

P R O S P E C T U S

LUMP SUM SALE

BUTTE FALLS RESOURCE AREA
JACKSON MASTER UNIT

Medford Sale # ORM05- TS-2017.0005
September 14, 2017 (TG)

3 Shady Elk (5900) Jackson County, O&C, P.D.

BID DEPOSIT REQUIRED: \$ 58,700.00

All timber designated for cutting in E $\frac{1}{2}$ SE $\frac{1}{4}$, Sec. 11, NW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 12, N $\frac{1}{2}$ NW $\frac{1}{4}$, Sec. 13, N $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 23, E $\frac{1}{2}$ SE $\frac{1}{4}$, Sec. 26, NW $\frac{1}{4}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 27, T32S., R1W, SE $\frac{1}{4}$, Sec. 3, Govt. Lot 2, Sec. 10, SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 13, SE $\frac{1}{4}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$, Govt. Lot 3, 4, N $\frac{1}{2}$ SE $\frac{1}{4}$, Govt. Lot 1, 2, Sec. 14, NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 23, T33S., R1W, Govt. Lot 6, 7, 8, 9, Sec. 7, SE $\frac{1}{4}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$, Sec. 11, W $\frac{1}{2}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 13, Govt. Lot 4, Sec. 30, N $\frac{1}{2}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 31, E $\frac{1}{2}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 35, T32S., R1E, E $\frac{1}{2}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 21, SE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 35, T33S., R1E, N $\frac{1}{2}$ NE $\frac{1}{4}$, Sec. 32, T32S., R2E, 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
27,183	4,077	Douglas-fir	5,102	\$108.40	\$553,056.80
2,589	442	White Fir	584	\$42.80	\$24,995.20
933	159	Ponderosa Pine	196	\$30.50	\$5,978.00
528	37	Incense-cedar	47	\$49.80	\$2,340.60
135	16	Sugar Pine	20	\$29.40	\$588.00
31,368	4,731	Totals	5,949		\$586,958.60

*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, Incense Cedar and Sugar Pine have been cruised using the 3-P sampling methods to select sample trees. 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 DF trees: the average tree is 14.4 inches DBHOB; the average gross merchantable log contains 56 bd. ft.; the total gross volume is approximately 6,831 M bd. Ft. and 87% recovery is expected.

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 Thirty Five (35) units containing six hundred ninety one (691) acres must 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 roads and through the contract area using BLM Roads and Right-of-way and Road Use Agreement M-M660I with Hancock Timberlands X, Inc., via Right-of-way and Road Use Agreement M-M660J with AP Timber, LLC, via Right-of-way and Road Use Agreement M-M660K with System Global, LLC, via Right-of-way and Road Use Agreement M-M660L with Murphy Timber Investments, and via Right-of-Way and Road Use Agreement M-2000D with Juniper Properties.

Among other conditions, agreement M-660I with Hancock Timberlands X, Inc. requires completion of a license agreement between the Purchaser and Hancock Timberlands X, Inc., road maintenance to be performed by the Purchaser or BLM and an estimated payment of a road surface replacement fee of \$161.77. Among other conditions, agreement M-660J with AP Timber, LLC requires completion of a license agreement between the Purchaser and AP Timber, LLC, road maintenance to be performed by the Purchaser or BLM and an estimated payment of a road surface replacement fee of \$161.57. Among other conditions, agreement M-660K with System Global, LLC requires completion of a license agreement between the Purchaser and System Global, LLC and road maintenance to be performed by the Purchaser or BLM. Among other conditions, agreement M-660L with Murphy Timber Investments requires completion of a license agreement between the Purchaser and Murphy Timber Investments, road maintenance to be performed by the Purchaser or BLM and an estimated payment of a road surface replacement fee of \$237.23. Among other conditions, agreement M2000D with Juniper Properties, requires completion of a license agreement between the Purchaser and Juniper Properties and road maintenance to be performed by the Purchaser or BLM.

ROAD MAINTENANCE – The Purchaser will be required to maintain all the temp routes and existing decommissioned roads he constructs/reconstructs plus 20.38 miles of existing BLM and private roads. The BLM will maintain the approximately 40.86 miles of existing BLM and private roads.

ROAD CONSTRUCTION – The contract will require the Purchaser to construct 3.70 stations of temporary roads and reconstruct 53.86 stations of roads.

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.

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. Track log loader with sufficient boom reach and swing torque to yard tree length material to roadside with one end free of ground (unit 35-1).
3. A tractor equipped with winged-toothed rippers.
4. A skyline yarder capable of one end suspension of logs during in-haul and with a minimum lateral yarding capability of 75 feet while maintaining a fixed position of the carriage during lateral in-haul.
5. A helicopter equipped with a dropline with a minimum length of 150 feet and capable of lifting logs vertically to a height above adjacent trees without horizontal movement.

SLASH DISPOSAL Perform logging residue reduction and site preparation work on approximately three hundred sixty six (366) acres of harvest area as directed by the Authorized Officer.

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 through survey and manage and/or protection buffer standards and guidelines 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.No extension of time beyond the normal 30 days will be granted for completing bonding and contract signing requirements.
- 2.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.
3. 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).
4. Directional falling is required
5. There are daily and seasonal restrictions in place on this sale.
6. Cleaning of equipment to eliminate noxious weed seeds is required prior to move-in of equipment onto federal lands.
7. Log hauling on road 32-1E-11.0 and use of the low water ford across Sugar Pine Creek shall be conducted between June 15 and September 15 of the same calendar year and all log hauling will need to be completed in one (1) season.
8. Dust abatement is required.
9. Helicopter landing 14-1L has special construction provisions attached (see Section 42, L-32).
10. There are slash treatment and pile placement requirements in place for this sale (see SD-1 in the contract)
11. Purchaser should be aware there are logging residue reduction costs assessed under SD-1. Refer to the appraisal for total assessed costs of logging residue reduction.

NARRATIVE DESCRIPTION OF HOW TO GET TO THE TIMBER SALE AREA

From the town of Shady Cove, Proceed northeast on highway 62 approximately 5 miles to the junction of Highways 62 and Elk Creek Road. Turn left onto Elk Creek Road and proceed north into the sale area.

ENVIRONMENTAL ASSESSMENT – An environmental assessment (DOI-BLM-ORWA M050-2017-0001-EA) was prepared for this sale, and a Finding of No Significant Impact has been documented for this environmental assessment. This document is available for inspection as background for this sale at the Medford District Office.

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SPECIAL PROVISIONS

THIS IS A SALE PROSPECTUS ONLY. 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 nine thousand seven hundred and sixty seven (9,767) trees marked with orange paint above and below stump height in units 11-4, 13-3, 13-4, 13-5, 13-6, 13-7, 13-8, 13-9, 13-10, 23-1, 26-1, 29-1, 29-2, 32-1, 32-2, 32-3, 35-1, and 35-2 as shown on exhibit A.
- (C) IR-1 Approximately three thousand five hundred and one (3,501) trees marked with yellow paint above and below stump height in units 14-1 as shown on exhibit A.
- (D) IR-2 All timber except approximately nine thousand two hundred and ten (9,210) trees marked for cutting heretofore by the Government with blue paint above and below stump height in units 3-1, 3-2, 3-3, 7-1, 11-1, 11-2, 11-3, 13-1, 13-2, 13-11, 21-1, 27-1, 27-2, 27-3, 27-4, 27-5, 31-1, and 31-2, as shown on Exhibit A.
- (E) 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.
- (F) IR-6 All hardwood and Yew trees in all units as shown on Exhibit A.
- (G) 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.
- (H) 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.

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

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

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(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 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-8 In all tractor units, as shown on Exhibit A, all trees twenty one (21) inches D.B.H.O.B. 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
- (5) L-8 In all tractor units, fell trees over twenty one (21) inches DBH designated for cutting and cut into log lengths not to exceed 44 feet. Log segments would be completely limbed prior to yarding.
- (6) L-10 In the contract area shown on Exhibit A, all trees designated for cutting which are within one hundred seventy five (175) feet of the unit boundary shall be felled way from the unit boundary. The Purchaser shall notify the Authorized Officer three (3) days before beginning felling operations in the above area(s).
- (7) L-10 In the contract area shown on Exhibit A, all trees designated for cutting which are within one hundred seventy five (175) feet of a private property line shall be felled away from the private property line. The Purchaser shall notify the Authorized Officer three (3) days before beginning felling operations in the above area(s).
- (8) L-10 In the contract area shown on Exhibit A, all trees designated for cutting which are within one hundred seventy five (175) feet of the corner monument shall be felled away from the corner monument. The Purchaser shall notify the

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Authorized Officer three (3) days before beginning felling operations in the above area(s).

- (9) L-10 In the contract area shown on Exhibit A, all trees designated for cutting which are within one hundred seventy five (175) feet of any plant site, or reserve area boundary as shown on Exhibit A shall be felled away from the painted and posted boundary. The Purchaser shall notify the Authorized Officer three (3) days before beginning felling operations in the above area(s).
- (10) L-10 In the contract area shown on Exhibit A, all trees designated for cutting which are within one hundred seventy five (175) feet of fences, cattle guards, livestock watering troughs, and other improvements shall be felled away from these improvements. The Purchaser shall notify the Authorized Officer three (3) days before beginning felling operations in the above area(s).
- (11) 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.

Designated Area	Yarding Requirements or Limitations
Ground Based and 3-3, 11-4, 13-5, 13-10, 13-7, 13-8, 26-1, 27-2, 31-2, 35-2,	<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 and winch systems capable of lining logs at least seventy five (75) feet.</p> <p>Designate skid trails at an average of one hundred and fifty (150) foot spacing in order to minimize ground disturbance.</p> <p>The location of the tractor skid roads must be clearly designated on the ground, at locations approved by the Authorized Officer. Use existing skid trails to the extent possible. Where new skid trails are necessary, limit the extent to minimize the impact.</p> <p>Locate skid trails to minimize disturbance to coarse woody debris (CWD). Where skid trails encounter CWD sixteen (16) inches and larger at the small end, a section of the CWD is to be bucked out for equipment access. The bucked out portion shall be as narrow as operationally feasible, (maximum of fourteen (14) feet). The remainder of the CWD shall be left in place and not</p>

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	<p>disturbed.</p> <p>In upland units, allow harvesting operations (cutting and transporting logs) when ground is frozen or adequate snow cover exists to prevent soil compaction and displacement. The Authorized Officer would consult with a watershed specialist (hydrologist, soils scientist, or fisheries biologist) to determine appropriate conditions. If conditions change during operations where detrimental soil compaction and displacement is occurring, operations would be stopped immediately. (TH-20)</p> <p>Once soil moisture exceeds 25%, ground-based operations may only occur when snow depth is at least eighteen (18) inches. In the condition where snow is present but soil moisture is below 25%, ground-based operations may occur. Stop ground-based harvest if rutting begins to occur within the unit or when soil moisture exceeds 25%.</p> <p>No ground based yarding is permitted when soil moisture content at six (6) inch depth exceeds twenty five (25) percent by weight as determined by the oven dry method. Yarding and mechanical harvesting will be further limited in accordance with Section 25 if detrimental soil damage is occurring, as determined by the authorized officer.</p> <p>Mechanized felling equipment must have an arm capable of reaching at least twenty (20) feet.</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> <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. (TH-21)</p> <p>Restrict the amount of detrimental soil disturbance (i.e. compaction, displacement, erosion, burning) to below 15% (assuming 5% of the unit has roads/landings) in a timber harvest if operators are using feller-bunchers or cut-to-length harvesters off of designated skid trails: - 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);</p>
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	<ul style="list-style-type: none">- 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- Stop equipment use off of designated skid trails if logging equipment is causing soil disturbance above a Class 1 (Page-Dumroese, Abbott, Rice 2009, p. 6, 14, 15, and 27-33), or as determined by the Authorized Officer. <p>During logging operations, the protection of rangeland improvements will be required. Directional falling (see contract stipulation L-10 in this contract) will be used to prevent damage to fences, cattle guards, livestock watering troughs and other rangeland improvements.</p> <p>If damage to range improvements does occur, the BLM shall be notified immediately and proper repair or replacement would occur within two weeks. Proper repair of fences and gates includes keeping wire properly attached to posts, splicing or replacing broken wire in kind, repairing structures such as corners, stress panels or gates, and any other work necessary to keep improvements functional. Repair of structures such as stress or corner panels and gates requires pre-approval by BLM staff. Repair or cleaning of cattle guards damaged or filled with sediment by logging activities would require approval of BLM Road Engineering Staff for structural integrity and public safety compliance.</p> <p>During logging activities, operators would keep all gates closed and all livestock containment systems functional to keep livestock in authorized areas.</p> <p>No front-end loaders are permitted.</p> <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>Log landing size shall not exceed one-quarter (1/4) acre.</p>
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Tractor/shovel Units 35-1	Track log loader with sufficient boom reach and swing torque to yard tree length material to roadside with one end free of ground.
Skyline Units 3-1 11-2, 11-3 13-2, 13-3 13-4, 13-6 13-9, 27-1 27-4,	<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>Prior to marking or falling any timber in the unit, all yarding corridors, tail/lift trees and/or intermediate support trees shall be identified by the purchaser and approved by the Authorized Officer.</p> <p>Existing cable corridors shall be used whenever possible. Corridors shall be spaced approximately one hundred fifty (150) feet apart, measured at the tailholds. 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 one hundred (100) feet apart when physical, topography, or operational constraints demand, with an overall desire to keep an average spacing of two hundred (200) feet apart. (TH-01)</p> <p>Immediately after use, construct water bars by hand, and pull available slash into cable yarding corridors where gouging of mineral soil occurs for a continuous distance of 20 feet or more, as directed by the Authorized Officer.</p> <p>Apply native, site-specific seed approved by the resource area botanist and certified weed-free straw to the top twenty (20) feet of the skyline-cable yarding corridor where yarding logs to the road results in extended soil exposure.</p> <p>Use full or partial suspension when skyline-cable yarding</p> <p>During logging operations, the protection of rangeland improvements will be required. Directional falling (see contract stipulation L-10 in this contract) will be used to prevent damage to fences, cattle guards, livestock watering troughs and other rangeland improvements.</p> <p>If damage to range improvements does occur, the BLM shall be</p>

