

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Tillamook Field Office
4610 Third Street
Tillamook, Oregon 97141

Little Bit Timber Sale
ORN04-TS-2023.0403
Date: September 20, 2023

PROSPECTUS
ORAL AUCTION

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 TILLAMOOK FIELD 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 8:30am and the timber sale oral auction will commence at 9:00 a.m., on Wednesday, September 20, 2023.

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 5003.2(b), the date the BLM posts the forest management decision on the BLM's ePlanning website establishes the effective date of the decision for purposes of an administrative appeal. The decision was posted to the BLM's ePlanning website on June 30, 2023, referring to the North Yamhill Timber Management Project, DOI-BLM-ORWA=NO40-2018-0006=EA.

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.

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.

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 the bid deposit with a self-certification statement (Form 5430-1) that the bidder 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 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 the timber sale contract is signed. Section 2(a) of Form 723 requires that successful bidders on SBA set-aside tracts must comply with delivery requirements pertaining to timber 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)).

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 Tillamook Field Office at 503-815-1100.

TIMBER SALE NOTICE
SBA SET-ASIDE SCALE SALE

NORTHWEST OREGON DISTRICT
TILLAMOOK FIELD OFFICE
COLUMBIA MASTER UNIT

Sale Date: September 20, 2023

CONTRACT NO.: ORN04-TS-2023.0403, Little Bit Timber Sale, Scale Sale
YAMHILL COUNTY, OREGON: O&C: **Oral Bid**
BID DEPOSIT REQUIRED: **\$34,600.00**

All timber designated for cutting on: SE¼, **Sec. 29**; NW¼ NW¼**Sec. 33**, T. 2 S., R. 6 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
4,511	1292	Douglas Fir	1,602	\$213.10	\$ 341,386.20
767	83	Western Hemlock	104	\$42.50	\$ 4,420.00
7	2.8	Grand Fir	4	\$38.90	\$ 155.60
9	0.7	Red Alder	1	\$27.70	\$ 27.70
5,294	1,378.5	Totals	1,711		\$ 345,989.50

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 prohibited from substitution of exported private timber.

CRUISE INFORMATION: The timber volumes for the harvest units were based on a variable plot cruise for estimating the board foot volume of trees. Plots were measured using a 40 basal area factor (BAF) for regen units, and a 20 (BAF) in all thinning harvest units. None of the total sale volume is salvage material. For merchantable Douglas- fir trees the average DBHOB is 17.2 inches; the average gross merchantable log contains 77 bf (board feet); the total gross volume is approximately 1,777 MBF; and 96% recovery is expected.

CUTTING AREA: Two (2) units totaling approximately sixty-three (63) acres, of which nineteen (19) acres shall be regeneration harvest and forty-four (44) acres shall be partial cut harvest. These acres are inclusive of Patch Cut and Clump Areas as shown on Exhibit A. In addition, approximately two (2) acres of right-of-way shall be cut. Acres shown on Exhibit A have been calculated based on Global Positioning System traverse procedures including differential correction.

DURATION OF CONTRACT: Contract length will be 36 months for cutting and removal of timber.

SBA CONSIDERATION: (Sec. 44.jj.)The Purchaser agrees not to sell and/or exchange more than 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 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 Section 4 of this contract as amended.

Buyout Securities (Sec. 44.hh.): The Purchaser shall create coarse woody debris in accordance with Section 44.gg. The Purchaser shall have the option of completing this work, or in lieu thereof, may make a buyout security deposit to the Bureau of Land Management in the amount of ten thousand twenty-one and 15/100 dollars (\$10,021.15), and upon making such deposit, the Purchaser shall be relieved of the obligations set out in this subsection. The Purchaser shall notify the Authorized Officer of their intention to make this deposit prior to the date of execution of this contract and the Authorized Officer shall establish a required schedule of payments.

LOCATION: The contract area is located approximately fourteen (14) air miles west of Carlton, Oregon. Starting in Carlton, Oregon, head west on NW Meadowlake Road for 17.9 miles. Turn right onto Cedar Creek Road and continue for 1.1 miles. Turn left onto NW Boundary Road for .9 miles. Stay straight onto White Face Road and continue for 2 miles where you will encounter Unit 1 of the Timber Sale. Consult a project location map.

ACCESS AND ROAD MAINTENANCE:

Access is provided by Weyerhaeuser Company, McMinnville Water and Light, and the Bureau of Land Management (BLM) controlled roads. All BLM controlled roads used in conjunction with this sale will be maintained by the Purchaser. Purchaser will be required to pay a road maintenance and rockwear obligation of twelve thousand eight hundred five and 49/100 dollars (**\$12,805.49**) to the Government and spread **140 CY** crushed rock on BLM roads for maintenance.

In the use of Weyerhaeuser controlled roads, under Right-of-Way Agreement No. S-805 (OR044601) and as shown on Exhibit E, the Purchaser will be required to enter into a license agreement which requires: (a) Purchaser maintenance of all Weyerhaeuser controlled roads, (b) Purchaser pay a road use obligation fee of three thousand four hundred twenty two and 00/100 dollars (\$3,422.00), (c) Purchaser pay a rockwear fee of three thousand one hundred fourteen and 15/100 dollars (\$3,114.15), (d) Purchaser provide proof of insurance with limits of \$1,000,000/\$1,000,000/\$1,000,000 and a performance bond of \$2,000. Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a copy of the executed license agreement.

In the use of McMinnville Water and Light controlled roads, under Right-of-Way Agreement No. S-837 (OR045530) and as shown on Exhibit E, the Purchaser will be required to enter into a license agreement which requires: (a) Purchaser maintenance of all McMinnville Water and Light controlled roads, (b) Purchaser pay a road use obligation fee of two thousand six hundred ninety-five and 00/100 dollars (\$2,695.00), (c) Purchaser pay a rockwear fee of one hundred ninety-two and 88/100 dollars (\$192.88), (d) Purchaser provide proof of insurance with limits of \$1,660,400/\$1,660,400/\$1,000,000 and a performance bond of \$1,000. Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a cop of the executed license agreement.

Road use obligations and rockwear fees have been calculated using timber volumes based on the actual BLM timber sale cruise volume. Because this is a scale sale, all road maintenance, rockwear and road use fees shall be calculated with the actual volume hauled over said road segments after all merchantable timber has been cut and scaled. If the actual fees differ from what is mentioned and paid above, the additional/difference shall be reported and paid accordingly. All differences in fees shall be calculated and paid prior to the contract termination.

Purchaser shall also spread **150 CY** crushed rock on non-BLM roads for maintenance as instructed by the Authorized Officer.

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

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

1. New Road Construction:
Total Length: 25+03 Stations (0.474 miles)
Road construction work to be performed is described in detail in Exhibit C and as shown on Exhibit A and C maps.
2. Renovation:
Total Length: 233+59 Stations (4.424 miles).
Road renovation work to be performed is described in detail in Exhibit C and as shown on Exhibit A and C maps.
3. Estimated Quantities:
 - a. Clearing, Grubbing, and Brushing:
2.500 acres of Clearing and Grubbing
4.424 miles of Brushing
 - b. Culverts: Reference Exhibit C for details

Government Furnished Items – Cedar Creek Shop location

35 feet of 18-inch Corrugated Plastic Pipe (CPP) – Type S - (1 Pipe)
10 feet of 24-inch Corrugated Plastic Pipe (CPP) – Type S - (1 Pipe Extension)
40 feet of 36-inch 14-gauge Aluminized Steel Pipe (CMP) - (1 Pipe)

Purchaser Furnished Items

Neoprene sleeves or flat gaskets for 36-inch Pipe Bands Installations
37 Metal “T” Post Inlet Markers
15 Straw Bales for Sediment Catch Basin w/ Bale Installations

- c. Aggregate Material & Rock Source: Reference Exhibit C and D for details

Commercial Source:

115 CY 6” Jaw Run Base Rock
1,095 CY 1 ½”-0” Crushed Rock
5 CY Class 5 Rip-Rap

All rock required for project work shall be obtained from a commercial source.

Other:

- Compaction of all final grades will be required.
- Right of way debris will be disposed of by scattering adjacent to all roads, outside of clearing limits.
- The Purchaser shall decommission road 2-6-33.3 for a total of 876 feet of road by subsoiling, installing non-drivable waterbars, removing culverts, scattering slash, and blocking.
- The Purchaser shall decommission roads 2-6-29.3 and 2-6-29.4 for a total of 1,627 feet of road by

Sec. 43. Wood Products Reserved from Cutting

RESERVED

- a. All timber in the Reserve and Clump Areas shown on Exhibit A and all trees that are painted orange and posted, which mark the boundaries of the Reserve Area.
- b. All trees marked with orange paint above and below stump height within the boundaries of the Cutting Areas shown on Exhibit A.
- c. All conifer trees less than seven (7) inches diameter at breast height (dbh), and all hardwoods not listed on Exhibit B in the Contract Area shown on Exhibit A. If any are felled, they shall be retained on site.
- d. Existing down logs and snags in the Contract Area shown on Exhibit A, which do not present a safety hazard. All down logs and felled snags shall be retained on site.
- e. Trees felled within road rights-of-way, which are marked with yellow paint above and below stump height shall remain on site and be placed outside of the road prism.

Sec. 44. 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 they plan 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 they intend 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. Excessive damage to reserve timber, as determined by the Authorized Officer, will result in suspension of yarding and felling operations until corrective measures to prevent further damages have been approved by the Authorized Officer.
- d. No falling, yarding, or loading is permitted in or through the Reserve Areas, shown on

Exhibit A, unless otherwise approved by the Authorized Officer.

e. Prior to attaching any logging equipment to a reserve tree, the Purchaser shall obtain approval from the Authorized Officer, and shall take precautions to protect the tree from damage as directed by the Authorized Officer.

f. 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.

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

h. In skyline harvest areas all yarding shall be done with a skyline or similar cable system equipped with a carriage 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 sky road. 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. The leading end of all logs shall be transported free of the ground during yarding. Full suspension is required within fifty (50) feet of streams. The rigging of tail or lift trees, intermediate supports and use of tail holds outside the Cutting Areas shall be required where necessary to meet this requirement. Space designated skyline corridors at a minimum of one hundred fifty (150) feet apart unless otherwise agreed to in writing by the Authorized Officer.

i. Ground-based operations are limited to slopes of thirty-five (35) percent or less. The Authorized Officer may approve the use of specialized, ground-based, mechanized equipment (machines specifically designed to operate on slopes greater than 35%) on slopes of fifty (50) percent or less, except within two hundred ten (210) feet of streams. All skidding shall be done by equipment operated entirely on skid trails that have been approved by the Authorized Officer and use existing skid trails where available. The area composed of skid trails shall not exceed fifteen (15) percent of the total yarding area within a unit. Excavation on designated skid trails shall be limited to a maximum cut of one (1) foot unless otherwise approved by the Authorized Officer. 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 water barred and blocked as directed by the Authorized Officer, after each operating season before the fall wet season begins. Temporary logging roads, skid trails, and harvester/forwarder trails will be de-compacted/tilled and covered with slash as directed by the Authorized Officer.

j. Before cutting and removing any trees necessary to facilitate logging in the Cutting Areas shown on Exhibit A, the Purchaser shall identify the location of skid trails, cable yarding roads, and tail hold, tieback, guy line, 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 roads 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, however, unless otherwise approved in writing by the Contracting Officer, the width of each skid road and/or cable yarding road shall be limited to twelve (12) feet.

2. The Purchaser may immediately cut and remove additional timber to clear skid trails and cable yarding roads; and provide tail hold, tieback, guy line, 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. The volume of the timber to be sold will be determined by the Authorized Officer in accordance with Bureau of Land Management prescribed procedures. No timber may be cut or removed under terms of this provision unless sufficient installment payments have been made in accordance with Sec. 3(b) of the contract or sufficient bonding has been provided in accordance with Sec. 3(d) of the contract.

3. The Purchaser agrees that sale of this additional timber shall be accomplished by a unilateral modification of the contract executed by the Contracting Officer and that such timber shall be sold at the unit prices shown in Exhibit B of this contract unless: the value of the timber must be reappraised subject to the terms for contract extension set forth in Sec. 9. of the contract, or, the Authorized Officer determines that the tree species are not listed in Exhibit B of this contract and otherwise reserved in Sec. 43. of the contract or any tree that exceeds forty (40) inches dbh shall be appraised and sold by bilateral modification of the contract at current fair market value in accordance with Sec. 8. of the contract.

4. This authorization for the Purchaser to cut and remove additional timber prior to the execution of a modification may be withdrawn by the Contracting Officer if the Authorized Officer determines that the Purchaser has cut and removed any tree not previously marked and approved for cutting by the Authorized Officer, which under Sec. 10. of the contract constitutes a violation of the contract and under Sec. 13. of the contract may constitute a trespass rendering the Purchaser liable for damages under applicable law.

5. If authorization is withdrawn, the Contracting Officer shall issue a written notice to the Purchaser that the sale of additional timber under this special provision is no longer approved. In this case, the Purchaser shall inform the Authorized Officer at least one (1) working day prior to the need for cutting and removing any additional timber and execute a bilateral modification prior to cutting for such additional approved timber at the unit prices shown in Exhibit B of the contract or in accordance with Sec. 8. or Sec. 9. of the contract as determined by the Authorized Officer in accordance with this provision. The Contracting Officer may issue a written order to the Purchaser to suspend, delay, or interrupt any or all contract work for the period deemed necessary and appropriate for the Government to safely measure and mark additional timber.

SEASONAL RESTRICTIONS

k. No mechanized falling or ground based equipment operation within harvest units shown on Exhibit A during the wet season (generally October 16 of one calendar year to May 31 of the following

calendar year) and during periods of wet soil conditions as determined by the Authorized Officer. Based on site specific considerations, as determined by the Authorized Officer, some of these activities may be allowed during the seasonal restriction.

l. No cable yarding, log hauling, or rock hauling on roads in the Sale Areas shown on Exhibit A during the wet season (generally October 16 of one calendar year to May 31 of the following calendar year) and during periods of wet soil conditions as determined by Authorized Officer.

m. No road renovation, road construction, road improvement, or road decommissioning (except roadside brushing, which is permitted year-round), shown on Exhibit C, shall be conducted during the wet season (generally between October 16 of one calendar year to May 31 of the following calendar year), or during periods of wet soil conditions during the dry season, as determined by Authorized Officer.

n. No road maintenance, as shown on Exhibit E, and described in Exhibit D, shall be conducted during periods of wet soil conditions as determined by the Authorized Officer.

o. No work required in live streams shall be conducted between October 1 of one calendar year and July 14 of the following calendar year in the North Yamhill River watershed, both days inclusive, unless BLM receives a waiver from the Oregon Department of Fish and Wildlife, and is approved by the Authorized Officer.

ROAD CONSTRUCTION, RENOVATION, IMPROVEMENT, MAINTENANCE AND USE

p. The Purchaser shall haul only on the designated haul route, as shown on Exhibit E, unless an alternative route is approved by the Authorized Officer.

q. The Purchaser shall construct natural surfaced roads: 2-6-29.3, 2-6-29.4 and 2-6-33.3. The Purchaser shall renovate rocked surfaced roads: 2-6-15.0, 2-6-32.1, 2-6-32.2, 2-6-32.3, 2-6-33.0, 2-6-33.2, 3-6-5.0 and 3-6-5.3. 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.

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

s. Any required construction, renovation, and improvement shall be completed and accepted prior to rock haul outside of the dry season (generally June 1 – October 15).

t. The Purchaser shall decommission 2-6-33.3, as shown on Exhibit C, by subsoiling, installing non-drivable water bars, scattering slash, removing culverts, and blocking. The Purchaser shall decommission 2-6-29.3 and 2-6-29.4, as shown on Exhibit C, by installing non-drivable water bars, removing culverts, spreading seed, and blocking. 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 to prevent further use of the road by vehicles as shown on Exhibit C. Decommissioning shall be completed no later than one (1) year after contract expiration unless otherwise approved by the Authorized Officer.

u. The Purchaser is authorized to use the roads listed below and shown on Exhibit E which are under the jurisdiction of the Bureau of Land Management for the removal of Government timber sold under the terms of this contract and/or the hauling of rock and water as required in Exhibit C, Exhibit D, and Exhibit E provided the Purchaser complies with the condition set forth in Section 42.v.

Road No. and Segment	Length Miles Used	Road Control	Road Surface Type	Maintenance Responsibility
3-6-13.0 (Seg. A-F)	7.00	BLM	Paved	BLM
3-6-8.0 (Seg. B1 – B2)	0.738	BLM	Rocked	Purchaser
3-7-6.0 (Seg. K5- K4)	0.706	BLM	Rocked	Purchaser
3-6-5.0 (Seg. A)	0.529	BLM	Rocked	Purchaser
2-6-15.0 (Seg. I3-I1)	0.403	BLM	Rocked	Purchaser
2-6-29.3	0.058	BLM	Natural	Purchaser
2-6-29.4	0.250	BLM	Natural	Purchaser
2-6-33.3	0.166	BLM	Natural	Purchaser

v. The Purchaser shall perform any road repair and maintenance work on roads used, under the terms of Exhibit D, “Road Maintenance Specifications” of this contract which is attached hereto and made a part hereof. Purchaser shall spread **140** cubic yards of crushed rock on BLM controlled roads as directed by the Authorized Officer and as part of maintenance requirements. Purchaser shall pay a road maintenance fee of two thousand nine hundred eighty-four and 35/100 dollars (\$2,984.35) to the Government. Purchaser shall pay a rockwear fee of nine thousand eight hundred twenty-one and 14/100 dollars (\$9,821.14) to the Government. This is a scale sale, so all road maintenance and rockwear fees will be calculated with the actual volume hauled after all merchantable timber has been cut and scaled. If the actual fees differ from what is mentioned and paid above, the additional/difference shall be reported and paid accordingly calculated with BLM current fees.

w. In the use of the roads listed below and shown on Exhibit E, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement S-805 (OR044601) between the United States of America and Weyerhaeuser Timber Holdings, Inc. The Purchaser will be required to enter into a license agreement with Weyerhaeuser Timber Holdings, Inc prior to commencement of operations. The Purchaser shall furnish to the Authorized Officer a copy of the required executed license agreement. The license agreement conditions include: 1) Purchaser pay a road use obligation fee to Weyerhaeuser of three thousand four hundred twenty-two and 00/100 dollars (\$3,422,00). Road use fees have been calculated using the actual BLM timber sale cruise volume. 2) Purchaser pay a rockwear fee to Weyerhaeuser of three thousand one hundred fourteen and 15/100 dollars (\$3,114.15). Rockwear fees have been calculated using the actual BLM timber sale cruise volume. This is a scale sale, so all road use and rockwear fees will be calculated with the actual volume hauled after all merchantable timber has been cut and scaled. If the actual fees differ from what is mentioned and paid above, the additional/difference shall be reported

and paid accordingly using the fees within the License Agreement. 3) The Purchaser shall perform any road repair and maintenance work on the road listed below, under the terms of Exhibit D, “Road Maintenance Specifications”, of this contract which is attached hereto and made a part hereof. 4) Default by the Purchaser of said Right-of-Way and Road Use Agreement or any license agreement executed pursuant thereto, 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. The Purchaser will be required to carry liability insurance with the limits of \$1,000,000/\$1,000,000/\$1,000,000 and a performance bond of \$2,000.

Road No. and Segment	Length Miles Used	Road Control	Road Surface Type	Maintenance Responsibility
3-6-8.0 (Seg. A1-A3)	0.377	Weyerhaeuser	Rocked	Purchaser
3-6-5.3 (Seg. A)	0.145	Weyerhaeuser owned; BLM controlled	Rocked	Purchaser
3-6-5.0 (Seg. B1-B2)	0.100	Weyerhaeuser	Rocked	Purchaser
2-6-15.0 (Seg. K-J1)	1.250	Weyerhaeuser	Rocked	Purchaser
2-6-32.1 (Seg. A1-A2)	0.221	Weyerhaeuser	Rocked	Purchaser
2-6-32.2 (Seg. A4-A6)	0.373	Weyerhaeuser	Rocked	Purchaser
2-6-32.3 (Seg. A1)	0.654	Weyerhaeuser	Rocked	Purchaser
2-6-32.3 (Seg. B)	0.309	Weyerhaeuser owned; BLM controlled	Rocked	Purchaser

x. In the use of the roads listed below and shown on Exhibit E, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement S-837 (OR045530) between the United States of America and McMinnville Water and Light. The Purchaser will be required to enter into a license agreement with McMinnville Water and Light prior to commencement of operations. The Purchaser shall furnish to the Authorized Officer a copy of the required executed license agreement. The license agreement conditions include: 1) Purchaser pay a road use obligation fee to McMinnville of two thousand six hundred ninety-five and 00/100 dollars (\$2,695.00). Road use fees have been calculated using the actual BLM timber sale cruise volume. 2) Purchaser pay a rockwear fee to McMinnville of one hundred nintey-two and 88/100 dollars (\$192.88). Rockwear fees have calculated using the actual BLM timber sale cruise volume. This is a scale sale, so all road use and rockwear fees will be calculated with the actual volume hauled after all merchantable timber has been cut and scaled. If the actual fees differ from what is mentioned and paid above, the additional/difference shall be reported and paid accordingly using the fees within the License Agreement. 3) The Purchaser shall perform any road repair and maintenance work on the roads listed below, under the terms of Exhibit D, “Road Maintenance Specifications”, of this contract which is attached hereto and made a part hereof. 4) Default by the Purchaser of said Right-of-Way and Road Use Agreement of any license agreement executed pursuant thereto, 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 result of the violation of this provision. The Purchaser will be required to carry liability insurance with the limits of \$1,660,400/ \$1,660,400/ \$1,000,000 and provide performance bond in the amount of \$1,000.

Road No. and Segment	Length Miles Used	Road Control	Road Surface Type	Maintenance Responsibility
2-6-32.2 (Seg. B)	0.322	McMinnville Water and Light	Rocked	Purchaser
2-6-33.2 (Seg. A)	0.066	McMinnville Water and Light	Rocked	Purchaser
2-6-33.0 (Seg. A1-A2)	0.052	McMinnville Water and Light	Rocked	Purchaser

y. The Purchaser agrees that if they request to use any other private road, subject of a right-of-way agreement with the Government for the removal of Government timber sold under the terms of this contract, and is approved by the Authorized Officer, 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.

z. 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.

aa. 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.

bb. The Purchaser shall perform any road repair and maintenance work on roads used (and designated as Purchaser Maintenance), under the terms of Exhibit D, “Road Maintenance Specifications”, of this contract which is attached hereto and made a part hereof. Purchaser shall spread **150** cubic yards of crushed rock on non-BLM roads used for this timber sale, as directed by the Authorized Officer as part of maintenance requirements.

ENVIRONMENTAL PROTECTION

cc. To prevent the spread of noxious weeds, the Purchaser shall pressure wash all road construction equipment (except dump trucks) and wash all ground-based logging equipment that will be used off of existing roads, as well as loaders and mechanically propelled brush cutters, prior to each entry onto the BLM Land shown on Exhibit A, 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.

