

P R O S P E C T U S

SCALE SALE

ASHLAND FIELD OFFICE
JACKSON MASTER UNIT

Medford Sale # ORM06-TS-2021.0002

1 Bear Grub (6310) Jackson County, O&C

BID DEPOSIT REQUIRED: \$108,600.00

All timber designated for cutting in S $\frac{1}{2}$ SE $\frac{1}{4}$, Sec 7; E $\frac{1}{2}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec 17; Lot 2, SE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec 18; NW $\frac{1}{2}$ SE $\frac{1}{4}$, Sec 21; Lots 6, 7, 8, Sec 22; Lot 1, NE $\frac{1}{4}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, Sec 27; E $\frac{1}{2}$ NE $\frac{1}{4}$, Sec 28; T. 39 S., R. 01 W.; SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec 21; NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec 23; Lots 1, 2, Sec 26; N $\frac{1}{2}$ N $\frac{1}{2}$, Sec 27; SW $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$, Sec 29; E $\frac{1}{2}$ NE $\frac{1}{4}$, Sec 31; NW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec 32; T. 38 S., R. 02 W.; Lots 3, 4, SW $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec 1; Lots 1, 3, 4, SE $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec 2; Lot 5, S $\frac{1}{2}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$, Sec 3; S $\frac{1}{2}$ SE $\frac{1}{4}$, Sec 4; Lots 3, 4, 5, Sec 5; NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec 9; Lots 1, 4, Sec 10; NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec 11; SE $\frac{1}{4}$, Sec 12; Lots 1, 2, NE $\frac{1}{4}$, Sec 15; NW $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$, Sec 21; T. 39 S., R. 02 W.; NE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, Sec 33; T. 37 S, R. 03 W.; SE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$, Sec 8; SE $\frac{1}{4}$ SW $\frac{1}{4}$, Sec 9; Lots 2, 3, 4, NW $\frac{1}{4}$, N $\frac{1}{2}$ S $\frac{1}{2}$, Sec 13; S $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, Sec 14; NW $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$, Sec 16; NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, Sec 17; SE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec 23; Lot 5, S $\frac{1}{2}$ NE $\frac{1}{4}$, Sec 26; Lots 1, 3, 4, Sec 35; S $\frac{1}{2}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$, Sec 36; T. 38 S., R. 03 W.; Willamette Meridian.

Approx. Number Merch. Trees	Est. Volume MBF 32' Log	Species	Est. Volume MBF 16' Log	Appr. Price Per MBF*	Est. Volume Times Appraised Price
45,417	9,468	Douglas-Fir	11,587	\$92.20	\$1,068,321.40
1,805	294	White Fir	375	\$39.70	\$14,887.50
249	49	Ponderosa Pine	62	\$37.20	\$2,306.40
83	2	Incense-Cedar	3	\$45.30	\$135.90
47,554	9,813	TOTALS	12,027		\$1,085,651.20

*Stumpage values have been determined by market value estimates and analytical appraisal methods were used to compute the appraised price. Additional information concerning the appraised price is available at the Medford District Office.

CRUISE INFORMATION – Douglas-Fir, White Fir, Ponderosa Pine, and Incense-Cedar have been cruised using the variable plot cruise method. Maps showing the location and description of these sample trees are available at the Medford District Office. The sample trees have been measured using the volt system of measurement, and the volume expanded to a total sale volume.

With respect to merchantable trees of all conifer species: the average tree is 16.3 inches DBHOB; the average gross merchantable log contains 67 bd. ft.; the total gross volume is approximately 13,296 MBF; and 90% recovery is expected (Average DF is 16.3 inches DBHOB; average gross merchantable log DF contains 67bd. ft.). Bidders will be restricted to bidding on a unit (MBF) rate of the Douglas-fir volume. All other species will be sold at appraised price per unit (MBF). The minimum bid increment will be \$0.10 per MBF.

LOG EXPORT AND SUBSTITUTION RESTRICTIONS – All timber sold to the Purchaser under the terms of the contract, except exempted species, is restricted from export from the United States in the form of unprocessed timber and is prohibited from use 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

CUTTING AREA – Seventy-Two (72) units containing seven hundred and two (702) acres must be logged.

CUTTING TIME – Contract duration will be thirty-six (36) months for cutting and removal of timber.

ACCESS – Access to the sale area is available via public road through the contract area, existing BLM roads, and Right of Way and Road Use Agreements as shown in Provision R-3.

Among other conditions, agreement M-660 with Up in Smoke Timberlands LLC, requires completion of a license agreement between the Purchaser and Up in Smoke Timberlands LLC, road maintenance to be performed by the Purchaser; a payment of a surface replacement fee of \$0.73 per thousand board feet log scale per mile; a payment of a road use fee obligation of \$4,054.20; and a payment for right-of-way timber.

Among other conditions, agreement M-660 with Murphy Timber Investments, requires completion of a license agreement between the Purchaser and Murphy Timber Investments, road maintenance to be performed by the BLM; a payment of a surface replacement fee of \$0.73 per thousand board feet log scale per mile.

ROAD MAINTENANCE – The Purchaser will be required to maintain all the temp routes they construct plus 10.95 miles of existing road listed in Section 3100 of Exhibit D1. An allowance in the amount of \$13,358.42 has been made for the maintenance of these roads. BLM will maintain 56.96 miles of roads listed in Section 3100 of Exhibit D1. The Purchaser will be required to pay a road maintenance obligation and rockwear fees for the use of these roads.

ROAD CONSTRUCTION – The Purchaser will be required to construct 13+55 stations of permanent road and 0.53 miles of temporary road.

DECOMMISSIONING – An allowance in the amount of \$8,855.46 has been made for decommissioning. Decommissioning work to be performed is described in Section 3500 of Exhibit D1.

SOIL DAMAGE PREVENTION – Pursuant to Section 26 of Form 5450-3, Timber Sale Contract, the Purchaser shall not operate or cause to have operated on the contract area any tractor-type logging equipment when soil moisture content at six (6) inch depth exceeds twenty five (25) percent by weight as determined by the oven dry method, as determined by the BLM.

EQUIPMENT REQUIREMENTS –

1. A yarding tractor not greater than 9 feet in track width equipped with a integral arch and winch system capable of lining logs at least 75 feet.
2. A subsoiler, wing-toothed subsoiler, excavator with ripping attachment, or equivalent is required.

SLASH DISPOSAL – Perform logging residue reduction and site preparation work on approximately seven hundred and two (702) acres of harvest area as directed by the Authorized Officer.

OPTIONAL CONTRIBUTION - The purchaser will have the option of performing hand and machine pile burning requirements or contributing fifty-three thousand and 0/100 dollars (\$53,000.00) in lieu thereof. The option must be declared upon execution of the contract. The optional contribution must be paid in installments payable in the same manner as and together with payments required in Section 3 of the contract.

CONTRACT 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;
2. Comply with a court order, or;
3. Protect species which were identified for protection in accordance with management direction established in the ROD and RMP. This contract provision limits the liability of the Government to the actual costs incurred by the Purchaser which have not been amortized by timber removed from the contract area.

PERFORMANCE BOND – A performance bond in the amount of 20% of the total purchase price will be required.

OTHER –

1. Units 1-2, 1-3, 3-1, 3-2, 3-3, 3-5, 5-2, 5-3, 8-2, 13-5, 13-6, 13-7, 14-2, 15-2, 15-3, 17-1A, 17-1B, 17-3, 21-1, 21-3, 23-1, 23-2, 26-3A, 26-3B, 27-6, 27-9, 33-6A, 36-1, 36-2 are group select units. The number and size of group selection areas vary by individual group and unit. Groups are designated by paint color and yarding is allowed between groups. See Exhibit A for exact group locations.

2. Units 1-1, 2-1, 2-2A, 2-2B, 2-3, 2-4, 3-4, 3-6, 3-7, 7-1A, 7-1B, 8-1, 9-1, 12-1A, 12-1B, 13-1, 13-3, 13-10, 16-2A, 16-2B, 16-3, 17-7A, 17-7B, 17-8, 18-1, 21-2, 22-3, 22-4, 23-3A, 23-3B, 27-1, 27-2, 27-3, 27-4, 27-5, 27-7, 27-8 29-5A, 29-5B, 32-1, 32-2A, 32-2B, 32-2C, 33-6B are thinning units.
3. A total of 294 snags will be created by the Purchaser in varying amounts within 16 (sixteen) harvest units as shown in the L-12 Special Provisions and as directed by the Authorized Officer.
4. No extension of time beyond the normal 30 days will be granted for completing bonding and contract signing requirements.
5. This contract includes an additional special provision to ensure the Purchaser understands he/she is required to conduct all operations in compliance with Contract Section 12 (Purchaser's Contractual Responsibilities for Liability) and Contract Section 29 (Safety and Health) and the Special Provisions included in Section 42 of this Contract.
6. Purchaser shall be responsible for complying with all county, state, and federal laws and regulations that relate to the execution of this contract (See Sec. 29 of contract).
7. Directional falling is required.
8. Warning signs and a flagger(s) must be placed in advance of active operations or other equivalent protection must be used on roads to control traffic where hazardous conditions are created from forest activities as per OR-OSHA division 7 rules.
9. There are daily and seasonal restrictions in place on this sale.
10. Cleaning of equipment and inspection by BLM to mitigate the spread of noxious weed seeds is required prior to move-in of equipment onto federal lands.
11. There are lockable gates within the contract area.
12. Dust abatement may be required.
13. There are slash treatment and pile placement requirements in place for this sale (see SD-1 in the contract)
14. Purchaser should be aware there are logging residue reduction costs assessed under SD-5. Refer to the appraisal for total assessed costs of logging residue reduction.
15. The Purchaser may wet season haul, with the Authorized Officer's approval on the following roads: 38-2W-18.00 A-B, 38-2W-21.00, 38-2W-24.00, 38-2W-26.00, 38-2W-29.00, 38-3W-10.00, 38-3W-16.00, 38-3W-16.01, 38-3W-23.00, 38-3W-23.01, 38-3W-26.01, 39-1W-18.00, 39-1W-21.02, 39-1W-21.03 A1, 39-1W-22.01, 39-2W-03.02, 39-2W-08.00, 39-2W-12.00 (portion), 39-2W-15.00, and the 39-2W-17.00. If the use of these roads during the wet season causes or begins to cause road damage or the transport of sediment into streams, the Authorized Officer may suspend wet season haul or require additional erosion control devices to prevent damage or off-site transportation of sediment. Additional rock may be required at the Purchaser's expense to repair any damage that occurs to the road during wet season haul.

The Purchaser shall have the option to rock road numbers 37-3W-33.00, 38-2W-18.00 C-D, 38-2W-27.02, 38-2W-31.00, 38-3W-13.00, 38-3W-13.01, 38-3W-13.02, 38-3W-13.03, 39-1W-21.03 A2-B, 39-2W-01.00, 39-2W-12.00 (portion), 39-2W-12.01, and the NS38-2W-23.00 for wet weather haul. Purchaser option rocking depths will be determined and approved by the Authorized Officer. Any costs for rocking and installation of additional drainage features will be at the Purchaser's expense and shall be completed in accordance with the plans and specifications show in Exhibit C of this contract.

16. **The Purchaser will be required to label, with a permanent ink marker, each load ticket with the corresponding unit and road number as directed by the Authorized Officer.**
17. Purchaser should be aware that there are currently no wildlife related restrictions on the Bear Grub Timber Sale (see E-3 in special provisions for more information). The following restrictions could be applied if the species of concern is found within the distances listed to the contract area
 - No confirmed den sites are located within 50 feet of proposed treatment areas, however, if a confirmed fisher den site is found: Maintain \geq 80 percent canopy cover within at least 50 feet of documented fisher natal and maternal dens. No activities may occur within stands. Maintain sufficient (at least 60%) canopy cover on a within-stand average basis. containing known fisher den sites from March 1 to July 30. Protect fisher denning structures by retaining \geq 24" diameter snags, down woody material, and live trees with cavities in the stand and if, for safety concerns, it is necessary to fall such snags or live trees with cavities, retain those cut trees or snags in the stand as additional down woody material. Do not apply vegetation treatments to all portions of the stand.
 - Seasonally restrict timber harvest activities from March 1 to June 30 but may be extended up to September 30 if late nesting or nesting re-attempts are confirmed, within 0.25-mile of known active NSO sites or within 0.5-mile for helicopter operations and blasting. The seasonal restriction could be waived if non-nesting status is determined. If any new owls are discovered in harvest units following the sale date, activities would be halted until mitigation options are determined. Follow USFWS recommended noise disturbance distances for activities other than timber harvest to avoid disturbance

to NSOs.

- Seasonally restrict prescribed burning and site preparation with chainsaws from March 1 to July 15 within 0.25-mile of known active NSO nests. The seasonal restriction could be waived if non-nesting status is determined.
- If a gray wolf den or rendezvous site is identified prior to or during project activities, implement a seasonal restriction from April 1 to July 15 and suspend project activities located within one mile of a known den or rendezvous site. Because these sites are difficult to locate and can change from year to year, this would be assessed on an ongoing basis throughout the life of this project through annual updates and communication with the USFWS and Oregon Department of Fish and Wildlife.

NARRATIVE DESCRIPTION OF HOW TO GET TO THE TIMBER SALE AREA –

From the city of Medford:

For the Anderson and Wagner area units turn right on Arnold Lane for 1.5 miles, turn left on Old South Stage for 1.3 miles, turn right on Griffin Creek Road for 2.5 miles, turn left to stay on Griffin Creek Road for 2.0 miles, turn left on Anderson Butte Road.

For the Sterling Creek area units follow OR-238W for 1.5 miles to the city of Jacksonville, turn right on E California St for 0.1 miles, turn left on S. Oregon St for 1.2 miles, turn left on Applegate St for 1.0 miles, continue on Cady Rd for 0.6 miles, turn left on Sterling Creek Road 4.6 miles.

For the China Gulch units follow OR-238W for 10.0 Miles to China Gulch Road.

For the Forest Creek units follow OR-238W for 6.5 Miles to Forest Creek Road.

ENVIRONMENTAL ASSESSMENT – Environmental assessment (DOI-BLM-ORWA-M060-2020-0001-EA) was prepared for this sale, and a Finding of No Significant Impact has been documented for each environmental assessment. These documents are available for inspection as background for this sale at the Medford District Office.

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SPECIAL PROVISIONS

THESE ARE THE SPECIAL PROVISIONS AS THEY WILL BE WRITTEN IN THE CONTRACT. ATTACHMENTS MAY NOT INCLUDE ALL EXHIBITS REFERRED TO IN THE CONTRACT PROVISIONS. THE COMPLETE CONTRACT, INCLUDING ALL EXHIBITS, IS AVAILABLE FOR INSPECTION AT THE MEDFORD INTERAGENCY OFFICE.

Sec. 41. TIMBER RESERVED FROM CUTTING - The following timber on the contract area is hereby reserved from cutting and removal under the terms of this contract and is retained as the property of Government.

- (A) AR-1 All timber on the Reserve Area(s) as shown on Exhibit A and all orange painted and posted trees which are on or mark the boundaries of the Reserve Area(s).
- (B) IR-1 Approximately fourteen thousand two hundred fifty three (14,253) trees marked with orange paint above and below stump height in units, 1-1, 2-1, 2-2A, 2-2B, 2-3, 2-4, 3-4, 3-6, 3-7, 7-1A, 7-1B, 8-1, 9-1, 12-1A, 12-1B, 13-1, 13-3, 13-10, 16-2A, 16-2B, 16-3, 17-7A, 17-7B, 17-8, 18-1, 21-2, 22-3, 23-3A, 23-3B, 27-1, 27-2, 27-3, 27-4, 27-5, 27-7, 27-8, 29-5A, 29-5B, 32-1, 32-2A, 32-2B, 32-2C, 33-6B as shown on exhibit A.
- (C) IR-2 All timber except approximately fourteen thousand one hundred three (14,103) trees marked for cutting heretofore by the Government with white paint above and below stump height in units 1-2, 1-3, 3-1, 3-2, 3-3, 3-5, 5-2, 5-3, 8-2, 13-5, 13-6, 13-7, 14-2, 15-2, 15-3, 17-1A, 17-1B, 17-3, 21-1, 21-3, 23-1, 23-2, 26-3A, 26-3B, 27-6, 27-9, 33-6A, 36-1, 36-2 as shown on Exhibit A.
- (D) IR-5 All young growth conifers less than eight (8) inches in diameter D.B.H.O.B. not damaged in the normal course of logging in all units as shown on Exhibit A.
- (E) IR-6 Reserve all hardwoods in all units as shown on Exhibit A, except where falling is necessary for safety or operational reasons. If such trees need to be cut for safety or operational reasons, retain cut trees in the stand.
- (F) IR-13 All non-hazardous snags in all units as shown on Exhibit A. Any felled hazard snags must remain where felled or as directed by the authorized officer
- (G) IR-14 All pre-existing dead and down wood in all units as shown on Exhibit A.

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Section 42

(A) Log Exports

- (1) LE-1 All timber sold to the Purchaser under the terms of the contract, except exempted species, is restricted from export from the United States in the form of unprocessed timber, and is prohibited from being used as a substitute for exported private timber. For the purpose of this contract, unprocessed timber is defined as: (1) any logs except those of utility grade or below, such as sawlogs, peeler logs and pulp logs; (2) cants or squares to be subsequently remanufactured exceeding eight and three-quarters (8¾) inches in thickness; (3) split or round bolts or other roundwood not processed to standards and specifications suitable for end-product uses; or (4) western red cedar lumber which does not meet lumber of American Lumber Standards Grades of Number 3 dimension or better, or Pacific Lumber Inspection Bureau R-List Grades of Number 3 Common or better. Thus, timber manufactured into the following will be considered processed: (1) lumber and construction timber, regardless of size, manufactured to standards and specifications suitable for end-product uses; (2) chips, pulp, and pulp products; (3) green or dry veneer and plywood; (4) poles and piling cut or treated for use as such; (5) cants, squares, and lumber cut for remanufacturing of eight and three-quarters (8¾) inches in thickness or less; (6) shakes and shingles. Substitution will be determined under the definition found in 43 CFR 5400.0-5. The Purchaser is required to maintain and upon request to furnish the following information:

- (a) Date of last export sale.
- (b) Volume of timber contained in last export sale.
- (c) Volume of timber exported in the past twelve (12) months from the date of last export sale.
- (d) Volume of Federal timber purchased in the past twelve (12) months from the date of last export sale.
- (e) Volume of timber exported in succeeding twelve (12) months from date of last export sale.
- (f) Volume of Federal timber purchased in succeeding twelve (12) months from date of last export sale.

In the event the Purchaser elects to sell any or all of the timber sold under this contract in the form of unprocessed timber, the Purchaser shall require each party buying, exchanging, or receiving such timber to execute a Form 5460-16 (Certificate as to Nonsubstitution and the Domestic Processing of Timber). The original of such certification shall be filed with the Authorized Officer. Additionally, when the other party is an affiliate of the Purchaser, the Purchaser will be required to update information under item (2) of Form 5450-17 (Export Determination) and file the form with the Authorized Officer.

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

Prior to the termination of this contract, the Purchaser shall submit to the Authorized Officer Form 5460-15 (Log Scale and Disposition of Timber Removed Report) which shall be executed by the Purchaser.

The purchaser shall also provide a current, interim Log Scale and Disposition of Timber Removed Report (Form 5460-15) upon request by the Authorized Officer at any time during the contract period for cutting and removal specified in Section 4 of this contract as amended. In addition, the Purchaser is required under the terms of this contract to retain for a three-year period from the date of termination of the contract the records of all sales or transfer of logs involving timber from the sale for inspection and use of the Bureau of Land Management.

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

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

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

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

(B) Logging

- (1) L-1 Before beginning operations on the contract area for the first time or after a shutdown of seven (7) days or more, the Purchaser shall notify the Authorized Officer in writing of the date

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they plan to begin 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.

- (2) L-2 Prior to the commencement of operations, the Purchaser shall obtain from the Authorized Officer written approval of a written operations and logging plan commensurate with the terms and conditions of the contract which shall include measures needed to assure protection of the environment and watershed. (A pre-work conference between the Purchaser's authorized representative and the Authorized Officer's representative must be held at a location designated by the Authorized Officer before the logging plan will be approved.) All logging shall be done in accordance with the plan.
- (3) L-4 All trees designated for cutting shall be cut so that the resulting stumps shall not be lower than six (6) inches nor higher than twelve (12) inches measured from the ground on the uphill side of the tree. This height requirement may be reduced if approved by the Authorized Officer.
- (4) L-5 All trees eight (8) inches or larger D.B.H.O.B. and not reserved shall be felled in all units shown on Exhibit A. All trees eight (8) inches or larger D.B.H.O.B. required to be cut shall be felled concurrently.
- (5) L-7 In all skyline units as shown on Exhibit A, all trees designated for cutting shall be felled and cut into log lengths not to exceed forty-four (44) feet and be completely limbed prior to being yarded.
- (6) L-7 In all tractor units, as shown on Exhibit, fell trees over twenty one (21) inches DBH designated for cutting into log lengths not to exceed forty-four (44) feet. Log segments would be completely limbed prior to yarding.
- (7) L-8 In all tractor units, as shown on Exhibit A, all trees twenty one (21) inches DBH and smaller designated for cutting shall be felled and yarded to approved landing locations either whole tree, or as log segments (segment length not to exceed forty-four (44) feet). If excessive stand damage occurs from whole tree yarding as determined by the Authorized Officer, bucking and/or limbing will be required.
- (8) L-10 In the units shown on Exhibit A, all trees designated for cutting which are within one hundred-sixty (160) feet of unit or reserve area boundaries, BLM improvements, private property lines, corner monuments, or plant sites shall be felled away from the features. The Purchaser shall notify the Authorized Officer three (3) days before beginning felling operations in the above area(s).
- (9) L-12 Yarding on the areas designated herein and shown on Exhibit A shall be done in accordance with the yarding requirements or limitations for the designated area.

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Designated Area	Yarding Requirements or Limitations
Ground Based Units 8-1, 12-1A, 13-6, 13-7, 13-10, 16-3, 17-1A, 29-5B, 32-2B	<p>Yarding tractor width will not be greater than twelve (12) feet as measured from the outer edges of the standard width dozer blade in the straight position, or nine (9) feet as measured from the outer edges of standard width track shoes.</p> <p>Yarding tractors will be equipped with integral arches capable of suspending one end of the log clear of the ground and winch systems capable of lining logs at least seventy-five (75) feet.</p> <p>One end suspension is required in all ground-based units. Avoid skidding across or through sites with BLM improvements.</p> <p>Provide a two week notice to the BLM before harvest operations within Unit 13-6 to allow for adequate time to close the adjacent trail. Remove woody material from the trail tread surface to make the trail safely passable following operations.</p> <p>The location of landings and skid trails must be clearly flagged by the purchaser's representative on the ground, and the locations shall be approved by the Authorized Officer prior to use.</p> <p>Incorporate existing skid trails and landings as a priority over creating new trails and landings where feasible, into a designated trail network for ground-based harvesting equipment. When new skid trails are needed, limit total (existing and new) designated skid trails to $\leq 15\%$ of the harvest unit area to reduce displacement or compaction to acceptable limits. Consider proper spacing (on average 100 feet), skid trail direction and location relative to terrain and stream channel features.</p> <p>Locate skid trails to minimize disturbance to coarse woody material. Where skid trails encounter large coarse woody material a section would be bucked out for equipment access. The remainder would be left in place and would not be disturbed.</p> <p>Restrict tractor and mechanical operations to slopes generally less than 35%. In areas where it is necessary to exceed these gradients to access adjacent tractor area, use ridge tops where possible.</p>

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	<p>Minimize the area where more than half of the depth of the organically-enriched upper horizon (topsoil) is removed when conducting forest management operations.</p> <p>Restrict the amount of total area detrimental soil disturbance (i.e. compaction, displacement, erosion, burning) to below 20% in a timber harvest unit.</p> <p>Create two snags per acre (1 >20 inches DBH and 1 >10 inches DBH) in portions of units 13-10 (2 total snags) and 29-5B (22 total snags) as shown on Exhibit A and as directed by the Authorized Officer.</p> <p>Immediately after use, implement erosion control measures such as waterbars, slash placement, and seeding on skid trails where substantial gouging occurs that could lead to the capture and conveyance of water and/or contribute to soil erosion to waterbodies, floodplains, and wetlands, as determined by the hydrologist and as directed by the Authorized Officer</p> <p>If operators are using feller-bunchers or cut-to-length harvesters off of designated skid trails:</p> <ul style="list-style-type: none">- Allow mechanized equipment capable of creating and walking on slash (such as a cut-to-length system) to work off designated skid trails for one or two passes on at least eight inches of slash and under dry soil conditions (less than 25% soil moisture content);- Allow mechanized equipment (feller-buncher systems) to work off designated skid trails during the dry season (soil moisture content less than 20%) for one or two passes only (one round-trip);- Use low, ground-pressure equipment off designated skid trails- Restrict all other use of ground-based equipment to designated skid trails; and <p>Mechanized felling equipment must have an arm capable of reaching at least twenty (20) feet.</p> <p>No front-end loaders are permitted.</p>
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	<p>No yarding up or down draw bottoms is permitted.</p> <p>The use of ground-based equipment on unstable areas within units is not permitted.</p> <p>Any infrastructure impacted by logging operations (trails, service roads, kiosks, etc.) would be restored to their conditions as it was prior to logging operations.</p> <p>Log landing size shall not exceed one-half (1/2) acre.</p>
<p>Endline Units 2-1, 27-4, 27-8</p>	<p>Track log loader with sufficient boom reach and swing torque to yard tree length material to roadside and/or skid trail with one end free of ground.</p> <p>One-end suspension is required in special yarding areas.</p> <p>Prevent streambank and hillslope disturbance on steep slopes (generally >60%) by requiring full suspension within 50 feet of definable stream channels. Yard the remaining areas across the RR using at least one-end suspension.</p> <p>Restrict the amount of total area detrimental soil disturbance (i.e. compaction, displacement, erosion, burning) to below 20% in a timber harvest unit.</p> <p>Create two snags per acre (1 >20 inches DBH and 1 >10 inches DBH) in portions of unit 2-1 (26 total snags) as shown on Exhibit A and as directed by the Authorized Officer.</p> <p>Immediately after use, implement erosion control measures such as waterbars, slash placement, and seeding in special yarding areas where substantial gouging occurs that could lead to the capture and conveyance of water and/or contribute to soil erosion to waterbodies, floodplains, and wetlands, as determined by the hydrologist and as directed by the Authorized Officer. Restrict the amount of total area detrimental soil disturbance (i.e. compaction, displacement, erosion, burning) to below 20% in a timber harvest unit.</p>

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<p>Skyline units 1-1, 2-2A, 2-2B, 2-4, 3-3, 3-4, 3-5, 3-6, 3-7, 5-2, 5-3, 7-1B, 12-1B, 13-1, 13-3, 13-5, 14-2, 15-2, 15-3, 17-7B, 18-1, 21-1, 22-4, 23-3A, 23-3B, 26-3A, 27-1, 27-2, 27-3, 27-5, 27-6, 27-9, 29-5A, 32-1, 32-2A, 32-2C, 33-6B</p>	<p>Yarding will be done with a skyline yarder system capable of suspending one end of the log clear of the ground during inhaul on the yarding corridor.</p> <p>A carriage which will maintain a fixed position on the skyline during lateral yarding and has a minimum lateral yarding capability of seventy-five (75) feet is required.</p> <p>A minimum of one end suspension is required in all skyline units.</p> <p>Provide a two week notice to the BLM before harvest operations within Unit 13-1 to allow for adequate time to close the adjacent trail. Remove woody material from the trail tread surface to make the trail safely passable following operations.</p> <p>Prior to marking or falling any timber in the unit, all landings, yarding corridors, tail/lift trees and/or intermediate support trees shall be identified by the purchaser and approved by the Authorized Officer.</p> <p>Limit the width of skyline corridors to be as narrow as operationally feasible; do not exceed a 15-foot width. As practicable, set corridor spacing where they cross the streams to no less than 100 feet apart when physical, topography, or operational constraints demand, with an overall desire to keep an average spacing of 200 feet apart.</p> <p>Restrict the amount of total area detrimental soil disturbance (i.e. compaction, displacement, erosion, burning) to below 20% in a timber harvest unit.</p> <p>Create two snags per acre (1 >20 inches DBH and 1 >10 inches DBH) in portions of units 1-1 (30 total snags), 2-2A (26 total snags), 2-2B (6 total snags), 2-4 (16 total snags), 7-1B (16 total snags), 18-1 (42 total snags), 23-3B (2 total snags), 27-1 (2 total snags), 27-2 (2 total snags), 29-5A (11 total snags), 33-6B (74 total snags) as shown on Exhibit A and as directed by the Authorized Officer.</p> <p>Immediately after use, implement erosion control measures such as waterbars, slash placement, and seeding in cable yarding corridors or in special yarding areas where substantial gouging occurs that could lead to the capture and conveyance of water and/or contribute to soil erosion to waterbodies, floodplains, and wetlands, as</p>
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	<p>determined by the hydrologist and as directed by the Authorized Officer.</p> <p>Restrict the amount of total area of detrimental soil disturbance (i.e. compaction, displacement, erosion, burning) to below 20% in a timber harvest unit.</p> <p>Minimize downhill yarding.</p> <p>Log landing size shall not exceed one-quarter (¼) acre.</p>
<p>Helicopter Units 1-2, 1-3, 2-3, 3-1, 3-2, 7-1A, 8-2, 9-1, 16-2A, 16-2B, 17-1B, 17-3, 17-7A, 17-8, 21-2, 21-3, 22-3, 23-1, 23-2, 26-3B, 27-7, 33-6A, 36-1, 36-2</p>	<p>Lift logs vertically (without horizontal movement) to a height above the adjacent reserve trees.</p> <p>Vertically lift multiple log turns from a small enough radius to result in minimal damage to the residual forest stand as determined by the Authorized Officer.</p> <p>Create two snags per acre (1 >20 inches DBH and 1 >10 inches DBH) in portions of units 2-3 (6 total snags), 3-2 (26 total snags), 7-1A (10 total snags) 16-2B (4 total snags), and 23-1(8 total snags) as shown on Exhibit A and as directed by the Authorized Officer.</p> <p>Restrict aerial operations within 0.5 mile of any residence to an operating time of 6:00 a.m. to 6:00 p.m., Monday through Friday. Weekend aerial operations, within this distance, would require approval from the Authorized Officer.</p> <p>Log landing size shall not exceed one acre for helicopter yarding, and three acres for service landings.</p>

- (10) L-14 No yarding or loading is permitted in or through plant sites, BLM improvements, or protected sites, in all units as shown on Exhibit A.
- (11) L-19 No road construction, landing construction, skid trail construction, road renovation, road reconstruction, road decommissioning, road blocking/barricade construction, rocking, water bar construction, soil ripping, shall be conducted within contract area between October 15 of one calendar year and May 15 of the following calendar year, both days inclusive, or when soil moisture exceeds 25%. As approved by the Authorized Officer.

No ground-based yarding or soil decompaction operations shall be conducted within contract area between October 15th to May 15th, or when soil moisture exceeds 25%.

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Block skid trails to prevent public motorized vehicle use and other unauthorized use by October 15th of the year of harvest unless a waiver is in place for ground-based yarding to extend the dry season.

- (12) L-19 Apply native, site-specific seed approved by the field office botanist and weed-free straw to all temporary roads, and newly constructed landings, the top fifty (50) feet of the skyline-cable yarding corridor where yarding logs to the road results in extended soil exposure, all predesignated skid trails, designated skid trails, and forwarder trails used for logging activities in all ground based units as shown on Exhibit A, beginning where the trail takes off of system roads, or landing areas for a distance of one hundred (100) feet, or as needed, as determined by the Authorized Officer.

Seeding and mulching would occur in the same operational season that construction activities occur. If hauling is not completed in the same year the route is constructed, storm proof and block the route by October 15th or when soil moisture exceeds 25%. Seeding and mulching would occur between September 1st and October 31st, or February 1st and March 31st or as approved by the Authorized Officer.

- (13) L-19 Restrict all timber hauling and landing operations on native surface or rocked roads whenever soil moisture conditions or rain events could result in road damage or the transport of sediment to nearby stream channels, generally October 15 to May 15. If the Authorized Officer, in consultation with Field Office watershed specialists and engineers, determines that hauling would not result in road damage or the transport of sediment to nearby stream channels based on soil moisture conditions or rain events, a conditional waiver for hauling may be granted. The conditional waiver may be suspended or revoked if conditions become unacceptable as determined by the Authorized Officer.
- (14) L-19 Hauling could occur during the wet season (October 16 to May 14) with the Authorized Officer's approval on the following roads: 38-2W-18.00 A-B, 38-2W-21.00, 38-2W-24.00, 38-2W-26.00, 38-2W-29.00, 38-3W-10.00, 38-3W-16.00, 38-3W-16.01, 38-3W-23.00, 38-3W-23.01, 38-3W-26.01, 39-1W-18.00, 39-1W-21.02, 39-1W-21.03 A1, 39-1W-22.01, 39-2W-03.02, 39-2W-08.00, 39-2W-12.00 (portion), 39-2W-15.00, and the 39-2W-17.00. If the use of these roads during the wet season causes or begins to cause road damage or the transport of sediment into streams, the Authorized Officer may suspend wet season haul or require additional erosion control devices to prevent damage or off-site transportation of sediment. Additional rock may be required at the Purchaser's expense to repair any damage that occurs to the road during wet season haul.

The Purchaser shall have the option to rock the following roads: 37-3W-33.00, 38-2W-18.00 C-D, 38-2W-27.02, 38-2W-31.00, 38-3W-13.00, 38-3W-13.01, 38-3W-13.02, 38-3W-13.03, 39-1W-21.03 A2-B, 39-2W-01.00, 39-2W-12.00 (portion), 39-2W-12.01, and the NS38-2W-23.00 for wet weather haul. Purchaser option rocking depths will be determined and approved by the Authorized Officer. Any costs for rocking and installation of additional

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drainage features will be at the Purchaser's expense and shall be completed in accordance with the plans and specifications shown in Exhibit C of this contract.

Avoid removing snow from unsurfaced roads where runoff drains to waters of the State. (Applies to wet season haul only).

- (15) L-19 There are no known NSO sites within 0.25 miles of proposed harvest units. If discovery of any new owls occurs within 0.25 miles of harvest units following the sale date, seasonally restrict harvest activities from March 1st to September 30th within 0.25 mile of new NSO sites.
- (16) L-24 Before cutting and removing any trees necessary to facilitate logging in all units as shown on Exhibit A, the Purchaser shall identify the location of skid roads, cable yarding roads, and tailhold, tieback, guyline, lift, intermediate support, and danger trees on the ground in a manner approved by the Authorized Officer at the pre-work conference and documented in the Logging Plan. Said Purchaser identification of trees to be cut and removed does not constitute authority to proceed with cutting and removal. In addition, before proceeding the following conditions must be met:
- (a) All skid roads, cable yarding roads, and tailhold, tieback, guyline, lift, intermediate support, and danger trees 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 Authorized Officer, the width of each skid road shall be limited to twelve (12) feet, and cable yarding roads shall be limited to fifteen (15) feet.
 - (b) The Purchaser may immediately cut and remove additional timber to clear skid roads, cable yarding roads, and tailhold, tieback, guyline, lift, intermediate support, and danger trees when the trees have been marked with pink paint above and below stump height by the Authorized Officer and thereby approved for cutting and removal by the Authorized Officer. 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.(e). of the contract.
 - (c) 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 all trees otherwise

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reserved in section 41 of the contract or any tree that exceeds 28 inches diameter at breast height shall be appraised and sold by bilateral modification of the contract at current fair market value in accordance with Sec. 8 of the contract.

- (d) 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 Section 10 of the contract constitutes a violation of the contract and under Section 13 of the contract may constitute a trespass rendering the Purchaser liable for damages under applicable law.
 - (e) 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 of time deemed necessary and appropriate for the Government to safely measure and mark additional timber.
 - (f) The Government may reserve trees previously designated for cutting and removal by applying orange paint or blacking out white paint as replacements for additional trees cut and removed for skid roads and/or cable yarding roads when the Authorized Officer determines such reservation is necessary to maintain stand densities consistent with objectives set forth in the management prescription(s). The volume of this timber to be reserved will be determined by the Authorized Officer in accordance with Bureau of Land Management prescribed procedures and the value shall be based on the unit prices shown in Exhibit B of the contract. The Purchaser agrees that the Total Purchase Price shall be reduced accordingly through a unilateral modification to the contract executed by the Contracting Officer.
- (17) L-25 In the skyline units shown on Exhibit A, the Purchaser shall make cable road changes by completely re-spooling the cables and restringing the layout from the head spar to the new tailhold to protect the advance reproduction present on these areas.
- (18) L-32 In all units as shown on Exhibit A, trees which are greater than or equal to thirty six (36) inch DBH that need to be cut for safety or operations shall be retained in a safe and stable manner within the unit, unless otherwise agreed to by the Authorized Officer.

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- (19) L-33 Purchaser's operations shall facilitate BLM's safe and practical inspection of Purchaser's operations and BLM's conduct of other official duties on Contract Area. Purchaser has all responsibility for compliance with safety requirements for Purchaser's employees, contractors and subcontractors. In the event that the Authorized Officer identifies a conflict between the requirements of this contract or agreed upon methods of proceeding hereunder and State or Federal safety requirements, the contract may be modified. If the cost of such contract modification is of a substantial nature (\$2,000.00 or more), the Purchaser may request, in writing, an adjustment in the Total Purchase Price specified in Section 2 of the timber sale contract, as amended, to compensate for the changed conditions. Unless otherwise specified in writing, when operations are in progress adjacent to or on roads and/or trails in the harvest unit area, Purchaser shall furnish, install, and maintain all temporary traffic controls that provide the road or trail user with adequate warning of and protection from hazardous or potentially hazardous conditions associated with its operations. Purchaser shall prepare a Traffic Control Plan, which the Purchaser has determined is compliant with state and local OSHA and Transportation standards no later than the pre-work meeting and prior to commencing operations. Traffic control devices shall be appropriate to current operating and/or weather conditions and shall be covered or removed when not needed. Flagmen and devices shall be as specified in state OSHA and Transportation standards for logging roads or the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD) published by the U.S. Department of Transportation - Federal Highway Administration. Included in the Traffic Control Plan, Purchaser shall note traffic control device locations on a Purchaser produced copy of the contract Exhibit "A" Map.

(C) ROAD CONSTRUCTION, MAINTENANCE, AND USE (R)

- (1) R-1 The Purchaser shall construct, improve, renovate, and/or decommission all roads and structures in strict accordance with the plans and specifications shown on Exhibit C and Exhibit D, which is attached hereto and made a part hereof.
- (2) R-1a Any required construction, improvement, or renovation of structures and roads shall be completed and accepted, in accordance with Section 18, prior to the removal of any timber, except right-of-way timber, over that road.
- (3) R-1b The Purchaser shall construct, use and decommission temporary routes TR 17-7, TR 12-1, and TR 27-5 by October 15th of the same respective operating season.
- (4) R-2 The Purchaser is authorized to use the roads listed and shown on Exhibit D Section 3001 for the removal of Government timber sold under the terms of this contract, provided that the Purchaser pay the required maintenance obligations described in Provision R-2d. The Purchaser shall pay current Bureau of Land Management maintenance fees for the sale of additional timber under modification to the contract.

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- (5) R-2a With the prior written approval of the Authorized Officer, the Purchaser may arrange for cooperative maintenance with other users of roads included in Provision R-2f of this contract; 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 on these roads.
- (6) R-2d For road numbers 38-2W-18.00A-B, 38-2W-27.02, and 39-2W-17.00 B2-C2, the Purchaser shall pay a road maintenance and rockwear fee of \$1.72 per thousand board feet log scale per mile for the use of said roads. For road 38-2W-21.00, 38-2W-24.00 D-J, 38-2W-26.00, 38-2W-31.00, 38-3W-10.00, 38-3W-16.00, 38-3W-16.01, 38-3W-26.01, 39-1W-18.00, 39-1W-21.02, 39-1W-21.03 A1-A2 (1st 1.46 miles), 39-1W-22.01, 39-2W-3.02, 39-2W-8.00 A2-C2, 39-2W-12.00 (1st 1.38 miles), 39-2W-15.00, and 39-2W-17.00 A, the Purchaser shall pay a road maintenance and rockwear fee of \$1.49 per thousand board feet log scale per mile for the use of said roads. For road number 39-2W-17.00 B1, the Purchaser shall pay a road maintenance fee of \$0.99 per thousand board feet log scale per mile for the use of said road. For road number 38-2W-24.00 A-C, 38-2W-29.00, 38-2W-23.00, 38-2W-23.01, 39-2W-8.00 A1, the Purchaser shall pay a road maintenance fee of \$0.92 per thousand board feet log scale per mile for the use of said road. The total maintenance fee due shall be based upon volumes determined pursuant to Exhibit B of this contract and mileage of roads used as determined by the Authorized Officer. Prior to the use of such roads, the Purchaser shall give written notice to the Authorized Officer of the roads intended for use in the removal of timber purchased under this contract, together with an estimate of the volume to be hauled over such roads. **The Purchaser will be required to label, with a permanent ink marker, each load ticket with the corresponding unit number as directed by the Authorized Officer.** The Authorized Officer shall establish an installment schedule of payment of the maintenance obligation. If it is determined by the Authorized Officer, after all merchantable timber has been cut and scaled, that the total maintenance payments made under this contract exceed the total maintenance payment due, such excess shall be returned to the Purchaser after such determination is made.
- (7) R-2e The Contracting Officer may at any time, by written notice, terminate the Purchaser's operator road maintenance obligations and require instead payment of current Bureau of Land Management road maintenance and rockwear fees for the particular surface type of the roads involved. These fees will be applied to the remaining contract volume on the sale area, as determined by the Authorized Officer, to be transported over the roads listed in Exhibit D Section 3100. If the total road maintenance and rockwear fee does not exceed five hundred and no/100 dollars (\$500.00), the Purchaser shall pay such amount in full prior to use of such roads. If the total road maintenance and rockwear fee exceeds five hundred and no/100 dollars (\$500.00), the Authorized Officer shall establish an installment schedule of payments of the maintenance and rockwear obligations.

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- (8) R-2f The Purchaser shall perform any required road repair and maintenance work on roads identified as Purchaser maintenance, under the terms of Exhibit D, Road Maintenance Specifications, of this contract, which is attached hereto and made a part hereof. The Purchaser shall perform any required road repair and maintenance work on roads used by them, under the terms of Exhibit D, Road Maintenance Specifications, of this contract, which is attached hereto and made a part hereof.
- (9) R-3 In the use of Road No. 39-2W-17.00 B1 the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No M-660, between the United States of America and Murphy Timber Investments. This document is available for inspection at the Medford District Office.

- (a) These conditions include:

Payment of a road rockwear obligation of \$0.73 per thousand board feet log scale per mile for the use of said roads to Murphy Timber Investments, payable at the time indicated in the License Agreement.

Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a properly signed copy of the executed License Agreement.

Default by the Purchaser of said Right-of-Way and Road Use Agreement, or any License Agreement executed pursuant thereto, for failure to pay appropriate road use fees shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision.

- (10) R-3 In the use of Road No. NS 38-2W-23.00 and, the construction and use of the NC 38-2W-23.01, and yarding corridor in the SE1/4SW1/4 of Section 23, T.38S., R.2W., the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No M-660, between the United States of America and Up in Smoke Timberlands LLC. This document is available for inspection at the Medford District Office.
These conditions include:

- (a) Payment of a road rockwear obligation of \$0.73 per thousand board feet log scale per mile for the use of said roads to Up in Smoke Timberlands LLC, payable at the time indicated in the License Agreement.
- (b) Payment of a road use obligation of **Four Thousand Fifty Four and 20/100 dollars (\$4,054.20)** to Up in Smoke Timberlands LLC, payable at the time indicated in the License Agreement.

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- (c) Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a properly signed copy of the executed License Agreement.
 - (d) Prior to cutting or removing any timber within the right of way of NC 38-2W-23.01 or yarding corridor in the SE1/4SW1/4 of Section 23, T.38S., R.2W., the Purchaser shall pay to Up in Smoke Timberlands LLC, the owner of the right-of-way timber, the total value of that timber based upon the indicated estimated volume and species price per unit used in the Government's contract as set forth on the Exhibit B.
 - (e) Default by the Purchaser of said Right-of-Way and Road Use Agreement, or any License Agreement executed pursuant thereto, for failure to pay appropriate road use fees shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision.
- (11) R-3c The Purchaser agrees that if they elect to use any other private road, which is the subject of a right-of-way agreement with the Government for the removal of Government timber sold under the terms of this contract, Purchaser shall request and agree to the modification of this contract to provide for such use and for allowances for amortization of the Government's share of the capital investment of any such road.
- (12) R-4 The Purchaser shall be required to secure written approval to use vehicles or haul forest products and equipment over Government owned or controlled roads when such vehicles or equipment exceeds the maximum allowable weights or dimensions established by the State for vehicles operating without a permit or if vehicles meet allowable non-permitted State vehicle weights, but the haul route crosses a structure or segment of road that is posted for reduced weights. The Purchaser agrees to abide by any special requirements included in said written approval.

Details of such equipment shall be furnished to the Authorized Officer for evaluation of load characteristics at least fifteen (15) days prior to proposed move in.

Details shall include:

- (a) Axle weights when fully loaded.
- (b) Axle spacing.
- (c) Transverse wheel spacing.
- (d) Tire size.
- (e) Outside width of vehicle.
- (f) Operating speed.
- (g) Frequency of use.
- (h) Special features (e.g., running tracks, overhang loads, etc.).

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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.

- (13) R-5 Tracked type equipment shall not be allowed to cross over concrete bridge decks, other concrete surfaced structures or asphalt surfaced roads without the proper protection of that surface. Prior approval shall be obtained from the Authorized Officer when crossing with protective devices.
- (a) The Purchaser shall be responsible for repair of any damage to roads or structures caused by the use tracked 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.

(D) Environmental Protection

- (1) E-1 During operations the operator would be required to have a BLM-approved spill plan or other applicable contingency plan. In the event of any release of oil or hazardous substance, as defined in Oregon Administrative Rules (OAR) 340-142-0005 (9)(d) and (15), into the soil, water, or air, the operator would immediately implement the site's plan. As part of the plan, the operator would be required to have spill containment kits present on the site during operations. The operator would be required to be in compliance with OAR 629-605-0130 of the Forest Practices Act, Compliance with the Rules and Regulations of the Department of Environmental Quality. Notification, removal, transport, and disposal of oil, hazardous substances, and hazardous wastes would be accomplished in accordance with OAR 340-142, Oil and Hazardous Materials Emergency Response Requirements, contained in Oregon Department of Environmental Quality regulations (SP-05, SP-06, and SP-07).

In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall prepare a Spill Prevention, Control, and Countermeasure Plan for all hazardous substances to be used in the contract area. Such plan shall include identification of Purchaser's representatives responsible for supervising initial containment action for releases and subsequent cleanup. In addition, such plan shall follow all applicable State of Oregon Department of Environmental Quality guidelines for spill prevention and containment of petroleum products (Oregon Administrative Rules, Chapter 340, Department of Environmental Quality, Division 142, Oil and Hazardous Materials Emergency Response Requirements).

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- (2) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall Store all hazardous materials and petroleum products in durable containers placed outside of Riparian Reserves. Locate so an accidental spill would be contained nor drain into any stream system (SP-03).

Refuel equipment a minimum of 175 feet from streams, ponds, or other wet areas. Store equipment containing reportable quantities of toxic fluids outside of the Riparian Reserve. Hydraulic fluid and fuel lines would be in proper working condition in order to minimize leakage into streams (SP-03).

- (3) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall only be allowed to use equipment that is free of noxious weed seeds prior to entering federal lands in the contract area as shown on Exhibit A.

If equipment is not considered free of noxious weed seeds by the Government, it shall be cleaned prior to entering federal lands. Cleaning shall be defined as removal from all surfaces including the under carriage any dirt, grease, plant parts, and material that may carry noxious weed seeds onto federal lands. Cleaning prior to entering federal lands may be accomplished by using a pressure hose.

Equipment shall be subject to visual inspection by the Government to certify that the equipment is free of noxious weed seeds. Only equipment inspected by the government shall be allowed to operate on federal lands within the contract area. The purchaser shall make equipment available for government inspection at an agreed upon location off federal lands prior to any move-in of equipment.

Requirements as outlined above may be waived by the Government if move-in is from one "weed free area" to another "weed free area", as determined by the Government, or as conditions warrant.

- (4) E-1 In addition to the requirement set forth in Sec. 26 of this contract and as directed by the Authorized Officer, the Purchaser shall block all temporary roads, and newly constructed landings (except landings located along temp spurs to be decommissioned), and at any location where an existing barricade has been removed to provide access to units as shown on exhibit A. Temporary roads, and newly constructed landings (except landings located along temp spurs to be decommissioned), shall be blocked in the same season of use (generally by October 15). If hauling on a temporary route or its associated landings is not completed in the same year the route is constructed, the route will be storm-proofed and blocked by October 15 or before soil moisture exceeds 25%.

Road renovation would occur during the dry season (May 15 to October 15). Variations in these dates would be permitted dependent upon weather and soil moisture conditions and with a specific erosion control plan (e.g., rocking, water-barring, seeding, mulching,

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barricading) as determined by the Authorized Officer in consultation with aquatic and/or soils scientists. All road and landing construction activities would be stopped when a storm event resulted in degrading conditions as evidenced by turbid runoff, turbid ditch flow, ponding, or rutting or other displacement in excess of two inches. Watershed specialists would closely monitor storms that result in precipitation and would convey pertinent information to the Authorized Officer. Similarly, the Authorized Officer would convey road, landing, and ditch conditions to the aquatic and/or soil specialists.

Decompact skid trails, landings, and temporary roads where needed to achieve no more than 20% detrimental soil conditions and to minimize runoff. Construct water bar all temporary routes and associated landings, and roads identified for full decommissioning to a depth of 18 inches or bedrock (whichever is shallower). Avoid subsoiling areas near tree roots and where there are rocks larger than 2 feet across. Apply native, site-specific seed approved by the field office botanist and weed-free straw, and block upon completion of use. Seeding and mulching would occur in the same operational season that construction activities occur. If hauling is not completed in the same year the route is constructed, storm proof and block the route by October 15th or before soil moisture exceeds 25%.

Place woody debris or other appropriate barriers (e.g., rocks, logs, and slash) on the first 100 feet of skid trails leading off system roads in all ground-based yarding units upon completion of yarding to block and discourage unauthorized vehicle use.

In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall construct road barricades as specified on Exhibit C, at locations where an existing barricade has been removed to provide for harvest access. Barricades shall be in place by October 15th of each calendar year.

Block skid trails by October 15th of the year of harvest unless a waiver is in place for ground-based yarding to extend the dry season.

- (5) E-1 In addition to the requirements set forth in Sec. 26 of this contract, the Purchaser shall seed and mulch all temporary roads, and newly constructed landings within the project area as shown on Exhibit A.

Apply native, site-specific seed approved by the field office botanist, weed-free straw, and/or water-bars to the top 50 feet of the skyline-cable yarding corridor where yarding logs to the road results in extended soil exposure.

Seed and mulch all pre-designated skid trails, designated skid trails, and forwarder trails used for logging activities in all ground-based units as shown on Exhibit A, beginning where the trail takes off of system roads, or landing areas for a distance of one hundred (100) feet, or as needed as determined by the authorized officer

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Seed must be native species, site-specific, and approved by the resource area botanist. If hauling on a temporary route or its associated landings is not completed in the same year the route is constructed, the route will be storm-proofed and blocked by October 15 or when soil moisture exceeds 25%.

Apply native, site-specific seed and straw between September 1 and October 31, and/or between February 1 and March 31 of the year of harvest, unless otherwise approved by Authorized Officer.

The Purchaser shall furnish the specific seed mixture prescribed by the Authorized Officer, which will include up to 3 grasses and 2 forbs from the following list, but may include substitutions approved by the Authorized Officer:

Grasses: *Achnatherum lemmonii*, *Bromus carinatus*, *Brumus vulgaris*, *Elymus glaucus*, *Festuca californica*, *Festuca roemeri*, *Koeleria macrantha*, *Poa secunda*, *Vulpia microstachys*

Forbs: *Achillea millefolium*, *Clarkia purpurea*, *Clarkia rhomboidea*, *Collinsia grandiflora*, *Eriophyllum lanatum*, *Lupinus bicolor*, *Madia elegans*, *Madia gracilis*

The proportion of each species in the mixture shall be prescribed by the Authorized Officer. The Purchaser shall apply prescribed seed and straw mulch to acres designated for treatment, as directed by the Authorized Officer, at the following rates of application:

Grass seed 20 to 25 lbs/acre (cumulative, all species)

Forb seed 0.5 to 2 lbs/acre (cumulative, all species)

Straw mulch 1000 lbs/acre

The Purchaser shall apply seed and straw mulch between September 1 and October 31, and/or between February 1 and March 31 of the year of harvest. Deviations from that timing must be approved by the Authorized Officer. The Purchaser shall notify the Authorized Officer at least 5 days in advance of the date that he/she intends to commence revegetation and soil stabilization work.

If the Purchaser furnishes seed from any source other than the BLM, that seed shall meet the following minimum test standards:

<u>Test</u>	<u>Grasses</u>	<u>(%)</u>	<u>Forbs (%)</u>
Purity:		95	80
Germination:		85	70
Other species/weed content (max):		0.2	0.2
Noxious weed content:	Prohibited		Prohibited

Furnished seed shall meet the minimum requirements for either Yellow Tag Source Identified Seed or Blue Tag Certified Class Seed, as defined by the Association of Official Seed Certifying Agencies. Seed source shall be approved by the Authorized Officer and shall be from the EPA Level III Ecoregion in which the project occurs. For each lot of seed, the Purchaser shall furnish the Authorized Officer a Seed Test result from a certified seed

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testing lab (e.g., Oregon State University), which shall include: test date; lot number; seed source; and results of test for purity, germination, and weed content. All seed lots must have been tested within the previous 12 months to be accepted. Seed that has become wet, moldy, or otherwise damaged shall not be accepted. Seed must be available to the Authorized Officer for inspection at least 5 days in advance of commencing revegetation work.

If the Purchaser furnishes straw mulch from any source other than the BLM, the material must be from native grass or other approved sterile grain crops that are certified weed free and free of mold or other objectionable materials. Straw mulch shall be in an air-dry condition and suitable for spreading in a uniform manner. Straw mulch must be available to the Authorized Officer for inspection at least 5 days in advance of commencing revegetation work.

- (6) E-2 The water bars to be constructed as required by Sec. 26(c) shall be constructed in accordance with the specifications shown on Exhibit C Package (special provisions), which is attached hereto and made a part hereof.
- (a) Water-bar all skid trails and yarding corridors as needed to prevent erosion by October 15th of the year of harvest.
 - (b) Install water-bars at the same time as subsoiling (if both are required) unless skid trails are needed to complete harvest the following season. In that case, water bars would be constructed and straw would be applied to exposed soil prior to fall rains to reduce sedimentation during winter months. Water-bar spacing on tractor skid trails would be based on the RMP erosion-control measures for timber harvest, which considers slope and soil series.
- (7) E-3 The Purchaser shall immediately discontinue specified construction or timber harvesting operations upon written notice from the Contracting Officer that:
- (a) threatened or endangered plants or animals protected under the Endangered Species Act of 1973, as amended, may be affected by the operation, and a determination is made that consultation or reinitiation of consultation is required concerning the species prior to continuing operation, or;
 - (b) when, in order to comply with the Endangered Species Act, or to prevent incidental take of northern spotted owls in accordance with management direction in the Record of Decision (ROD) and Resource Management Plan (RMP), (or to protect occupied marbled murrelet sites in accordance with management direction of the ROD and RMP) (.) the Contracting Officer determines it may be necessary to modify or terminate the contract, or;

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- (c) Federal proposed, Federal candidate, Bureau sensitive or State listed species protected under BLM Manual 6840 - Special Status Species Management - have been identified, and a determination is made that continued operations would affect the species or its habitat, or;
- (d) when, in order to comply with a court order, which enjoins operations on the sale or otherwise requires the Bureau of Land Management to suspend operations, or;
- (e) when, in order to comply with a court order, the Contracting Officer determines it may be necessary to modify or terminate the contract, or;
- (f) when, in order to comply with a stay or other remedy issued by the Interior Board of Land Appeals (IBLA) the Contracting Officer determines it may be necessary to modify or terminate the contract, or;
- (g) species have been discovered which were identified for protection in accordance with management direction established in the ROD and RMP, and the Contracting Officer determines that continued operations would affect the species or its habitat, or;
- (h) when, in order to protect species which were identified for protection in accordance with management direction established in the ROD and RMP, the Contracting Officer determines it may be necessary to modify or terminate the contract.

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

During any period of suspension, the Purchaser may withdraw performance and payment bond coverage aside from that deemed necessary by the Authorized Officer to secure cut and/or removed timber for which the Bureau of Land Management has not received payment, and/or unfulfilled contract requirements associated with harvest operations that have already occurred and associated post-harvest requirements.