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	<p>notified immediately and proper repair or replacement would occur within two weeks. Proper repair of fences and gates includes keeping wire properly attached to posts, splicing or replacing broken wire in kind, repairing structures such as corners, stress panels or gates, and any other work necessary to keep improvements functional. Repair of structures such as stress or corner panels and gates requires pre-approval by BLM staff. Repair or cleaning of cattle guards damaged or filled with sediment by logging activities would require approval of BLM Road Engineering Staff for structural integrity and public safety compliance.</p> <p>During logging activities, operators would keep all gates closed and all livestock containment systems functional to keep livestock in authorized areas.</p> <p>Log landing size shall not exceed one-quarter (¼) acre.</p>
<p>Helicopter Units</p> <p>3-2, 13-1 7-1, 11-1, 13-11, 14-1 21-1, 23-1 27-3, 27-5 31-1, 32-1 32-2, 32-3</p>	<p>A helicopter equipped with a dropline with a minimum length of one hundred fifty (150) feet and capable of lifting logs vertically to a height above adjacent trees without horizontal movement is required</p> <p>Service landing pads and log landing pads can be constructed with prior approval of the Contract Administrator and shall not be larger than necessary. Service landings shall not exceed three (3) acres</p> <p>Log landing size shall not exceed one (1) acre and all landings are to be approved by the Authorized Officer prior to construction.</p> <p>A dropline with a minimum length of one hundred fifty (150) feet is required.</p> <p>Logs to be yarded will be lifted vertically to a height above the adjacent leave trees without horizontal movement.</p> <p>All multiple log turns will be vertically lifted from a small enough radius to result in minimal damage to the residual forest stand as determined by the Authorized Officer.</p> <p>All aerial operations within 0.5 miles of any residence will be restricted to an operating time of 6:00 am to 6:00 pm Monday thru Friday.</p> <p>During logging operations use of techniques such as directional</p>

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	<p>falling would be used to prevent damage to fences, cattle guards, livestock watering troughs and other improvements.</p> <p>If damage to range improvements does occur, the BLM shall be notified immediately and proper repair or replacement would occur within two weeks. Proper repair of fences and gates includes keeping wire properly attached to posts, splicing or replacing broken wire in kind, repairing structures such as corners, stress panels or gates, and any other work necessary to keep improvements functional. Repair of structures such as stress or corner panels and gates requires pre-approval by BLM staff. Repair or cleaning of cattle guards damaged or filled with sediment by logging activities would require approval of BLM road engineering staff for structural integrity and public safety compliance.</p> <p>During logging activities, operators would keep all gates closed and all livestock containment systems functional to keep livestock in authorized areas.</p>
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- (12) L-14 No yarding or loading is permitted in or through plant sites, or protected sites, shown on Exhibit A.
- (13) L-19 No ground based yarding, road construction, landing construction, road renovation, road reconstruction, road decommissioning, road closure, road blocking/barricade construction, water bar construction, soil ripping, and seeding/mulching shall be conducted within the 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% when sampled at a 6 inch depth as determined by Authorized Officer.
- (14) 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 15th to May 15th. If the Authorized Officer, in consultation with resource area 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. (R-93)
- (15) L-19 Log hauling on road 32-1E-11.0 and use of the low water ford across Sugar Pine Creek shall be conducted between June 15 and September 15 of the same calendar year, and all log hauling will need to be completed in one (1) season.

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- (16) L-19 Hauling could occur during the wet season (October 16th to May 14th) on roads determined to have adequate surfacing (See Exhibit C-16). In addition, a selection of roads have been identified as available for wet season haul if adequate rock is added to the roadbed (See Exhibit C-16). If the Authorized Officer, in consultation with resource area 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 (where the road surface is deteriorating due to vehicular rutting or standing water, or where turbid runoff is likely to reach stream channels) as determined by the Authorized Officer. (R-94)
- (17) L-20 No helicopter operations, shall be conducted in units 13-1, and 21-1 as shown on Exhibit A between February 1 and August 15, both days inclusive (Peregrine Falcon).
- (18) L-20 No harvest operations or chain saw use shall be conducted in units 27-1, and 27-2 as shown on Exhibit A between March 1 and September 30, both days inclusive (Spotted Owl).
- (19) 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.

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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 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 blue 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

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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.

- (20) L-28 In all ground based units as shown on Exhibit A, all yarding shall be done by equipment operated entirely on designated skid roads which have been approved by the authorized officer
- (21) L-29 In accordance with the requirements of Sec. 8 of the contract it has been determined that it is in the best interest of the Government and within the provisions of 43 CFR 5402.0-6 to sell additional timber located in or adjacent to all units as shown on Exhibit A, which is obstructing needed cable yarding roads, ground based yarding skid roads, hazardous to workers, needed for guyline, tailhold, and/or tieback trees, or severely damaged from the normal conduct of felling or yarding operations to meet all applicable State safety laws, codes or regulations. This timber must be cut or removed so that the Purchaser can continue active falling and yarding operations. The Purchaser is, therefore, authorized to cut and remove such additional timber in accordance with the provisions of Section 8 of the contract: provided, however, that:
- (a) Trees reserved for the tree improvement program and trees reserved for the wildlife habitat objectives under Sec. 41 of the contract are not included in the authorization.
 - (b) The Purchaser shall identify each tree sold and cut in accordance with the provision by marking the cut surface of the stump immediately after falling with a large "X". The "X" shall be cut with a chain saw. The stump shall be marked by hanging red fluorescent flagging near the stump so that the stump can be visually located from a distance of not less than one hundred (100) feet.
 - (c) The volume and price for such timber shall be determined by the Authorized Officer in accordance with Bureau of Land Management prescribed procedures and paid for by the Purchaser in accordance with Sec. 3(a) or 3(c) of the contract as required by Sec. 8 of the contract.
 - (d) No timber may be cut or removed under the terms of this provision if all contract payments required by Sec. 3(a) or 3(c) of the contract have been made.
 - (e) The permission to cut and remove additional timber contained in this provision may be withdrawn by the Contracting Officer if the Authorized Officer determines that the Purchaser:

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1. Failed to properly mark any stump with the "X" cut.
2. Failed to identify the location of any stump.
3. Cut any tree that was reserved for tree improvement and/or wildlife habitat.
4. Cut any tree in or adjacent to cable yarding corridors that was not necessary to facilitate cable yarding.
5. Cut any reserve tree in or adjacent to tractor skid roads that was not necessary to facilitate ground based yarding.
6. Failed to properly segregate any pulled over tree that was yarded to the landing.
7. Cut any reserve tree that was not severely (as defined during the prework conference and documented in the approved logging plan) damaged from felling and yarding operations.
8. Cut more than the minimum number of trees necessary to properly serve as guyline anchor stumps.
9. Cut or topped more than the minimum number of trees necessary to properly serve as tailhold trees.
10. Cut more than the minimum number of trees necessary to properly serve as tie-backs for topped tailhold trees.
11. Failed to maintain accurate and current (no more than 24 hours old) documentation of cut and removed timber.

If the permission to cut and remove additional timber provision is withdrawn, the Authorized Officer shall deliver to the Purchaser a written notice that additional sale of timber under this special provision is no longer approved.

If the permission to cut and remove additional timber provision is withdrawn, the Purchaser shall inform the Authorized Officer at least two working days prior to the need for cutting and yarding any guyline tree, tailhold tree, tie-back tree, danger tree, corridor tree, pulled over tree, and severely damaged tree. All sales of additional timber shall comply with Section 8 of the contract.

The Contracting Officer may order the Purchaser, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the Government to safely measure and mark additional timber.

All cable-yarding and ground based equipment skid roads upon which timber may be cut and removed in accordance with this special provision must be needed for the removal of timber sold under this contract and shall be limited to the narrowest width necessary for the yarding of logs with minimum damage to reserved trees. The Purchaser shall be liable for damages in accordance with Sec. 13 of the contract for any reserved timber cut or removed in violation of the terms of this special provision.

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- (22) L-32 When constructing Helicopter landing 14-1L, the Purchaser shall fell, buck, and remove to an area adjacent to and outside of the landing right-of-way all trees over forty (40) inch diameter at breast height (green marked trees).
- (23) 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.

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(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 route 31-1 by October 15th of the same respective operating season. The Purchaser shall renovate and use Road No. 32-1E-11.00 in the same operating season.
- (4) R-2: The Purchaser is authorized to use the roads listed and shown on Exhibit D-2 for the removal of Government timber sold under the terms of this contract and/or the hauling of rock as required in Exhibit C, provided that the Purchaser pay the required maintenance and rockwear obligations described in Section 42(C)(6). Any road listed on Exhibit D-2 and requiring construction, improvement, or renovation in Exhibit C of this contract, shall be maintained by the Purchaser until receiving written acceptance of the construction, improvement, or renovation from the Contracting Officer. The Purchaser shall pay current Bureau of Land Management maintenance and rockwear fees for the sale of additional timber under modification to the contract.

Road No. and Segment	Length Miles Used	Road Control	Road Surface Type	Maintenance Responsibility
32-1E-7.01	0.39	BLM	ASC	BLM
32-1E-7.02 A	0.60	BLM	ASC	BLM
32-1E-11.00 A	0.82	BLM	ASC	Purchaser
32-1E-11.02 A	0.59	BLM	ASC	BLM
32-1E-13.01 A1	1.90	BLM	ASC	BLM
32-1E-13.01 B	0.09	BLM	ASC	Purchaser
Un-numbered Sp off -13.01 Road	0.09	BLM	NAT	Purchaser
32-1E-13.02 A	0.90	BLM	ASC	BLM

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32-1E-13.02 B	0.35	BLM	NAT	Purchaser
Un-numbered Sp off -13.02 Road	0.09	BLM	NAT	Purchaser
32-1E-13.03	0.42	BLM	ASC	Purchaser
Un-numbered Sp off -13.03 Road	0.52	BLM	NAT	Purchaser
32-1E-13.04 A	0.26	BLM	ASC	Purchaser
32-1E-13.05	0.09	BLM	ASC	Purchaser
32-1E-13.06	0.15	BLM	ASC	Purchaser
32-1E-13.07	0.27	BLM	ASC	Purchaser
32-1E-17.04 A	0.75	BLM	ASC	BLM
32-1E-17.05 A1-A2	0.85	BLM	ASC	BLM
32-1E-18.00 A-B	0.75	BLM	ASC	Purchaser
32-1E-20.00 A	0.58	Murphy	ASC	BLM
32-1E-20.00 B	1.44	BLM	ASC	BLM
32-1E-23.00 A	1.36	BLM	BST	BLM
32-1E-27.00 A	0.68	BLM	BST/ASC	BLM
32-1E-27.00 B	0.74	Hancock	ASC	BLM
32-1E-27.00 C-D	1.35	Murphy	ASC	BLM
32-1E-27.00 E	0.85	BLM	ASC	BLM
32-1E-36.00 A3	0.09	Murphy	NAT	Purchaser
32-1W-12.00	2.07	BLM	ASC	Purchaser
32-1W-12.01	0.65	BLM	ASC	Purchaser
32-1W-13.00 A-B	1.95	BLM	ASC	Purchaser
32-1W-23.02 A	0.89	BLM	ASC	BLM
32-1W-26.00 A-C	2.66	BLM	ASC	BLM
32-1W-26.04 A	0.43	AP Timber	ASC	Purchaser
32-1W-26.05 A	0.03	AP Timber	ASC	Purchaser
32-1W-26.05 B	0.57	BLM	ASC	Purchaser
32-1W-27.01	0.38	BLM	ASC	Purchaser
32-1W-35.02	0.26	BLM	ASC	Purchaser
32-1W-35.07	0.12	BLM	ASC	Purchaser
32-1W-36.01	1.49	BLM	ASC	Purchaser
32-2E-34.00 A-D	3.80	BLM	ASC	BLM

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33-1E-4.00 D	0.19	Hancock	ASC	Purchaser
33-1E-4.00 E	1.02	BLM	ASC	Purchaser
33-1E-4.00 F	0.09	Hancock	ASC	Purchaser
33-1E-4.00 G1	0.78	BLM	ASC	Purchaser
33-1E-17.00 A	4.66	BLM	BST	BLM
33-1E-22.01	0.38	System Global	NAT	Purchaser
33-1E-23.01 A2	0.29	BLM	ASC/NAT	Purchaser
33-1E-23.01 B	1.32	System Global	NAT	Purchaser
33-1E-27.00 A-G	4.05	BLM	ASC	BLM
33-1E-27.00 H	0.07	AP Timber	ASC	BLM
33-1E-27.00 I	0.18	BLM	ASC	BLM
33-1E-27.00 J	0.91	BLM	ASC	BLM
33-1E-27.00 K-M	1.70	BLM	ASC	BLM
33-1W-3.01	0.38	BLM	NAT	Purchaser
33-1W-3.02	0.10	BLM	NAT	Purchaser
33-1W-3.03	0.15	BLM	NAT	Purchaser
33-1W-8.00 A-D	5.23	BLM	ASC	BLM
33-1W-10.00 A-C	3.71	BLM	ASC	BLM
33-1W-10.00 D	1.94	BLM	ASC	Purchaser
33-1W-14.01 A-B	0.88	BLM	PRR	Purchaser
33-1W-14.02	0.14	BLM	NAT	Purchaser
33-2E-5.00 A	0.10	BLM	NAT	Purchaser
33-2E-5.00 B	0.47	Juniper	NAT	Purchaser
33-2E-5.00 C	0.21	Murphy	NAT	Purchaser

- (5) R-2a: With the prior written approval of the Authorized Officer, the Purchaser may arrange for cooperative maintenance with other users of road(s) needs a line for the list here included in Section 42(C)(8) 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.

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- (6) R-2b: The Purchaser shall pay the Government a road maintenance and rockwear fee of **twenty seven thousand eighty nine and 73/100 dollars (\$27,089.73)** for the transportation of timber included in this contract price over said roads. The above maintenance amount is for the use of 55.27 miles of road or less. 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.
- (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 road(s) 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 road(s) listed in Section 42(C)(4). 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 obligation(s).
- (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 Nos.32-1E-27.00B, 33-1E-4.00D, and 33-1E-4.00F, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No M-660I, between the United States of America and Hancock Timberlands X, Inc. This document is available for inspection at the Medford District Office. These conditions include:
- (a) Payment of a road rockwear obligation of **One hundred sixty one and 77/100 dollars (\$161.77)** to Hancock Timberlands X, Inc., payable at the time indicated in the License Agreement.