FIRE PREVENTION

dd. 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 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

ee. In addition to the requirements of Sec. 15 of this contract, and notwithstanding the Purchasers satisfactory compliance with State laws and regulations regarding offsetting or abating the additional fire hazard created by this operation and the States 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 thirty two (32) 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 purchasers operations under the terms of this contract.

1. Excavator pile and burn slash within ground based portion of regeneration harvest units and along roads as directed by the Authorized Officer. 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. Slash less than six (6) inches in diameter would be less than one (1) foot in height.
 - c. Machine piles shall be located as far as possible from retention trees, snags, or

unit boundaries to minimize damage.

- d. 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.
- e. A minimum 10-foot by 10-foot cover of four (4) mil (0.004) inch thick 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.
- f. Cutting Areas shall be piled during the same season that they are logged.

2. Slashing shall be completed as directed by the Authorized Officer.

a. All standing woody vegetation (brush), whips, and designated trees over one (1) foot in height shall be felled (slashed) and lopped into six (6) foot or smaller lengths in harvest units as directed by the Authorized Officer. Designated trees to be slashed include red alder and big leaf maple that are less than seven (7) inches dbh.

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 less than seven (7) inches dbh trees shall be reserved and undamaged.

3. 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 in areas identified post-harvest. Larger material which has a portion meeting this specification must be bucked at the six (6) inch diameter and that portion piled and burned.

a. All hand piles should have the slashed limbs, logs, and slashed woody vegetation placed parallel in the pile and should be 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. Piles shall be no larger than eight (8) feet in diameter, nor taller than six (6) feet unless otherwise directed by the Authorized Officer. Hand piles should be

placed so that no pile is closer than fifteen (15) feet from the bole of retained green trees or snags. Hand piles shall not be placed in stream channels, on roads, or large woody debris.

b. 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. The plastic shall be oriented from the south and west sides to north and east sides. Placement of the plastic shall start one (1) foot 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. 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.

c. The Purchaser shall provide all tools, materials, equipment, personnel and incidentals necessary to satisfactorily perform and complete the work at the Purchasers expense.

4. 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 with four (4) mil (0.004) inch thick polyethylene plastic film at least 10 feet wide. Landing piles shall be covered sufficiently to allow for ignition in wet conditions as approved by the Authorized Officer. 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.

ff. 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 Section 44(ee). 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:

1. 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.

2. Five 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, six (6) drip torches, one (1) power saw, and one (1) backpack pump, one (1) tool for each crew member.

3. 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) crewmembers.

4. 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.

CREATION OF COARSE WOODY DEBRIS

gg. In the Coarse Woody Debris Creation Units shown on Exhibit F, the Purchaser shall, upon completion of yarding, select and saw-top or high-girdle, sixty-five (65) live trees in accordance with Exhibit F. No adjustments of volume or value shall be made to meet these requirements.

BUYOUT SECURITIES

hh. The Purchaser shall create coarse woody debris in accordance with Section 42.gg. The Purchaser shall have the option of completing this work, or in lieu thereof, may make a buyout security deposit to the Bureau of Land Management in the amount of ten thousand twenty-one and 15/100 dollars (\$10,021.15), and upon making such deposit, the Purchaser shall be relieved of the obligations set out in this subsection. The Purchaser shall notify the Authorized Officer of their intention to make this deposit prior to the date of execution of this contract and the Authorized Officer shall establish a required schedule of payments.

LOG EXPORT RESTRICTION

ii. Unless otherwise authorized in writing by the Contracting Officer, the Purchaser shall brand clearly and legibly one end of all logs on timber loads. 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.

If contract area is within a State that maintains a log brand register, brands shall be registered with the State and Purchaser shall use assigned brand(s) exclusively on logs from this contract until the Authorized Officer releases the brand(s).

MISCELLANEOUS

jj. The Purchaser agrees not to sell and/or exchange more than 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 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 Section 4 of this contract as amended.

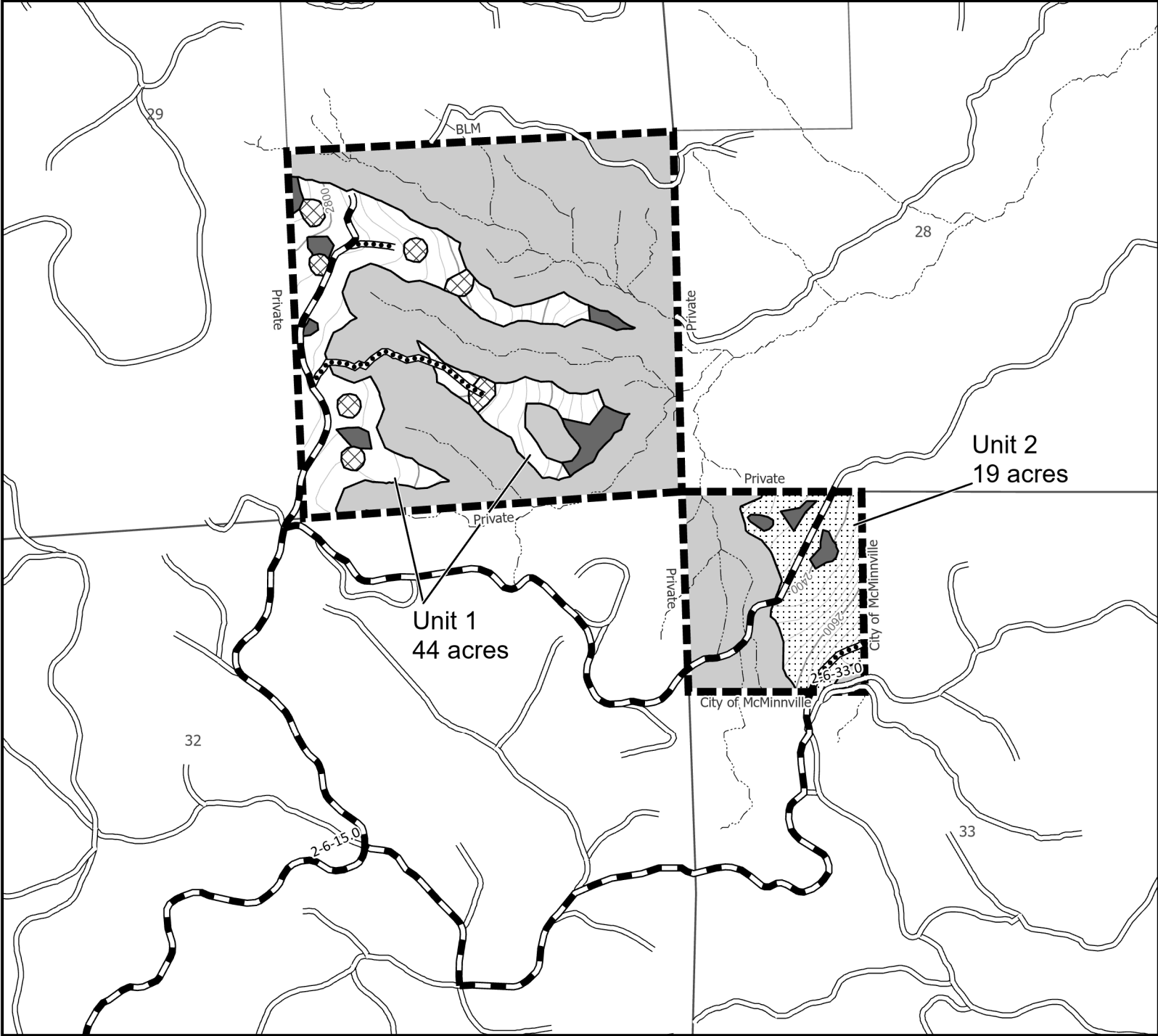


United States Department of the Interior
 BUREAU OF LAND MANAGEMENT
 TIMBER SALE CONTRACT MAP

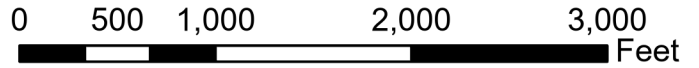
Contract No. ORN04-TS-2023.0403
 Little Bit Timber Sale
 Exhibit A
 Page 1 of 1

6/29/2023

T. 2S. R. 6W, Sections 29 & 33 W. M. - NORTHWEST OREGON DISTRICT - OREGON



Partial Cut Area	44 acres
Regeneration Cut Area	19 acres
Right-of-Way	2 acres
Reserve Area	134 acres
Clump Area	6 acres
Patch Cut Area	4 acres
Total Contract Area	199 acres



	Contract Area		Road Construct
	Partial Cut Area		Road Renovate
	Regeneration Cut Area		Existing Road
	Patch Cut Area		Streams
	Clump Area		Reserve Area

Contour Interval: 40 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. Note: Boundaries of harvest areas are painted/flagged in orange and posted. Right-of-ways (ROW) are posted. Harvest area acres do not include existing roads. Prepared By: dtyler

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

Contract No.: ORN04-TS-2023.0402
Sale Name: Little Bit
**Issuing Office: NWOD-Tillamook
Field Office**

**EXHIBIT B
SCALE SALE**

PURCHASE PRICE SCHEDULE AND MEASUREMENT SPECIFICATIONS

I. **Timber and Other Wood Products Sold** - In accordance with Section 2 and 3, the Purchaser agrees to pay the Government for the timber and other wood products sold under the contract in accordance with the following schedule, measurement standards, and requirements. Wood products sold is comprised of Timber, Other Wood Products, and Timber and Other Wood Products Remaining as defined below. In the event an Extension of Time is approved, the prices per measurement unit may be subject to readjustment in accordance with Section 9 of the contract.

Timber Schedule		
Species	Unit of Measure	Price Per Measurement Unit
Douglas Fir	MBF	\$213.10
Western Hemlock	MBF	\$ 42.50
Grand Fir	MBF	\$ 38.90
Red Alder	MBF	\$ 27.70
Other Wood Products Schedule		
Product/Species	Unit of Measure	Price Per Measurement Unit

The Authorized Officer shall establish unit of measure and price per measurement unit, in accordance with standard Bureau of Land Management (BLM) procedures, for any species or products not listed in this Exhibit that are cut or removed from the contract area.

II. **Timber** – Includes standing trees, downed trees or logs, or portions thereof, which can be cut into logs that equal or exceed the specifications below.

All logs defined below, which have not been reserved to Government in Section 43 of the contract, shall be designated as timber under this contract. Logs or portions of logs which equal

or exceed all the following minimum log specifications shall be considered timber sold. The Purchaser shall pay for all timber removed in accordance with Section 3 of the contract at the price per measurement unit shown in Section I of this Exhibit.

- Log or portion of a log that is:
 - One third (1/3) sound.
 - Small End Diameter Inside Bark (DIB) – Six (6) inches
 - Length – Eight (8) feet four (4) inches

III. Other Wood Products – Includes timber and other woody material not meeting the timber specifications above (i.e., pulp, biomass, chips, hog fuel).

If Purchaser removes any products or species which do not meet the minimum log specifications for timber in Section II, such material shall be considered other wood products. Purchaser shall pay for other wood products in accordance with Section 3 of the contract at the price per measurement unit shown in Section I of this Exhibit.

IV. Timber and Other Woods Products Remaining - The remaining volume of any timber or other wood products, which have not been reserved to Government in Section 43 of the contract, shall be determined as provided in Section 3(g) of the contract using specifications set forth in the table below. The Purchaser shall pay for the sum of all remaining volume in accordance with Section 3 of the contract at the unit prices shown in Section I of this Exhibit.

Left Standing Timber	Felled Timber Not Removed
Diameter at Breast Height (DBH): 8	Small End DIB: 6
Log Height: 16 feet	Log Length: 16 feet
% Sound: 33.3	% Sound: 33.3
Net Tree Volume: 20 BF	Net Log Volume: 20 BF

V. Measurement Standards

1. **Log Scaling Loads:** All species or products in Section I, with MBF as the Unit of Measure shall be designated as log scaling loads.
 - a. Log scaling services shall be provided and performed by BLM Certified Scalers or BLM-authorized Third-Party Scaling Organizations (TPSO), as determined by the Authorized Officer. The Purchaser’s employees or contractors may not perform log scaling.
 - b. All logs shall be scaled in Eastside Scribner Log Rules according to the Official Log Scaling and Grading Bureaus, Northwest Log Rules Eastside and Westside Log Scaling Handbook, as amended or supplemented, at the time the logs are scaled.
 - c. All logs shall be scaled using an authorized BLM log scaling method approved by the Authorized Officer in accordance with BLM prescribed procedures. A list of authorized BLM log scaling methods is available upon request.

- d. Purchaser shall ensure all logs are presented so that they may be scaled in an economical and safe manner.
- e. Scaling deductions made for rot, check or other defect resulting from abnormal delay in scaling caused by Purchaser shall be recorded separately and charged to the Purchaser in accordance with Section 3(g) of the contract when applicable. Avoidable delay in log scaling caused by the Purchaser that results in a measurable reduction in timber volume or quality would generally be considered abnormal delay, as determined by the Authorized Officer.
- f. Mechanical damage to logs that occurs during unloading identified by the TPSO will not be considered a deductible defect.
- g. The BLM will conduct check scaling using the following standards:
 Gross Scale - A variance of one and ½ percent (1.5%) in gross scale is the standard unless otherwise justified.
 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	0.2 * percent defect to a maximum of 5 percent

Determinations as to volume of timber made by a BLM check scaler in conformance with the standards as set forth herein shall be final. When such checks show a variance in scale more than 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 BLM check scales and the original scale during the period covered by the unsatisfactory check scales. Unless otherwise approved in writing by the Authorized Officer, the volume to which this difference will be applied will be fifty (50) percent of the volume scaled between the last satisfactory check and the first unsatisfactory check, one hundred (100) percent of the volume scaled during the unsatisfactory check, and fifty (50) percent of the volume between the last unsatisfactory check scale and the next satisfactory check scale.

- 2. **Weight Loads:** All species or products in Section I, with Tons as the Unit of Measure shall be designated as weight loads.
 - a. All weight loads shall be weighed on State certified scales.
 - b. Scales must have a current inspection tag or seal posted which shows the date of the most recent test by the State weights and measures agency.
 - c. No load shall be presented for weighing that exceeds the certified capacity of the scales in use.
 - d. Each load shall be weighed as a single unit. Gross and tare weight must be machine printed on a weight receipt. Average tare weights shall not be used,

unless approved by the Authorized Officer. In addition to the gross and tare weight, the following shall be recorded with each weight receipt:

- Contract name and number
- Load Ticket number
- Date, time, and location the load was weighed

VI. Accountability

1. Purchaser shall notify the Authorized Officer seven (7) business days prior to starting or stopping of hauling operations performed under the contract.
2. The Purchaser must provide the following information to the Authorized Officer seven (7) business days prior to the commencement of haul: log scaling and weighing location(s), planned beginning haul dates, anticipated number of loads per day to each scaling or weighing location, logger name and contact information, and log brands to be used, and the log brand registration number(s).
3. A Scaling Authorization Form(s) must be completed and approved by the Contracting Officer prior to beginning of hauling operations. The Scaling Authorization(s) will include approved measurement methods, merchantability standards, sort descriptions, and authorized delivery locations for all loads hauled from the contract area. For log scale loads, all log scaling locations on the Scaling Authorization(s) are required to have a Log Yard Authorization with the BLM. Approved Scaling Authorizations will be provided to the Purchaser upon request.
4. All loads will be scaled and/or weighed at locations listed on the Scaling Authorization as approved by the Authorized Officer.
5. Purchaser shall notify the Authorized Officer seven (7) business days in advance to request additional log scaling and/or weighing locations for approval on the Scaling Authorization(s).
6. Purchaser shall not intermingle BLM timber and other wood products with any other timber or wood products before log scaling and/or weighing occurs.
7. All logs on timber loads will be painted and branded at the landing and accounted for accordance with Section 44 of the contract. If contract area is within a State that maintains a log brand register, brands shall be registered with the State and Purchaser shall use assigned brand(s) exclusively on logs from this contract until the Authorized Officer releases the brand(s).
8. The Authorized Officer shall issue the Purchaser serially numbered load ticket books prior to any haul operations. The Purchaser shall sign a receipt for all ticket books received. The Purchaser shall accurately complete all load receipts in accordance with the instructions on the front of the ticket books, or as directed by the Authorized Officer. Separate load ticket books will be used for timber and other wood products. Mule train timber loads will be treated as two separate loads with a ticket for each load. All load tickets will be marked with the cutting area number using a permanent

marker or as directed by the Authorized Officer. The Purchaser shall deliver all loads to the log scaling or weighing location on the Scaling Authorization and listed on the BLM receipt. The load receipt and BLM receipt shall remain attached to the log load until it is scaled and/or weighed. For log scale loads, attach on the bunk or wing log at the front of the load on the driver's side, and surrender the load receipt and BLM receipt to the TPSO or Authorized Officer at the scaling location. For weight loads, either attach at the front of the load on the driver's side or place on the driver's side dashboard, attach the load receipt and BLM receipt to the weight receipt and deliver to the BLM weekly, unless otherwise directed by the Authorized Officer. The Purchaser will return all used load ticket books with woods receipts still attached to the BLM at the time new books are being issued. All unused and partial load ticket books, with receipts still attached, must be returned to the BLM upon completion of the contract and prior to final payment, or at the request of the Authorized Officer.

9. The Purchaser must account for all load receipts from each load ticket book. For all load receipts not accounted for, the Contracting Officer, at their sole discretion, will determine if the receipts are void or if the Purchaser shall pay damages for lost products. The value of lost products shall be equal to the highest value load for the month in which the receipt is lost. If no loads have been hauled in that month, value will be determined from the closest month in which loads were hauled. In the event a load receipt or load ticket book is lost or stolen, the Purchaser must immediately notify the Authorized Officer, and provide a complete explanation.
10. The Purchaser shall furnish BLM a map showing the route which shall be used to haul loads from the timber sale area to the log scaling/weighing location. Upon loading timber or other wood products in the contract area, all loads shall be hauled directly to the authorized scaling or weighing location as stated on the load receipt. The route of haul may be changed only with advance notice to and approval by BLM.
11. The Purchaser shall notify the Authorized Officer and receive advance authorization if any loads will arrive at an authorized scaling or weighing locations outside of their normal operating hours. No loads will be left on the truck for overnight storage without advance permission from the Authorized Officer.
12. If scaling or weighing services are unavailable, delayed or interrupted for any reason, hauling operations will cease immediately until services resume or an alternate scaling or weighing location is approved by the Authorized Officer.
13. Any removal of wood products from loaded trucks before being accounted for as required by the contract shall be considered a trespass and render the Purchaser liable for damages under applicable law in accordance with Section 13 of the contract. Any payment made for purchase of such loads shall be deducted from amount due because of trespass.

VII. Total Estimated Purchase Price – For administrative purposes, the following will be used for determining (1) when payments are due and (2) the value of timber or other wood products subject to any special bonding provisions in accordance with Section 3(f) of the contract.

1. When payments are made under Section 3 of the contract, the Authorized Officer shall determine the value of removed timber and other wood products using the Government's records of log scale and/or weight volumes removed from the contract area.
2. The estimated value of timber and other wood products not yet removed from the contract area will be determined by subtracting the Government's records for value of removed timber and other wood products from the estimated total purchase price as shown in the table below. The estimated Total Purchase price is calculated by multiplying the estimated volume or weight for all species/products, listed below, by the bid prices in Section 1.

Total Estimated Purchase Price for Timber and Other Wood Products			
Species/Product	Estimated Volume (MBF or Tons)	Bid Price (\$/MBF or \$/Ton)	Estimated Value
Douglas Fir	1,602 MBF	\$213.10	\$341,386.20
Western Hemlock	104 MBF	\$42.50	\$4,420.00
Grand Fir	4 MBF	\$38.90	\$155.60
Red Alder	1 MBF	\$27.70	\$27.70
Total Estimated Purchase Price:			\$345,989.50

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**U.S. DEPARTMENT OF THE INTERIOR
 Bureau of Land Management
 SALEM DISTRICT – OREGON
 TIMBER SALE CONTRACT
 ROAD SPECIFICATIONS**

Road Number	New Construction (Stations and Miles)	Improvement (Stations and Miles)	Renovation (Stations and Miles)
2-6-15.0			87+28 Sta. = 1.1653 Miles
2-6-29.3	3+04 Sta. = 0.058 Miles		
2-6-29.4	13+23 Sta. = 0.251 Miles		
2-6-32.1			11+67 Sta. = 0.221 Miles
2-6-32.2			36+70 Sta. = 0.695 Miles
2-6-32.3			50+85 Sta. = 0.963 Miles
2-6-33.0			2+75 Sta. = 0.052 Miles
2-6-33.2			3+48 Sta. = 0.066 Miles
2-6-33.3	8+76 Sta. = 0.166 Miles		
2-6-5.0			33+21 Sta. = 0.629 Miles
2-6-5.3			7+66 Sta. = 0.145 Miles

GENERAL – 100

101 - Pre-work Conference(s):

A pre-work conference will be held prior to the start of new construction, renovation, improvement, quarry development, and decommissioning operations. The Purchaser shall request the conference at least forty-eight (48) hours prior to the time it is to be held. The conference will be attended by the Purchaser and/or their representatives, subcontractors or their representatives and the Authorized Officer and/or their representatives.

The purpose of the prework conference will be to review the required work, exhibits and specifications, and to establish a work schedule and a list of the Purchaser's representatives and subcontractors.

102 - Definitions:

AASHTO - American Association of State Highway and Transportation Officials. Current editions of tests and specifications.

Apparent Opening Size (AOS) - Number of the U.S. Bureau of Standard sieve (or its opening size in millimeters or inches) having openings closest in size to the diameter of uniform particles which will allow five (5) percent by weight to pass through the geotextile material when shaken in a prescribed manner. This is also referred to as Equivalent Opening Size (EOS).

ASTM - American Society for Testing and Materials.

Base Course - Surfacing structure consisting of crushed gravel or stone, crushed sandstone, pit-run rock, bank or river-run gravels, etc., to provide support and, in the event no surface course is placed, the running surface for traffic load.

BLM - Bureau of Land Management

Borrow - Excavated material required for embankments and other portions of the work.

Burst Strength - The resistance of a geotextile material to rupture from pressure applied at right angles to the plane of the geotextile material under specified conditions, usually expressed as the amount of pressure causing failure. Rupture or burst results from tensile failure of the geotextile material.

Culvert - A pipe, pipe-arch, arch, or box structure constructed of metal, concrete, plastic or wood which provides an opening under the roadway primarily for the conveyance of liquids, pedestrians or livestock.

Curve Widening - Widening required on inside of curves to accommodate long log and equipment hauling trucks.

Embankment - A structure of soil, aggregate, or rock material placed on a prepared ground surface and constructed to subgrade.

End Haul - Excavated material moved, other than by dozer, to an embankment or waste area to prevent side casting material outside of the road prism.

Excess Excavation - Material from the roadway in excess of that needed for construction of the designed roadway (waste).

Grab Tensile Strength - A modified tensile strength of a geotextile material. The strength of a specific width of geotextile material together with the additional strength contributed by adjacent areas. Typically, grab strength is determined on a 12-inch-wide strip of geotextile material, with the tensile load applied at the midpoint of the geotextile material width through 1-inch-wide jaw faces.