In the event of a suspension period or a combination of suspension periods that exceed a total of 30 days, the First Installment held on deposit may be temporarily reduced upon the written request of the Purchaser. For the period of suspension extending beyond 30 days, the First Installment on deposit may be reduced to five (5) percent of the First Installment amount listed in Section 3.b. (use 3.a. for scale sale contract form 5450-4/26) of the contract. Any First Installment amount temporarily reduced may be refunded or transferred to another BLM contract at the request of the Purchaser. However, if the Purchaser has outstanding debt owing the United States, the Contracting Officer must

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first apply the amount of First Installment that could be refunded to the debt owed in accordance with the Debt Collection Improvement Act, as amended (31 USC 3710, et seq.). Upon Purchaser's receipt of a bill for collection and written notice from the Contracting Officer lifting the suspension, the Purchaser shall restore the First Installment to the full amount shown in Section 3.b. (use 3.a. for scale sale contract form 5450-4/26) of the contract within 15 days after the bill for collection is issued, subject to Section 3.j. (use 3.i. for scale sale contract form 5450-4/26) of the contract. The Purchaser shall not resume contract operations until the First Installment amount is fully restored.

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

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

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

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

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

- (8) E-5 There are no known NSO sites within 0.25 miles of proposed harvest units. If discovery of any new owls occurs within 0.25 miles of harvest units following the sale date, seasonally restrict harvest activities from March 1st to September 30th within 0.25 mile of new NSO sites. The Purchaser shall notify the Authorized Officer in writing by February 1 of each calendar year in which operations are expected to take place on the contract area between March 1 and September 30, both days inclusive. If notification is not received by the Authorized Officer by February 1, felling, bucking, yarding, road construction, or any other activity with the potential to disturb nesting owls may not be allowed during this time period.

(E) Fire Prevention and Control

- (1) F-1a Fire Prevention and Control. Primarily for purposes of fire prevention and control, the Purchaser shall comply with the following provisions:
- (a) Prior to the operation of power driven equipment in construction or logging operations under this contract during the closed fire season or periods of fire danger, prepare a fire prevention and control plan to the satisfaction of the State of Oregon, Department of Forestry.
 - (b) Provide and maintain in good repair, on the contract area, the following equipment for

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use during closed fire season or periods of fire danger:

- (2) F-2a Fire fighting tools shall be kept at each landing or at such other place as the Authorized Officer shall designate whenever people are working on the contract area. All fire fighting tools shall be kept in a sturdily constructed box which shall be painted red and lettered on the front or top in large letters, "For Fire Only." The box shall have a hinged lid and a hasp by which the lid can be sealed. One box may serve two landings not over six hundred (600) feet apart. When filled, the box shall not weigh over two hundred (200) pounds. The fire tools shall be in good condition, be tight on strong handles, and have sharp cutting edges. There shall not be less than four (4) tools in each box nor less than one (1) tool for each person working on the contract area. Three-fourths ($\frac{3}{4}$) of all fire tools shall be shovels, hazel hoes, or other scraping tools. The fire tools shall be used only for fighting fire.
- (3) F-2b A round pointed size zero (0) or larger shovel in good condition, shall be within fifty (50) feet of any power saw when in operation.
- (4) F-2c At each landing during periods of operation one (1) tank truck. Each truck shall have three hundred (300) gallons minimum capacity with five hundred (500) feet minimum of hose and a nozzle acceptable to the Authorized Officer and a mounted or portable pump conforming to the standards set forth in Oregon Revised Statute (ORS) 477.645 through ORS 477.670 and any rule promulgated pursuant to those statutes. All hose couplings shall have the standard thread adopted by the State Fire Marshall pursuant to ORS 476.410 as amended or be provided with suitable adapters. At the close of each working day, all bulldozers and tank trucks shall be filled with fuel and made ready for immediate use. All tank trucks and portable tanks shall be filled with water and made available for immediate use.
- (5) F-2d Serviceable radio or radio-telephone equipment able to provide prompt and reliable communication between the contract area and Medford, Oregon. Such communication shall be available during periods of operation including the time watch-service is required.
- (6) F-2e A pair of headlights capable of being quickly attached to each bulldozer used on the contract area. The headlights shall be adequate to provide illumination sufficient to allow use of the bulldozers for fire fighting and construction of fire trails at night.
- (7) F-2f A headlight for each person in the woods crew adequate to provide sufficient illumination for night fire fighting. A headlight shall be of the type that can be fastened to the head so as to allow independent use of the hands. It shall be equipped with a battery case so designed that it can be either carried in the hip pocket or fastened to the belt. The head of the light and the battery case shall be connected by insulated wires. At least one extra set of batteries shall be provided for each such headlight.
- (8) F-2g Two (2) back-pack pumps at each landing and one (1) at each tail block, all to be kept full of water and in good operating condition.

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- (9) F-2h A chemical fire extinguisher of at least eight (8) ounces minimum capacity of a type approved by the Oregon State Forester shall be carried during the closed fire season or periods of fire danger by each saw operator using a power saw on the contract area. Such fire extinguisher shall be filled and in effective operating condition and shall at all times be immediately available to the operator when the saw is being fueled or the motor of the saw is running. A size "0" or larger shovel shall be available with each gas can when refueling. Any fueling of a power saw shall be done in an area which has first been cleared of all flammable material. Power saws shall be moved at least twenty (20) feet from the place of fueling before the engine is started. Each power saw shall be equipped with an exhaust system and a spark arresting device which are of types approved by the Oregon State Forester.
- (10) F-5 Where blocks and cables are used on the contract area during periods of fire danger, the Purchaser shall remove all flammable material at least ten (10) feet from the place where the tail or any other block will hang when the cable is tight. Such clearings shall be inspected periodically by the Purchaser and shall be kept free of flammable material.
- (11) F-8 Blasting caps and fuses shall not be used during closed fire season or any period of fire danger on any land administered by the Government. Blasting with electric detonators during the closed fire season or periods of fire danger is permitted only between the hours of 4:00 a.m. and 10:00 a.m.

(F) Slash Disposal and Site Preparation

- (1) SD-1f LOP AND SCATTER Lop and scatter all slash as directed by the Authorized Officer , concurrently with normal felling operations. All tops and side branches must be free of the central stem so that such slash is reduced to the point that it is within eighteen (18) inches of the ground at all points.
- (2) SD-1h HANDPILE Handpile all slash as directed by the Authorized Officer in accordance with the following specifications:
 - (a) Piling shall be accomplished by hand. Finished piles shall be tight and free of earth.
 - (b) Pile all slash which is between one (1) and six (6) inches in diameter on the large end and exceeds three (3) feet in length.
 - (c) A six (6) foot by six (6) foot sheet of four (4) mil polyethylene black plastic shall be placed in each pile in a manner such that approximately one-third ($\frac{1}{3}$) of the pile lies above it to hold it in place and so that a two (2) foot by two (2) foot dry ignition point is maintained for one (1) year or until burned. The ignition point will consist of fine fuel

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- material such as needles, small limbs, and branches less than one-half (½) inch in diameter and free of dirt. Piles shall be constructed by aligning individual pieces in the same direction and placing the heavier slash on top. Piles shall have a stable base to prevent toppling. The long axis of individual pieces shall be oriented up and down the slope. Protruding pieces shall be trimmed to allow covering in a manner that permits the pile to shed water. Height shall be no less than four (4) feet and no greater than six (6) feet; width shall not exceed six (6) feet; piles shall be circular and not windrowed. No pile shall be located within sixty (60) feet of fish-bearing, perennial streams or within thirty-five (35) feet from non-fish-bearing, intermittent streams. Piles shall not be located on down logs, stumps, talus slopes, roadways, or drainage ditches. No pile shall be located within ten (10) feet of reserve trees, any other pile, or unit boundary. No pile shall be located within fifteen (15) feet of official BLM recreation trail centerlines. No pile shall be located within twenty-five (25) feet of designated wildlife trees. No portion of the pile will be under the crown of any living conifer tree. Do not hand pile slash within 35 feet from intermittent stream channels and 120 feet from perennial streams.
- (d) Operations required by this provision shall be kept current with yarding as directed by the Authorized Officer and shall be conducted as follows:
- (i.) Units shall be piled and covered during the same season that they are logged. Piling shall be completed in each unit or portion thereof, within eight (8) weeks after being notified of BLM site treatment determination.
- (3) SD-1i LANDING PILES In all units as shown in the Exhibit A, pile all slash located within fifty (50) feet on each side of each landing. Slash shall be piled by a grapple loader. Finished piles shall be tight and free of earth. Do not machine pile slash within riparian areas, unless otherwise directed by the Authorized Officer.
- (a) A ten (10) foot by ten (10) foot cover of four (4) mil black plastic shall cap each pile to maintain a dry ignition point that contains fine fuels (i.e. kindling). The cover shall be firmly fixed to each pile to hold it in place. Landings shall be piled and covered during the same season that they are logged. No portion of the landing pile will be within 50 feet of the dripline of any living conifer tree. Utilize areas with existing disturbed soils for machine piles where feasible.
- (4) SD-4 Logging Residue Reduction. In addition to the requirements of Sect.15 of this contract, and notwithstanding the Purchaser's satisfactory compliance with State laws and regulations regarding offsetting or abating the additional fire hazard created by this operation and the State's willingness to release the Purchaser from liability for such hazard, the Purchaser shall remain responsible to the Government for performance of the following logging residue reduction and site preparation measure(s) required by this contract:

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Prior to commencement of any operation under this section of the contract, a slash disposal and site preparation pre-work conference between the purchaser's representative and the Authorized Officer must be held at a location designated by the Authorized Officer. All slash disposal and site preparation 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, including material cut during slashing activities for the purposes of fuels reduction.

Refueling of chainsaws and other equipment will be done no closer than one hundred fifty (150) feet of any stream or wet area. Spilled fuel and oil would be cleaned-up and would be disposed of at an approved disposal site.

- (5) **SD-4a SLASHING DAMAGED RESIDUALS.** Slash all sprung or otherwise severely damaged trees greater than one (1) inch and less than six (6) inches D.B.H.O.B. concurrently with logging as designated by the Authorized Officer. All slashing is to be completed prior to any required piling of slash.
- (6) **SD-5** Perform logging residue reduction and site preparation work on approximately seven hundred seven (707) acres of harvest area as directed by the Authorized Officer.
 - (a) The required work shall consist of any treatment or combination of treatments listed in the table below, 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.
 - (b) The following treatments were assumed for appraisal purposes on this contract:

Treatment/Level	Cost Per Acre	Number of Acres	Total Cost Per Treatment Type
Hand Pile Slash	\$505.00	707	\$357,000
Hand and Machine Pile Burning	\$75.00	707	\$53,000
Total Appraised Cost			\$410,000

- (c) The total Purchase Price set forth in Section 2 shall be adjusted by the amount that the total cost of the site preparation treatments designated pursuant to Section 42(F)(6)(b) differs from: four hundred ten thousand dollars (\$410,000) as calculated by using the estimated acres determined by the Authorized Officer and the per acre costs listed in Section 42(F)(6)(b).

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In case of injury to personnel or damage to equipment furnished by the Purchaser 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 costs 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 deferral of burning and new conditions necessitate additional site preparation work and/or use of additional personnel and equipment to accomplish planned burning, the Purchaser also shall be responsible for such additional costs.

(G) CONTRIBUTIONS

- (1) C-1 The Purchaser shall perform HAND AND MACHINE PILE BURNING in accordance with Section 42(F)(6)(SD-5). The Purchaser shall have the option of completing the hand and machine pile burning work, or in lieu thereof, may make a contribution to the Bureau of Land Management in the amount of fifty-three thousand and no/100 dollars (\$53,000.00) and upon making such contribution, 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 contribution prior to the date of execution of this contract. If the total contribution does not exceed five hundred and no/100 dollars (\$500.00), the Purchaser shall pay such amount in full prior to the commencement of operations. If the total contribution exceeds five hundred and no/100 dollars (\$500.00), the Authorized Officer shall establish an installment schedule of payments.

(H) Equal Opportunity in Employment

- (1) Certification of Nonsegregated Facilities attached hereto and made a part hereof.

Seasonal Restriction Matrix

Bear Grub Timber Sale
 ORM06-TS-2021.0002

*Restricted Times are Shaded
 **Crosshatched areas are available for a waiver by contracting officer, see contract for guidelines.

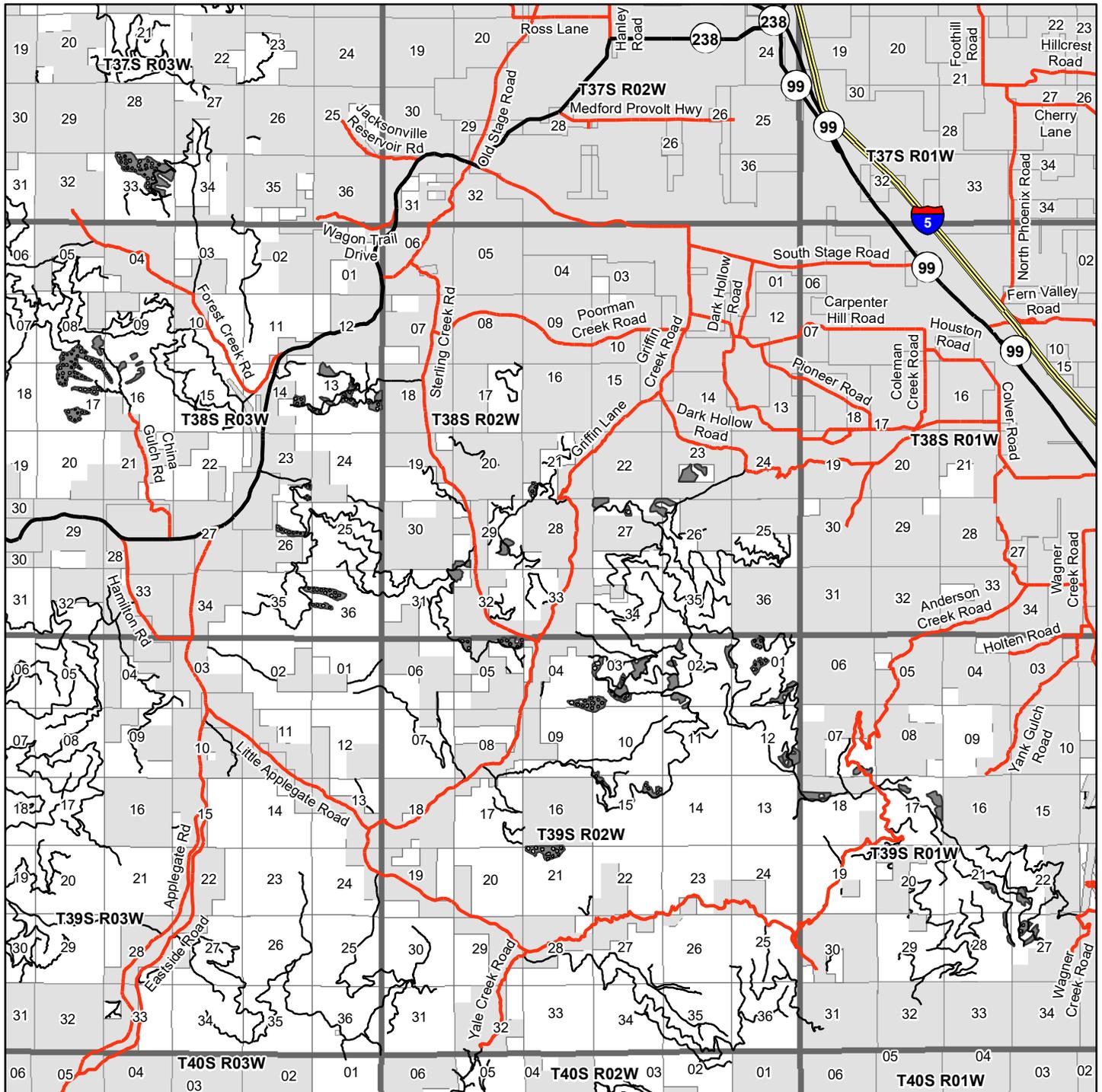
Sale Unit	Activity	Jan 1-15	Jan 15-31	Feb 1-15	Feb 15-31	Mar 1-15	Mar 15-31	Apr 1-15	Apr 15-31	May 1-15	May 15-31	June 1-15	June 15-31	July 1-15	July 15-31	Aug 1-15	Aug 15-31	Sept 1-15	Sept 15-31	Oct 1-15	Oct 15-31	Nov 1-15	Nov 15-31	Dec 1-15	Dec 15-31
ALL UNITS	Ground-based yarding; road and landing construction; road renovation; road closure and decommissioning work; and soil de-compaction operations ¹	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded								
	Hauling on natural surface or inadequately surfaced roads ²	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded								
	Seeding ³	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded								
ANY UNIT WITH NEW OWL	All timber harvest activities (only if new owl discovered) ³					Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded

¹ Wet season restrictions may be shortened or extended depending on weather conditions.

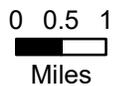
² Hauling restriction may be shortened or extended (see L-19 in contract)

³ Seeding dates may be extended as per email dated 6.29.20 with Gauna, McClintock, Schumacher, Brandy

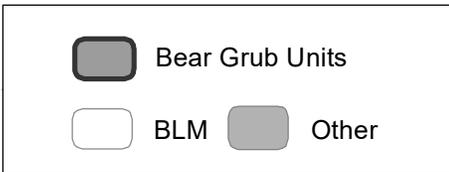
⁴ Spotted Owl seasonal restrictions from March 1 through September 30 may be shortened if it is determined that spotted owl nesting and/or fledging activities are not occurring in the area.



Medford District BLM - October 2020



1 inch = 2 miles
 Contours = 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. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.



U.S.D.I. BLM MEDFORD DIST. SALE NO. 2021.0002
 T. 37 S. R. 03 W., SECS. 33 WILL. MER.
 T. 38 S. R. 03 W., SECS. 8, 9, 13, 14, 16, 17 WILL. MER.
 T. 38 S. R. 03 W., SECS. 23, 26, 35, 36, WILL. MER.
 T. 38 S. R. 02 W., SECS. 21, 23, 26, 27, 29, 31, 32, WILL. MER.
 T. 39 S. R. 02 W., SECS. 1, 2, 3, 4, 5, 9, 10, 12, 15, 21, WILL. MER.
 T. 39 S. R. 01 W., SECS. 7, 17, 18, 21, 22, 27, 28, WILL. MER.
 BEAR GRUB TIMBER SALE

TIMBER SALE CONTRACT MAP
 CONTRACT NO. ORM06-TS-2021.0002
 EXHIBIT A
 PAGE 1 OF 25

Reserve Tree Mark Selection Harvest Ground-Based	RTM-SH-GB	8-1, 12-1A, 13-10, 16-3, 29-5B, 32-2B
Reserve Tree Mark Selection Harvest Skyline	RTM-SH-S	1-1, 2-2A, 2-2B, 2-4, 3-4, 3-6, 3-7, 7-1B, 12-1B, 13-1, 13-3, 17-7B, 18-1, 22-4, 23-3A, 23-3B, 27-1, 27-2, 27-3, 27-5, 29-5A, 32-1, 32-2A, 32-2C, 33-6B
Reserve Tree Mark Selection Harvest Helicopter	RTM-SH-H	2-3, 7-1A, 9-1, 16-2A, 16-2B, 17-7A, 17-8, 21-2, 22-3, 27-7
Reserve Tree Mark Selection Harvest Endline	RTM-SH-E	2-1, 27-4, 27-8
Harvest Tree Mark Group Select Ground Based	HTM-GS-GB	13-6, 13-7, 17-1A
Harvest Tree Mark Group Select Skyline	HTM-GS-S	3-3, 3-5, 5-2, 5-3, 13-5, 14-2, 15-2, 15-3, 21-1, 26-3A, 27-6, 27-9
Harvest Tree Mark Group Select Helicopter	HTM-GS-H	1-2, 1-3, 3-1, 3-2, 8-2, 17-1B, 17-3, 21-3, 23-1, 23-2, 26-3B, 33-6A, 36-1, 36-2
Hand Pile Commercial Activity Fuels	HP	All units

RTM-Reserve Tree Mark, HTM-Harvest Tree Mark, SH-Selection Harvest, GS-Group Select, GB-Ground-Based, S-Skyline, H-Helicopter, E-Endline

TOTAL HARVEST AREA.....698 ACRES

TOTAL RESERVE AREA.....572 ACRES

TOTAL CONTRACT AREA.....5,620 ACRES



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U.S.D.I. BLM MEDFORD DIST. SALE NO. 2021.0002
 T. 37 S. R. 03 W., SECS. 33 WILL. MER.
 T. 38 S. R. 03 W., SECS. 8, 9, 13, 14, 16, 17 WILL. MER.
 T. 38 S. R. 03 W., SECS. 23, 26, 35, 36, WILL. MER.
 T. 38 S. R. 02 W., SECS. 21, 23, 26, 27, 29, 31, 32, WILL. MER.
 T. 39 S. R. 02 W., SECS. 1, 2, 3, 4, 5, 9, 10, 12, 15, 21, WILL. MER.
 T. 39 S. R. 01 W., SECS. 7, 17, 18, 21, 22, 27, 28, WILL. MER.
 BEAR GRUB TIMBER SALE

TIMBER SALE CONTRACT MAP
 CONTRACT NO. ORM06-TS-2021.0002
 EXHIBIT A
 PAGE 2 OF 25

Legend

	Found Corner		100 ft. Index Contour
	Barricade, Existing		Government Lot
	Road		Contract Area
	New Road Construction		BLM Administered Land
	Temporary Road Construction		Non-BLM Land
	Stream		Group Selects
	Existing Landing		Boundary of Cutting Area
	New Landing		Reserve

RTM-SH-GB

RESERVE TREE MARK, SELECTION HARVEST, GROUND BASED
 UNITS, 8-1, 12-1A, 13-10, 16-3, 29-5B, 32-2B

RTM-SH-S

RESERVE TREE MARK, SELECTION HARVEST, SKYLINE
 UNITS, 1-1, 2-2A, 2-2B, 2-4, 3-4, 3-6, 3-7, 7-1B, 12-1B, 13-1, 13-3, 17-7B,
 18-1, 22-4, 23-3A, 23-3B, 27-1, 27-2, 27-3, 27-5, 29-5A, 32-1, 32-2A, 32-2C, 33-6B

RTM-SH-H

RESERVE TREE MARK, SELECTION HARVEST, HELICOPTER
 UNITS, 2-3, 7-1A, 9-1, 16-2A, 16-2B, 17-7A, 17-8, 21-2, 22-3, 27-7

RTM-SH-E

RESERVE TREE MARK, SELECTION HARVEST, ENDLINE
 UNITS, 2-1, 27-4, 27-8

HTM-GS-GB

HARVEST TREE MARK, GROUP SELECT, GROUND BASED
 UNITS, 13-6, 13-7, 17-1A

HTM-GS-S

HARVEST TREE MARK, GROUP SELECT, SKYLINE
 UNITS, 3-3, 3-5, 5-2, 5-3, 13-5, 14-2, 15-2, 15-3, 21-1, 26-3A, 27-6, 27-9

HTM-GS-H

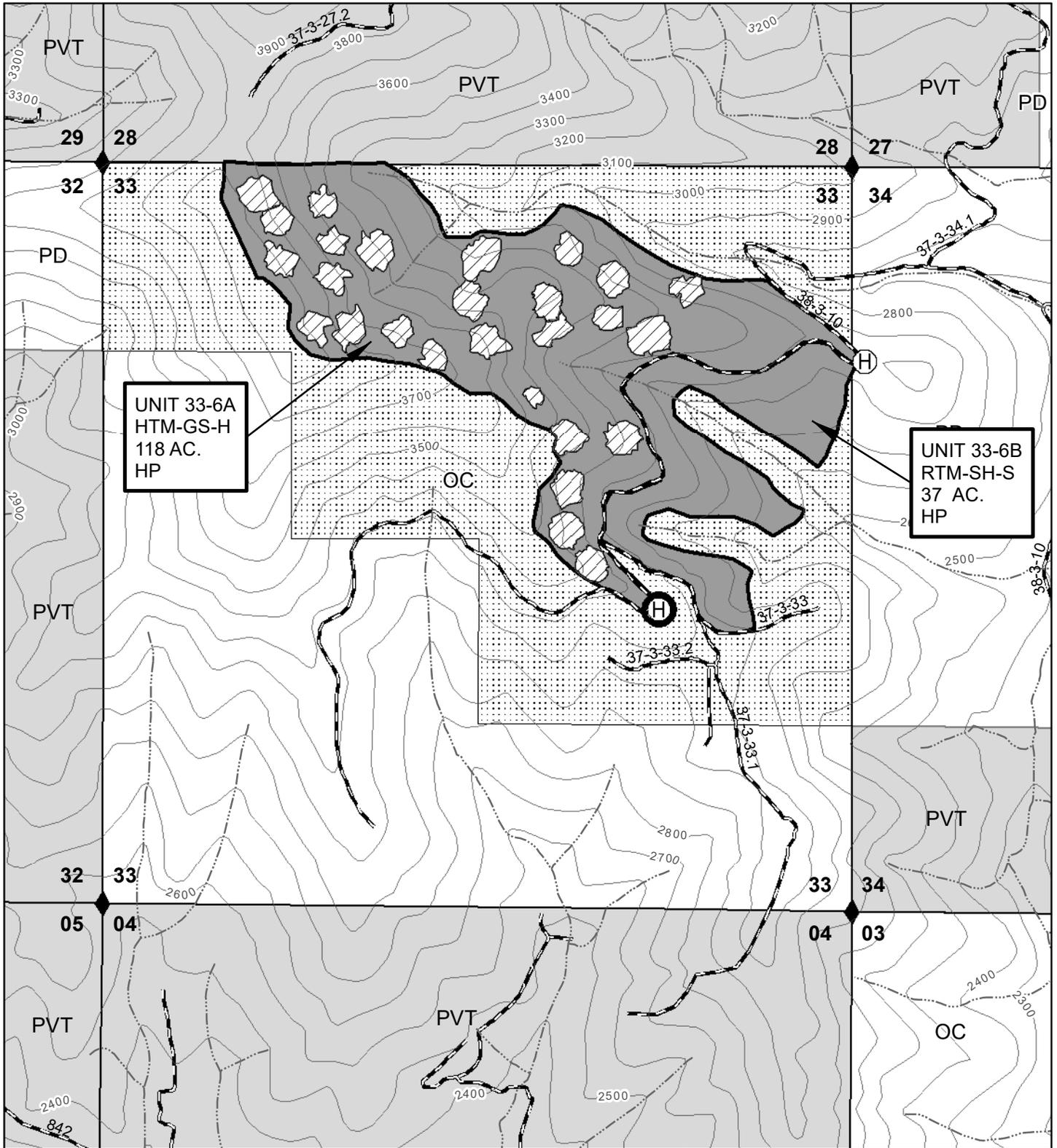
HARVEST TREE MARK, SELECTION HARVEST, HELICOPTER
 UNITS, 1-2, 1-3, 3-1, 3-2, 8-2, 17-1B, 17-3, 21-3, 23-1, 23-2, 26-3B, 33-6A, 36-1, 36-2

HP

HANDPILE



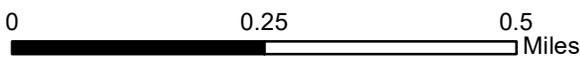
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UNIT 33-6A
HTM-GS-H
118 AC.
HP

UNIT 33-6B
RTM-SH-S
37 AC.
HP

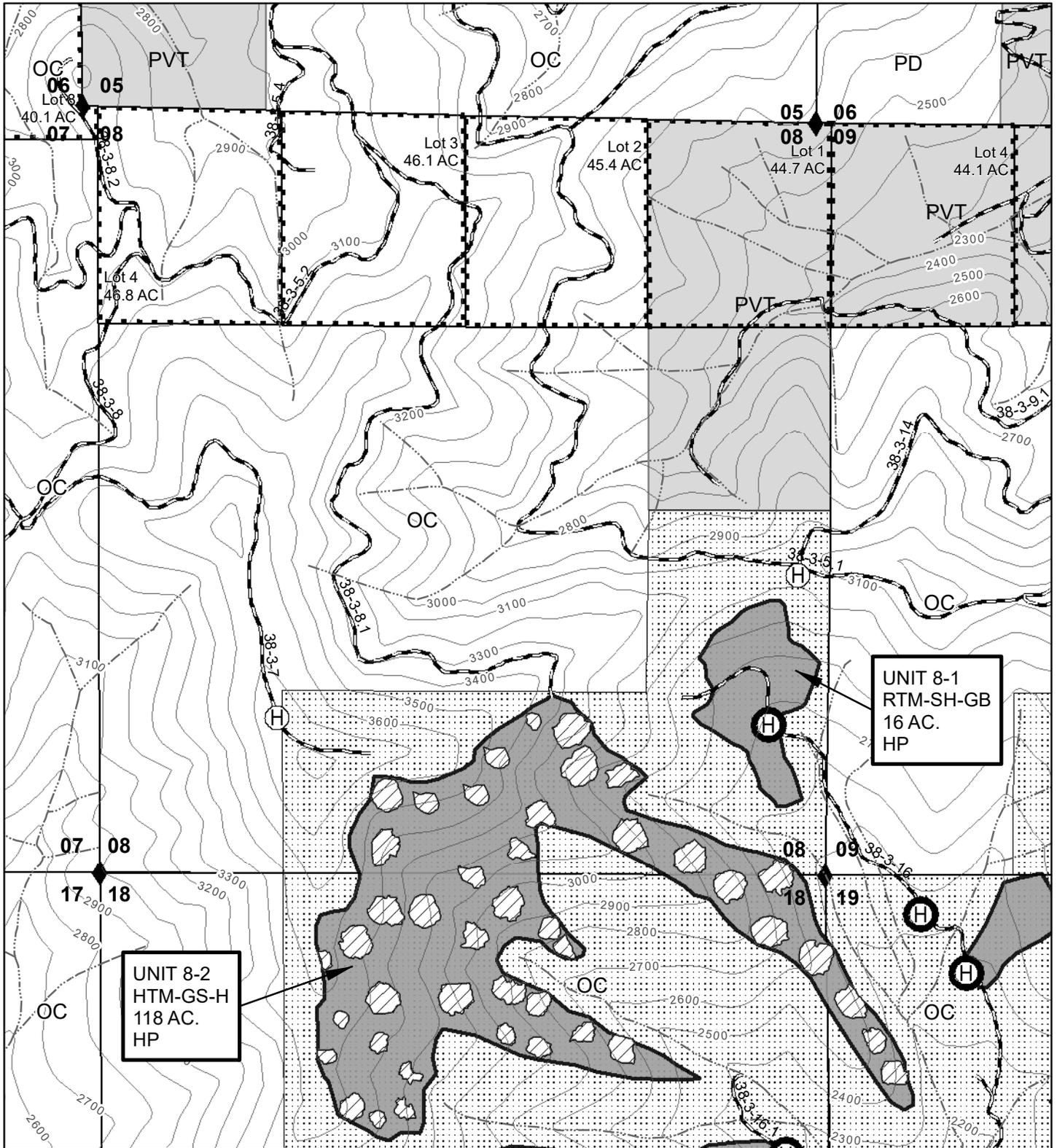
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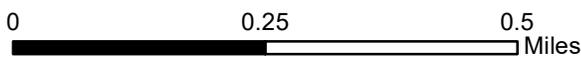
1 inch = 1,000 feet



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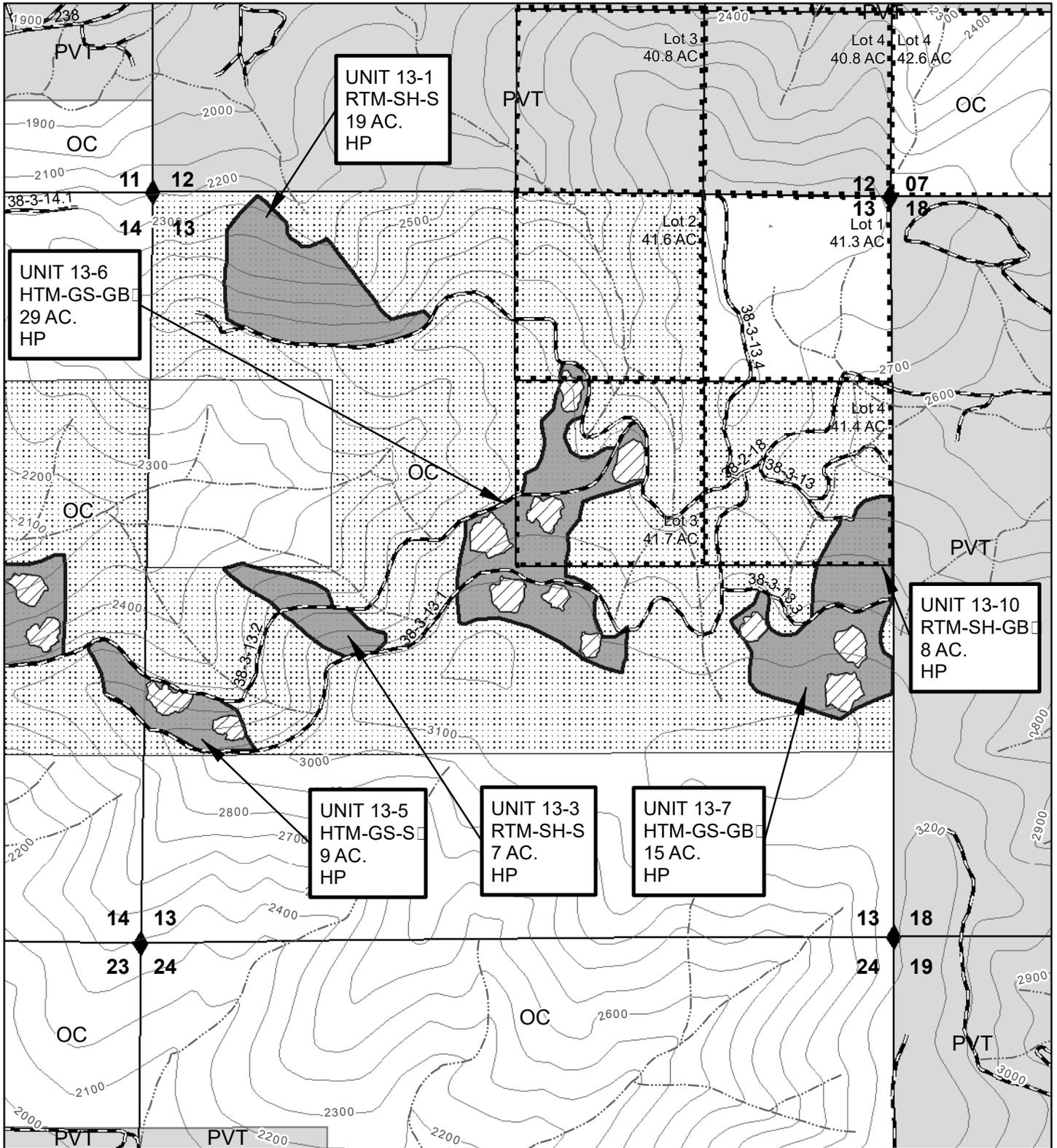
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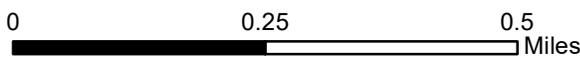
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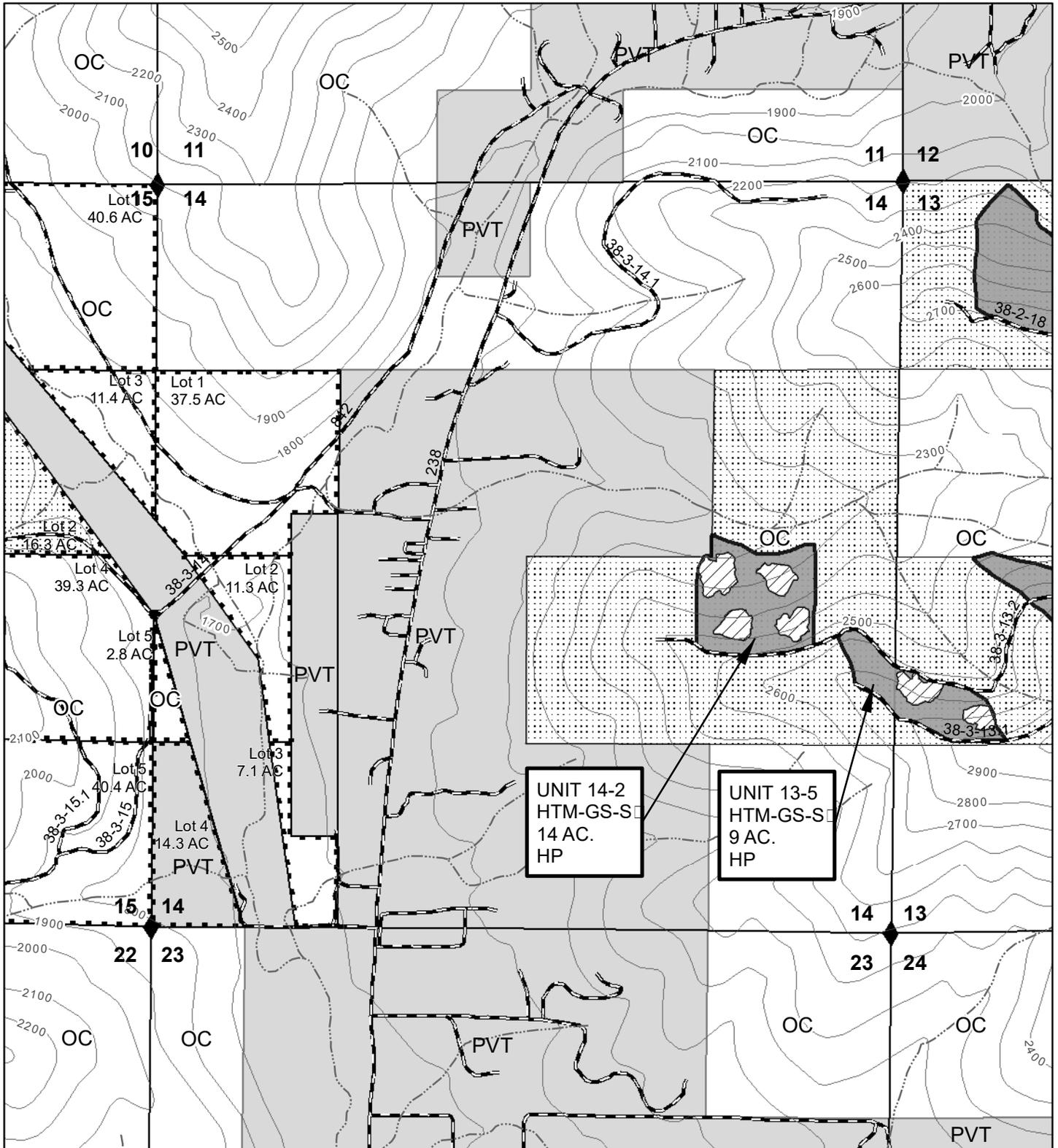
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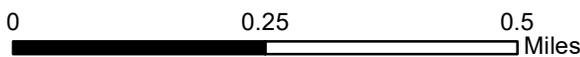
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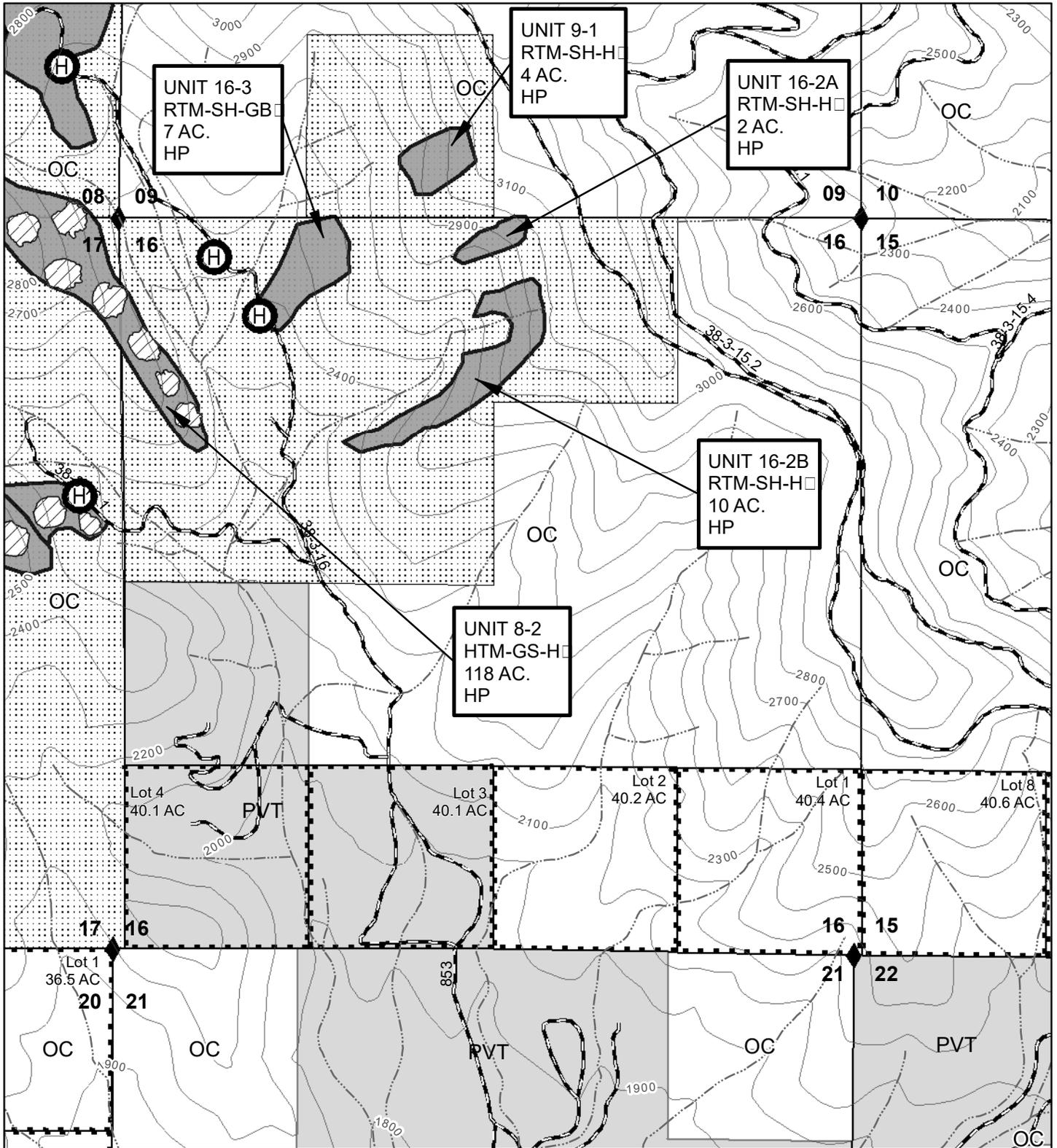
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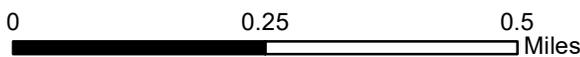
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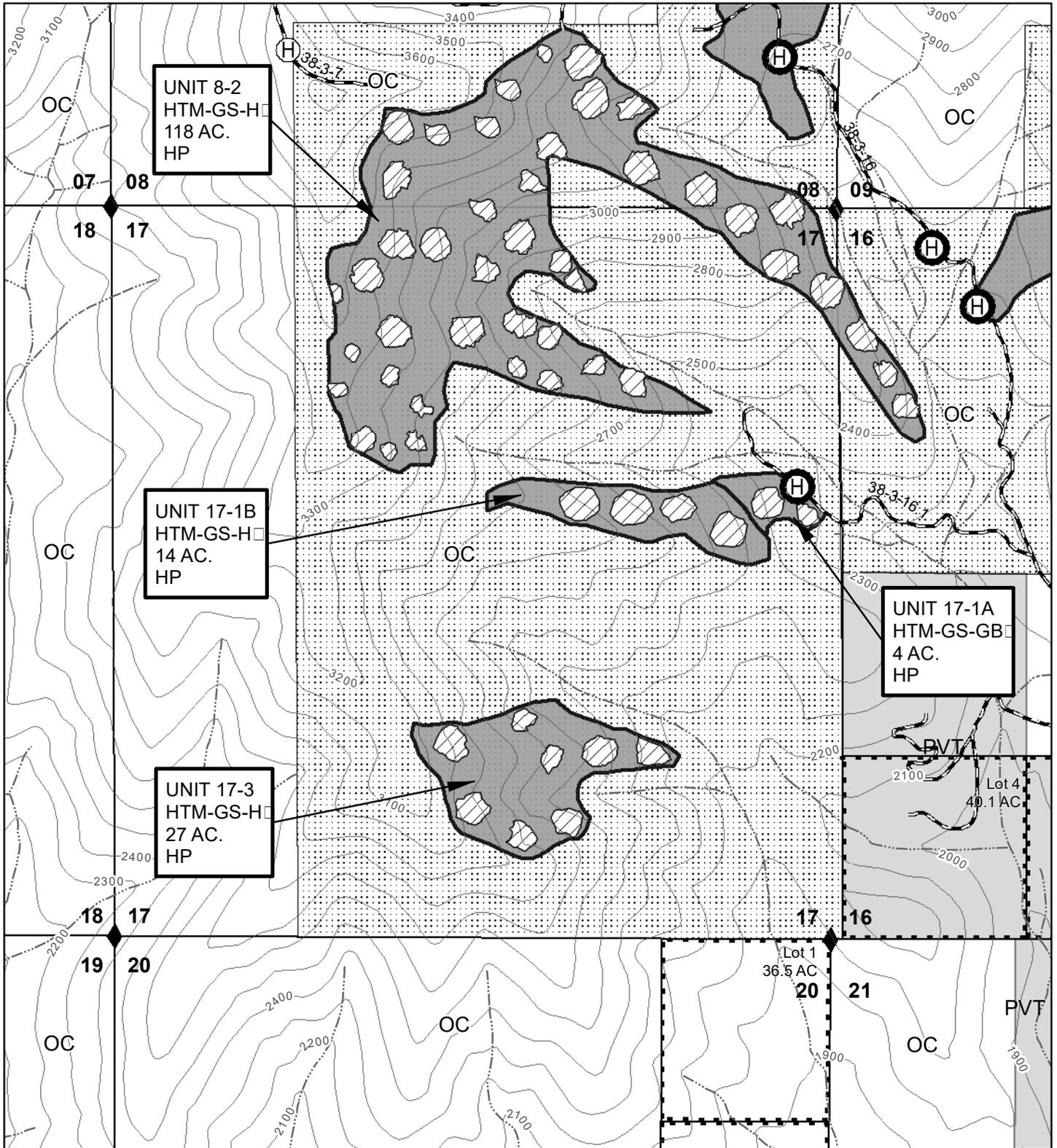
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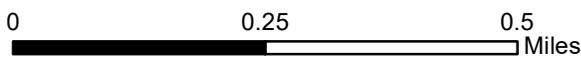
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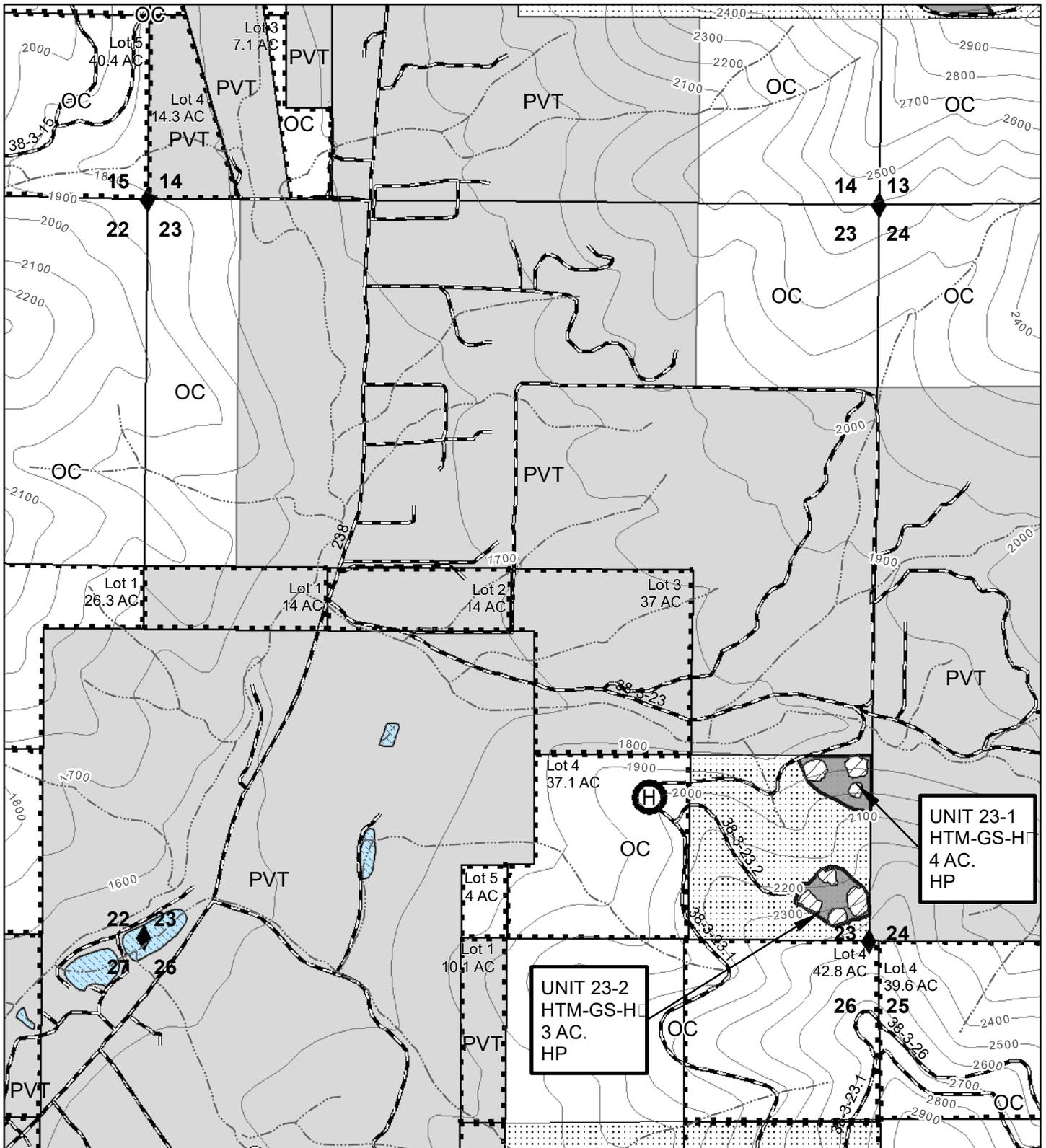
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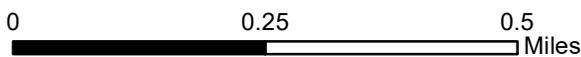
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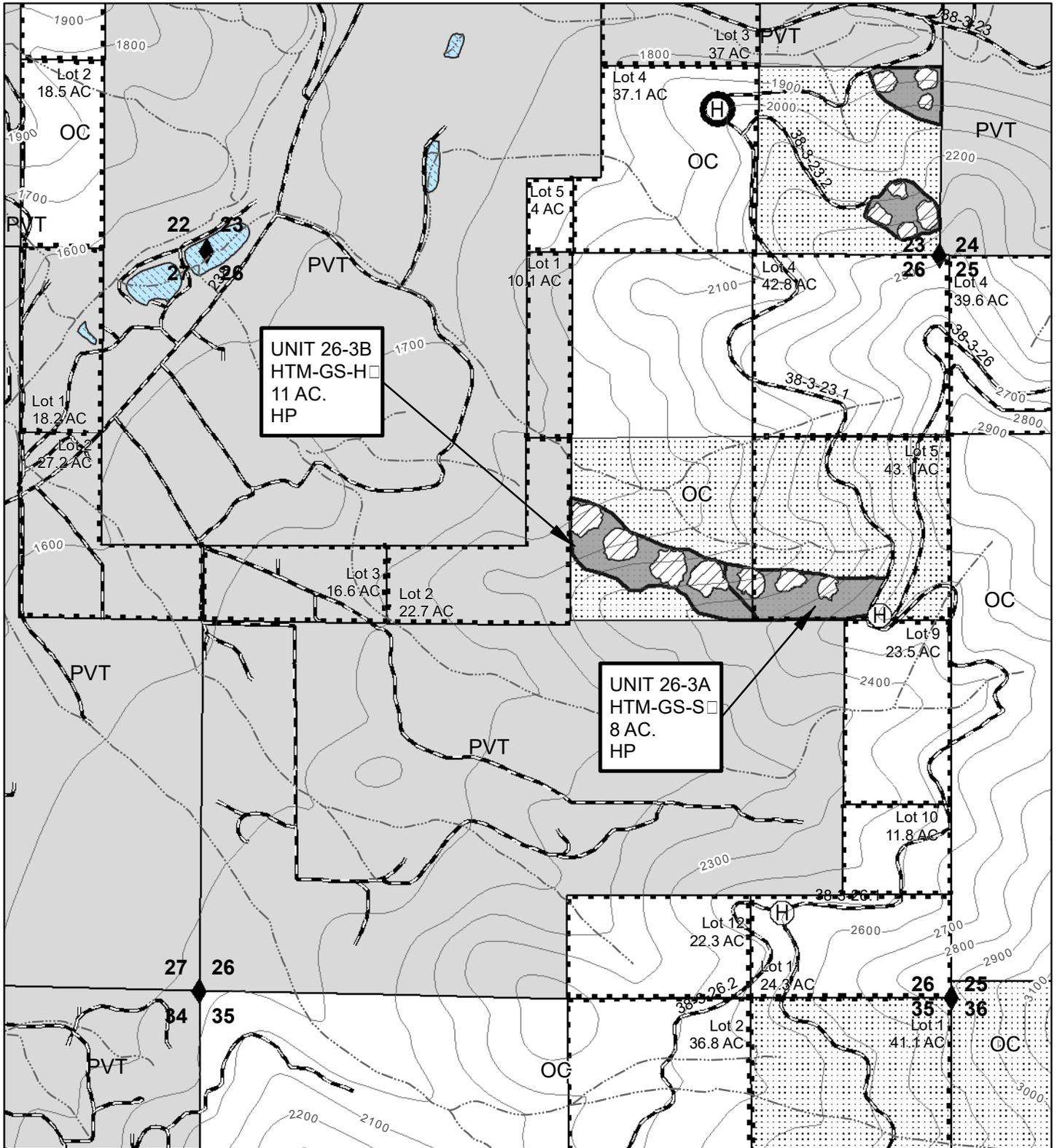
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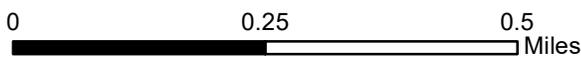
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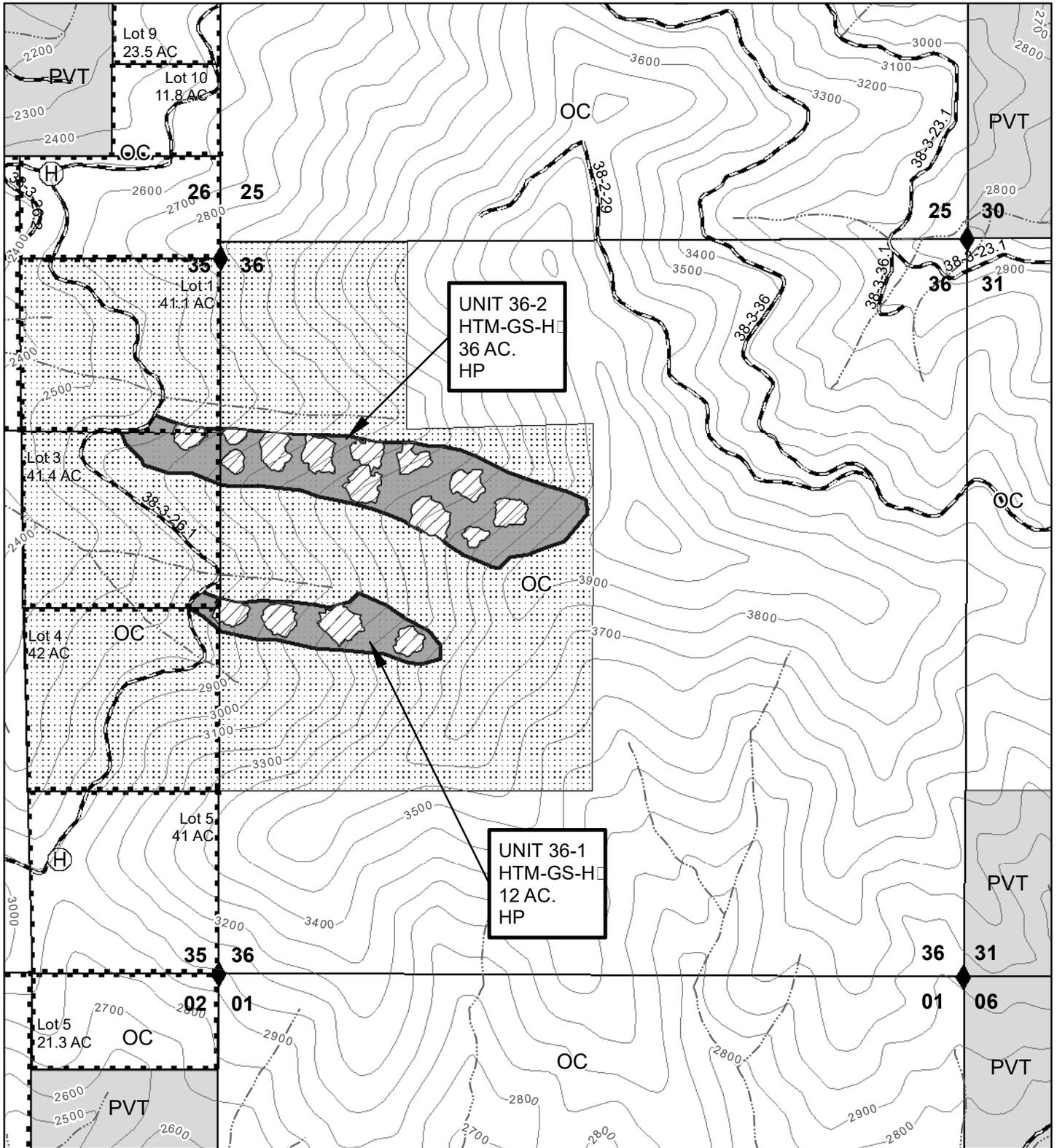
100 FOOT CONTOURS