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- (b) Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a properly signed copy of the executed License Agreement.
 - (c) 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 Nos. 32-1W-26.04A, 32-1W-26.05A, 33-1E-27.00H, and 33-1E-27.00J, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. M-660J, between the United States of America and AP Timber, LLC. This document is available for inspection at the Medford District Office. These conditions include:
 - (a) Payment of a road rockwear obligation of **One hundred sixty one and 57/100 dollars (\$161.57)** to AP Timber, LLC, payable at the time indicated in the License Agreement.
 - (b) Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a properly signed copy of the executed License Agreement.
 - (c) 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-3: In the use of Road Nos. 33-1E-22.01 and 33-1E-23.00B, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. M-660K, between the United States of America and System Global, LLC. This document is available for inspection at the Medford District Office. These conditions include:

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- (a) Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a properly signed copy of the executed License Agreement.
 - (b) Any trees that need to be cut for the construction of the helicopter landing in T33S, R01E, NW1/4 Section 22 shall be cruised, appraised, and paid for prior to the start of construction.
 - (c) 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.
- (12) R-3: In the use of Road Nos. 32-1E-20.00A, 32-1E-27.00C, 32-1E-27.00D, 32-1E-36.00A3, and the 33-2E-5.00C, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. M-660L, between the United States of America and Murphy Timber Investments, LLC. This document is available for inspection at the Medford District Office. These conditions include:
- (a) Payment of a road rockwear obligation of **two hundred thirty seven and 23/100 dollars (\$237.23)** to Murphy Timber Investments, LLC, payable at the time indicated in the License Agreement.
 - (b) Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a properly signed copy of the executed License Agreement.
 - (c) Any trees that need to be cut for the construction of the helicopter landing in T32S, R02E, SW1/4NE1/4 Section 32 shall be cruised, appraised, and paid for prior to the start of construction.
 - (c) 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

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considered as the amount of damage suffered by the Government as a result of the violation of this provision.

- (13) R-3: In the use of Road No. 33-2E-5.00B, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. M-2000D, between the United States of America and Juniper Properties, LLC. This document is available for inspection at the Medford District Office. These conditions include:
- (a) Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a properly signed copy of the executed License Agreement.
 - (b) 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.
- (14) 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.
- (15) 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.

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Details shall include:

- A. Axle weights when fully loaded.
- B. Axle spacing.
- C. Transverse wheel spacing.
- D. Tire size.
- E. Outside width of vehicle.
- F. Operating speed.
- G. Frequency of use.
- H. Special features (e.g., running tracks, overhang loads, etc.).

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

The amount of actual damage shall be determined by the Authorized Officer following a technical inspection and evaluation.

- (16) 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.

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.

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(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.

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).

- (2) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall not store, or cause to have stored, any fuel or other petroleum products inside any riparian reserve area. All petroleum products shall be stored in durable containers and located so that any accidental release will be contained and not drain into any stream system. Refuel equipment a minimum of one hundred and fifty (150) feet from streams, ponds, or other wet areas.
- (3) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall only be allowed to use logging, construction, rock crushing, brushing chipping, shredding or grinding and/or transportation 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.

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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, predesignated skid trails, designated skid trails, 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, predesignated skid trails, designated skid trails, and newly constructed landings (except landings located along temp spurs to be decommissioned), shall be blocked in the same season of use. 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%.
- (5) 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 barricade and place woody debris or other appropriate barriers (e.g. rocks, logs, and slash) on the first one hundred (100) feet of predesignated skid trails, and designated skid trails leading off system roads or landings in all ground-based yarding units shown on Exhibit A. by October 15 of the year of harvest.
- (6) E-1 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 15 of each calendar year.
- 7) E-1 In addition to the requirements set forth in Sec. 26 of this contract, the Purchaser shall;
 - (a) Use a minimum 200 flywheel horsepower tractor with mounted rippers having shanks and teeth consistent with drawings and specifications shown on Exhibit R of this contract, which is attached hereto and made a part hereof.
 - (b) Rip to a depth of eighteen (18) inches or bedrock (which ever is shallower).

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(c) Ripping will not occur unless soil moisture content is twenty-five (25) percent or less (at a six (6) inch depth) as determined by the oven-dry method.

(d) Rip all temporary roads, road to be decommissioned, and newly constructed landings, as shown on exhibit A. All ripping activities shall be performed in the same season of use. If hauling on a temporary route, road to be decommissioned, 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%.

(e) Where the width of the trail permits, and no damage to residual trees would occur, skid trails within regeneration harvest units as shown on exhibit A of this contract would be discontinuously subsoiled to a depth of at least 12 to 18 inches, to a point where stones 10 inches or larger diameter are the dominant substrate, or to bedrock (whichever is shallower). Where the Authorized Officer determines that subsoiling skid trails would cause unacceptable damage to the root systems of residual trees along a majority of the skid trail, such as where new skid trails are constructed within the dripline of leave trees, subsoiling may be intermittent, or scarification may be used instead. Equipment must be able to avoid rocky areas and adapt to changes in rock depth.

(f) Seed and mulch all temporary roads, and newly constructed landings in all units as shown on Exhibit A. by October 15 in the same year constructed. 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%.

(g) Seed and mulch 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. Apply native, site-specific seed approved by the resource area botanist and weed-free straw by October 15 of the year of harvest unless a waiver is in place for ground-based yarding to extend the dry season. If a waiver is in place, seed and mulching shall be completed prior to the fall rains and as directed by the authorized officer.

(h) Apply native, site-specific seed approved by the resource area botanist and weed-free straw to the top twenty (20) feet of the skyline-cable yarding corridor where yarding logs to the road results in extended soil exposure.

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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*, *Elymus glaucus*, *Festuca californica*, *Festuca roemerii*, *Koeleria macrantha*, *Poa secunda*

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

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	
Weed content (max):	0.2	0.2	

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 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.

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The seed mixture and straw mulch may be provided by the BLM if the purchaser is unable to locate and buy the approved materials. The Purchaser shall reimburse the government for the cost of seed and straw, if provided by the government.

- (8) 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-10, which is attached hereto and made a part hereof.
- (a) Water-bar all temporary roads and newly constructed landings, shown on Exhibit A, in the same season of use. 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%.
- (b) Water-bar all pre-designated skid trails, designated skid trails, and forwarder trails used for logging activities in all ground based units shown on Exhibit A., at locations approved by the authorized officer, by October 15 of the year of harvest unless a waiver is in place for ground-based yarding to extend the dry season. Install waterbars at the same time as subsoiling 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. (TH-16 and TH-17).
- (d) Immediately after use, construct water bars by hand, and pull available slash into cable yarding corridors where gouging of mineral soil occurs for a continuous distance of 20 feet or more, as directed by the Authorized Officer, by October 15 of the same season of use.
- Construct water bars on skid trails using guidelines in Table C-6 (RMP, p. 191) where potential for soil erosion or delivery to waterbodies, floodplains, and wetlands exist. (TH-17)
- (9) 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;

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- (b) when, in order to comply with the Endangered Species Act, or to protect occupied marbled murrelet sites in accordance with the Standards and Guidelines of the Medford District Record of Decision (ROD) and Resource Management Plan (RMP), the Contracting Officer determines it may be necessary to modify or terminate the contract, or;
- (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) other active raptor nests have been discovered, and a determination is made that continued operations under this contract would adversely affect the present use of the discovered nesting area by the raptor, or;
- (e) 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;
- (f) when, in order to comply with a court order, 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 through survey and manage and/or protection buffer standards and guidelines 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 through survey and manage and/or protection buffer standards and guidelines 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.

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

In the event of a suspension period or a combination of suspension periods that exceed a total of 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.

The 30 days can be the sum of days accruing during more than one operating season. Reappraisal may result in a decrease to the unit price bid per species. Reappraisal will be based on the loss of net volume due to the deterioration of logs during the period of delay and any associated changes in the amortization of logging costs per unit of volume, as determined by the Authorized Officer. Amortization of road construction cost over a reduced net volume will be considered as well as any additional move-in or logging costs caused by the delay, as determined by the Authorized Officer. Reappraisal will adjust Exhibit B volume and values, and will not consider changes in the market price of timber. In the event that operating time is lost as a result of the incorporation of additional contract requirements, or delays due to Endangered Species Act consultation with the U.S. Fish and Wildlife Service or U.S. National Marine Fisheries Service, or court-ordered injunctions, the Purchaser agrees that an extension of time, without reappraisal, will constitute a full and complete remedy for any claim that delays due to the suspension hindered performance of the contract or resulted in damages of any kind to the Purchaser.

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The Contracting Officer may determine that it is necessary to terminate the cutting and removal rights under the contract in order to comply with the Endangered Species Act, protect occupied marbled murrelet sites in accordance with the ROD and RMP, protect species that have been discovered which were identified for protection through survey and manage and/or protection buffer standards and guidelines established in the ROD and RMP, or comply with a court order. Following the issuance of a written notice that cutting and removal rights will be terminated, the Purchaser will be permitted to remove timber cut under the contract, if allowed by the Endangered Species Act, marbled murrelet occupied site protection in accordance with the ROD and RMP, survey and manage and/or protection buffer standards and guidelines established in the ROD and RMP, or court order requirements necessitating the modification or termination.

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

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

- (10) E-5 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.

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(E) Miscellaneous

- (1) M-2 The Government at its option may check scale any portion of the timber removed from the contract area. The Purchaser hereby agrees to make such contract timber available for scaling at a location designated by the Authorized Officer. In the event that BLM elects to check scale and if such check scaling causes a delay in log transportation time, an adjustment will be made to the purchase price as follows. If the entire sale is check scaled, the purchase price of this contract shall be reduced by four thousand four hundred sixty one dollars and seventy five cents (\$4461.75). In the event that only a portion of the contract timber is scaled, the purchase price shall be reduced by that portion of \$0.75 per net thousand board foot of timber scaled which is equal to the percentage of timber sold which was actually scaled by the Government. For purposes of computing this price reduction, the percentage of timber sold which has been scaled shall be determined by the Government. Any reduction in purchase price under the terms of this provision shall be full compensation to the Purchaser for any expense or loss incurred as a result of such scaling.

(F) 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:
 1. 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.
 2. Provide and maintain in good repair, on the contract area, the following equipment for use during closed fire season or periods of fire danger:
 1. 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-

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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.

2. 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.
3. 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.
4. 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.
5. 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.
6. 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. At least one extra set of batteries shall be provided for each such headlight.
7. 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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8. 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.
 2. 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.
 - (3) 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.
- (G) Slash Disposal and Site Preparation
- (1) 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:

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

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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.

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.

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.

SD-1h HANDPILE Handpile and cover all slash as directed by the Authorized Officer in accordance with the following specifications:

1. Piling shall be accomplished by hand. Finished piles shall be tight and free of earth.
2. 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.
3. 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 material such as needles, small limbs, and branches less than one-half ($\frac{1}{2}$) 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

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(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 twenty five (25) feet of designated wildlife trees. No portion of the pile will be under the crown of any living conifer tree.

4. Operations required by this provision shall be kept current with yarding as directed by the Authorized Officer and shall be conducted as follows:
 - a. 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.

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.

1. 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. 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.
- (2) **SD-5** Perform logging residue reduction and site preparation work on approximately three hundred sixty six (366) 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 & Cover Slash	\$550.00	110	\$60,500.00
Lop and Scatter	\$47.00	256	\$12,032.00
Total Appraised Cost			\$72,532.00

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- (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 41(G)(2)(a) differs from: Seventy two thousand five hundred thirty two dollars (\$72,532.00) as calculated by using the estimated acres determined by the Authorized Officer and the per acre costs listed in Section 41(G)(2)(a).

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.

(H) Quarry Development

- (1) Q-1 The Purchaser shall develop a rock quarry in strict accordance with the plans and specifications shown on Exhibit C-11 which is attached hereto and made a part hereof. Exhibit C-11 contains 1 sheet.
 - (a) Q-1b Any quarry access road construction and site preparation shown on exhibit C-11 shall be completed at each quarry location shown on Exhibit C-11 prior to removal of any rock from such area.

