Willamette

Species Totals

Species	Net	Gross Merch	Gross	# of Merch Logs	# of Cull Logs	# of Trees
Douglas Fir	15,055.0	15,724.0	15,776.0	281,257	128	60,903
Grandfir	1,176.0	1,320.0	1,320.0	24,146	0	6,078
Bigleaf Maple	133.0	230.0	251.0	4,317	4,128	3,722
Red Alder	67.0	77.0	77.0	1,776	78	547
Western Hemlock	37.0	48.0	71.0	626	146	149
Western Redcedar	24.0	35.0	35.0	334	0	61
Totals	16,492.0	17,434.0	17,530.0	312,456	4,480	71,460

Cutting Area Acres

Regeneration Harvest Acres	Partial Cut Acres	Right of Way Acres	Total Acres	Net Volume per Acre
331.0	0.0	11.0	342.0	48.2

Logging Costs

Stump to Truck	\$2,181,738.58
Transportation	\$661,167.00
Road Construction	\$1,317,480.59
Maintenance/Rockwear	\$72,168.28
Road Use	\$0.00
Other Allowances	\$102,334.90
Total:	\$4,334,889.35
Total Logging Cost per MBF:	\$262.85

Utilization Centers

Location	Distance	% of Net Volume
Willamina OR	20.0 miles	90 %
Tillamook OR	60.0 miles	8 %
Eugene OR	90.0 miles	2 %

Profit & Risk

Profit	9 %
Risk	3 %
Total Profit & Risk	12 %

Tract Features

Quadratic Mean DBH	14.6 in
Average GM Log	57 bf
Average Volume per Acre	48.2 mbf
Recovery	94 %
<u>Net MBF volume:</u>	
Green	16,492.0 mbf
Salvage	0 mbf
Export	0 mbf
<u>Ground Base Logging:</u>	
Percent of Sale Volume	36 %
Average Yarding Slope	30 %
Average Yarding Distance	400 ft
<u>Cable Logging:</u>	
Percent of Sale Volume	64 %
Average Yarding Slope	60 %
Average Yarding Distance	700 ft
<u>Aerial Logging:</u>	
Percent of Sale Volume	0 %
Average Yarding Slope	0 %
Average Yarding Distance	0 ft

Cruise

Cruise Completed	January 2019
Cruised By	Brian Barclay
Cruise Method	Variable plot units and 100% RW

Stumpage Computation

Species	# of Trees	Net Volume	Pond Value	(-) Profit & Risk	(-) Logging Costs	(+) Marginal Log Value	Appraised Price/MBF	Appraised Value
Douglas Fir	60,903	15,055.0	\$486.76	\$58.41	\$262.85	\$0.00	\$165.50	\$2,491,602.50
Grandfir	6,078	1,176.0	\$395.36	\$47.44	\$262.85	\$0.00	\$85.10	\$100,077.60
Bigleaf Maple	3,722	133.0	\$287.59	\$34.51	\$262.85	\$0.00	\$28.80 *	\$3,830.40
Red Alder	547	67.0	\$514.15	\$61.70	\$262.85	\$0.00	\$189.60	\$12,703.20
Western Hemlock	149	37.0	\$405.36	\$48.64	\$262.85	\$0.00	\$93.90	\$3,474.30
Western Redcedar	61	24.0	\$860.58	\$103.27	\$262.85	\$0.00	\$494.50	\$11,868.00
Totals	71,460	16,492.0						\$2,623,556.00

* Minimum Stumpage values were used to compute the Appraised Price/MBF (10% of Pond Value)

Percent of Volume By Log Grade

Species	No. 1 & 2 Peeler	No. 3 Peeler	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
Douglas Fir				60.0 %	33.0 %	7.0 %	

Species	Peeler	No. 1 Sawmill	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
Grandfir				57.0 %	37.0 %	6.0 %	

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill		Camp Run
Bigleaf Maple							100.0 %

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill		Camp Run
Red Alder							100.0 %

Species	Peeler	No. 1 Sawmill	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
Western Hemlock				88.0 %	11.0 %	1.0 %	

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill			Camp Run
Western Redcedar							100.0 %

Flight Path**Unit Summary****ORN02-TS-2019.0202****Unit: 1**

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	1,023.0	1,069.0	1,071.0	4,130
Grandfir	87.0	92.0	92.0	427
Bigleaf Maple	8.0	16.0	17.0	262
Red Alder	4.0	4.0	4.0	26
Western Hemlock	3.0	4.0	5.0	11
Western Redcedar	2.0	3.0	3.0	4
Totals:	1,127.0	1,188.0	1,192.0	4,860