1 inch = 1,000 feet



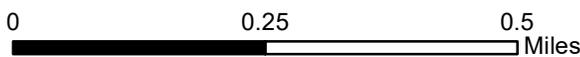
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UNIT 36-2
HTM-GS-H
36 AC.
HP

UNIT 36-1
HTM-GS-H
12 AC.
HP

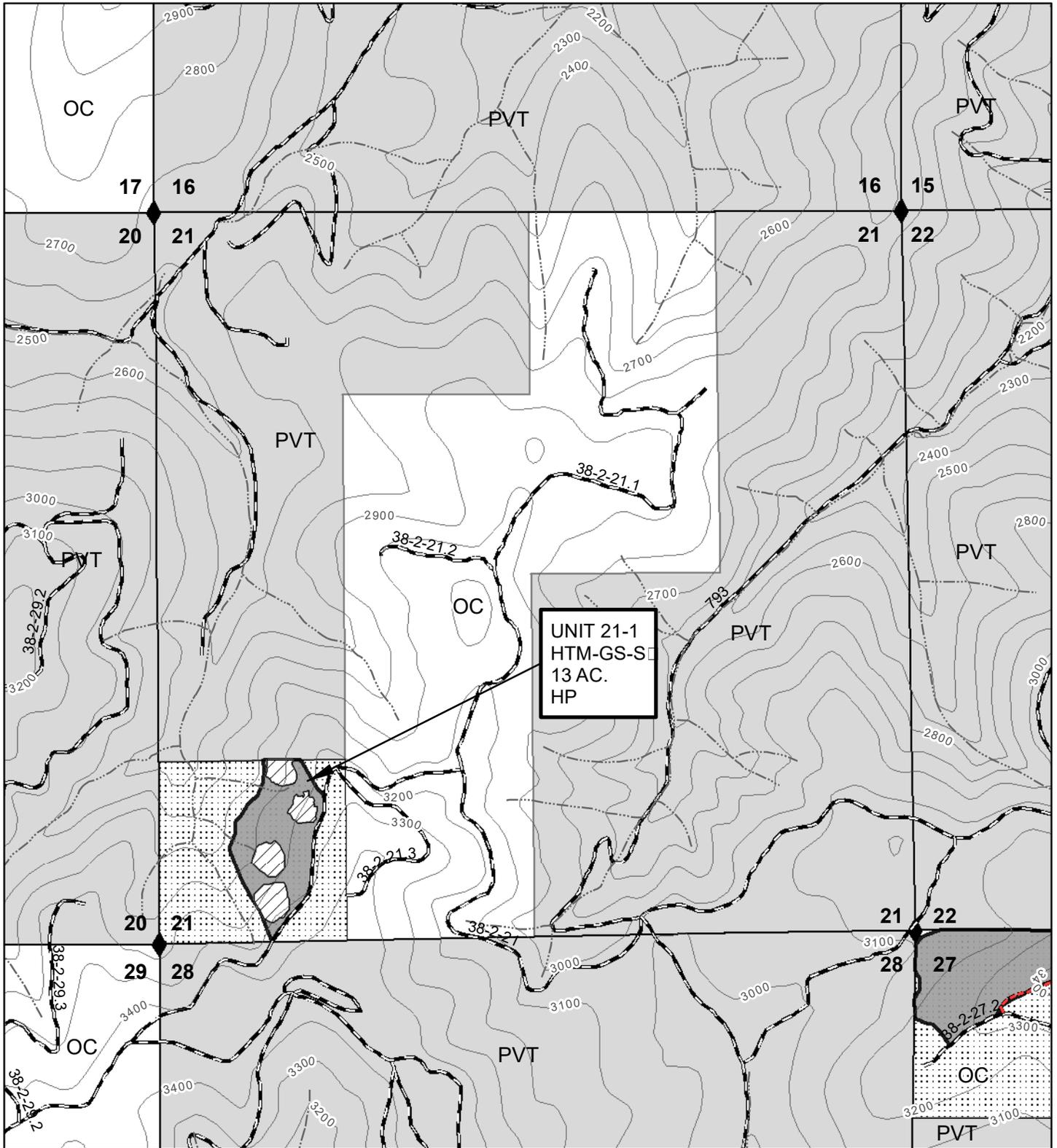
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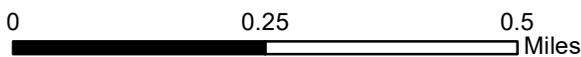
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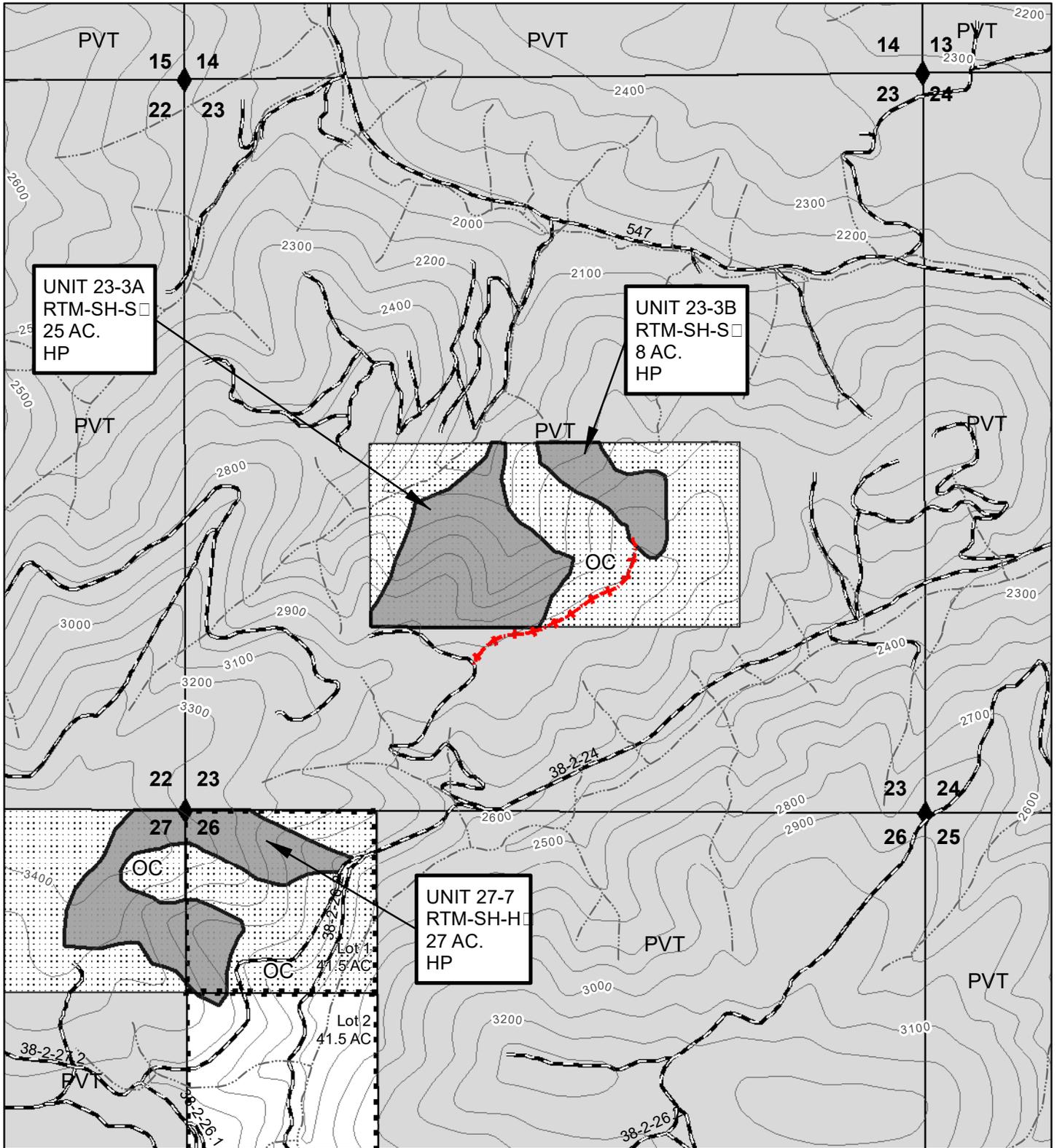
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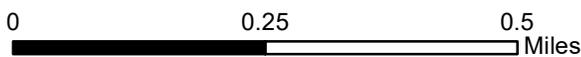
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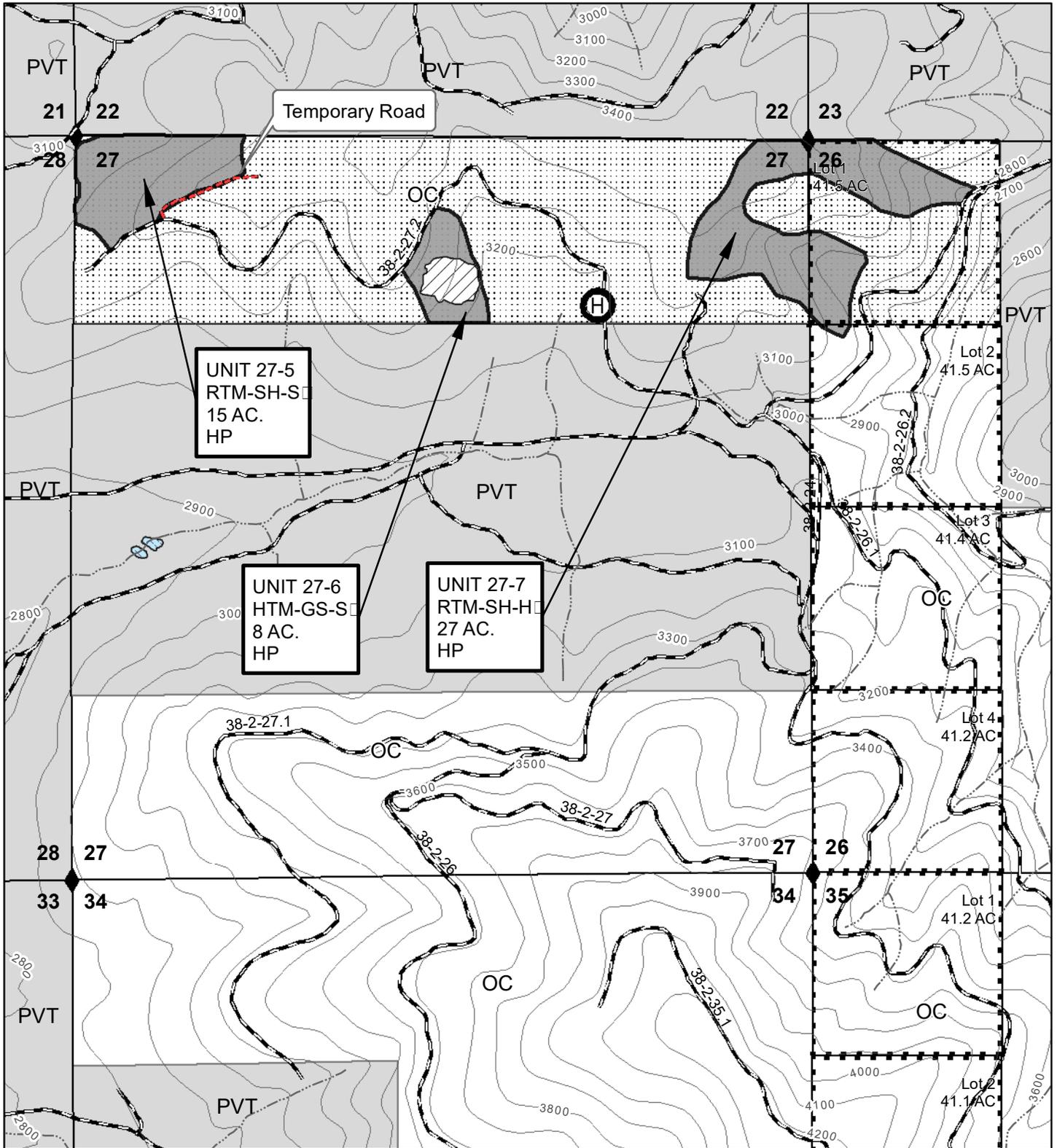
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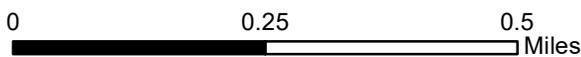
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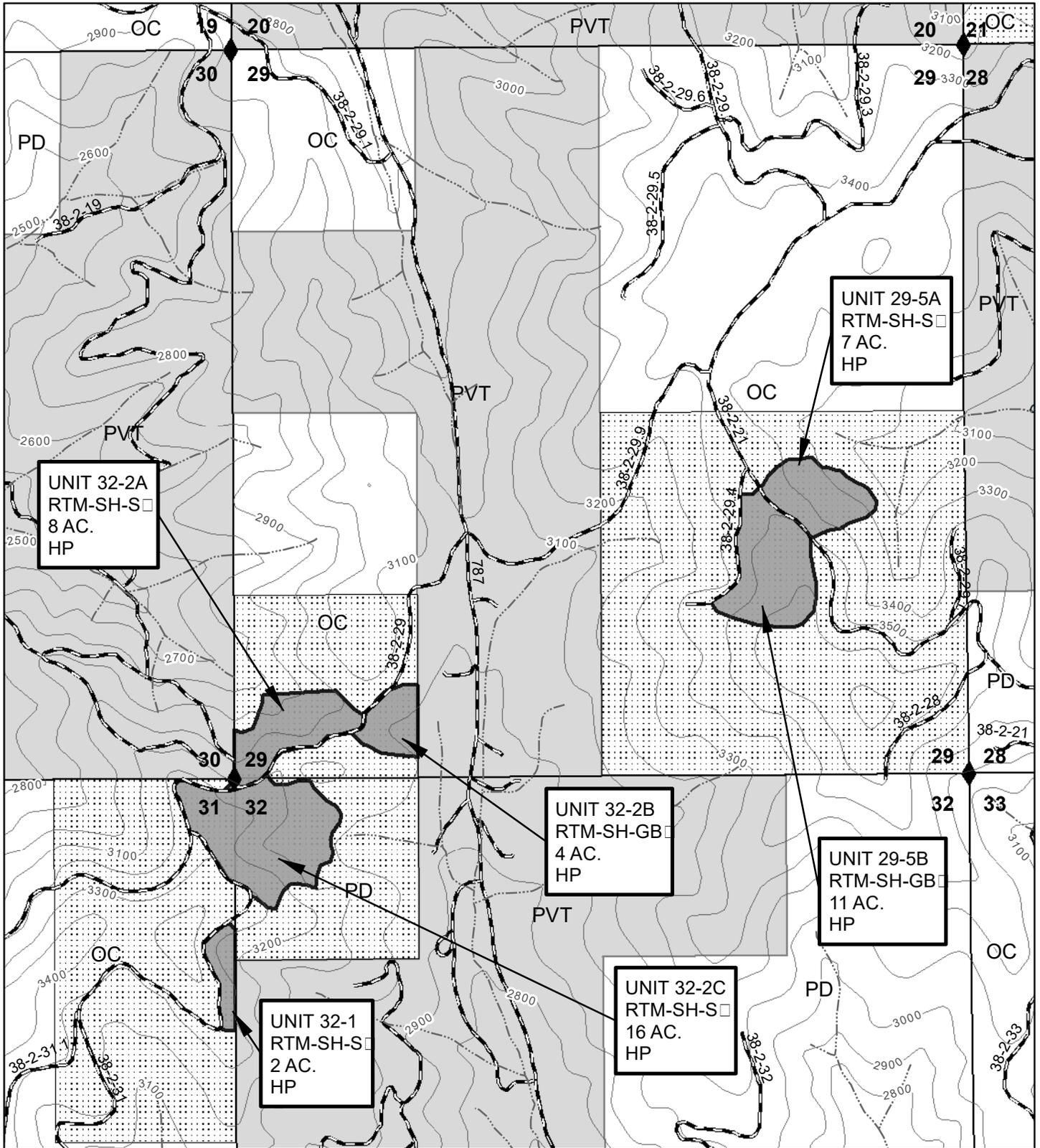
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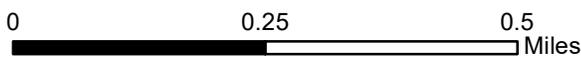
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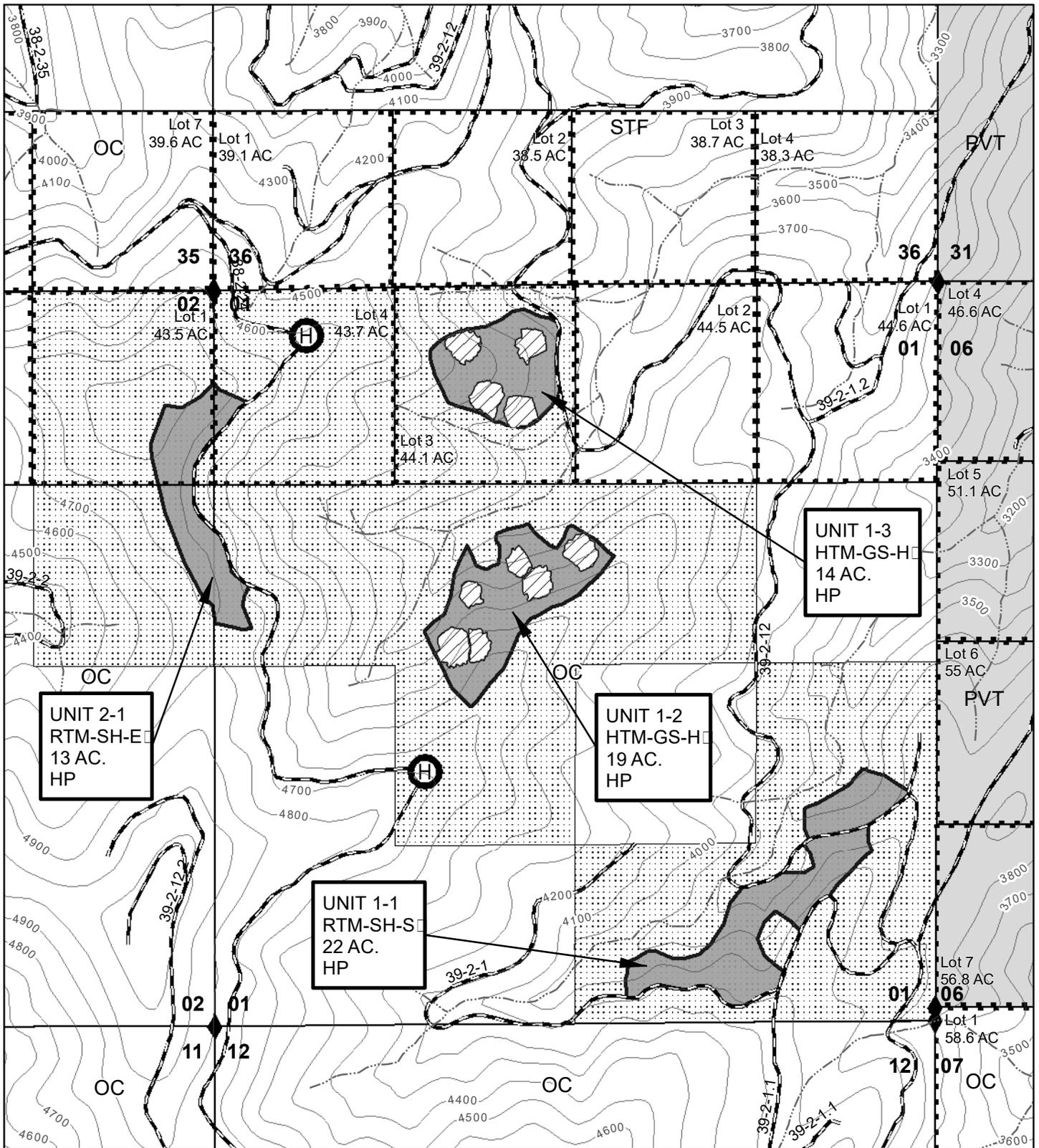
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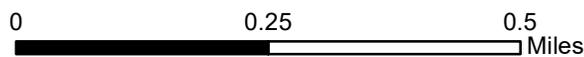
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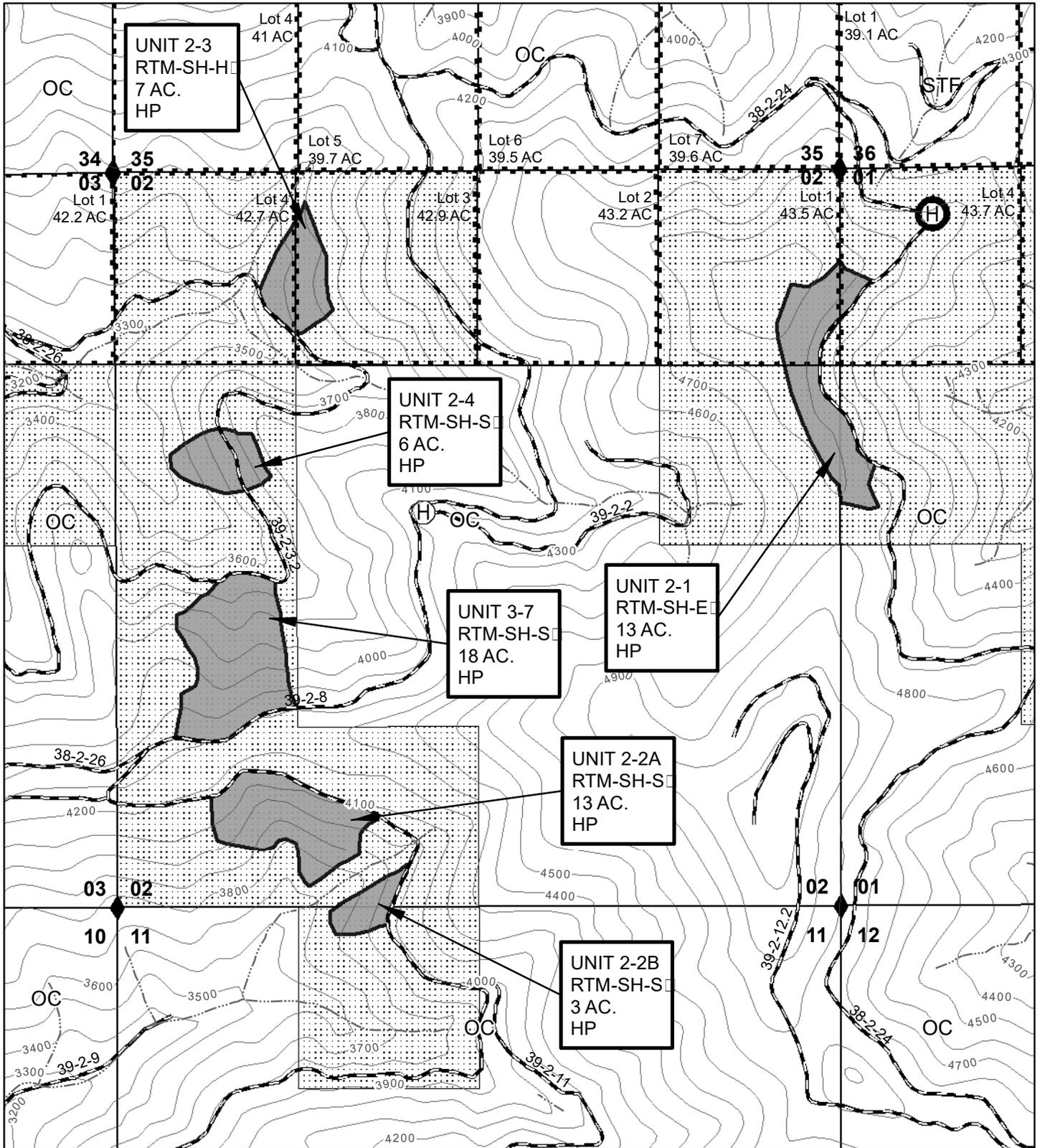
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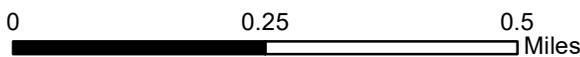
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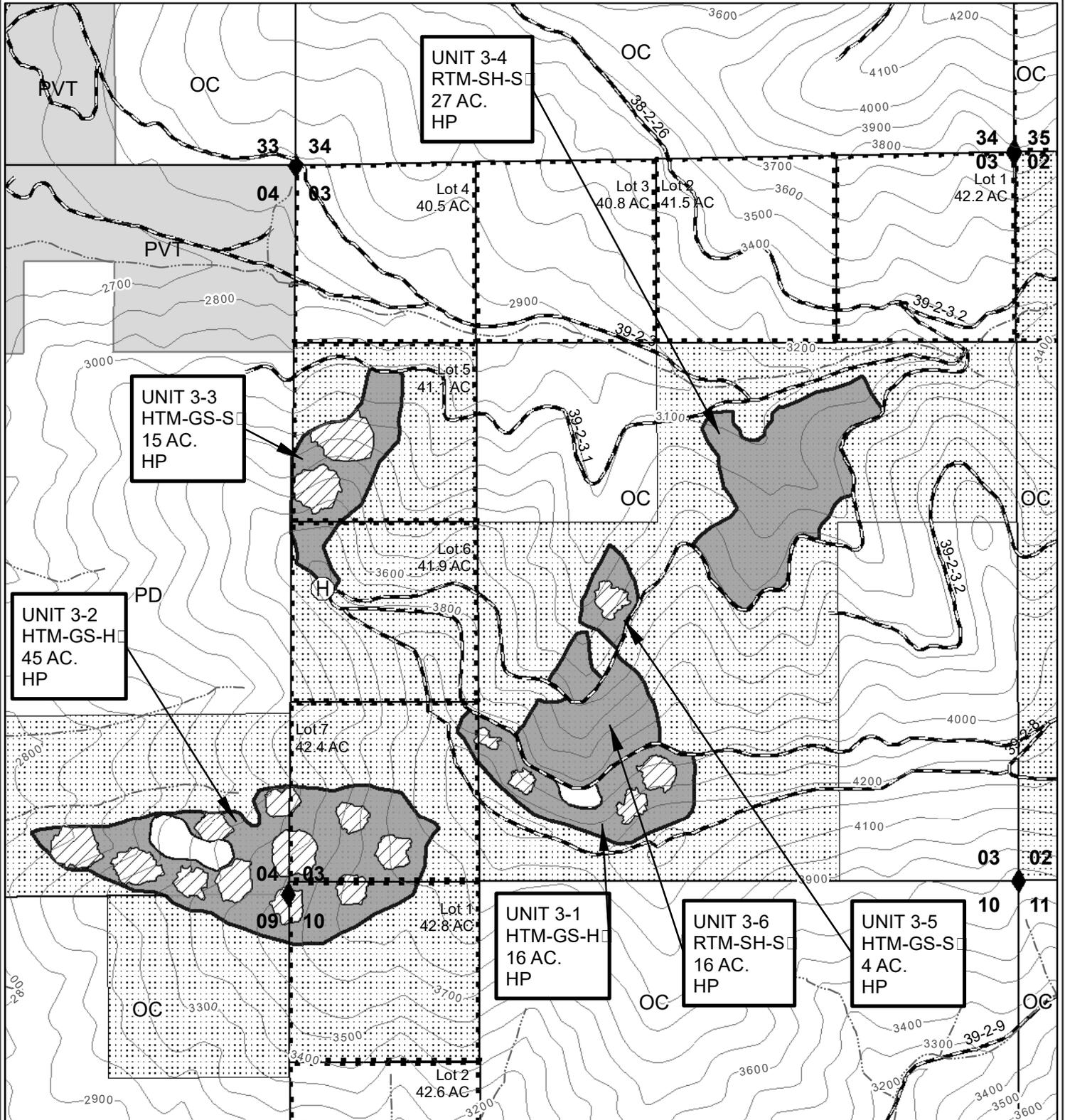
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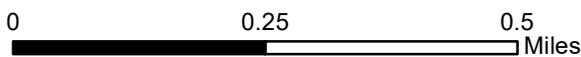
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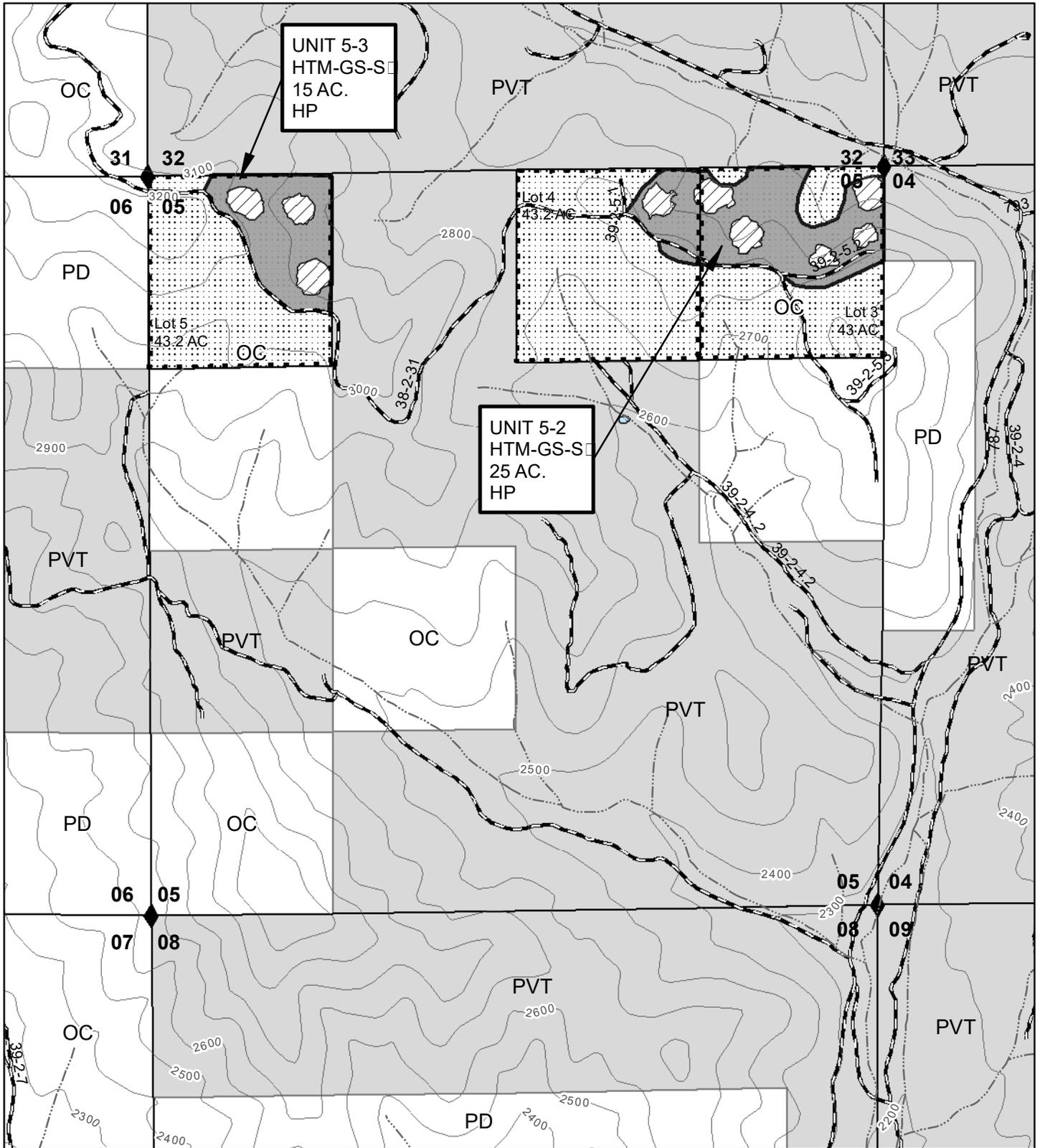
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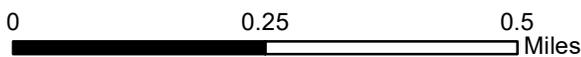
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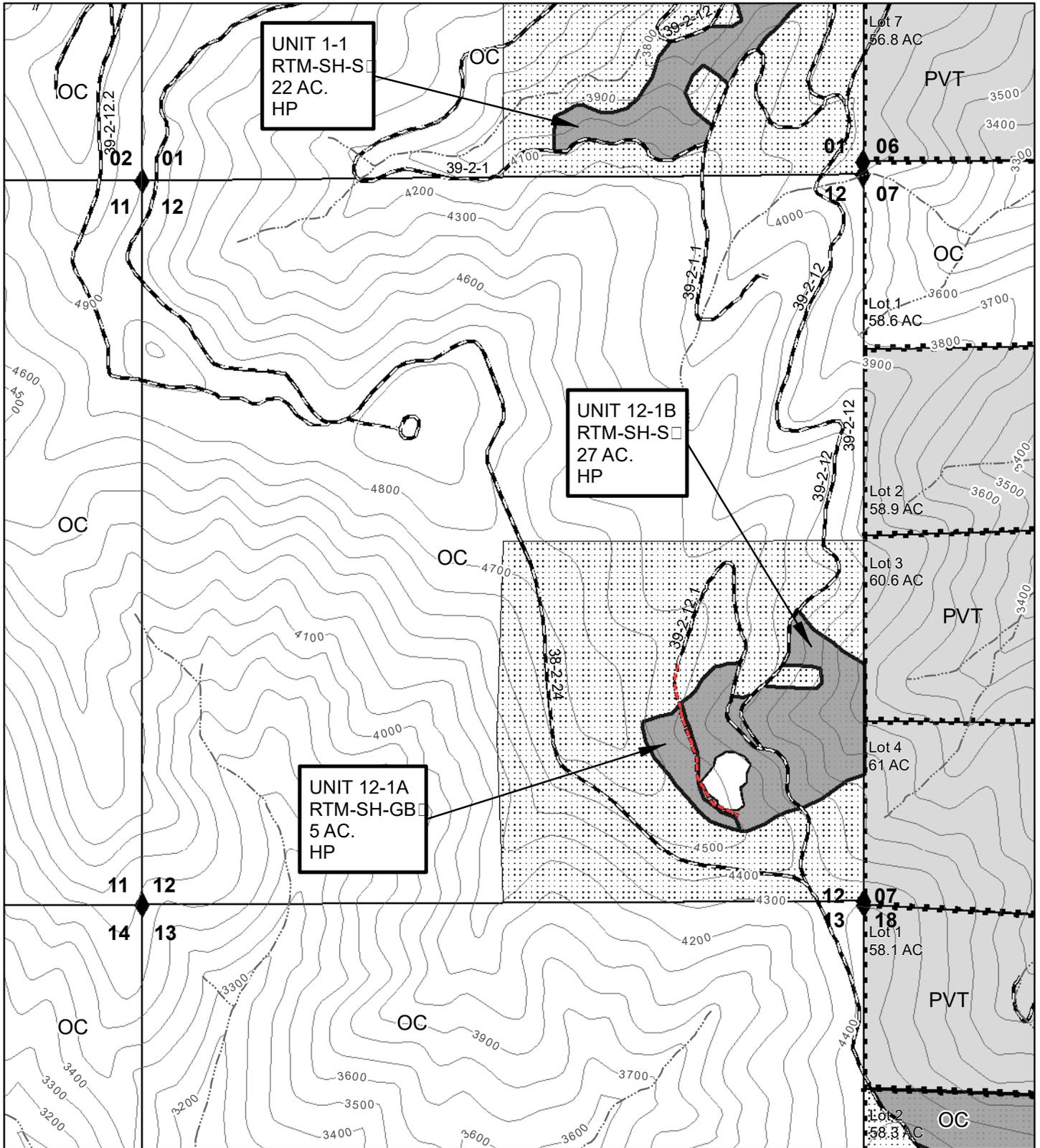
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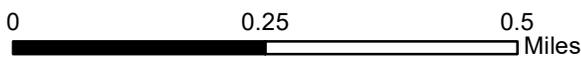
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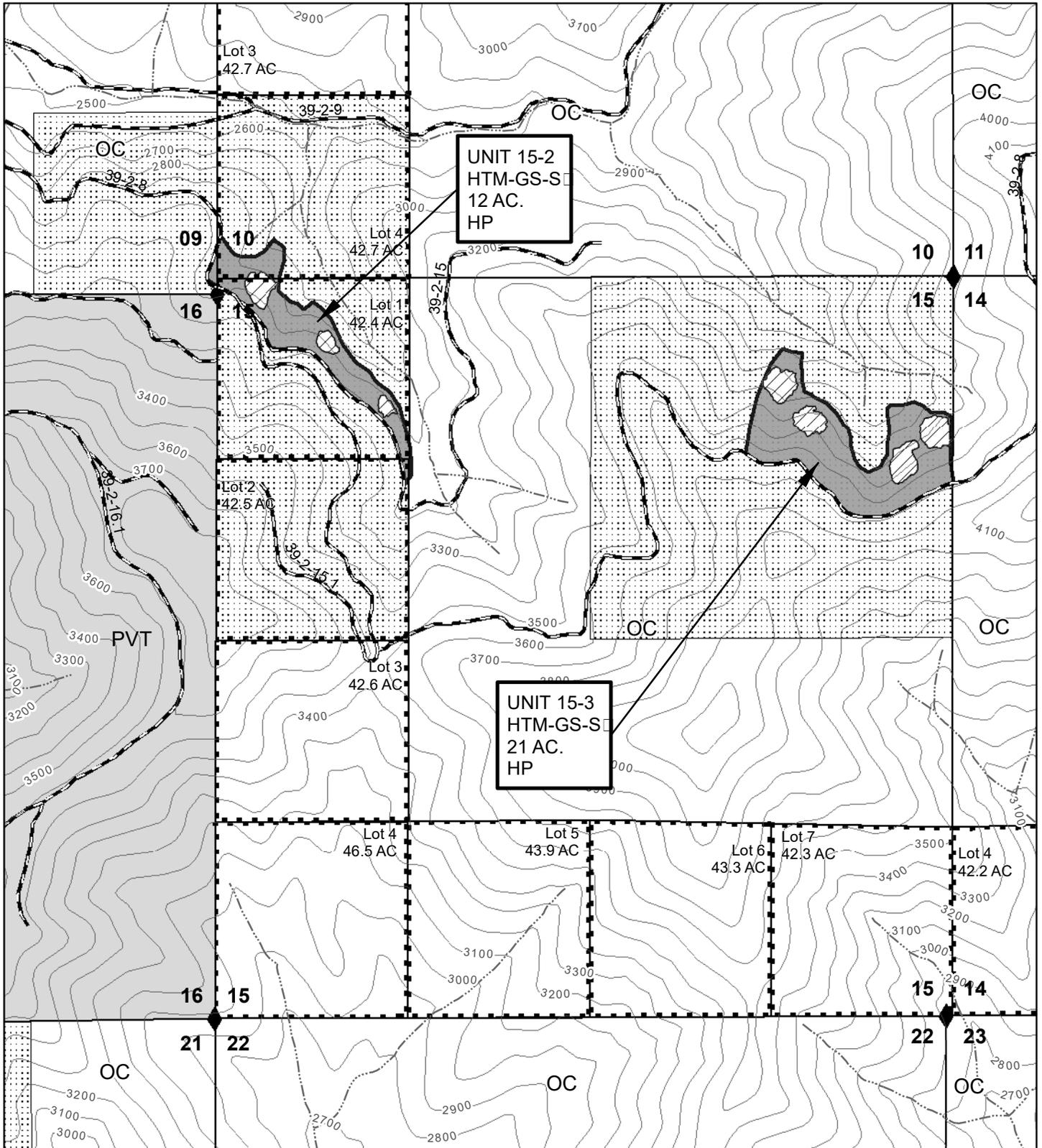
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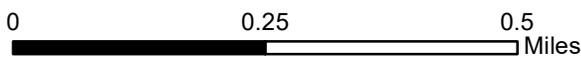
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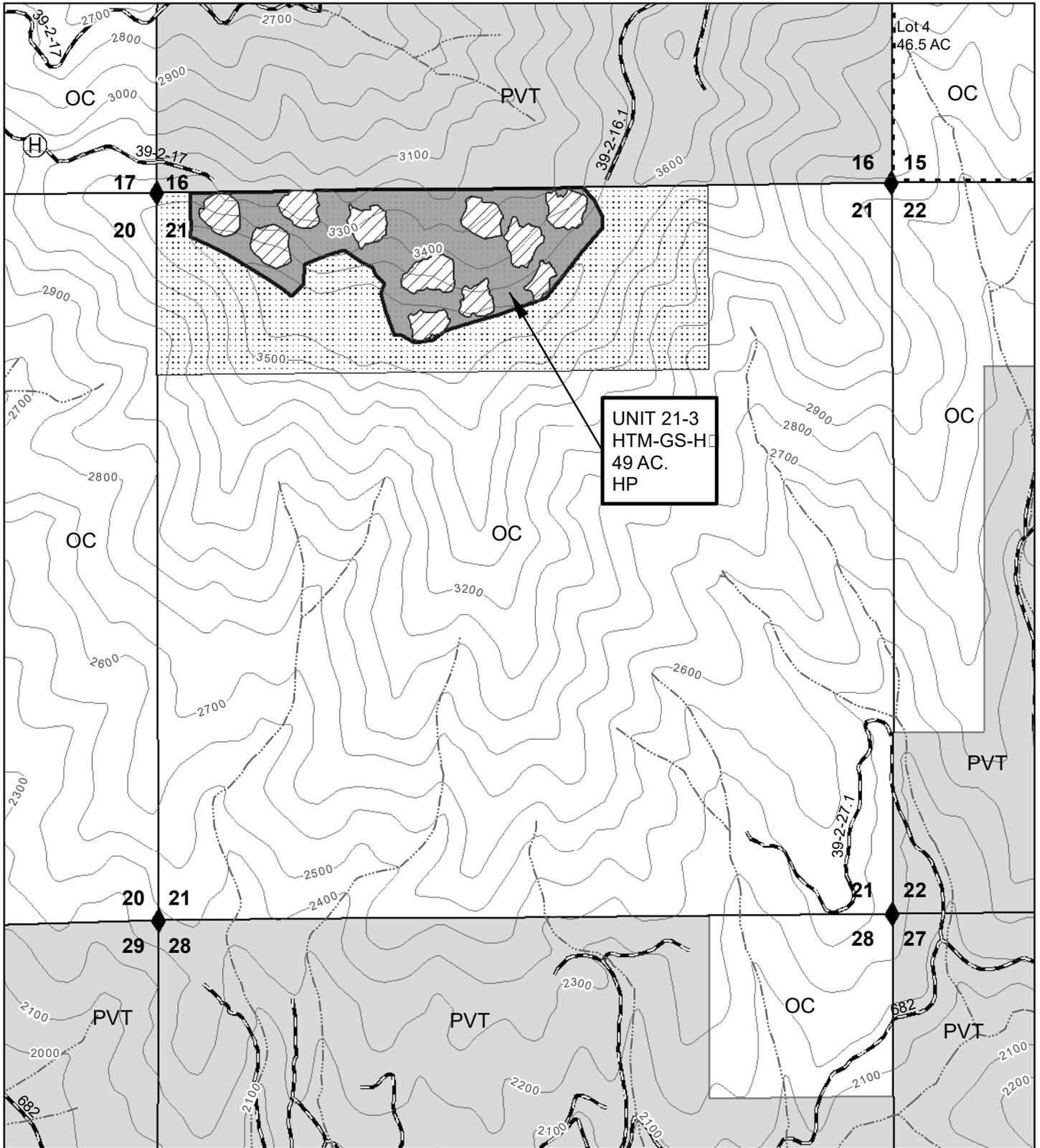
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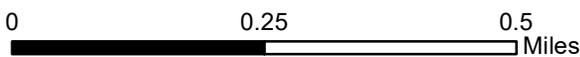
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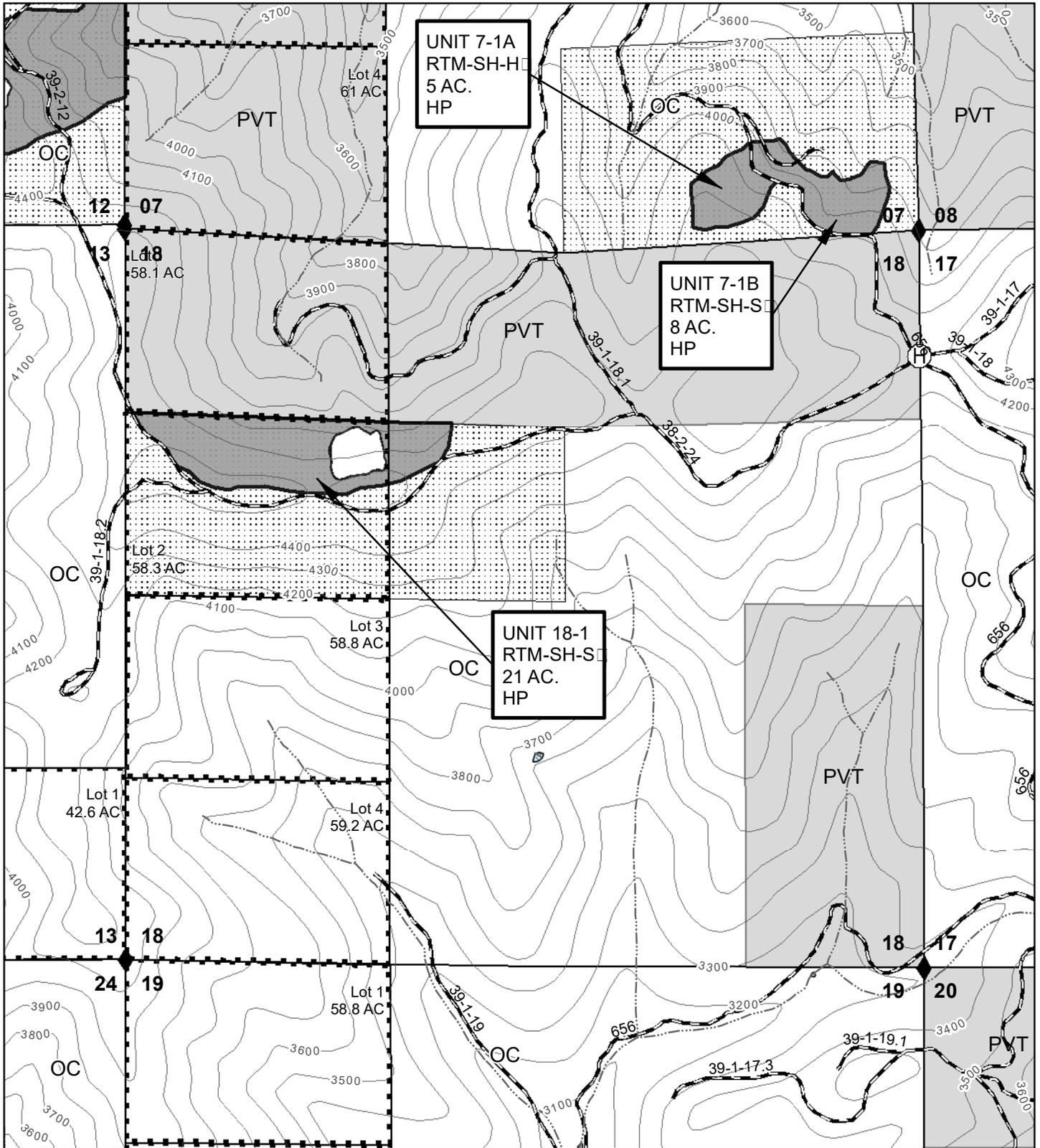
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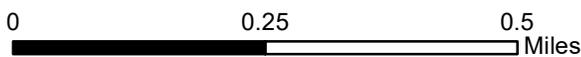
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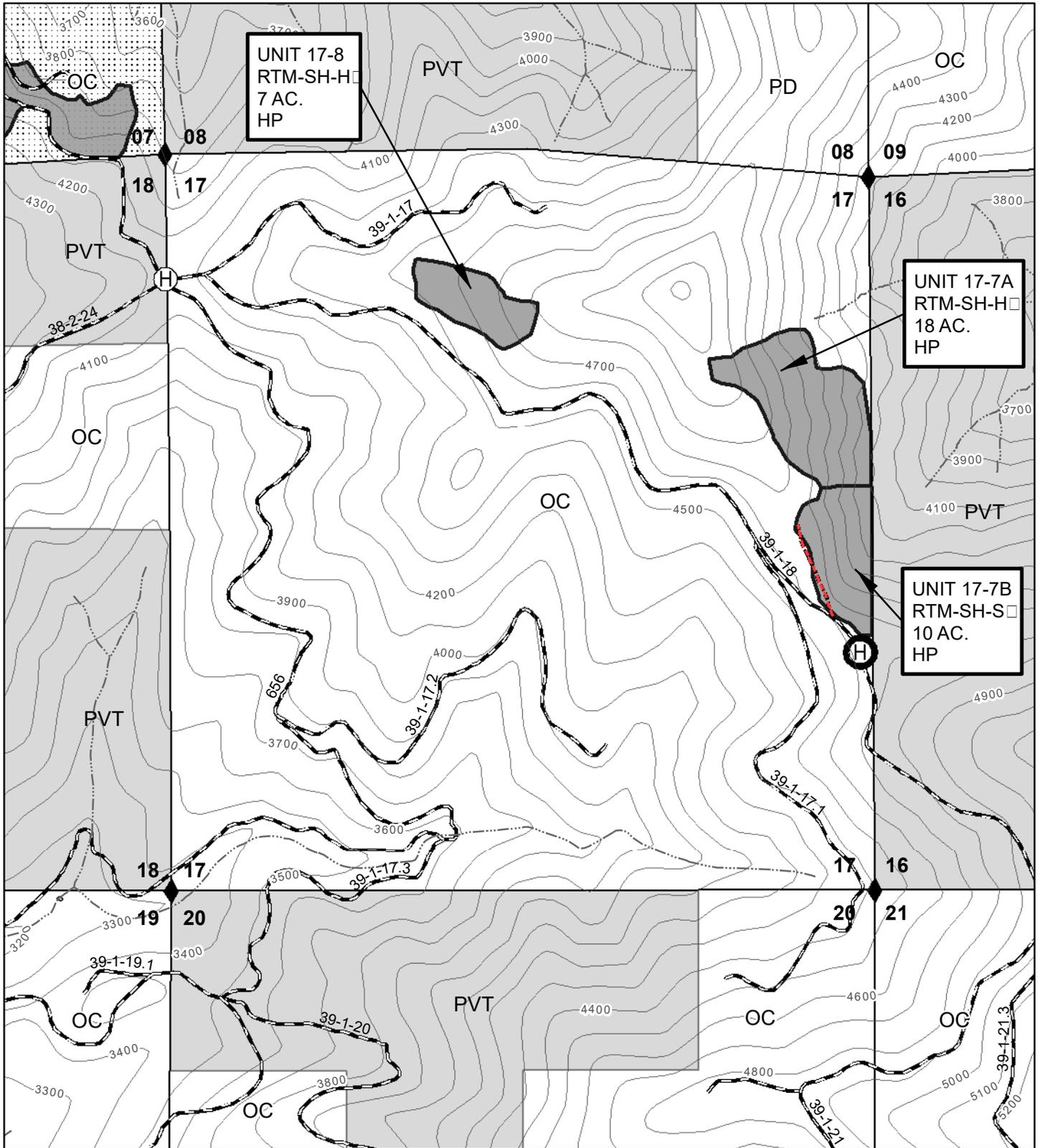
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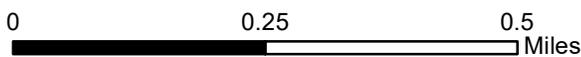
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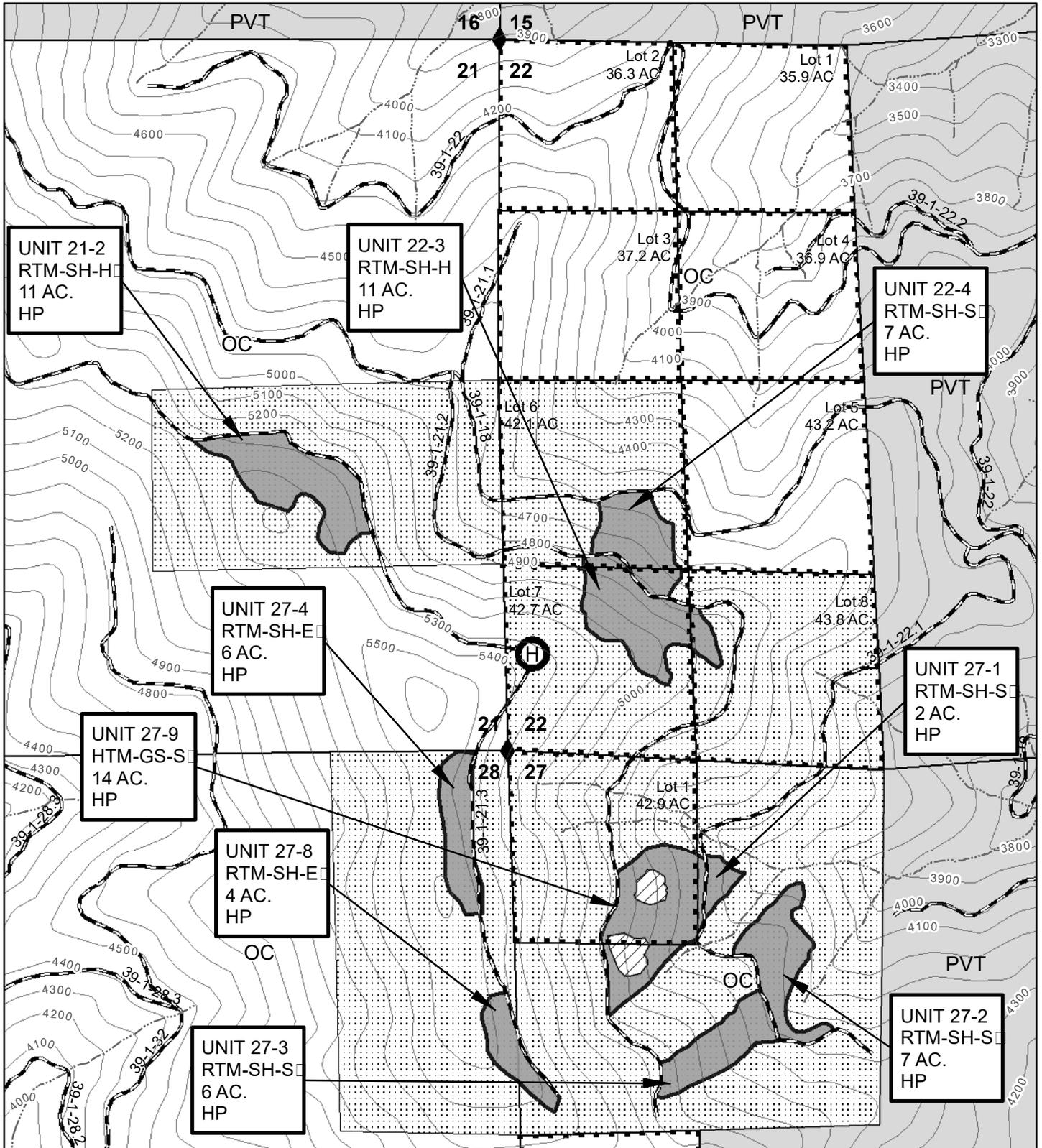
100 FOOT CONTOURS



1 inch = 1,000 feet



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100 FOOT CONTOURS

0 0.25 0.5 Miles

1 inch = 1,000 feet



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**United States
Department of the Interior
Bureau of Land Management**

Timber Appraisal

Sale Name: Bear Grub	Sale Date: Thursday, October 29, 2020
BLM District: Medford DO	Unit of Measure: 16' MBF
Contract #: ORM06-TS-2021.0002	Contract Term: 36 months
Sale Type: Advertised	Contract Mechanism: 5450-4 Sale of Timber - Scale Sale

Content

**Timber Appraisal Summary
Stumpage Summary
Unit Summary
Stump to Truck
Transportation
Engineering Allowances
Other Allowances**

Prepared By: Rentz, George C - 9/14/2020

Approved By: Rentz, George C - 9/14/2020

Legal Description of Contract Area

Land Status	County	Township	Range	Section	Subdivision	Meridian
O&C	Jackson	39S	1W	7	S1/2SE1/4.	Willamette
O&C	Jackson	39S	1W	17	E1/2NE1/4, NW1/4NE1/4, E1/2NW1/4, NE1/4SE1/4.	Willamette
O&C	Jackson	39S	1W	18	LOT 2, SE1/4NW1/4.	Willamette
O&C	Jackson	39S	1W	21	NW1/2SE1/4.	Willamette
O&C	Jackson	39S	1W	22	LOTS 6, 7, 8.	Willamette
O&C	Jackson	39S	1W	27	LOT 1, NE1/4NW1/4, S1/2NW1/4.	Willamette
O&C	Jackson	39S	1W	28	E1/2NE1/4.	Willamette
O&C	Jackson	38S	2W	21	SW1/4SW1/4.	Willamette
O&C	Jackson	38S	2W	23	NE1/4SW1/4, NW1/4SE1/4.	Willamette
O&C	Jackson	38S	2W	26	LOTS 1, 2.	Willamette
O&C	Jackson	38S	2W	27	N1/2N1/2.	Willamette
O&C	Jackson	38S	2W	29	SW1/4SW1/4, SE1/4.	Willamette
O&C	Jackson	38S	2W	31	E1/2NE1/4.	Willamette
PD	Jackson	38S	2W	32	NW1/4NW1/4.	Willamette
O&C	Jackson	39S	2W	1	LOTS 3, 4, SW1/4NE1/4, S1/2NW1/4, NE1/4SW1/4, S1/2SE1/4, NE1/4SE1/4.	Willamette
O&C	Jackson	39S	2W	2	LOTS 1,3,4, SE1/4NE1/4, S1/2NW1/4, W1/2SW1/4, SE1/4SW1/4.	Willamette
O&C	Jackson	39S	2W	3	LOT 5, S1/2NE1/4, SW1/4, W1/2SE1/4.	Willamette
PD	Jackson	39S	2W	4	S1/2SE1/4.	Willamette
O&C	Jackson	39S	2W	5	LOTS 3, 4, 5.	Willamette
O&C	Jackson	39S	2W	9	NE1/4NE1/4, SE1/4SE1/4.	Willamette
O&C	Jackson	39S	2W	10	LOTS 1, 4.	Willamette
O&C	Jackson	39S	2W	11	NE1/4NW1/4.	Willamette
O&C	Jackson	39S	2W	12	SE1/4.	Willamette

O&C	Jackson	39S	2W	15	LOTS 1, 2, NE1/4.	Willamette
O&C	Jackson	39S	2W	21	NW1/4NE1/4, N1/2NW1/4.	Willamette
O&C	Jackson	37S	3W	33	NE1/4, N1/2NW1/4, SE1/4NW1/4, N1/2SE1/4.	Willamette
O&C	Jackson	38S	3W	8	SE1/4SW1/4, SW1/4SE1/4, E1/2SE1/4.	Willamette
O&C	Jackson	38S	3W	9	SE1/4SW1/4.	Willamette
O&C	Jackson	38S	3W	13	LOTS 2, 3, 4, NW1/4, N1/2S1/2.	Willamette
O&C	Jackson	38S	3W	14	SE1/4NE1/4, N1/2SE1/4.	Willamette
O&C	Jackson	38S	3W	16	NW1/4NE1/4, NW1/4.	Willamette
O&C	Jackson	38S	3W	17	NE1/4, E1/2NW1/4, SE1/4, E1/2SW1/4.	Willamette
O&C	Jackson	38S	3W	23	SE1/4SE1/4.	Willamette
O&C	Jackson	38S	3W	26	LOT 5, SW1/4NE1/4.	Willamette
O&C	Jackson	38S	3W	35	LOTS 1, 3, 4.	Willamette
O&C	Jackson	38S	3W	36	S1/2NW1/4, N1/2SW1/4.	Willamette

Species Totals

Species	Net	Gross Merch	Gross	# of Merch Logs	# of Cull Logs	# of Trees
Douglas Fir	11,587.0	12,419.0	12,805.0	185,221	5,727	45,417
White Fir	375.0	409.0	415.0	5,969	162	1,805
Ponderosa Pine	62.0	71.0	73.0	792	100	249
Incense-cedar	3.0	3.0	3.0	83	0	84
Totals	12,027.0	12,902.0	13,296.0	192,065	5,989	47,555

Cutting Area Acres

Regeneration Harvest Acres	Partial Cut Acres	Right of Way Acres	Total Acres	Net Volume per Acre
0.0	702.0	0.0	702.0	17.1

Comments:

*****SEE DEFICIT STUMPAGE WORKSHEET FOR ADJUSTED STUMPAGE VALUES!!!!

Logging Costs

Stump to Truck	\$3,667,849.27
Transportation	\$471,580.14
Road Construction	\$504,857.83
Maintenance/Rockwear	\$66,632.45
Road Use	\$4,054.20
Other Allowances	\$442,290.00
Total:	\$5,157,263.89
Total Logging Cost per MBF:	\$428.81

Utilization Centers

Location	Distance	% of Net Volume
White City/Griffin	17.0 miles	18 %
White City/238	27.0 miles	29 %
White City/Wagner	27.0 miles	30 %
White City/Sterling	21.0 miles	23 %

Profit & Risk

Profit	10 %
Risk	3 %
Total Profit & Risk	13 %

Tract Features

Quadratic Mean DBH	16.3 in
Average GM Log	67 bf
Average Volume per Acre	17.1 mbf
Recovery	90 %
<u>Net MBF volume:</u>	
Green	12,027.0 mbf
Salvage	0 mbf
Export	0 mbf
<u>Ground Base Logging:</u>	
Percent of Sale Volume	7 %
Average Yarding Slope	10 %
Average Yarding Distance	500 ft
<u>Cable Logging:</u>	
Percent of Sale Volume	44 %
Average Yarding Slope	60 %
Average Yarding Distance	600 ft
<u>Aerial Logging:</u>	
Percent of Sale Volume	49 %
Average Yarding Slope	60 %
Average Yarding Distance	2000 ft

Cruise

Cruise Completed	June 2020
Cruised By	Siemer, Parks
Cruise Method	
Variable Plot Cruise using BLM PCMTRE software. 4 strata's were used based on Logging systems and Silvicultural prescriptions.	