(I) Equal Opportunity in Employment

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

Seasonal Restriction Matrix

Sheet 1 of 1
Shady Elk Timber Sale
ORM05-TS17-0

 *Possible Waived Times are Hatched
 *Restricted Times are Shaded

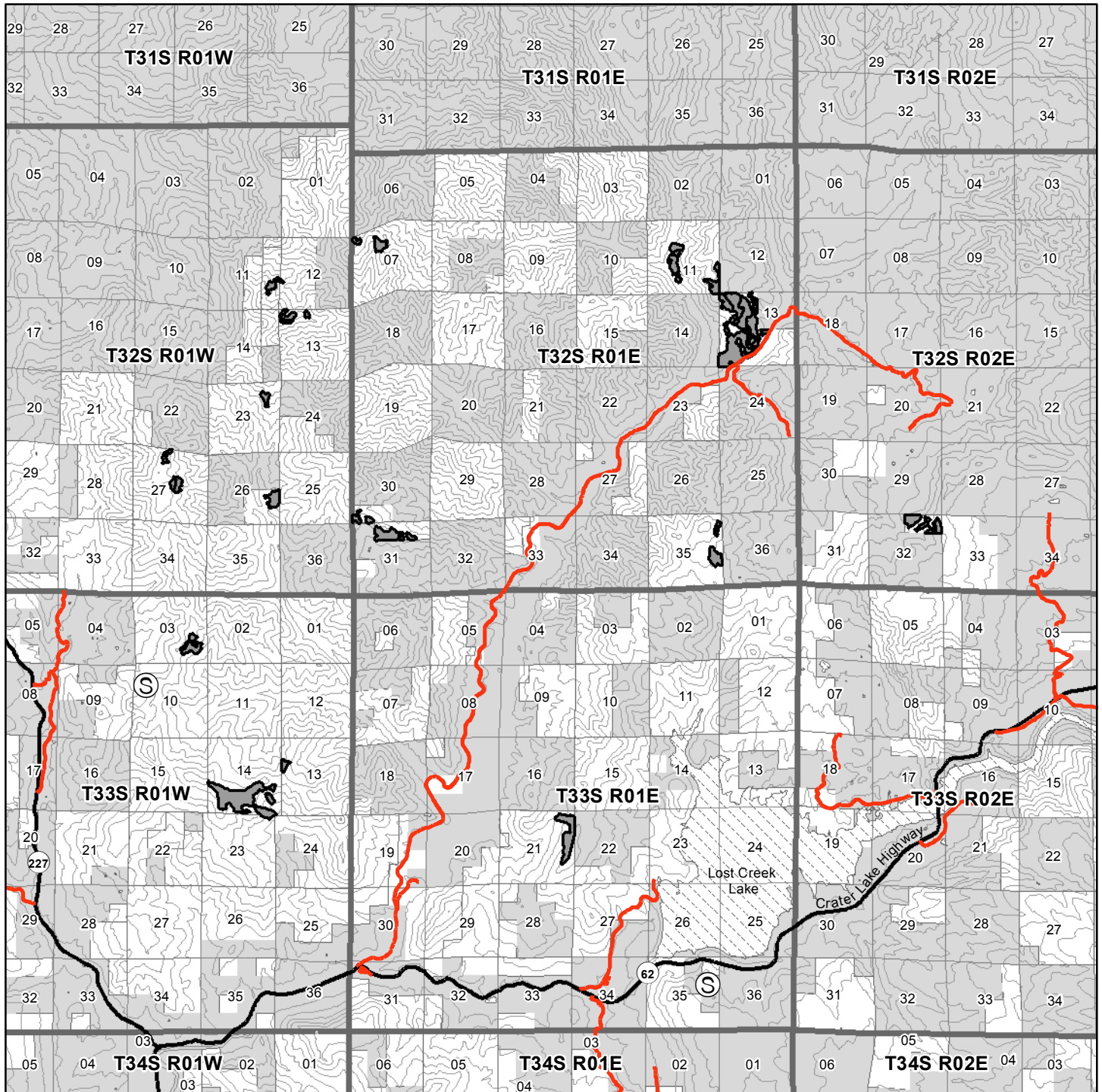
Sale Area	Activity	Jan 1 15	Feb 1 15	Mar 1 15	Apr 1 15	May 1 15	June 1 15	July 1 15	Aug 1 15	Sept 1 15	Oct 1 15	Nov 1 15	Dec 1 15
Units 13-1, 21-1 (Peregrine)	Hand timber falling and bucking												
	Helicopter operations												
	Log processing, loading, log hauling ^{1,2}												
	Road and/or landing construction ¹												
	Road renovation, reconstruction, or closure ¹												
	Road decommissioning, or blocking ¹												
	Barricade and/or waterbar construction, ¹												
	Road grading, watering, or rocking, ¹												
	Road hauling ² .												
	Soil ripping, seeding, mulching ¹												
Units 27-1, 27-2 (Spotted Owl)	Fuels chainsaw site prep, prescribed burning												
	Hand timber falling and bucking												
	Logging/harvesting activities												
	Log processing, loading, log hauling ^{1,2}												
	Road and/or landing construction ¹												
	Road renovation, reconstruction, or closure ¹												
	Road decommissioning, or blocking ¹												
	Barricade and/or waterbar construction, ¹												
	Road grading, watering, or rocking, ¹												
	Road hauling ² .												
All Other Units	Soil ripping, seeding, mulching ¹												
	Fuels chainsaw site prep, prescribed burning												
	Hand timber falling and bucking												
	Helicopter operations												
	Log processing, loading, log hauling ^{1,2}												
	Road and/or landing construction ¹												
	Road renovation, reconstruction, or closure ¹												
	Road decommissioning, or blocking ¹												
	Barricade and/or waterbar construction, ¹												
	Road grading, watering, or rocking, ¹												
	Road hauling ² .												
	Soil ripping, seeding, mulching ¹												
	Fuels chainsaw site prep, prescribed burning												

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

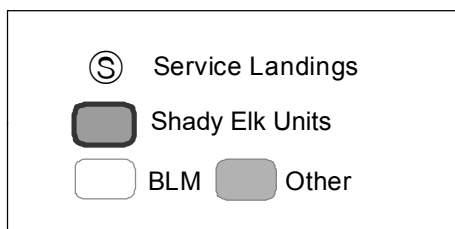
² Hauling restriction may be shortened or extended (see L-19 in contract)

U.S.D.I. BLM MEDFORD DISTRICT SALE NO.2017-05
 SHADY ELK TIMBER SALE
 BUTTE FALLS RESOURCE AREA
 JACKSON COUNTY

TIMBER SALE LOCATION MAP
 CONTRACT NO.ORM05-TS-2017-05



Medford District BLM - August 2017



0 0.5 1
 Miles



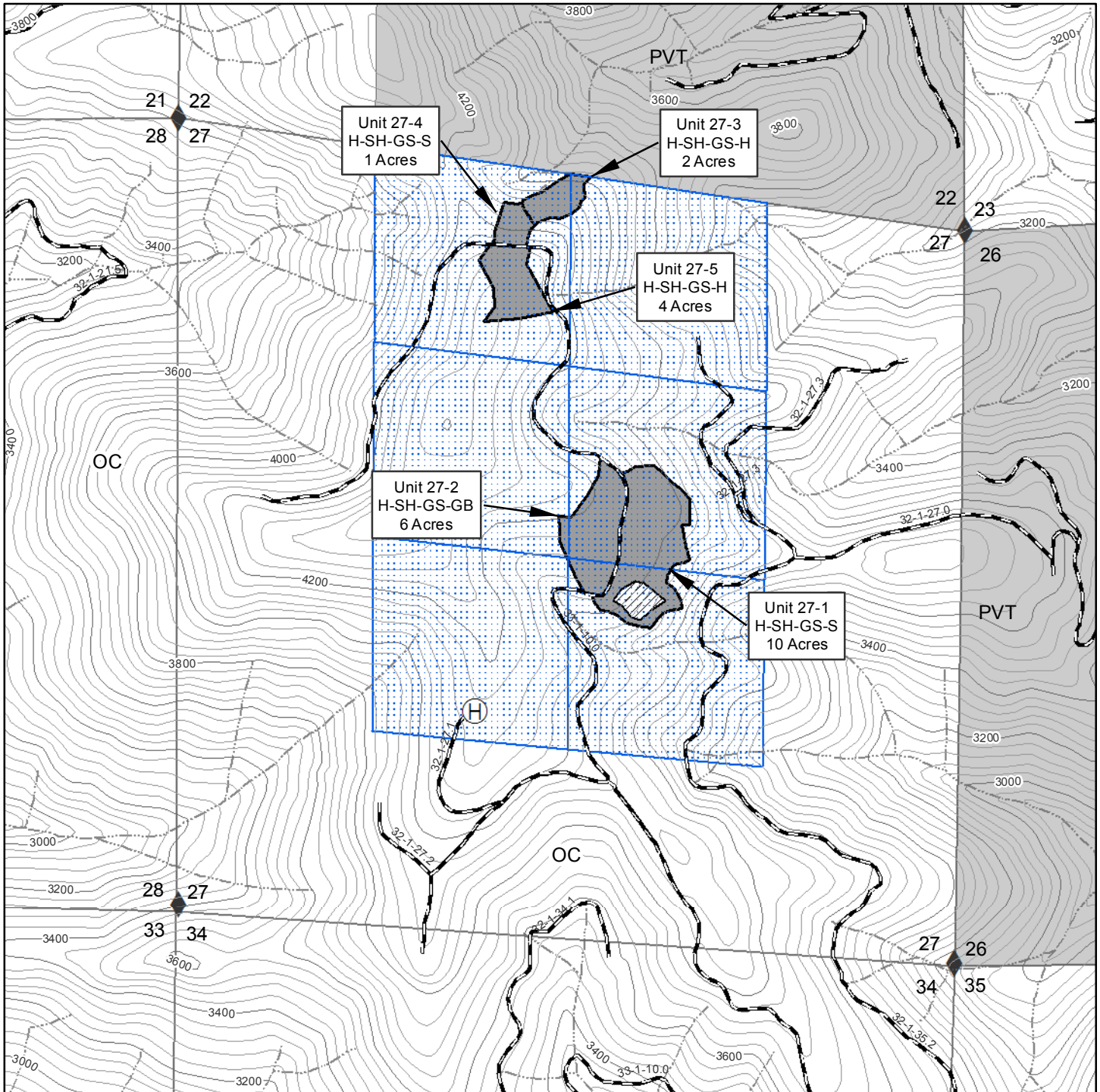
1 inch = 2 miles
 Contours = 40 feet

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U.S.D.I. BLM MEDFORD DISTRICT SALE NO.2017-05
T32S-R01W SECTION 27, WILL. MER
SHADY ELK TIMBER SALE

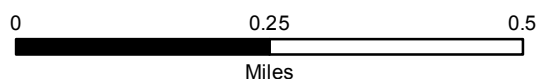
TIMBER SALE CONTRACT MAP
CONTRACT NO.ORM05-TS-2017-05
EXHIBIT A
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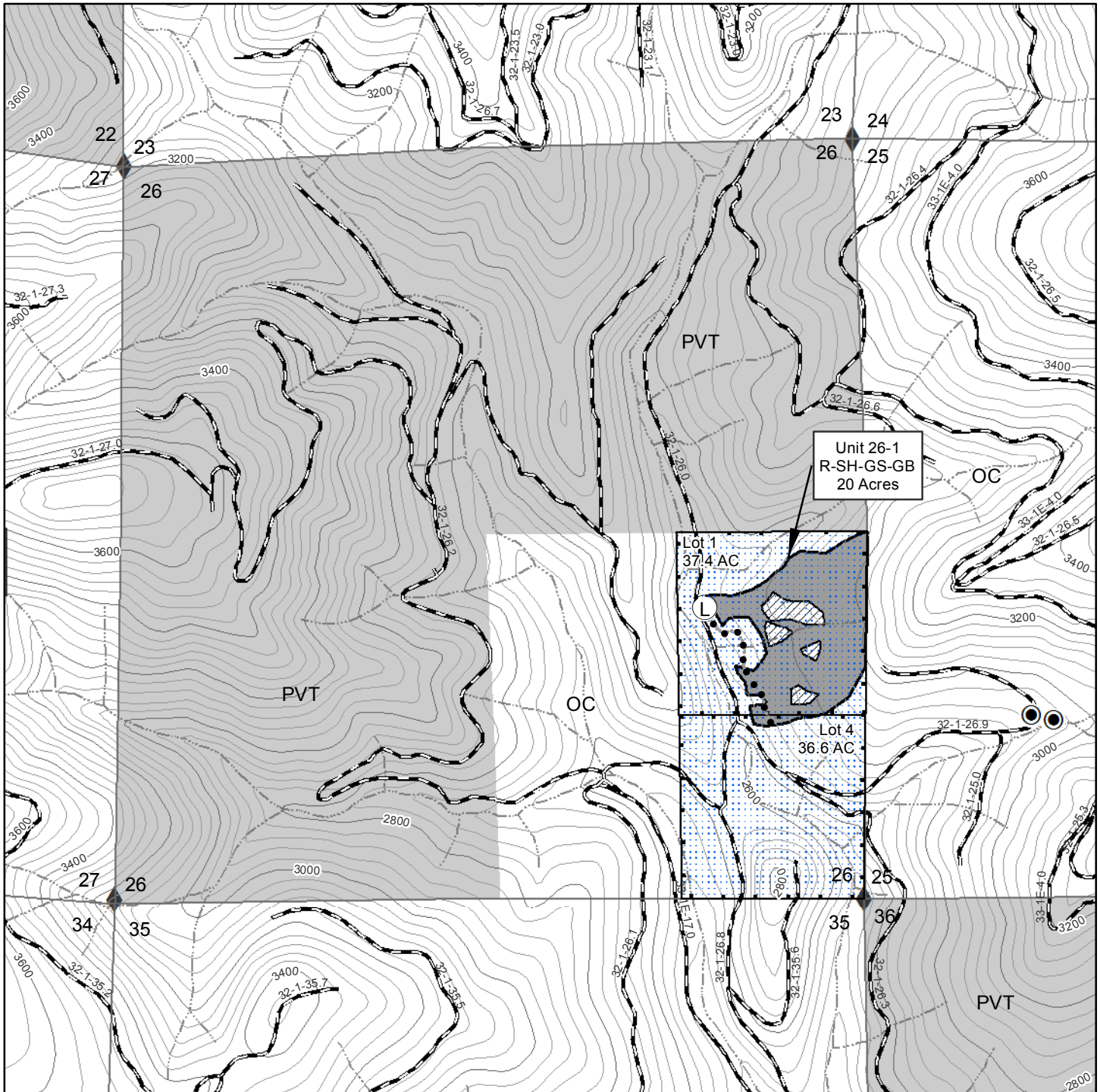
Medford District BLM
July 2017

1 inch = 1,000 feet

Contours = 40 feet



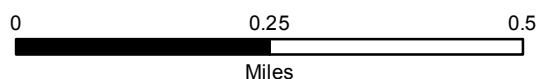
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Medford District BLM
July 2017