Grading - Leveling to grade, shaping and smoothing of a road subgrade; the shaping of roadside ditches as to grade and contour. In some instances, includes smoothing of the cut bank.

Nonwoven Geotextile Material - A textile structure produced by bonding or interlocking of fibers, or both, accomplished by mechanical or chemical means.

Overhaul - Distance excavated material is transported in excess of the distance included in the cost for excavation.

Penetration Resistance - The geotextile material property determined by the force required to penetrate a geotextile material with a sharp pointed object. Initial penetration is by separating the fibers. Further penetration is essentially a tearing process.

Percent Open Area - The net area of a geotextile material that is not occupied by geotextile material filaments, normally determinable only for woven and nonwoven geotextile material having distinct, visible, and measurable openings that continue directly through the geotextile material.

Permeability - The geotextile material property which permits water to be transmitted in the longitudinal or transverse planes of the geotextile material.

Pioneer Road - Temporary construction access built along the route of the project.

Piping - The process by which soil particles are washed in or through pore spaces in drains and filters or poorly compacted fill/backfill material.

Plans - The approved drawings, or exact reproductions thereof which show the locations, character, dimensions, and details of the work to be done.

Pore Size - The size of an opening between geotextile material filaments; apparent opening size (AOS) is used to quantify this geotextile material property.

Puncture Resistance - The geotextile material property determined by the force required to penetrate a geotextile material with a blunt object. Failure results in a tearing of the geotextile material.

Purchaser - The individual, partnership, joint venture, or corporation contracting with the Government under the terms of a Timber Sale Contract and acting independently or through their, or its agents, employees, or contractors.

Reasonably Close Conformity - Compliance with reasonable and customary manufacturing and construction tolerances where working tolerances are not specified.

Reinforcement - Strengthening of concrete with iron bars or mesh: geotextile with geotextile material inclusion: subgrade with aggregate: etc.

Roadbed - The graded portion of the road within top and side slopes, prepared as a foundation for the pavement structure and shoulders.

Road Centerline - The longitudinal center of a roadbed.

Road Improvement - Work done to an existing road which improves it over its original design standard.

Road Renovation - Work done to an existing road which restores it to its original design.

Roadway - The portion of a road within limits of construction. Usually from the toe of the fill slope to a point where the cut slope intersects natural ground line.
Synonym - road prism.

Scale - In quarrying, consists of the removal of loose or overhanging rock adhering to the solid face after a shot or a round of shots has been fired.

Scarification - The process of loosening or breaking up of the surface layer of soil or road, usually to a specified depth.

Separation - Function of geotextile material as a partition between adjacent materials to prevent mixing of those materials.

Shoulder - The portion of the roadbed contiguous with the traveled way designed for accommodation of stopped vehicles, safety, and lateral support of base and surface courses.

Slope ratio notation (horizontal: vertical) - Slope ratios for constructed cut and fill slopes are expressed as a ratio of horizontal units to vertical units.

Spalls - Flakes or chips of stone.

Specifications - A general term applied to all directions, provisions, and requirements pertaining to performance of the work.

Specific Gravity - The ratio of the density of a material to the density of water obtained by weighing known volumes of both items in air. A specific gravity less than one implies that the material will float.

Structures - Bridges, culverts, catch basins, retaining walls, underdrains, flumes, splash pads, downspouts, and other project features which may be involved in the work and not otherwise classified in these specifications.

Sub-base - Reinforcement of the subgrade with large particles of pit-run rock or crushed stone. Usually confined to roads having wet subgrades or subgrades with weak support characteristics.

Surface Course - Top layer of a road structure consisting of finely crushed gravels or asphalt designed to provide a smooth-running surface for traffic load.

Subgrade - The top surface of a roadbed upon which the traveled way and shoulders are constructed.

Tensile Strength - The strength shown by a geotextile material subjected to tension as distinct from torsion, compression, or shear.

Tensile Stress - Strain Modulus - A measure of the resistance to elongation under stress. The ratio of the change in tensile stress to the corresponding change in strain.

Tensile Test - A test which subjects geotextile material to tensile forces and measures resultant stresses and strains.

Timber - Standing trees, downed trees, or logs which can be measured in board feet.

Traveled Way - The portion of the roadbed used for the movement of vehicles, exclusive of shoulders.

Typical Cross Sections - Cross-sectional plane of a typical roadway; showing natural ground line and designed roadway in relation to cut and fill, through cut, and through fill.

Turnout - Extra widening of the roadbed at appropriate intervals on single-lane roads for passing purposes.

Ultraviolet (UV) Radiation Stability - The ability of geotextile material to resist deterioration from exposure to sunlight.

Woven Geotextile Material - A textile structure comprising two or more sets of filaments of yarns interlaced in such a way that the elements pass each other at essentially right angles with one set of elements parallel to the geotextile material axis.

102a - Tests Used in These Specifications:

<u>AASHTO T 11</u>	Quantity of rock finer than No. 200 sieve.
<u>AASHTO T 27</u>	Sieve analysis of fine and coarse aggregate using sieves with square openings; gradation.
<u>AASHTO T 89</u>	Liquid limit of material passing the No. 40 sieve. Water content at which the soil passes from a plastic to a liquid state.
<u>AASHTO T 90</u>	Plastic limits and plasticity index of soil. a. Plastic limit - lowest water content at which the soil remains plastic. b. Plasticity index - range of water content, within which the material is in a plastic state. Numerical difference between the liquid and plastic limits of the soil.
<u>AASHTO T 96</u>	Resistance to abrasion of small size coarse aggregate by use of the Los Angeles machine.
<u>AASHTO T 99</u>	Relationship between soil moisture and density of soil. Method A - 4" mold, soil passing a No. 4 sieve 25 blows/layer & 3 layers. Method C - 4" mold, soil passing a 3/4-inch sieve 25 blows/layer & 3 layers. Method D - 6" mold, soil passing a 3/4-inch sieve. 56 blows/layer & 3 layers.
<u>AASHTO T 119</u>	Slump of hydraulic cement concrete.
<u>AASHTO T 152</u>	Air content of freshly mixed concrete.
<u>AASHTO T 166</u>	Specific Gravity of compacted Bituminous Mixtures.
<u>AASHTO T 176</u>	Shows relative portions of fine dust or claylike materials in soil or graded aggregate.
<u>AASHTO T 180</u>	(OSHD 106-71) moisture density relationship of soil same as AASHTO T 99 proctor but uses a 10-lb rammer & 18-in drop height.

<u>AASHTO T 191</u>	<u>Sand Cone.</u> Density of soil in place: For subgrade use 6-inch or 12-inch cone. For rock surfacing for 1-1/2-inch minus to 3-inch minus use 12-inch cone.
<u>AASHTO T 205</u>	<u>Rubber balloon.</u> Density of soil in place. Use for compacted or firmly bonded soil.
<u>AASHTO T 209</u>	Maximum Specific Gravity of Bituminous Paving Mixtures.
<u>AASHTO T 210</u>	Durability of aggregates based on resistance to produce fines.
<u>AASHTO T 224</u>	Correction for coarse particles in the soil.
<u>AASHTO T 238</u>	Density of Soil and Soil-Aggregate in place by nuclear methods.
<u>AASHTO T 248</u>	Reducing field samples of aggregate to testing size by mechanical splitter, quartering, or miniature stockpile sampling.
<u>ASTM D 4564</u>	Determination of relative density of cohesion less soils.
<u>DMSO (dimethyl sulfide)</u>	Determines volume of expanding clays in aggregates. Usually associated with marine basalts.

103 - Compaction equipment shall meet the following requirements:

103b - Sheepsfoot/Tamping rollers. A tamping roller unit shall consist of two (2) watertight metal drums mounted in frames in such manner as to be fully oscillating, together with a tractor having sufficient weight and power under actual working conditions to pull the roller drums at a minimum speed of two and a half (2.5) miles per hour. The drums shall be no less than sixty (60) inches in diameter and no less than fifty-four (54) inches in length, measured at the drum's surface, and shall be studded with tamping feet projecting not less than seven (7) inches from the face of the drums.

The distance between circumferential rows of tamper feet shall be such that the diagonal distance from any foot to the nearest foot in each adjacent row shall be not more than twelve (12) inches. The cross-sectional area of the face of each tamper foot, measured perpendicular to the axis of the stud, shall be not less than 5-1/2 square inches nor more than eight (8) square inches.

The weight of the tamping-roller unit shall be such as to exert a minimum pressure of two hundred fifty (250) pounds per square inch on the ground area in contact with the tamping feet, and the roller shall be so designed that the weight

may be increased to exert a pressure up to five hundred (500) pounds per square inch on the ground area in contact with the tamping feet.

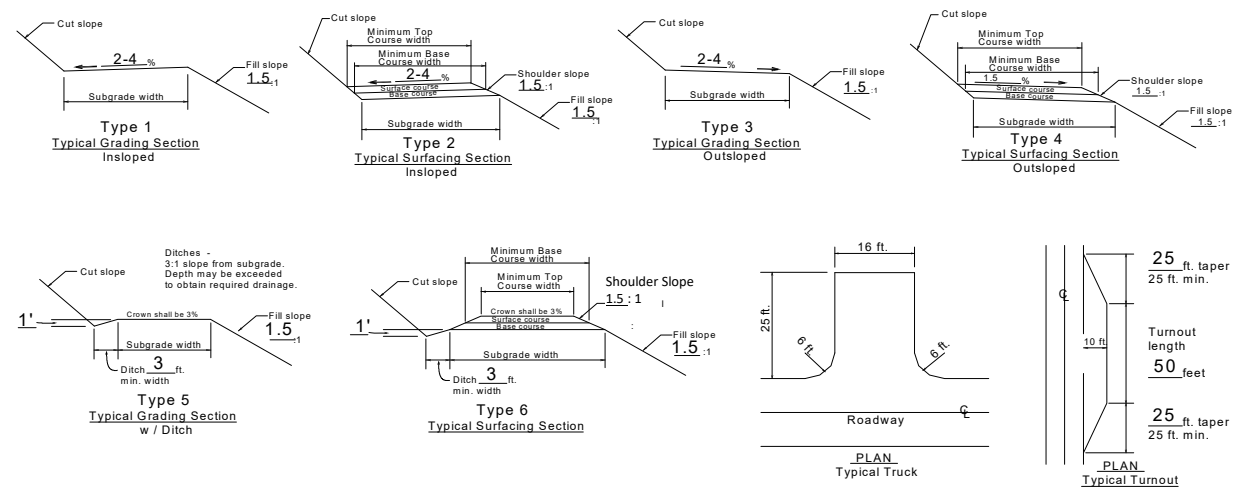
The ground pressure shall be determined by dividing the total weight of the roller unit, not including the weight of the tractor, by the total cross-sectional area of the tamping feet in one (1) row of tamping feet parallel to the axis of the roller.

- 103f - Vibratory roller. The drum diameter shall be not less than forty-eight (48) inches, the drum width not less than fifty-eight (58) inches and have a turning radius of fifteen (15) feet or less. Vibration frequency shall be regulated in steps to 1400, 1500, and 1600 vibrations per minute (VPM), corresponding to engine speeds of 1575, 1690, and 1800 RPM. The centrifugal force developed shall be seven (7) tons at 1600 RPM. It shall be activated by a power unit of not less than twenty-five (25) horsepower. The vibratory roller shall be self-propelled or drawn by a vehicle of sufficient horsepower to enable the unit to travel through a loose layer of material at a speed ranging from 0.9 mile to 1.8 miles per hour, as directed by the Authorized Officer.

The towing vehicle and roller or self-propelled unit meeting the above requirements shall be considered a vibratory roller unit.

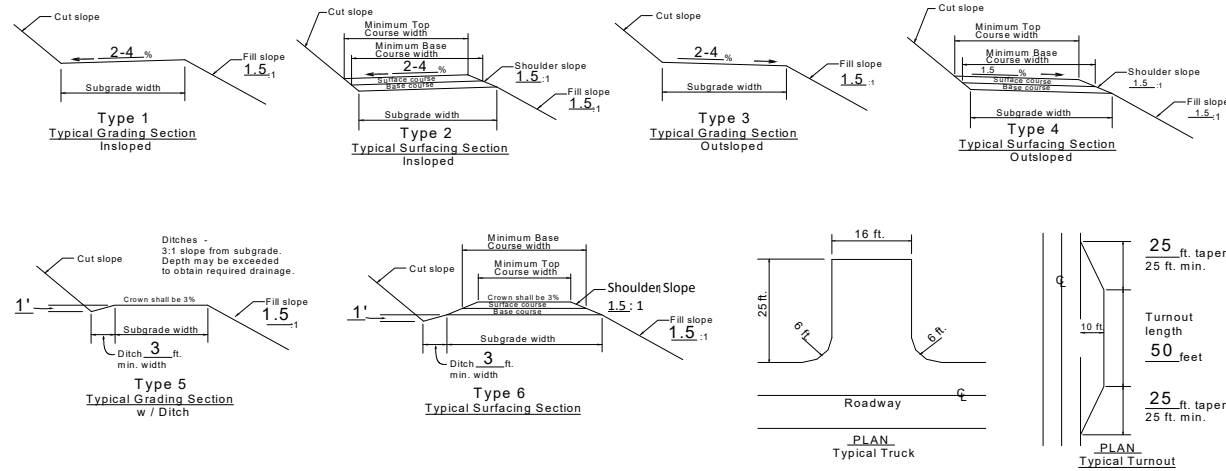
- 103g - Vibratory compactor. Vibratory compactors shall consist of multiple or gang-type compacting units or pads with a minimum variable width of two (2) feet. It shall be self-contained and capable of compacting material as required.
- 103h - Drum drive self-propelled vibratory grid roller. The unit shall consist of one cylindrical drum with a drum diameter of not less than fifty-six (56) inches, nor shall be more than sixty-six (66) inches and the drum width be eighty-four (84) inches. Vibration frequency shall be regulated in steps from 1200 to 1800 vibrations per minute (VPM), and the centrifugal force developed shall be at least 40,000 pounds at 1800 RPM. The vibratory grid roller shall be self-propelled and have a power unit of not less than 112 horsepower. The "grid" design shall be a herringbone or z-bar pattern around the circumference of the drum. The grid bars shall be one (1) inch in height and spaced not more than eight and one half (8-1/2) inches apart.
- 103i - Other. Compaction equipment approved by the Authorized Officer.

Road Number	Start Station or Milepost	End Station or Milepost	Total Length	Typical Cross Section	Min. Curve Radius	ROAD WIDTH		GRADIENT		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		
2-6-15.0 (White Face Road)	0.000	1.653	1.653	6		14'	2'	--	--	--	--	ABC	D	--	--	--	ASC	C	--	Renovation. Existing rock road. Re-establish ditchline and haul material to WA as directed. Remove bank slough material from ditchline @ MP 0.909 & 0.913 and haul to designated waste area. Clean inlet of existing culverts @ MP 0.005 & 0.939 as marked and directed. Construct lead-off ditch @ outlet of existing culvert @ MP 0.005 as marked and directed. Spread 210 CY 1-1/2"-0" Crushed Spot Rock as marked and needed (170 CY as marked and 40 CY as needed). Spread 20 CY 6" Jaw-Run Spot Base Rock as marked. Place 10 CY 1-1/2"-0" Crushed Bedding/Backfill Rock as marked. Place 5 CY Class 5 RipRap as dissipater at outlet as marked. Construct 5 Sediment Catch Basins w/ straw bales as marked. Construct turnouts, turnarounds and waste areas as marked or directed. Construct ditchouts as marked and needed. At MP 1.381, extend 1 existing culvert by adding piece to the outlet as marked and directed. Install 17 metal culvert inlet markers.	
2-6-29.3	0+00	3+04	3+04	3		14'	0'	10%	10%	--	--	ABC	D	--	--	--	ASC	C	--	New Construct. Spread 30 CY 1-1/2"-0" Crushed Spot Cap Rock as marked. Spread 20 CY 6" Jaw Run Spot Base Rock as marked. Construct turnout/ junction as marked. Cut and drift material from between Stations 1+58 - 2+71 as fill material between Stations 2+71 - 3+04 to achieve desired grade and landing construction. Construct a landing (approx. 50' diameter) as marked.	
2-6-29.4	0+00	8+30	8+30	5		14'	2'	15%	15%	--	--	ABC	D	--	--	--	ASC	C	--	New Construct. Spread 40 CY 1-1/2"-0" Crushed Spot Cap Rock as marked. Spread 20 CY 6" Jaw Run Spot Base Rock as marked. Place 20 CY 1-1/2"-0" Crushed Bedding/Backfill Rock as marked. Construct turnout and junction as marked. Cut and drift material from between Stations 0+80 - 6+05 as fill material between Stations 0+19 - 0+80 & 6+05 - 7+15 to achieve desired grade and Culvert Fill construction. Construct 2 Sediment Catch Basins w/ straw bales as marked. Construct ditchouts as marked and needed. Install 1 stream culvert.	
	8+30	13+23	4+93	3		14'	0'	15%	15%	--	--	--	--	--	--	--	--	--	--	New Construct. Construct turnout and turnaround as marked. Construct a landing (approx. 50' diameter) as marked.	
2-6-32.1	0.000	0.221	0.221	6		14'	2'	--	--	--	--	ABC	D	--	--	--	ASC	C	--	Renovation. Existing rock road. Re-establish ditchline and haul material to WA as directed. Clean debris from existing culvert inlet @ MP 0.167 as directed. Spread 40 CY 1-1/2"-0" Crushed Spot Rock as marked and needed (20 CY as marked and 20 CY as needed). Construct 2 Sediment Catch Basins w/ straw bales as marked. Construct junctions and turnaround as marked or directed. Construct ditchouts as marked and needed. Install 2 metal culvert inlet markers.	
2-6-32.2	0.000	0.223	0.223	6		14'	2'	--	--	--	--	--	--	--	--	--	ASC	C	--	Renovation. Existing rock road. Re-establish ditchline and haul material to WA as directed. Clean inlet of existing culvert @ MP 0.058 as marked and directed. Spread 40 CY 1-1/2"-0" Crushed Spot Rock as marked and needed (20 CY as marked and 20 CY as needed). Construct junctions as marked or directed. Construct ditchouts as marked and needed. Install 1 metal culvert inlet marker.	
2-6-32.3	0.223	0.695	0.472	4		14'	0'	--	--	--	--	ABC	D	--	--	--	ASC	C	--	Renovation. Existing rock road. Remove stumps @ MP 0.269, 0.300, 0.329, 0.477, & 0.645 to widen road to specified widths as directed and marked. Haul stumps to designated waste areas. etween MP 0.359 - 0.371, widen road approx. 3 feet left and haul material to designated waste area as marked and directed. Between MP 0.470 - 0.484, widen approx. 6 feet left to widen curve radius and haul material to designated waste area as marked and needed. Spread 140 CY 1-1/2"-0" Crushed Spot Rock as marked and needed (110 CY as marked and 30 CY as needed). Spread 20 CY 6" Jaw-Run Spot Base Rock as marked. Construct junctions and waste areas as marked or directed.	
2-6-32.3	0.000	0.963	0.963	6		14'	2'	--	--	--	--	--	--	--	--	--	ASC	C	--	Renovation. Existing rock road. Re-establish ditchline and haul material to WA as directed. Spread 70 CY 1-1/2"-0" Crushed Spot Rock as marked and needed (20 CY as marked and 50 CY as needed). Clean inlet of existing culvert @ MP 0.392 as marked and needed. Construct 3 Sediment Catch Basins w/ straw bales as marked. Construct turnouts, junctions, waste areas, and turnaround as marked or directed. Construct ditchouts as marked and needed. Install 12 metal culvert inlet markers.	
2-6-33.0	0.000	0.052	0.052	4		14'	0'	--	--	--	--	ABC	D	--	--	--	ASC	C	--	Renovation. Existing rock road. Spread 50 CY 1-1/2"-0" Crushed Spot Rock as marked. Spread 15 CY 6" Jaw-Run Spot Base Rock as marked. Place 15 CY 1-1/2"-0" Crushed Bedding/Backfill Rock as marked. Construct junctions as marked. Install 1 culvert. Install 1 metal culvert inlet marker.	
2-6-33.2	0.000	0.066	0.066	4		14'	0'	--	--	--	--	ABC	D	--	--	--	ASC	C	--	Renovation. Existing rock road. Between MP 0.056 - 0.066, widen road approx. 3 feet right and haul material to designated waste area as marked and directed. Spread 40 CY 1-1/2"-0" Crushed Spot Rock as marked and needed (20 CY as marked and 20 CY as needed). Spread 20 CY 6" Jaw-Run as marked. Construct junctions as marked or directed.	
2-6-33.3	0+00	8+76	8+76	3		14'	0'	19%	19%	--	--	--	--	--	--	--	ASC	C	--	New Construct. Spread 60 CY 1-1/2"-0" Crushed Spot Cap Rock as marked. Construct turnout, junction and landing as marked. Cut and drift material from between Stations 6+00 - 8+76 (including landing construction) as fill material between Stations 0+00 - 0+6+00 to achieve desired grade as marked and directed.	



- *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 follows:
(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**
PRR - Pit run rock Grading A - 3"
GRR - Grid rolled rock B - 2"
SRN - Screened rock C - 3" jaw run (base course)
JRR - Jaw run rock D - 6" jaw run
ABC - Aggr. base course E - 1 1/2" - 0"
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** 200
See Section
 - As posted and painted for Right-of-Way.
 - Drainage**
See Culvert List
 - Compaction**
See Sections 300 and 400
- Note: Full bench construction is required on side slopes exceeding 60%.
- *Clearing Limits as posted on ground**

Road Number	Start Station or Milepost	End Station or Milepost	Total Length	Typical Cross Section	Min. Curve Radius	ROAD WIDTH		GRADIENT		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	
3-6-5.0	0.000	0.629	0.629	6		14'	2'	--	--	--	--	--	--	--	--	--	ASC	C	--	Renovation. Existing rock road. Re-establish ditchline and haul material to WA as directed. Clean inlet and outlet of existing culverts @ MP 0.040 & 0.263 as marked and needed. Spread 20 CY 1-1/2"-0" Crushed Spot Rock as marked. Construct 3 Sediment Catch Basins w/ straw bales as marked. Construct turnouts, junctions, and waste areas as marked or directed. Construct ditchouts as marked and needed. Install 3 metal culvert inlet markers.
3-6-5.3	0.000	0.145	0.145	6		16'	2'	--	--	--	--	--	--	--	--	--	ASC	C	--	Renovation. Existing rock road. Re-establish ditchline and haul material to WA as directed. Clean inlet of existing culvert @ MP 0.040 as marked and needed. Spread 20 CY 1-1/2"-0" Crushed Spot Rock as marked. Construct junctions as marked or directed. Construct ditchouts as marked and needed. Install 1 metal culvert inlet marker.