Net Volume/Acre: 47.0 MBF

Regeneration Harvest	24.0
Partial Cut	0.0
Right of Way	0.0
Total Acres:	24.0

Unit: 2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	258.0	266.0	268.0	1,037
Grandfir	22.0	23.0	23.0	107
Bigleaf Maple	2.0	4.0	5.0	66
Red Alder	1.0	1.0	1.0	7
Totals:	283.0	294.0	297.0	1,217

Net Volume/Acre: 47.2 MBF

Regeneration Harvest	6.0
Partial Cut	0.0
Right of Way	0.0
Total Acres:	6.0

Unit: 3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	6,108.0	6,322.0	6,343.0	24,438
Grandfir	501.0	548.0	548.0	2,521
Bigleaf Maple	54.0	95.0	104.0	1,552
Red Alder	20.0	23.0	23.0	152
Western Hemlock	15.0	19.0	30.0	60
Western Redcedar	8.0	15.0	15.0	28
Totals:	6,706.0	7,022.0	7,063.0	28,751

Net Volume/Acre: 47.2 MBF

Regeneration Harvest	142.0
Partial Cut	0.0
Right of Way	0.0
Total Acres:	142.0

Unit: 4

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	2,343.0	2,449.0	2,457.0	9,465
Grandfir	184.0	212.0	212.0	979
Bigleaf Maple	20.0	37.0	40.0	601
Red Alder	8.0	9.0	9.0	59
Western Hemlock	6.0	8.0	12.0	23
Western Redcedar	5.0	6.0	6.0	10
Totals:	2,566.0	2,721.0	2,736.0	11,137

Net Volume/Acre: 46.7 MBF

Regeneration Harvest	55.0
Partial Cut	0.0
Right of Way	0.0
Total Acres:	55.0

Unit: 5

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	515.0	534.0	536.0	2,065
Grandfir	42.0	47.0	47.0	214
Bigleaf Maple	5.0	8.0	9.0	131
Red Alder	2.0	2.0	2.0	13
Western Redcedar	1.0	1.0	1.0	2
Western Hemlock	1.0	2.0	3.0	5
Totals:	566.0	594.0	598.0	2,430

Net Volume/Acre: 47.2 MBF

Regeneration Harvest	12.0
Partial Cut	0.0
Right of Way	0.0
Total Acres:	12.0

Unit: 6

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	1,619.0	1,691.0	1,698.0	6,540
Grandfir	111.0	146.0	146.0	676
Bigleaf Maple	15.0	25.0	28.0	415
Red Alder	5.0	7.0	7.0	41
Western Redcedar	4.0	4.0	4.0	7
Western Hemlock	4.0	5.0	8.0	17
Totals:	1,758.0	1,878.0	1,891.0	7,696

Net Volume/Acre: 46.3 MBF

Regeneration Harvest	38.0
Partial Cut	0.0
Right of Way	0.0
Total Acres:	38.0

Unit: 7

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	2,236.0	2,404.0	2,412.0	9,294
Grandfir	188.0	209.0	209.0	960
Bigleaf Maple	21.0	37.0	40.0	590
Red Alder	7.0	11.0	11.0	68
Western Hemlock	6.0	8.0	11.0	23
Western Redcedar	4.0	6.0	6.0	10
Totals:	2,462.0	2,675.0	2,689.0	10,945

Net Volume/Acre: 45.6 MBF

Regeneration Harvest	54.0
Partial Cut	0.0
Right of Way	0.0
Total Acres:	54.0

Unit: RW1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	40.0	41.0	41.0	110
Grandfir	3.0	3.0	3.0	9
Totals:	43.0	44.0	44.0	119

Net Volume/Acre: 43.0 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	1.0
Total Acres:	1.0

Unit: RW3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	313.0	326.0	327.0	1,305
Red Alder	14.0	14.0	14.0	147
Grandfir	10.0	10.0	10.0	42
Bigleaf Maple	2.0	2.0	2.0	25
Western Hemlock	1.0	1.0	1.0	5
Totals:	340.0	353.0	354.0	1,524

Net Volume/Acre: 85.0 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	4.0
Total Acres:	4.0

Unit: RW4

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	122.0	127.0	128.0	568
Grandfir	5.0	5.0	5.0	16
Bigleaf Maple	1.0	1.0	1.0	9
Totals:	128.0	133.0	134.0	593

Net Volume/Acre: 128.0 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	1.0
Total Acres:	1.0

Unit: RW6

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	182.0	189.0	189.0	700
Grandfir	11.0	12.0	12.0	67
Red Alder	5.0	5.0	5.0	28
Bigleaf Maple	3.0	3.0	3.0	30
Totals:	201.0	209.0	209.0	825

Net Volume/Acre: 100.5 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	2.0
Total Acres:	2.0