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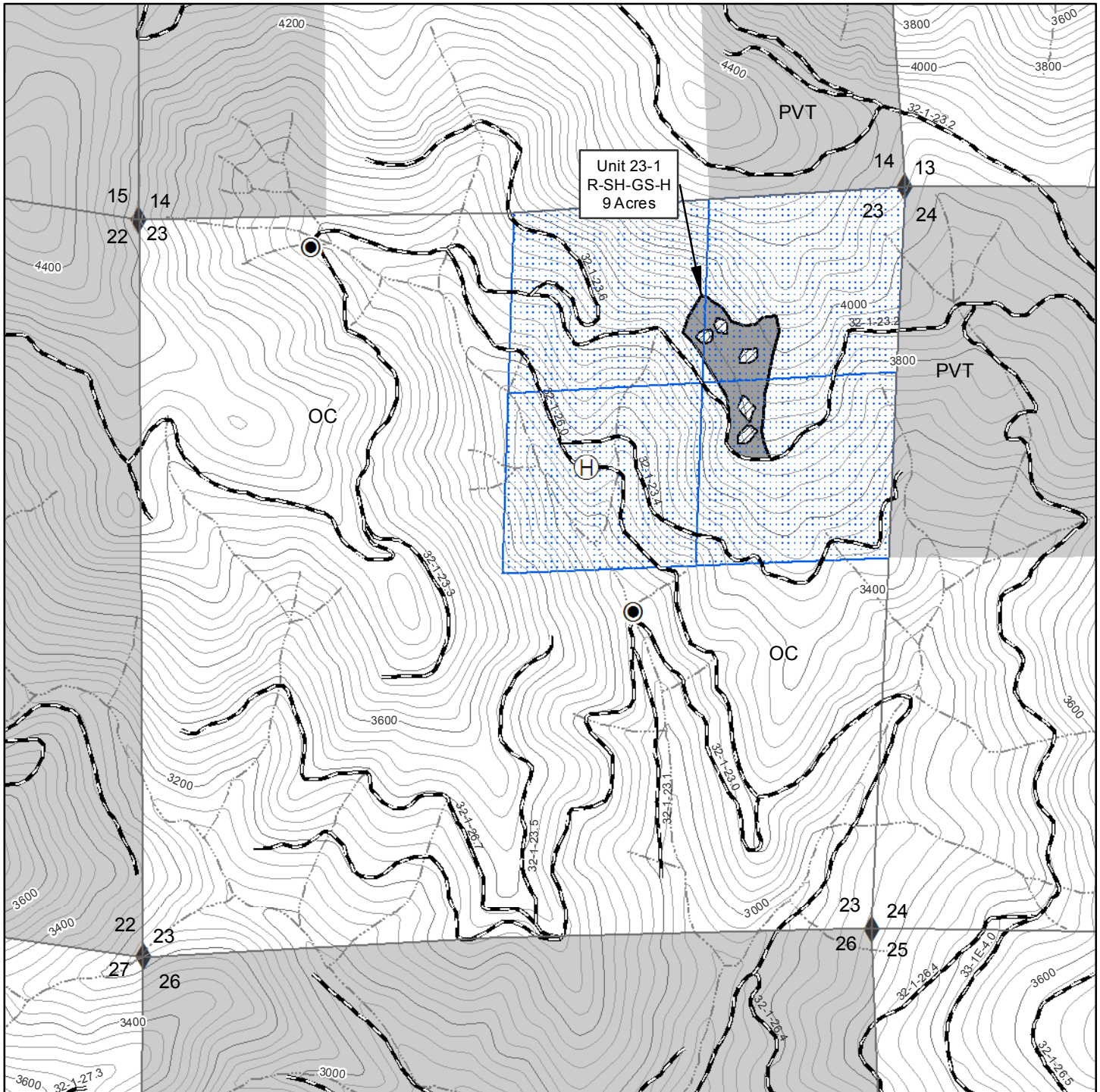
Contours = 40 feet



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U.S.D.I. BLM MEDFORD DISTRICT SALE NO.2017-05
T32S-R01W SECTION 23, WILL. MER
SHADY ELK TIMBER SALE

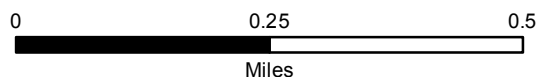
TIMBER SALE CONTRACT MAP
CONTRACT NO.ORM05-TS-2017-05
EXHIBIT A
PAGE 3 OF 17



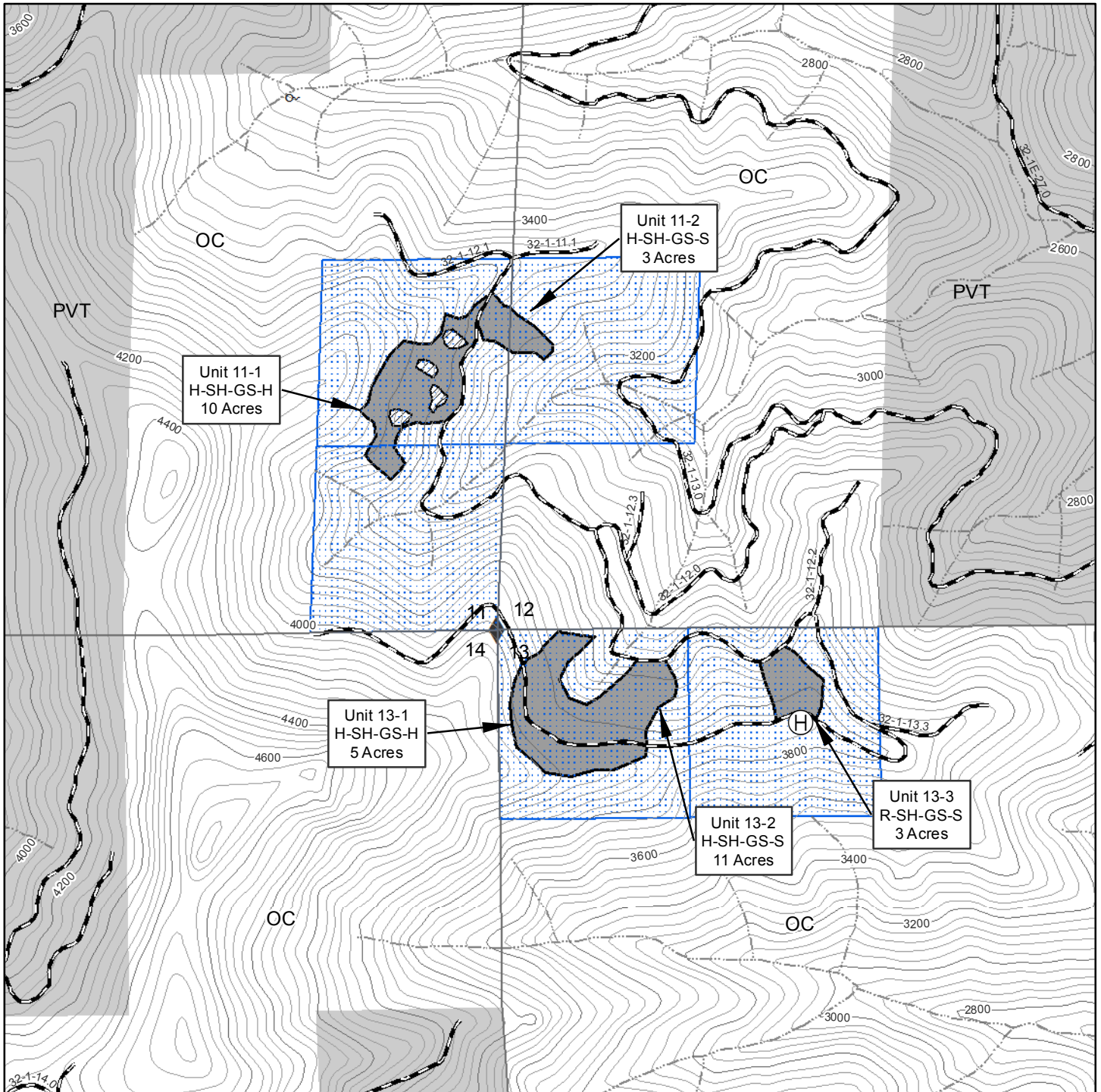
Medford District BLM
July 2017

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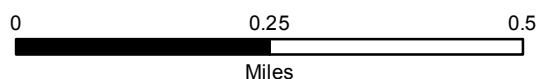
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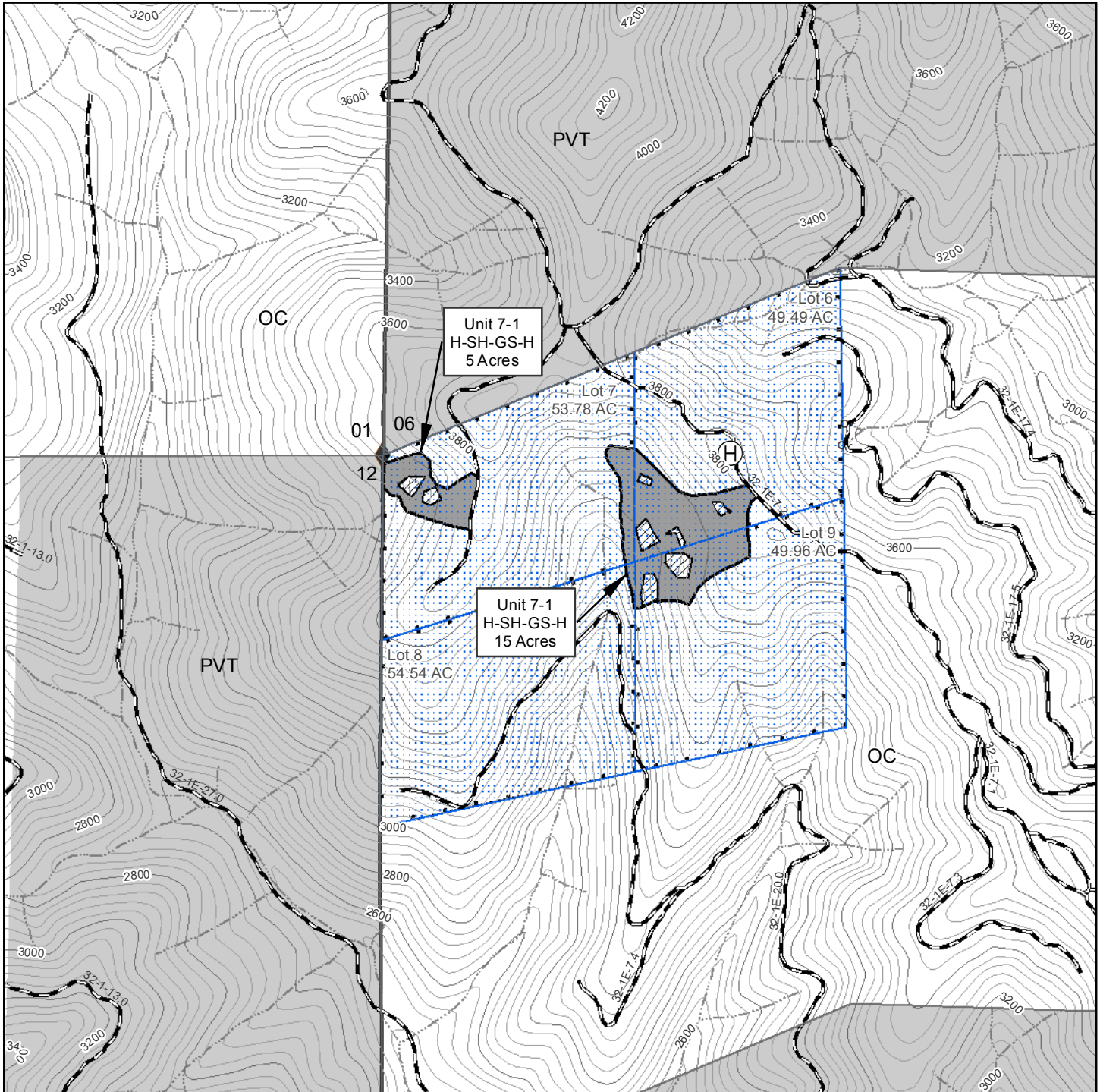
Medford District BLM
July 2017

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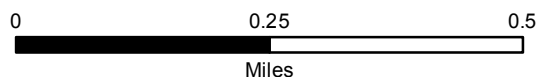
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Medford District BLM
July 2017

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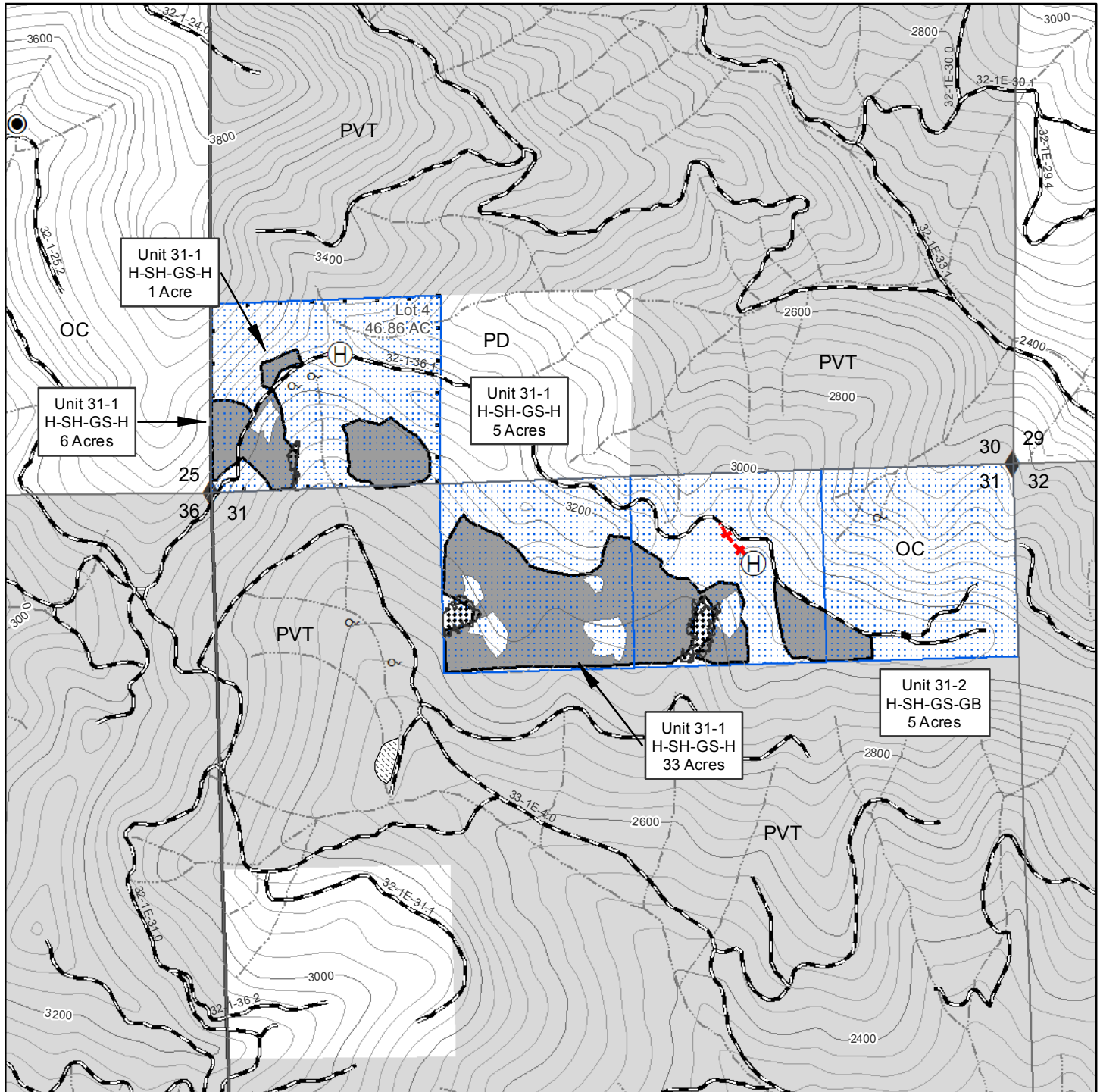
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U.S.D.I. BLM MEDFORD DISTRICT SALE NO.2017-05
T32S-R01E SECTION 30, 31, WILL. MER
SHADY ELK TIMBER SALE