***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 follows:
 (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**

Material	Grading
PRR - Pilt run rock	A - 3"
GRR - Grid rolled rock	B - 2"
SRR - Screened rock	C - 3" jaw run (base course)
JRR - Jaw run rock	D - 6" jaw run
ABC - Aggr. base course	C - 1 1/2" - 0"
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** 200
 See Section 200
- As posted and painted for Right-of-Way.
- Drainage**
 See Culvert List
- Compaction** 300 and 400
 See Sections 300 and 400

*Clearing Limits as posted on ground

CLEARING AND GRUBBING - 200

- 201 - This work shall consist of clearing, grubbing, removing, and disposing of vegetation, debris, surface objects, and protruding obstructions within the clearing limits in accordance with these specifications and conforming to the lines, grades, dimensions and typical cross sections shown on the plans and as marked on the ground.
- 201a - This work shall consist of clearing, grubbing, removing, and disposing of vegetation, debris, surface objects, and protruding obstructions from borrow pits, quarries, channel changes, stockpile sites, etc., in accordance with these specifications and as staked on the ground.
- 202 - Where clearing limits have not been staked, established by these specifications, or shown on the plans, the limits shall extend ten (10) feet back of the top of the cut slope and five (5) feet out from the toe of the fill slope.
- 202b - Where clearing limits for channel changes and waste areas have not been staked or shown on the plans, the limits shall extend ten (10) feet back of the top of the cut slope and five (5) feet outside of the outside slope lines.
- 203 - Clearing shall consist of the removal and disposal of trees, logs, rotten material, brush, and other vegetative materials and surface objects in accordance with these specifications and within the limits established for clearing as specified under Subsections 202 and 202b, as shown on the plans, and as marked on the ground.
- 203b - Standing trees and snags to be cleared shall be felled within the limits established for clearing, unless otherwise authorized. Felled snags shall be left as down woody debris outside of the clearing limits.
- 203c - Disposal of logs from private timber cleared within the limits established shall consist of decking at a location designated by the Authorized Officer.
- 204 - Grubbing shall consist of the removal and disposal of stumps, roots, and other wood material embedded in the ground and protruding obstacles remaining as a result of the clearing operation. Undisturbed stumps, roots and other solid objects which will be a minimum of four (4) feet below subgrades or slope surfaces or embankments are excluded.
- 204a - Stumps, including those overhanging cut banks, shall be removed within the required excavation limits.
- 205 - Clearing and grubbing debris shall not be placed or permitted to remain in or under road embankment sections.
- 206a - Notwithstanding Subsections 204 and 205, clearing and grubbing debris resulting from landing construction, waste area construction, turnaround construction, or

log fill replacement shall be placed at disposal sites and shall not be covered with excavated material. Location of disposal sites will be determined by the Authorized Officer.

- 210 - Disposal of clearing and grubbing debris, stumps and cull logs shall be by scattering over government owned lands outside of established clearing limits in a manner acceptable to the Authorized Officer. The areas for such scattering shall have the prior approval of the Authorized Officer.
- 210a - Disposal of clearing and grubbing debris, stumps, and cull logs on non-government property shall be by scattering over non-government owned lands outside of established clearing limits in a manner acceptable to the Authorized Officer.
- 212 - No grading will be permitted prior to completion and approval by the Authorized Officer of the required clearing and grubbing work, except that stump grubbing may proceed with the excavation of the road prism.
- 213 - No clearing or grubbing debris shall be left lodged against standing trees

EXCAVATION AND EMBANKMENT – 300

- 301 - This work shall consist of excavating, overhaul, placement of embankments, backfilling, borrowing, leveling, ditching, grading, outsloping, crowning and scarification of the subgrade, compaction, disposal of excess and unsuitable and slide materials, and other earth-moving work in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans.
- 302 - Excavation shall also consist of the excavation of road and landing cut sections, borrow sites, backfilling, leveling, ditching, grading, compaction, and other earth moving work necessary for the construction of the roadway in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and as marked on the ground.
- 303 - Suitable material removed from the excavation shall be used in the formation of embankment subgrade, shoulders, slopes, bedding, backfill for structures, and for other purposes as shown on the plans.
- 304 - Borrow shall consist of suitable material required for the construction of embankments or for other portions of the work; such material shall be obtained from sources selected by the Purchaser at his option and approved by the Authorized Officer.

- 305 - Embankment construction shall consist of the placement of excavated and borrowed materials, backfilling, leveling, grading, compaction, and other earth-moving work necessary for the construction of the roadway and landings in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and as marked on the ground.
- 305a - Material used in the construction of embankment sections shall be free of stumps, cull logs, brush, muck, sod, roots, frozen material, and other deleterious materials and shall be placed and compacted as specified.
- 305b - Embankment materials shall be placed in successive parallel layers on areas cleared of stumps, cull logs, brush, sod, and other vegetative and deleterious materials, except as provided under Subsection 204. Roadway embankments of earth material shall be placed in horizontal layers not exceeding eight (8) inches in depth.
- 305d - Where embankments are constructed predominantly of blasted rock material, depth of layers shall not exceed (4) feet. Rock fragments having dimensions greater than 4 feet will be permitted provided that they have no dimensions greater than (6) feet and that clearance between adjacent fragments is adequate for the placing and compacting of material in horizontal layers as specified, and that no part of the larger fragments comes within (4) feet of subgrade.
- 306 - Layers of embankment and selected borrow, as specified under Subsections 305a, 305b, and 317 shall be moistened or dried to a uniform optimum moisture content suitable for maximum density and compacted to full width with compacting equipment conforming to requirements of Subsections 103b, 103g, or 103i. Final Subgrades shall be moistened or dried to a uniform optimum moisture content suitable for maximum density and compacted to full width with compacting equipment conforming to requirements of Subsections 103f or 103i and approved by the Authorized Officer.
- 306a - Minimum compaction for each layer of embankment, selected borrow, and selected roadway excavation material placed at optimum moisture shall have a minimum compaction of six (6) passes over each full-width layer, or fraction thereof.
- 308 - In the case of rock fills, placement of material in layers is not required and such material may be placed by end-dumping or other methods approved by the Authorized Officer provided that the rock be reasonably prevented from escaping beyond the embankment toe.
- 311 - In solid rock cuts where pockets that will not drain are formed by blasting below the subgrade elevation, drainage shall be provided by ditching to the edge of the

subgrade and backfilling to grade and compacting the pockets and the ditch with rock fragments, gravel, or other suitable porous material.

- 313 - In cut areas where solid rock is encountered at, or near subgrade, the rock shall be excavated to a minimum depth of six (6) inches below subgrade elevation and the excavated area backfilled with suitable material. The backfill material shall be processed to the optimum moisture content suitable for maximum density and compacted to full width in accordance with the requirements of Subsection 306.
- 314 - When heavy clays, muck, clay shale, or other deleterious material for forming the roadbed is encountered in cuts at subgrade, it shall be excavated to a minimum depth of two (2) feet below the subgrade elevation and the excavated area backfilled with a selected borrow material approved by the Authorized Officer. The backfill material shall be uniformly moistened or dried to the optimum moisture content suitable for maximum density in accordance with the requirements of Subsection 306. Unsuitable material shall be disposed of as directed by the Authorized Officer.
- 315 - Borrow material required for the construction of embankment or for other portions of the work shall be obtained from sources adjacent to the roadway.
- 316 - Borrow material from sources selected at the Purchaser's option shall be inspected and approved in writing by the Authorized Officer prior to placement.
- 317 - Selected borrow shall consist of talus material, finely broken rock, gravel, or other material of granular or favorable characteristics from sources shown on the plans.
- 320 - Ditches shall conform to the slope, grade, dimensions, and shape of the required cross section shown on the plans. Roots, stumps, rocks, and other projections shall be removed to form smooth, even slopes.
- 321 - Excess excavated, unsuitable, or slide materials shall not be disposed of on areas where the material will encroach on a stream course or other body of water. Such materials shall be disposed of in accordance with Subsection 321c. Materials not disposed of in this manner shall be retrieved and disposed of at the Purchaser's expense and at the direction of the Authorized Officer.
- 321c - End-dumping will be permitted for the placement of excess materials under Subsection 321 in designated disposal areas or within areas approved by the Authorized Officer. Watering, rolling, and placement in layers are not required. Materials placed shall be sloped, shaped, and otherwise brought to a visible condition acceptable to the Authorized Officer.
- 322 - When so indicated on the plans, selected coarse rock encountered in the excavation shall be conserved for slope protection or special rock embankment

purposes and placed in accordance with the requirements and details of Section 1400 of these specifications and as shown on the plans.

- 323 - In the construction of channel changes and stream-crossing embankment sections, natural stream flow shall be maintained unless otherwise provided.
- 324 - Excavated material shall not be allowed to cover boles of standing trees to a depth in excess of a half (1/2) feet on the uphill side.
- 327 - The finished grading shall be approved by the Authorized Officer in segments or for the total project. The Purchaser shall give the Authorized Officer three (3) days' notice prior to final inspection of the grading operations.
- 328 - The Purchaser shall adopt methods and procedures in using explosives, which will prevent damage to adjacent landscape features, and which will minimize scattering rocks and other debris outside the road prism.
- 328a - The Purchaser shall establish and be responsible for blasting techniques and shall furnish the Authorized Officer, prior to starting drilling operations, a blasting plan specifying drill-hole diameter, drill-hole spacing, depth of drilling, type of explosive to be used, loading pattern, sequence of firing, the location where the plan is to be used, and other relevant data. Acceptance of the drilling and blasting plan does not relieve the Purchaser of responsibility or liability for the results of the blasting.

PIPE CULVERTS - 400

- 401 - This work shall consist of installing pipe culverts, downspouts, and other erosion control devices in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans. Individual lengths and locations are approximate; final lengths and locations will be determined by the Authorized Officer upon completion of the roadbed and upon installation of the appurtenance structures. Additional pipe and erosion control devices may be required at the option of the Authorized Officer, in which case a reduction in the total purchase price shall be made to offset the cost of furnishing and installing such items. Costs will be based upon the unit prices set forth in the current BLM Timber Appraisal Production Cost Schedule.
- 403 - Grade culverts shall have a gradient from two (2) percent to four (4) percent greater than the adjacent road grade. Grade culverts shall be skewed down grade thirty (30) degrees as measured from the perpendicular to the centerline unless otherwise specified on the plans.

- 404 - Damage to the spelter, or burn back in excess of three-eighths (3/8) inch, shall be wire brushed and painted with two coats of zinc-rich paint on zinc-coated steel pipe.
- 405a - Corrugated-(aluminized) steel-welded pipe culverts and pipe-arch culverts and special sections shall conform to the requirements of AASHTO M 36 and AASHTO M 218, AASHTO M 274, or AASHTO M 289 as specified on the plans.
- 405e - Corrugated-polyethylene pipe for culverts 18-inch through 24-inch diameter shall meet the requirements of AASHTO M 294, Type S.
- Corrugated-polyethylene pipe for culverts to be used for downspouts 18-inch through 24-inch diameter shall meet the requirements of AASHTO M 294, Type C.
- Installation will be subject to the same specification as other pipe materials.
- 406 - Coupling bands shall conform to the requirements of AASHTO M 36 and AASHTO M 274 with the exception of band widths and the "Hugger"-type band which shall conform to the details, dimensions, and typical diagram shown on the plans.
- 406a - "Hugger"-type coupling bands shall only be used with annular corrugated pipe and pipe-arch culverts, or helically corrugated pipe and pipe-arch culverts having annular reformed ends. Annular reformed ends shall consist of two annular corrugations.
- 406e - Neoprene gaskets shall be used to join aluminum pipe culverts.
- 408 - Pipe culverts shall be placed on the bed starting at the downstream end with the inside circumferential laps pointing downstream and with the longitudinal laps at the side or quarter points. Coupling bands of the type required under these specifications shall be installed so as to provide the circumferential and longitudinal strength necessary to preserve the pipe alignment, prevent separation of the pipe sections, and minimize infiltration of fill material.
- 409 - Structural-plate pipe culverts and pipe-arch culverts shall be installed in accordance with the plans and detailed erection instructions furnished by the manufacturer. One copy of the erection instructions shall be submitted to the Authorized Officer (3) days prior to erection.
- 410 - Pipe shall be unloaded and handled with reasonable care. If the Authorized Officer determines any structure is damaged to the extent that it is unsuitable for use in the road construction, it shall be replaced at the Purchaser's expense.

- 411 - Trenches necessary for the installation of pipe culverts shall conform to the lines, grades, dimensions, and typical diagram included in the plans and the Culvert Installation Detail Sheet.
- 412 - Where ledge rock, boulders, soft, or spongy soils are encountered, they shall be excavated a minimum of twenty-four (24) inches below the invert grade for a width of at least one (1) pipe diameter or span on each side of the pipe and shall be backfilled with selected granular or fine readily compactable soil material or crushed rock material.
- 413 - All pipe culverts shall be bedded on a 1-1/2"-0" crushed rock material in accordance with Section 1200 gradation. Bedding shall have a depth of not less than six (6) inches as shown on plans. Foundation material shall be of uniform density throughout the length of the structure and shall be shaped to fit the pipe.
- 414a - The invert grade of the bedding shall be cambered at the middle ordinate a minimum of 1 percent of the total length of the drainage structure. Camber shall be developed on a parabolic curve.
- 415 - Inspection of pipe culverts having a diameter of (30) inches and pipe-arch culverts having a height of (40) inches or a cross sectional area of (13) or larger shall be made before backfill is placed. Culverts found to be out of alignment or damaged shall be replaced, reinstalled or repaired as directed by the Authorized Officer at the Purchaser's expense.
- 416 - Side-fill material for pipe culverts shall be placed within one (1) pipe diameter, or a minimum of one (1) foot, of the sides of the pipe barrel, and to a half (1/2) pipe diameter on round pipes with granular material (or 1-1/2"-0" crushed rock material in accordance with Section 1200 gradation if crushed bedding/backfill is required in the rock sheets and Section 413).

The remaining fill material shall be of fine, readily compactable soil and be free of excess moisture, muck, frozen material, roots, sod, or other deleterious or caustic material and devoid of rocks or stones of sizes which may impinge upon and damage the pipe or otherwise interfere with proper compaction.
- 419 - The pipe culverts, after being bedded and backfilled as required by these specifications, shall be protected by an 18" cover of fill before heavy equipment is permitted to cross the drainage structures.
- 421 - Trenches and bedding rock necessary for the installation of perforated pipe shall conform to the lines, grades, dimensions and typical diagram as shown on the plans.
- 422 - Drain rock shall be carefully placed on geotextile material required in section

1300, to prevent damage or displacement. A minimum 4-inch bedding of drain rock shall be placed and compacted in the bottom of the trench before installing the underdrain pipe. Underdrain pipe shall be firmly embedded in this layer and drain rock placed to the height shown on the plans, or as directed by the Authorized Officer, and then compacted. Care shall be taken not to displace the underdrain pipe or the covering at open joints. Geotextile material shall be overlapped on top of the drain rock a minimum of 1 foot, as shown on the plans (provided upon request). Backfill shall then be placed and compacted in one-foot lifts to the required grades.

- 423 - Construction of catch basins conforming to lines, grades, dimensions and typical diagrams shown on the plans, shall be required for grade culverts.
- 424 - Construction of splash pads and energy dissipaters conforming to lines, grades, dimensions and typical diagram shown on the plans, shall be required for grade culverts and culverts as listed on the culvert sheet.
- 426 - Culvert markers consisting of six (6) foot steel fence posts painted blue shall be furnished, fabricated, and installed by the Purchaser at the inlet of all culverts (installed and existing) as marked. Marker shall be installed within six (6) inches of upslope side of culvert inlet.
- 427 - The Purchaser shall record culvert sizes, lengths and location actually installed on a copy of the culvert list. This culvert list shall be furnished to the Authorized Officer.
- 428 - The Purchaser shall remove and dispose of old culverts (removed in the construction phase) in a legal manner, off of Government property, and pay any fees required. The Purchaser shall remove the old culverts from the work site prior to road acceptance.
- 429 - Keep the excavation site dewatered so that the installation of culverts is completed under dry conditions. Dispose of excess water by using pumping or natural drainage ways near the site in a manner that will avoid damage to adjacent property. Provide for downstream waterflow with no more than ten (10) percent increase in natural stream turbidity due to transport of excavated material or sediment during construction. Diversion streams shall not be returned to the natural channel until all in-stream work has been completed.
- 430 - During culvert installations or replacement activities, all stream flow shall be diverted around the culvert work occurring in live streams, as to maintain downstream flows and minimize turbidity. Woody material removed from stream channels during culvert work shall be placed in the stream channel downstream of the culvert.

RENOVATION AND IMPROVEMENT OF EXISTING ROADS – 500

- 501 - This work shall consist of reconditioning and preparing the roadbed and shoulders, minor excavation and/or embankment, cleaning and shaping drainage ditches, trimming vegetation from cut and embankment slopes, and cleaning and repairing drainage structures of existing roads in accordance with these specifications, as shown on the plans, and as marked on the ground.
- 501a - This work shall include the removal and disposal of slides in accordance with these specifications and as marked on the ground.
- 502 - The existing road surface shall be bladed and shaped to the lines, grades, dimensions, and typical cross sections shown on the plans.
- 502b - Drainage ditches shall be bladed and shaped in accordance with the lines, grades, dimensions, and typical cross sections shown on the plans.
- 503a - Material from the ditchline reestablishment excavation shall be hauled to designated disposal sites or at locations directed by the Authorized Officer.
- 504 - Existing road surface shall be uniformly moistened or dried to the optimum moisture content suitable for maximum density and compacted to full width with equipment conforming to requirements of Subsections 103f and 103i.
- 504a - Minimum compaction required shall be six (6) passes over each full-width layer, or fraction thereof, as measured along the centerline per layer of material.
- 506 - The inlet end of all existing drainage structures shall be cleared of vegetative debris and boulders that are of sufficient size to obstruct normal flow. Pipe inverts shall be cleared of sediment and other debris lodged in the barrel of the pipe. The outflow area of pipe structures shall be cleared of rock and vegetative obstructions which will impede the structure's designed outflow configuration. Catch basins shall conform to the lines, grade, dimensions, and typical diagram shown on the plans.
- 508 - Vegetation encroaching on the roadbed and the drainage ditches of existing roads shall be removed by cutting and disposed of in accordance with Subsection 2100 of these specifications.
- 509 - The finished grading and compacting shall be approved by the Authorized Officer. The Purchaser shall give the Authorized Officer three (3) days' notice prior to final inspection of the grading operations.

WATERING – 600

- 601 - This work shall consist of furnishing and applying water required for the compaction of embankments, roadbeds, backfills, base courses, surface courses, finishing and reconditioning of existing roadbeds, laying dust, or for other uses in accordance with these specifications.
- 602 - Water, when needed for compaction or laying dust, shall be applied at the locations, in the amounts, and during the hours as directed by the Authorized Officer. Amounts of water to be provided will be the minimum needed to properly execute the compaction requirements in conformance with these specifications.
- 603 - Water trucks used in this work shall be equipped with a distributing device of ample capacity and of such design as to ensure uniform application of water on the roadbed.
- 604 - Water required under these specifications shall be obtained at the times and at the locations indicated below:

Willamette Meridian				Dates Available	
Common Name	Section	T	R	From	To
Commercial Source	N/A	N/A	N/A	TBD	TBD

Use of water sources are subject to applicable State water regulations. If the required water is not available at the locations specified, water shall be obtained from a source approved by the Authorized Officer as permitted by Oregon Water Resources. A reduction shall be made in the total purchase price to reflect additional hauling distance based on rental rates from current BLM Timber Appraisal Cost Schedules. It is estimated that approximately twenty thousand (20,000) gallons will be required for processing rock.

- 605 - The Purchaser shall secure the necessary water permits and pay all required water fees for use of the water sources specified under Subsection 604 for use of water sources approved by the Authorized Officer. Purchaser shall notify the Bureau of Land Management when an agreement has been met and shall provide a copy of the documentation.

AGGREGATE BASE COURSE - 1000
CRUSHED ROCK MATERIAL

- 1001 - This work shall consist of furnishing, hauling, and placing one or more layers of crushed rock material on roadbeds and culvert bedding approved for placing

crushed rock material, in accordance with these specifications and conforming to the dimensions and typical cross sections shown on the plans.

Material not conforming to these specifications will be rejected and shall be removed from the road or stockpile at the purchaser's expense.

- 1002 - Crushed rock materials used in this work shall consist of quarry rock, stone, gravel, or other approved materials obtained from the source shown on the plans. Development and mining of such source shall be in accordance with section 1600 of these specifications.
- 1003 - Crushed rock material produced from gravel shall have two (2) manufactured fractured faces on sixty-five (65) percent, by weight, of the material retained on the No. 4 sieve. If necessary to meet the above requirements or to eliminate an excess of filler, the gravel shall be screened before crushing.
- 1004 - Crushed rock material shall consist of hard durable rock fragments conforming to the following gradation requirements:

TABLE 1004
AGGREGATE BASE COURSE
CRUSHED ROCK MATERIAL
Percentage by weight passing square mesh sieves
AASHTO T 11 & T 27

GRADATION

Sieve Designation	D
6-inch	95
3-inch	45-65
1-1/2-inch	-
1-inch	-
3/4-inch	-
No. 4	10 Max
No. 30	-
No. 40	-
No. 200	-

- 1004a - The Purchaser shall submit samples to a certified lab or perform testing for gradation requirements using AASHTO T 11 and AASHTO T 27 testing procedures and also perform testing for sand equivalency requirements using AASHTO T 176 testing procedures. The Purchaser shall provide test results upon request to the Authorized Officer.
- 1005 - Crushed rock material shall not exceed thirty-five (35) percent loss as determined by AASHTO T 96.
- 1006 - Crushed rock material shall show a durability value of not less than thirty-five (35) as determined by AASHTO T210.
- 1007 - That portion of crushed rock material passing the No. 40 sieve, including blending filler, shall have a liquid limit of not more than thirty (35) and a plasticity index of not less than four (4) and not more than twelve (12) as determined by AASHTO T 89 and AASHTO T 90.
- 1008 - If additional binder or filler material is necessary to meet the grading or plasticity requirements or for satisfactory bonding of the material, it shall be uniformly blended with the crushed rock material at the crushing and screening plant prior to placing on the road, unless otherwise agreed. The material for such purposes shall be obtained from sources approved by the Authorized Officer and shall be free from stones, vegetative matter, and other deleterious materials.
- 1009 - Shaping and compacting of roadbed shall be completed and approved prior to placing crushed rock material, in accordance to the requirements of Subsections 300, 400, and 500. Notification for final inspection of base rock shall be three (3) days prior to the spreading of crushed cap rock.
- 1010 - Crushed rock material conforming to the requirements of these specifications shall be placed on the approved roadbed, turnarounds, and landings in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and marked on the ground. Compacted layers shall not exceed nine (9) inches in depth. Irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and then adding or removing crushed rock material until the surface is smooth and uniform.
- 1010a - Crushed rock material used to repair or reinforce soft, muddy, frozen, yielding, or rutted roadbed shall not be construed as surfacing required by this specification unless approved by the Authorized Officer in advance.
- 1012 - Each layer of crushed rock material placed, processed, and shaped as specified shall be moistened or dried to a uniform moisture content suitable for maximum compaction, determined by Authorized Officer, and compacted to full width by compacting equipment conforming to the requirements of Subsections 103f and

103i . Minimum compaction shall be six (6) passes over each full-width layer, or fraction thereof.