Unit: RW7

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	172.0	178.0	178.0	651
Grandfir	8.0	9.0	9.0	38
Western Hemlock	1.0	1.0	1.0	5
Bigleaf Maple	1.0	1.0	1.0	17
Totals:	182.0	189.0	189.0	711

Net Volume/Acre: 91.0 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	2.0
Total Acres:	2.0

Unit: SM

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	124.0	128.0	128.0	600
Grandfir	4.0	4.0	4.0	22
Bigleaf Maple	1.0	1.0	1.0	24
Red Alder	1.0	1.0	1.0	6
Totals:	130.0	134.0	134.0	652

Net Volume/Acre: 130.0 MBF

Regeneration Harvest	0.0
Partial Cut	0.0
Right of Way	1.0
Total Acres:	1.0

Total Stump To Truck	Net Volume	\$/MBF
\$2,181,738.58	16,492.0	\$132.29

Stump to Truck: Falling, Bucking, Yarding, & Loading

Yarding System	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Cable: Large Yarder	GM MBF	11,158.0	\$146.81	\$1,638,105.98	
Wheel Skidder	GM MBF	30.0	\$82.10	\$2,463.00	Cut and deck private timber
Wheel Skidder	GM MBF	6,276.0	\$82.10	\$515,259.60	
Subtotal				\$2,155,828.58	

Additional Costs

Item	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Additional loader time	Hour	16.0	\$120.00	\$1,920.00	
Fish log cutting	Tree	533.0	\$30.00	\$15,990.00	
Subtotal				\$17,910.00	

Additional Moves

Equipment	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Cable: Large Yarder	Total	2.0	\$1,200.00	\$2,400.00	
Feller Buncher	Total	2.0	\$1,200.00	\$2,400.00	
Loader	Total	2.0	\$800.00	\$1,600.00	
Wheel Skidder	Total	2.0	\$800.00	\$1,600.00	
Subtotal				\$8,000.00	

Comments:

Cutting and loading fish logs costs are estimates from Marys Peak timber staff. Additional loader is for unloading logs at designated area. See transportation cost for hauling.

Total	Net Volume	\$/MBF
\$661,167.00	16,492.0	\$40.09

Utilization Center	One Way Mileage	Description	Unit of Measure	# of Units	\$/Unit of Measure	Total Cost	% of Sale Volume
Eugene OR	90.0	Saw Logs	GM MBF	307.0	\$63.00	\$19,341.00	2 %
Tillamook OR	60.0	Saw Logs	GM MBF	1,403.0	\$54.00	\$75,762.00	8 %
Willamina OR	20.0	Saw Logs	GM MBF	15,724.0	\$36.00	\$566,064.00	90 %

Comments:

-DF logs going 20 miles to Willamina OR
 -Current haul costs at \$90 per hr.
 -2 hr. round trip (2 X 90 = \$180 per trip)
 -5 MBF per load (180 / 5 = \$36 per MBF)
 -GF, WH, WRC going 60 miles to Tillamook OR
 --3 hr. round trip (3 X 90 = \$270 per trip)
 -5 MBF per load (270 / 5 = \$54 per MBF)
 -RA, BLM going 90 miles to Eugene OR
 -3.5 hr. round trip (3.5 X 90 = \$315 per trip)
 -5 MBF per load (315 / 5 = \$63 per MBF)
 Fish log haul time and costs are estimates by Marys Peak timber staff

Engineering Allowances

Total	Net Volume	\$/MBF
\$1,389,648.87	16,492.0	\$84.26

Cost Item	Total Cost
Road Construction:	\$1,317,480.59
Road Maintenance/Rockwear:	\$72,168.28
Road Use Fees:	\$0.00

Total	Net Volume	\$/MBF
\$102,334.90	16,492.0	\$6.21

Environmental Protection

Cost item	Total Cost
Grass seed	\$450.00
Grass seed spreading	\$368.00
Equipment washing	\$600.00
Water bar/berm	\$780.00
Subtotal	\$2,198.00

Miscellaneous

Cost item	Total Cost
Basal girdle	\$2,808.00
High girdle	\$7,187.50
Snag creation	\$8,050.00
Fish log haul	\$1,440.00
Subtotal	\$19,485.50

Road Construction, Maintenance, Use, & Decommissioning

Cost item	Total Cost
Purchaser Maint.	\$51,251.40
Subtotal	\$51,251.40

Slash Disposal & Site Prep

Cost item	Total Cost
Landing pile cover	\$1,200.00
Landing pile burn	\$1,200.00
Machine pile burn	\$4,500.00
Machine pile construction and cover	\$22,500.00
Subtotal	\$29,400.00