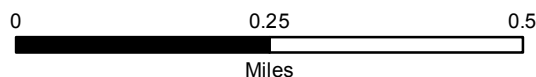
TIMBER SALE CONTRACT MAP
CONTRACT NO.ORM05-TS-2017-05
EXHIBIT A
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Medford District BLM
July 2017

1 inch = 1,000 feet

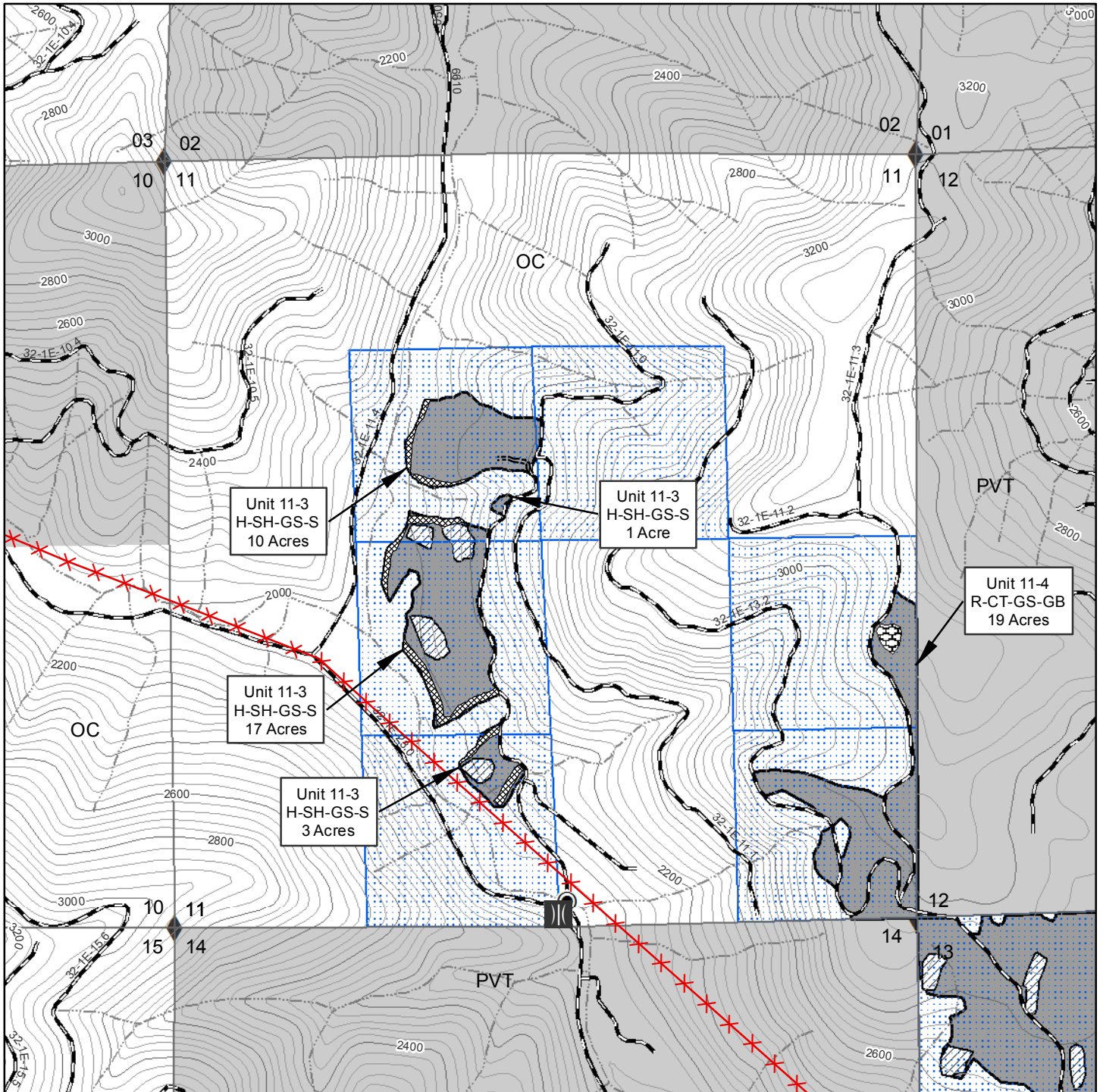
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U.S.D.I. BLM MEDFORD DISTRICT SALE NO.2017-05
T32S-R01E SECTION 11, WILL. MER
SHADY ELK TIMBER SALE

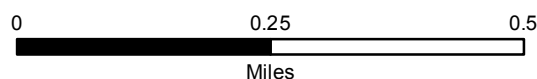
TIMBER SALE CONTRACT MAP
CONTRACT NO.ORM05-TS-2017-05
EXHIBIT A
PAGE 7 OF 17



Medford District BLM
July 2017

1 inch = 1,000 feet

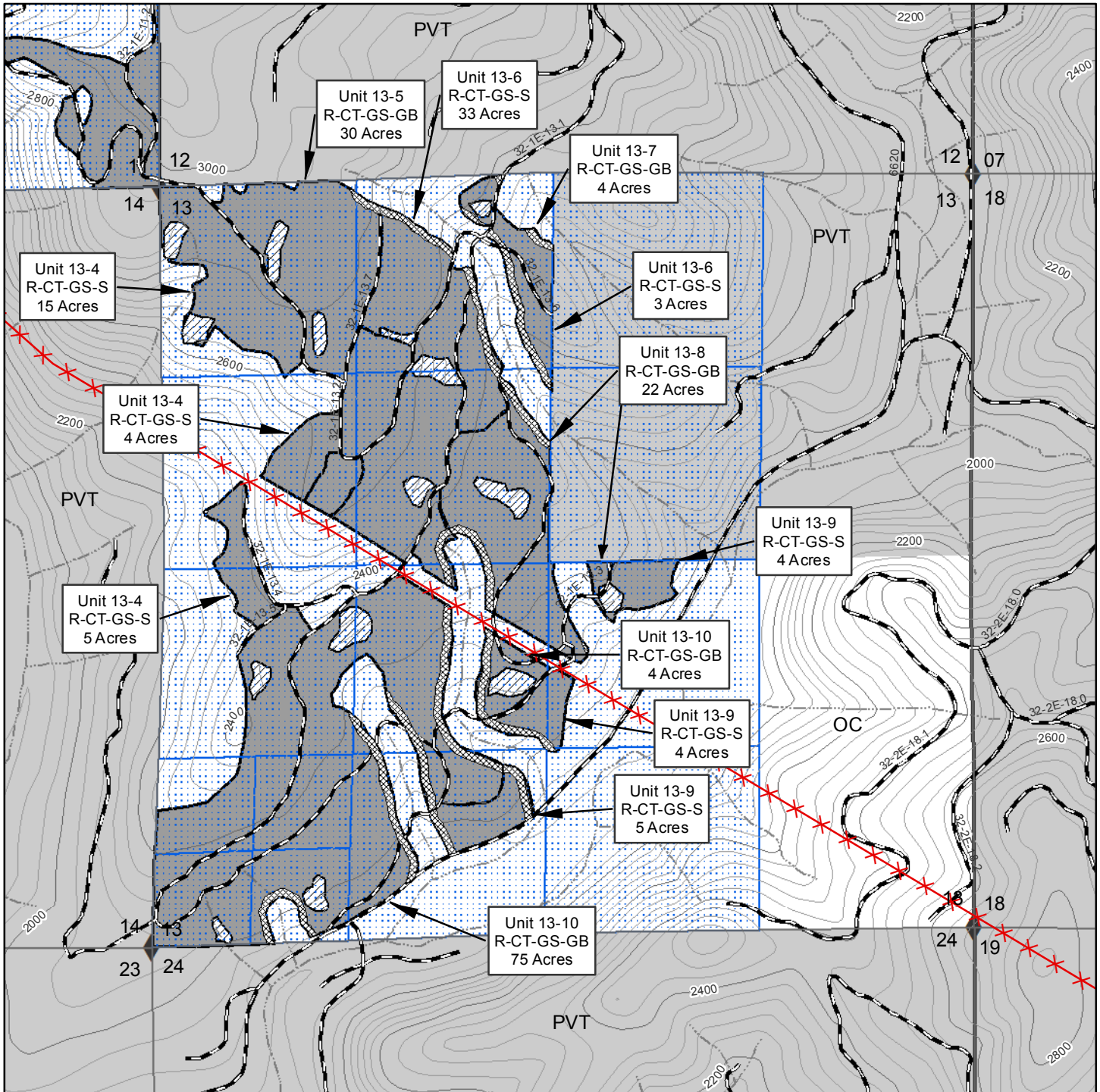
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U.S.D.I. BLM MEDFORD DISTRICT SALE NO. 2017-05
T32S-R01E SECTION 11, WILL. MER
SHADY ELK TIMBER SALE

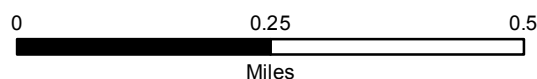
TIMBER SALE CONTRACT MAP
CONTRACT NO.ORM05-TS-2017-05
EXHIBIT A
PAGE 8 OF 17



Medford District BLM
July 2017

1 inch = 1,000 feet

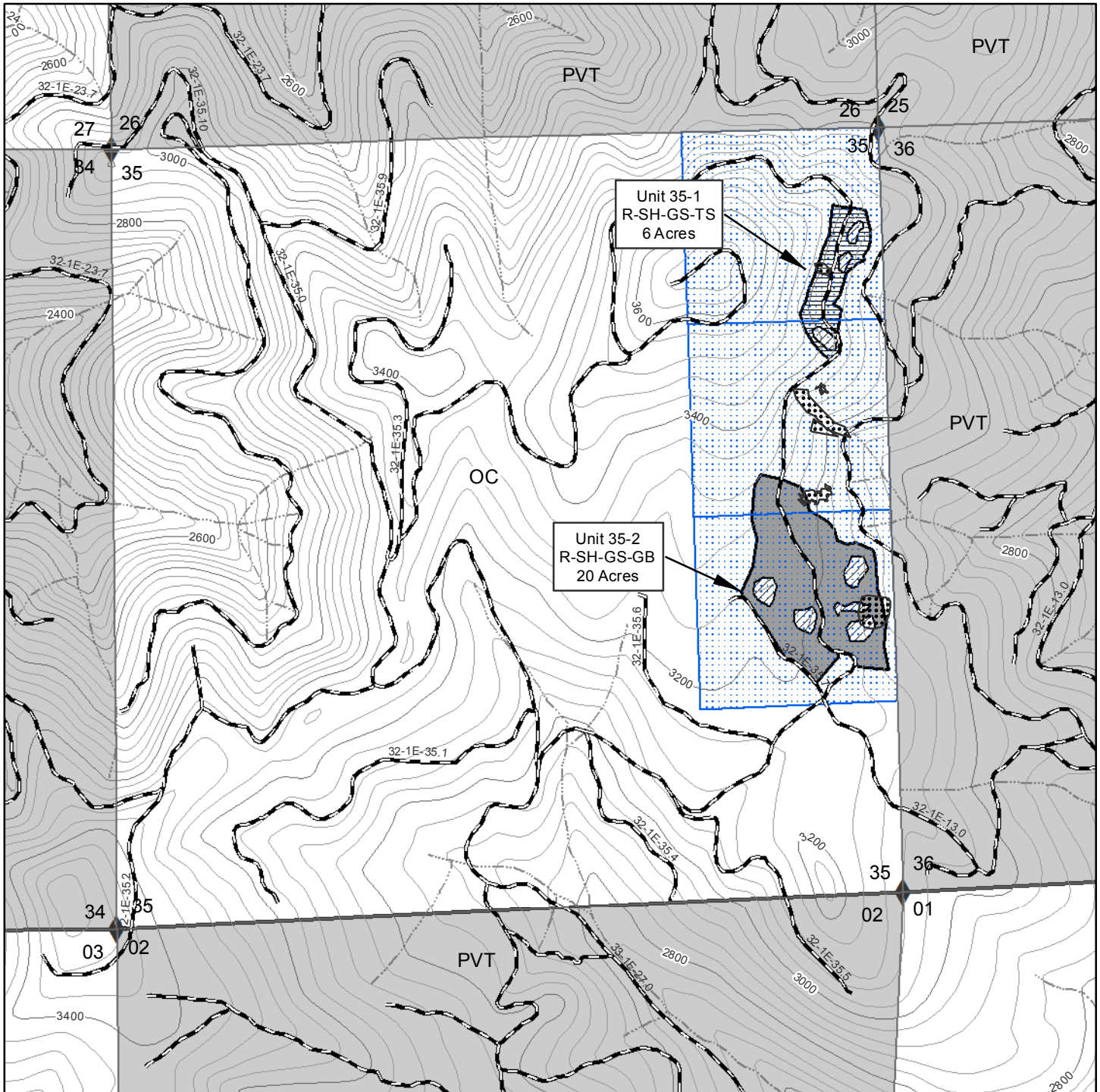
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U.S.D.I. BLM MEDFORD DISTRICT SALE NO.2017-05
T32S-R01E SECTION 35, WILL. MER
SHADY ELK TIMBER SALE