AGGREGATE SURFACE COURSE – 1200
CRUSHED ROCK MATERIAL

- 1201 - This work shall consist of furnishing, hauling, and placing one (1) or more layers of crushed rock material on roadbeds, base courses, and culvert bedding approved for placing crushed rock material in accordance with these specifications and conforming to the dimensions and typical cross sections shown on the plans. Material not conforming to these specifications will be rejected, and shall be removed from the road or stockpile at the purchaser's expense.
- 1202 - Crushed rock materials used in this work shall consist of quarry rock, stone, gravel, or other approved materials obtained from source shown on the plans. Development and mining of such source shall be in accordance with section 1600 of these specifications.
- 1203 - When crushed rock material is produced from gravel, not less than seventy-five (75) percent by weight of the particles retained on the No. 4 sieve will have 4 manufactured fractured faces. If necessary to meet the above requirements or to eliminate an excess of filler, the gravel shall be screened before crushing.
- 1204 - Crushed rock material shall consist of hard durable rock fragments conforming to the following gradation requirements:

TABLE 1204
AGGREGATE SURFACE COURSE
CRUSHED ROCK MATERIAL
Percentage by weight passing square mesh sieves
AASHTO T 11 & T 27
GRADATION

Sieve Designation	C
1-1/2-inch	95
1-inch	-
3/4-inch	60-90
1/2-inch	-
No. 4	30-55
No. 8	22-43
No. 30	11-27
No. 40	-
No. 200	3-15

- 1204a - The Purchaser shall submit samples to a certified lab or perform testing for gradation requirements using AASHTO T 11 and AASHTO T 27 testing procedures and also perform testing for sand equivalency requirements using AASHTO T 176 testing procedures. The Purchaser shall provide test results upon request to the Authorized Officer.
- 1205 - Crushed rock material retained on the No. 4 sieve shall have a percentage of loss of not more than thirty-five (35) at five hundred (500) revolutions, as determined by AASHTO T 96.
- 1206 - Crushed rock material shall show a durability value of not less than thirty-five (35) as determined by AASHTO T210.
- 1207 - That portion of crushed rock material passing the No. 40 sieve, including blending filler, shall have a liquid limit of not more than thirty-five (35) and a plasticity index of not less than four (4) and not more than twelve (12) as determined by AASHTO T 89 and AASHTO T 90.
- 1208 - If additional binder or filler material is necessary to meet the grading or plasticity requirements or for satisfactory bonding of the material, it shall be uniformly blended with the crushed rock material at the crushing and screening plant prior to placing on the road, unless otherwise agreed. The material for such purposes shall be obtained from sources approved by the Authorized Officer and shall be free from stones, vegetative matter, and other deleterious materials.
- 1209 - Shaping and compacting of roadbed, base course, or culvert trench shall be completed and approved prior to placing crushed rock material, in accordance to the requirements of Subsections 300, 400, 500, and 700. Notification for final inspection of base rock shall be three (3) days prior to the spreading of crushed cap rock.

- 1210 - Crushed rock material conforming to the requirements of these specifications shall be placed on the approved roadbed, landings, base course and culvert trench in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and marked on the ground. Compacted layers shall not exceed 4 inches in depth. When more than one (1) layer is required, each shall be shaped, processed, compacted, and approved by the Authorized Officer before the succeeding layer is placed.
- Irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and then adding or removing crushed rock material until the surface is smooth and uniform.
- 1210a - Crushed rock material used to repair or reinforce soft, muddy, frozen, yielding, or rutted roadbed shall not be construed as surfacing required by this specification unless approved by the Authorized Officer in advance.
- 1212 - Each layer of crushed rock material placed, processed, and shaped as specified shall be moistened or dried to a uniform moisture content suitable for maximum compaction, as determined by Authorized Officer, and compacted to full width by compacting equipment conforming to the requirements of Subsections 103f, 103g, and 103i . Minimum compaction shall be six (6) passes over each full-width layer, or fraction thereof.

SLOPE PROTECTION - 1400

- 1401 - This work shall consist of furnishing, hauling, and placing stone materials for slope protection structures, splash pads, and road blockages in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross-sections shown on the plans. Material not conforming to these specifications will be rejected and shall be removed from the slope protection structure at the purchaser's expense and as directed by the Authorized Officer.
- 1402 - Stone material shall consist of hard angular quarry rock of such quality that it will not disintegrate on exposure to water or weathering, and shall be graded in accordance with these specifications.

Volume/ Cubic Foot	Average Dimension in inches	Approximate Weight in Pounds
12	27.5 x 27.5 x 27.5	2100
6	21.8 x 21.8 x 21.8	1050
4	19.1 x 19.1 x 19.1	700
3	17.3 x 17.3 x 17.3	525
1	12.0 x 12.0 x 12.0	175
2/3	10.5 x 12.0 x 12.0	120
1/2	9.5 x 9.5 x 9.5	88
1/3	8.3 x 8.3 x 8.3	60
1/4	7.6 x 7.6 x 7.6	44
1/6	6.6 x 6.6 x 6.6	30
1/8	6.0 x 6.0 x 6.0	22
1/100	2.6 x 2.6 x 2.6	2

1404 - The material shall be well graded from the smallest to the maximum size specified. Stones smaller than the specified ten (10) percent size shall consist of spalls and fine rock fragments so distributed as to provide a stable compact mass.

1405 - Rip rap shall conform to the following gradations:

TABLE 1405

Class	% of Rock Equal of Smaller by Count, Dx	Range of Intermediate Dimensions, inches	Range of Rock Mass, pounds
5	100	33-39	2900-4850
	85	23-28	990-1800
	50	17-20	400-650
	15	11-15	110-270

Rocks smaller than six inches in diameter are not counted.

1405a - Stone materials shall show a durability value of not less than fifty (50) as determined by AASHTO T 210.

1406a - The embankment shall be placed in successive horizontal layers of sufficient depth to contain the maximum size rock present in the material. Spalls and finer fragments of stone other than specified in Subsection 1405 shall be used to chock the larger stones solidly in position and to fill voids between the major stones as laid in the embankment. The exposed face of the embankment shall be reasonably smooth and uniform; material shall be prevented from escaping beyond the toe of the structure

- 1407 - Determination of the acceptability of the slope protection material gradation will be through visual inspection and physical measurements by the Authorized Officer.
- 1408 - Trenches for slope protection structures shall be excavated to the lines, elevations, and typical diagram shown on the plans. They shall be of sufficient size to permit the placing of structure footing of the full widths and length shown. Trenches shall be approved by the Authorized Officer prior to placement of slope protection material.
- 1408a - Foundation trenches and other required excavation as shown on the plans shall be approved prior to placing the slope protection material.

EROSION CONTROL - 1700

- 1701 - This work shall consist of measures to control soil erosion or water pollution during the construction operation through the use of berms, dikes, dams, sediment basins, fiber mats, netting, gravel, mulches, grasses, slope drains, and other erosion control devices or methods in accordance with these specifications and conforming to the lines, grades, dimensions and typical cross sections shown on the plans.
- 1704 - The erosion control provisions specified under this Subsection shall be coordinated with the Soil Stabilization requirements of Section 1800.
- 1708 - Newly constructed and renovated roads to be carried over the winter period, shall be blocked to vehicular traffic and waterbars installed prior to the wet season.
- 1708a - Road segments not completed during dry weather periods shall be winterized, by providing a well-drained roadway using waterbars, maintaining drainage, and performing additional measures necessary to minimize erosion and other damage to the roadway, as directed by the Authorized Officer. Portions of roads not having surface rock in place will be blocked or barricaded to prevent vehicular traffic. A winterization plan shall be submitted to the Authorized Officer no later than September 15th of each harvest season.
- 1711 - The Purchaser shall construct sediment catch basins with straw bales at the following locations: 2-6-15.0 (MP. 0.172, 0.232, 0.657, 0.669, 0.928), 2-6-29.4 (STA 6+18, 7+15), 2-6-32.1 (2 at MP. 0.173), 2-6-32.3 (0.299, 0.320, 0.731), 3-6-5.0 (0.040, 0.263, 0.467). Construct sediment catch basins to the dimensions of the sediment catch basin detail on Pg. 36 of Exhibit C.
- 1711a - Straw bales required for sediment catch basins shall be furnished by the Purchaser. Straw bales shall be certified weed free from commercial grain fields and native grass fields. Straw bales shall be from oats, wheat, rye, or other

approved grain crops and shall be free from, mold, or other objectionable material. Straw bales shall be in an air-dry condition and suitable for placement. The Purchaser shall provide the weed free certification to the Authorized Officer upon request.

SOIL STABILIZATION – 1800

- 1801 - This work shall consist of seeding on designated cut, fill, borrow, disposal, and special areas in accordance with these specifications and as shown on the plans. This work is not required for road acceptance under Section 18 of this contract. Grass seed will be furnished by the Government. Straw Mulch shall be furnished by the Government.
- 1802a - Soil stabilization work consisting of seeding and mulching shall be performed on new road construction, road renovation and improvement, landings, borrow sites, and disposal sites in accordance with these specifications and as shown on the plans. The seed shall be spread at a rate of sixty (60) pounds/acre, (to be determined by the Authorized Officer based on visual observation of trial applications).
- 1803 - Soil stabilization work as specified under Subsection 1802a shall be performed during the following seasonal periods:

From	To
August 1	October 15

The Authorized Officer may modify the above seasonal dates to conform to existing weather conditions and changes in the construction schedule.

- 1809 - Mulch material conforming to the requirements of Subsections 1809a and 1809b shall be furnished by the Government and shall be delivered to the work area in a dry state. Material to be used in the mulching operation may be stockpiled along the road designated for treatment.
- 1809a - Straw mulch shall be from oats, wheat, rye, or other approved grain crops which are free from noxious weeds, mold, or other objectionable materials. Straw mulch shall be in an air-dry condition and suitable for placing with power spray equipment.
- 1809b - Grass straw mulch shall be from perennial grass or, if specified, an annual rye grass, from which the seed has been removed. The straw shall be free from Bentgrass, Canada Thistle, Tansy Ragwort, Skeleton weed, and other noxious weed seed. The grass straw shall be from fields which have passed the current

year's field inspection of the Oregon Grass Seed Certification program, or from fields certified by the County Agent, or by seed companies purchasing the seed.

- 1810 - Bulk mulching material required under these specifications shall be delivered to the work area bound either by twine, string or hemp rope. Wire binding will not be permitted.
- 1811 - The Purchaser shall apply to the disturbed soils that are wet and/or within fifty (50) feet each side of "live stream" locations and all disposal sites a mixture of grass seed and straw mulch material at the application rate of six (6) pounds seed/acre and three thousand (3000) pounds straw mulch/acre (to be determined by Authorized Officer based on visual observation of trial applications).
- 1814 - The Purchaser may reduce the application rate on partially covered slopes and refrain from application on areas already well stocked with grass or on rock surfaces as determined by the Authorized Officer.
- 1815b - Dry Method - Blowers, mechanical seeders, seed drills, landscape seeders, cultipaker seeders, fertilizer spreaders, or other approved mechanical seeding equipment may be used when seed and fertilizer are to be applied in dry form.
- 1819 - The Purchaser shall notify the Authorized Officer at least three (3) days in advance of date he intends to commence the specified soil stabilization work.
- 1824 - Twine, rope, sacks, and other debris resulting from the soil-stabilization operation shall be picked up and disposed of to the satisfaction of the Authorized Officer.

ROADSIDE BRUSHING - 2100

- 2101 - This work shall consist of the removal of vegetation from the road prism - variable distance, and inside curves in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the Roadside Brushing Detail Sheet of this exhibit, at designated locations as shown in the plans.
- 2102 - Roadside brushing may be performed mechanically with self powered, self-propelled equipment, or manually with hand tools, including chain saws.
- 2103 - Vegetation cut manually or mechanically less than six (6) inches in diameter shall be cut to a maximum height of two (2) inches above the ground surface or above obstructions such as rocks or stumps on cut and fill slopes and all limbs below the six (6) inch area will be severed from the trunk.
- 2104 - Trees in excess of six (6) inches in diameter shall be limbed, so that no limbs extend into the treated area or over the roadbed to a height of fourteen (14) feet above the running surface of the roadway on cut and fill slopes, within the road

prism-variable distance. Limbs shall be cut to within four (4) inches of the trunk to produce a smooth vertical face. Removal of trees larger than six (6) inches in diameter for sight distance or safety may be directed by the Authorized Officer.

- 2105 - Vegetation that is outside of the road prism-variable distance that protrudes into the road prism and within fourteen (14) feet in elevation above the running surface shall be cut, to within four (4) inches of the trunk to produce a smooth vertical face.
- 2106 - Vegetative growth capable of growing one (1) foot in height or higher shall be cut, within the road prism-variable distance or as directed by the Authorized Officer.
- 2107 - Inside curves shall be brushed out for a sight distance of two hundred (200) feet chord distance and/or a middle ordinate distance of twenty-five (25) feet, whichever is achieved first. Overhanging limbs and vegetation in excess of one (1) foot in height, shall be cut within these areas.
- 2109 - Debris resulting from this operation shall be scattered downslope from the roadway. Debris shall not be allowed to accumulate in concentrations. Debris in excess of one (1) foot in length and two (2) inches in diameter shall not be allowed to remain on cut slopes, ditches, roadways or water courses, or as directed by the Authorized Officer.
- 2112 - Roadside brushing shall be performed during the following seasonal periods:

*From	To
June 1	October 15

*Brushing may occur during the “wet season” given the following guidelines are followed:

- 1) Activity would be suspended when conditions exist that could generate sediment inputs into streams, such as times of intense or prolonged rainfall where water in ditches is flowing, or streamflow, as measured above and below the effects of the road, becomes discolored.
- 2) Activity would be suspended when road surface shows signs of serious deterioration such as excessive rutting or pumping of fines from the sub-grade.
- 3) Activity would be suspended upon decision of Authorized Officer.

- 2113 - Roadside brushing shall be accomplished on the following roads: 2-6-15.0, 2-6-32.1, 2-6-32.2, 2-6-32.3, 2-6-33.0, 2-6-33.2, 3-6-5.0 & 3-6-5.3.

- 2116 - Traffic warning signs shall be required at each end of the work area. Signs shall meet the requirements of the Manual on Uniform Traffic Devices.

BARRICADES AND CONTROL DEVICES - 2700

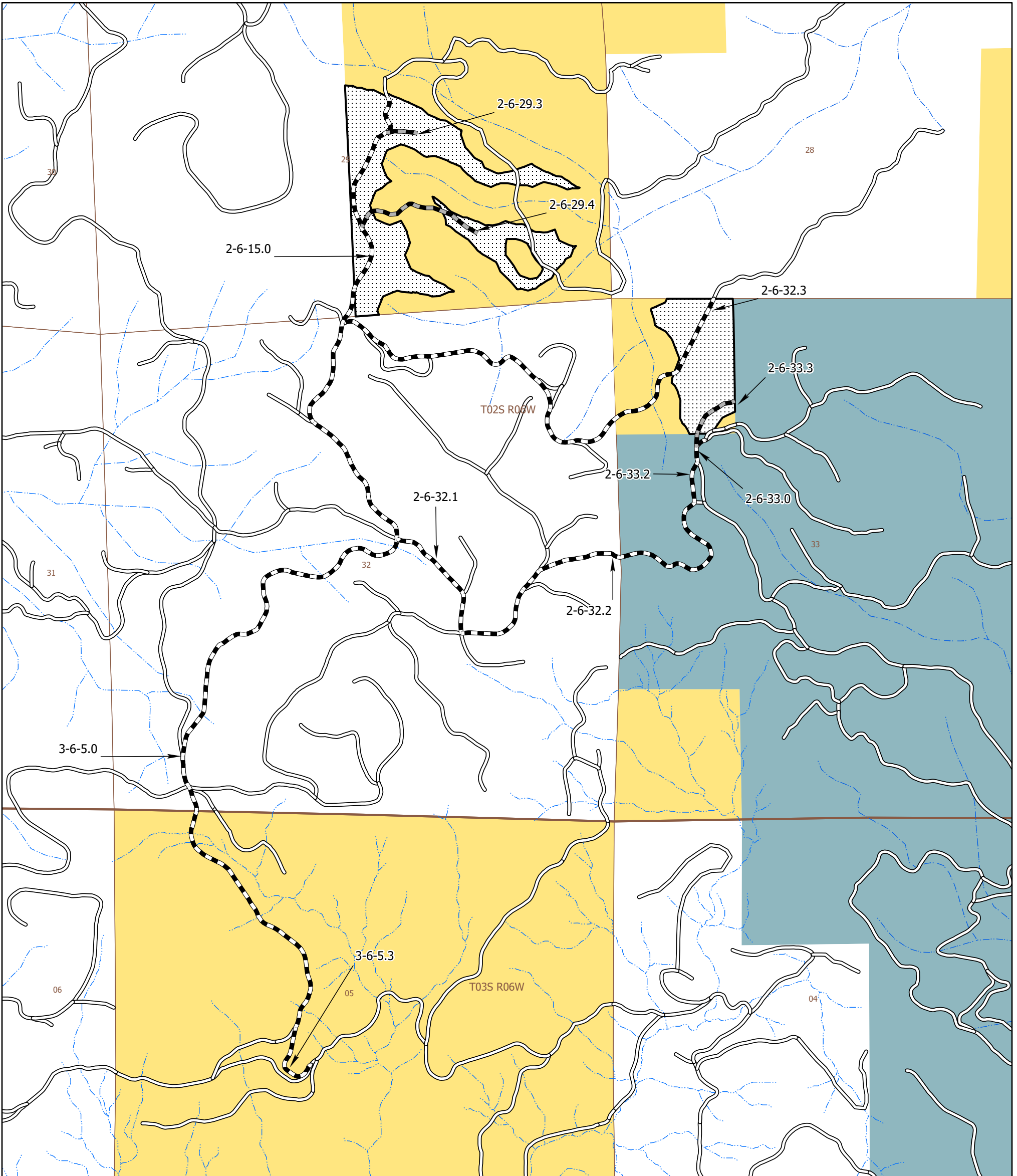
- 2701 - This work will consist of furnishing and placement of barricades, warning signs, and other protection required to prevent injury to people and damage to property due to culvert installations, brushing, and other construction work. Purchaser shall submit a site plan showing how the specifications in this section and of Sec. 43 will be accomplished.
- 2702 - Maintain condition, operation, and effectiveness of traffic control devices throughout period of use. Materials used for the temporary structures and controls are property of Contractor and shall be removed from Government land when need for their service has ended.

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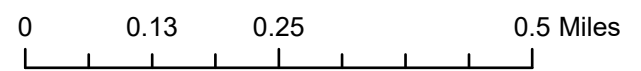
Contract No. ORN04-TS-2023.0403
Little Bit Timber Sale
Exhibit C
Page 33 of 42



Road Plan Map
T. 02S. R. 06W. Sections 27, 28, 32, & 33 W.M. - NORTHWEST OREGON DISTRICT - OREGON



- Natural surfaced road to be constructed, Decommission after use
- Rocked surfaced road to be renovated, Open after use
- Existing Roads
- Streams
- Little Bit Project Area
- Bureau of Land Management
- Local Government
- Private/Unknown

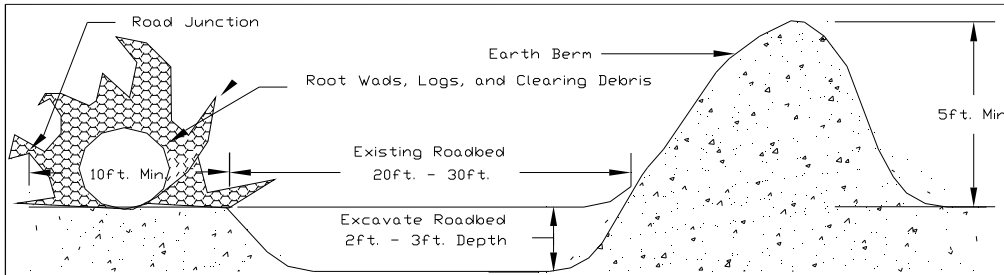


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Prepared By: Joel Churchill

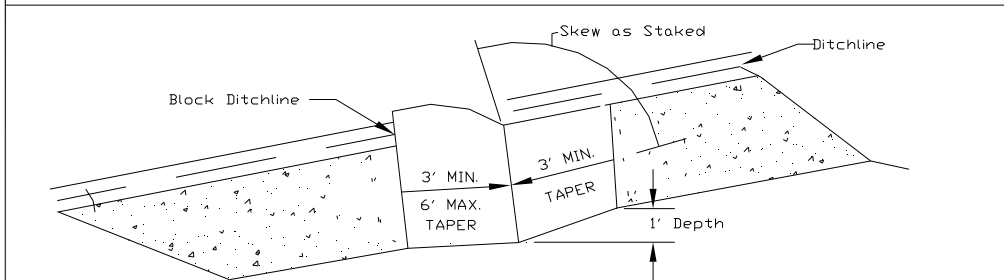
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NORTHWEST OREGON DISTRICT OFFICE - OREGON

Earth Barricade, Waterdip, Drivable and Non-Drivable Waterbar Details



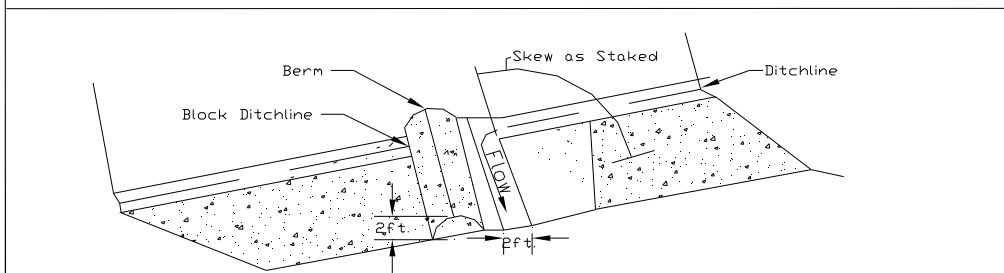
EARTH BARRICADE CONSTRUCTION



DRIVABLE WATERBAR CONSTRUCTION

NOTE:

1. DITCHLINE IS TO BE BLOCKED WITH EXCAVATED MATERIAL TO PREVENT DITCH WATER FROM BYPASSING WATERBAR.
2. EXCESS MATERIAL SHALL BE UNIFORMLY SPREAD ALONG ROADWAY. NO MATERIAL WILL BE ALLOWED BEYOND THE OUTER ROAD EDGE.