Stumpage Computation

Species	# of Trees	Net Volume	Pond Value	(-) Profit & Risk	(-) Logging Costs	(+) Marginal Log Value	Appraised Price/MBF	Appraised Value
Douglas Fir	45,417	11,587.0	\$604.36	\$78.57	\$428.81	\$0.00	\$97.00	\$1,123,939.00
White Fir	1,805	375.0	\$396.17	\$51.50	\$428.81	\$0.00	\$39.70 *	\$14,887.50
Ponderosa Pine	249	62.0	\$371.44	\$48.29	\$428.81	\$0.00	\$37.20 *	\$2,306.40
Incense-cedar	84	3.0	\$452.20	\$58.79	\$428.81	\$0.00	\$45.30 *	\$135.90
Totals	47,555	12,027.0						\$1,141,268.80

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

~~*****~~SEE DEFICIT STUMPAGE WORKSHEET FOR ADJUSTED STUMPAGE VALUES!!!!

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			6.0 %	58.0 %	31.0 %	5.0 %	

Species	Peeler	No. 1 Sawmill	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
White Fir				52.0 %	44.0 %	4.0 %	

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill	No. 6 Sawmill	Camp Run
Ponderosa Pine				63.0 %	35.0 %	2.0 %	

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill	No. 6 Sawmill	Camp Run
Incense-cedar							100.0 %

Bear Grub**Unit Summary****ORM06-TS-2021.0002****Unit: 1-1**

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	249.0	268.0	279.0	1,082
White Fir	12.0	13.0	13.0	72
Ponderosa Pine	2.0	2.0	2.0	9
Incense-cedar	0.1	0.1	0.1	4
Totals:	263.1	283.1	294.1	1,167

Net Volume/Acre: 12.0 MBF

Regeneration Harvest	0.0
Partial Cut	22.0
Right of Way	0.0
Total Acres:	22.0

Unit: 1-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	156.0	167.0	169.0	583
White Fir	3.0	3.0	3.0	5
Totals:	159.0	170.0	172.0	588

Net Volume/Acre: 31.8 MBF

Regeneration Harvest	0.0
Partial Cut	5.0
Right of Way	0.0
Total Acres:	5.0

Unit: 1-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	125.0	133.0	135.0	467
White Fir	2.0	2.0	2.0	4
Totals:	127.0	135.0	137.0	471

Net Volume/Acre: 31.8 MBF

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

Unit: 2-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	147.0	159.0	165.0	639
White Fir	7.0	8.0	8.0	42
Ponderosa Pine	1.0	1.0	1.0	5
Incense-cedar	0.1	0.1	0.1	3
Totals:	155.1	168.1	174.1	689

Net Volume/Acre: 11.9 MBF

Regeneration Harvest	0.0
Partial Cut	13.0
Right of Way	0.0
Total Acres:	13.0

Unit: 2-2A

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	147.0	159.0	165.0	639
White Fir	7.0	8.0	8.0	42
Ponderosa Pine	1.0	1.0	1.0	5
Incense-cedar	0.1	0.1	0.1	3
Totals:	155.1	168.1	174.1	689

Net Volume/Acre: 11.9 MBF

Regeneration Harvest	0.0
Partial Cut	13.0
Right of Way	0.0
Total Acres:	13.0

Unit: 2-2B

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	34.0	37.0	38.0	147
White Fir	2.0	2.0	2.0	10
Ponderosa Pine	0.3	0.3	0.3	1
Incense-cedar	0.1	0.1	0.1	1
Totals:	36.4	39.4	40.4	159

Net Volume/Acre: 12.1 MBF

Regeneration Harvest	0.0
Partial Cut	3.0
Right of Way	0.0
Total Acres:	3.0

Unit: 2-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	96.0	103.0	109.0	374
White Fir	5.0	6.0	6.0	21
Ponderosa Pine	2.0	2.0	2.0	7
Totals:	103.0	111.0	117.0	402

Net Volume/Acre: 14.7 MBF

Regeneration Harvest	0.0
Partial Cut	7.0
Right of Way	0.0
Total Acres:	7.0

Unit: 2-4

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	68.0	73.0	76.0	295
White Fir	3.0	4.0	4.0	20
Ponderosa Pine	0.5	0.6	0.6	2
Incense-cedar	0.1	0.1	0.1	1
Totals:	71.6	77.7	80.7	318

Net Volume/Acre: 11.9 MBF

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

Unit: 3-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	94.0	100.0	102.0	350
White Fir	2.0	2.0	2.0	3
Totals:	96.0	102.0	104.0	353

Net Volume/Acre: 32.0 MBF

Regeneration Harvest	0.0
Partial Cut	3.0
Right of Way	0.0
Total Acres:	3.0

Unit: 3-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	437.0	467.0	474.0	1,634
White Fir	8.0	9.0	9.0	15
Totals:	445.0	476.0	483.0	1,649

Net Volume/Acre: 31.8 MBF

Regeneration Harvest	0.0
Partial Cut	14.0
Right of Way	0.0
Total Acres:	14.0

Unit: 3-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	118.0	125.0	128.0	346
Totals:	118.0	125.0	128.0	346

Net Volume/Acre: 23.6 MBF

Regeneration Harvest	0.0
Partial Cut	5.0
Right of Way	0.0
Total Acres:	5.0

Unit: 3-4

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	317.0	342.0	356.0	1,377
White Fir	15.0	16.0	17.0	91
Ponderosa Pine	3.0	3.0	3.0	11
Incense-cedar	0.1	0.1	0.1	6
Totals:	335.1	361.1	376.1	1,485

Net Volume/Acre: 12.0 MBF

Regeneration Harvest	0.0
Partial Cut	28.0
Right of Way	0.0
Total Acres:	28.0

Unit: 3-5

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	94.0	100.0	103.0	276
Totals:	94.0	100.0	103.0	276

Net Volume/Acre: 23.5 MBF

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

Unit: 3-6

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	181.0	195.0	203.0	787
White Fir	8.0	9.0	10.0	52
Ponderosa Pine	1.0	2.0	2.0	6
Incense-cedar	0.1	0.1	0.1	3
Totals:	190.1	206.1	215.1	848

Net Volume/Acre: 11.9 MBF

Regeneration Harvest	0.0
Partial Cut	16.0
Right of Way	0.0
Total Acres:	16.0

Unit: 3-7

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	204.0	220.0	229.0	885
White Fir	10.0	11.0	11.0	59
Ponderosa Pine	2.0	2.0	2.0	7
Incense-cedar	0.1	0.1	0.1	4
Totals:	216.1	233.1	242.1	955

Net Volume/Acre: 12.0 MBF

Regeneration Harvest	0.0
Partial Cut	18.0
Right of Way	0.0
Total Acres:	18.0

Unit: 5-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	118.0	125.0	128.0	346
Totals:	118.0	125.0	128.0	346

Net Volume/Acre: 23.6 MBF

Regeneration Harvest	0.0
Partial Cut	5.0
Right of Way	0.0
Total Acres:	5.0

Unit: 5-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	71.0	75.0	77.0	207
Totals:	71.0	75.0	77.0	207

Net Volume/Acre: 23.7 MBF

Regeneration Harvest	0.0
Partial Cut	3.0
Right of Way	0.0
Total Acres:	3.0

Unit: 7-1A

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	69.0	74.0	78.0	267
White Fir	4.0	4.0	4.0	15
Ponderosa Pine	1.0	2.0	2.0	5
Totals:	74.0	80.0	84.0	287

Net Volume/Acre: 14.8 MBF

Regeneration Harvest	0.0
Partial Cut	5.0
Right of Way	0.0
Total Acres:	5.0

Unit: 7-1B

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	91.0	98.0	102.0	393
White Fir	4.0	5.0	5.0	26
Ponderosa Pine	0.7	0.8	0.8	3
Incense-cedar	0.1	0.1	0.1	2
Totals:	95.8	103.9	107.9	424

Net Volume/Acre: 12.0 MBF

Regeneration Harvest	0.0
Partial Cut	8.0
Right of Way	0.0
Total Acres:	8.0

Unit: 8-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	181.0	195.0	203.0	787
White Fir	8.0	9.0	10.0	52
Ponderosa Pine	1.0	2.0	2.0	6
Incense-cedar	0.1	0.1	0.1	3
Totals:	190.1	206.1	215.1	848

Net Volume/Acre: 11.9 MBF

Regeneration Harvest	0.0
Partial Cut	16.0
Right of Way	0.0
Total Acres:	16.0

Unit: 8-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	905.0	966.0	982.0	3,384
White Fir	17.0	18.0	18.0	32
Totals:	922.0	984.0	1,000.0	3,416

Net Volume/Acre: 31.8 MBF

Regeneration Harvest	0.0
Partial Cut	29.0
Right of Way	0.0
Total Acres:	29.0

Unit: 9-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	55.0	59.0	62.0	214
White Fir	3.0	3.0	3.0	12
Ponderosa Pine	1.0	1.0	1.0	4
Totals:	59.0	63.0	66.0	230

Net Volume/Acre: 14.8 MBF

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

Unit: 12-1A

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	57.0	61.0	63.0	246
White Fir	3.0	3.0	3.0	16
Ponderosa Pine	0.5	1.0	1.0	2
Incense-cedar	0.1	0.1	0.1	1
Totals:	60.6	65.1	67.1	265

Net Volume/Acre: 12.1 MBF

Regeneration Harvest	0.0
Partial Cut	5.0
Right of Way	0.0
Total Acres:	5.0

Unit: 12-1B

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	306.0	329.0	343.0	1,327
White Fir	14.0	14.4	14.4	88
Ponderosa Pine	2.0	3.0	3.0	11
Incense-cedar	0.1	0.1	0.1	5
Totals:	322.1	346.5	360.5	1,431

Net Volume/Acre: 11.9 MBF

Regeneration Harvest	0.0
Partial Cut	27.0
Right of Way	0.0
Total Acres:	27.0

Unit: 13-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	215.0	232.0	241.0	934
White Fir	11.0	11.0	11.0	62
Ponderosa Pine	2.0	2.0	2.0	7
Incense-cedar	0.1	0.1	0.1	4
Totals:	228.1	245.1	254.1	1,007

Net Volume/Acre: 12.0 MBF

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

Unit: 13-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	79.0	85.0	89.0	344
White Fir	4.0	4.0	4.0	23
Ponderosa Pine	1.0	1.0	1.0	3
Incense-cedar	0.1	0.1	0.1	1
Totals:	84.1	90.1	94.1	371

Net Volume/Acre: 12.0 MBF

Regeneration Harvest	0.0
Partial Cut	7.0
Right of Way	0.0
Total Acres:	7.0

Unit: 13-5

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	47.0	50.0	51.0	138
Totals:	47.0	50.0	51.0	138

Net Volume/Acre: 23.5 MBF

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

Unit: 13-6

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	165.0	175.0	179.0	484
Totals:	165.0	175.0	179.0	484

Net Volume/Acre: 23.6 MBF

Regeneration Harvest	0.0
Partial Cut	7.0
Right of Way	0.0
Total Acres:	7.0

Unit: 13-7

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	71.0	75.0	77.0	207
Totals:	71.0	75.0	77.0	207

Net Volume/Acre: 23.7 MBF

Regeneration Harvest	0.0
Partial Cut	3.0
Right of Way	0.0
Total Acres:	3.0

Unit: 13-10

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	91.0	98.0	102.0	393
White Fir	4.0	5.0	5.0	26
Ponderosa Pine	1.0	1.0	1.0	3
Incense-cedar	0.1	0.1	0.1	2
Totals:	96.1	104.1	108.1	424

Net Volume/Acre: 12.0 MBF

Regeneration Harvest	0.0
Partial Cut	8.0
Right of Way	0.0
Total Acres:	8.0

Unit: 14-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	94.0	100.0	103.0	276
Totals:	94.0	100.0	103.0	276

Net Volume/Acre: 23.5 MBF

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

Unit: 15-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	47.0	50.0	51.0	138
Totals:	47.0	50.0	51.0	138

Net Volume/Acre: 23.5 MBF

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

Unit: 15-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	94.0	100.0	103.0	276
Totals:	94.0	100.0	103.0	276

Net Volume/Acre: 23.5 MBF

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

Unit: 16-2A

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	28.0	30.0	31.0	107
White Fir	2.0	2.0	2.0	6
Ponderosa Pine	1.0	1.0	1.0	2
Totals:	31.0	33.0	34.0	115

Net Volume/Acre: 15.5 MBF

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

Unit: 16-2B

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	138.0	148.0	156.0	534
White Fir	8.0	9.0	9.0	31
Ponderosa Pine	3.0	3.0	3.0	9
Totals:	149.0	160.0	168.0	574

Net Volume/Acre: 14.9 MBF

Regeneration Harvest	0.0
Partial Cut	10.0
Right of Way	0.0
Total Acres:	10.0

Unit: 16-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	79.0	85.0	89.0	344
White Fir	4.0	4.0	4.0	23
Ponderosa Pine	1.0	1.0	1.0	3
Incense-cedar	0.1	0.1	0.1	1
Totals:	84.1	90.1	94.1	371

Net Volume/Acre: 12.0 MBF

Regeneration Harvest	0.0
Partial Cut	7.0
Right of Way	0.0
Total Acres:	7.0

Unit: 17-1A

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	71.0	75.0	77.0	207
Totals:	71.0	75.0	77.0	207

Net Volume/Acre: 23.7 MBF

Regeneration Harvest	0.0
Partial Cut	3.0
Right of Way	0.0
Total Acres:	3.0

Unit: 17-1B

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	94.0	100.0	102.0	350
White Fir	2.0	2.0	2.0	3
Totals:	96.0	102.0	104.0	353

Net Volume/Acre: 32.0 MBF

Regeneration Harvest	0.0
Partial Cut	3.0
Right of Way	0.0
Total Acres:	3.0

Unit: 17-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	187.0	200.0	203.0	700
White Fir	3.0	4.0	4.0	7
Totals:	190.0	204.0	207.0	707

Net Volume/Acre: 31.7 MBF

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

Unit: 17-7A

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	248.0	266.0	281.0	961
White Fir	14.0	15.0	16.0	55
Ponderosa Pine	5.0	5.0	6.0	17
Totals:	267.0	286.0	303.0	1,033

Net Volume/Acre: 14.8 MBF

Regeneration Harvest	0.0
Partial Cut	18.0
Right of Way	0.0
Total Acres:	18.0

Unit: 17-7B

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	113.0	122.0	127.0	492
White Fir	5.0	6.0	6.0	33
Ponderosa Pine	1.0	1.0	1.0	4
Incense-cedar	0.1	0.1	0.1	2
Totals:	119.1	129.1	134.1	531

Net Volume/Acre: 11.9 MBF

Regeneration Harvest	0.0
Partial Cut	10.0
Right of Way	0.0
Total Acres:	10.0

Unit: 17-8

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	96.0	103.0	109.0	374
White Fir	5.0	6.0	6.0	21
Ponderosa Pine	2.0	2.0	2.0	7
Totals:	103.0	111.0	117.0	402

Net Volume/Acre: 14.7 MBF

Regeneration Harvest	0.0
Partial Cut	7.0
Right of Way	0.0
Total Acres:	7.0

Unit: 18-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	260.0	281.0	292.0	1,131
White Fir	12.0	12.0	12.0	75
Ponderosa Pine	2.0	2.0	2.0	9
Incense-cedar	0.1	0.1	0.1	5
Totals:	274.1	295.1	306.1	1,220

Net Volume/Acre: 11.9 MBF

Regeneration Harvest	0.0
Partial Cut	23.0
Right of Way	0.0
Total Acres:	23.0

Unit: 21-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	94.0	100.0	103.0	276
Totals:	94.0	100.0	103.0	276

Net Volume/Acre: 23.5 MBF

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

Unit: 21-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	343.0	367.0	372.0	1,284
White Fir	6.0	7.0	7.0	12
Totals:	349.0	374.0	379.0	1,296

Net Volume/Acre: 31.7 MBF

Regeneration Harvest	0.0
Partial Cut	11.0
Right of Way	0.0
Total Acres:	11.0

Unit: 21-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	499.0	533.0	542.0	1,867
White Fir	9.0	10.0	10.0	18
Totals:	508.0	543.0	552.0	1,885

Net Volume/Acre: 31.8 MBF

Regeneration Harvest	0.0
Partial Cut	16.0
Right of Way	0.0
Total Acres:	16.0

Unit: 22-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	151.0	163.0	171.0	587
White Fir	9.0	9.0	10.0	34
Ponderosa Pine	3.0	3.0	4.0	10
Totals:	163.0	175.0	185.0	631

Net Volume/Acre: 14.8 MBF

Regeneration Harvest	0.0
Partial Cut	11.0
Right of Way	0.0
Total Acres:	11.0

Unit: 22-4

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	79.0	85.0	89.0	344
White Fir	4.0	4.0	4.0	23
Ponderosa Pine	0.6	0.7	0.7	3
Incense-cedar	0.1	0.1	0.1	1
Totals:	83.7	89.8	93.8	371

Net Volume/Acre: 12.0 MBF

Regeneration Harvest	0.0
Partial Cut	7.0
Right of Way	0.0
Total Acres:	7.0

Unit: 23-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	31.0	33.0	34.0	117
White Fir	0.6	0.6	0.6	1
Totals:	31.6	33.6	34.6	118

Net Volume/Acre: 31.6 MBF

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

Unit: 23-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	62.0	67.0	68.0	233
White Fir	1.0	1.0	1.0	2
Totals:	63.0	68.0	69.0	235

Net Volume/Acre: 31.5 MBF

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

Unit: 23-3A

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	283.0	305.0	317.0	1,229
White Fir	13.0	15.0	15.0	82
Ponderosa Pine	2.0	3.0	3.0	10
Incense-cedar	0.1	0.1	0.1	5
Totals:	298.1	323.1	335.1	1,326

Net Volume/Acre: 11.9 MBF

Regeneration Harvest	0.0
Partial Cut	25.0
Right of Way	0.0
Total Acres:	25.0

Unit: 23-3B

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	91.0	98.0	102.0	393
White Fir	4.0	5.0	5.0	26
Ponderosa Pine	0.7	0.8	0.8	3
Incense-cedar	0.1	0.1	0.1	2
Totals:	95.8	103.9	107.9	424

Net Volume/Acre: 12.0 MBF

Regeneration Harvest	0.0
Partial Cut	8.0
Right of Way	0.0
Total Acres:	8.0

Unit: 26-3A

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	47.0	50.0	51.0	138
Totals:	47.0	50.0	51.0	138

Net Volume/Acre: 23.5 MBF

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

Unit: 26-3B

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	125.0	133.0	135.0	467
White Fir	2.0	2.0	2.0	4
Totals:	127.0	135.0	137.0	471

Net Volume/Acre: 31.8 MBF

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

Unit: 27-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	23.0	24.0	25.0	98
White Fir	1.0	1.0	1.0	7
Ponderosa Pine	0.2	0.2	0.2	1
Totals:	24.2	25.2	26.2	106

Net Volume/Acre: 12.1 MBF

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

Unit: 27-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	79.0	85.0	89.0	344
White Fir	4.0	4.0	4.0	23
Ponderosa Pine	0.6	0.7	0.7	3
Totals:	83.6	89.7	93.7	370

Net Volume/Acre: 11.9 MBF

Regeneration Harvest	0.0
Partial Cut	7.0
Right of Way	0.0
Total Acres:	7.0

Unit: 27-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	68.0	73.0	76.0	295
White Fir	3.0	4.0	4.0	20
Ponderosa Pine	0.5	0.6	0.6	2
Totals:	71.5	77.6	80.6	317

Net Volume/Acre: 11.9 MBF

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

Unit: 27-4

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	68.0	73.0	76.0	295
White Fir	3.0	4.0	4.0	20
Ponderosa Pine	0.5	0.6	0.6	2
Totals:	71.5	77.6	80.6	317

Net Volume/Acre: 11.9 MBF

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

Unit: 27-5

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	170.0	183.0	190.0	737
White Fir	8.0	9.0	9.0	49
Ponderosa Pine	1.0	2.0	2.0	6
Totals:	179.0	194.0	201.0	792

Net Volume/Acre: 11.9 MBF

Regeneration Harvest	0.0
Partial Cut	15.0
Right of Way	0.0
Total Acres:	15.0

Unit: 27-6

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	34.0	37.0	38.0	147
White Fir	2.0	2.0	2.0	10
Ponderosa Pine	0.3	0.3	0.3	1
Incense-cedar	0.1	0.1	0.1	7
Totals:	36.4	39.4	40.4	165

Net Volume/Acre: 12.1 MBF

Regeneration Harvest	0.0
Partial Cut	3.0
Right of Way	0.0
Total Acres:	3.0

Unit: 27-7

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	372.0	399.0	421.0	1,442
White Fir	21.0	23.0	23.0	83
Ponderosa Pine	6.1	6.8	6.7	23
Totals:	399.1	428.8	450.7	1,548

Net Volume/Acre: 14.8 MBF

Regeneration Harvest	0.0
Partial Cut	27.0
Right of Way	0.0
Total Acres:	27.0

Unit: 27-8

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	45.0	49.0	51.0	197
White Fir	2.0	2.0	2.0	13
Ponderosa Pine	0.4	0.4	0.4	2
Incense-cedar	0.1	0.1	0.1	1
Totals:	47.5	51.5	53.5	213

Net Volume/Acre: 11.9 MBF

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

Unit: 27-9

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	47.0	50.0	51.0	138
Totals:	47.0	50.0	51.0	138

Net Volume/Acre: 23.5 MBF

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

Unit: 29-5A

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	79.0	85.0	89.0	344
White Fir	4.0	4.0	4.0	23
Ponderosa Pine	0.6	0.7	0.7	3
Incense-cedar	0.1	0.1	0.1	1
Totals:	83.7	89.8	93.8	371

Net Volume/Acre: 12.0 MBF

Regeneration Harvest	0.0
Partial Cut	7.0
Right of Way	0.0
Total Acres:	7.0

Unit: 29-5B

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	126.0	135.0	139.0	544
White Fir	5.4	6.0	7.0	38
Ponderosa Pine	1.0	1.0	1.0	4
Incense-cedar	0.1	0.1	0.1	2
Totals:	132.5	142.1	147.1	588

Net Volume/Acre: 12.0 MBF

Regeneration Harvest	0.0
Partial Cut	11.0
Right of Way	0.0
Total Acres:	11.0

Unit: 32-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	34.0	37.0	38.0	147
White Fir	2.0	2.0	2.0	10
Ponderosa Pine	0.3	0.3	0.3	1
Incense-cedar	0.1	0.1	0.1	1
Totals:	36.4	39.4	40.4	159

Net Volume/Acre: 12.1 MBF

Regeneration Harvest	0.0
Partial Cut	3.0
Right of Way	0.0
Total Acres:	3.0

Unit: 32-2A

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	102.0	110.0	114.0	442
White Fir	5.0	5.0	5.0	29
Ponderosa Pine	0.8	0.8	0.9	4
Incense-cedar	0.1	0.1	0.1	2
Totals:	107.9	115.9	120.0	477

Net Volume/Acre: 12.0 MBF

Regeneration Harvest	0.0
Partial Cut	9.0
Right of Way	0.0
Total Acres:	9.0

Unit: 32-2B

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	45.0	49.0	51.0	197
White Fir	2.0	2.0	2.0	13
Ponderosa Pine	0.4	0.4	0.4	2
Incense-cedar	0.1	0.1	0.1	1
Totals:	47.5	51.5	53.5	213

Net Volume/Acre: 11.9 MBF

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

Unit: 32-2C

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	192.0	207.0	216.0	836
White Fir	9.0	10.0	10.0	55
Ponderosa Pine	2.0	2.0	2.0	7
Incense-cedar	0.1	0.1	0.1	3
Totals:	203.1	219.1	228.1	901

Net Volume/Acre: 11.9 MBF

Regeneration Harvest	0.0
Partial Cut	17.0
Right of Way	0.0
Total Acres:	17.0

Unit: 33-6A

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	874.0	933.0	948.0	3,267
White Fir	16.0	17.0	17.0	31
Totals:	890.0	950.0	965.0	3,298

Net Volume/Acre: 31.8 MBF

Regeneration Harvest	0.0
Partial Cut	28.0
Right of Way	0.0
Total Acres:	28.0

Unit: 33-6B

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	419.0	451.0	470.0	1,819
White Fir	20.0	22.0	22.0	121
Ponderosa Pine	3.0	4.0	4.0	14
Incense-cedar	0.1	0.1	0.1	7
Totals:	442.1	477.1	496.1	1,961

Net Volume/Acre: 11.9 MBF

Regeneration Harvest	0.0
Partial Cut	37.0
Right of Way	0.0
Total Acres:	37.0

Unit: 36-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	125.0	133.0	135.0	467
White Fir	2.0	2.0	2.0	4
Totals:	127.0	135.0	137.0	471

Net Volume/Acre: 31.8 MBF

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

Unit: 36-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	343.0	367.0	372.0	1,284
White Fir	6.0	7.0	7.0	12
Totals:	349.0	374.0	379.0	1,296

Net Volume/Acre: 31.7 MBF

Regeneration Harvest	0.0
Partial Cut	11.0
Right of Way	0.0
Total Acres:	11.0

Comments:

Rounded volumes in multiple units for balance sheet; particularly IC, and dropped decimal volumes for summary.

Total Stump To Truck	Net Volume	\$/MBF
\$3,667,849.27	12,027.0	\$304.97

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

Yarding System	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Helicopter	GM MBF	6,234.0	\$427.06	\$2,662,292.04	Type II Heli. Est 48 days of operations
Cable: Medium Yarder	GM MBF	5,709.0	\$152.12	\$868,453.08	40' tower
Track Skidder	GM MBF	959.0	\$99.70	\$95,612.30	
Subtotal				\$3,626,357.42	

Additional Costs

Item	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Additional Cat Time	Day	15.0	\$450.00	\$6,750.00	Iron anchor @ 6hrs/day x \$75Hr.
Intermediate Support	Each	20.0	\$250.00	\$5,000.00	Terrain settings require supports
Lift Tree	Each	20.0	\$150.00	\$3,000.00	Climbing and hanging Tail hold
Directional Felling	MBF	645.0	\$13.33	\$8,597.85	
Subtotal				\$23,347.85	

Additional Moves

Equipment	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Cable: Small Yarder	Each	9.0	\$804.00	\$7,236.00	80k Lowboy required to multiple locations.(6 hrs each)
Loader	Each	14.0	\$642.00	\$8,988.00	50k Lowboy all units (6 hrs each)
Track Skidder	Each	5.0	\$384.00	\$1,920.00	30k Lowboy Cat units (6hrs each)
Subtotal				\$18,144.00	

Comments:

Tail hold costs include additional time for Private land proximity and locating viable holds in units. Move ins for Heli accounted for under Heli cost. Directional felling cost for large number of units, their small acreage and boundaries.

Total	Net Volume	\$/MBF
\$471,580.14	12,027.0	\$39.21

Utilization Center	One Way Mileage	Description	Unit of Measure	# of Units	\$/Unit of Measure	Total Cost	% of Sale Volume
White City/Wagner	27.0	Wagner Creek	GM MBF	2,620.0	\$40.83	\$106,974.60	30 %
White City/238	27.0	Hwy 238	GM MBF	4,050.0	\$39.94	\$161,757.00	29 %
White City/Sterling	21.0	Sterling Creek	GM MBF	2,670.0	\$34.59	\$92,355.30	23 %
White City/Griffin	17.0	Griffin Creek	GM MBF	3,562.0	\$31.02	\$110,493.24	18 %

Comments:

Four separate mileage calculations were used for different haul routes to the nearest rail head.

Engineering Allowances

Total	Net Volume	\$/MBF
\$575,544.48	12,027.0	\$47.85

Cost Item	Total Cost
Road Construction:	\$504,857.83
Road Maintenance/Rockwear:	\$66,632.45
Road Use Fees:	\$4,054.20

Comments:

See engineering appraisal for details

Total	Net Volume	\$/MBF
\$442,290.00	12,027.0	\$36.77

Environmental Protection

Cost item	Total Cost
Water bars Cable(by hand)E2	\$3,200.00
Water bars Cat E2	\$2,400.00
Equipment Washing	\$3,330.00
Seed and Mulch	\$13,600.00
Subtotal	\$22,530.00

Logging

Cost item	Total Cost
Landing Clean up, pile	\$3,000.00
Flaggers	\$1,200.00
Landing Construction Cat	\$2,100.00
Landing Construction Cable	\$6,300.00
Subtotal	\$12,600.00

Slash Disposal & Site Prep

Cost item	Total Cost
Hand Pile,cover and burn	\$407,160.00
Subtotal	\$407,160.00

Comments:

Seed and Mulch Landings and skid approaches. H20 bar skids in Cat units and by hand on cable units with gouging.

Sale: Bear Grub TS
 Sale Date: 2020
 Prep. By : JoshR
 Tract No: ORM06.2021.0002

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

ROAD MAINTENANCE AND ROAD USE APPRAISAL WORK SHEET

Summary of Costs

1.1) Road Use - Amortization: \$4,054.20/12025 MBF = \$0.34/MBF

Road Maintenance Obligation:

(2.1) BLM Maintenance		\$27,285.08
(2.2) BLM Rockwear	\$16,742.10	
(5.1) Purchaser Maintenance Rockwear	<u>\$0.00</u>	
Total Rockwear Payable to BLM		\$16,742.10
(3.1) 3rd Party Maintenance		\$0.00
(3.2) 3rd Party Rockwear		\$391.39
(4.1) Other Maintenance Payments		\$0.00
Total Maintenance Fee Obligation (2.1-5.1)		<u>\$44,418.57</u>

Purchaser Maintenance Allowances:

(5.2A) Move In		\$582.12
(5.2B) Culverts, Catch Basins, Downspouts		\$693.85
(5.2C) Grading, Ditching		\$6,095.95
(5.2D) Slide Removal and Slump Repair		\$0.00
(5.2E) Dust Palliative (Water)		\$5,986.50
(5.2F) Surface Repair (Aggregate)		\$0.00
(5.2G) Other		\$0.00
Total Purchaser Maintenance Allowances (5.2A-5.2G)		<u>\$13,358.42</u>

(2.1-5.2G) Cost (\$44,418.57 + \$13,358.42) = \$57,776.99
 Cost/MBF \$57,776.99 / 12025 MBF = \$4.80/MBF \$4.80/MBF

(5.2H) Decommissioning \$8,855.46

(5.2H) Cost/MBF \$8,855.46/12025 MBF = \$0.74/MBF

(2.1-5.2H) Cost (\$44,418.57 + \$13,358.42 + \$8,855.46) = \$66,632.45

Total Cost/MBF (Excluding Road Use) \$66,632.45/12025 MBF = \$5.54/MBF

1) Road Use Fees - Amortization

Details

R/W	Rd Use	Vol	Road Use
Number	Road Number	Fee x MBF =	Obligation
M-660	NS 38-2-23.00 A	6.66 394	\$2,624.04
M-660	NS 38-2-23.00 B	2.24 209	\$468.16
M-660	NS 38-2-23.01	5.20 185	\$962.00

Subtotal by agreement number
M-660

\$4,054.20

(1.1) Subtotal \$4,054.20

2) BLM Maintenance - Timber Haul

Road Number and Segment	MAINTENANCE (2.1)				ROCKWEAR (2.2)			
	A Surf N Type	Mi	Maint x Fee x	Vol MBF =	Maint	Fee x MBF =	Rkwear	
38-2W-18.00	N AGG	0.89	0.99	19	\$16.74	0.73 19	\$12.34	
38-2W-18.00	N AGG	0.94	0.99	764	\$710.98	0.73 764	\$524.26	
38-2W-21.00	A AGG	0.94	0.76	94	\$67.15	0.73 94	\$64.50	
38-2W-21.00	A AGG	2.05	0.76	215	\$334.97	0.73 215	\$321.75	
38-2W-24.00	A BST	0.97	0.92	394	\$351.61	0.00 394	\$0.00	
38-2W-24.00	A BST	1.66	0.92	615	\$939.23	0.00 615	\$0.00	
38-2W-24.00	A BST	2.06	0.92	1350	\$2,558.52	0.00 1350	\$0.00	
38-2W-24.00	A BST	3.98	0.92	951	\$3,482.18	0.00 951	\$0.00	
38-2W-24.00	A AGG	1.00	0.76	127	\$96.52	0.73 127	\$92.71	
38-2W-24.00	A AGG	1.32	0.76	155	\$155.50	0.73 155	\$149.36	
38-2W-24.00	A AGG	1.93	0.76	159	\$233.22	0.73 159	\$224.02	
38-2W-24.00	A AGG	1.11	0.76	275	\$231.99	0.73 275	\$222.83	
38-2W-24.00	A AGG	1.77	0.76	645	\$867.65	0.73 645	\$833.40	
38-2W-26.00	A AGG	3.15	0.76	72	\$172.37	0.73 72	\$165.56	
38-2W-26.00	A AGG	3.50	0.76	167	\$444.22	0.73 167	\$426.69	
38-2W-26.00	A AGG	3.83	0.76	167	\$486.10	0.73 167	\$466.92	
38-2W-26.00	A AGG	4.15	0.76	94	\$296.48	0.73 94	\$284.77	
38-2W-26.00	A AGG	4.28	0.76	31	\$100.84	0.73 31	\$96.86	
38-2W-26.00	A AGG	4.75	0.76	658	\$2,375.38	0.73 658	\$2,281.62	
38-2W-26.00	A AGG	5.40	0.76	161	\$660.74	0.73 161	\$634.66	
38-2W-27.02	N AGG	0.33	0.99	400	\$130.68	0.73 400	\$96.36	
38-2W-27.02	N AGG	0.75	0.99	36	\$26.73	0.73 36	\$19.71	
38-2W-27.02	N AGG	1.24	0.99	179	\$219.74	0.73 179	\$162.03	
38-2W-29.00	A BST	0.29	0.92	48	\$12.81	0.00 48	\$0.00	
38-2W-29.00	A BST	0.41	0.92	108	\$40.74	0.00 108	\$0.00	
38-2W-29.00	A BST	0.54	0.92	142	\$70.55	0.00 142	\$0.00	
38-2W-29.00	A BST	0.71	0.92	286	\$186.82	0.00 286	\$0.00	
38-2W-31.00	A AGG	0.13	0.76	61	\$6.03	0.73 61	\$5.79	
38-2W-31.00	A AGG	0.27	0.76	36	\$7.39	0.73 36	\$7.10	
38-2W-31.00	A AGG	1.89	0.76	71	\$101.98	0.73 71	\$97.96	
38-2W-31.00	A AGG	3.01	0.76	118	\$269.94	0.73 118	\$259.28	
38-3W-10.00	A AGG	2.60	0.76	890	\$1,758.64	0.73 890	\$1,689.22	
38-3W-10.00	A AGG	3.06	0.76	358	\$832.56	0.73 358	\$799.70	
38-3W-10.00	A AGG	3.31	0.76	84	\$211.31	0.73 84	\$202.97	
38-3W-16.00	A AGG	0.32	0.76	1278	\$310.81	0.73 1278	\$298.54	
38-3W-16.00	A AGG	0.70	0.76	321	\$170.77	0.73 321	\$164.03	
38-3W-16.00	A AGG	1.17	0.76	191	\$169.84	0.73 191	\$163.13	
38-3W-16.01	A AGG	0.42	0.76	1278	\$407.94	0.73 1278	\$391.83	
38-3W-23.00	A BST	0.77	0.92	746	\$528.47	0.00 746	\$0.00	
38-3W-23.01	A BST	0.39	0.92	95	\$34.09	0.00 95	\$0.00	
38-3W-23.01	A BST	1.37	0.92	651	\$820.52	0.00 651	\$0.00	
38-3W-26.01	A AGG	0.93	0.76	350	\$247.38	0.73 350	\$237.62	
38-3W-26.01	A AGG	2.29	0.76	127	\$221.03	0.73 127	\$212.31	
39-1W-18.00	A AGG	1.19	0.76	386	\$349.10	0.73 386	\$335.32	
39-1W-18.00	A AGG	3.02	0.76	632	\$1,450.57	0.73 632	\$1,393.31	

39-1W-18.00	A	AGG	2.05	0.76	202	\$314.72	0.73	202	\$302.29
39-1W-18.00	A	AGG	0.92	0.76	108	\$75.51	0.73	108	\$72.53
39-1W-21.02	A	AGG	0.52	0.76	84	\$33.20	0.73	84	\$31.89
39-1W-21.02	A	AGG	1.27	0.76	47	\$45.36	0.73	47	\$43.57
39-1W-21.02	A	AGG	1.49	0.76	72	\$81.53	0.73	72	\$78.31
39-1W-21.03	A	AGG	1.46	0.76	632	\$701.27	0.73	632	\$673.59
39-1W-22.01	A	AGG	0.83	0.76	24	\$15.14	0.73	24	\$14.54
39-1W-22.01	A	AGG	1.04	0.76	84	\$66.39	0.73	84	\$63.77
39-2W-3.02	A	AGG	0.98	0.76	72	\$53.63	0.73	72	\$51.51
39-2W-8.00	A	BST	0.28	0.92	650	\$167.44	0.00	650	\$0.00
39-2W-8.00	A	AGG	2.10	0.76	47	\$75.01	0.73	47	\$72.05
39-2W-8.00	A	AGG	4.00	0.76	94	\$285.76	0.73	94	\$274.48
39-2W-8.00	A	AGG	0.93	0.76	104	\$73.51	0.73	104	\$70.61
39-2W-8.00	A	AGG	1.44	0.76	215	\$235.30	0.73	215	\$226.01
39-2W-8.00	A	AGG	1.95	0.76	155	\$229.71	0.73	155	\$220.64
39-2W-8.00	A	AGG	2.50	0.76	36	\$68.40	0.73	36	\$65.70
39-2W-12.00	A	AGG	1.38	0.76	263	\$275.83	0.73	263	\$264.95
39-2W-12.00	A	AGG	0.22	0.76	382	\$63.87	0.73	382	\$61.35
39-2W-15.00	A	AGG	0.70	0.76	508	\$270.26	0.73	508	\$259.59
39-2W-17.00	A	AGG	0.70	0.76	508	\$270.26	0.73	508	\$259.59
39-2W-17.00	N	AGG	0.80	0.99	508	\$402.34	0.73	508	\$296.67
39-2W-17.00	N	AGG	0.62	0.99	508	\$311.81	0.00	508	\$0.00

(2.1) Subtotal \$27,285.08

(2.2) Subtotal \$16,742.10

3) Third Party Maintenance and Rockwear

Agrmnt Number	Surface Type	MAINTENANCE (3.1)				ROCKWEAR (3.2)		
		Road Number	Mi	x Fee	x MBF =	Maint	Fee x MBF =	Rkwear
M-660	NAT	NS 38-2-23.01	0.15			0.00	185	\$0.00
M-660	AGG	NS 38-2-23.00 B	0.21			0.73	209	\$32.04
M-660	AGG	NS 38-2-23.00 A	0.45			0.73	394	\$129.43
M-660	AGG	39-2-17.00 B1	0.62			0.73	508	\$229.92

Subtotal of maintenance fees by agreement number:

Subtotal of rockwear fees by agreement number:

M-660 \$391.39

(3.1) Subtotal \$0.00

(3.2) Subtotal \$391.39

4) Other Maintenance Payments - USFS or Others Perform Maintenance

Agency	Road Number	Miles (Log)	Vol x (mbf)	Fee x MBF/MI =	Cost
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(4.1) Subtotal \$0.00

5) Purchaser Maintenance - Rock Wear

TIMBER HAUL (5.1)

Road No and Segment	A	RkWear Mi	Vol x Fee	Total x MBF = RkWear
37-3W-33.00	A	0.37	0.00	84 \$0.00
38-3W-13.00	N	0.16	0.00	147 \$0.00

38-3W-13.01	N	0.18	0.00	147	\$0.00
38-3W-13.01	N	0.56	0.00	91	\$0.00
38-3W-13.01	N	0.84	0.00	46	\$0.00
38-3W-13.01	N	1.35	0.00	47	\$0.00
38-3W-13.02	N	0.13	0.00	74	\$0.00
38-3W-13.02	N	0.58	0.00	38	\$0.00
38-3W-13.02	N	1.11	0.00	94	\$0.00
38-3W-13.03	N	0.27	0.00	147	\$0.00
39-1W-21.03	A	0.27	0.00	72	\$0.00
39-2W-1.00	A	0.24	0.00	89	\$0.00
39-2W-1.00	A	0.49	0.00	116	\$0.00
39-2W-12.00	A	0.45	0.00	58	\$0.00
39-2W-12.01	A	0.49	0.00	195	\$0.00
NS 38-2W-23.00	N	0.66	0.00	394	\$0.00
NC 38-2W-23.01	N	0.25	0.00	185	\$0.00
38-2W-18.00	N	0.87	0.00	227	\$0.00
38-2W-18.00	N	0.26	0.00	206	\$0.00
Anderson Creek	A	3.31	0.00	1359	\$0.00
39-1W-21.03	A	0.57	0.00	48	\$0.00

(5.1) Subtotal \$0.00

Purchaser Operational Maintenance

Move In

Equipment	No	Move	Cost/	Dist	Sub-	
	Units	x	in	x	50 Mi	x Factor = total
Motor Grader:	1	1		\$414.00	0.63	\$260.82
Back Hoe:				\$308.00	0.63	\$0.00
Loader:				\$414.00	0.63	\$0.00
Water Truck:	1	1		\$96.00	0.63	\$60.48
Dump Truck:				\$91.00	0.63	\$0.00
Excavator:				\$414.00	0.63	\$0.00
Roller:	1	1		\$414.00	0.63	\$260.82

(5.2A) Total \$582.12

Culvert Maintenance - Including Catch basins and Downpipes

		<u>Miles x Cost/Mi = Subtotal</u>
1.81	\$383.34	\$693.85

(5.2B) Total \$693.85

Grading (Includes Ditches and Shoulders)

	<u>Miles x Cost/Mi x Freq = Subtotal</u>
Blade w/ Ditch:	4.89 \$708.54 1 \$3,464.76
Blade w/o Ditch:	6.06 \$434.19 1 \$2,631.19

(5.2C) Total \$6,095.95

Slide and Slough removal, Slump Repair (15 sta-yds. ea.)

Type	No Slides	Hours	Equip	
Equipment	/Slumps	x Each	x Cost	= Subtotal
Grader:	0	0	\$142.72	\$0.00
Loader:	0	0	\$102.93	\$0.00
Backhoe:	0	0	\$87.60	\$0.00

(5.2D) Total \$0.00

Dust Palliative (Water)

Spreading Hours

No Miles	Freq / MPH	Truck = Hours	x Days	x /Day	= Hours
2.50	5	0.5	15	2	15

Load & Haul =	1.0	15	2	30
Return trip =	1.0	15	2	30
Total Hours =	75			

Truck Cost: \$79.82/Hr. x 75.0 Hours = \$5,986.50

(5.2E) Total \$5,986.50

Surface Repair (Aggregate)

(5.2F) Total \$0.00

Other

Fallen Timber Cutting:	0.0 Hours x \$0.00/Hour	= \$0.00
Brush Cutting/Tree Trimming:	0.0 Hours x \$0.00/Hour	= \$0.00
Oil/Asphalt Materials:	Lump Sum	= \$0.00
Signing for Dust Palliatives:	Lump Sum	= \$0.00
	Lump Sum	= \$0.00

(5.2G) Total \$0.00

Decommissioning

Ripping

Road Number	Ripping Cost	x	(NumSta or CuYds)	= Total
TR 17-7	\$30.70	x	7.39	= \$226.87
TR 12-1	\$30.70	x	12.67	= \$388.97
TR 27-5	\$30.70	x	7.92	= \$243.14

(Ripping) Total \$858.99

Other Costs

Road Number	Cubic Yds Pullback Material	Qty Waterbars	Qty Earthen Barriers	= Total
37-3W-33.00	(0x\$1.80)	+ (9x\$55.93)	+ (1x\$167.80)	= \$671.17
38-3W-13.00	(0x\$1.80)	+ (4x\$55.93)	+ (1x\$167.80)	= \$391.52
38-3W-13.01	(0x\$1.80)	+ (35x\$55.93)	+ (1x\$167.80)	= \$2,125.35
38-3W-13.02	(0x\$1.80)	+ (35x\$55.93)	+ (1x\$167.80)	= \$2,125.35
38-3W-13.03	(0x\$1.80)	+ (7x\$55.93)	+ (0x\$167.80)	= \$391.51
TR 17-7	(0x\$1.80)	+ (3x\$55.93)	+ (1x\$167.80)	= \$335.59
TR 12-1	(0x\$1.80)	+ (6x\$55.93)	+ (1x\$167.80)	= \$503.38
TR 27-5	(0x\$1.80)	+ (4x\$55.93)	+ (1x\$167.80)	= \$391.52

(Other Cost) Total \$6,935.39

Time & Equipment

37-3W-33.00	Camouflage Entrance:	1 EA @ \$75.00/EA	= \$75.00
38-3W-13.00	Camouflage Entrance:	1 EA @ \$75.00/EA	= \$75.00
38-3W-13.01	Camouflage Entrance:	1 EA @ \$75.00/EA	= \$75.00

38-3W-13.02 Camouflage Entrance: 1 EA @ \$75.00/EA	= \$75.00
TR 17-7 Camouflage Entrance: 1 EA @ \$75.00/EA	= \$75.00
TR 17-7 Seed and Mulch: 0.24 AC @ \$595.65/AC	= \$142.96
TR 12-1 Camouflage Entrance: 1 EA @ \$75.00/EA	= \$75.00
TR 12-1 Seed and Mulch: 0.41 AC @ \$595.65/AC	= \$244.22
TR 27-5 Camouflage Entrance: 1 EA @ \$75.00/EA	= \$75.00
TR 27-5 Seed and Mulch: 0.25 AC @ \$595.65/AC	= \$148.91

(5.2H) Decommissioning Total \$8,855.46

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

Contract No.: ORM06-TS-2021.0002
Sale Name: Bear Grub
**Issuing Office: Ashland Field Office
Medford District**

**EXHIBIT B
SCALE SALE
PURCHASE PRICE SCHEDULE AND MEASUREMENT SPECIFICATIONS**

I. **Total Actual Purchase Price** - In accordance with Section 2 and 3 of the contract, the Purchaser agrees to pay the Government for the timber sold under the contract in accordance with the following schedule and measurement requirements. Timber sold is comprised of Merchantable Timber, Merchantable Timber Remaining, and Other Timber as defined below. In the event an Extension of Time is approved, the prices per measurement unit are subject to readjustment (refer to Section 9 of the contract).

Schedule of Species/Products, Measurement Units, and Prices		
Species/Products	Measurement Unit	Price Per Measurement Unit
DF	MBF	\$92.20
WF	MBF	\$39.70
PP	MBF	\$37.20
IC	MBF	\$45.30

II. **Merchantable Timber** - All timber which can be cut into logs, which equal or exceed the following specifications, shall be considered merchantable timber required to be removed from the contract area. Purchaser shall pay for same in accordance with Sec. 3 of the contract at the unit prices shown in Sec. I of this Exhibit.

Schedule of Material Specifications			
Species/Product	Length (feet)	Diameter (inches inside bark at small end)	Net Scale (% of gross volume of any log segment)
All	16	5	33

If Purchaser elects to remove any logs which do not meet the above minimum material specifications and which have not been reserved to Government in Sec. 41 of the contract, such logs shall be scaled in accordance with section V of this Exhibit herein and be paid for in accordance with Sec. 2 and 3 of the contract and the value in Sec. I of this Exhibit.

III. Merchantable Timber Remaining - Measurement Requirements - The remaining volume of any merchantable sold timber on the contract area shall be determined as provided in Section 3. (g). of the contract. Purchaser shall pay for same in accordance with Sec. 3 of the contract at the unit prices shown in Section I of this Exhibit.

IV. Other Timber - If any timber is of a species not listed in Sec. I of this Exhibit the Authorized Officer shall establish volumes and values in accord with Standard BLM methods.

V. Scaling

A. Log Rule and Measurement - All logs shall be scaled in Eastside Scribner according to the Northwest Log Rules Eastside and Westside Log Scaling Handbook, as amended, or supplemented by BLM before the first advertisement date of the sale.

B. Scaling Service - A Scaling Authorization Form must be completed and approved by the Authorized Officer prior to beginning of hauling operations. All sites on the Scaling Authorization are required to have a Log Yard Agreement with the BLM. Log scaling services shall be provided and performed by BLM personnel or third party scaling organizations under agreement with BLM

1. All logs shall be scaled and volumes determined by BLM or a certified contract scaler.
2. The BLM scaler or contract scaler is designated to collect Eastside MBF scale data from all loads.
3. All logs shall be scaled using an authorized BLM scaling method approved by the Authorized Officer in accordance with BLM prescribed procedures.

C. Defect Caused by Abnormal Delay - 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 Sec. 3 of the contract.

D. Log Presentation - Purchaser shall present logs so that they may be scaled in an economical and safe manner in accordance with the Log Yard Authorization required in Section V. B. of this Exhibit.

E. Check Scale

The BLM will conduct check scales 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	.2 x 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 in excess of acceptable standards, in two or more consecutive check scales, an adjustment to the volume reported as scaled will be made by BLM. Such adjustments will be made based on the difference between available 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 50 percent of the volume scaled between the last satisfactory check and the first unsatisfactory check, 100 percent of the volume scaled during the unsatisfactory check, and 50 percent of the volume between the last unsatisfactory check scale and the next satisfactory check scale.

F. Accountability

1. Purchaser shall notify the Authorized Officer 5 (Five) days prior to starting or stopping of hauling operations performed under the contract.
2. All logs will be painted and branded at the landing and accounted for in accordance with Sec. 42 of the contract. If Sale Area is within a State that maintains a log brand register, brands shall be registered with the State. Purchaser shall use assigned

brand(s) exclusively on logs from this sale until the Authorized Officer releases the brand(s).