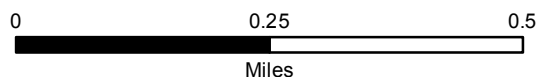
TIMBER SALE CONTRACT MAP
CONTRACT NO.ORM05-TS-2017-05
EXHIBIT A
PAGE 9 OF 17



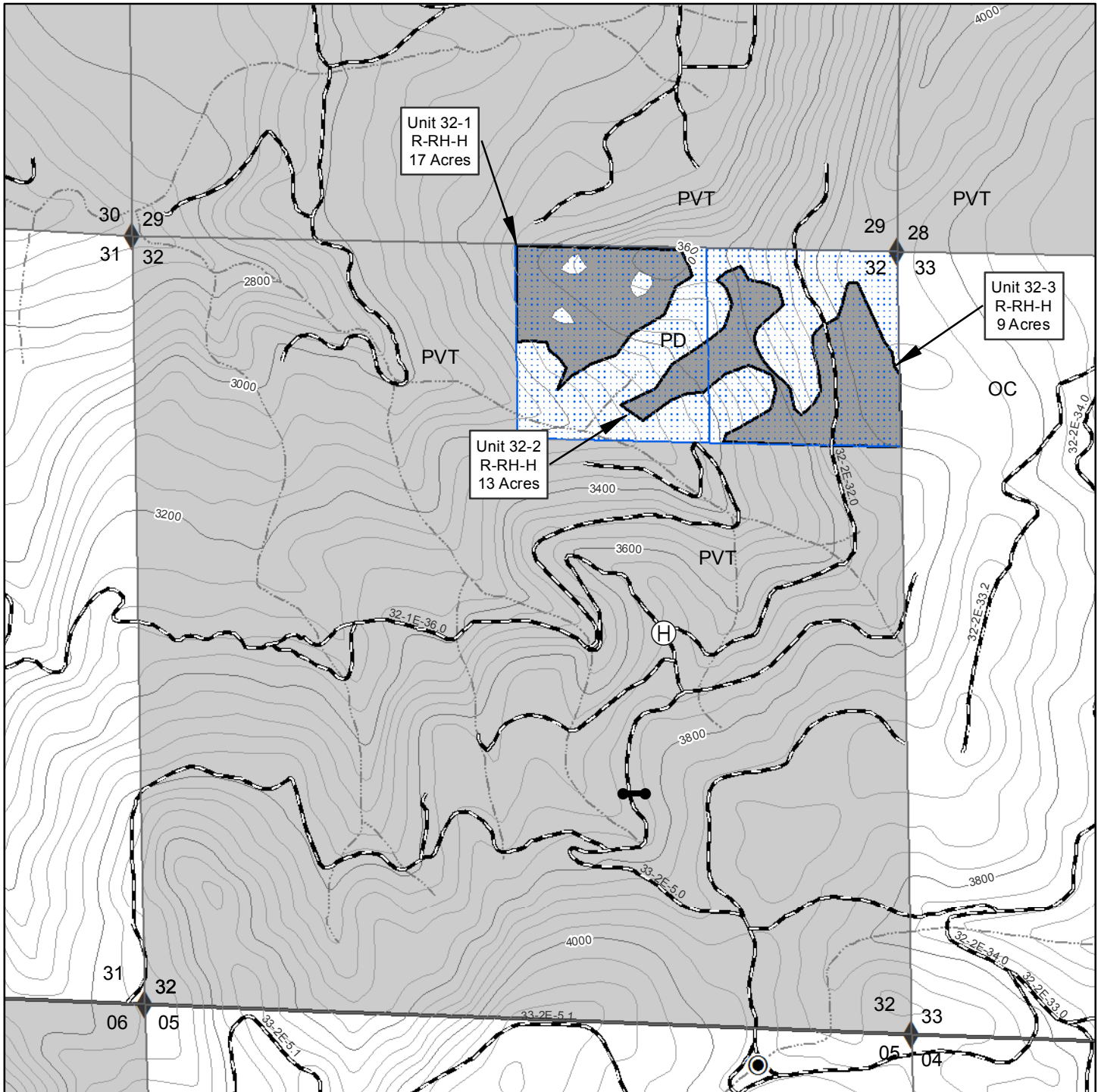
Medford District BLM
July 2017

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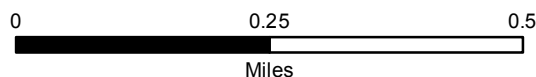
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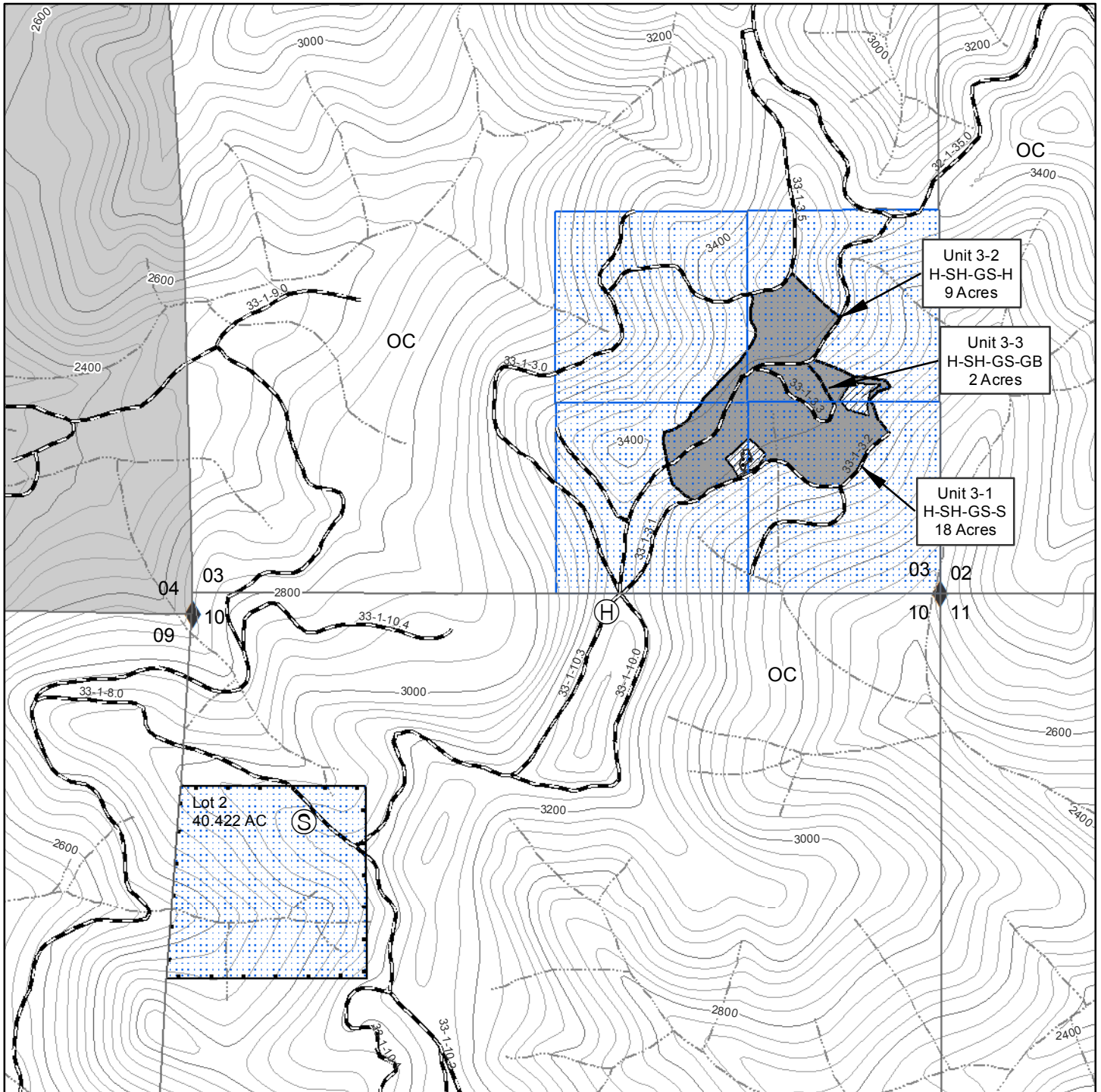
Medford District BLM
July 2017

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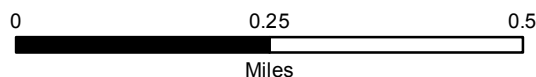
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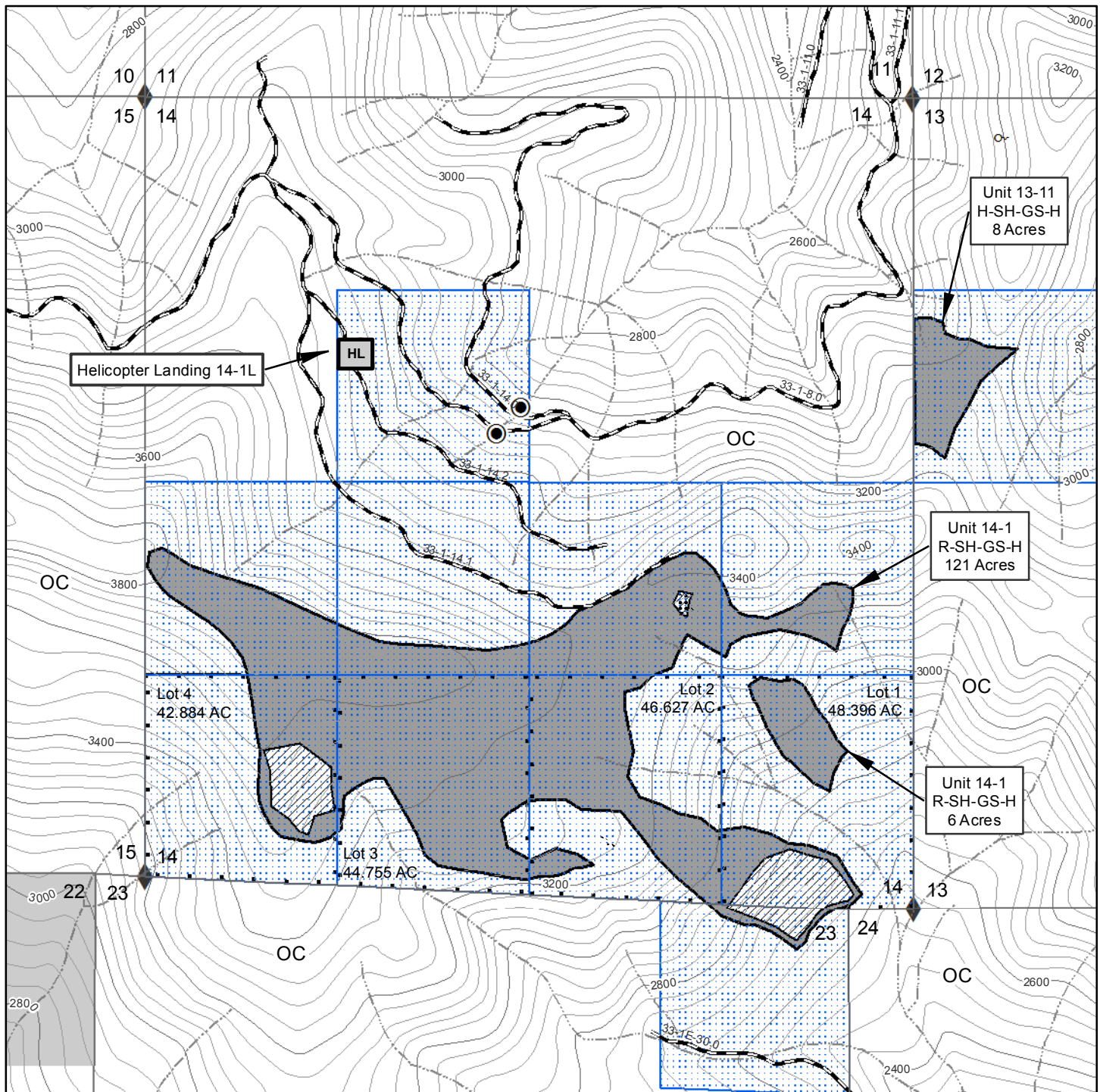
Medford District BLM
July 2017

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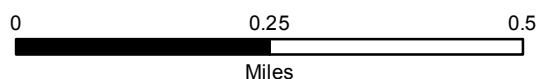
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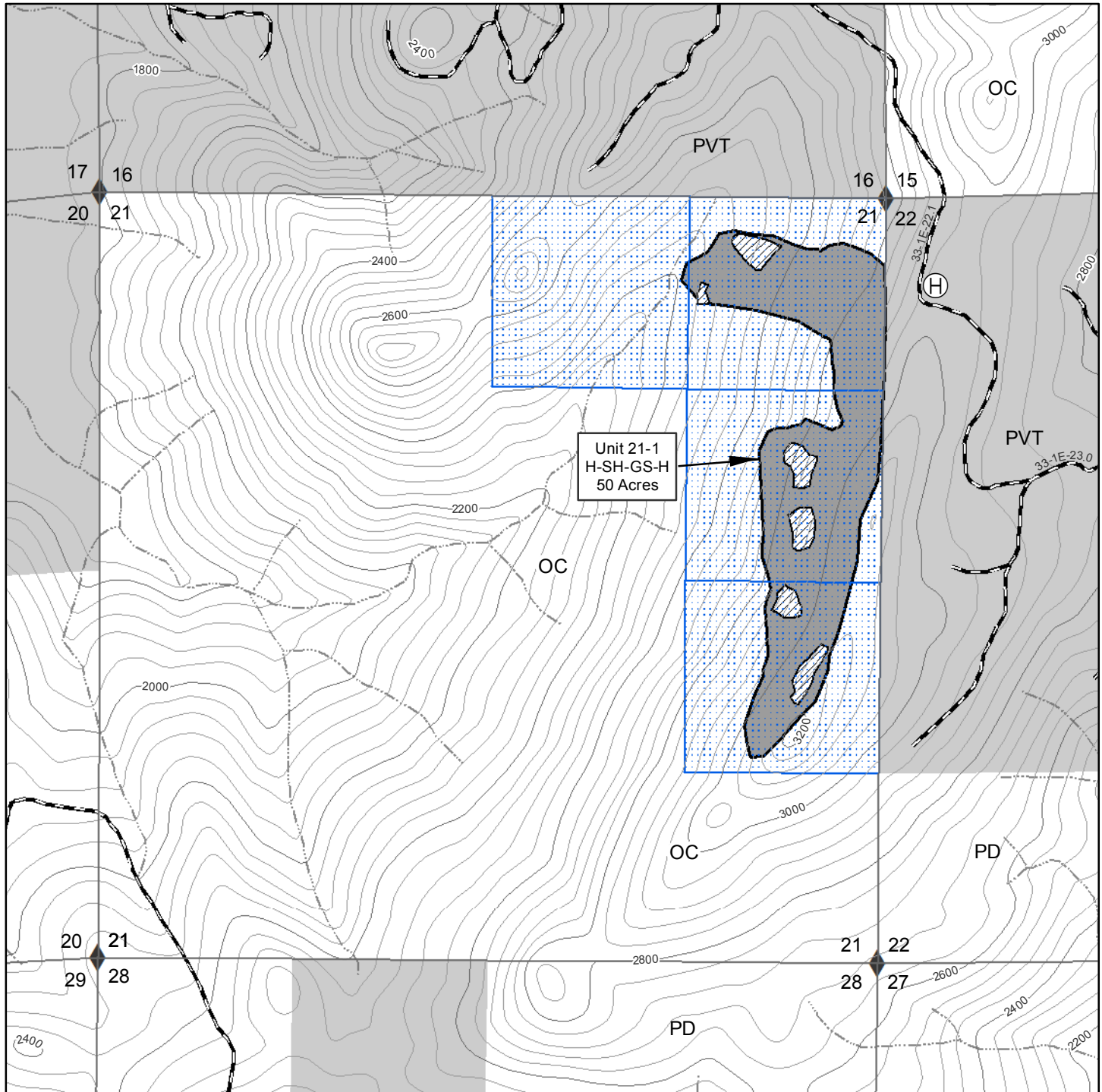
Medford District BLM
July 2017