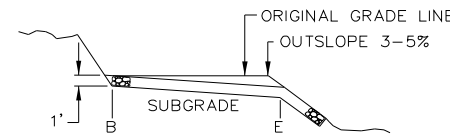
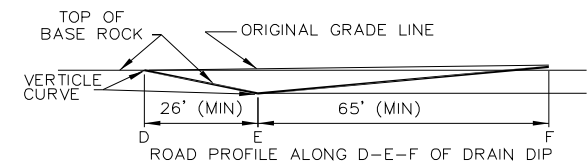
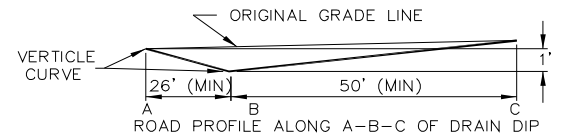
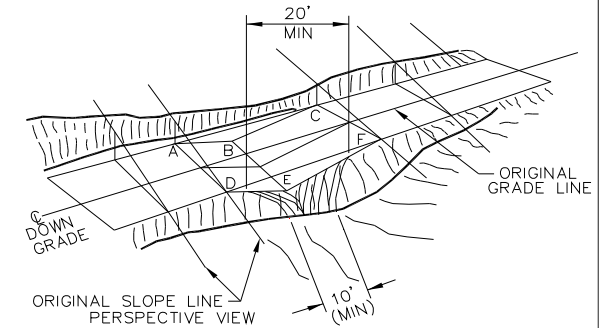


NON-DRIVABLE WATERBAR CONSTRUCTION

WATER DIP DETAIL

Not to Scale

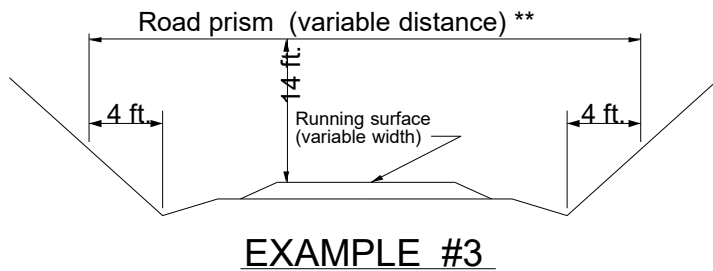
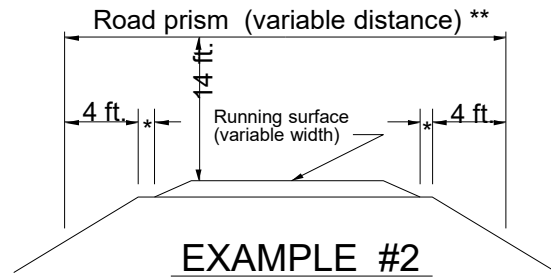
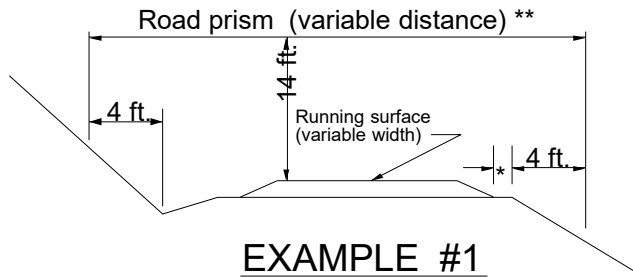
NOTE: PLAN OF DIP SHOWN IS FOR OUTSLOPED ROLLING DIP, DIPS MAY BE EITHER INSLOPED OR OUTSLOPED. WHEN INSLOPED, DIPS SHALL DISCHARGE INTO A CULVERT, DROP INLET, OR OVERSIDE DRAIN, OR DRAINAGE DITCH. WHEN OUTSLOPED, THEY SHALL DISCHARGE INTO AN OVERSIDE DRAIN OR ON TO NATURAL GROUND. THE MINIMUM CROSS GRADE FROM "B" TO "E" IS 4% GREATER THAN THE ORIGINAL ROAD GRADE. SKEW LINE B-E TO FIT LOW POINT IN DRAW, IF LOCATED IN NATURAL DRAIN.



ROCK SPILL APRON 15' WIDE WITH MATERIAL AS SHOWN ON SCHEDULE OF ITEMS TO TOE OF FILL.

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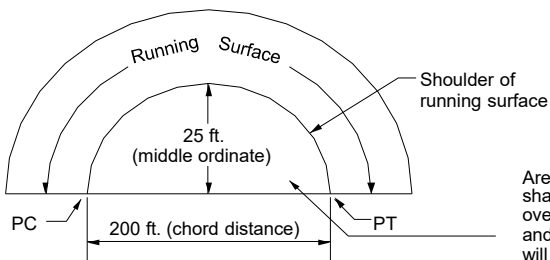
BRUSHING DETAILS



(NO SCALE)

* Variable distance between running surface and start of fill slope

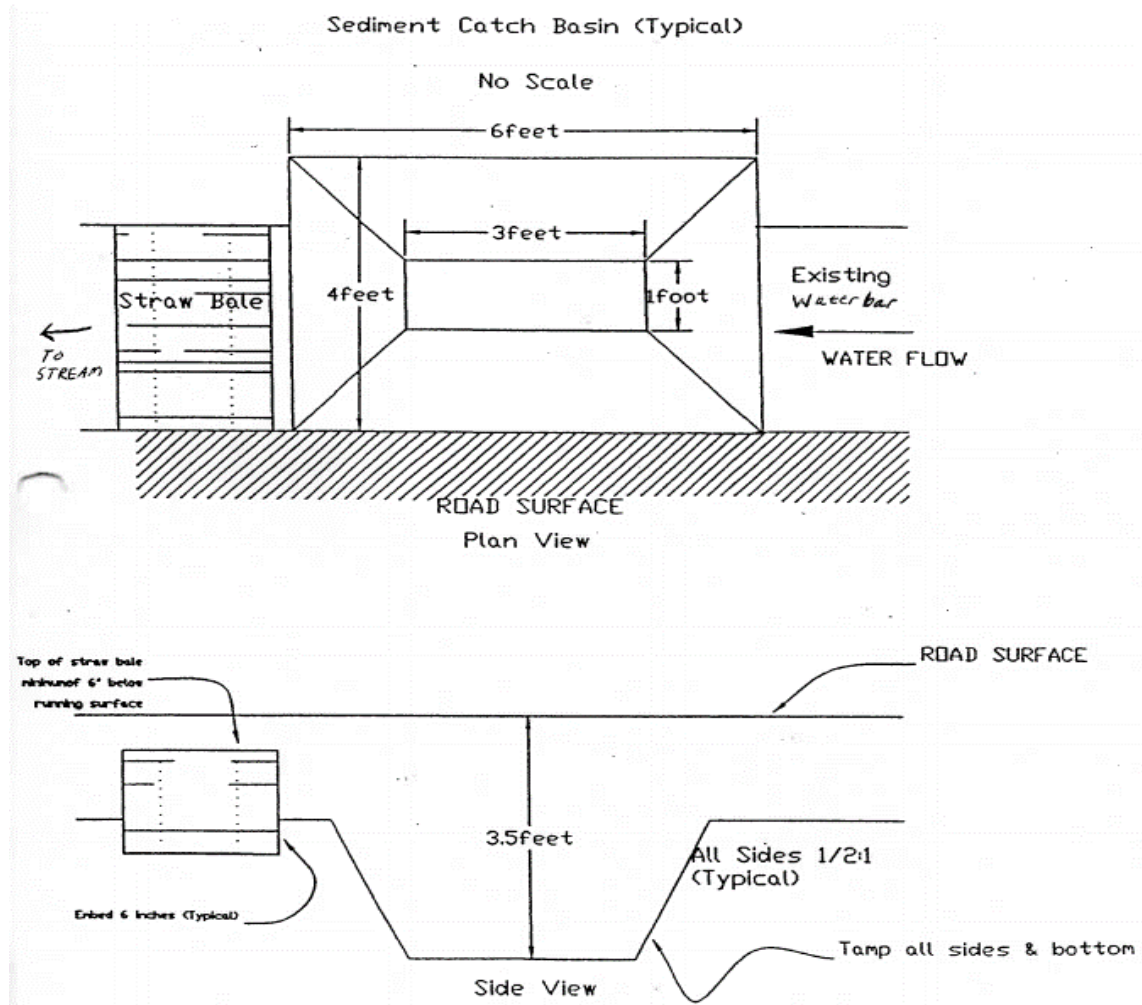
** All areas within the variable distance shall be free of all vegetation capable of growing one (1) foot in height or higher and all overhanging limbs and branches 14 feet in elevation above the running surface



Area to be cut: shall be free of overhanging limbs and all vegetation will be cut to a maximum height of one (1) foot.

SIGHT DISTANCE DIAGRAM

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Sediment Catch Basin with Straw Bale Details



Culvert List

CULVERT LOCATIONS							DOWNSPOUT(d) or STANDPIPE(s) *4				AS BUILT			ROCK RIP RAP (GRADING)			REMARKS *6
DESIGNED *2							SIZE	TYPE	LENGTH	TYPE OF ELBOW *5	SIZE	GAGE	LENGTH	(a)		(b)	
Road #	Sta./ M.P	SIZE	GAGE	LENGTH	CULVERT GRADE	INSTALL TYPE *3								INLET	OUTLET	Structure inside pipe	
2-6-15.0	0.005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP. Clean inlet and construct lead-off ditch at outlet.
(White Face Road)	0.028	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.139	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.170	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.228	--	--	--	--	--	--	--	--	--	--	--	5	--	--	--	Stream Crossing. Place 5 CY Class 5 RipRap @ outlet of existing culvert as dissipater. Install metal inlet marker on existing CPP.
	0.267	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.337	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.514	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Stream Crossing. Install metal inlet marker on existing CPP.
	0.547	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.866	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.913	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.939	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP. Clean culvert catch basin.
	1.038	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	1.306	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	1.381	24"	--	10'	--	--	--	--	--	--	--	--	--	--	--	--	Widen road width for intersection with the 2-6-29.4 by extending existing culvert. Add government supplied culvert and band to existing culvert outlet and use material from the construction of the 2-6-29.4 as fill over extension. Place 10 CY 1-1/2"-0" Crushed Bedding/Backfill Rock. Spread 20 CY 6" Jaw-Run Base Rock over Pipe for surfacing capped with 10 CY 1-1/2"-0" Crushed Rock as marked. Install metal inlet marker.
	1.501	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
2-6-29.4	6+80	36"	14	40'	--	--	--	--	--	--	--	--	--	--	--	--	Stream Crossing. Install Culvert as marked in field and directed by Authorized Officer (approx. 6' fill @ CL). Place 20 CY 1-1/2"-0" Crushed Bedding/Backfill Rock. Spread 20 CY 6" Jaw Run Base Rock over Pipe for Surfacing, capped with 20 CY 1-1/2"-0" Crushed Rock. Culvert is Government supplied. Gaskets and Aluminized Steel Bands are to be supplied by Purchaser.
2-6-32.1	0.000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Stream Crossing. Install metal inlet marker on existing CPP.
	0.073	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.167	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Clean existing culvert inlet.

Gage Chart		
Gage	Dec. Inches	
	Steel	Alum.
10	.138	.135
12	.109	.105
14	.079	.075
16	.064	.060

1. Designed culvert lengths and locations are approximate.

*2. all culverts have 2-2/3" x 1/2"

unless otherwise noted.

**** Corrugated plastic pipe (CPP), Type S (double wall) shall be used for culvert sizes 24" and smaller. All larger culverts shall be aluminized steel. All aluminized steel culverts are to have hugger type bands and neoprene gaskets. 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.

*4. Downspout or Standpipe Types

- 1) Full
- 2) Half
- 3) Flume

*** Downspouts and stand pipes (under 36" diameter) shall be CPP, Type C (single wall).

- *5. 1) Conventional or Fabricated
2) Turner type
3) Slip joint

*6. Include special sections, structures, headwalls, footings & other data.

Culvert List

CULVERT LOCATIONS							DOWNSPOUT(d) or STANDPIPE(s) *4				AS BUILT			ROCK			REMARKS *6
DESIGNED *2														RIP RAP (GRADING)			
Road #	Sta./ M.P	SIZE	GAGE	LENGTH	CULVERT GRADE	INSTALL TYPE *3	SIZE	TYPE	LENGTH	TYPE OF ELBOW *5	SIZE	GAGE	LENGTH	INLET	OUTLET	Structure inside pipe	
2-6-32.2	0.058	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP. Clean existing culvert inlet.
2-6-32.3	0.113	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.230	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.316	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.392	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP. Clean existing culvert inlet.
	0.453	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.493	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.507	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Stream Crossing. Install metal inlet marker on existing CPP.
	0.525	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Stream Crossing. Install metal inlet marker on existing CPP.
	0.534	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Stream Crossing. Install metal inlet marker on existing CPP.
	0.695	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Stream Crossing. Install metal inlet marker on existing CPP.
	0.814	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
	0.948	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP.
2-6-33.0	0.041	18"	--	35'	--	--	--	--	--	--	--	--	--	--	--	--	Install Government supplied Culvert and bands as marked in the field and directed by Authorized Officer (approx. 3' fill @ CL). Place 15 CY 1-1/2"-0" Crushed Bedding/Backfill Rock. Spread 15 CY 6" Jaw Run Base Rock over Pipe for Surfacing, capped with 10 CY 1-1/2"-0" Crushed Rock. Install metal inlet marker.
3-6-5.0	0.040	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Stream Crossing. Install metal inlet marker on existing CPP. Clean existing culvert inlet and outlet.
	0.263	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Stream Crossing. Install metal inlet marker on existing CPP. Clean existing culvert inlet and outlet.
	0.456	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Stream Crossing. Install metal inlet marker on existing CPP.
3-6-5.3	0.040	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Install metal inlet marker on existing CPP. Clean existing culvert inlet.

Gage Chart		
Gage	Dec. Inches	
	Steel	Alum.
10	.138	.135
12	.109	.105
14	.079	.075
16	.064	.060

1. Designed culvert lengths and locations are approximate.

*2. all culverts have 2-2/3" x 1/2" unless otherwise noted.

**** Corrugated plastic pipe (CPP), Type S (double wall) shall be used for culvert sizes 24" and smaller. All larger culverts shall be aluminized steel. All aluminized steel culverts are to have hugger type bands and neoprene gaskets. 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.

*4. Downspout or Standpipe Types

- 1) Full
- 2) Half
- 3) Flume

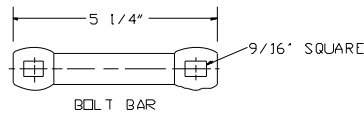
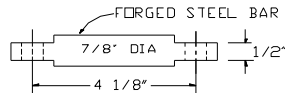
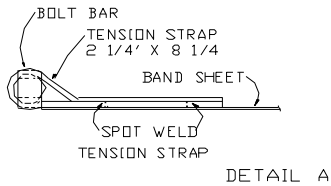
*** Downspouts and stand pipes (under 36" diameter) shall be CPP, Type C (single wall).

*5. 1) Conventional or Fabricated
2) Turner type
3) Slip joint

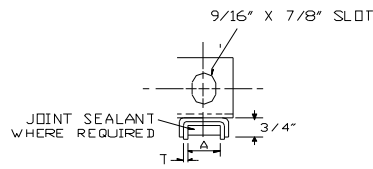
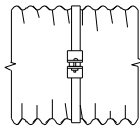
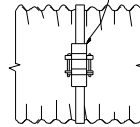
*6. Include special sections, structures, headwalls, footings & other data.

U.S. DEPT. OF THE INTERIOR
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NORTHWEST OREGON DISTRICT OFFICE - OREGON
CULVERT BAND DETAILS

NOTE:
DESIGN VARIATIONS IN FASTENERS,
(STRAPS, BARS & WELDS) WHICH
PROVIDE A TENSILE STRENGTH OF
7500 LBS. ARE PERMISSIBLE.



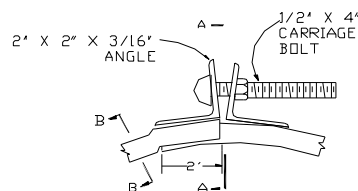
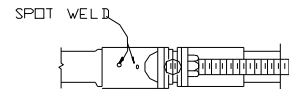
TENSION STRAP
AND BOLT BAR.
SEE DETAIL A



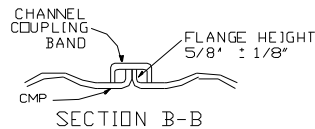
DIMENSIONS IN INCHES

T	A	PIPE WALL THICKNESS
.179	3/4	.109 OR LIGHTER
.109	1	.138 OR HEAVIER

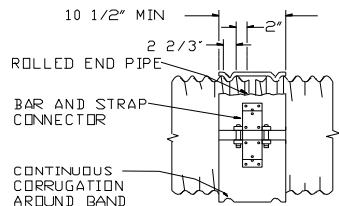
SECTION A-A



NOTE:
AS AN ALTERNATE TO SWEDGE, AN
OVERSIZE BRIDGE CLIP MAY BE USED.



CHANNEL
BAND
COUPLER

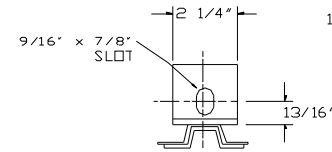


STANDARD CONSTRUCTION IS 1 PIECE 12'
THRU 48" AND 2 PIECE 54" AND ABOVE

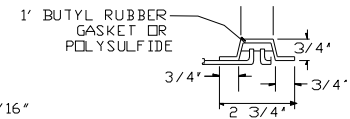
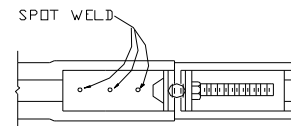
"HUGGER" COUPLER BANDS

THE HUGGER COUPLER BAND OR AN APPROVED EQUIVALENT COUPLER BAND SHALL BE MADE OF THE SAME MATERIAL AND FINISH AS THE PIPES JOINED. THE COUPLER BANDS SHALL HAVE A MINIMUM WIDTH OF 10 1/2 INCHES AND MAY BE TWO NUMERICAL THICKNESSES LIGHTER THAN THE GAGE OR THICKNESS DESIGNATED FOR THE CONDUIT JOINED. THE BAND SHALL BE DESIGNED TO BE DRAWN TOGETHER WITH TWO 1/2 INCH BOLTS THROUGH USE OF A BAR AND STRAP SUITABLY WELDED TO THE BAND. THE BAND SHALL ENGAGE AND MESH WITH THE SECOND ANNULAR CORRUGATION INWARD FROM THE END OF EACH OF THE CONDUIT SECTIONS JOINED.

GASKETS AND "HUGGER" TYPE BANDS, OR AN APPROVED EQUIVALENT COUPLER, SHALL BE INSTALLED INSTALLED ON ALL 48" AND LARGER METAL PIPES.



SECTION C-C

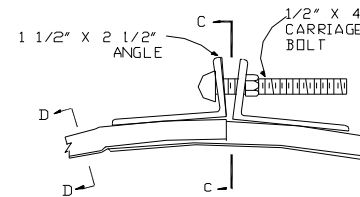
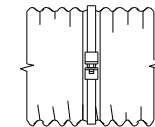


FLANGE HEIGHT
5/8" - 1/8"

O-RING GASKET
WHEN REQUIRED

SECTION D-D

SHOWN WITH ALTERNATE TYPES
OF JOINT SEALERS



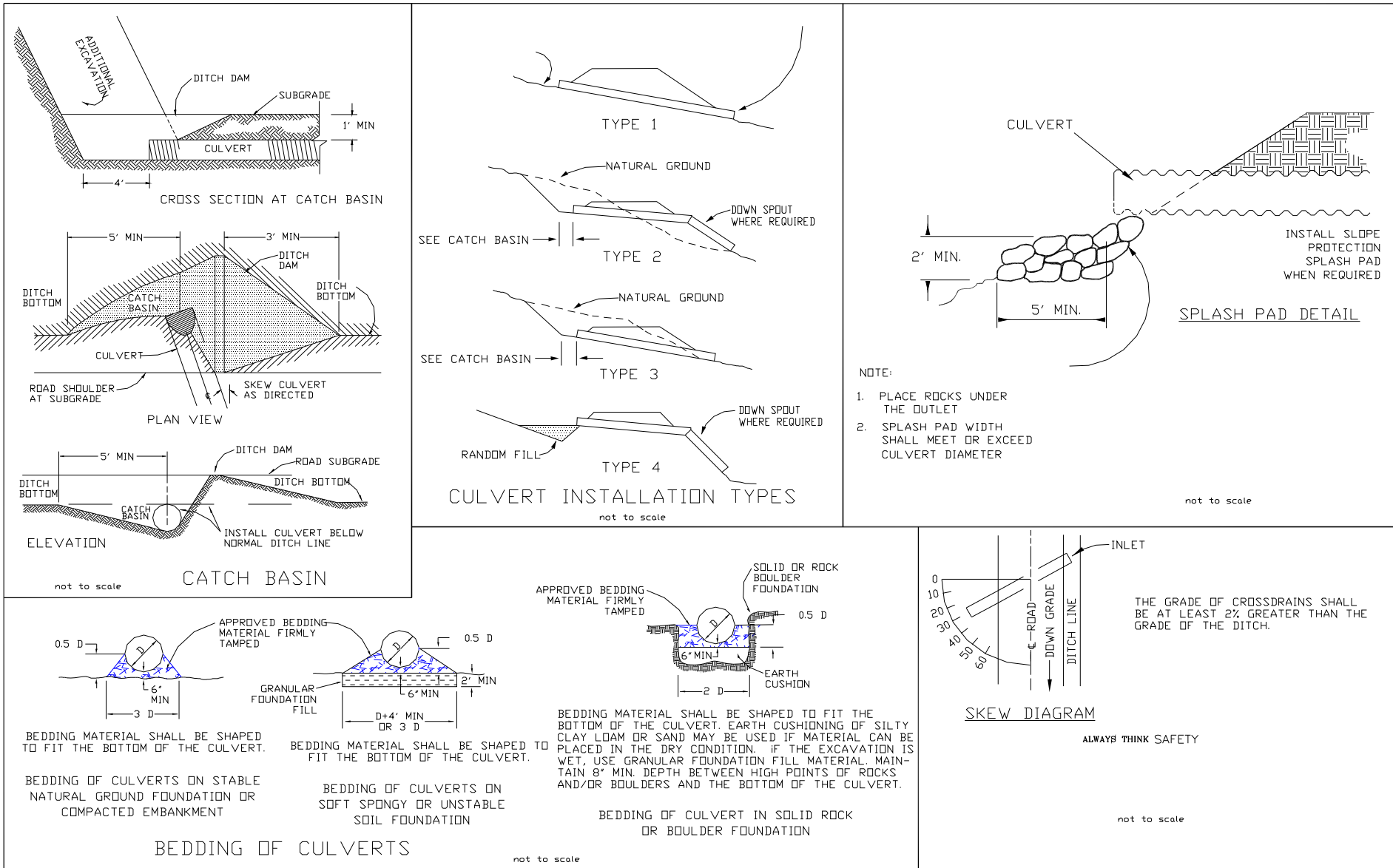
FLANGED END COUPLER

CULVERT SIZE INCHES	STANDARD COUPLER BANDS CORRUGATED							
	STD. ANNULAR		HELICAL		3' x 1'		6' x 1'	
	WIDTH	NO. OF BOLTS	WIDTH	NO. OF BOLTS	WIDTH	NO. OF BOLTS	WIDTH	NO. OF BOLTS
UNDER 18	7	2	7	2				
18 TO 54	12	3	12	3	14	3	18	3
OVER 54	24	5	24	5	24	5	24	4

DATA IN THIS BLOCK DOES NOT APPLY TO PERFORATED PIPE UNDERDRAIN. FOR BANDS WITH "PUNCH-OUT" TYPE CONNECTIONS, 2 BOLTS ARE PERMISSIBLE FOR EACH LAP. BANDS SHALL LAP 1/2 WIDTH ONTO EACH SECTION OF PIPE AND MUST FULLY ENCLOSE THE JOINT FORMING A NEARLY WATERTIGHT CONNECTION.