3. Each truck driver shall obtain a load receipt and a BLM scaler receipt from the Log Truck Ticket Book issued by the Authorized Officer and comply with the instructions specified on the cover of said book. **All load tickets will be marked with the cutting area number using a permanent marker or as directed by the Authorized Officer.** While products are in transit, the truck driver shall display the load receipt and BLM scaler receipt on the bunk or wing log at the front of the load on the driver's side. All logs on each load shall be delivered to the destination listed on the woods receipt. The BLM scaler receipt shall be surrendered at the location of BLM scaling, the unloading location, or as requested by BLM. A designated area shall be identified at the yard scaling location for logs arriving during off hours. Logs arriving during off hours shall be left on the truck or may be off loaded to the designated area.
4. The Purchaser shall not haul logs from the contract area on weekends; Memorial Day, Fourth of July, Labor Day, Thanksgiving, Christmas, and New Year's holidays; or outside the hours of 4 a.m. to 6 p.m. daily, unless otherwise approved in writing by the Authorized Officer or designated in the Approved Logging Plan. (Refer to Section 42(A) of the contract).
5. The Purchaser shall furnish BLM a map showing the route which shall be used to haul logs from the timber sale area to the scaling location. Such route shall be the most direct haul route between the two points, unless another route is approved by BLM. The route of haul may be changed only with advance notice to and approval by BLM. The haul route map shall be attached to the Approved Logging Plan.
6. All loads will be scaled at locations listed on the Scaling Authorization as approved by the Authorized Officer. Purchaser shall notify the Authorized Officer 3 (three) days in advance to request additional scale site locations for approval on the Scaling Authorization.
7. Any removal of logs from loaded trucks before being accounted for and/or scaled as required by the contract shall be considered a willful trespass and render the Purchaser liable for damages under applicable law. Any payment made for purchase of such logs shall be deducted from amount due because of trespass.

G. Scaling Lost Products - The value of lost loads shall be equal to the highest value load for the month in which the lost load is hauled regardless of where the highest value load is scaled. If no loads have been scaled in that month, value will be determined from the closest month in which loads were scaled.

VI. Estimated Volumes and Values - The following volume estimates and calculations of value of timber sold are made solely as an administrative aid for determining payment amounts, when payments are due, the value of timber subject to any special bonding provisions, and other

purposes specified in various portions of the contract. The cutting areas are shown on Exhibit A of the contract.

- A. **Merchantable Timber Volume Removed from Contract Area** - The total volume of removed timber shall be determined using the Government’s records of scaled volumes of timber skidded or yarded monthly, or a shorter period if agreed to by the Purchaser and Government, to loading points or removed from the contract area.
- B. **Merchantable Timber Not Yet Removed from Contract Area** - The value of merchantable timber which has not been removed will be determined by multiplying the value per acre as shown below times the amount of acreage subject to the purpose of the value determination, as determined by the Authorized Officer:

Total Estimated Purchase Price And/or Schedule of Volumes and Values for Merchantable Timber Not Yet Removed from Contract Area					
Cutting Area		Total Estimated Volume (MBF)		Total Estimated Purchase Price	
Cutting Area Number	Approximate Number of Acres	Volume per Acre	Total Volume	Value per Acre	Total Value
1-1	22	12.0	263		
1-2	5	31.8	159		
1-3	4	31.8	127		
2-1	13	11.9	155		
2-2A	13	11.9	155		
2-2B	3	12.0	36		
2-3	7	14.7	103		
2-4	6	12.0	72		
3-1	3	32.0	96		
3-2	14	31.8	445		
3-3	5	23.6	118		
3-4	28	12.0	335		
3-5	4	23.5	94		
3-6	16	11.9	190		
3-7	18	12.0	216		
5-2	5	23.6	118		

5-3	3	23.7	71		
7-1A	5	14.8	74		
7-1B	8	12.0	96		
8-1	16	11.9	190		
8-2	29	31.8	922		
9-1	4	14.8	59		
12-1A	5	12.2	60		
12-1B	27	11.9	322		
13-1	19	12.0	228		
13-3	7	12.0	84		
13-5	2	23.5	47		
13-6	7	23.6	165		
13-7	3	23.7	71		
13-10	8	12.0	96		
14-2	4	23.5	94		
15-2	2	23.5	47		
15-3	4	23.5	94		
16-2A	2	15.5	31		
16-2B	10	14.9	149		
16-3	7	12.0	84		
17-1A	3	23.7	71		
17-1B	3	32.0	96		
17-3	6	31.7	190		
17-7A	18	14.8	267		
17-7B	10	11.9	119		
17-8	7	14.7	103		
18-1	23	11.9	274		
21-1	4	23.5	94		
21-2	11	31.7	349		
21-3	16	31.8	508		
22-3	11	14.8	163		
22-4	7	12.0	84		

23-1	1	32.0	31		
23-2	2	31.5	63		
23-3A	25	11.9	298		
23-3B	8	12.0	96		
26-3A	2	23.5	47		
26-3B	4	31.8	127		
27-1	2	12.0	24		
27-2	7	12.0	84		
27-3	6	12.0	72		
27-4	6	12.0	72		
27-5	15	11.9	179		
27-6	3	12.0	36		
27-7	27	14.8	399		
27-8	4	12.0	48		
27-9	2	23.5	47		
29-5A	7	12.0	84		
29-5B	11	12.1	133		
32-1	3	12.0	36		
32-2A	9	12.0	108		
32-2B	4	12.0	48		
32-2C	17	11.9	203		
33-6A	28	31.8	890		
33-6B	37	11.9	442		
36-1	4	31.8	127		
36-2	11	31.7	349		
Sale Total	702		12027		

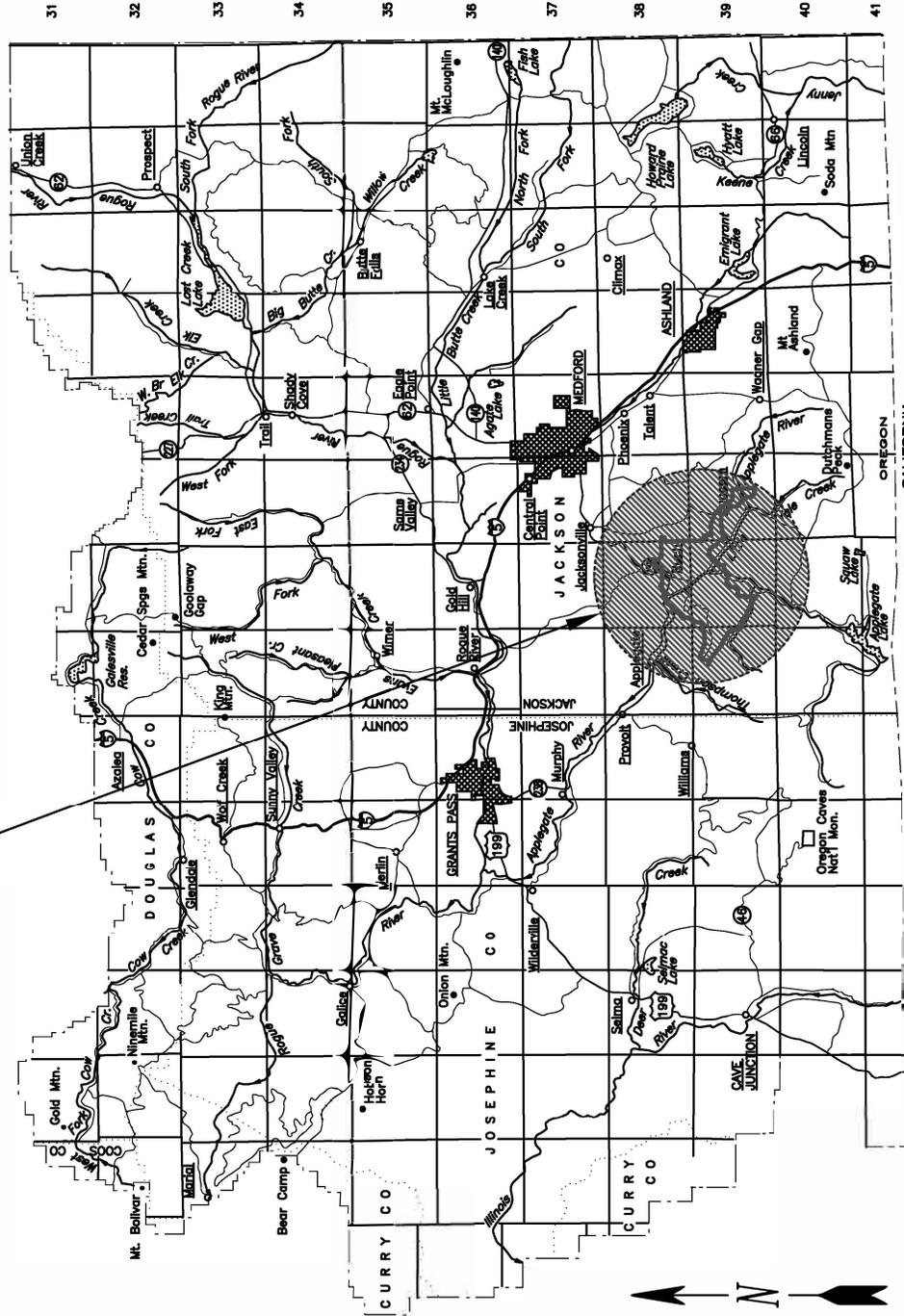


**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT**

**EXHIBIT C 1
SHEET 1 OF 1**

**BEAR GRUB TIMBER SALE
ORM06-TS-2021.0002**

PROJECT LOCATION



OREGON

Exhibit No.	Description
C 1	TITLE SHEET
C 2	ROAD RENOVATION MAPS
C 3	ESTIMATE OF QUANTITIES
C 4	SPECIFICATION SHEET
C 5	ROAD RENOVATION WORKLIST
C 6	TYPICAL ROAD RENOVATION DETAIL
C 7	ROADSIDE BRUSHING & ROADSIDE VEGETATION MAINTENANCE DETAILS
C 8	TYPICAL ROAD SURFACING SECTIONS
C 9	CULVERT LIST
C 10	CULVERT INSTALLATION DETAILS
C 11	CULVERT BAND DETAILS
C 12	DOWNSLOPE INSTALLATION DETAILS
C 13	DRAINAGE AND EROSION CONTROL INSTALLATION
C 14	TYPICAL ARMORED WATER DIP CONSTRUCTION
C 15	PLAN AND PROFILE SHEETS
C 16	SPECIAL PROVISIONS
C 17	TIMBER SALE ROAD SPECIFICATIONS
D1	ROAD MAINTENANCE SPECIFICATIONS
D2	ROAD MAINTENANCE MAPS
D3	ROAD MAINTENANCE ESTIMATE OF QUANTITIES
D4	ROAD DECOMMISSION WORKLIST
D5	TYPICAL FULL DECOMMISSION
D6	DRAINAGE AND EROSION CONTROL
D7	TYPICAL ROAD CAMOUFLAGE

REV. NO.	DESCRIPTION	DATE	APPROV.
	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON		

TITLE SHEET

MEDFORD OREGON

DESIGNED *Josh Roberson*

REVIEWED *Jeff Brown*

APPROVED JEROME BENSON

DRAWN: JWR

DATE: March 2020

SCALE: AS SHOWN

SHEET 1 OF 1

DRAWING NO. ORM06.2021.0002.C1

Digitally signed by JEROME BENSON
Date: 2020.03.18 09:59:47-0700

BEAR GRUB TIMBER SALE
ROAD LOCATION MAP
EXHIBIT C-2; PAGE 1 OF 5

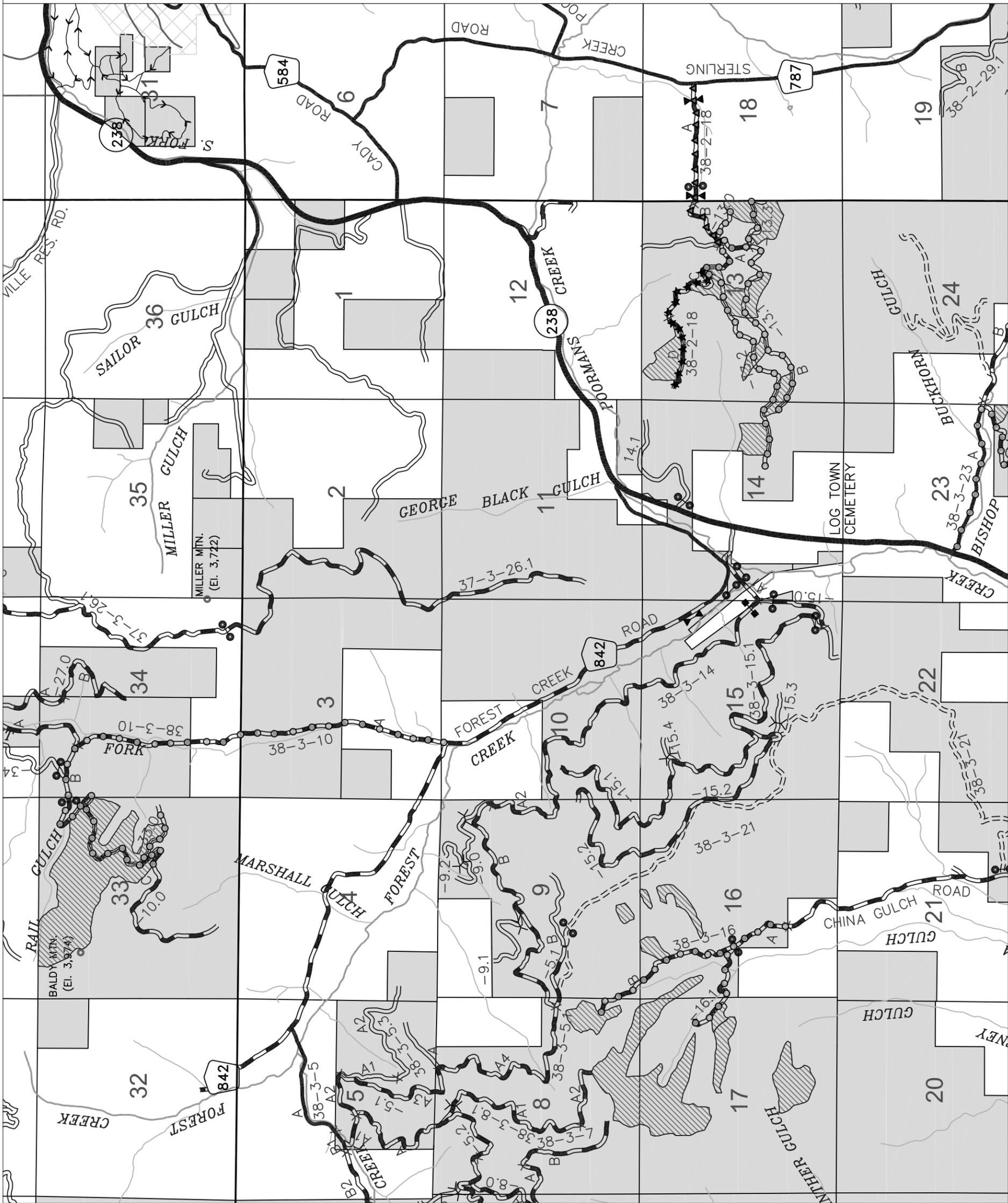
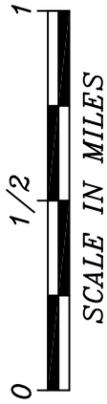
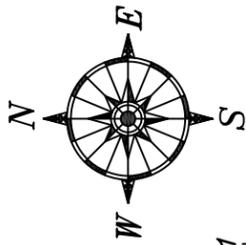
U.S.D.I. BLM MEDFORD DISTRICT
T.37S., R.3W. WILL. MER.
T.38S., R.3W. WILL. MER.
T.38S., R.2W. WILL. MER.
T.39S., R.2W. WILL. MER.
T.39S., R.1W. WILL. MER.

- EXISTING GATE
- EXISTING BARRICADE
- PUMP CHANGE
- QUARRY
- STOCKPILE FOR ROCKING

ROAD PROJECTS

- EXISTING ROAD
- EXISTING PAVED ROAD
- EXISTING PRIMITIVE ROAD
- ROAD TO BE RENOVATED
- ROAD TO BE RENOVATED WITH ROADSIDE VEGETATION MAINTENANCE
- ROAD TO BE RENOVATED AND ROCKED
- ROAD TO BE CONSTRUCTED
- TEMPORARY ROAD TO BE CONSTRUCTED

- BLM LAND
- TS UNITS



BEAR GRUB TIMBER SALE
ROAD LOCATION MAP
EXHIBIT C-2; PAGE 2 OF 5

U.S.D.I. BLM MEDFORD DISTRICT

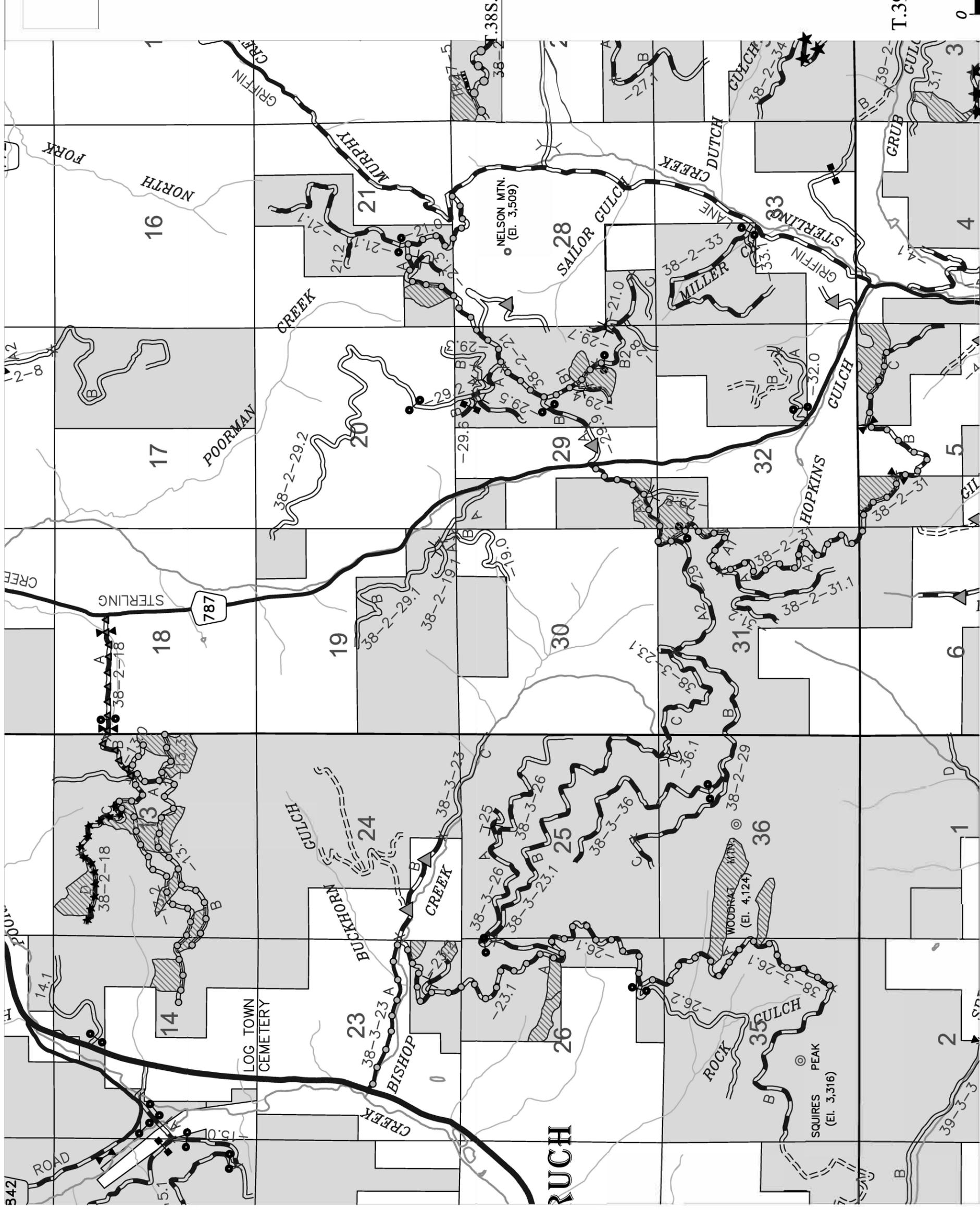
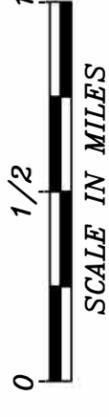
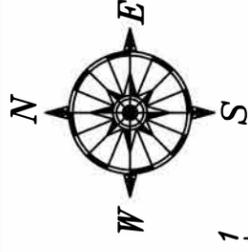
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-  PUMP CHANGE
-  QUARRY
-  STOCKPILE FOR ROCKING

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-  ROAD TO BE RENOVATED AND ROCKED
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-  TEMPORARY ROAD TO BE CONSTRUCTED

-  BLM LAND
-  TS UNITS



T.39S.

R.2W.

R.3W.

BEAR GRUB TIMBER SALE
ROAD LOCATION MAP
EXHIBIT C-2; PAGE 3 OF 5

U.S.D.I. BLM MEDFORD DISTRICT

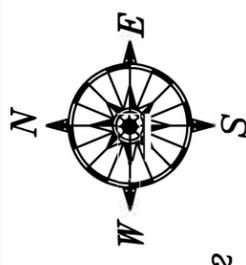
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T.39S., R.2W. WILL. MER.
T.39S., R.1W. WILL. MER.

-  EXISTING GATE
-  EXISTING BARRICADE
-  PUMP CHANGE
-  QUARRY
-  STOCKPILE FOR ROCKING

ROAD PROJECTS

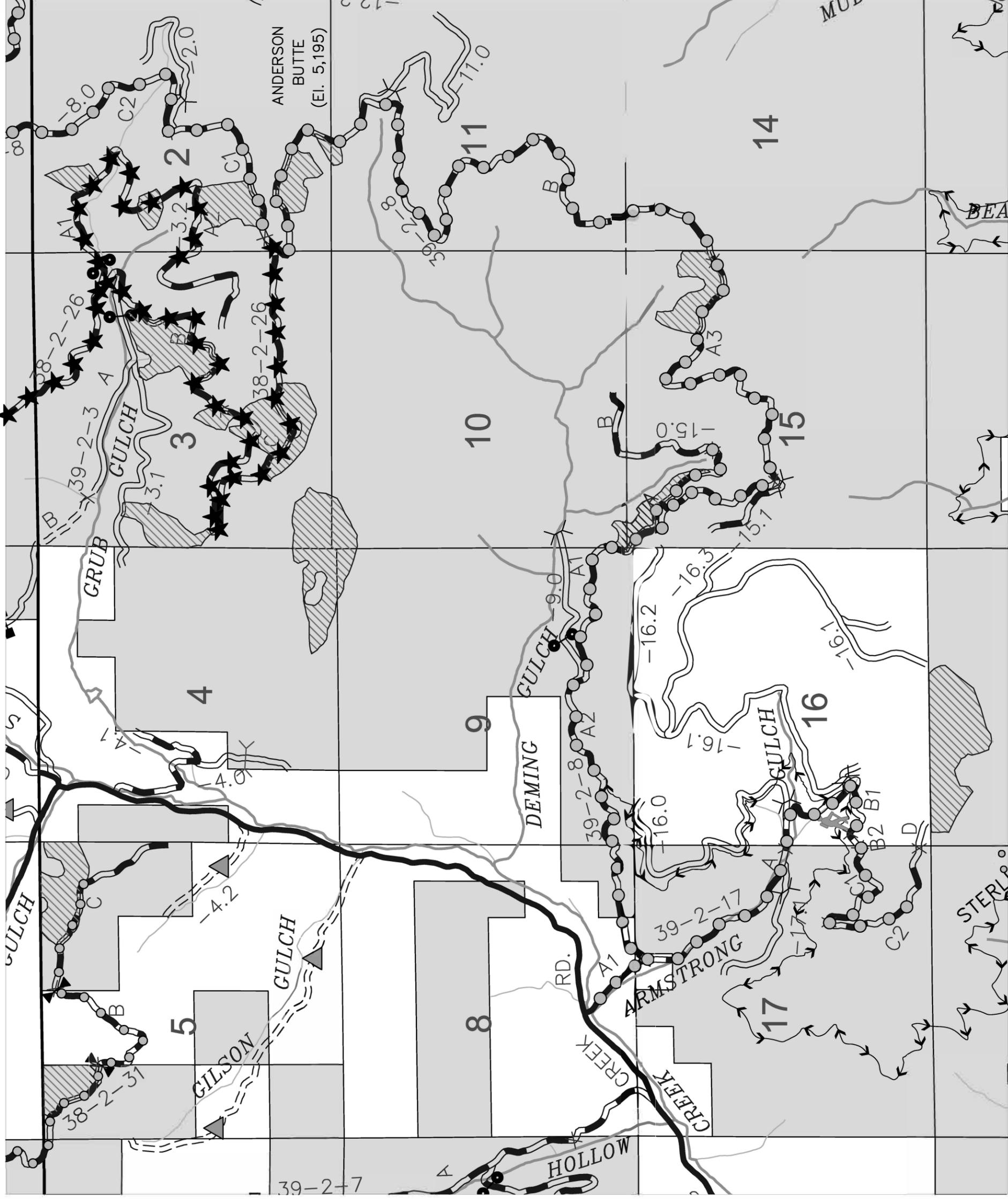
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-  ROAD TO BE RENOVATED AND ROCKED
-  ROAD TO BE CONSTRUCTED
-  TEMPORARY ROAD TO BE CONSTRUCTED

-  BLM LAND
-  TS UNITS



T.39S.

R.2W.



BEAR GRUB TIMBER SALE
ROAD LOCATION MAP
EXHIBIT C-2; PAGE 4 OF 5

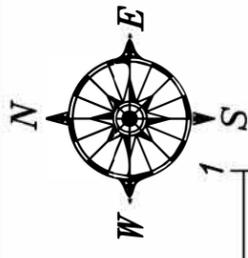
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T.38S., R.2W. WILL. MER.
T.39S., R.2W. WILL. MER.
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- EXISTING GATE
- EXISTING BARRICADE
- PUMP CHANGE
- QUARRY
- STOCKPILE FOR ROCKING

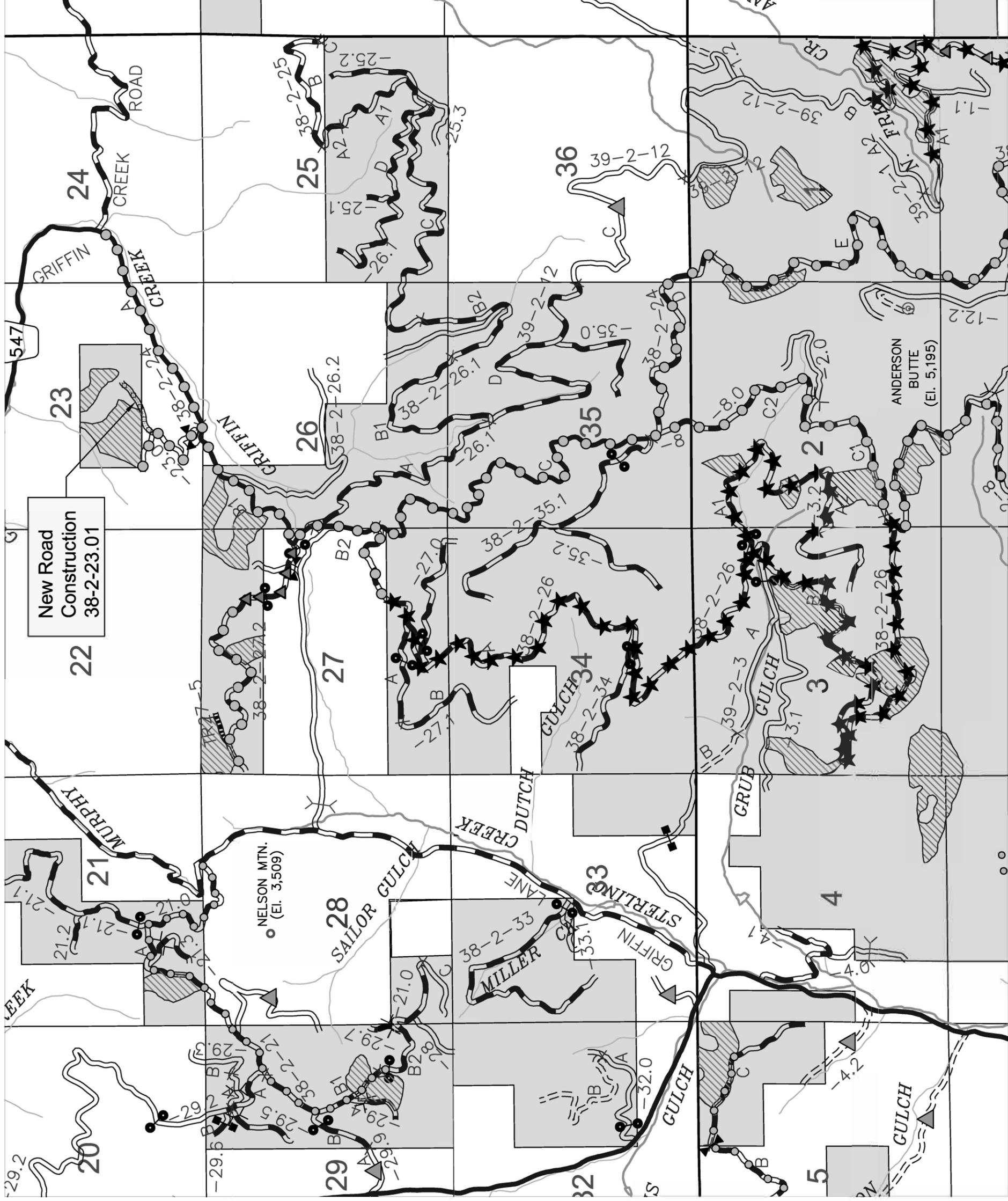
ROAD PROJECTS

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- EXISTING PRIMITIVE ROAD
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- ROAD TO BE RENOVATED WITH ROADSIDE VEGETATION MAINTENANCE
- ROAD TO BE RENOVATED AND ROCKED
- ROAD TO BE CONSTRUCTED
- TEMPORARY ROAD TO BE CONSTRUCTED

- BLM LAND
- TS UNITS



SCALE IN MILES



New Road Construction
38-2-23.01

R.2W.

BEAR GRUB TIMBER SALE
ROAD LOCATION MAP
EXHIBIT C-2; PAGES 5 OF 5

U.S.D.I. BLM MEDFORD DISTRICT

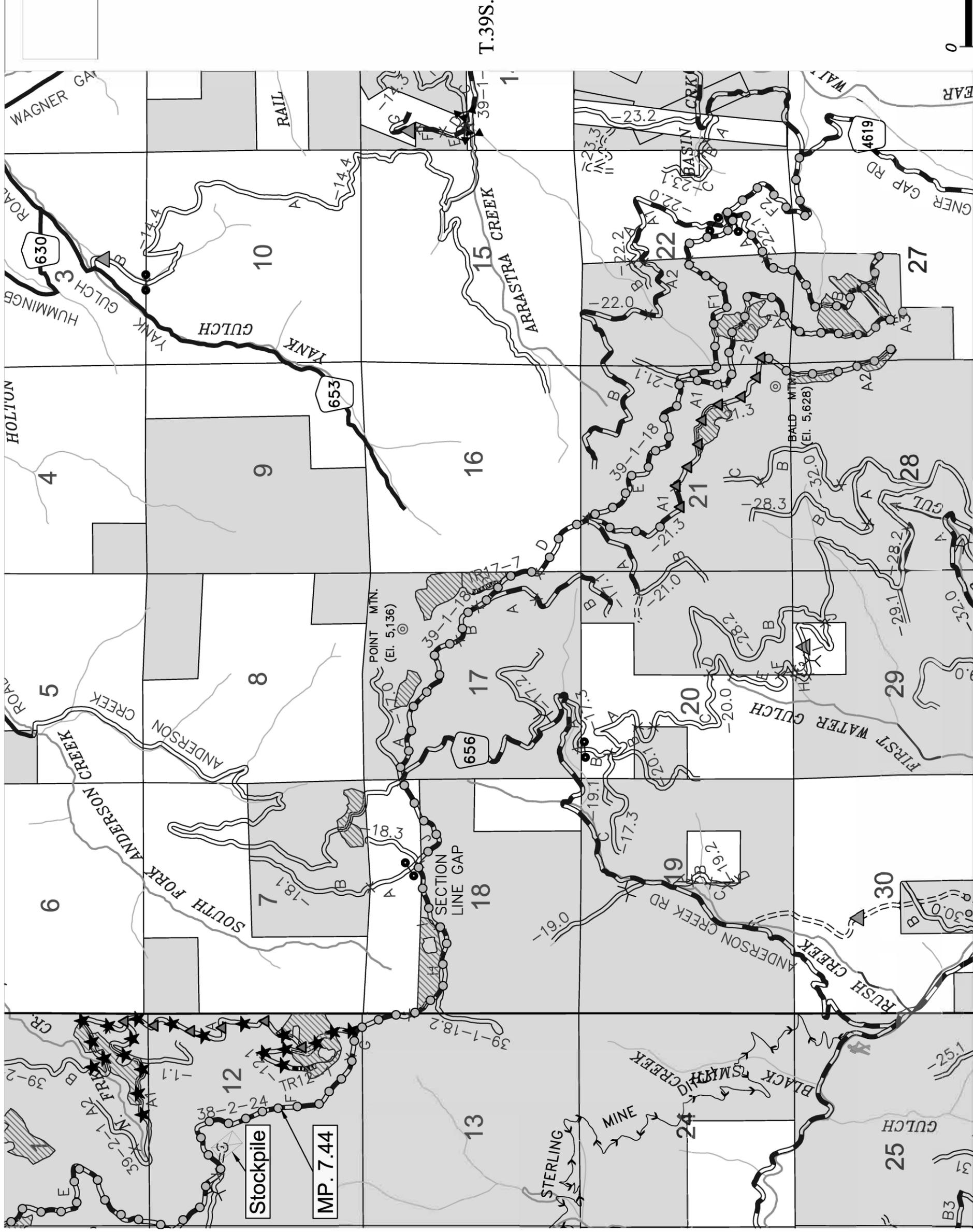
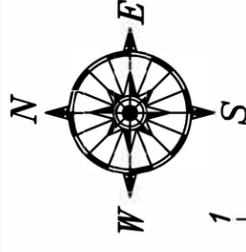
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T.39S., R.2W. WILL. MER.
T.39S., R.1W. WILL. MER.

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- BLM LAND
- TS UNITS



T.39S.

R.1W.

R.2W.

**BEAR GRUB TIMBER SALE
 Road Renovation Worklist**

The road renovation work list consists of road work to be performed by the Purchaser’s Representative and/or Contractor **prior** to timber hauling. This work includes, but not limited to: blading and/or rolling the road surface, pulling ditches, cleaning or enlarging catch basins and outlets, cleaning the entire barrel of all culverts, furnishing and replacing/installing corrugated metal pipes and/or culverts, maintaining and/or constructing water dips (WDs), maintaining and/or constructing armored water dips (AWDs) with 4” minus screened rock, spot rocking, and constructing barricades. All drainage structures including culverts, and water dips shall be inspected and required work performed so that water flow is not impeded, and brought to the design standard as shown on the plans. Remove all down trees from roadways. All road work shall comply with the contract Special Provisions, Specifications, and Exhibits.

Temporary roads constructed shall be fully decommissioned at the completion of timber harvest activities. See Exhibit D for decommissioning.

Road barricades removed during timber operations shall be replaced immediately after use. For activities that are not finished in one dry season, barricades shall be re-installed before the wet season, October 15th.

Roadside Vegetation Maintenance includes removing merchantable and non-merchantable trees 6 horizontal feet from the centerline of the ditch and 6 horizontal feet from the outside shoulder of the road prism as designated in the work list and on Exhibit C7 (Roadside Vegetation Maintenance Areas). Vegetation to be cut and disposed of will be from 6 inches diameter at breast height up to 36 inches at breast height. All roadside vegetation maintenance sections are marked as roadside timber sale units. Any damage that occurs to the road shall be repaired and re-compacted. Any loose material that remains on site shall be re-compacted or disposed of at areas designated by the Authorized Officer. All disturbed areas shall be seeded and mulched. All stumps 3 horizontal feet from the centerline of the ditch and 3 slope feet from the outside shoulder of the road prism shall be removed. All remaining brush and limbs from tree removal operations shall be either chipped, piled in locations designated by the Authorized Officer, or lopped and scattered below the road in accordance with roadside brushing disposal methods in Exhibit C17 (Bear Grub Road Specifications, Section 2100).

Jct.– Junction
 CY – Cubic Yards

<u>Road 37-3W-33.00 (Ridge End)</u>	
<u>Natural</u>	<u>Subgrade 15'</u>
<u>MP</u>	<u>Remarks</u>
0.00	Jct. with 38-3W-10.00. Begin road renovation, which includes reshaping road surface (blading, watering, and rolling), to road specifications; and roadside brushing.
0.37	End road renovation.

Road 38-2W-18.00 (Cemetery Hill)
Aggregate Subgrade 14' with Ditch

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with County Road N°. 787 Sterling Creek Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing. Begin placing aggregate from Commercial Source at 6" depth.
0.01	Existing 18" culvert.
0.10	Existing 36" culvert.
0.11	Private gate (BLM has a button in black box – right side)
0.29	Existing 18" culvert.
0.37	Existing 18" culvert.
0.49	Jct. with private drive.
0.50	Existing gate with arm lift.
0.51	Existing 18" culvert.
0.62	Existing 18" culvert.
0.70	Existing 24" culvert.
0.76	Existing 18" culvert.
0.84	Existing 18" culvert.
0.89	Jct. with 38-3W-13.00 to left.
0.94	Jct. with 38-3W-13.01 to left, 38-3W-13.04 to right. End existing aggregate surface. End placing aggregate. Begin existing natural surface.
1.09	Existing 18" culvert.
1.19	Existing 18" culvert.
1.20	Jct. with 38-3W-13.02 to left. Begin roadside vegetation maintenance. (See Exhibit C7; Roadside brushing and roadside vegetation maintenance details).
1.30	Existing 18" culvert.
1.42	Existing 18" culvert with 6' downspout.

- 1.69 Reconstruct existing water dip, armor with 40 CY 4 inch minus, open to drain.
- 1.74 Reconstruct existing water dip, armor with 40 CY 4 inch minus, open to drain.
- 1.79 Reconstruct existing water dip, armor with 40 CY 4 inch minus, open to drain.
- 1.86 Reconstruct existing water dip, armor with 40 CY 4 inch minus, open to drain.
- 1.91 Reconstruct existing water dip, armor with 40 CY 4 inch minus, open to drain.
- 1.98 Existing turn around. End road renovation.

Road 38-2W-21.00 (Murphy Sterling Divide)
Aggregate Subgrade 15' with Ditch

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with County Road N°. 793 Griffin Lane. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing.
0.05	Private road to left.
0.10	Existing 18" culvert.
0.20	Existing 18" culvert.
0.37	Existing 18" culvert.
0.61	Existing 18" culvert.
0.62	Jct. with 38-2W-21.01 to right.
0.79	Private road to right.
0.82	Rock pit on left.
0.86	Existing 18" culvert.
1.35	Private road to left.
1.53	Jct. with 38-2W-29.02.
1.60	Jeep road to right.
1.63	Existing 18" culvert.
1.69	Spur road to left.

- 1.81 Existing 18" culvert.
- 1.82 Jct. with 38-2W-29.09.
- 1.98 Jct. with 38-2W-29.04.
- 1.99 Jeep road to right.
- 2.16 Truck turn around. End road renovation.

Road 38-2W-24.00 (Anderson Butte)
Bituminous/Aggregate Subgrade 16'-20' with Ditch

MP

Remarks

- 0.00 Jct. with County Road N°. 547 Griffin Creek Road. Begin road renovation which includes clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing.
- 0.06 Existing 18" culvert.
- 0.11 Private drive to right.
- 0.19 Existing 18" culvert.
- 0.20 Private drive to left.
- 0.27 Existing cattle guard.
- 0.35 Existing 18" culvert.
- 0.37 Existing rock quarry right.
- 0.54 Existing 18" culvert.
- 0.60 Existing 18" culvert.
- 0.73 Existing 18" culvert.
- 0.81 Existing 18" culvert.
- 0.88 Existing 18" culvert.
- 0.97 Jct. with NS38-2W-23.00 to right.
- 1.00 Existing 18" culvert.
- 1.14 Jct. with 38-2W-26.02 to left.
- 1.19 Existing 24" culvert with 10' downspout.

- 1.30 Existing 18" culvert.
- 1.40 Existing 18" culvert with 10' downspout.
- 1.51 Existing 18" culvert with 30' downspout.
- 1.64 Existing 18" culvert with 15' downspout.
- 1.66 Jct. with 38-2W-27.02 to right.
- 1.67 Existing 18" culvert.
- 1.68 Private drive to right.
- 1.75 Jct. with 38-2W-26.01.
- 1.75 Existing 18" culvert.
- 2.06 Jct. with 38-2W-26.00 to right.
- 2.07 Existing 18" culvert.
- 2.17 Existing 24" culvert.
- 2.34 Existing 18" culvert.
- 2.50 Existing 18" culvert with 12' downspout.
- 2.61 Existing 18" culvert.
- 2.72 Existing 18" culvert.
- 2.82 Existing 18" culvert.
- 2.98 Existing 18" culvert.
- 3.16 Existing 18" culvert.
- 3.24 Existing 18" culvert.
- 3.31 Existing 18" culvert.
- 3.49 Existing 18" culvert.
- 3.58 Existing 18" culvert.
- 3.72 Existing 18" culvert with 20' downspout.

- 3.88 Jct. with 38-2W-35.01 to right.
- 3.98 Jct. with 38-2W-08.00 to right. End bituminous surface. Begin existing aggregate surface. Begin reshaping road surface (blading, watering, and rolling) to road specifications.
- 4.02 Existing 18" culvert.
- 4.08 Existing 18" culvert.
- 4.24 Existing 18" culvert.
- 4.33 Existing 18" culvert.
- 4.60 Existing 18" culvert.
- 4.65 Jct. unnamed road to left.
- 4.68 Existing 18" culvert.
- 4.84 Existing 18" culvert.
- 4.95 Existing 18" culvert.
- 5.09 Existing 18" culvert.
- 5.24 Existing 18" culvert.
- 5.38 Existing 18" culvert.
- 5.52 Existing 18" culvert.
- 5.59 Existing 18" culvert. Clean debris from downspout and re-attach.
- 5.67 Existing 24" culvert.
- 5.77 Existing 18" culvert.
- 5.90 Existing 18" culvert.
- 5.99 Existing 18" culvert.
- 6.10 Existing 18" culvert with 20' downspout.
- 6.16 Existing 18" culvert with 10' downspout.
- 6.25 Existing 18" culvert with 6' downspout.
- 6.40 Existing 18" culvert with 6' downspout.

6.49 Existing 18" culvert.
6.59 Existing 18" culvert.
6.67 Existing 18" culvert.
6.79 Existing 18" culvert with 18' downspout.
6.86 Jct. with 38-2W-12.02 to right.
7.05 Existing 18" culvert.
7.14 Existing 18" culvert.
7.27 Existing 18" culvert.
7.43 Anderson Butte Ridge TH right.
7.44 User created road to left. End roadside brushing.
7.55 Existing 18" culvert.
7.67 Existing 18" culvert.
7.78 Existing 18" culvert.
7.88 Existing 18" culvert.
7.99 Existing 18" culvert.
8.11 Jct. with 39-2W-12.00 to left.
8.21 Existing 18" culvert.
8.59 Jct. with 39-1W-18.02 to right.
8.92 Existing 18" culvert.
8.96 Private road to left.
9.05 Existing 18" culvert.
9.15 Existing 18" culvert.
9.24 Jct. with 39-1W-18.01 to left.
9.34 Existing 18" culvert.
9.46 Existing 18" culvert.

- 9.67 Existing 18" culvert.
- 9.88 Jct. with County Road N°. 656 Anderson Creek and 39-1W-18.00 right. End road renovation.

Road 38-2W-26.00 (Grub Gulch)
Aggregate Subgrade 16' with Ditch

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with 38-2W-26.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing.
0.07	Existing 18" culvert with 10' downspout.
0.20	Existing 18" culvert.
0.32	Existing 18" culvert with 6' downspout.
0.37	Property Line. Begin roadside vegetation maintenance. (See Exhibit C7; Roadside brushing and roadside vegetation maintenance details).
0.47	Existing 18" culvert.
0.53	Jct. with 38-2W-27.01 to right.
0.59	Existing 18" culvert.
0.77	Jct. with 38-2W-27.00 to left.
1.00	Existing 18" culvert.
1.26	Existing 18" culvert.
1.52	Existing 18" culvert.
1.60	Existing 18" culvert with 15' downspout.
1.68	Existing 18" culvert.
1.94	Existing 18" culvert.
2.00	Jct. with 38-2W-34.00 to right.
2.14	Existing 24" culvert.
2.24	Existing 24" culvert.

- 2.31 Existing concrete barriers.
- 2.45 Existing 18" culvert.
- 2.74 Existing 18" culvert.
- 2.90 Existing 18" culvert.
- 2.91 Trailhead.
- 3.14 Existing 18" culvert.
- 3.15 Jct. with 39-2W-3.02 to left.
- 3.25 Existing 18" culvert.
- 3.26 Jct. with 39-2W-3.00 to right.
- 3.28 Existing 18" culvert.
- 3.43 Existing 18" culvert.
- 3.56 Existing 18" culvert.
- 3.65 Existing 18" culvert.
- 3.82 Existing 18" culvert.
- 3.88 Existing 18" culvert.
- 4.08 Existing 18" culvert.
- 4.31 Existing 18" culvert with 20' downspout.
- 4.61 Maintain existing water dip.
- 4.72 Maintain existing water dip.
- 4.77 Landing to right with rock stockpile.
- 5.01 Maintain existing water dip.
- 5.12 Maintain existing water dip.
- 5.20 Maintain existing water dip.
- 5.30 Maintain existing water dip.

- 5.40 Maintain existing water dip.
- 5.50 Maintain existing water dip.
- 5.62 Maintain existing water dip.
- 5.72 Maintain existing water dip.
- 5.82 Maintain existing water dip.
- 5.90 Maintain existing water dip.
- 5.99 Jct. with 39-2W-8.00. End road renovation.

Road 38-2W-27.02 (Upper Sterling Line)
Aggregate Subgrade 14' with Ditch

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with 38-2W-24.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing. Begin placing aggregate from Commercial Source at 6" depth.
0.02	Existing BLM gate.
0.14	Existing 18" culvert.
0.18	Private road to right.
0.19	Existing 18" culvert.
0.30	Existing 18" culvert.
0.32	Existing BLM gate.
0.34	Helicopter landing. End placing aggregate.
0.39	Existing 18" culvert.
0.49	Existing 18" culvert.
0.55	Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
0.64	Existing 18" culvert.
0.68	Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
0.75	Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.

- 0.94 Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
- 0.99 Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
- 1.05 Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
- 1.16 Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
- 1.23 Junction temporary road TR 27-5 on right.
- 1.30 Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
- 1.36 End road renovation.

Road 38-2W-29.00 (Woodrat Mtn)
Bituminous Subgrade 16' with Ditch

- | <u>MP</u> | <u>Remarks</u> |
|------------------|--|
| 0.00 | Jct. with County Road N°. 787 Sterling Creek Road. Begin clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing. |
| 0.04 | Jct. private drive to right. |
| 0.10 | Jct. private drive to right. |
| 0.13 | Existing 18" culvert. |
| 0.33 | Jct. with 38-2W-29.08 to left. |
| 0.71 | Jct. with 38-2W-31.00 to left. End road renovation. |

Road 38-2W-31.00 (Woodrat Mtn A Sp)
Aggregate Subgrade 16'

- | <u>MP</u> | <u>Remarks</u> |
|------------------|---|
| 0.00 | Jct. with 38-2W-29.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing. |
| 0.01 | Existing gate. |
| 0.07 | Maintain existing water dip. |
| 0.22 | Maintain existing water dip. |
| 0.52 | Maintain existing water dip. |

- 0.62 Maintain existing water dip.
- 0.68 Maintain existing water dip.
- 0.76 Maintain existing water dip.
- 0.85 Existing 18" culvert.
- 0.68 Maintain existing water dip.
- 0.91 Maintain existing water dip.
- 1.01 Maintain existing water dip.
- 1.13 Maintain existing water dip.
- 1.27 Existing 18" culvert.
- 1.34 Maintain existing water dip.
- 1.61 Maintain existing water dip.
- 1.90 Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
- 1.97 Maintain existing water dip.
- 2.03 Existing gate.
- 2.28 Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
- 2.34 Maintain existing water dip.
- 2.41 Maintain existing water dip.
- 2.48 Maintain existing water dip.
- 2.54 Maintain existing water dip.
- 2.59 Existing gate.
- 3.01 Truck turn around. End road renovation.

Road 38-3W-10.00 (E Fk Forest Crk)
Aggregate Subgrade 14'-16' with Ditch

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with County Road N°. 842 Forest Creek Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing.
0.03	Existing cattle guard.
0.50	Existing 18" culvert.
0.54	Existing 18" culvert.
0.56	Existing BLM cattle guard.
0.60	Existing 18" culvert.
0.71	Existing 18" culvert.
0.83	Existing 18" culvert.
0.94	Existing 18" culvert.
1.00	Existing 18" culvert.
1.07	Existing 18" culvert.
1.15	Existing 18" culvert.
1.23	Existing 18" culvert.
1.43	Existing 18" culvert.
1.47	Existing 6' x 9' culvert. Hydrologic Point of Concern: Install check dams, or other approved BMP's, per contract specifications and Exhibit C13.
1.58	Existing 24" culvert.
1.80	Maintain existing water dip.
1.96	Existing 24" culvert. Jct. with 38-3W-34.00 to right. Hydrologic Point of Concern: Install check dams, or other approved BMP's, per contract specifications and Exhibit C13.
2.03	Maintain existing water dip.
2.12	Existing 18" culvert.
2.13	Jct. with 38-3W-34.01 to right. End existing ditch.

- 2.14 Maintain existing water dip.
- 2.18 Maintain existing water dip.
- 2.27 Existing BLM gate.
- 2.32 Maintain existing water dip.
- 2.40 Maintain existing water dip.
- 2.42 Existing 24" culvert.
- 2.46 Maintain existing water dip.
- 2.52 Maintain existing water dip.
- 2.59 Maintain existing water dip.
- 2.64 Existing landing to left.
- 2.67 Reconstruct existing water dip, armor with 40 CY 4 inch minus, open to drain.
- 2.72 Maintain existing water dip.
- 2.76 Maintain existing water dip.
- 3.31 Jct. with 37-3W-33 to left.
- 3.35 Maintain existing water dip.
- 3.41 Maintain existing water dip.
- 3.44 Existing turn around. End road renovation.

Road 38-3W-13.00 (Cemetery Hill Sp)
Natural Subgrade 14'

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with 38-2W-18.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; and roadside brushing.
0.02	Remove existing earth berm barricade.
0.16	End road renovation.

Road 38-3W-13.01 (R And R Spur)
Natural Subgrade 14'

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with 38-2W-18.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; and roadside brushing.
0.08	Remove existing earth berm barricade.
0.17	Jct. with 38-3W-13.03 to left.
1.34	End road renovation.

Road 38-3W-13.02 (Lower Raider Spur)
Natural Subgrade 14'

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with 38-2W-18.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; and roadside brushing.
0.02	Remove existing earth berm barricade.
0.08	Maintain existing water dip.
0.18	Trail Jct. left and right.
0.23	Maintain existing water dip.
0.30	Remove existing water bar.
0.37	Remove existing water bar.
0.44	Remove existing water bar.
0.51	Remove existing water bar.
0.62	Remove existing water bar.
0.71	Remove existing water bar.
0.99	Remove existing water bar.
1.04	Maintain existing water dip.
1.13	Maintain existing water dip.
1.20	Remove existing water bar.
1.27	Remove existing water bar.

1.35 End road renovation.

Road 38-3W-13.03 (R R 13 3 Spur)
Natural Subgrade 14'

MP

Remarks

0.00 Jct. with 38-3W-13.01. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; and roadside brushing.

0.27 End road renovation.

Road 38-3W-16.00 (China Gulch)
Aggregate Subgrade 14' with Ditch

MP

Remarks

0.00 Jct. with County Road N°. 853 China Gulch Road at BLM Boundary. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing.

0.01 Jct. with private drive to left.

0.10 Existing 18" culvert.

0.19 Existing 18" culvert.

0.25 Existing 18" culvert.

0.29 Jct. with private drive to left.

0.30 Existing 18" culvert.

0.31 BLM gate.

0.32 Jct. with 38-3W-16.01 to left.

0.38 Maintain existing armored water dip.

0.43 Maintain existing armored water dip.

0.46 Existing 18" culvert.

0.52 Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
Heavy road repair between 0.52 - 0.60.

0.60 Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.

0.67 Maintain existing armored water dip.

- 0.78 Existing 18” culvert.
- 0.84 Maintain existing armored water dip.
- 0.90 Maintain existing armored water dip.
- 0.96 Maintain existing armored water dip.
- 1.13 Existing 18” culvert.
- 1.15 Construct water dip armor with 40 CY 4 inch minus, open to drain.
- 1.15 Grade road to drain next 100’.
- 1.17 Construct truck turn around. Open to drain. End road renovation.

Road 38-3W-16.01 (W China Rd)
Aggregate Subgrade 14’ with Ditch

MP

Remarks

- 0.00 Jct. with 38-3W-16.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing.
- 0.05 Existing 18” culvert.
- 0.13 Existing 24” culvert. Hydrologic Point of Concern: Install check dams, or other approved BMP’s, per contract specifications and Exhibit C13.
- 0.19 Existing 18” culvert.
- 0.27 Existing 18” culvert.
- 0.51 Existing 18” culvert.
- 0.55 Existing 18” culvert.
- 0.60 Existing turn around. End road renovation.

Road 38-3W-23.00 (Bishop Crk)
Bituminous Subgrade 14' with Ditch

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with Highway 238. Begin road renovation which includes clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing.
0.01	Existing cattle guard.
0.13	Existing 18" culvert.
0.21	Existing cattle guard.
0.42	Existing 18" culvert.
0.46	Existing 18" culvert.
0.58	Existing 6'x4' squash pipe.
0.77	Jct. with 38-3W-23.01 to right. End road renovation.

Road 38-3W-23.01 (Bishop Ck ML)
Bituminous Subgrade 14' with Ditch

<u>MP</u>	<u>Remarks</u>
0.00	Jct. 38-3W-23.00. Begin road renovation which includes reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing.
0.03	Existing 36" culvert. Hydrologic Point of Concern: Install check dams, or other approved BMP's, per contract specifications and Exhibit C13.
0.05	Existing cattle guard.
0.20	Existing 18" culvert.
0.45	Jct. with 38-3W-23.02 to left.
0.46	Existing 18" culvert.
0.69	Existing 18" culvert.
0.82	Existing 18" culvert.
1.03	Existing 18" culvert w/ 10' half round downspout.
1.16	Existing 18" culvert w/ 15' half round downspout.
1.37	Jct. with 38-3W-26.01 to right. End road renovation.

Road 38-3W-26.01 (Squires Peak)
Aggregate Subgrade 14' with Ditch

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with 38-3W-23.01. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing.
0.15	Existing 18" culvert.
0.34	Existing 18" culvert.
0.40	Existing 18" culvert.
0.44	Existing 18" culvert.
0.46	Existing 18" culvert.
0.57	Maintain existing water dip.
0.61	Existing 18" culvert.
0.75	Existing 18" culvert.
0.78	Maintain existing water dip.
0.91	Existing 18" culvert.
0.92	Jct. with 38-3W-26.02 to right.
0.95	Maintain existing water dip.
0.98	Maintain existing water dip.
1.04	Existing 18" culvert.
1.12	Existing 18" culvert.
1.20	Existing 18" culvert.
1.32	Existing 18" culvert.
1.37	Existing 18" culvert.
1.54	Existing 18" culvert.
1.67	Maintain existing water dip.
1.75	Existing 18" culvert.

- 1.89 Existing 18” culvert.
- 1.92 Reconstruct existing water dip, armor with 40 CY 4 inch minus, open to drain.
- 2.12 Existing 18” culvert.
- 2.29 Existing turn around. End road renovation.

Road 39-1W-18.00 (Bald Mtn)
Aggregate Subgrade 16’ with Ditch

MP

Remarks

- 0.00 Jct. with County Road N°. 656 Anderson Creek and 38-2W-24.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing.
- 0.05 Jct. with 39-1W-17.00 to left.
- 0.19 Existing 18” culvert.
- 0.32 Existing 18” culvert.
- 0.60 Existing 18” culvert.
- 0.78 Existing 18” culvert.
- 0.96 Existing 18” culvert.
- 1.04 Jct. with 39-1W-17.01 to right.
- 1.11 Existing 18” culvert with 6’ downspout.
- 1.19 Junction temporary road TR 17-7 on left.
- 1.31 Install 18”x 34’ culvert.
- 1.44 Spur road to left.
- 1.76 Jct. with 39-1W-21.00 to right.
 Jct. with 39-1W-21.03 to right.
 Jct. with private road to left.
- 1.87 Existing 18” culvert.
- 2.04 Existing 18” culvert.