- Ⓐ BANDS WITH ANGLES
- Ⓑ BANDS WITH TENSION TYPE CONNECTIONS

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NORTHWEST OREGON DISTRICT OFFICE - OREGON
CULVERT INSTALLATION DETAILS



ROCK VOLUMES TOTALS

ROAD SEGMENT:			2-6-15.0 (White Face Rd)		MILEAGE:		0.000 - 1.653	
Application	Rock Size and Type	Location	Compacted Depth	Volume per Station/Item (CY)	Approx. Total (CY)	Curve Widening (CY)	Summary Totals	
Road Rock	1-1/2"-0"	Cap Spot Rock	--	--	--	--	200	
Culverts	1-1/2"-0"	Cap Spot Rock	--	--	--	--	10	
Culverts	6" Jaw Run	Base Spot Rock	---	---	---	---	20	
Culverts	1-1/2"-0"	Bedding/Backfill	---	---	---	---	10	
Energy Dissipater/outlet	RipRap: Class 3	MP 0.228	--	--	--	--	5	

ROAD SEGMENT:			2-6-29.3		STATION:		0+00 - 3+04	
Application	Rock Size and Type	Location	Compacted Depth	Volume per Station/Item (CY)	Approx. Total (CY)	Curve Widening (CY)	Summary Totals	
Road Rock	1-1/2"-0"	Cap Spot Rock	--	--	--	--	30	
Road Rock	6" Jaw Run	Base Spot Rock	--	--	--	--	20	

ROAD SEGMENT:			2-6-29.4		STATION:		0+00 - 13+23	
Application	Rock Size and Type	Location	Compacted Depth	Volume per Station/Item (CY)	Approx. Total (CY)	Curve Widening (CY)	Summary Totals	
Road Rock	1-1/2"-0"	Cap Spot Rock	--	--	--	--	20	
Culverts	1-1/2"-0"	Cap Spot Rock	---	---	---	---	20	
Culverts	6" Jaw Run	Base Spot Rock	---	---	---	---	20	
Culverts	1-1/2"-0"	Bedding/Backfill	---	---	---	---	20	

ROAD SEGMENT:			2-6-32.1		MILEAGE:		0.000 - 0.221	
Application	Rock Size and Type	Location	Compacted Depth	Volume per Station/Item (CY)	Approx. Total (CY)	Curve Widening (CY)	Summary Totals	
Road Rock	1-1/2"-0"	Cap Spot Rock	---	---	---	---	40	

ROAD SEGMENT:			2-6-32.2		MILEAGE:		0.000 - 0.695	
Application	Rock Size and Type	Location	Compacted Depth	Volume per Station/Item (CY)	Approx. Total (CY)	Curve Widening (CY)	Summary Totals	
Road Rock	1-1/2"-0"	Cap Spot Rock	--	--	--	--	180	
Road Rock	6" Jaw Run	Base Spot Rock	--	--	--	--	20	

ROAD SEGMENT:			2-6-32.3		MILEAGE:		0.000 - 0.963	
Application	Rock Size and Type	Location	Compacted Depth	Volume per Station/Item (CY)	Approx. Total (CY)	Curve Widening (CY)	Summary Totals	
Road Rock	1-1/2"-0"	Cap Spot Rock	---	---	---	---	70	

ROAD SEGMENT:			2-6-33.0		MILEAGE:		0.000 - 0.052	
Application	Rock Size and Type	Location	Compacted Depth	Volume per Station/Item (CY)	Approx. Total (CY)	Curve Widening (CY)	Summary Totals	
Road Rock	1-1/2"-0"	Cap Spot Rock	--	--	--	--	40	
Culverts	1-1/2"-0"	Cap Spot Rock	--	--	--	--	10	
Culverts	6" Jaw Run	Base Spot Rock	---	---	---	---	15	
Culverts	1-1/2"-0"	Bedding/Backfill	---	---	---	---	15	

ROAD SEGMENT:			2-6-33.2		MILEAGE:		0.000 - 0.066	
Application	Rock Size and Type	Location	Compacted Depth	Volume per Station/Item (CY)	Approx. Total (CY)	Curve Widening (CY)	Summary Totals	
Road Rock	1-1/2"-0"	Cap Spot Rock	--	--	--	--	40	
Road Rock	6" Jaw Run	Base Spot Rock	--	--	--	--	20	

ROCK VOLUMES TOTALS

ROAD SEGMENT:			2-6-33.3		STATION:			0+00 - 8+76	
Application	Rock Size and Type	Location/Number	Compacted Depth	Volume per Station/Item (CY)	Approx. Total (CY)	Curve Widening (CY)	Summary Totals		
Road Rock	1-1/2"-0"	Cap Spot Rock	---	---	---	---	60		

ROAD SEGMENT:			3-6-5.0		MILEAGE:			0.000 - 0.629	
Application	Rock Size and Type	Location	Compacted Depth	Volume per Station/Item (CY)	Approx. Total (CY)	Curve Widening (CY)	Summary Totals		
Road Rock	1-1/2"-0"	Cap Spot Rock	---	---	---	---	20		

ROAD SEGMENT:			3-6-5.3		MILEAGE:			0.000 - 0.145	
Application	Rock Size and Type	Location/Number	Compacted Depth	Volume per Station/Item (CY)	Approx. Total (CY)	Curve Widening (CY)	Summary Totals		
Road Rock	1-1/2"-0"	Cap Spot Rock	---	---	---	---	20		

ROAD MAINTENANCE SPECIFICATIONS

General road maintenance specifications are designated by numeric symbols according to the type of work performed as follows:

SECTION	DESCRIPTION
3000	General
3100	Operational Maintenance
3200	Seasonal Maintenance
3300	Final Maintenance
3400	Other Maintenance
3500	Decommissioning

GENERAL - 3000

- 3001 The Purchaser shall be required to maintain all roads as shown on the Exhibit E maps of this contract in accordance with Sections 3000, 3100, 3200, 3300, 3400, and 3500 of this exhibit.
- 3002 The Purchaser shall maintain the cross section of existing dirt or graveled roads to the existing geometric standards. Any roads required to be constructed, improved, or renovated under terms of this contract shall be maintained to the geometric standards required in Exhibit C of this contract.
- 3003 The minimum required maintenance on any Purchaser maintained roads shall include the provisions specified in Subsections 3101, 3104, and 3105.
- 3004 The Purchaser shall be responsible for providing timely maintenance and cleanup on any roads with logging units substantially completed prior to moving operations to other roads. The maximum length of non-maintained or non-cleanup of the road prism shall not exceed the sum of one (1) mile at any time. Release of maintenance requirements may be granted, upon written request, when the conditions specified in Sections 3300 and 3400 are met satisfactorily.

OPERATIONAL MAINTENANCE - 3100

- 3101 The Purchaser shall blade and shape the road surface and shoulders with a motor grader, when directed by the Authorized Officer. Banks shall not be undercut. Back blading with tractors or similar equipment will be allowed only around landings and other areas when approved by the Authorized Officer.
- 3102 The Purchaser shall furnish and place **290** cu.yds. of aggregate conforming to the requirements in Sections 1200 of Exhibit C of this contract on the roadway at locations and in the amounts designated by the Authorized Officer.
- 140** cu.yds. - To be placed on BLM controlled roads as directed by Authorized Officer (maintenance rock: Sections 44.v.).
- 150** cu yds – To be placed on non-BLM controlled roads as directed by the Authorized Officer (maintenance rock: Section 44.bb.)
- This aggregate shall be used to repair surface failures and areas of depleted surface depth excluding damages covered by Section 12 of this contract. The aggregate shall be furnished, hauled, placed, spread, and compacted by use of dump trucks, water trucks, and motor grader or similar equipment.

- 3104 The purchaser shall perform other road cleanup including removal of debris, fallen timber, bank slough, and slides which can practicably be accomplished by a motor grader, rubber tired front end bucket loader, rubber tired backhoe or comparable equipment, and by the use of hand tools.
- 3104a Removal of bank slough and slide material includes placement of material at the nearest designated, suitable disposal site where material cannot erode into streams, lakes, or reservoirs or cause undue damage to road fill slopes which have been planted or mulched to control soil erosion as directed by the Authorized Officer.
- 3104b The Purchaser shall be responsible for removal of all slides or slough, up to fifteen station yards in quantity, at any one site. This work includes unlimited multiple sites on all roads required to be maintained by the purchaser.
- Prior to removal of any slough or slide material exceeding fifteen station yards at any one site, the Purchaser and the Authorized Officer or their Authorized Representatives shall agree in writing, in the field, to the quantity of material, method of disposal, and the disposal site. Work may commence immediately after agreement.
- Upon completion of agreed upon work, a reduction in timber sale purchase price will be made to offset the cost of the work, based on current BLM Road Cost Guide. Adjustments in purchase price for completed work shall be made as necessary and no less than once per year when actual work is ongoing.
- 3105 The Purchaser shall be responsible for maintaining normal flow in drainage structures. This includes cleaning out drainage ditches, catch basins, clearing pipe inverts of sediment and other debris lodged in the barrel of the pipe, and maintaining water dips and waterbars using equipment specified in Subsection 3104 and other culvert cleaning and flushing equipment.
- 3108 The Purchaser shall avoid fouling gravel or bituminous surfaces through covering with earth and debris from side ditches, slides or other sources. The Purchaser shall also avoid blading surfacing material off the running surface of the roadway. (Skidding of logs on the roadway in or outside designated logging units is not authorized without prior written approval by the Authorized Officer. Repair required caused by such skidding activity is not considered maintenance and shall be repaired at the Purchaser's expense.)

SEASONAL MAINTENANCE - 3200

- 3201 The Purchaser shall perform preventative maintenance at the end of Purchaser's hauling each season and during non-hauling periods which occur between other

operations on the contract area. This includes requirements specified in Section 3100.

- 3202 The purchaser shall perform and complete maintenance specified in Sections 3000, 3100, and 3200 on all roads maintained by him, during times when there is a low potential to deliver sediment to streams, as determined by Authorized Officer, and as specified in Subsection 3203, after initial commencement of construction or logging operations. Thereafter, all roads shall have continuous preventive maintenance and road cleanup. This includes all roads used and not used during the preceding operating seasons.
- 3203 The Purchaser shall complete road cleanup and maintenance, as specified in Section 3100, at the completion of logging operations on any roads located in an area separate from the area where logging activities will resume.
- 3204 The Purchaser shall be responsible for performing post storm inspections and maintenance during the winter season to minimize erosion and potential road or watershed damage.

FINAL MAINTENANCE - 3300

- 3301 The Purchaser shall complete final maintenance and/or damage repairs on all roads used under terms of their contract within thirty (30) calendar days following the completion of hauling and in accordance with Sec. 16(b) of this contract. This work shall include any maintenance and/or damage repairs specified in Sections 3000, 3100, and 3200 necessary to meet the conditions specified in Subsection 3002 and shall be executed in accordance with Subsection 3302 of this section.

The Authorized Officer may grant acceptance of Purchaser's maintenance responsibility in part where certain individual roads or road segments are no longer of any use to the Purchaser's remaining removal operations, providing that all contract requirements as specified under Sec. 16(b), Special Provisions (Sections 3000, 3100, 3200 and 3300 of the maintenance specifications) have been completed and a relinquishment of cutting and removal rights on cutting units tributary to these roads is signed by the Purchaser. Request for partial acceptance must be submitted in writing by the Purchaser.

- 3302 The Purchaser shall perform final road maintenance only when weather or soil moisture conditions are suitable for normal maintenance equipment operations as determined by the Authorized Officer.

If final maintenance is delayed after the date required in Subsection 3301 of this contract by adverse soil moisture or unsuitable equipment operating conditions, the Purchaser will be notified by the Authorized Officer when soil moisture and equipment operating conditions are suitable. The Purchaser shall then be required to complete final maintenance within 30 days.

OTHER MAINTENANCE - 3400

- 3401 The Purchaser shall repair any damage to road surfaces that was specified under Subsection 3108. This repair includes restoring the roadway to the designed standard and replacement of surfacing with approved surface material. This repair is not limited to use of equipment specified in Subsection 3104.
- 3402 The Purchaser shall be permitted to remove ice and snow from roads authorized for use under this contract only when prior written approval has been secured from the Authorized Officer. The Purchaser shall submit a written request for permission to remove ice and snow in advance of the date operations are to begin.
- Upon receiving written authorization for ice or snow removal, the Purchaser will perform the work according to the conditions and equipment requirements set forth in the authorization.

DECOMMISSIONING – 3500

- 3501 Decommissioning on the following roads shall consist of removing cross drains and draw culverts. Work includes subsoiling, installing non-drivable waterbars, scattering slash, removing culverts, and blocking roads from access by vehicles. This work is *not* required for road acceptance under Section 18 of this contract.

Road No or Site	From Sta/MP	To Sta/MP	Length
2-6-33.3	0+00	8+76	876 feet

- 3501c Decommissioning on the following roads shall consist of removing cross drains and draw culverts. Work includes installing non-drivable waterbars, spread government supplied grass seed, and blocking roads from access by vehicles. This work is *not* required for road acceptance under Section 18 of this contract.

Road No or Site	From Sta/MP	To Sta/MP	Length
2-6-29.3	0+00	3+04	304 feet
2-6-29.4	0+00	13+23	1,323 feet

- 3504 Decommissioning and Stabilization work shall be completed after all harvesting activities requiring that road segment have ceased, unless otherwise authorized in writing by the Authorized Officer. All decommissioning and stabilization work shall be performed during times when there is a low potential to deliver sediment to streams, as determined by the Authorized Officer (except in-stream work, which is in North Yamhill River Watershed:

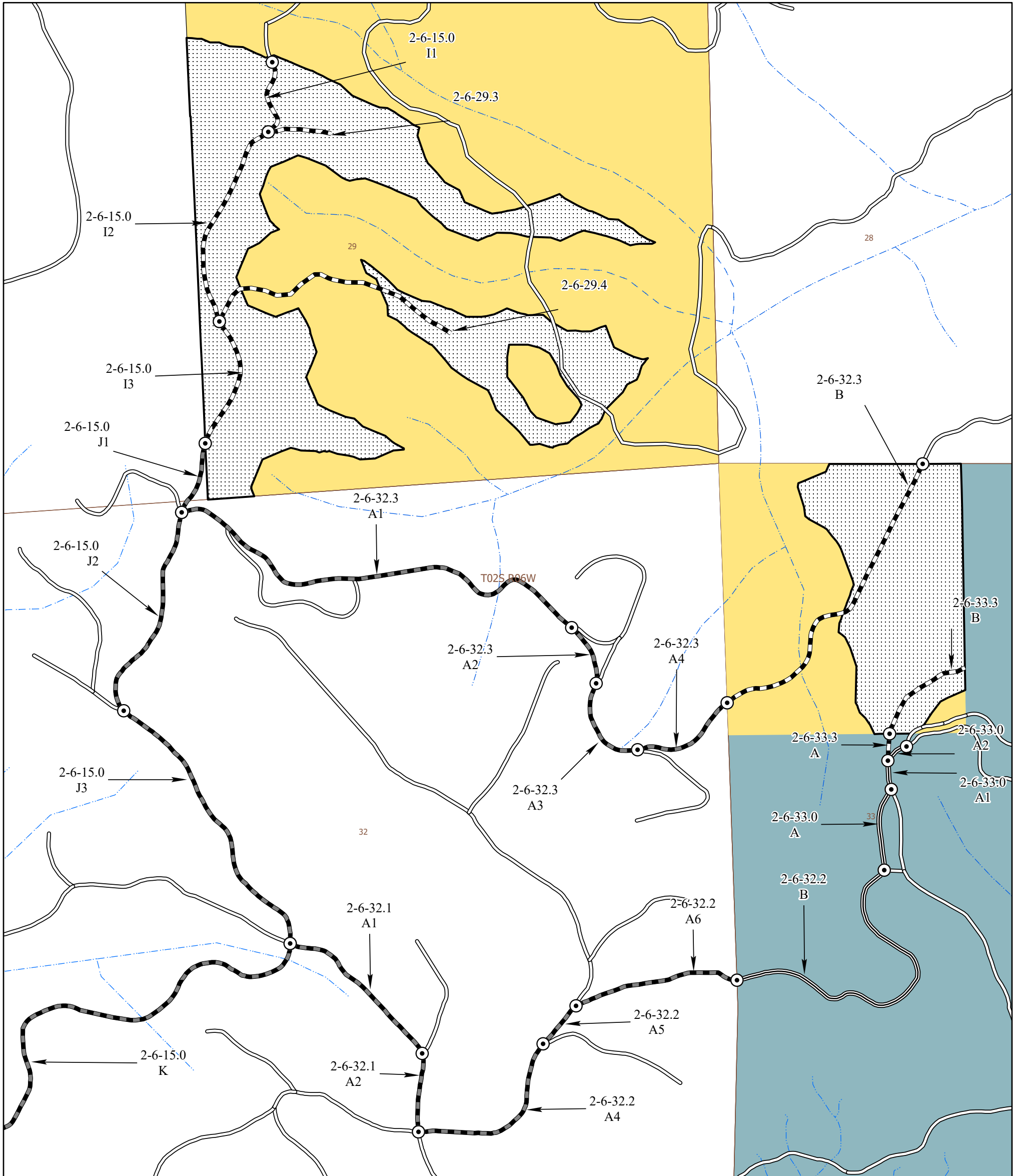
From	To
July 15	September 30

- 3505 Where draw crossing fill material is to be excavated and removed, the finished bottom of draw profile shall be reestablished to its original channel grade, and resulting adjacent banks shall be constructed to a 2:1 backslope ratio.
- 3507 Culverts and Inlet Markers removed during decommissioning shall become the property of the BLM. All culverts and bands removed from the roadbed shall be recovered in such a manner as to preserve the pipe from rips and holes. The Purchaser shall be responsible for delivering culvert materials to the BLM Cedar Creek Storage Facility (SW $\frac{1}{4}$ sec. 5, T. 3 S., R. 6 W., WM.) and for payment of any fees required. This task shall be done prior to termination of this contract.
- 3509 Decommissioned roads shall have access blocked with barricades as shown on Exhibit C page 32. Stumps and woody debris used in the construction of barricades shall be material piled and stored during the clearing and grubbing process of road construction.
- 3511 Subsoiling shall be accomplished by using excavator attachments, log loader tongs, or other acceptable equipment capable of de-compacting the soil to a depth of 18 inches. The full width of the roadbed shall be loosened by the subsoiling operation, with no portion of the bed having been left at the original compacted density. Ripper entries into the roadbed shall be spaced where total subgrade subsoiling is accomplished.
- 3513 Waterbars (drivable and non-drivable)/Waterdips shall be installed across full width of roadway at locations marked in the field by Authorized Officer and constructed to the dimensions of the waterbar detail on Page 32 of Exhibit C.

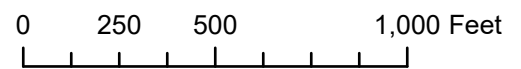
**United States Department of the Interior
BUREAU OF LAND MANAGEMENT
NORTHWEST OREGON DISTRICT - OREGON**



T. 02S. R. 06W. Sections 29 & 33 W.M. - NORTHWEST OREGON DISTRICT - OREGON



- Segment Breaks
- ▬ BLM controlled road - Purchaser Maintenance - Designated Haul Route
- ▬ McMinnville Water and Light controlled road - Purchaser Maintenance - Designated Haul Route
- ▬ Weyerhaeuser controlled road - Purchaser Maintenance - Designated Haul Route
- Existing Roads
- Streams
- ▨ Little Bit Project Area
- Bureau of Land Management
- Local Government
- Private/Unknown

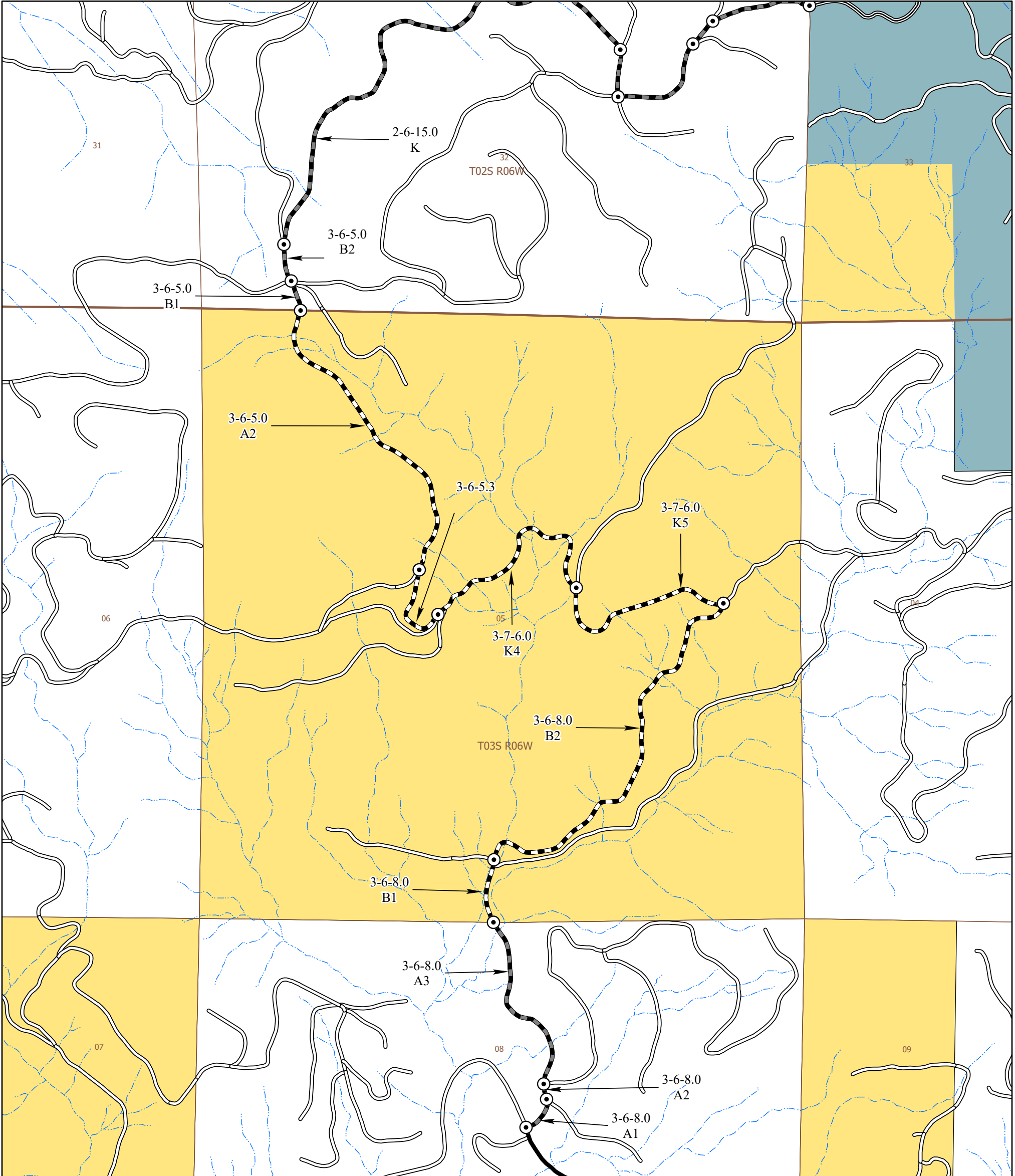


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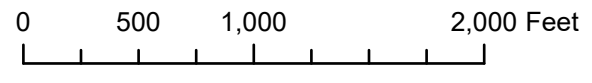
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BUREAU OF LAND MANAGEMENT
NORTHWEST OREGON DISTRICT - OREGON**