2.18 Existing 18" culvert.
2.32 Existing 18" culvert.
2.38 Existing 18" culvert.
2.50 Existing 18" culvert.
2.59 Existing 18" culvert.
2.68 Existing 18" culvert.
2.72 Existing 18" culvert.
2.73 Jct. with 39-1W-21.02 to right.
2.75 Jct. with 39-1W-21.01 to left.
2.93 Existing 18" culvert.
3.14 Existing 18" culvert.
3.25 Existing 18" culvert. Re-attach downspout.
3.57 Enter private land.
3.60 Existing 18" culvert.
3.65 Private road to left.
3.74 Existing 18" culvert.
3.84 Existing 18" culvert.
3.86 Jct. with 39-1W-22.01 to right.
3.94 Jct. with 39-1W-22.00 to left.
3.95 Existing 18" culvert.
4.12 Existing 18" culvert.
4.27 Existing 18" culvert with 5' downspout.
4.34 Existing 18" culvert.
4.44 Existing 18" culvert.
4.50 Existing 18" culvert.

- 4.54 Existing 18" culvert.
- 4.63 Existing 18" culvert.
- 4.77 Existing 18" culvert.
- 4.78 Jct. with County Road N°. 4619 Wagner Gap Road.
End road renovation.

Road 39-1W-21.02 (Middle Bald Sp)
Aggregate Subgrade 16'

MP

Remarks

- 0.00 Jct. with 39-1W-18.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing.
- 0.31 Existing 18" culvert.
- 1.06 Existing 18" culvert.
- 1.55 Existing turn around. End road renovation.

Road 39-1W-21.03 (Upper Bald Mtn)
Aggregate/Natural Subgrade 16' with Ditch

MP

Remarks

- 0.00 Jct. with 39-1W-18.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing.
- 0.03 Existing 18" culvert.
- 0.11 Existing 18" culvert.
- 0.17 Existing 18" culvert.
- 0.23 Existing 18" culvert.
- 0.28 Existing 18" culvert.
- 0.33 Existing 18" culvert.
- 0.42 Existing 18" culvert with 6' downspout.
- 0.52 End existing aggregate surface. Begin existing natural surface. Begin placing aggregate from Commercial Source at 6" depth.

- 0.89 Existing 18" culvert.
- 0.94 Existing 18" culvert.
- 1.01 Existing 18" culvert.
- 1.15 Shape road for 300 feet at 3% outslope to drain.
- 1.29 Existing 18" culvert. Dig out buried culvert.
- 1.40 Existing 18" culvert. Dig out buried culvert.
- 1.46 Helicopter landing. End placing aggregate.
- 1.95 Existing 18" culvert. Dig out buried culvert.
- 2.13 Existing 18" culvert. Dig out buried culvert.
- 2.16 End road renovation.

Road 39-1W-22.01 (E Bald Mtn Sp)

Aggregate

Subgrade 16'

MP

Remarks

- 0.00 Jct. with 39-1W-18.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing.
- 0.04 Existing BLM gate.
- 0.44 Existing 18" culvert.
- 0.62 Existing rock quarry.
- 0.76 Existing 18" culvert.
- 0.93 Existing 18" culvert.
- 1.23 Reconstruct turn around. End road renovation.

Road 39-2W-01.00 (N Anderson A Sp)
Natural Subgrade 14'

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with 38-2W-12.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing. Begin roadside vegetation maintenance. (See Exhibit C7; Roadside brushing and roadside vegetation maintenance details).
0.02	Existing 18" culvert.
0.36	Jct. with 39-2W-01.01 to left.
0.63	End road renovation.

Road 39-2W-03.02 (Grubb Gu C Sp)
Aggregate Subgrade 14' with Ditch

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with 38-2W-26.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing. Begin roadside vegetation maintenance. (See Exhibit C7; Roadside brushing and roadside vegetation maintenance details).
0.04	Maintain existing water dip.
0.13	Maintain existing water dip.
0.23	Existing 18" culvert.
0.35	Repair heavy raveling for 500'.
0.40	Existing 18" culvert.
0.66	Existing 24" culvert.
0.75	Maintain existing water dip.
0.76	Existing 18" culvert. Dig out buried culvert.
0.93	Existing 18" culvert. Dig out buried culvert.
0.98	Maintain existing water dip.
1.05	Existing 18" culvert. Dig out buried culvert.
1.08	Maintain existing water dip.

- 1.16 Existing 18" culvert.
- 1.26 Existing 18" culvert.
- 1.33 Maintain existing water dip.
- 1.41 Existing 18" culvert.
- 1.50 End road renovation. Existing turn around.

Road 39-2W-08.00 (Armstrong-Deming)
Bituminous/Aggregate Subgrade 14' with Ditch

- | <u>MP</u> | <u>Remarks</u> |
|------------------|--|
| 0.00 | Jct. with County Road N°. 787 Sterling Creek Road. Begin road renovation which includes reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing. |
| 0.01 | Existing 3 sided concrete box culvert. |
| 0.06 | Jct. with private to right. |
| 0.11 | Jct. with private to left. |
| 0.15 | Existing 18" culvert. |
| 0.25 | Jct. with private to left. |
| 0.28 | Jct. with 39-2W-17.00 to right. End chip seal surface. Begin existing aggregate surface. Begin reshaping road surface (blading, watering, and rolling) to road specifications. |
| 0.36 | Existing 18" culvert. |
| 0.49 | Existing 18" culvert. |
| 0.67 | Existing 18" culvert. |
| 0.74 | Existing 18" culvert. |
| 0.89 | Existing 18" culvert. |
| 1.03 | Existing 18" culvert. |
| 1.05 | Jct. with Deming Gulch TH to right and Grub TH to left. |
| 1.14 | Existing 18" culvert. |
| 1.32 | Existing 18" culvert. |

- 1.42 Jct. with 39-2W-09.00 to left.
- 1.53 Existing 18" culvert.
- 1.74 Existing 18" culvert.
- 1.96 Maintain existing water dip.
- 2.13 Existing 18" culvert.
- 2.18 Jct. with 39-3W-15.00 to left.
- 2.18 Existing 18" culvert.
- 2.29 Existing 18" culvert.
- 2.52 Existing 18" culvert.
- 2.63 Existing 18" culvert.
- 2.69 Existing 18" culvert.
- 2.82 Jct. with Wolf Gap TH parking left and 39-2W-15.01 to right.
- 3.15 Existing 18" culvert.
- 3.34 Existing 18" culvert.
- 3.57 Maintain existing water dip.
- 3.64 Maintain existing water dip.
- 4.26 Maintain existing water dip.
- 4.41 Existing 18" culvert.
- 4.61 Maintain existing water dip.
- 4.89 Maintain existing water dip.
- 5.10 Existing 18" culvert.
- 5.25 Existing 18" culvert.
- 5.38 Existing 18" culvert.
- 5.69 Viewing turnout to left.

- 5.87 Maintain existing water dip.
- 6.13 Maintain existing water dip.
- 6.22 Existing 18" culvert.
- 6.35 Existing 18" culvert.
- 6.38 Jct. with 39-2W-11.00 to right.
- 6.60 Maintain existing water dip.
- 6.66 Existing 18" culvert.
- 6.87 Maintain existing water dip.
- 7.13 Cement barriers left.
- 7.19 Existing 18" culvert. Dig out buried culvert.
- 7.21 Jct. with 38-2W-26.00 to left.
- 7.53 Maintain existing water dip.
- 7.65 Existing 18" culvert.
- 7.86 Jct. with 39-2W-02.00 to left.
- 8.07 Existing 24" culvert with live spring. Hydrologic Point of Concern: Install check dams, or other approved BMP's, per contract specifications and Exhibit C13.
- 8.28 Existing 18" culvert.
- 8.50 Existing 18" culvert.
- 8.63 Existing 18" culvert.
- 8.75 Jct. with 38-2W-24.00. End road renovation.

Road 39-2W-12.00 (Sleppy Mine Rd)
Natural Subgrade 14' with Ditch

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with 38-2W-24.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing. Begin placing aggregate from Stockpile at 6" depth. Begin roadside vegetation maintenance. (See Exhibit C7; Roadside brushing and roadside vegetation maintenance details).
0.22	Existing 18" culvert.
0.22	Jct. with 39-2W-12.01 to left.
0.43	Existing 18" culvert with 6' downspout.
0.57	Existing 18" culvert.
0.84	Existing 18" culvert.
0.96	Existing 18" culvert.
1.10	Existing 18" culvert with 6' downspout.
1.21	Existing 30" culvert.
1.36	Jct. with private to right.
1.38	Jct. with 39-2W-01.00 to left. End placing aggregate from Stockpile.
1.61	Existing 18" culvert. Dig out buried culvert.
1.68	Existing 18" culvert.
1.74	Existing 18" culvert. Dig out buried culvert.
1.81	Repair subgrade for 100' each direction.
1.90	Existing 18" culvert.
1.92	Existing 48" culvert. Blade road to drain. Hydrologic Point of Concern: Install check dams, or other approved BMP's, per contract specifications and Exhibit C13.
2.01	End road renovation.

Road 39-2W-12.01 (Sleppy Mine Sp)
Natural Subgrade 14'

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with 39-2W-12.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; and roadside brushing. Logs in road. Begin roadside vegetation maintenance. (See Exhibit C7; Roadside brushing and roadside vegetation maintenance details).
0.32	Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
0.13	Construct water dip armor with 40 CY 4 inch minus, open to drain.
0.34	Maintain existing water dip.
0.49	Junction temporary road TR 12-1. End road renovation.

Road 39-2W-15.00 (Deming Sp)
Aggregate Subgrade 16'

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with 38-2W-08.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; and roadside brushing.
0.08	Existing 18" culvert. Clean outlet.
0.17	Maintain existing water dip.
0.26	Maintain existing water dip.
0.38	Maintain existing water dip.
0.42	Existing 18" culvert. Buried inlet.
0.50	Existing turn around. End road renovation.

Road 39-2W-17.00 (Armstrong Gulch)
Aggregate Subgrade 14' with Ditch

<u>MP</u>	<u>Remarks</u>
0.00	Jct. with 38-2W-08.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clearing and reshaping ditch lines; clearing all culvert inlets and outlets; cleaning all debris or obstructions from inside culverts; and roadside brushing.
0.01	Existing 18" culvert.
0.13	Existing 18" culvert.
0.22	Existing 18" culvert.

- 0.33 Pump chance to right.
- 0.34 Maintain existing water dip.
- 0.36 Existing Stream Crossing 54' x 67" x 94". Hydrologic Point of Concern: Install check dams, or other approved BMP's, per contract specifications and Exhibit C13.
- 0.51 Existing 18" culvert.
- 0.60 Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
- 0.65 Jct. with 39-2W-17.01 to right.
- 0.67 Existing Stream Crossing 54' x 63" x 87". Hydrologic Point of Concern: Install check dams, or other approved BMP's, per contract specifications and Exhibit C13.
- 0.70 Existing 18" culvert.
- 0.81 Private closed road to left.
- 0.82 Maintain existing water dip.
- 0.87 Existing Stream Crossing 48' x 46" x 60". Hydrologic Point of Concern: Install check dams, or other approved BMP's, per contract specifications and Exhibit C13.
- 0.97 Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
- 1.05 Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
- 1.09 Existing 18" culvert.
- 1.11 Trailhead to left.
- 1.13 Jct. with 39-2W-16.01 to left.
- 1.14 Existing 36" culvert. Clean Inlet.
- 1.15 Existing 18" culvert.
- 1.30 Existing 18" culvert.
- 1.41 Reconstruct existing water dip armor with 40 CY 4 inch minus, open to drain.
- 1.43 Existing 18" culvert.
- 1.52 Maintain existing water dip.
- 1.60 Existing 18" culvert.

- 1.66 Existing 18" culvert with 5' downspout.
- 1.96 Existing 18" culvert with 10' downspout. Dig out buried culvert.
- 2.06 Existing 18" culvert with 10' downspout. Dig out buried culvert.
- 2.12 Jct. landing to right. End road renovation.

Road NS 38-2W-23.00 (Non-System Road)

Aggregate 14' Width

MP

Remarks

- 0.00 Jct. with 38-2W-24.00. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; and roadside brushing.
- 0.44 Jct. new construction 38-2W-23.01 to right.
- 0.66 End road renovation.

Temporary Spur TR 17-7

Natural 14' Width

MP

Remarks

- 0.00 Jct. with 39-1W-18.00. Begin Construction.
- 0.14 End Construction.

Temporary Spur TR 12-1

Natural 14' Width

MP

Remarks

- 0.00 Jct. with 39-2W-12.01. Begin Construction.
- 0.24 End Construction.

Temporary Spur TR 27-5

Natural 14' Width

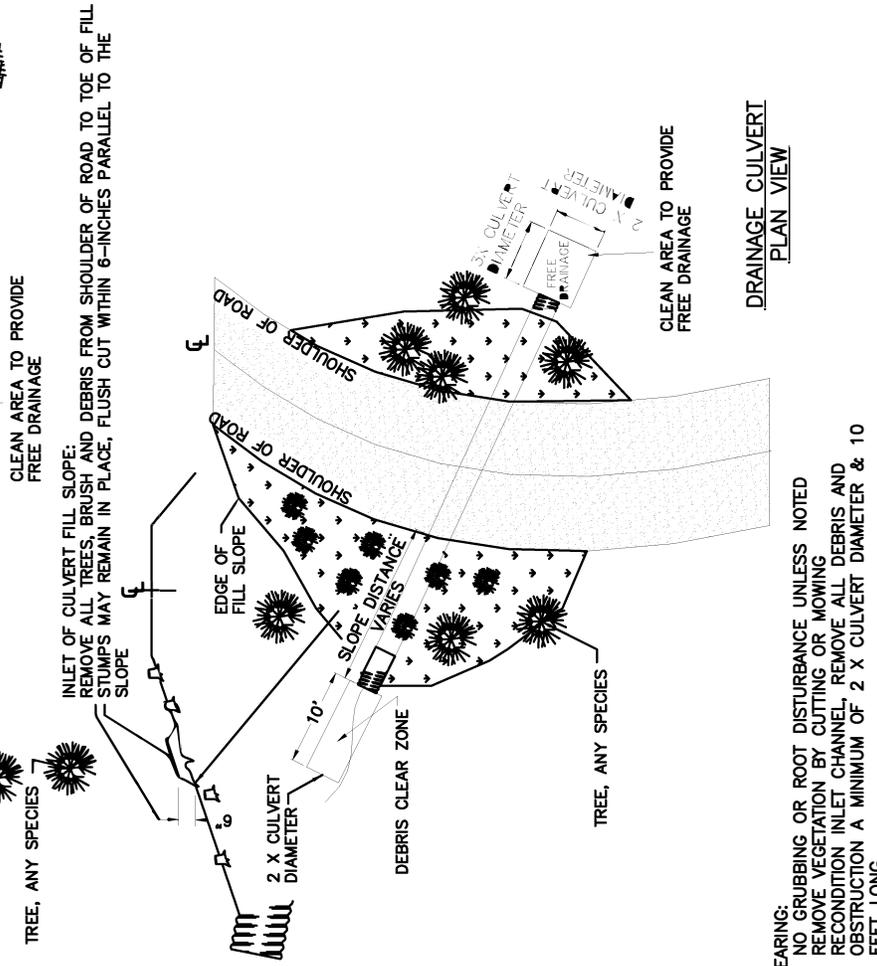
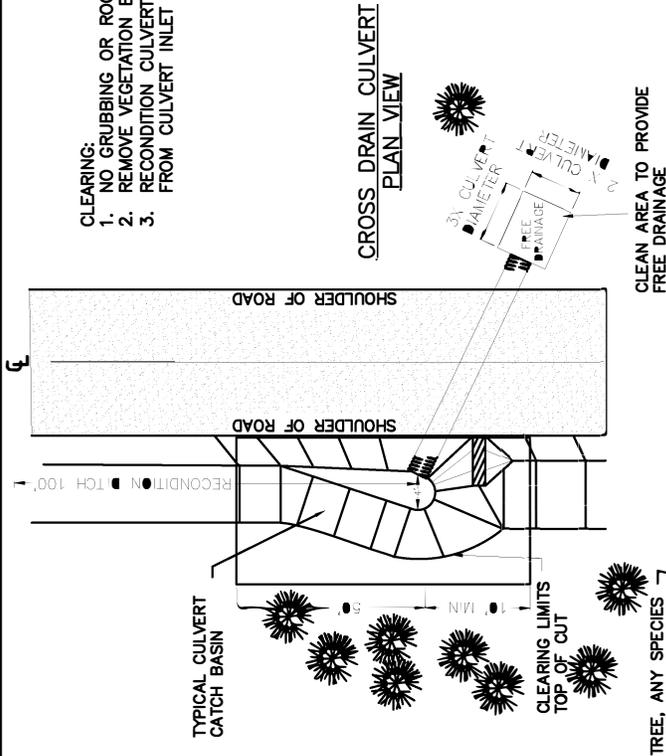
MP

Remarks

- 0.00 Jct. with 38-2W-27.02. Begin Construction.
- 0.15 End Construction.

EXHIBIT C 6 SHEET 1 OF 1

- CLEARING:**
1. NO GRUBBING OR ROOT DISTURBANCE UNLESS NOTED
 2. REMOVE VEGETATION BY CUTTING OR MOWING
 3. RECONDITION CULVERT CATCH BASIN A MINIMUM OF 4' FROM CULVERT INLET



ROAD RENOVATION

NOTES:

1. RECONDITION ROADS AS SHOWN AND IN ACCORDANCE WITH SECTION 500 OF THE SPECIFICATIONS. REQUIRED RECONDITIONING INCLUDES CURVE WIDENING AND TURNOUTS. DITCH RECONDITIONING INCLUDES CLEANING CULVERT INLETS AND OUTLETS.
2. WHERE RUTTING, EROSION AND POTHOLES EXIST, SCARIFY TO DEPTH OF RUT/EROSION/POTHOLE, BLADE, SHAPE AND COMPACT EXISTING AGGREGATE OR NATIVE SURFACE MATERIAL.
3. REMOVE AND DISPOSE OF SLIDE, DITCH, AND CATCH BASIN MATERIAL. DISPOSAL SITE LOCATIONS AS STAKED ON THE GROUND. DISPOSAL/WASTE SITES SHALL BE APPROVED BY THE AUTHORIZED OFFICER PRIOR TO USE. SEE VICINITY MAP FOR DISPOSAL SITE LOCATIONS/ OR AS STAKED ON GROUND.
4. MATCH EXISTING TRAVEL WAY CROSS SLOPE. THE TRAVELED WAY SHALL BE SHAPED TO THE EXISTING CROSS SLOPE. EXISTING ROADS WHICH ARE CROWNED SHALL BE AT 3% FROM CENTERLINE ROAD, INSLOPED AS IS, OUTSLOPED AS IS.

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON	
TYPICAL ROAD RENOVATION DETAIL	
DRAWN BY JWR	SCALE NONE
DATE JULY 2020	SHEET 1 OF 1
DRAWING NO. ORM06.2021.0002.C6	

EXHIBIT C 7 SHEET 1 OF 1

Cutting Limit = C + D + B + H + F

B = Road Bed Subgrade (includes turnouts)
Cut all vegetation to max. height of 1".

C = 6 ft - Distance to be brushed on cut slope beyond centerline of ditch.

Cut all vegetation to max height of 6".

D = Centerline of ditch to inside shoulder

Cut all vegetation to max. height of 1".

H = Variable distance between edge of road bed subgrade and outside shoulder (does not include turnout widths)

F = Distance to be brushed on fill slope beyond outside shoulder (F = 6 when H is 6 ft or less)

(F = 0 when H is greater than 6 ft)

Cut all vegetation to max height of 6".

V = 14 ft - Height of vertical cutting limit

Typical Road Bed Subgrade widths

- One lane low traffic volume 12 to 16 ft
- One lane medium traffic volume . . 16 to 20 ft
- Two lane high volume traffic 20 to 40 ft
- Turnouts 10 ft

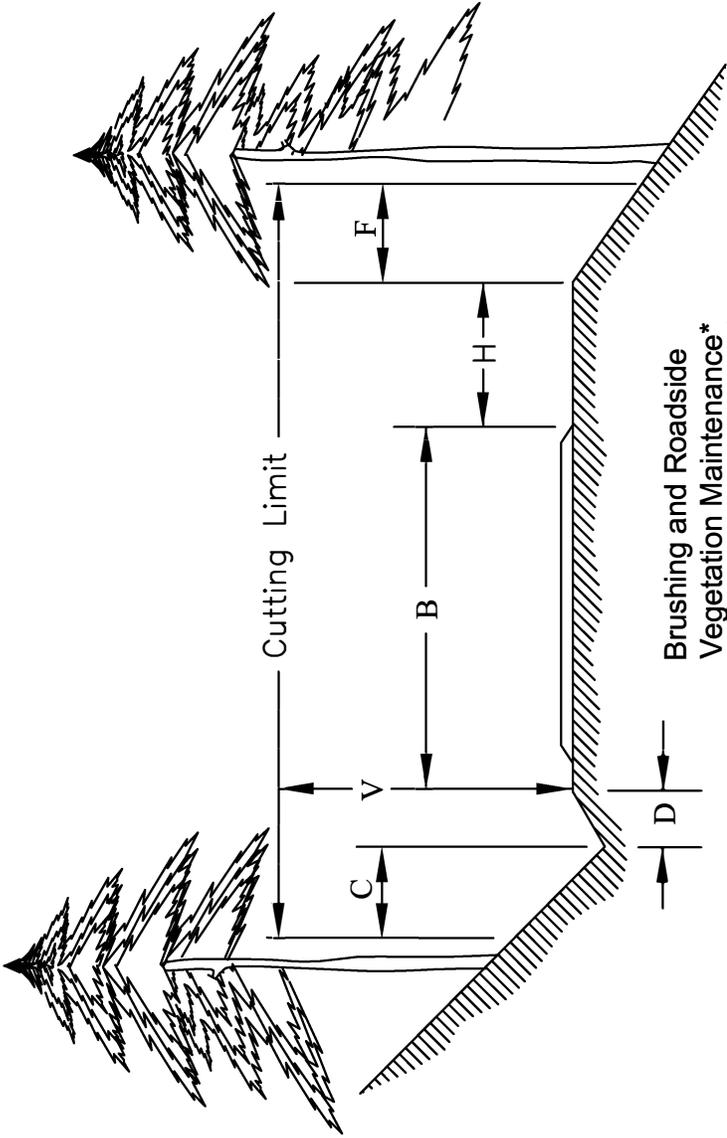
NOTES:

Cutting and Removal of vegetation from ditches and roadway is incidental to brushing within cutting limits.

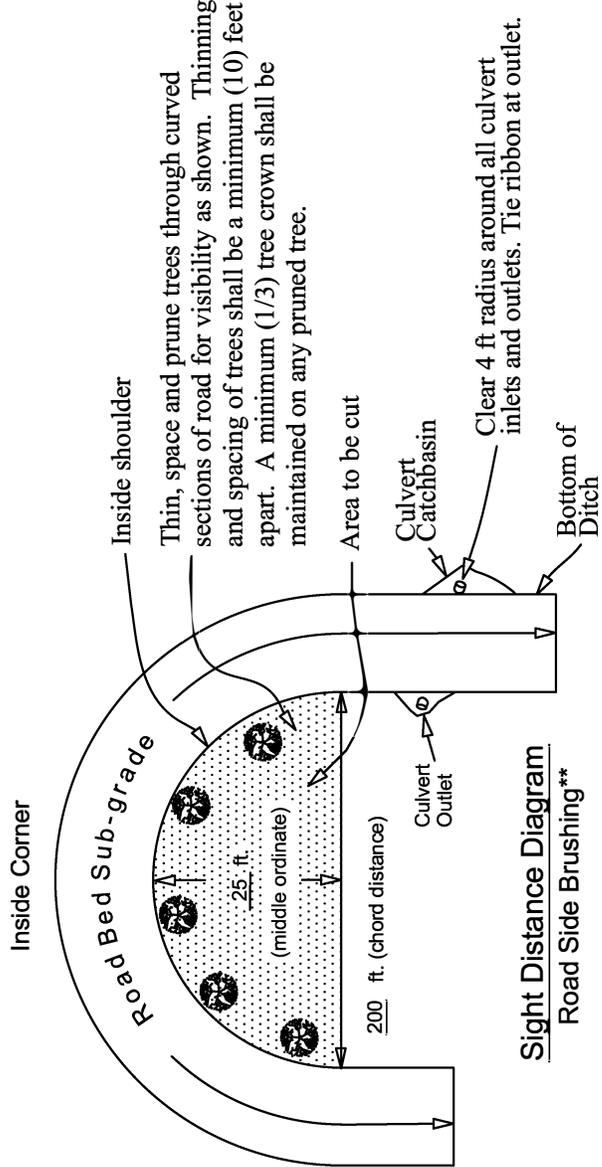
All distances shown are horizontal except for V

* = Any stumps that may impede road maintenance equipment shall be grubbed.

** = Excludes work for roadside maintenance.



Brushing and Roadside Vegetation Maintenance*



Sight Distance Diagram
Road Side Brushing**

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON	
ROADSIDE BRUSHING AND ROADSIDE VEGETATION MAINTENANCE DETAILS	
DRAWN	JWR
DATE	JULY 2020
SHEET	1 OF 1
DRAWING NO.	ORM06.2021.0002.C7

TYPICAL CROWNED SURFACE

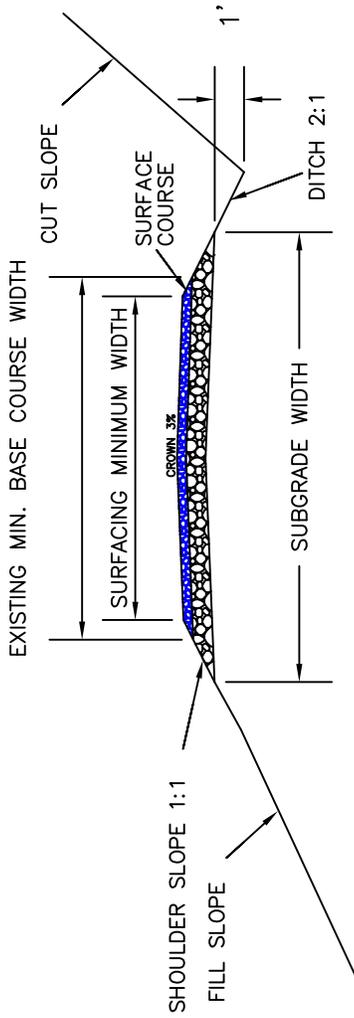
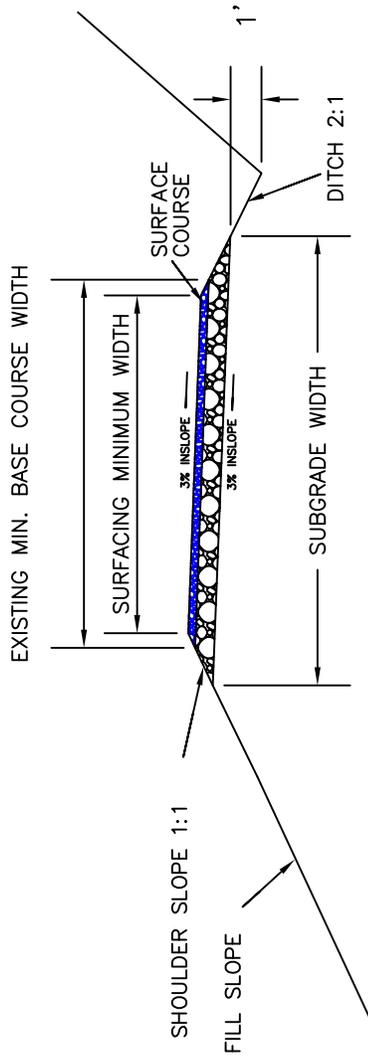
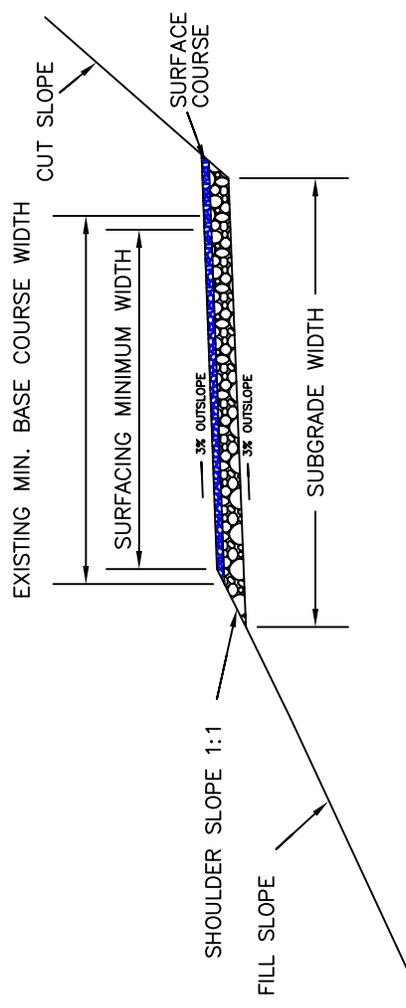


EXHIBIT C 8
SHEET 1 OF 1

TYPICAL INSLOPED SURFACE



TYPICAL OUTSLOPED SURFACE

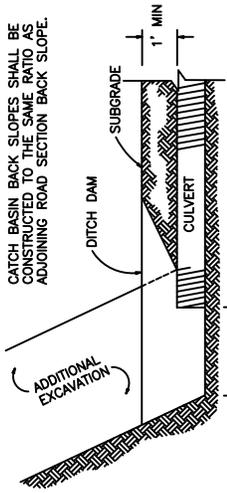


UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT - MEDFORD, OREGON

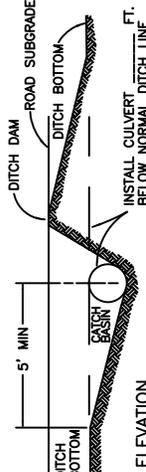
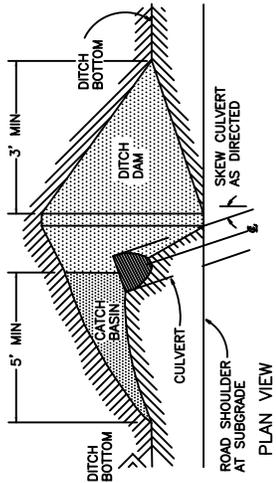
TYPICAL ROAD
SURFACING SECTIONS

DRAWN: JWR	SCALE: AS SHOWN
DATE: JULY 2020	SHEET 1 OF 1
DRAWING NO. ORM06.2021.0002.C8	

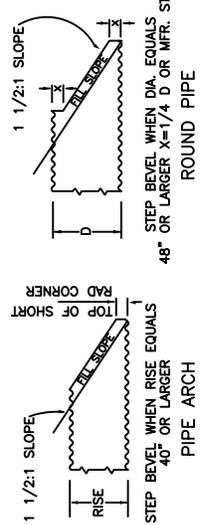
EXHIBIT C 10
SHEET 1 OF 1



CROSS SECTION AT CATCH BASIN



CATCH BASIN



BEVELED END DETAIL



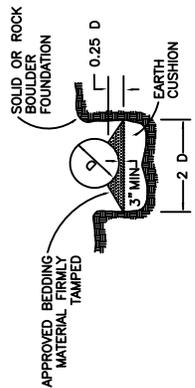
BEDDING MATERIAL SHALL BE SHAPED TO FIT THE BOTTOM OF THE CULVERT.

BEDDING OF CULVERTS ON STABLE NATURAL GROUND FOUNDATION OR COMPACTED EMBANKMENT

BEDDING MATERIAL SHALL BE SHAPED TO FIT THE BOTTOM OF THE CULVERT.

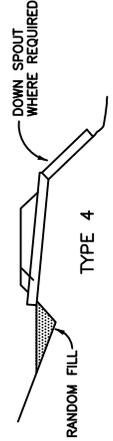
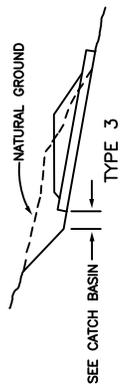
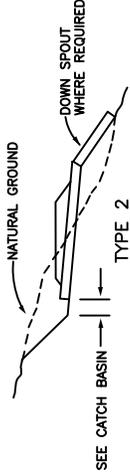
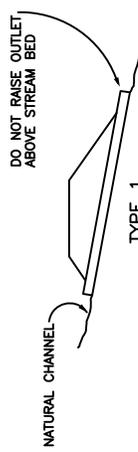
BEDDING OF CULVERTS ON SOFT SPONGY OR UNSTABLE SOIL FOUNDATION

BEDDING OF CULVERTS

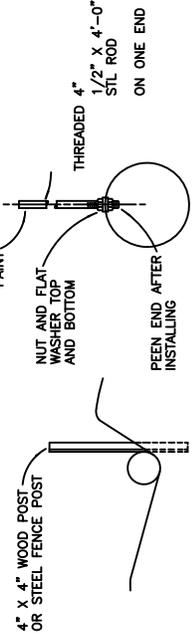


BEDDING MATERIAL SHALL BE SHAPED TO FIT THE SWEEP OF CURVING OF CULVERT. IF SILTY CLAY LOAM OR SAND MAY BE USED, MATERIAL CAN BE PLACED IN THE DRY CONDITION. IF THE EXCAVATION IS WET, USE GRANULAR FOUNDATION FILL MATERIAL. MAIN-TAIN 8" MIN. DEPTH BETWEEN HIGH POINTS OF ROCKS AND/OR BOULDERS AND THE BOTTOM OF THE CULVERT.

BEDDING OF CULVERT IN SOLID ROCK OR BOULDER FOUNDATION

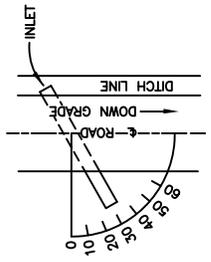


CULVERT INSTALLATION TYPES



INSTALL MARKERS NOT MORE THAN 6" BACK FROM END OF CULVERT

CULVERT MARKER INSTALLATION

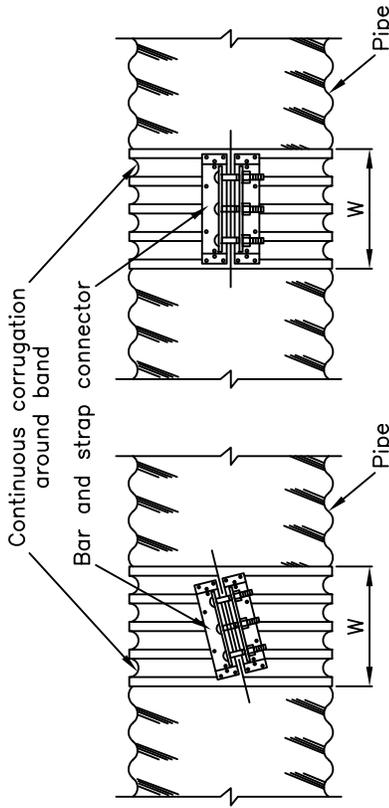


THE GRADE OF CROSSEDRAINS SHALL BE AT LEAST 2% GREATER THAN THE GRADE OF THE DITCH.

SKIEW DIAGRAM

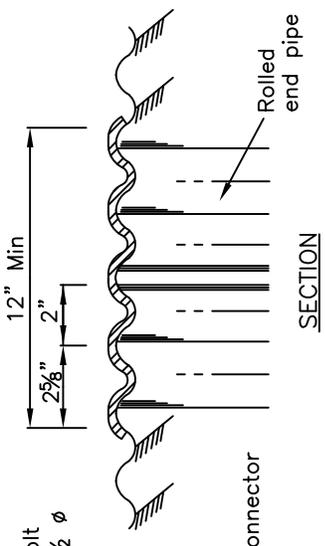
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
CULVERT INSTALLATION DETAILS			
DRAWN	JWR	SCALE	NONE
DATE	JULY 2020	SHEET 1	OF 1
DRAWING NO.	ORM06.2021.0002.C10		

FULL CORRUGATED BAND

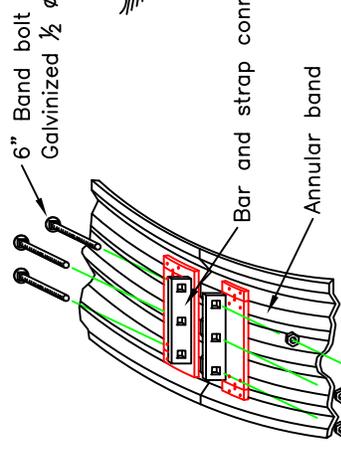


HELICAL COUPLING

ANNULAR COUPLING



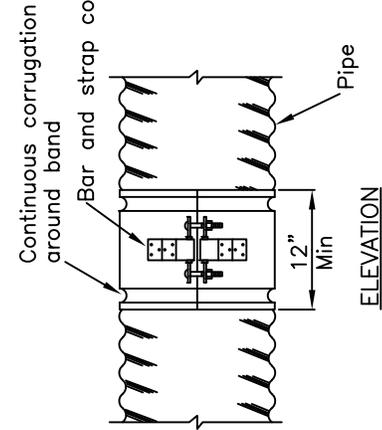
SECTION



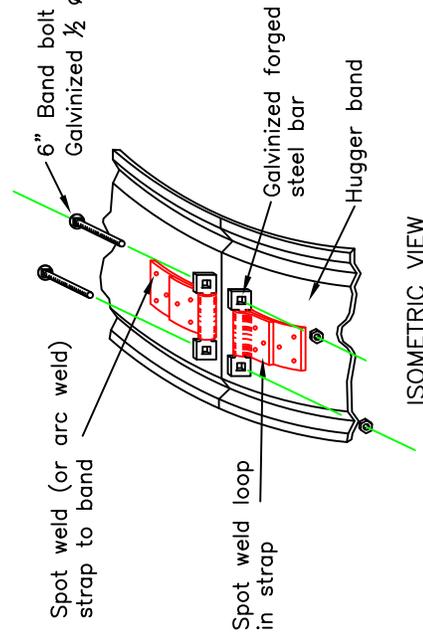
ISOMETRIC VIEW

2 1/2" x 1/2" CORRUGATIONS		3" x 1" CORRUGATIONS	
PIPE DIAMETER (in)	W (in)	# of 1/2" Bolts	
		ANN.	HEL.
6-10	7	7	2
12-15	7	12	2-3
18-24	12	12	3
24-30	24	24	5

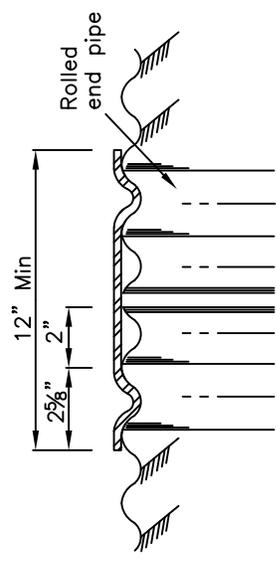
"HUGGER" BAND



ELEVATION



ISOMETRIC VIEW



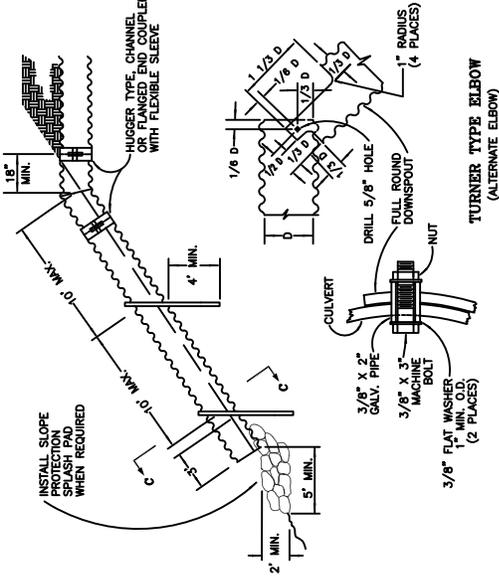
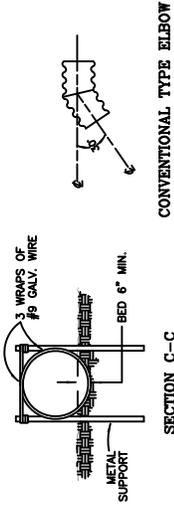
SECTION

Standard construction is 1 piece 12" thru 48" and 2 piece 54" and above.

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 12 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.

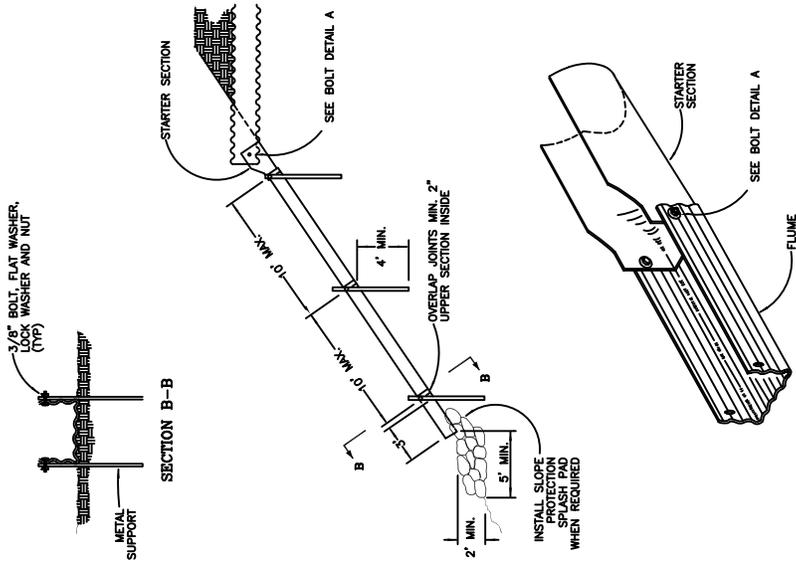
Annular corrugated couplers for pipe shall cover at least two outside crest corrugations on each recorrugated end.

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
CULVERT BAND DETAIL			
DRAWN	JWR	SCALE	NONE
DATE	JULY 2020	SHEET	1 OF 1
DRAWING NO.	ORM06.2021.0002.C11		



FULL ROUND DOWNSPOUT

- NOTE:
1. THE ELBOW AND SPILLWAY SECTION SHALL BE OF SAME DIAMETER, MATERIAL AND COATING AS THE CULVERT.
 2. THE SPILLWAY SECTION SHALL BE FABRICATED FROM 16 GAUGE METAL WITH 2 2/3" X 1/2" CORRUGATIONS.
 3. SUPPORTS MAY BE COMMERCIAL STEEL FENCE POSTS, STEEL BAR, ANGLE IRON OR EQUIVALENT METAL POSTS.
 4. CONNECTION BETWEEN HELICALLY CORRUGATED AND ANNUAL PIPE SHALL REQUIRE A SPECIAL ADAPTER COUPLING BAND.

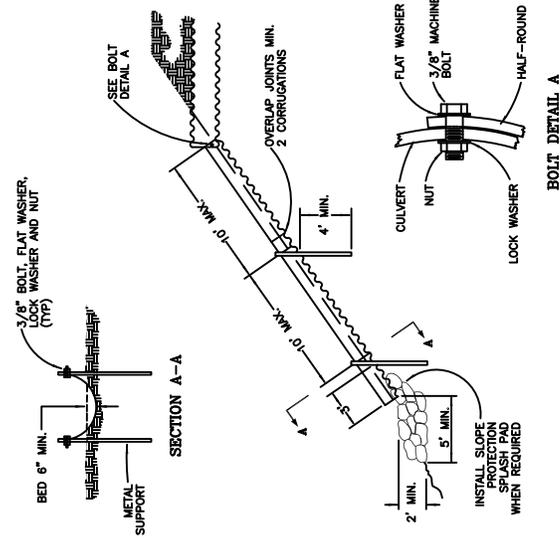


RECTANGULAR FLUME

- NOTE:
1. THE FLUME SHALL BE FABRICATED FROM 16 GAUGE CULVERT STOCK WITH 2 2/3" X 1/2" CORRUGATIONS.
 2. THE STARTER SECTION SHALL BE FABRICATED FROM 16 GAUGE NON-CORRUGATE CULVERT STOCK.
 3. ADJUSTABLE WIDTH FLUMES ARE AVAILABLE FOR APPLICATIONS OVER 24" WIDE. INSTALL ACCORDING TO MANUFACTURER.
 4. SUPPORTS MAY BE STEEL BAR, ANGLE IRON OR APPROVED EQUIVALENT POSTS.

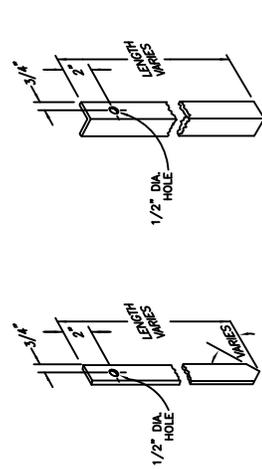
GENERAL NOTES

1. THE LENGTH OF THE DOWNSPOUT SHALL BE DETERMINED AT THE TIME OF INSTALLATION.
2. FABRICATION AND INSTALLATION OF ALL GALVANIZED STEEL DOWNSPOUTS SHALL CONFORM TO AASHTO M36, M218; ALUMINUM ALLOY TO AASHTO M196; ALUMINIZED TYPE II TO AASHTO 36, M196.
3. ALL STEEL NUTS, BOLTS AND WASHERS SHALL BE GALVANIZED. (ASTM A307, A153)
4. SLOPE PROTECTION SPLASH PADS, WHEN REQUIRED, SHALL BE A MIN. 2' WIDE X 5' LONG X 2' DEEP. INDIVIDUAL PADS SHALL BE 10" X 14" IN SIZE.
5. SLOPE PROTECTION SPLASH PADS SHALL EXTEND TO UNDISTURBED GROUND.



HALF ROUND DOWNSPOUT

- NOTE:
1. THE HALF ROUND SHALL BE ONE DIAMETER SIZE LARGER AND OF THE SAME MATERIAL AND COATING AS THE CULVERT IT IS ATTACHED TO.
 2. THE HALF ROUND SHALL BE FABRICATED FROM 16 GAUGE METAL WITH 2 2/3" X 1/2" CORRUGATIONS.
 3. SUPPORTS MAY BE STEEL BAR, ANGLE IRON OR APPROVED EQUIVALENT METAL POSTS.



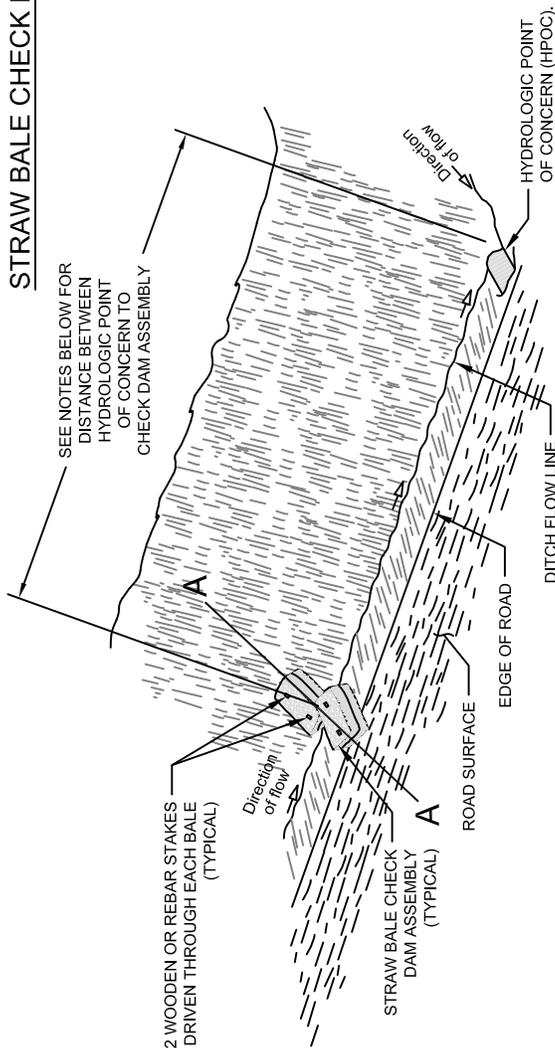
1. 1/2" X 1 1/4" STEEL BAR SUPPORT
- 1 1/2" X 1 1/4" ANGLE IRON SUPPORT

METAL SUPPORT DETAIL

ALWAYS
THINK
SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.
	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON		
DOWNSPOUT INSTALLATION DETAILS			
DRAWN	JWR	SCALE	NONE
DATE	JULY 2020	SHEET	1 OF 1
DRAWING NO. ORM06.2021.0002.C12			

STRAW BALE CHECK DAM ASSEMBLY



PLAN

NOTES:

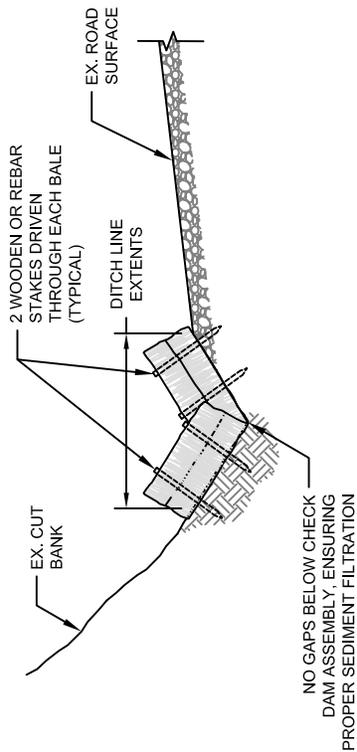
1. All straw bales will be from a weed free certified source.
2. Hydrologic Points of Concern (HPOC) are natural drainage features (ie. streams, creeks, draws) that intersect with existing or proposed roads.
3. If the HPOC is a bridge spanning across a noted or listed critical fish habitat (Coho) waterway, install check dam assembly, or other approved BMP, in road ditch line 150 LF up-grade from top of creek bank or edge of bridge.
4. If the HPOC is a draw culvert, install check dam assembly, or other approved BMP, in road ditch line 100 LF up-grade from inlet of culvert.

INSTALLATION NOTES:

1. Do not construct the check dam assembly more than one bale high.
2. Bales shall be placed tightly together and snug to the ground to ensure no gaps between bales or underneath the assembly.
3. Securely anchor the bales in place with two wooden or rebar stakes driven through the bales. Drive the stakes in the second bale toward the previously laid bale to force the bales tightly together. Ensure stakes are driven 12 inches minimum into the ground.
4. The assemblies do not need to be anchored if the terrain is relatively flat, less than 2% ditch line grade.

INSPECTION/MAINTENANCE NOTES:

1. Inspect each assembly before, during, and after each rain event.
2. Repair and/or replace damaged assemblies or decomposed bales promptly. Replacement bales shall be in good condition to ensure sediment trapping.
3. Trapped sediment shall be removed when it reaches 6-8 inches in depth.
4. Sediment shall be removed and placed in a stable area outside of wetlands, riparian reserves, floodplains, and waters of the State.



SECTION A-A

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON	
DRAINAGE & EROSION CONTROL INSTALLATION	
DRAWN: JWR	SCALE: AS SHOWN
DATE: JULY 2020	SHEET 1 OF 1
DRAWING NO. ORM06.2021.0002.C13	

EXHIBIT C 14

SHEET 1 OF 1

NOTES

- 1) THE WATER DIP INVERT SHALL BE SMOOTH AND FREE DRAINING.
- 2) THE MINIMUM DIFFERENCE IN ELEVATION BETWEEN THE SAG AND THE CREST OF THE WATER DIP ALONG THE CUTSLOPE HINGE POINT IS 1.0 FEET.
- 3) THE MINIMUM DIFFERENCE IN ELEVATION BETWEEN THE SAG AND THE CREST OF THE WATER DIP ALONG THE FILLSLOPE SHOULDER IS 1.5 FEET.
- 4) SKEW DIP MINIMUM 15-30 DEGREES FROM PERPENDICULAR TO CENTERLINE.
- 5) EXCAVATED SOIL SHALL BE UTILIZED IN CONSTRUCTION OF WATER DIP. SIDECASTING OF VEGETATIVE MATTER IS PERMITTED.
- 6) PIT RUN MATERIAL SHALL BE PLACED ON FILL SLOPE AND SUBGRADE OF EACH ARMORED WATERDIP.
- 7) SEE ROAD RENOVATION WORKLIST FOR WATER DIPS TO BE ARMORED.
- 8) EACH DIP SHALL BE REINFORCED WITH 40 CUBIC YARDS OF 4 INCH MINUS ROCK, ON ROADWAY AND OUTFALL.

LEGEND



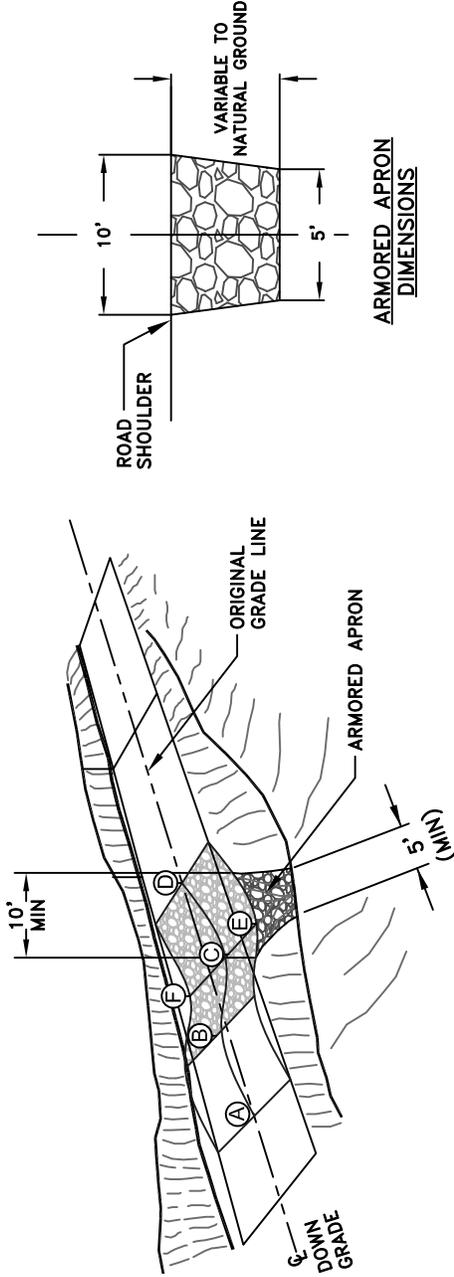
CUT/FILL SLOPES



SUBGRADE ARMOR MATERIAL
(4 INCH MINUS)

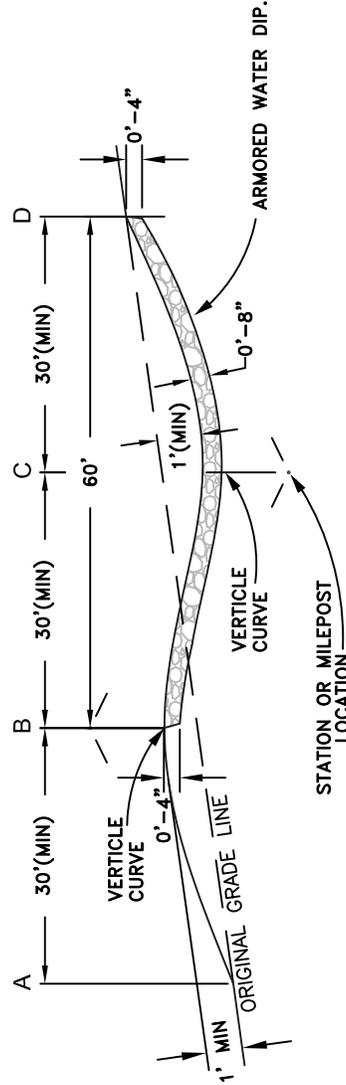


FILL SLOPE ARMOR MATERIAL PIT RUN
OR OTHER APPROVED MATERIAL.

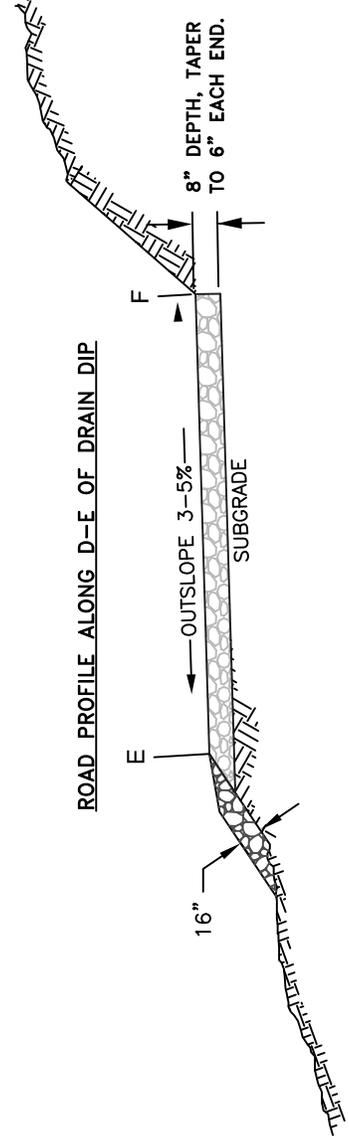


ARMORED APRON DIMENSIONS

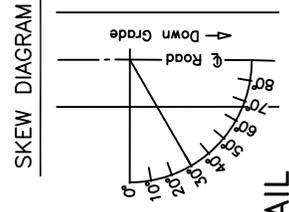
ROAD PROFILE ALONG A-B-C OF DRAIN DIP



STATION OR MILEPOST LOCATION



ROAD PROFILE ALONG D-E OF DRAIN DIP



SKEW DIAGRAM

DRAWINGS NOT TO SCALE

TYPICAL ARMORED WATER DIP CONSTRUCTION DETAIL

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT - MEDFORD, OREGON

TYPICAL ARMORED WATER DIP CONSTRUCTION

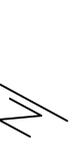
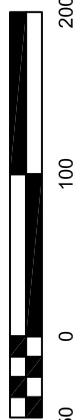
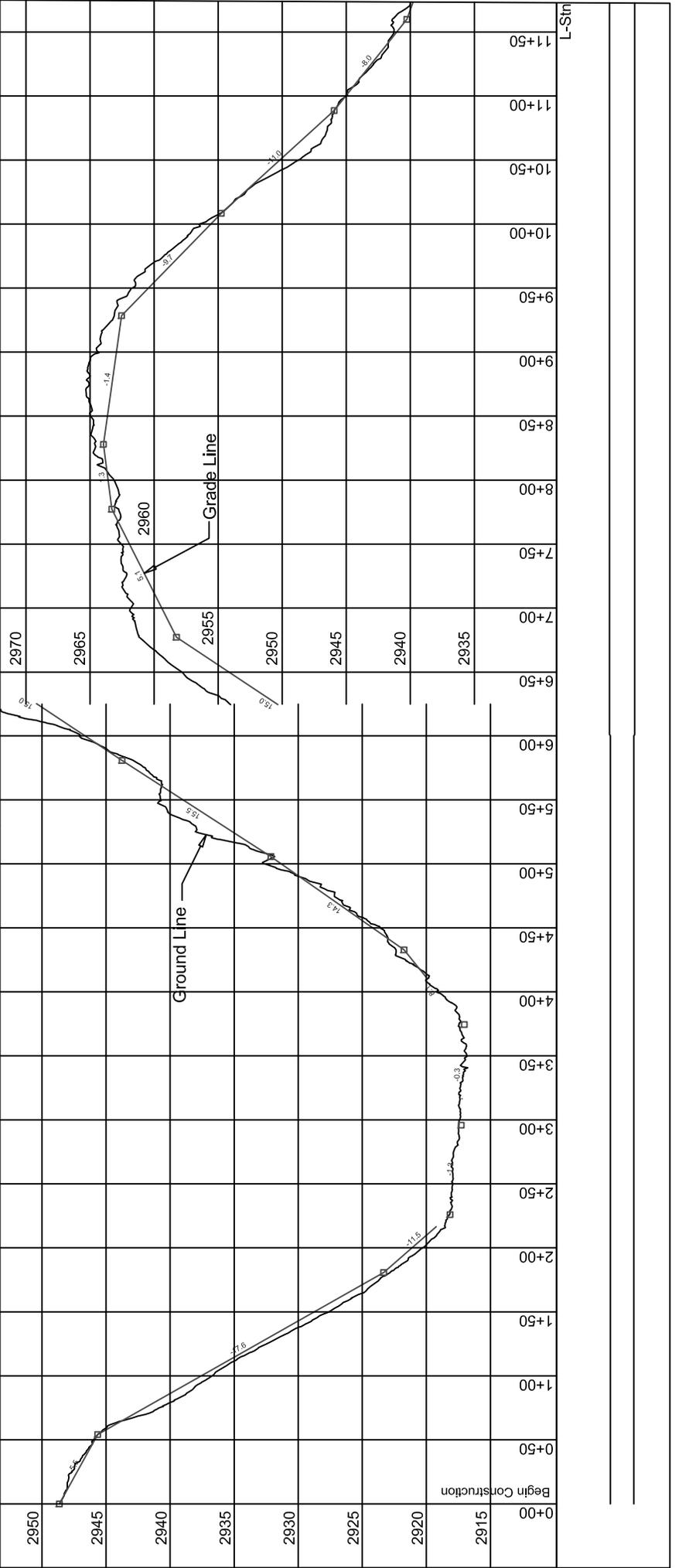
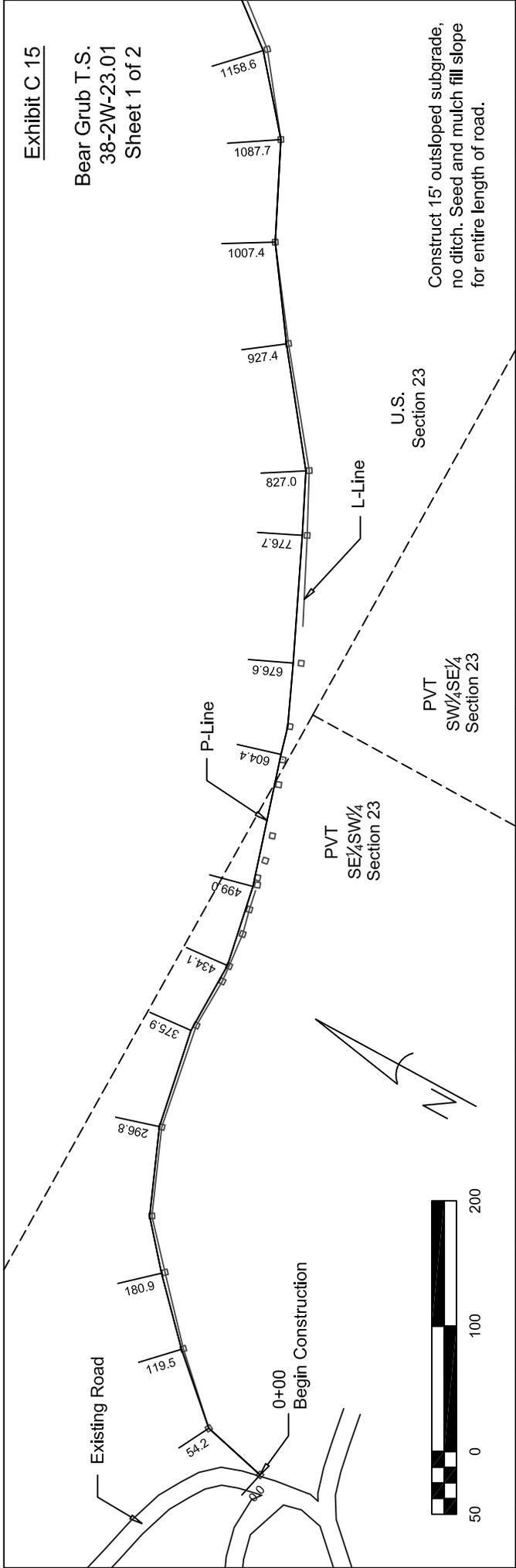
DRAWN BY JWR SCALE NONE

DATE July 2018 SHEET 1 OF 1

DRAWING NO. ORM06.2021.0002.C14

Exhibit C 15

Bear Grub T.S.
38-2W-23.01
Sheet 1 of 2



Construct 15' outsloped subgrade,
no ditch. Seed and mulch fill slope
for entire length of road.

U.S.
Section 23

PVT
SW $\frac{1}{4}$ SE $\frac{1}{4}$
Section 23

PVT
SE $\frac{1}{4}$ SW $\frac{1}{4}$
Section 23

P-Line

L-Line

Existing Road

0+00
Begin Construction

Ground Line

Grade Line

Begin Construction

L-Str

SPECIAL PROVISIONS

1. Before the initial start of road renovation, construction, reconstruction, or surfacing operations, or after a shutdown of 7 or more days, the Purchaser, or the Purchasers Representative, shall notify the Authorized Officer 48 hours in advance of the date they plan to begin operations. The Purchaser shall also notify the Authorized Officer if they intend to cease operations for any period of 30 or more days.
2. DAMAGE:
 - The Purchasers Representative/Contractor shall protect, and is responsible for, any damage to existing telephone lines, transmission lines, fiber optic lines, fences, ditches, and other existing improvements as required in Section 14. Damage to utilities and existing improvements shall be promptly paid for or repaired to a condition which is, in the opinion of the Authorized Officer and the governing utility company, as good or better condition than just prior to such damage occurring.
3. DUST ABATEMENT:
 - The application of dust abatement materials such as Lignin, Mag-chloride, or approved petroleum based dust abatement products shall be restricted from application just after severely wet weather, at stream crossings, or other locations that could result in direct delivery to a water body.
 - All dust abatement applications shall be approved by the Authorized Officer prior to application.
4. PERMITS:
 - All permits required are the responsibility of the Purchaser.
5. STREAMS:
 - All stream channel culverts and inlets shall be cleared and cleaned between **June 15th and September 15th** in accordance with Oregon Department of Fish and Wildlife (ODFW) in-stream work period guidelines.
 - Construct silt fences 25 and 50 feet below culvert replacement sites (on live streams) to trap sediment and prevent it from entering nearby stream channels.
 - Live streams shall be diverted around or through the work area in a manner that will minimize sedimentation downstream. Keep excavation site dewatered so that installation of culverts can be carried out only under dry conditions. Dispose of excess water by using natural drainage ways or devices near the site to the extent of their natural capacity and in a manner that will avoid damage to adjacent property. Utilize dewatering methods such as temporary sediment traps and/or silt fences for areas to be excavated. Provide for downstream water flow without significant transport of excavated material or sediment during construction. At no time shall turbidity limits exceed DEQ's water quality standards.
 - Ensure that all large wood is retained in the stream channel during culvert cleaning activities by moving logs which had accumulated on the upstream side of a culvert to the downstream side of the culvert.
6. WATER SOURCE:
 - The Purchaser is responsible for obtaining water, water sources shall be approved by the Authorized Officer prior to use. The Purchaser is responsible for all permits and fees from water sources on private or commercial sources.

7. EQUIPMENT

- Construction equipment shall be washed prior to entering BLM lands. Removal of all dirt, grease, and plant parts that may carry noxious weed seeds or vegetative parts is required. Equipment shall be inspected the Authorized Officer prior to entering BLM lands. Provide 48 hours' notice of inspection to BLM prior to mobilization.

8. SOIL STABILIZATION:

- All disturbed soil shall be seeded and mulched. The Purchasers Representative/Contractor shall apply native grass seed and Certified Weed Free straw mulch for soil stabilization operations. BLM will furnish native grass seed, **if available**. Acquiring certified weed free straw mulch is the responsibility of the Purchasers Representative.

9. ROAD RENOVATION:

- Road renovation shall generally take place between May 15th and October 15th of the same year. Waivers may be granted from the Authorized Officer for working outside of this time period. Seasonal restrictions for stream work and wildlife may still apply.
- Loose material cleaned from ditch lines and/or slide material shall not be sidecast or placed where it can enter wetlands, riparian reserves, floodplains, and waters of the State.

10. ROADSIDE BRUSHING

- While roadside brushing, there shall be no scarring or any other damage of the tree trunk or bole allowed. All debris resulting from roadside brushing activities shall be scattered downslope. Use of Excavators for brush removal will be at the discretion of the Authorized Officer. **All culvert inlets and outlets shall be brushed for a radius of 4 feet.** All bridges shall be brushed 8 horizontal feet from the outer most portion of the structure.
- All stumps, designated by the Authorized Officer, which would interfere with normal blading and road renovation operations (including turnouts), shall be removed in such a way as to not cause damage to the drainage ditch or the road bed. Stumps that are ground-down, shall be ground to a minimum of 3 inches below existing grade.

11. TEMPORARY ROUTES

- All temp routes and native surfaced roads (that were previously closed before timber sale activities began) shall be winterized if access is needed over two dry seasons by October 15th. Winterization includes water barring, seeding, mulching, and barricading. All temp routes shall be ripped, water barred, barricaded, seeded, and mulched after use unless otherwise specified.
- Clearing, grubbing, and excavation activities of temporary spur routes shown on Exhibit C shall be performed in accordance with Exhibit C 17.
- Construction of temporary routes shall be to minimum width.

12. COMMERCIAL AGGREGATE

- Aggregate furnished for this work shall be from an accredited weed free quarry or shall have been stockpiled in the period between November 1st and June 15th immediately prior to application. Aggregate which has been stockpiled between June 16th and October 31st of prior years will not be accepted. Aggregate crushed between June 16th and October 31st of the same application year shall not be stockpiled for more than two weeks before application.

13. WILDLIFE RESTRICTIONS

- Seasonally restrict mechanical roadside brushing activities (including chainsaws) and heavy equipment use to avoid disturbance to nesting NSOs and raptors from March 1st through September 30th within 200 feet of known NSO and raptor nests. This seasonal restriction could be waived if non-nesting status is determined.

14. WET SEASON HAUL

- The Purchaser may wet season haul, with the Authorized Officer's approval on the following roads 38-2W-18.00 A-B, 38-2W-21.00, 38-2W-24.00, 38-2W-26.00, 38-2W-29.00, 38-3W-10.00, 38-3W-16.00, 38-3W-16.01, 38-3W-23.00, 38-3W-23.01, 38-3W-26.01, 39-1W-18.00, 39-1W-21.02, 39-1W-21.03 A1, 39-1W-22.01, 39-2W-03.02, 39-2W-08.00, 39-2W-12.00 (portion), 39-2W-15.00, and the 39-2W-17.00. If the use of these roads during the wet season causes or begins to cause road damage or the transport of sediment into streams, the Authorized Officer may suspend wet season haul or require additional erosion control devices to prevent damage or off-site transportation of sediment. Additional rock may be required at the Purchaser's expense to repair any damage that occurs to the road during wet season haul.
- The Purchaser shall have the option to rock road numbers 37-3W-33.00, 38-2W-18.00 C-D, 38-2W-27.02, 38-2W-31.00, 38-3W-13.00, 38-3W-13.01, 38-3W-13.02, 38-3W-13.03, 39-1W-21.03 A2-B, 39-2W-01.00, 39-2W-12.00 (portion), 39-2W-12.01, and the NS38-2W-23.00 for wet weather haul. Purchaser option rocking depths will be determined and approved by the Authorized Officer. Any costs for rocking and installation of additional drainage features will be at the Purchaser's expense and shall be completed in accordance with the plans and specifications show in Exhibit C of this contract.

15. HELICOPTER LANDING CONSTRUCTION

- All helicopter landings shall be constructed with a minimum 2% grade to allow for drainage. Landings may either be outsloped or crowned. Helicopter landings that are built on one or both sides of an existing road shall be outsloped a minimum of 2% away from the existing road to allow for drainage.

TIMBER SALE ROAD SPECIFICATIONS

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GENERAL – 100

101 - Prewrite Conference(s):

A prework conference will be held prior to the start of new construction, improvement, and renovation operations. The Purchaser shall request the conference at least 72 hours prior to the time it is to be held. The conference will be attended by the Purchaser and/or his representative(s), subcontractor(s) and/or his or their representative(s) and the Authorized Officer and/or his representative(s).

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 subcontractor(s).

102 - Definitions:

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

Abrasion Resistance - The ability of a fabric surface to resist wear by friction.

ACI - American Concrete Institute

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 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, pitrun 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

TIMBER SALE ROAD SPECIFICATIONS

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 sidecasting 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.

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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.

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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.

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.

TIMBER SALE ROAD SPECIFICATIONS

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.

Subbase - Reinforcement of the subgrade with large particles of pitrun 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.

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- Unaged Cloth - Cloth in condition received from the manufacturer or distributor.
- 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:
- AASHTO T 11 Quantity of rock finer than No. 200 sieve.
- AASHTO T 27 Sieve analysis of fine and coarse aggregate using sieves with square openings; gradation.
- AASHTO T 89 Liquid limit of material passing the No. 40 sieve. Water content at which the soil passes from a plastic to a liquid state.
- AASHTO T 90 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.
- AASHTO T 96 Resistance to abrasion of small size coarse aggregate by use of the Los Angeles machine.
- AASHTO T 99 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.
- AASHTO T 119 Slump of hydraulic cement concrete.
- AASHTO T 152 Air content of freshly mixed concrete.
- AASHTO T 166 Specific Gravity of compacted Bituminous Mixtures.

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- AASHTO T 176 Shows relative portions of fine dust or claylike materials in soil or graded aggregate.
- AASHTO T 180 (OSHD 106-71) moisture density relationship of soil same as AASHTO T 99 proctor but uses a 10-lb rammer & 18-in drop height.
- AASHTO T 191 Sand Cone. 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.
- AASHTO T 205 Rubber balloon. Density of soil in place. Use for compacted or firmly bonded soil.
- AASHTO T 209 Maximum Specific Gravity of Bituminous Paving Mixtures.
- AASHTO T 210 Durability of aggregates based on resistance to produce fines.
- AASHTO T 224 Correction for coarse particles in the soil.
- AASHTO T 238 Density of Soil and Soil-Aggregate in place by nuclear methods.
- AASHTO T 248 Reducing field samples of aggregate to testing size by mechanical splitter, quartering, or miniature stockpile sampling.
- ASTM D 4564 Determination of relative density of cohesionless soils.
- DMSO (dimethyl sulfide) Determines volume of expanding clays in aggregates. Usually associated with marine basalts.
- 103 - Compaction equipment shall meet the following requirements:
- 103f - Vibratory roller. The drum diameter shall be not less than 48 inches, the drum width not less than 58 inches, and have a turning radius of 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 7 tons at 1600 RPM. It shall be activated by a power unit of not less than 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.

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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 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 56 inches, nor more than 66 inches and the drum width shall be 84 inches. Vibratory frequency shall be regulated in seeps 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 1 inch in height and spaced not more than 8-1/2 inches apart.
- 103i - Other. Compaction equipment approved by the Authorized Officer.

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 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 10 feet back of the top of the cut slope and 5 feet out from the toe of the fill slope.
- 202b - Where clearing limits for roadside vegetation maintenance sections have not been staked or shown on the plans, the limits shall extend 6 horizontal feet back of the centerline of the ditch and 6 horizontal feet outside of the of the shoulder of the road.
- 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

TIMBER SALE ROAD SPECIFICATIONS

Subsections 202 as shown on the plans and as posted.

- 203b - Standing trees and snags to be cleared shall be felled within the limits established for clearing unless otherwise authorized.
- 203c - Disposal of logs from private timber cleared within the limits established as staked on the ground 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 in accordance with Subsections 204a, 204c, and 204d between the top of the cut slope and the toe of the fill slope.
 - 204a - Stumps including those overhanging cut banks, shall be removed within the required excavation limits.
 - 204c - On excavated areas, roots and embedded wood shall be removed to a depth not less than 6 inches below the subgrade.
 - 204d - On areas to be occupied by embankments having heights greater than 4 feet, no stump or portion thereof shall remain within 3 feet of embankment subgrades or slope surfaces after grubbing is completed.
- 205 - Clearing and grubbing debris shall not be placed or permitted to remain in or under road embankment sections.
- 206 - Clearing and grubbing debris shall be disposed of by chipping in accordance with Subsection 209 and/or scattering in accordance with Subsection 210 and/or piling in accordance with Subsection 211 at the following road locations.

Road No.	From M.P.	To M.P.	Disposal Method
38-2W-18.00	1.20	1.98	Pile
38-2W-26.00	0.37	5.99	Pile
39-2W-1.00	0.00	0.63	Pile
39-2W-3.02	0.00	1.50	Pile
39-2W-12.00	0.00	2.01	Pile
39-2W-12.01	0.00	0.49	Pile
NC 38-2W-23.01	0.00	0.25	Pile

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TR17-7	0.00	0.14	Pile
TR12-1	0.00	0.24	Pile
TR27-5	0.00	0.15	Pile

- 206a - Notwithstanding Subsections 204, 204a, 204d, and 205, clearing and grubbing debris resulting from landing construction 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.

- 208b - Trees, firm logs, and other firm large pieces, 4 inches in diameter and 8 feet in length and larger and not removed from the contract area by the Purchaser, shall be piled at locations determined by the Authorized Officer.

- 209 - Clearing and grubbing debris shall be reduced to chips of an acceptable size and disposed of by scattering.

- 210 - Disposal of clearing and grubbing debris 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 on non-government property by scattering this material outside of clearing limits will be permitted provided the Purchaser obtains a written permit from the property owner on whose property the disposal is to be made. The Purchaser shall furnish the Authorized Officer a certified copy of the permit and a written release from the property owner absolving the Government from responsibilities in connection with the disposal of debris on said property.

- 210b - Clearing and grubbing debris and stumps and cull logs resulting from road construction on non-Government property shall be loaded and hauled to designated areas, as shown on the plan. Disposal shall be by scattering in accordance with Subsection 210 or piling in accordance with Subsection 211.

- 211 - Disposal of clearing and grubbing debris and stumps and cull logs shall be by piling on government lands outside of established clearing limits in an area and in a manner acceptable to the Authorized Officer.

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- 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, insloping, outsloping, crowning and scarification of the subgrade, compaction, disposal of excess and unsuitable 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 with stakes.
- 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 with stakes.

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- 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 (8) inches in depth.
- 306 - Layers of embankment material as specified under Subsections 305a and 305b, 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, 103g, 103h, and 103i.
- 306e - The final subgrade except temp route 11 and temp route 12 shall be compacted to full width with compacting equipment conforming to the requirements of Subsections 103f, 103g, 103h, and 103i. Minimum compaction shall be 1 hour of continuous compacting for each (6) stations of road or a fraction of as measured along the center line of the constructed road. Temp route 11 and temp route 12 shall be compacted by routing construction equipment over full width.
- 306g - All fill slopes shall be compacted to (75) percent of maximum density, either by walking with cat/excavator or by pressing with excavator bucket, to prevent surface erosion and raveling.
- 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.
- 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 (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.

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- 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.
- 318 - Selected borrow or selected roadway excavation material shall be uniformly spread on the roadbed in lifts not to exceed (6) inches in depth until the required thickness shown on the plans is attained.

Each layer shall be uniformly moistened or dried to the optimum moisture content suitable for maximum density and compacted to full width in accordance with the requirements of Subsection 306.

- 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 required. Materials placed shall be sloped, shaped, and otherwise brought to a visible condition acceptable to the Authorized Officer.
- 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 (2) feet on the uphill side.

TIMBER SALE ROAD SPECIFICATIONS

- 327 - The finished grading shall be approved in writing by the Authorized Officer for the total project. The Purchaser shall give the Authorized Officer (3) days notice prior to final inspection of the grading operations.

PIPE CULVERTS - 400

- 401 - This work shall consist of furnishing and installing pipe culverts and other erosion control device(s) 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 from established construction stakes 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 of from (2) percent to (4) percent greater than the adjacent road grade. Grade culverts shall be skewed down grade (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 3/8 inch, shall be wire brushed and painted with two coats of zinc-rich paint on zinc-coated, steel pipe and aluminum-rich paint on aluminum or aluminum-coated 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.
- 406 - Coupling bands shall conform to the requirements of AASHTO M 36 and AASHTO M 218 or 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.

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- 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.

- 408 - Pipe culverts and pipe-arch 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.

- 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 in Exhibit C 9, the Culvert Installation Detail Sheet.

- 412 - Where ledge rock, boulders, soft, or spongy soils are encountered, they shall be excavated a minimum of (24) inches below the invert grade for a width of at least one pipe diameter or span on each side of the pipe and shall be backfilled with selected granular or fine readily compactable soil material.

- 413 - Pipe culverts and pipe-arch culverts shall be bedded on a selected granular, crushed rock material from stockpiles shown on the plans, or fine readily compactable soil material having a depth of not less than (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.

- 416 - Side-fill material for pipe culverts shall be placed within (1) pipe diameter, or a minimum of (2) feet, of the sides of the pipe barrel, and to (1) foot over the pipe with fine, readily compactable soil, crushed rock material from stockpiles shown on the plans, or granular fill material 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.

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- 417 - For pipe culvert, side-fill material conforming to the requirements of Subsection 416 shall be placed and compacted under the haunches of the pipe, and shall be brought up evenly and simultaneously on both sides of the pipe to (1) foot above the pipe, in layers not exceeding (6) inches in depth and (1) pipe diameter/span, or a minimum of (2) feet in width each side of, and adjacent to, the full length of the pipe barrel. Each layer shall be moistened or dried to a uniform moisture content suitable for maximum compaction and immediately compacted by approved hand or pneumatic tampers until a uniform density of (85) percent of the maximum density, is attained as determined by AASHTO T 99, Method C.

- 419 - The pipe culverts after being bedded and backfilled as required by these specifications shall be protected by a (2)-foot cover of fill before heavy equipment is permitted to cross the drainage structures. Removal of the protection fill shall be as directed by the Authorized Officer.

- 423 - Construction of catch basins and ditch dams conforming to lines, grades, dimensions and typical diagrams shown on the plans, shall be required for all culverts.

- 427 - 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 - Remove and dispose of old culverts in a legal manner, and for any fees required. The Purchaser shall remove the old culverts from the work site within three (3) working days of completion of the culvert replacement work for each road.

- 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 that 10% 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.

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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 with stakes.
- 502 - The existing road surface shall be bladed and shaped to the lines, grades, dimensions, and typical cross sections shown on the plans and as marked on the ground with stakes and as specified in the worklist.
- 502b - Drainage ditches shall be bladed and shaped in accordance with the lines, grades, dimensions, and typical cross sections shown on the plans.
- 503a - Debris from the slide removal, turn around construction and reconstruction, ditch repair, and all road other construction shall be hauled to a designated disposal site as approved by 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, 103g, 103h, and 103i and as specified in the worklist.
- 504a - Minimum compaction required shall be 1 hour of continuous rolling for each 3 stations of road, or fraction thereof, as measured along the centerline per layer of material.
- 506 - The inlet end of existing drainage structures shall be cleared of vegetative debris and boulders that are of sufficient size to obstruct normal stream 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.

TIMBER SALE ROAD SPECIFICATIONS

- 509 - The finished grading shall be approved in writing by the Authorized Officer 3 days prior to surfacing operations. The Purchaser shall give the Authorized Officer 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, and for laying dust during work periods.
- 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 road bed.
- 605 - The Purchaser shall secure the necessary water permits and pay all required water fees for use of water sources selected by the Purchaser and approved by the Authorized Officer.

AGGREGATE BASE COURSE - 900 **SCREENED ROCK MATERIAL**

- 901 - This work shall consist of furnishing, hauling, and placing one or more lifts of screened rock material on roadbeds approved for placing screened rock material in accordance with these specifications and conforming to the dimensions and typical cross sections shown on the plans.
- 902a - Screened rock materials to be used in this work shall be obtained from sources selected by the Purchaser, at his option, providing the rock materials furnished comply with these specifications and the sources are approved in writing by the Authorized Officer prior to use.

TIMBER SALE ROAD SPECIFICATIONS

903 - Screened rock material shall conform to the following gradation requirements:

Table 903
SCREENED ROCK MATERIAL GRADATION REQUIREMENTS
 Percentage by Weight Passing Square Mesh Sieves
 (AASHTO T 27)

Sieve Designation	Gradation			
	A	B	C	D
4 inch	100			
3 inch	95-100	100		
2 inch		95-100	100	
1-1/2 inch			95-100	
1 inch				100
¾-inch				86-100
½-inch				59-89
No. 4	11-44	16-49	21-54	35-65
No. 40				11-27
No. 200	2-15	2-15	0-15	4-7

904 - Screened rock material retained on the No. 4 sieve shall have a percentage of loss of not more than 35 at 500 revolutions as determined by AASHTO T 96.

904a - Screened rock material shall show a durability value of not less than 35 as determined by AASHTO T 210.

TIMBER SALE ROAD SPECIFICATIONS

- 905 - The roadbed as shaped and compacted under sections 300 and 500 of these specifications, shall be approved in writing by the Authorized Officer prior to placement of screened rock materials. Notification for final inspection, prior to rocking, shall be 72 hours prior to that inspection and shall be 10 days prior to start of rock operations.
- 906 - Screened rock material shall be placed in layers not to exceed 6 inches in thickness. Where the required total thickness is more than 6 inches, the rock material shall be shaped and compacted in two or more layers of approximately equal thickness.
- 906a - Screened rock materials used to repair or reinforce a soft, muddy, frozen, yielding, or rutted subgrades shall not be construed as surfacing under this specification.
- 907 - Filler or binder material obtained from sources shown on the plans and approved by the Authorized Officer shall be uniformly blended with the screened rock material on the road. Filler or binder materials shall be free from stones, vegetative matter, and other deleterious materials.
- 908 - Screened rock material shall be blade-processed and spread to required dimensions. Processing shall be performed in such a manner as to minimize aggregate segregation.
- 910 - Screened rock material, bladed and shaped as specified, shall be moistened or dried to optimum moisture content for maximum compaction and compacted to full width by compaction equipment conforming to the requirements of Subsections 103f, 103g, 103h, and 103i. Minimum compaction shall be 6 passes over each full-width layer, or fraction thereof.

AGGREGATE SURFACE COURSE - 1200
CRUSHED ROCK MATERIAL

- 1201 - This work shall consist of loading, hauling and placing one or more layers of crushed rock material on roadbeds and base courses 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 at the purchaser's expense.

TIMBER SALE ROAD SPECIFICATIONS

- 1202 - Crushed rock materials used in this work shall consist of quarry rock, stone, gravel, or other approved materials obtained from source(s) shown on the plans.
- 1202a - Crushed rock materials used in this work may be obtained from commercial source(s) selected by the Purchaser, providing the rock materials furnished comply with these specifications.
- 1203 - When crushed rock material is produced from gravel, not less than 65 percent by weight of the particles retained on the No. 4 sieve will have 2 manufactured fractured faces.
- 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	C-1	D	D-1	E	E-1
1-1/2-inch	100	100	-	-	-	-
1-inch	-	-	100	100	-	-
3/4-inch	50-90	60-90	-	70-98	100	100
1/2-inch	-	-	-	-	-	70-98
No. 4	25-50	30-55	30-60	36-60	40-75	44-70
No. 8	-	22-43	-	25-47	-	30-54

TIMBER SALE ROAD SPECIFICATIONS

No. 30	-	11-27	-	12-31	-	15-34
No. 40	5-25	-	5-30	-	5-35	-
No. 200	2-15	3-15	3-15	3-15	2-15	3-15

- 1205 - Crushed rock material retained on the No. 4 sieve shall have a percentage of loss of not more than 35 at 500 revolutions, as determined by AASHTO T 96.
- 1206 - Crushed rock material shall show a durability value of not less than 35 as determined by AASHTO T210.
- 1207a - That portion of crushed rock material passing No. 4 sieve, including blending filler, shall have a sand equivalent of not less than 35, as determined by AASHTO T 176, except where that portion exhibits a sand equivalence of less than 35, the aggregate will be accepted if it complies with the additional requirement as follows:

TABLE 1207a

Sand Equivalent	Percent Passing #200 Sieve AASHTO T 27
34	9
33	8
32	7
31	6
30	5
29 or less	4

- 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.
- 1208a - Each layer of crushed rock material shall be thoroughly mixed on the roadbed by alternately blading, to full depth, until a uniform mixture has been obtained. The mixture shall then be spread to full width. When completed, the spreading shall produce a surface which is smooth, presents uniform shoulder lines, and conforms

TIMBER SALE ROAD SPECIFICATIONS

- to the specified cross section.
- 1209 - Shaping and compacting of roadbed and/or base course shall be completed and approved in writing, prior to placing crushed rock material, in accordance to the requirements of Subsection 500 for placing on the roadbed and Subsections 900 for placing on the base course.
 - 1210 - Crushed rock material conforming to the requirements of these specifications shall be placed on the approved roadbed and base course in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and staked on the ground. Compacted layers shall not exceed 4 inches in depth. When more than one layer is required, each shall be shaped, processed, compacted, and approved in writing 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.
 - 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 and compacted to full width by compacting equipment conforming to the requirements of Subsections 103f, 103g, 103h, or 103i. Minimum compaction shall be 6 passes over each full-width layer, or fraction thereof.

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.

TIMBER SALE ROAD SPECIFICATIONS

- 1705 - The surface area of erodible earth material exposed at any one time by clearing and grubbing shall not exceed 21,780 square feet (0.50 acres) after October 15 without prior approval by the Authorized Officer.
- 1706 - The surface area of erodible earth material exposed at one time by excavation, borrow, or fill within the right-of-way shall not exceed 21,780 square feet (0.50 acres) after October 15 without prior approval by the Authorized Officer.
- 1707 - Completed and partially completed segments of the road at the following location:

Road No.	From M.P.	To M.P.
38-2W-18.00	1.20	1.98
38-2W-26.00	0.37	5.99
39-2W-1.00	0.00	0.63
39-2W-3.02	0.00	1.50
39-2W-12.00	0.00	2.01
39-2W-12.01	0.00	0.49
NC 38-2W-23.01	0.00	0.25
TR17-7	0.00	0.14
TR12-1	0.00	0.24
TR27-5	0.00	0.15

- to be carried over the winter and early spring periods shall be stabilized by seeding and mulching in accordance with Section 1800.
- 1708 - Newly constructed roads to be carried over the winter period, shall be blocked to vehicular traffic.
 - 1708a - Road segments not completed during dry weather periods shall be winterized, by providing a well-drained roadway using water bars, 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.
 - 1711 - The Purchaser shall construct energy dissipators (splash pads) for pipe culverts conforming to the requirements and details shown on the respective exhibits and on the plans.

TIMBER SALE ROAD SPECIFICATIONS

SOIL STABILIZATION – 1800

- 1801 - This work shall consist of seeding and mulching on designated cut, fill, borrow, disposal, and special areas in accordance with these specifications. This work is required for road acceptance under Section 18 of this contract.
- 1802 - Soil stabilization work consisting of seeding and mulching shall be performed on existing roads and designated locations (culvert replacements and installations) in accordance with these specifications at the locations specified in the worklist.
- 1802a - Soil stabilization work consisting of seeding and mulching shall be performed on new road construction, landings, disturbed areas, and disposal sites in accordance with these specifications and as shown on the plans.
- 1803 - Soil stabilization work as specified under Subsections 1802 and 1802a shall be performed during the following seasonal periods:

From: August 1	To: October 15 (of the same year)
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If soil stabilization of disturbed areas is not completed by the specified fall date, the Purchaser shall treat disturbed areas in accordance with Subsection 1707 and then complete the requirements of Section 1800 the next construction season. The Authorized Officer may modify the above seasonal dates to conform to existing weather conditions and changes in the construction schedule.

- 1803a - The Purchaser shall begin soil stabilization work within 10 days of the starting work date when notified by the Authorized Officer.
- 1806a - Additional soil stabilization work consisting of seeding and mulching, may be required at the option of the Authorized Officer. Providing the additional stabilization is not due to Purchaser negligence as specified in Sec. 12 of the contract, a reduction in the total purchased price shall be made to offset the cost of furnishing and applying such additional stabilization material. Cost shall be based upon the unit price set forth in the current BLM Timber Appraisal Production Cost Schedule.

TIMBER SALE ROAD SPECIFICATIONS

- 1808 - Mulch materials conforming to the requirements of Subsection 1808a shall be furnished by the Purchaser in the amounts specified under Subsection 1811 and applied in accordance with Subsection 1812.

- 1808a - Straw mulch shall be certified weed free from commercial grain fields and native grass fields. Straw mulch shall be from oats, wheat, rye, or other approved grain crops and shall be free from, mold, or other objectionable material. Straw mulch shall be in an air-dry condition and suitable for placement.

- 1809 - Mulch material shall be delivered to the work area in a dry state. Material found to be wet will not be accepted. Material to be used in the mulching operation may be stockpiled along the road designated for treatment provided that it is maintained in a dry state and has the approval of the Authorized Officer.

- 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 furnish and apply to approximately **0.55** acres designated for treatment as shown on the plans and as specified under Subsections 1802 and 1806a, a mixture of grass seed and mulch material at the following rate of application:

a. Two Stage:

Grass Seed	20 lbs./acre
Mulch	3,000 lbs./acre

The above proportion and application rate are subject to adjustment by the Authorized Officer during the application operation.

- 1812 - The Purchaser shall furnish and apply to the area designated for treatment as shown on the plans and as specified under Subsections 1802 and 1806a, a mixture of grass seed and mulch, material at the application rate to be determined by the Authorized Officer based on visual observation of trial applications.

Mulches shall be spread/placed in treatment areas to a depth of 2 inches to allow seed germination or as directed by the Authorized Officer. Treatment area will be covered evenly and completely. Mulch can be broadcast onto the soil surface by hand or with hand/mechanical operated spreaders.

TIMBER SALE ROAD SPECIFICATIONS

- 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.
- 1815 - The seed and mulch materials shall be placed by the dry method in accordance with the requirements set forth in Subsection 1815b.
- 1815b - Dry Method - Blowers, mechanical seeders, seed drills, landscape seeders, cultipacker 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 3 days in advance of date he intends to commence the specified soil stabilization work.
- 1821 - Mulch that collects at the end of culverts or accumulates to excessive depths on the slopes shall be evenly spread by hand methods, as directed by the Authorized Officer.
- 1822 - No materials shall be applied when wind velocities would prevent a uniform application of the mix or slurry or when winds would drift the mix or slurry spray outside of the designated treatment area.
- 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 of this exhibit, at designated locations as shown in the plans.
- 2102 - Roadside brushing may be performed mechanically with self-powered, self-propelled equipment and/or manually with hand tools, including chain saws.

TIMBER SALE ROAD SPECIFICATIONS

- 2103 - Vegetation cut manually and/or mechanically less than 6 inches in diameter when measured at D.B.H. shall be cut to a maximum height of 3 inches above the ground surface or above obstructions such as rocks or stumps on cut and fill slopes and all limbs below the 2 inch area will be severed from the trunk.

- 2103a - Vegetation shall be cut and removed from the road bed between the outside shoulder(s) and the ditch centerline and such vegetation shall be cut to a maximum height of 1 inch above the ground and running surface. Limbs below the 1 inch area will be severed from the trunk. Sharp pointed ends will not be permitted. Cuts shall be parallel to the ground line or running surface.

- 2104 - Trees in excess of 6 inches in diameter at D.B.H. shall be limbed, so that no limbs extend into the treated area or over the roadbed to a height of 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 1 inch of the trunk to produce a smooth vertical face. Removal of trees larger than 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 14 feet in elevation above the running surface shall be cut, to within 1 inches of the trunk to produce a smooth vertical face.

- 2106 - Vegetative growth capable of growing 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 200 feet chord distance or a middle ordinate distance of 25 feet, whichever is achieved first. Overhanging limbs and vegetation in excess of 1 foot in height, shall be cut within these areas.

- 2108 - Self propelled equipment shall not be permitted on cut and fill slopes or in ditches.

- 2109 - Debris resulting from this operation shall be scattered (unless otherwise noted in the work list) downslope from the roadway. Debris shall not be allowed to accumulate in concentrations. Debris in excess of 1 foot in length and 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.

TIMBER SALE ROAD SPECIFICATIONS

- 2110 - Vegetation 6 inches and smaller in diameter shall be chipped where indicated in the work list. Chips shall be scattered downslope from the roadway. Vegetation over 6 inches in diameter shall be disposed of by direction of the Authorized Officer.
- 2114 - Sections of roadway to have vegetation removed will be marked at start and stop points with red-topped painted stakes.
- 2115 - Mechanical brush cutters shall not be operated when there are people and occupied vehicles within 400 feet of the immediate operating area.
- 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.

ROAD MAINTENANCE SPECIFICATIONS

**ROAD MAINTENANCE SPECIFICATIONS
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3300	Final Maintenance
3400	Other Maintenance
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ROAD MAINTENANCE SPECIFICATIONS

GENERAL - 3000

3001 The Purchaser shall be required to maintain all roads listed and/or as shown on the Exhibit D2 map of this contract in accordance with Sections 3000, 3100, 3200, 3300, and 3400 of this exhibit.

Road No. and Segment	Length Miles Used	Ownership	Road Surface Type	Maintenance Responsibility
37-3W-33.00	0.37	BLM	Natural	Purchaser
38-2W-18.00 A-B	0.94	BLM	Aggregate	BLM
38-2W-18.00 C-D	1.04	BLM	Natural	Purchaser
38-2W-21.00	2.16	BLM	Aggregate	BLM
38-2W-24.00 A-C	3.98	BLM	BST	BLM
38-2W-24.00 D-J	5.90	BLM	Aggregate	BLM
38-2W-26.00	5.99	BLM	Aggregate	BLM
38-2W-27.02	1.36	BLM	Aggregate	BLM
38-2W-29.00	0.71	BLM	BST	BLM
38-2W-31.00	3.01	BLM	Aggregate	BLM
38-3W-10.00	3.44	BLM	Aggregate	BLM
38-3W-13.00	0.16	BLM	Natural	Purchaser
38-3W-13.01	1.34	BLM	Natural	Purchaser
38-3W-13.02	1.35	BLM	Natural	Purchaser
38-3W-13.03	0.27	BLM	Natural	Purchaser
38-3W-16.00	1.17	BLM	Aggregate	BLM
38-3W-16.01	0.60	BLM	Aggregate	BLM
38-3W-23.00	0.77	BLM	BST	BLM
38-3W-23.01	1.37	BLM	BST	BLM
38-3W-26.01	2.29	BLM	Aggregate	BLM
39-1W-18.00	4.78	BLM	Aggregate	BLM

ROAD MAINTENANCE SPECIFICATIONS

Road No. and Segment	Length Miles Used	Ownership	Road Surface Type	Maintenance Responsibility
39-1W-21.02	1.55	BLM	Aggregate	BLM
39-1W-21.03A1	1.46	BLM	Aggregate	BLM
39-1W-21.03 A2-B	0.70	BLM	Natural	Purchaser
39-1W-22.01	1.23	BLM	Aggregate	BLM
39-2W-01.00	0.63	BLM	Natural	Purchaser
39-2W-03.02	1.50	BLM	Aggregate	BLM
39-2W-08.00 A1	0.28	BLM	BST	BLM
39-2W-08.00 A2-C2	8.47	BLM	Aggregate	BLM
39-2W-12.00 A1	1.38	BLM	Aggregate	BLM
39-2W-12.00 A2	0.63	BLM	Natural	Purchaser
39-2W-12.01	0.49	BLM	Natural	Purchaser
39-2W-15.00	0.50	BLM	Aggregate	BLM
39-2W-17.00A	0.70	BLM	Aggregate	BLM
39-2W-17.00B1	0.62	Private	Aggregate	BLM
39-2W-17.00 B2-C2	0.80	BLM	Aggregate	BLM
NS38-2W-23.00	0.66	Private	Aggregate	Purchaser
Anderson Creek	3.31	County	Natural	Purchaser

- 3001a The Purchaser shall be required to provide maintenance on roads in accordance with Subsections 3403 and 3404.
- 3002 The Purchaser shall maintain the cross section of existing dirt or graveled roads to the existing geometric standards.
- 3003 The minimum required maintenance on any 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.

ROAD MAINTENANCE SPECIFICATIONS

OPERATIONAL MAINTENANCE - 3100

- 3101 The Purchaser shall blade and shape the road surface and shoulders with a motor grader. 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.
- 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 water-bars using equipment specified in Subsection 3104 and other culvert cleaning and flushing equipment.
- 3106 The Purchaser shall be responsible for repair and replacement of all materials eroded from road shoulders and fill slopes, 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 repair and replacement of eroded 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, borrow source and method of repair. Work may commence immediately after agreement.

ROAD MAINTENANCE SPECIFICATIONS

Upon completion of agreed upon work, a reduction in timber sale purchase price will be made to offset the cost of the work based upon 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.

3107 The Purchaser shall cut or trim trees and brush which obstructs vision or prevents the safe passage of traffic along the traveled way when directed by the Authorized Officer.

The Purchaser shall also cut trees or brush encroaching on the road prism that are a result of his activities or winter damage during the contract period. Disposal of such vegetative material shall be by scattering below the road in accordance with Section 2100 of Exhibit C.

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.

3108a The Purchaser shall perform logging operations on gravel and/or bituminous roadways only where the locations have been marked on the ground and/or approved by the Authorized Officer. (Repair of the roads 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, prior to October 1 each year, except as specified in Subsection 3203, after initial commencement of construction or logging operations. Thereafter, all roads shall have continuous preventive maintenance and road cleanup until suspension of seasonal operations. This includes all roads used and not used during the proceeding 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.

ROAD MAINTENANCE SPECIFICATIONS

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 and 3108a. 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.

ROAD MAINTENANCE SPECIFICATIONS

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.

3403 The Purchaser shall be required to furnish and apply non-saline water during dry hauling periods, when directed by the Authorized Officer, for the purpose of laying dust and to prevent loss of surface material. The first application of water shall be made at the rate of one-half gallon per yd² of road surface traveled. Subsequent applications shall be made for each 40 MBF of timber or 120 yds³ of rock hauled. Subsequent watering may be done at a rate less than one-half gallon per yd² when a specified lesser rate is approved by the Authorized Officer.

The following roads shall be watered:

Road Number	From Sta./M.P.	to Sta./M.P.
38-2W-18.00	0.00	0.65
38-2W-21.00	0.00	1.30
38-3W-10.00	0.00	0.55

The Purchaser shall secure any necessary water permits and pay all required water fees for use of the water sources selected by the Purchaser and)approved by the Authorized Officer.

3403a During dry hauling conditions when watering is not required, the Purchaser shall reduce hauling speeds or restrict the number of loads hauled to reduce dust as directed by the Authorized Officer on the following roads:

Road Number	From Sta./M.P.	to Sta./M.P.
38-2W-18.00	0.00	0.65
38-2W-21.00	0.00	1.30
38-3W-10.00	0.00	0.55

Adjustments to the above schedules may be made by the Authorized Officer at his option as hauling conditions improve. The Purchaser, at his option and expense, may elect to substitute watering or other dust palliatives in lieu of the above hauling requirements provided that written approval is received from the Authorized Officer. Such authorization shall include the approval of product specifications for the application and the product to be used.

3404 The Purchaser may at his option and expense substitute lignin sulfonate, magnesium chloride, or an approved petroleum based dust abatement product for water on any or all road segments listed in Subsection 3403 or 3403a provided that written approval is received from the Authorized Officer. Such authorization shall include the approval of product specifications for the

ROAD MAINTENANCE SPECIFICATIONS

application of the product to be used. Multiple applications may be required to maintain the conditions specified in Subsection 3403.

- 3408 Dust palliatives shall be applied with standard commercial distribution equipment operated in a manner that the material is uniformly applied on variable widths of surface at controlled rates.
- 3409 The Purchaser shall notify the Authorized Officer a minimum of 3 days in advance of application of required dust palliative.
- 3410 The Purchaser shall submit an application schedule for all dust palliative work to the Authorized Officer for approval. All work shall be in accordance with the approved plan.

DECOMMISSIONING – 3500

- 3506 Stockpiled slash shall be used to protect exposed areas created by the Purchaser’s operations described in these sections. Slash shall be uniformly spread and placed without bunching. The operation shall produce a dense, uniform mat. All slash stockpiles created by the purchaser shall be utilized for Camouflaging and Full Decommission.
- 3507 Culverts not designated as salvage by the Authorized Officer for the Government shall become the property of the Purchaser. The Purchaser shall be responsible for disposal of materials in a legal manner and for payment of any fees required. Sale of material on site is not allowed unless authorized in writing by the Authorized Officer.
- 3508 Protect areas with camouflaging and soil stabilization from damage by Purchaser traffic or construction equipment. Damaged areas shall be repaired by the Purchaser.
- 3509 Barricades shall be installed across full width of roadway at locations designated in the specifications. Barricades shall be constructed conforming to the lines, grades, dimensions and typical details as shown on Exhibit D6.
- 3513 Water bars shall be installed across full width of roadway at spacing shown in the specifications. Water bars shall be constructed conforming to the lines, grades, dimensions and typical details as shown on Exhibit D6. No water bar will be installed closer than 50 feet to a draw crossing.
- 3514 Protection of exposed surfaces shall be accomplished by placement of soil stabilization material in accordance with Section 1800 and placement of slash described in Subsection 3506 on designated roadways, disturbed areas, landings, and other areas disturbed by the purchaser’s operations in accordance with these specifications and as shown in the plans.

ROAD MAINTENANCE SPECIFICATIONS

3520 Long Term Closure of roads shall consist of all or part of the following treatments:

- a. Construct water bars along entire length of road at 200' spacing, or as staked or directed by the Authorized Officer's Representative.
- b. The Purchaser shall Camouflaged the road entrance for a minimum of 100 feet or to the first curve or hillcrest. Camouflaged roads shall consist of using boulders, brush, dead material, stumps, and other debris to disguise the entire length of the road prism to the extent possible. No live trees should be used without approval by the Authorized Officer.
- c. An earth berm or equivalent barricade shall be constructed near the beginning of road. The final locations will be staked by the Authorized Officer's Rep.

3521 Long Term Closure shall be performed on existing roads in accordance with these specifications, and as shown on the plans at the following locations:

Road No or Site	Treatment
37-3W-33.00	Waterbar, Barricade, Camouflage
38-3W-13.00	Waterbar, Barricade, Camouflage
38-3W-13.01	Waterbar, Barricade, Camouflage
38-3W-13.02	Waterbar, Barricade, Camouflage
38-3W-13.03	Waterbar

3522 Long Term Closure work shall be completed at the end of timber hauling. All work shall be performed during the dry season before October 15th.

3523 Protect areas mulched and treated with slash placement from damage by Purchaser traffic or construction equipment. Damaged areas shall be repaired by the Purchaser.

3524 Access shall be blocked with barricades as shown at locations on Exhibit D2.

Existing barricades removed during timber operations shall be replaced immediately after use. For activities that are not finished in one dry season, barricades shall be re-installed before the wet season, October 15th.

3525 Full Decommissioning of roads shall consist of all or part of the following treatments:

- a. Subsoiling shall be done using mechanical treatment to de-compact road surface to a depth 12 to 18 inches or to a point where 10 inch diameter stones are the dominant substrate (whichever is shallower). Where it is determined by the Authorized Officer that decompaction may cause unacceptable damage to the root systems of residual trees along a majority of the road, decompaction may be intermittent, or scarification may be used

ROAD MAINTENANCE SPECIFICATIONS

instead. Woody debris, brush, stumps, boulders, and other debris shall be placed along the roads entire length as determined by availability of materials to provide ground cover and discourage use. No live trees shall be cut or used without approval of the Authorized Officer.

Where multiple entrances exist, the work shall include obscuring all road entrances. Ditchlines at intersecting roads shall be restored. The Purchaser shall use soil, boulders, brush, dead material, stumps, and other debris to disguise the road prism to the extent possible.

- b. All culverts shall be removed from road for its entire length. Excavated culverts shall be left open to drain and have slopes of 1 1/2:1. Where draw culverts are removed the grade of the channel shall be restored to match existing stream. Culverts not designated as salvage for the Government shall become the property of the Contractor. The Contractor shall be responsible for legally disposing of material.
- c. Construct water bars along entire length of road at 200' spacing, or as staked or directed by the Authorized Officer's Representative.
- d. The Purchaser shall Camouflaged the road entrance for a minimum of 100 feet or to the first curve or hillcrest. Camouflaged roads shall consist of using boulders, brush, dead material, stumps, and other debris to disguise the entire length of the road prism to the extent possible. No live trees should be used without approval by the Authorized Officer.
- e. An earth berm or equivalent barricade shall be constructed near the beginning of road. The final locations will be staked by the Authorized Officer's Rep.

3526

Full Decommission shall be performed on existing roads in accordance with these specifications, and as shown on the plans at the following locations:

Road No or Site	Treatment
TR 17-7	Subsoil, Waterbar, Barricade, Camouflage, Seed and Mulch
TR 12-1	Subsoil, Waterbar, Barricade, Camouflage, Seed and Mulch
TR 27-5	Subsoil, Waterbar, Barricade, Camouflage, Seed and Mulch

BEAR GRUB TIMBER SALE
ROAD LOCATION MAP
EXHIBIT D-2; PAGE 1 OF 5

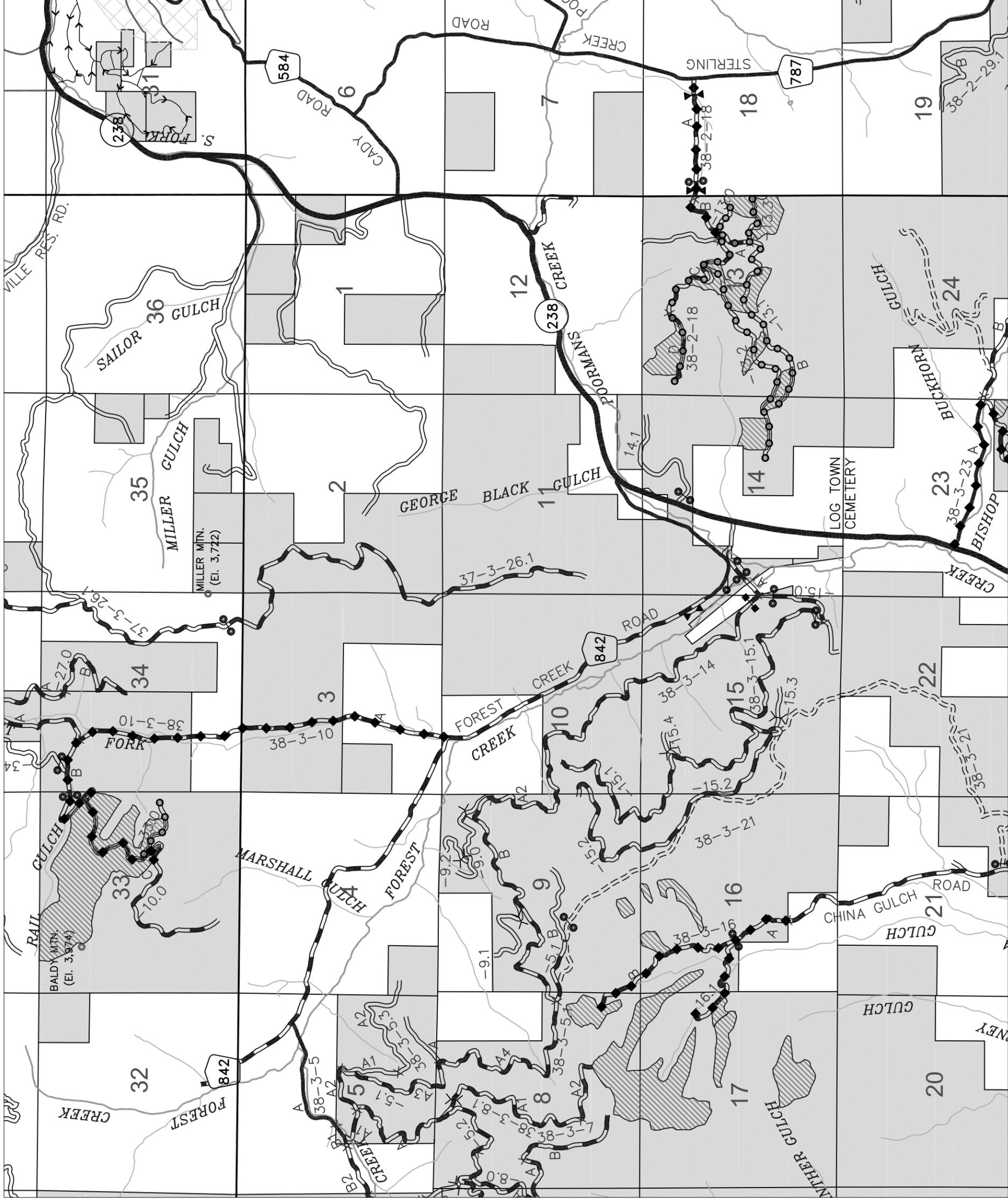
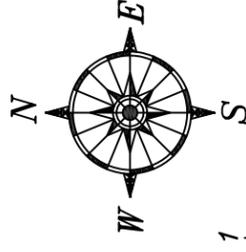
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T.37S., R.3W. WILL. MER.
T.38S., R.3W. WILL. MER.
T.38S., R.2W. WILL. MER.
T.39S., R.2W. WILL. MER.
T.39S., R.1W. WILL. MER.

-  EXISTING GATE
-  EXISTING BARRICADE
-  PUMP CHANGE
-  QUARRY
-  STOCKPILE FOR ROCKING

ROAD PROJECTS

-  EXISTING ROAD
-  EXISTING PAVED ROAD
-  EXISTING PRIMITIVE ROAD
-  OPERATOR MAINTENANCE
-  BLM MAINTENANCE

-  BLM LAND
-  TS UNITS



T.37S.

T.38S.

R.2W.

R.3W.