T. 02S. R. 06W. Sections 29 & 33 W.M. - NORTHWEST OREGON DISTRICT - OREGON



- Segment Breaks
- BLM controlled road - BLM Maintenance - Designated Haul Route
- BLM controlled road - Purchaser Maintenance - Designated Haul Route
- McMinnville Water and Light controlled road - Purchaser Maintenance - Designated Haul Route
- Weyerhaeuser controlled road - Purchaser Maintenance - Designated Haul Route
- Existing Roads
- Streams
- Bureau of Land Management
- Local Government
- Private/Unknown

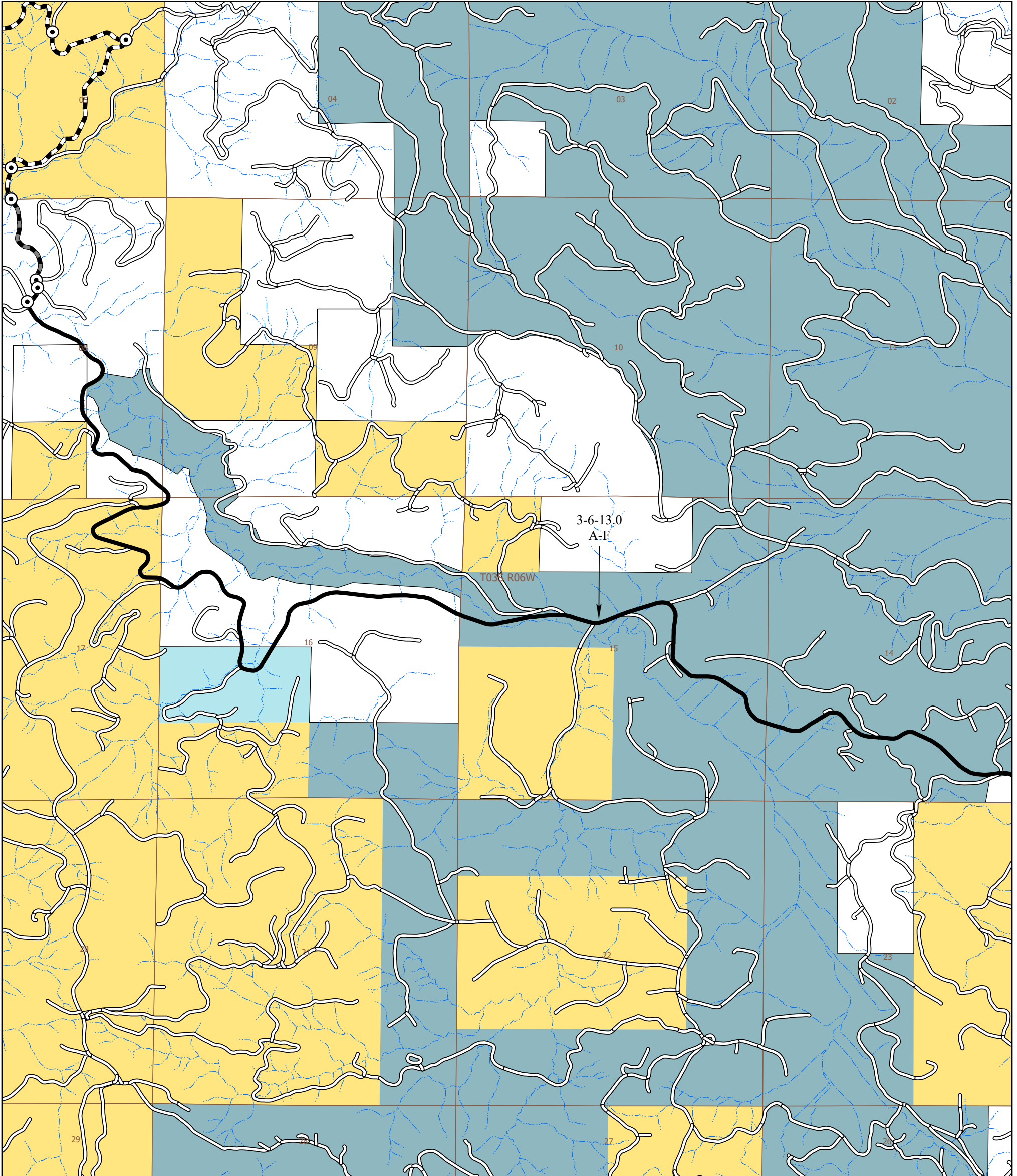


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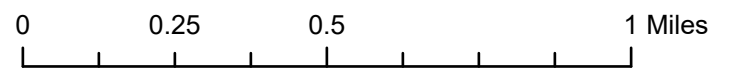
**United States Department of the Interior
BUREAU OF LAND MANAGEMENT
NORTHWEST OREGON DISTRICT - OREGON**



T. 02S. R. 06W. Sections 29 & 33 W.M. - NORTHWEST OREGON DISTRICT - OREGON



- Segment Breaks
- BLM controlled road - BLM Maintenance - Designated Haul Route
- BLM controlled road - Purchaser Maintenance - Designated Haul Route
- Weyerhaeuser controlled road - Purchaser Maintenance - Designated Haul Route
- Existing Roads
- Streams
- Bureau of Land Management
- State
- Local Government
- Private/Unknown



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COARSE WOODY DEBRIS (CWD) CREATION

The Purchaser shall select and treat a total of sixty-five (65) reserve trees in the CWD Creation Units shown on Exhibit F maps (page 4) to create Coarse Woody Debris (CWD) by saw-topping or high-girdling. Treated trees will be marked with flagging as specified by the Authorized Officer.

Treatment of trees to create CWD within any given unit shall not start until all yarding operations within that unit are complete. The Purchaser must provide a proposed schedule of work to the Authorized Officer at least one week prior to commencing the CWD creation activities.

CWD Creation per CWD Unit

CWD Unit Number	CWD Unit Acres	Total Trees	Saw-Top	High Girdle	Tree Size (Inches at DBH)
1	46	46	24	22	20-30"
2	19	19	9	10	20-30"
Total	65	65	33	32	

1. **Tree Selection** – The Purchaser shall select sixty-five (65) reserve trees to create CWD by saw-topping or high-girdling according to the following guidelines. Numbers of trees and tree sizes to be selected, specific to each CWD unit, are displayed in the table above. Placement of trees to be selected by treatment type within the individual treatment units is displayed on the Coarse Woody Debris Creation maps (Exhibit F page 4). The locations of the selected trees (individually or in small groups; distance from roads or property line) varies by treatment method; see treatment methods below for additional treatment-specific information concerning tree selection.

- Only healthy Douglas-fir trees shall be selected for treatment.
- No trees marked with any existing metal tags shall be selected for treatment.
- No trees with limbs > 4" in diameter.
- No trees with nests or any nest-like structures of any birds or mammals, or trees with defects such as cavities, platforms, mistletoe infection, or dead, forked/multiple and/or broken tops shall be selected.
- Selected trees shall be evenly distributed throughout the CWD units. When selecting trees, select approximately fifty (50) percent of the trees larger than the median tree size for the given range, and approximately fifty (50) percent of the trees smaller than the median tree size for the given range unless stand conditions dictate otherwise. If only trees smaller than the appropriate size are available, select trees of the largest size class present. Do not select the largest, most dominant tree within any given area.

- a. **Saw-topping and High-girdling:** Select healthy appearing Douglas-fir trees with live crown ratios greater than thirty (30) percent and with average or larger crown spread. If only trees with smaller live crown ratios than appropriate are available, select trees with the largest crown ratio present. Treatment types and selected trees shall be scattered uniformly throughout the units. Trees selected for saw-topping shall be selected singly or in small groups of three (3) to five (5) trees. Trees selected for high girdling shall be selected in groups of three (3) to five (5) trees. Trees selected for saw-topping or high-girdling shall not be located within falling distance of a drivable road (open after use) or property line boundary where BLM land abuts non-federal ownership.

2. CWD Treatments

- a. **Saw-Topping** – severing the treetop within the live crown.
 1. The Purchaser shall climb and top selected trees at a height of at least sixty (60) feet above the ground at a point where approximately twenty to fifty (20-50) percent of the live crown remains; saw-topping heights shall be varied equally within this placement within the live crown. Topping shall be done with power tools (e.g., chainsaws).
 2. To the extent practicable, the Purchaser shall retain all green limbs and the largest dead limbs on the treated trees during the climbing and topping operations.
 3. Tree tops shall be completely severed from the tree and fall completely to the ground inside unit boundaries.
 4. To the extent practicable, the Purchaser shall directionally fall tops to not damage existing snags, under-story conifers, any tree containing a suspected nest of a bird or mammal, or any tree with defects such as hollow cavities, multiple tops, or decay, and avoid contact with unburned burn piles and drivable roads.
 5. The Contractor shall tie two pieces of flagging of a color approved by the Authorized Officer on a branch, or around the bole, directly below the saw top. Flagging shall extend a minimum of three feet downward and must be visible from the ground.
- b. **High-Girdling** – girdling within the live crown.
 1. The Purchaser shall climb, and girdle selected trees within the live crown at a point where approximately twenty to fifty (20-50) percent of the live crown remains below the point of girdling and at a height of at least sixty (60) feet above the ground; girdling heights shall be varied equally within this placement within the live crown. Girdling may be done with a hand tool or power tool and will consist of removing all bark and cambium in a ten to twelve (10-12) inch band completely around the main stem of the tree.
 2. Tool cuts must not penetrate more than one-half (0.5) inches into the wood of high-girdled trees.
 3. Live limbs below the point of high girdling shall not be removed. To the extent practicable, the Purchaser shall retain the largest dead limbs on the trees during the climbing and high-girdling operations.

4. The Contractor shall tie two pieces of flagging of a color approved by the Authorized Officer on a branch, or around the bole, directly below the girdle site. Flagging shall extend a minimum of three feet downward and must be visible from the ground.

3. Documentation

1. The Purchaser shall provide the location for all saw-topped and high-girdled trees by collecting GPS points on a GPS unit with NAD83 datum, zone 10. If acceptable GPS satellite coverage cannot be obtained at a site, the point shall be hand drawn onto a map and submitted to the Authorized Officer.
2. The Purchaser shall tally all CWD trees by 2-inch diameter class, tree species, snag type, and unit identifier daily. The Authorized Officer may request the tally at any time during CWD operations. At the completion of operations, the Purchaser shall submit a completed tally to the Authorized Officer.
3. All information recorded on the tally sheet shall be legible, clear and reproducible on a black and white copy machine. All documents shall be reviewed by the Purchaser to ensure completeness, legibility, accuracy, and consistency in style before submitting them to the Authorized Officer.

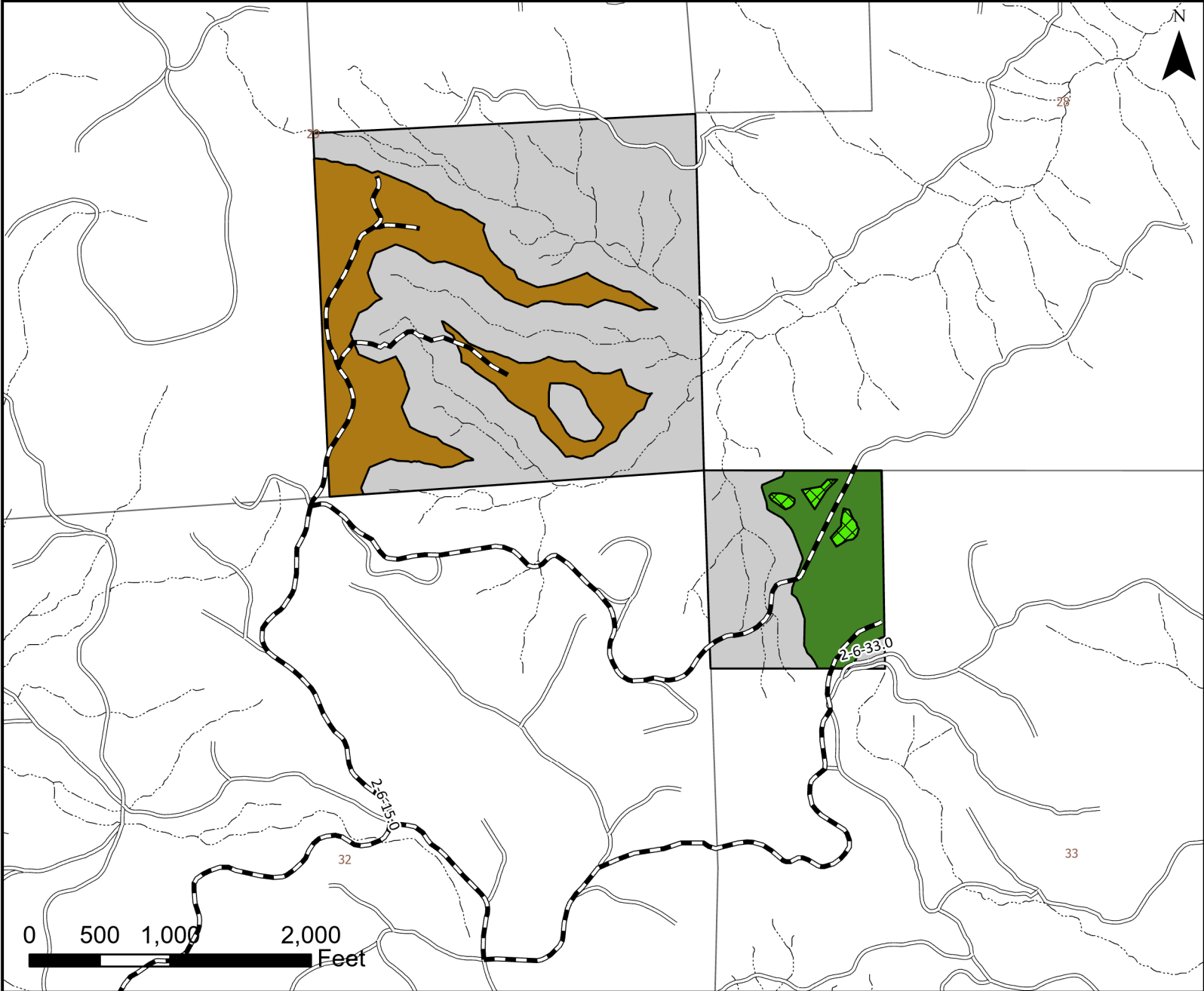


United States Department of the Interior
 BUREAU OF LAND MANAGEMENT
 COARSE WOODY DEBRIS (CWD) CREATION MAP

Contract No. ORN04-TS-2023.0403
 Little Bit Timber Sale
 Exhibit F
 Page 4 of 4

7/5/2023

T. 2S. R. 6W, Sections 29 & 33 W. M. - NORTHWEST OREGON DISTRICT - OREGON



CWD Unit Number	CWD Unit Acres	Total Trees	Saw Top	High Girdle	Tree Size	Notes
1	46	46	24	22	20-30	Dispersed
2	19	19	9	10	20-30	14 dispersed, 5 in clumps

- Contract Area
- Unit 1
- Unit 2
- Clump Area
- Project Roads
- Other 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 areas are painted/flagged in orange and posted. Right-of-ways (ROW) are posted. Harvest area acres do not include existing roads. Prepared By: dtyler

Legal Description of Contract Area

Land Status	County	Township	Range	Section	Subdivision	Meridian
O&C	Yamhill	2S	6W	29	SE¼	Willamette
O&C	Yamhill	2S	6W	33	NW¼ NW¼	Willamette

Species Totals

Species	Net	Gross Merch	Gross	# of Merch Logs	# of Cull Logs	# of Trees
Douglas Fir	1,602.0	1,664.0	1,664.0	20,346	0	4,511
Western Hemlock	104.0	107.0	107.0	2,814	0	767
Grandfir	4.0	4.0	4.0	38	0	7
Red Alder	1.0	1.0	2.0	18	18	9
Totals	1,711.0	1,776.0	1,777.0	23,216	18	5,294

Cutting Area Acres

Regeneration Harvest Acres	Partial Cut Acres	Right of Way Acres	Total Acres	Net Volume per Acre
19.0	44.0	2.0	65.0	26.3

Logging Costs

Stump to Truck	\$297,112.09
Transportation	\$126,611.25
Road Construction	\$111,381.21
Maintenance/Rockwear	\$47,462.47
Road Use	\$6,117.00
Other Allowances	\$26,148.40
Total:	\$614,832.42
Total Logging Cost per MBF:	\$359.34

Utilization Centers

<u>Location</u>	<u>Distance</u>	<u>% of Net Volume</u>
Lyons	78.0 miles	100%

Profit & Risk

Profit	10%
Risk	0%
Total Profit & Risk	10%

Tract Features

Quadratic Mean DBH	16.6 in
Average GM Log	77 bf
Average Volume per Acre	26.3 mbf
Recovery	96%
<u>Net MBF volume:</u>	
Green	1,711.0 mbf
Salvage	0 mbf
Export	0 mbf
<u>Ground Base Logging:</u>	
Percent of Sale Volume	35%
Average Yarding Slope	30%
Average Yarding Distance	500 ft
<u>Cable Logging:</u>	
Percent of Sale Volume	65%
Average Yarding Slope	60%
Average Yarding Distance	650 ft
<u>Aerial Logging:</u>	
Percent of Sale Volume	0%
Average Yarding Slope	0%
Average Yarding Distance	0 ft

Cruise

Cruise Completed	July 2023
Cruised By	Bryant/Salmon
Cruise Method	40 BAF in regen. 20 BAF in thinning. 100% RW

Stumpage Computation

Species	# of Trees	Net Volume	Pond Value	(-) Profit & Risk	(-) Logging Costs	(+) Marginal Log Value	Stumpage Adjustment	Appraised Price/MBF	Appraised Value (\$)
Douglas Fir	4,511	1,602.0	\$637.74	\$63.77	\$359.34	\$0.00	(\$1.50)	\$213.10	\$341,386.20
Western Hemlock	767	104.0	\$424.19	\$42.42	\$359.34	\$0.00	\$0.00	\$42.50 *	\$4,420.00
Grandfir	7	4.0	\$388.68	\$38.87	\$359.34	\$0.00	\$0.00	\$38.90 *	\$155.60
Red Alder	9	1.0	\$276.50	\$27.65	\$359.34	\$0.00	\$0.00	\$27.70 *	\$27.70
Totals	5,294	1,711.0							\$345,989.50

* 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				55.0%	41.0%	4.0%	

Species	Peeler	No. 1 Sawmill	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
Western Hemlock				18.0%	72.0%	10.0%	

Species	Peeler	No. 1 Sawmill	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
Grandfir				61.0%	38.0%	1.0%	

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

Unit: 1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	579.0	608.0	608.0	1,723
Totals:	579.0	608.0	608.0	1,723

Net Volume/Acre: 13.2 MBF

Regeneration Harvest	0.0
Partial Cut	44.0
Right of Way	0.0
Total Acres:	44.0

Unit: 2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	892.0	917.0	917.0	2,516
Western Hemlock	91.0	93.0	93.0	655
Red Alder	1.0	1.0	2.0	9
Totals:	984.0	1,011.0	1,012.0	3,180

Net Volume/Acre: 51.8 MBF

Regeneration Harvest	19.0
Partial Cut	0.0
Right of Way	0.0
Total Acres:	19.0

Unit: RW

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	131.0	139.0	139.0	272
Western Hemlock	13.0	14.0	14.0	112
Grandfir	4.0	4.0	4.0	7
Totals:	148.0	157.0	157.0	391

Net Volume/Acre: 74.0 MBF

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

Total Stump To Truck	Net Volume	\$/MBF
\$297,112.09	1,711.0	\$173.65

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

Yarding System	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Cable: Medium Yarder	GM MBF	152.0	\$319.26	\$48,527.52	Thinning Unit 1
Cable: Medium Yarder	GM MBF	1,011.0	\$159.63	\$161,385.93	Regen Unit 2
Shovel	GM MBF	614.0	\$138.76	\$85,198.64	Thinning Unit 1
Subtotal				\$295,112.09	

Additional Costs

Item	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Intermediate Support	Each	8.0	\$250.00	\$2,000.00	
Subtotal				\$2,000.00	

Additional Moves

Equipment	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Subtotal				\$0.00	

Comments:

8 loads/day cable regen
 4 loads/day cable thinning
 6 loads/day shovel thinning
 All loads at 5mbf per load

Total	Net Volume	\$/MBF
\$126,611.25	1,711.0	\$74.00

Utilization Center	One Way Mileage	Description	Unit of Measure	# of Units	\$/Unit of Measure	Total Cost	% of Sale Volume
Lyons	78.0	All Species	GM MBF	1,777.0	\$71.25	\$126,611.25	100%

Comments:

transport to closest SBA

Engineering Allowances

Total	Net Volume	\$/MBF
\$164,960.68	1,711.0	\$96.41

Cost Item	Total Cost
Road Construction:	\$111,381.21
Road Maintenance/Rockwear:	\$47,462.47
Road Use Fees:	\$6,117.00

Comments:

See engineering appraisal for more information.

Total	Net Volume	\$/MBF
\$26,148.40	1,711.0	\$15.28

Environmental Protection

Cost item	Total Cost
CWD Costs	\$8,298.40
Subtotal	\$8,298.40

Fire Prevention & Control

Cost item	Total Cost
Fuel reduction cost	\$17,450.00
Subtotal	\$17,450.00

Logging

Cost item	Total Cost
Machine Washing	\$400.00
Subtotal	\$400.00

Comments:

OTHER SLASH DISPOSAL COST

Item	Unit	Quantity	Rate	Subtotal
Slashing	Acre	12	\$250.00	\$3,000.00

PILING, COVERING, & BURNING COSTS:

Item	Unit	Quantity	Rate	Subtotal
All Units Landing Pile Cover	Acres	2	\$125.00	\$250.00
All Units Landing Pile Burn	Acres	2	\$125.00	\$250.00
All Units Machine Pile Construction & Cover	Acres	6	\$450.00	\$2,700.00
All Units Machine Pile Burn	Acres	6	\$125.00	\$750.00
All Units Hand Pile Construction & Cover	Acres	12	\$750.00	\$9,000.00
All Units Hand Pile Burn	Acres	12	\$125.00	\$1,500.00
TOTAL ALLOWANCE FOR THIS SALE:				\$17,450.00

CWD

Treatment Type	Quantity	Price
Saw-Top (20-30)	33	\$120.00 \$3,960.00
High Girdle (20-30)	32	\$112.00 \$3,584.00
Total 61	-	\$7,544.00
Administrative Cost	10.00%	\$754.40
Grand Total		\$8,298.40