BEAR GRUB TIMBER SALE
ROAD LOCATION MAP
EXHIBIT D-2; PAGE 2 OF 5

U.S.D.I. BLM MEDFORD DISTRICT

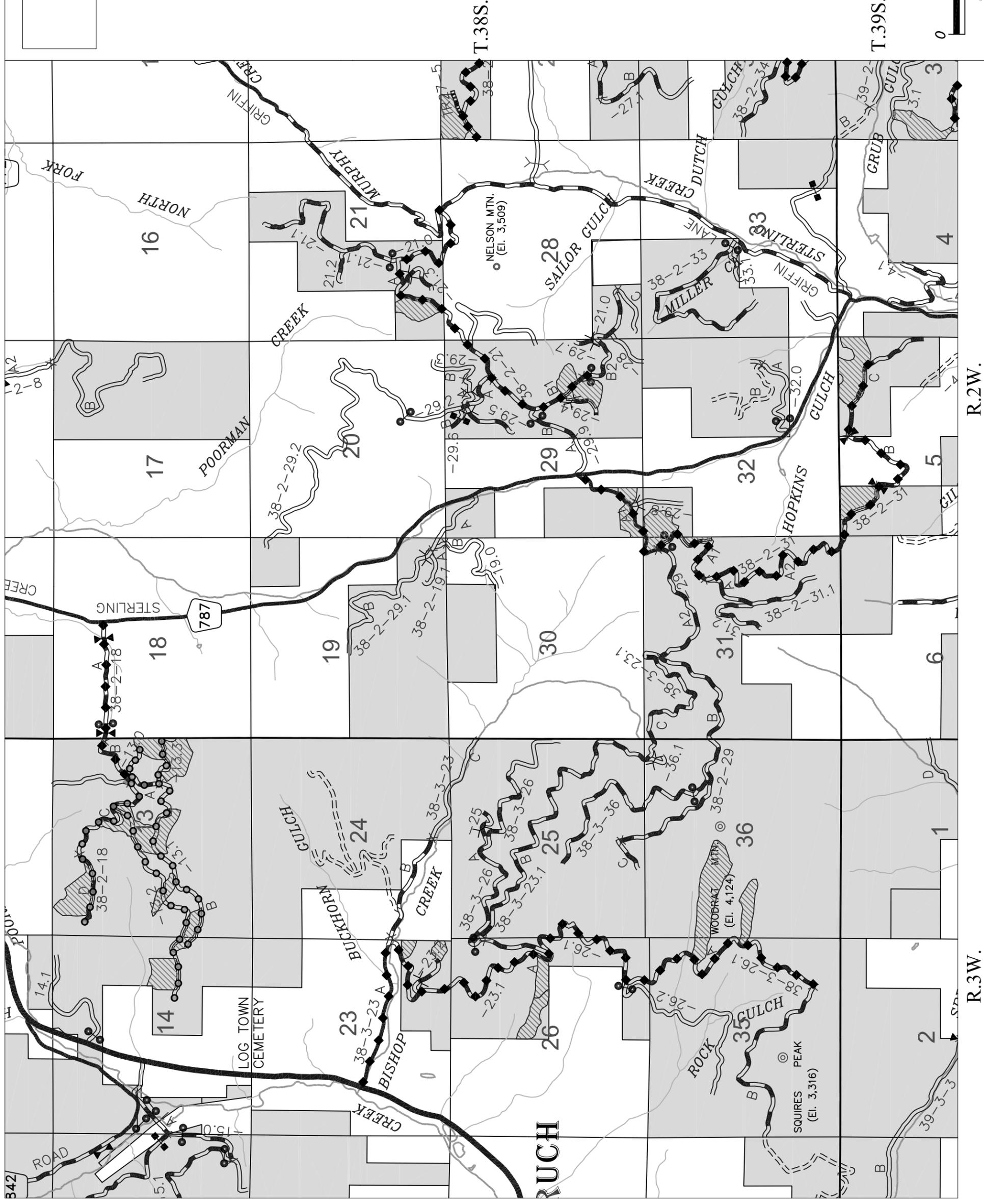
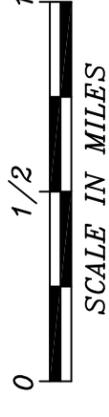
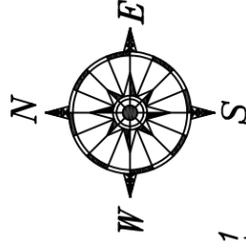
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T.38S., R.3W. WILL. MER.
T.38S., R.2W. WILL. MER.
T.39S., R.2W. WILL. MER.
T.39S., R.1W. WILL. MER.

-  EXISTING GATE
-  EXISTING BARRICADE
-  PUMP CHANGE
-  QUARRY
-  STOCKPILE FOR ROCKING

ROAD PROJECTS

-  EXISTING ROAD
-  EXISTING PAVED ROAD
-  EXISTING PRIMITIVE ROAD
-  OPERATOR MAINTENANCE
-  BLM MAINTENANCE

-  BLM LAND
-  TS UNITS



BEAR GRUB TIMBER SALE
ROAD LOCATION MAP
EXHIBIT D-2; PAGE 3 OF 5

U.S.D.I. BLM MEDFORD DISTRICT

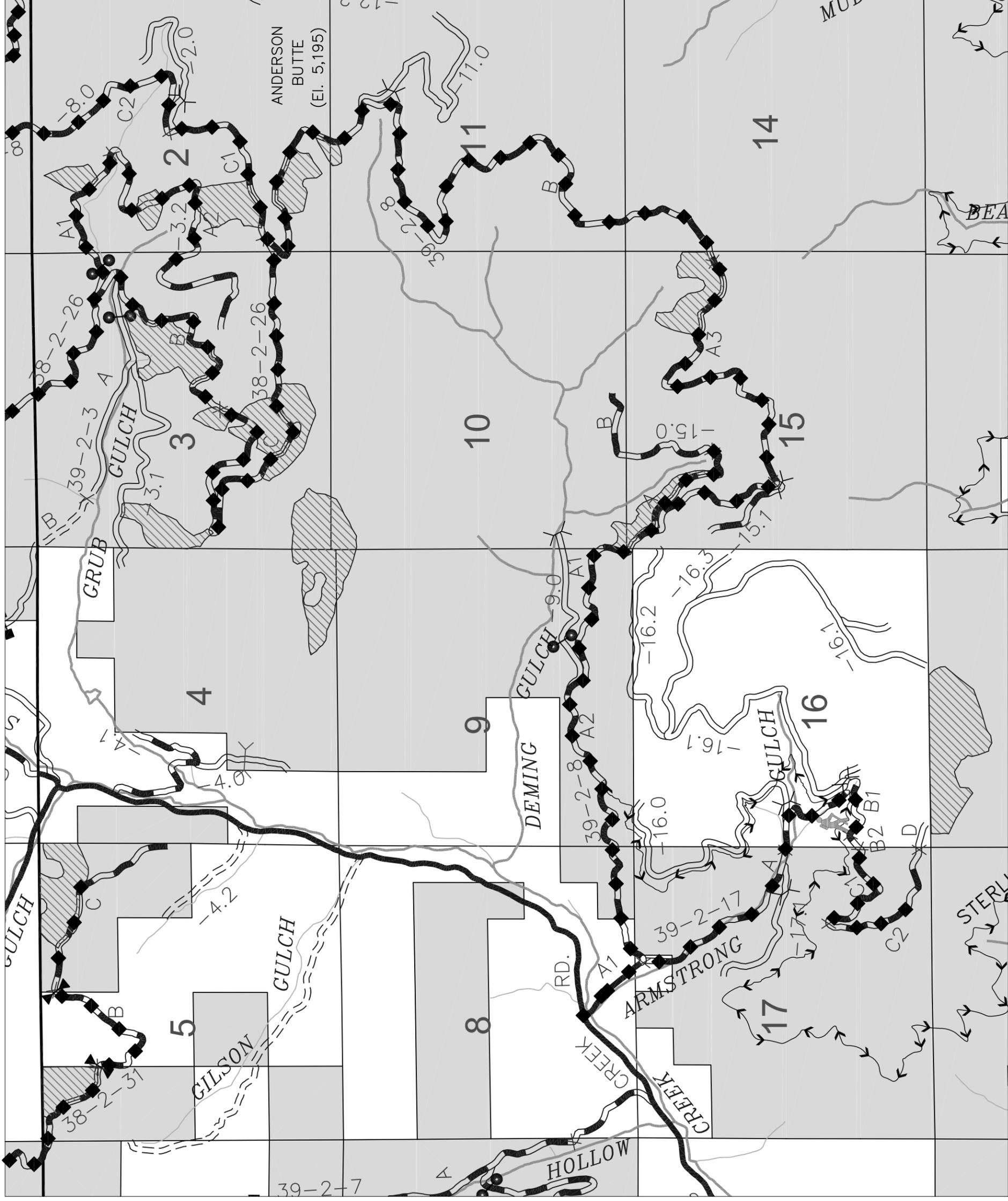
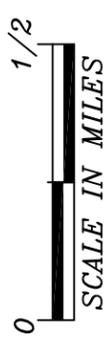
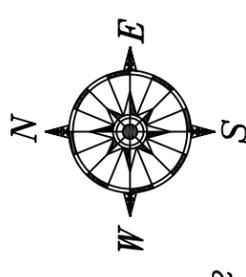
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T.38S., R.3W. WILL. MER.
T.38S., R.2W. WILL. MER.
T.39S., R.2W. WILL. MER.
T.39S., R.1W. WILL. MER.

-  EXISTING GATE
-  EXISTING BARRICADE
-  PUMP CHANGE
-  QUARRY
-  STOCKPILE FOR ROCKING

ROAD PROJECTS

-  EXISTING ROAD
-  EXISTING PAVED ROAD
-  EXISTING PRIMITIVE ROAD
-  OPERATOR MAINTENANCE
-  BLM MAINTENANCE

-  BLM LAND
-  TS UNITS



T.39S.

R.2W.

BEAR GRUB TIMBER SALE
ROAD LOCATION MAP
EXHIBIT D-2; PAGE 4 OF 5

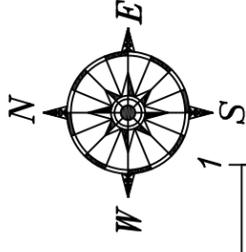
U.S.D.I. BLM MEDFORD DISTRICT
T.37S., R.3W. WILL. MER.
T.38S., R.3W. WILL. MER.
T.38S., R.2W. WILL. MER.
T.39S., R.2W. WILL. MER.
T.39S., R.1W. WILL. MER.

- EXISTING GATE
- EXISTING BARRICADE
- PUMP CHANGE
- QUARRY
- STOCKPILE FOR ROCKING

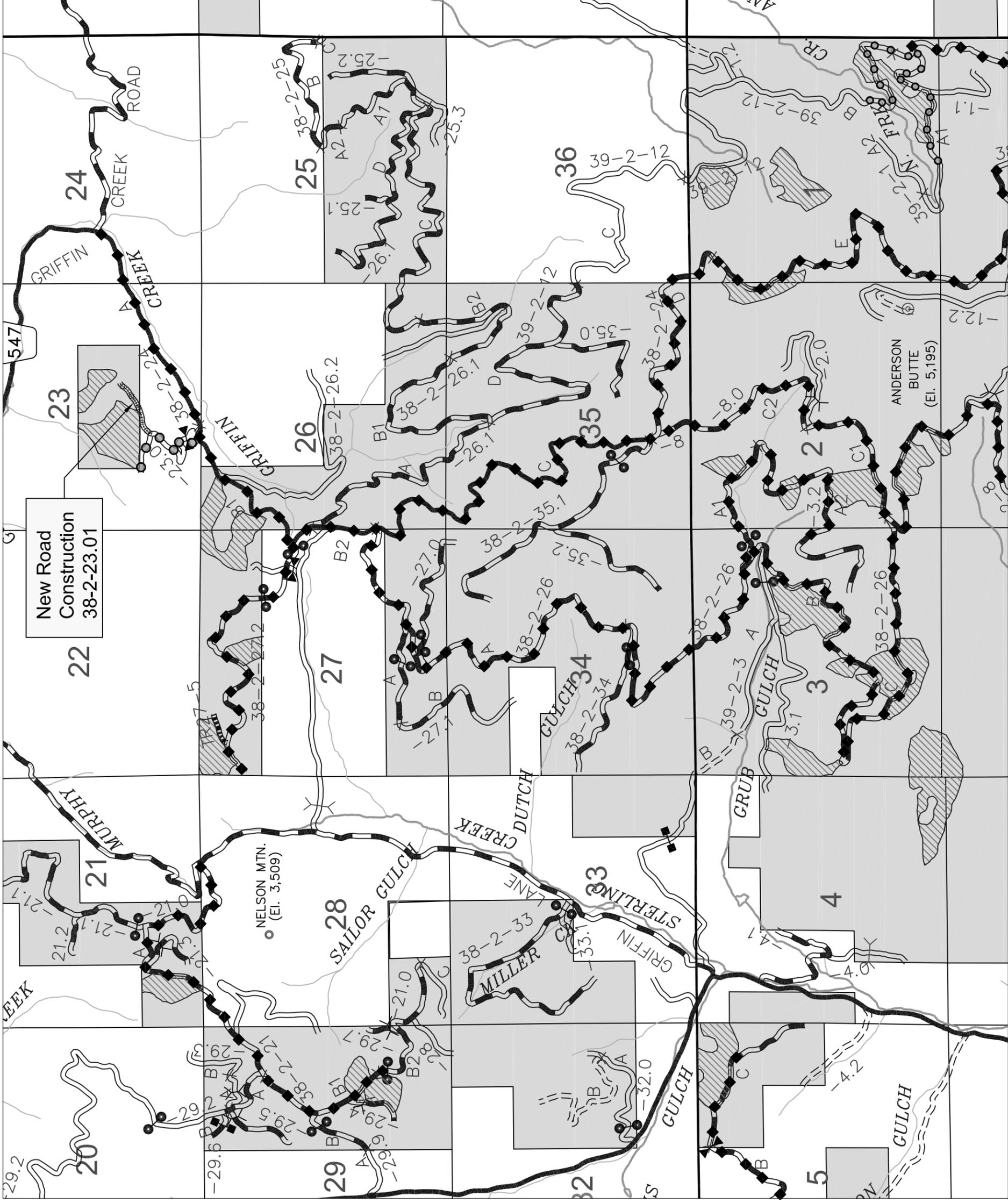
ROAD PROJECTS

- EXISTING ROAD
- EXISTING PAVED ROAD
- EXISTING PRIMITIVE ROAD
- OPERATOR MAINTENANCE
- BLM MAINTENANCE

- BLM LAND
- TS UNITS



SCALE IN MILES



T.38S.

T.39S.

R.2W.

BEAR GRUB TIMBER SALE
ROAD LOCATION MAP
EXHIBIT D-2; PAGE 5 OF 5

U.S.D.I. BLM MEDFORD DISTRICT

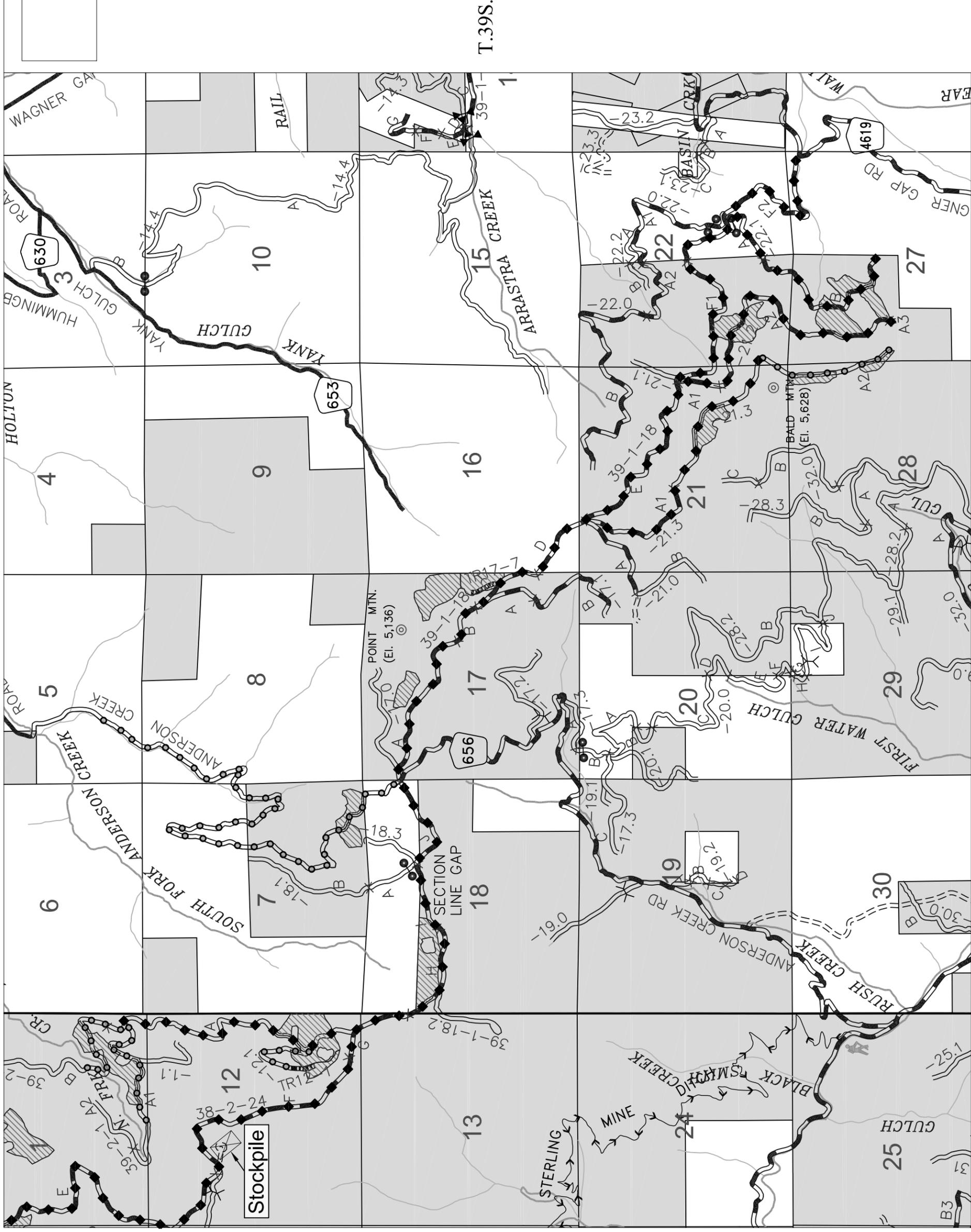
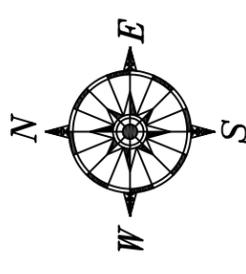
T.37S., R.3W. WILL. MER.
T.38S., R.3W. WILL. MER.
T.38S., R.2W. WILL. MER.
T.39S., R.2W. WILL. MER.
T.39S., R.1W. WILL. MER.

- EXISTING GATE
- EXISTING BARRICADE
- PUMP CHANGE
- QUARRY
- STOCKPILE FOR ROCKING

ROAD PROJECTS

- EXISTING ROAD
- EXISTING PAVED ROAD
- EXISTING PRIMITIVE ROAD
- OPERATOR MAINTENANCE
- BLM MAINTENANCE

- BLM LAND
- TS UNITS



T.39S.

R.1W.

R.2W.

ROAD NUMBER	FROM MP/STA	TO MP/STA	LENGTH MILE/STA	MAINTENANCE RESPONSIBILITY			PURCHASER MAINTENANCE						ROAD CLOSURE AND DECOMMISSIONING					
				BLM MAINTENANCE MILE	PURCHASER MAINTENANCE MILE	THIRD PARTY MAINTENANCE MILE	CULVERT MAINTENANCE MILE	BLADE WITH DITCH MILE	BLADE WITHOUT DITCH MILE	SLIDE AND SLOUGH REMOVAL C.Y.	DUST ABATEMENT / WATERING MILE	SPOT ROCKING C.Y.	INSTALL EARTH / LOG BARRIER EA	INSTALL MEGA GATE EA	INSTALL WATERBARS EA	CAMOUFLAGED ROAD ENTRANCE 100 FEET EA	RIPPING / DE-COMPACT SOIL MILE	SOIL STABILIZATION (SEED & MULCH) ACRE
39-1W-21.02	0.00	1.55	1.55	1.55														
39-1W-21.03	0.00	1.46	1.46	1.46														
39-1W-21.03	1.46	2.16	0.70		0.70		0.70	0.70										
39-1W-22.01	0.00	1.23	1.23	1.23														
39-2W-01.00	0.00	0.63	0.63		0.63			0.63										
39-2W-03.02	0.00	1.50	1.50	1.50														
39-2W-08.00 A1	0.00	0.28	0.28	0.28														
39-2W-08.00 A2-C2	0.28	8.75	8.47	8.47														
39-2W-12.00 A1	0.00	1.38	1.38	1.38														
39-2W-12.00 A2	1.38	2.01	0.63		0.63		0.63	0.63										
39-2W-12.01	0.00	0.49	0.49		0.49			0.49										
39-2W-15.00	0.00	0.50	0.50	0.50														
39-2W-17.00A	0.00	0.70	0.70	0.70														
39-2W-17.00B1	0.70	1.32	0.62	0.62														
39-2W-17.00 B2-C2	1.32	2.12	0.80	0.80														
NS38-2W-23.00	0.00	0.66	0.66		0.66			0.66										
Anderson Creek	0.00	3.31	3.31		3.31			3.31										
TR 17-7	0+00	7+39	0.14											1	0.14	0.24		
TR 12-1	0+00	12+67	0.24											1	0.24	0.41		
TR 27-5	0+00	7+92	0.15											1	0.15	0.25		
TOTAL Page 1				38.47	4.53		0.48	0.48	4.05	2.50	2.50	4	90	103	0.53	0.90		
TOTAL				56.96	10.95		1.81	1.81	9.14	2.50	2.50	7	103	7	0.53	0.90		

REV. NO.	APPROV.
U. S. DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT	
ESTIMATE OF QUANTITIES*	
DRAWN: JWR	SCALE NONE
DATE: JULY 2020	SHEET 2 OF 2
DRAWING NO. ORM06.2021.0002.D3pg2	



Exhibit D4

Sale Name: Bear Grub TS

Page 1 of 2

Roads Decommissioning Work List

Definitions:

AGG = Aggregate

BST = Bituminous

NAT = Natural or Native Surface

CMP = Corrugated Metal Pipe

Pvt = Private (Industry or Citizen)

Jct = Junction/Intersection

MP = Mile Post

CL = Center Line

CY = Cubic Yard

Seg = Segment

GENERAL DEFINITIONS:

Decommission (Full) = Full Decommissioning shall include decompacting the surface to a depth of 12 to 18 inches, installing waterbars (every 200' for grades <10% - every 100' grades >10%) unless otherwise noted in the work list, stabilizing or removing fills on unstable areas, barricading the road entrance, camouflaging, and/or removing culverts (armor if needed). Seeding with approved native seed species and mulching with weed-free straw or approved native materials.

Long Term Closure = Long Term Closure shall include installing waterbars (every 200' for grades <10% - every 100' grades >10%) unless otherwise noted in the work list, stabilizing or removing fills on unstable areas, barricading the road entrance, camouflaging, and/or removing culverts (armor if needed). Seeding with approved native seed species and mulching with weed-free straw or approved native materials.

Camouflaging = Camouflaged entrances shall consist of logs, slash, boulders and others debris placed along road entrances for a minimum of 100 feet or to the first curve or hillcrest to discourage vehicle use.

Barricade = Barricade only.

38-3W-33.00 Road – Ridge End – NAT – Sub: 15Ft – Ditch: 0Ft – X-Sect: Outsloped

<u>MP</u>	<u>Description</u>
0.00	Jct. with 38-3W-10.00.
0.02	Upon completion of log haul begin Long Term Closure. Construct 9 waterbars, Install Barricade to block vehicle access beyond the end of road. Camouflage road entrance with debris for 100 feet.
0.37	End road.

38-3W-13.00 Road – Cemetary Hill Sp – NAT – Sub: 14Ft – Ditch: 0Ft – X-Sect: Outsloped

<u>MP</u>	<u>Description</u>
0.00	Jct. with 38-2W-18.00.
0.02	Upon completion of log haul begin Long Term Closure. Construct 4 waterbars, Install Barricade to block vehicle access beyond the end of road. Camouflage road entrance with debris for 100 feet.
0.16	End road.

Exhibit D4

Sale Name: Bear Grub TS

Page 2 of 2

38-3W-13.01 Road – R And R Spur – NAT – Sub: 14Ft – Ditch: 0Ft – X-Sect: Outsloped

<u>MP</u>	<u>Description</u>
0.00	Jct. with 38-2W-18.00.
0.08	Upon completion of log haul begin Long Term Closure. Construct 35 waterbars, Install Barricade to block vehicle access beyond the end of road. Camouflage road entrance with debris for 100 feet.
1.34	End road.

38-3W-13.02 Road – Lower Raider Spur – NAT – Sub: 14Ft – Ditch: 0Ft – X-Sect: Outsloped

<u>MP</u>	<u>Description</u>
0.00	Jct. with 38-2W-18.00.
0.02	Upon completion of log haul begin Long Term Closure. Construct 35 waterbars, Install Barricade to block vehicle access beyond the end of road. Camouflage road entrance with debris for 100 feet.
1.35	End road.

38-3W-13.03 Road – R R 13 3 Spur – NAT – Sub: 14Ft – Ditch: 0Ft – X-Sect: Outsloped

<u>MP</u>	<u>Description</u>
0.00	Jct. with 38-3W-13.01.
0.02	Upon completion of log haul begin Long Term Closure. Construct 7 waterbars.
0.27	End road.

TR 17-7 Temp Road – NAT – Sub: 14Ft – Ditch: 0Ft – X-Sect: Outsloped

<u>MP</u>	<u>Description</u>
0.00	Jct w/ 39-1W-18.00. Upon completion of log haul Fully Decommission entire length of temporary road using mechanical treatment to de-compact road surface to a depth 12 to 18 inches. Construct 3 waterbars. Install Barricade to block vehicle access beyond the end of road. Camouflage road entrance with debris for 100 feet. Seed and mulch.
0.14	End of Project.

12-1 Temp Road – NAT – Sub: 14Ft – Ditch: 0Ft – X-Sect: Outsloped

<u>MP</u>	<u>Description</u>
0.00	Jct w/ 39-2W-12.01. Upon completion of log haul Fully Decommission entire length of temporary road using mechanical treatment to de-compact road surface to a depth 12 to 18 inches. Construct 6 waterbars. Install Barricade to block vehicle access beyond the end of road. Camouflage road entrance with debris for 100 feet. Seed and mulch.
0.24	End of Project.

TR 27-5 Temp Road – NAT – Sub: 14Ft – Ditch: 0Ft – X-Sect: Outsloped

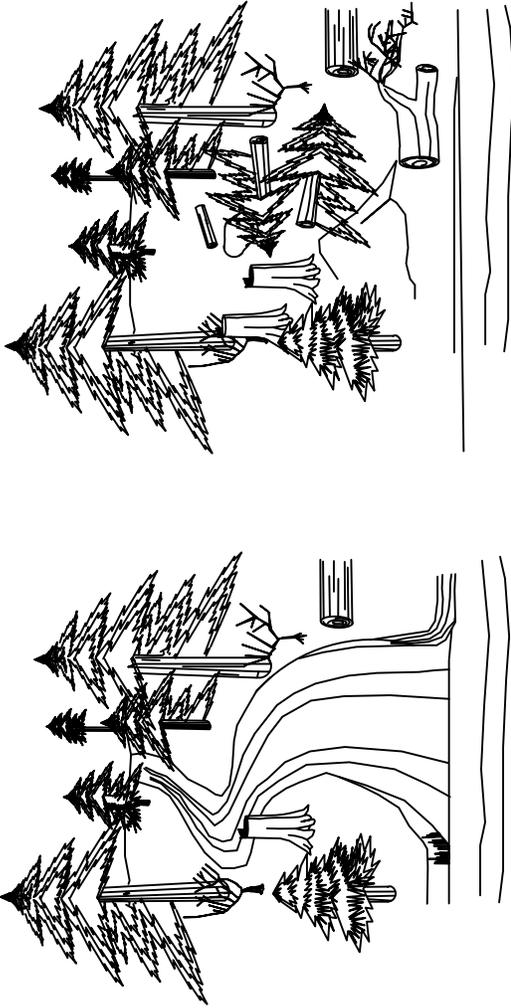
<u>MP</u>	<u>Description</u>
0.00	Jct w/ 38-2W-27.02. Upon completion of log haul Fully Decommission entire length of temporary road using mechanical treatment to de-compact road surface to a depth 12 to 18 inches. Construct 4 waterbars. Install Barricade to block vehicle access beyond the end of road. Camouflage road entrance with debris for 100 feet. Seed and mulch.
0.15	End of Project.

EXHIBIT D5

SHEET 1 OF 1

Notes:

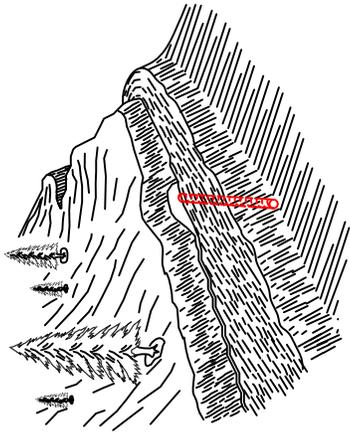
- The Purchaser shall barricade, decompact the road prism and camouflage the roadbed so that the road entrance and roadway are indiscernible from the intersecting road. Camouflaged entrances shall consist of logs, slash, boulders and other debris placed along road entrances for a minimum of 100 feet or to the first curve or hillcrest to discourage vehicle use. Barricades shall be constructed as shown for each road.
- Where multiple entrances exist, the work shall include obscuring all road entrances. Ditchlines at intersecting roads will be restored as indicated on plan view. The Purchaser shall use soil, boulders, brush, dead material, stumps, and other debris to disguise the road prism to the extent possible. No live trees shall be used without approval of the Authorized Officer.
- Road surface shall be decompact for its entire length using mechanical equipment. Decompact road surface to a depth of 12 to 18 inches or to a point where 10 inch diameter stones are the dominant substrate (whichever is shallower). Where it is determined by the Authorized Officer that decompaction may cause unacceptable damage to the root systems of residual trees along a majority of the road, decompaction may be intermittent, or scarification may be used instead. Woody debris, brush, stumps, boulders, and other debris shall be placed along the roads entire length as determined by availability of materials to provide ground cover and discourage use. No live trees shall be cut or used without approval of the Authorized Officer.
- All culverts shall be removed from road for its entire length. Excavated culverts shall be left open to drain and have slopes of 1½:1. Where draw culverts are removed the grade of the channel shall be restored to match existing stream. Culverts not designated as salvage for the Government shall become the property of the Contractor. The Contractor shall be responsible for legally disposing of material.
- See Section 1800 for Seeding Specifications.



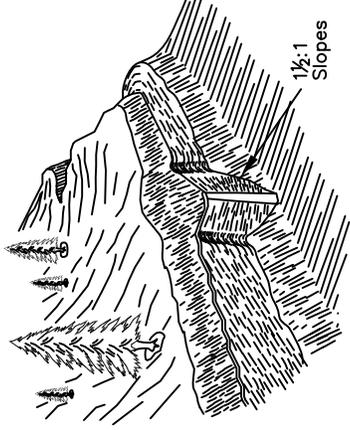
Typical Entrance — Before

Typical Entrance — After

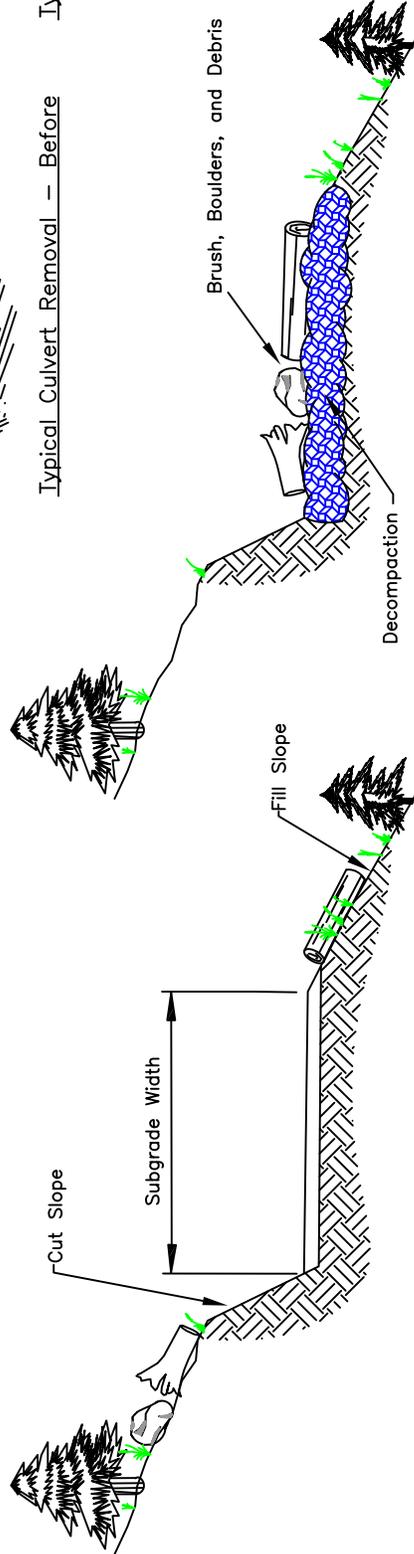
Typical Road Camouflaged Entrance
(See Exhibit D-7)



Typical Culvert Removal — Before



Typical Culvert Removal — After



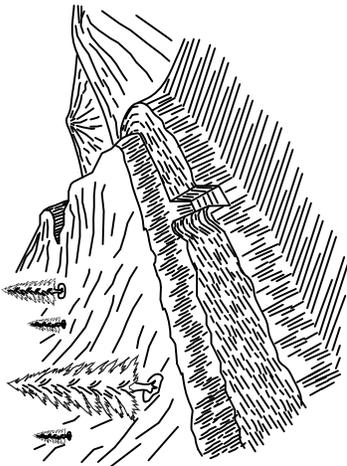
Before Decommissioning

After Decommissioning

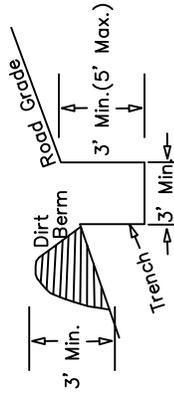
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT — MEDFORD, OREGON	
<i>Typical Full Decommission</i>	
DRAWN	JWR
SCALE	NONE
DATE	July 2020
SHEET	1 OF 1
DRAWING NO.	ORM06.2021.0002.D5

Typical Full Decommission

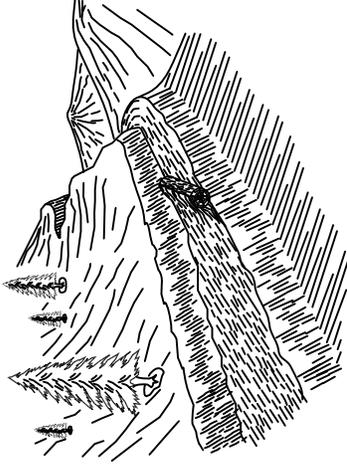
EXHIBIT D6
SHEET 1 OF 1



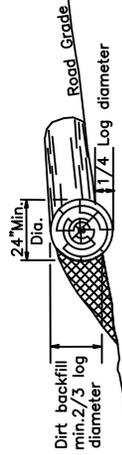
TRENCH BARRICADE



1. BARRICADE LENGTH SHALL EXTEND ACROSS THE ENTIRE ROAD SURFACE TO A POINT SUFFICIENT TO PROHIBIT MOTOR VEHICLE TRAFFIC.
2. THE EXACT LOCATION SHALL BE AS STAKED IN THE FIELD.
3. THE BARRICADE SHALL BE SKEWED AS NEEDED TO DRAIN OR AS DIRECTED BY THE AUTHORIZED OFFICERS REPRESENTATIVE.



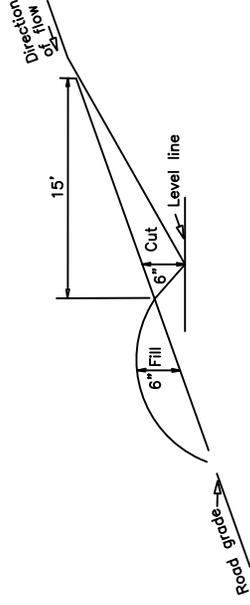
LOG BARRICADE



1. LOG BARRICADE SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. ALL BARRICADES SHALL BE SKEWED 30 DEGREES.
4. THE LENGTH SHALL BE SUFFICIENT TO EXTEND FROM THE CUT BANK TO THE FILL SLOPE.
5. THE MINIMUM SMALL END DIAMETER OF THE LOG BARRICADE SHALL BE 24".

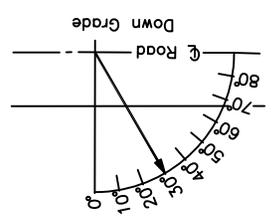


WATER BAR



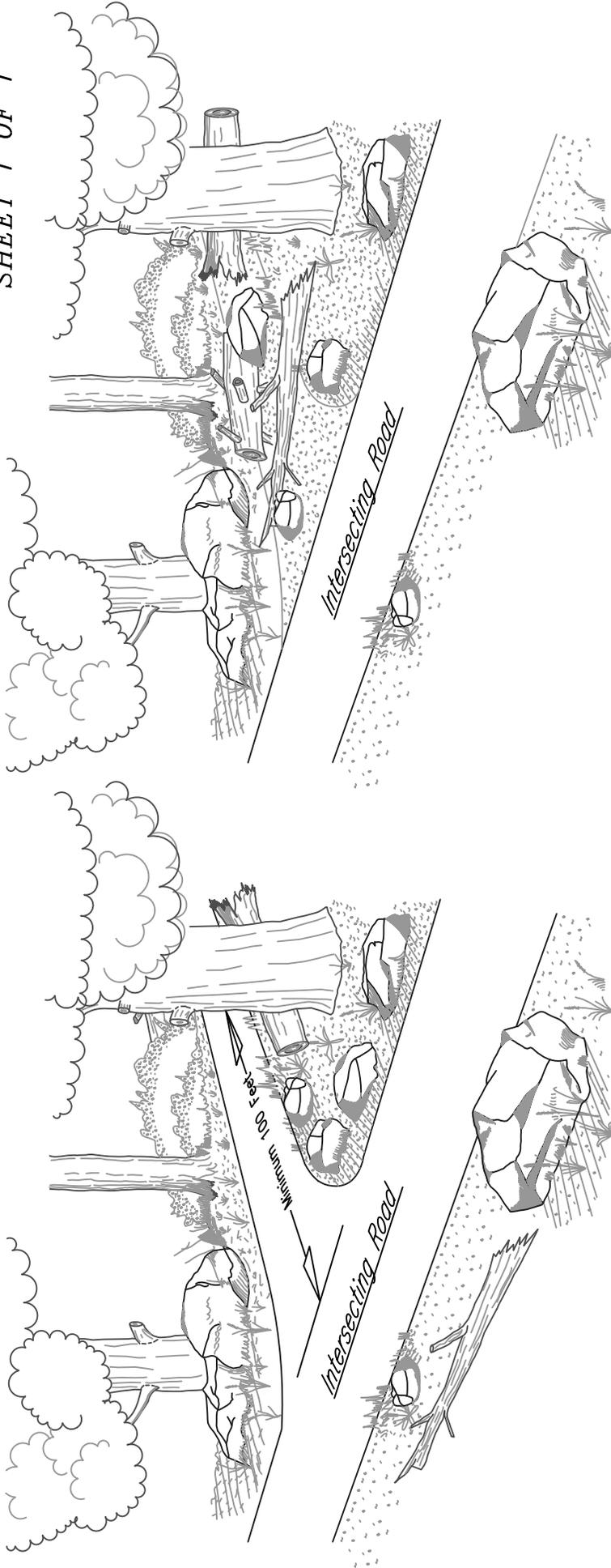
1. CROSS-DRAINS SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. ALL CROSS DRAINS SHALL BE SKEWED 30 DEGREES.
4. THE CROSS-DRAINS INVERT SHALL BE SMOOTH AND FREE DRAINING.

SKEW DIAGRAM



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
DRAINAGE & EROSION CONTROL INSTALLATION			
DRAWN	DCM	SCALE	NONE
DATE	July 2020	SHEET	1 OF 1
DRAWING NO.		ORM06.2021.0002.D6	

EXHIBIT D7
SHEET 1 OF 1



Typical Entrance – Before

Typical Entrance – After

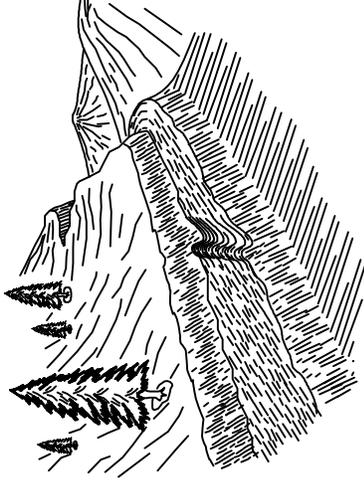
Notes:

1. The Purchaser shall barricade and Camouflage the road prism and disguise the roadbed so that the road entrance and roadway are indiscernible from the intersecting road. Camouflaged entrances shall consist of logs, slash, boulders and other debris placed along road entrances for a minimum of 100 feet or to the first curve or hillcrest to discourage vehicle use. An Earth Berm or equivalent barricade shall be constructed at road entrance as approved by the Authorized Officer..
2. Where multiple entrances exist, the work shall include obscuring all road entrances. Ditchlines at intersecting roads will be restored as indicated on plan view. The Purchaser shall use soil, boulders, brush, dead material, stumps, and other debris to disguise the road prism to the extent possible. No live trees should be used without approval of the Authorized Officer.

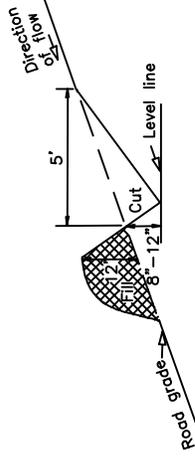
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT – MEDFORD, OREGON

Typical Road
Camouflage

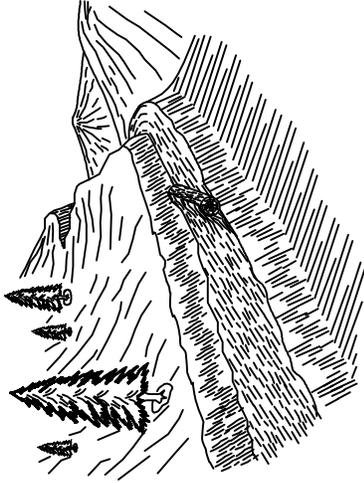
DRAWN	JWR	SCALE	NONE
DATE	July 2020	SHEET	1 OF 1
DRAWING NO. ORM06.2021.0002.D7			



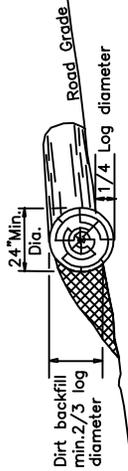
WATER BAR



1. WATER BARS SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. ALL WATER BARS SHALL BE SKEWED 30 DEGREES UPON COMPLETION OF SKIDDING LOGS, FOR THE LOGGING SEASON. EACH SKID ROAD WILL HAVE CROSS DRAINAGE CONSTRUCTED AS SHOWN ABOVE.
4. PRIOR TO BLOCKING, EACH ROAD WILL HAVE CROSS DRAINAGE CONSTRUCTED AS SHOWN ABOVE.

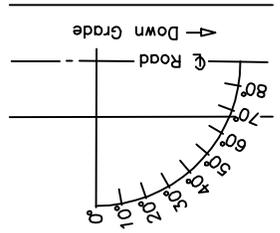


LOG BARRICADE



1. LOG BARRICADE SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. ALL BARRICADES SHALL BE SKEWED 30 DEGREES
4. THE LENGTH SHALL BE SUFFICIENT TO EXTEND FROM THE CUT BANK TO THE FILL SLOPE.
5. THE MINIMUM SMALL END DIAMETER OF THE LOG BARRICADE SHALL BE 24".

SKEW DIAGRAM



WATER BAR SPACING *

ROAD GRADE %	LOAM OR CLAY	DECOMPOSED LOAM	GRANITE	FEET
4-6	400	300		
7-9	300**	200**		
10-14	200	150		
15-20	150	90		
21-40	90	50		
41-60	50	25		

* DISTANCES ARE MAXIMUM.
** ON GRADES IN EXCESS OF 10% CONSTRUCT WATER BARS.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT — MEDFORD, OREGON

**DRAINAGE & EROSION
CONTROL INSTALLATION**

DESIGNED	BLM
REVIEWED	
APPROVED	
DRAWN	DCM
DATE	October 2009
SHEET	1 OF 1
DRAWING NO.	OR-11-9113.4-8

If sale contract is executed, undersigned is liable for total purchase price including all modifications executed under the terms of the contract. Timber and/or Other Wood Products or Vegetative Resources designated for taking may be less or more than total estimated volume or quantity shown above. Undersigned certifies bid was arrived at by bidder or offeror independently, and was tendered without collusion with any other bidder or offeror. In submitting or confirming this bid, undersigned agrees to the foregoing provisions, applicable regulations, and certifies that he is authorized to act as, or on behalf of, the bidder.

Bid submitted on *(date)*

(Check appropriate box, sign in ink, and complete the following)

<input type="checkbox"/> Signature, if firm is individually owned	Name of firm <i>(type or print)</i>
<input type="checkbox"/> Signatures, if firm is a partnership or L.L.C.	Business address, include zip code <i>(type or print)</i>
<input type="checkbox"/> Corporation organized under the state laws of	<i>(To be completed following oral bidding)</i>
Signature of Authorized Corporate Signing Officer	I HEREBY confirm the above oral bid By <i>(signature)</i>
Title	Date
Submit bid, in <i>duplicate</i> , to qualify for either an oral auction or sealed bid sale together with the required bid deposit made payable to the Department of the Interior – BLM. Oral Auction – Submit to Sales Supervisor prior to closing of qualifying period for tract.	Sealed Bid – Send to District Manager, who issued the sale notice, in a sealed envelope marked on the outside: (1) “Bid for Timber and/or Other Wood Products or (1a) “Vegetative Resources” (2) Time bids are to be opened (3) Legal description

NOTICES

The Privacy Act and the regulations in 43 CFR 2.223(d) require that you be furnished with the following information:

AUTHORITY: 38 FR 6280 and 43 CFR 5442.1

PRINCIPAL PURPOSE: To qualify an oral auction bidder, and then if successful, to bind bidder to certain contract conditions.

ROUTINE USES: To determine that an individual is qualified to participate in oral auction bidding, and, as surety that bidder will fulfill contract requirements.

EFFECT OF NOT PROVIDING INFORMATION: Filing this deposit and bid information is necessary only when an individual wishes to participate in a sealed or auction bid sale for Timber and/or Other Wood Products or Vegetative Resources.

INSTRUCTIONS TO BIDDERS

1. **AUTHORITY** – Timber and/or Other Wood Products or Vegetative Resources, located on the revested Oregon and California Railroad Grant Lands and on the reconveyed Coos Bay Wagon Road Grant Lands is administered and sold pursuant to authority of the Act of August 28, 1937 (50 Stat. 874; 43 U.S.C. 1181a); Timber and/or Other Wood Products or Vegetative Resources located on other public lands of the United States under jurisdiction of the Bureau of Land Management are administered and sold pursuant to authority of the Act of July 31, 1947 (61 Stat. 681), as amended, by the Act of July 23, 1955 (69 Stat. 367; 30 U.S.C. 601 et. seq.). Regulations of the Secretary of the Interior governing sale of Timber and/or Other Wood Products or Vegetative Resources, are codified in 43 CFR Group 5400.

2. **QUALIFICATIONS OF BIDDERS** – A bidder for sale of Timber and/or Other Wood Products or Vegetative Resources must be either (a) a citizen of the United States, (b) a partnership composed wholly of such citizens, (c) an unincorporated association composed wholly of such citizens, or (d) a corporation authorized to transact business in the State in which the Timber and/or Other Wood Products or Vegetative Resources are located.

3. **INSPECTION OF TIMBER AND/OR OTHER WOOD PRODUCTS OR VEGETATIVE RESOURCES** – Bidder is invited, urged, and cautioned to inspect the Timber and/or Other Wood Products or Vegetative Resources prior to submitting a bid. By executing the Timber and/or Other Wood Products or Vegetative Resources sale contract, bidder warrants that the contract is accepted on the basis of his examination and inspection of the Timber and/or Other Wood Products or Vegetative Resources and his opinion of its value.

4. **DISCLAIMER OF WARRANTY** – Government expressly disclaims any warranty of the fitness of the designated Timber and/or Other Wood Products or Vegetative Resources for any purpose of the bidder; all Timber and/or Other Wood Products or Vegetative Resources are to be sold “As Is” without any warranty of merchantability by Government. Any warranty as to the quantity or quality of Timber and/or Other Wood Products or Vegetative Resources to be sold is expressly disclaimed by Government.

5. **BIDS** – Sealed or written bids for not less than the advertised appraised price, per Timber and/or Other Wood Products or Vegetative Resources must be submitted in duplicate to the District Manager who issued *Timber and/or Other Wood Products or Vegetative Resources Sale Notice*.

(a) **Sealed Bid Sales** – Bids will be received until time for opening which is set out in the Notice. Enclose both copies of bid with required bid deposit in a sealed envelope marked on the outside *Bid for Timber and/or Other Wood Products or Vegetative Resources*, time bid is to be opened, tract number, and legal description of land on which Timber and/or Other Wood Products or Vegetative Resources are located. In event of a tie, the high bidder shall be determined by lot from among those who submitted the tie bids.

(b) **Auction Sales** – Submission of the required bid deposit and a written bid is required to qualify for oral bidding. Oral bidding shall begin from the highest written bid. No oral bid will be considered which is not higher than the preceding bid. In the event there is a tie in high written bids, and no oral bidding occurs, the bidder who was the first to submit his bid deposit and written bid shall be declared the high bidder. If the officer conducting the sale cannot determine who made the first submission of high tie written bids, the high bidder shall be determined by lot. High bidder must confirm his bid, in writing, immediately upon being declared high bidder.

(c) Except as otherwise provided in 43 CFR 5442.2, bids will not be considered in resale of Timber and/or Other Wood Products or Vegetative Resources remaining from an uncompleted contract from any person or affiliate of such person who failed to complete the original contract because of (1) cancellation for the purchaser’s breach or (2) through failure to complete payment by expiration date.

(d) When it is in the interest of the Government to do so, it may reject any and all bids and may waive minor deficiencies in bids or in sale advertisement.

6. **BID FORMS** – All sealed, written bids, and confirmation of oral bids shall be submitted on forms provided by Government.

(a) **Timber and/or Other Wood Products or Vegetative Resources Sales** – For each product and species, bids shall specify (1) Bureau of Land Management estimated unit volume or quantity, (2) bidder’s price per unit and total value, and (3) bidder’s total purchase price. Estimated volume and price per unit are to be used for administrative and appraisal purposes only. Upon award of contract, the high bidder agrees to pay the Government for the Timber and/or Other Wood Products or Vegetative Resources designated for removal in accordance with the terms of the contract. Timber and/or Other Wood Products or Vegetative designated for taking may be less or more than total estimated volume or quantity shown above.

7. **BID DEPOSIT** – All bidders must make a deposit of not less than the amount specified in the *Timber and/or Other Wood Products or Vegetative Resources*

Notice. Deposit may be in the form of cash, money orders, bank drafts, cashiers or certified checks made payable to the Department of the Interior – BLM, bid bonds of a corporate surety shown on the approved list of the United States Treasury Department (*Applies To Timber Only*), or any approved guaranteed remittance approved by the Contracting Officer. Upon conclusion of bidding, the bid deposit of all bidders, except high bidder, will be returned. The cash deposit of the successful bidder may be applied toward the required sale deposit and/or the purchase price. Cash not applied to the sale deposit or the purchase price, or a corporate surety bid bond, will be returned at the time the contract is signed by the Government.

8. **AWARD OF CONTRACT** – Government may require high bidder to furnish such information as is necessary to determine the ability of bidder to perform the obligation of contract. Contract will be awarded to high bidder, unless he is not qualified or responsible or unless all bids are rejected. If high bidder is not qualified or responsible or fails to sign and return the contract together with required performance bond and any required payment, contract may be offered and awarded to the highest bidders qualified, responsible, and willing to accept the contract.

9. **TIMBER AND/OR OTHER WOOD PRODUCTS OR VEGETATIVE RESOURCES SALE CONTRACTS** – To be executed by purchaser, has been prepared by Government, and may be examined in the District or Field Manager’s office.

10. **PERFORMANCE BOND** – (*Primarily Used For Timber Sales*)

(a) A performance bond in an amount of not less than 20 percent of total purchase price is required, but the amount of the bond shall not be in excess of \$500,000, except when the purchaser opts to increase the minimum bond to permit cutting prior to payment as provided in 43 CFR 5451.2, or in the event the purchaser is a holder of an unresolved default the bond may be increased as provided in 43 CFR 5450.1(b). Performance bond may be (1) bond of a corporate surety shown on approval list issued by the United States Treasury Department and executed on an approved standard form, (2) personal surety bond executed on an approved standard form if Government determines principals and bondsman are capable of carrying out the terms of the contract, (3) cash bonds, (4) negotiable securities of the United States, or (5) any guaranteed remittance approved by the Contracting Officer.

(b) If purchaser elects to cut Timber and/or Other Wood Products or Vegetative Resources without skidding or yarding it to a loading point or removing it prior to the payment of the second or subsequent installments, Government shall require an increase in amount of performance bond initially required by an amount equal to the value of Timber and/or Other Wood Products or Vegetative Resources to be cut. Such increase must be on a bond rider form supplied by Government and be approved, in writing, by Government prior to cutting Timber and/or Other Wood Products or Vegetative Resources covered by the bond increase. This increased amount of bond shall be used to assure payment for Timber and/or Other Wood Products or Vegetative Resources cut in advance of payment.

11. **PAYMENT BOND**— (*Primarily Used For Timber Sales*)

If purchaser elects to (a) cut and remove Timber and/or Other Wood Products or Vegetative Resources, or (b) remove Timber and/or Other Wood Products or Vegetative Resources already cut which has been secured by an increased performance bond as provided in paragraph 10(b) above, before payment of the second or subsequent installments, Government shall require a payment bond on a form supplied by Government. Purchaser shall obtain written approval from Government of payment bond prior to cutting and/or removal of Timber and/or Other Wood Products or Vegetative Resources covered by the bond. Payment bond shall be used to assure payment for Timber and/or Other Wood Products or Vegetative Resources cut and/or removed in advance of payment.

12. **PAYMENT OF PURCHASE PRICE** – For sales of \$500 or more, Government may allow payment by installments. Except as discussed in paragraphs 10 and 11 above, no part of any Timber and/or Other Wood Products or Vegetative Resources sold may be severed, cut, or removed unless advance payment has been made as provided in contract.

13. **LIQUIDATED DAMAGES** – Within thirty (30) days from receipt of *Timber and/or Other Wood Products or Vegetative Resources Sale Contract*, the successful bidder shall sign contract and return it to Government, together with required bond and any required payment. If successful bidder fails to comply within the stipulated time, his bid deposit shall be retained by Government as liquidated damages.

14. **NINETY-DAY SALES** – If no bid is received within time specified in the advertisement of sale and if Government determines that there has been no significant rise in the market value of Timber and/or Other Wood Products or Vegetative Resources, it may, in its discretion, keep the sale open, not to exceed ninety (90) days.

15. *UNAUTHORIZED USE OF GOVERNMENT PROPERTY* – A sale may be refused to high bidder who has been notified that he has failed to make satisfactory arrangements for payment of damages resulting from unauthorized use of, or injury to, property of the United States.

16. *EQUAL OPPORTUNITY CLAUSE* – This contract is subject to the provisions of Executive Order No. 11246 of September 24, 1965, as amended, which sets forth the nondiscrimination clauses. Copies of this order may be obtained from the District Manager. 43 CFR 60-1.7(b) requires that the Equal Opportunity *Compliance Report Certification* will be completed by prospective contractors. Certification may be obtained from District Manager.

17. *LOG EXPORT* – All timber offered for sale except as noted in the *Timber Sale Notice* is restricted from export from the United States in the form of unprocessed timber and cannot be used as a substitute for exported private timber. For the purpose of this contract, unprocessed timber is defined as: (1) any logs except those of utility grade or below, such as saw logs, peeler logs, and pulp logs; (2) cants or squares to be subsequently remanufactured exceeding eight and three quarters (8-3/4) inches in thickness; (3) split or round bolts or other roundwood not processed to standards and specifications suitable for end product use; or (4)

western red cedar lumber which does not meet lumber of American Lumber Standards Grades of Number 3 dimensions or better, or Pacific Lumber Inspection Bureau R-List Grades of Number 3 common or better. Timber manufactured into the following will be considered processed: (1) lumber and construction timbers, regardless of size, manufactured to standards and specifications suitable for end product uses; (2) chips, pulp and pulp products; (3) green or dry veneer and plywood; (4) poles and piling cut or treated for use as such; (5) cants, squares, and lumber cut for remanufacture of eight and three quarters (8-3/4) inches in thickness or less; or (6) shakes and shingles. In event purchaser wishes to sell any or all of timber restricted from export in the form of unprocessed timber, the buyer, exchanges, or recipient shall be required to comply with contractual provisions relating to “*unprocessed timber*”. Special reporting, branding and painting of logs may be included in contract provisions.*

18. *DETAILED INFORMATION* – Detailed information concerning contract provisions, bid, performance bond forms, tract location maps, and access conditions may be obtained from the District Manager. All persons interested in bidding on the products listed are encouraged to familiarize themselves with all such detailed information.