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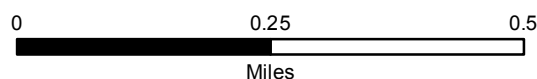
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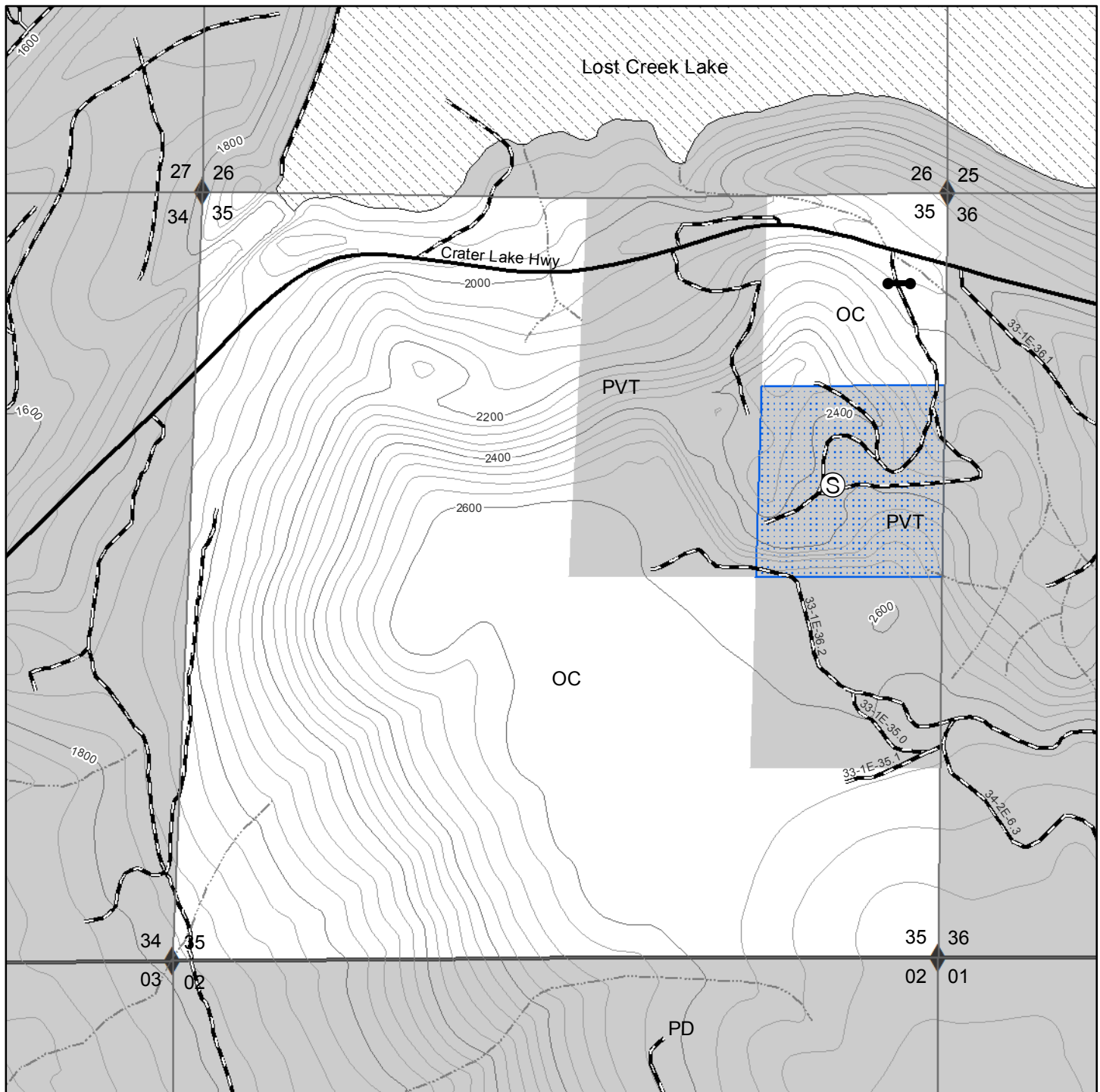
Medford District BLM
July 2017

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Medford District BLM
July 2017

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Contours = 40 feet































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U.S.D.I. BLM MEDFORD DISTRICT SALE NO. 2017-05
T. 32S. R. 01W., SEC 11, 12, 13, 23, 26, 27 WILL. MER.
T. 32S. R. 01E., SEC 07, 11, 13, 30, 31, 35 WILL. MER.
T. 32S. R. 02E., SEC 32 WILL. MER.
T. 33S. R. 01W., SEC 03, 13, 14, 23 WILL. MER.
T. 33S. R. 01E., SEC 21 WILL. MER.
SHADY ELK TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM05- TS-2017-05
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Legend

 Helicopter	 Transmission Line
 Log	 Stream
 Service	 40 ft. Intermediate Contour
 Found Corner	 200 ft. Index Contour
 Spring	 Boundary of Cutting Area
 Quarry	 Riparian
 Water Source	 Waterbody
 Low Water Crossing	 Protected Site
 Gate, Existing	 Soil Buffer
 Barricade, Existing	 Government Lot
 Road	 Contract Area
 Swing Road	 BLM Administered Land
 Temporary Spur Road	 Non-BLM Land
 Pre-Designated Skid Road	 Skip Reserve Areas

U.S.D.I. BLM MEDFORD DISTRICT SALE NO. 2017-05
T. 32S. R. 01W., SEC 11, 12, 13, 23, 26, 27 WILL. MER.
T. 32S. R. 01E., SEC 07, 11, 13, 30, 31, 35 WILL. MER.
T. 32S. R. 02E., SEC 32 WILL. MER.
T. 33S. R. 01W., SEC 03, 13, 14, 23 WILL. MER.
T. 33S. R. 01E., SEC 21 WILL. MER.
SHADY ELK TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM05- TS-2017-05
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R - CT - GS - GB	COMMERCIAL THIN, GROUP SELECTION (ORANGE PAINT) GROUND BASED: UNITS: 11-4, 13-5, 13-7, 13-8, 13-10
R - CT - GS - S	COMMERCIAL THIN, GROUP SELECTION (ORANGE PAINT) SKYLINE: UNITS: 13-4, 13-6, 13-9
R- RH - H	REGENERATION HARVEST (ORANGE PAINT) HELICOPTER: UNITS: 32-1, 32-2, 32-3
H - SH - GB	SELECTION HARVEST (BLUE PAINT) GROUND BASED: UNITS: 31-2
R - SH - GS- TS	SELECTION HARVEST, GROUP SELECTION (ORANGE PAINT) TRACTOR/SHOVEL: UNITS: 35-1
H - SH - GS - H	SELECTION HARVEST, GROUP SELECTION (BLUE PAINT) HELICOPTER: UNITS: 3-2, 7-1, 11-1, 13-1, 13-11, 21-1, 27-3, 27-5, 31-1
R - SH - GS- H	SELECTION HARVEST, GROUP SELECTION (ORANGE PAINT) HELICOPTER: UNITS: 23-1
R - SH - GS- H	SELECTION HARVEST, GROUP SELECTION (YELLOW PAINT) HELICOPTER: UNITS: 14-1
H - SH - GS - GB	SELECTION HARVEST, GROUP SELECTION (BLUE PAINT) GROUND BASED: UNITS: 3-3, 27-2
R - SH - GS - GB	SELECTION HARVEST, GROUP SELECTION (ORANGE PAINT) GROUND BASED: UNITS: 26-1, 35-2
H - SH - GS - S	SELECTION HARVEST, GROUP SELECTION (BLUE PAINT) SKYLINE: UNITS: 3-1, 11-2, 11-3, 13-2, 27-1, 27-4
R - SH - GS- S	SELECTION HARVEST, GROUP SELECTION (ORANGE PAINT) SKYLINE: UNITS: 13-3

U.S.D.I. BLM MEDFORD DISTRICT SALE NO. 16-0015
T. 32S. R. 1W., SEC.11*, 12, 13*, 23*, 26, 27, WILL. MER.
T. 33S. R. 1W., SEC. 3, 10, 13**, 14, 23**, Will. MER.
T. 32S. R. 1E., SEC. 7, 11**, 13***, 30, 31, 35, Will. MER.
T. 33S. R. 1E., SEC.21, 35, WILL. MER.
T. 32S. R. 2E., SEC.32, WILL. MER.
SHADY ELK TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM05-TS17-05
EXHIBIT A

PAGE 17 OF 17

Section Number	Unit Number	Unit Acres	Reserve Acres	Contract Acres
3	3-1, 3-2, 3-3	29	131	160
7	7-1	20	188	208
11*	11-1, 11-2	13	107	120
11**	11-3, 11-4	49	191	240
13*	13-1, 13-2, 13-3	19	61	80
13**	13-4, 13-5, 13-6, 13-7, 13-8, 13-9, 13-10	209	191	400
13***	13-11	8	32	40
14	14-1	127	233	360
21	21-1	50	110	160
23*	23-1	9	111	120
26	26-1	20	54	74
27	27-1, 27-2, 27-3, 27-4, 27-5	23	217	240
31	31-1, 31-2	50	117	167
32	32-1, 32-2, 32-3	39	41	80
35	35-1, 35-2	26	94	120
10	Service Landing	N/A	N/A	N/A
35	Service Landing	N/A	N/A	N/A
14	14-1L Helicopter landing	N/A	N/A	N/A
Totals		691	1878	2569

Stumpage Summary

Stumpage Computation

Species	# of Trees	Net Volume	Pond Value	(-) Profit & Risk	(-) Logging Costs	(+) Marginal Log Value	Appraised Price/MBF	Appraised Value
Douglas Fir	27,183	5,102.0	\$583.15	\$58.32	\$416.47	\$0.00	\$108.40	\$553,056.80
White Fir	2,589	584.0	\$427.63	\$42.76	\$416.47	\$0.00	\$42.80 *	\$24,995.20
Ponderosa Pine	933	196.0	\$304.85	\$30.48	\$416.47	\$0.00	\$30.50 *	\$5,978.00
Incensecedar	528	47.0	\$497.51	\$49.75	\$416.47	\$0.00	\$49.80 *	\$2,340.60
Sugar Pine	135	20.0	\$293.44	\$29.34	\$416.47	\$0.00	\$29.40 *	\$588.00
Totals	31,368	5,949.0						\$586,958.60

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

Percent of Volume By Log Grade

Species	No. 1 & 2 Peeler	No. 3 Peeler	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
Douglas Fir			2.0 %	50.0 %	42.0 %	6.0 %	

Species	Peeler	No. 1 Sawmill	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
White Fir				53.0 %	44.0 %	3.0 %	

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill	No. 6 Sawmill	Camp Run
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Shady Elk TS**ORM05-TS-2017.0005**

Ponderosa Pine				72.0 %	26.0 %	2.0 %	
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Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill	No. 6 Sawmill	Camp Run
Incense-cedar				19.0 %	66.0 %	15.0 %	

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill	No. 6 Sawmill	Camp Run
Sugar Pine				50.0 %	42.0 %	8.0 %	

Unit Summary

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	43.0	48.0	50.0	123

Totals:	43.0	48.0	50.0	123
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Regeneration Harvest	0.0
Partial Cut	10.0
Right of Way	0.0

Shady Elk TS**ORM05-TS-2017.0005****Unit: 3-1****Net Volume/Acre: 4.1 MBF****Total Acres:****10.0**

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	69.0	76.0	79.0	358
White Fir	3.0	3.0	3.0	11
Ponderosa Pine	2.0	2.0	2.0	5
Totals:	74.0	81.0	84.0	374

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

Unit: 3-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	40.0	44.0	46.0	177
White Fir	1.0	1.0	1.0	5
Totals:	41.0	45.0	47.0	182

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

Unit: 3-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	10.0	11.0	12.0	53
Totals:	10.0	11.0	12.0	53

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

Unit: 7-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	127.0	140.0	147.0	446
Totals:	127.0	140.0	147.0	446

Regeneration Harvest	0.0
Partial Cut	20.0
Right of Way	0.0

Total Acres:	20.0
---------------------	-------------

Unit: 11-1

Net Volume/Acre: 4.3 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	69.0	76.0	80.0	319

Shady Elk TS

ORM05-TS-2017.0005

Totals:	69.0	76.0	80.0	319
---------	------	------	------	-----

Regeneration Harvest	0.0
Partial Cut	11.0
Right of Way	0.0

Unit: 11-2**Net Volume/Acre: 5.0 MBF****Total Acres:****11.0**

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	15.0	16.0	17.0	28
Totals:	15.0	16.0	17.0	28

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

Unit: 11-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	149.0	164.0	172.0	880
White Fir	118.0	129.0	131.0	498
Totals:	267.0	293.0	303.0	1,378

Regeneration Harvest	0.0
Partial Cut	31.0
Right of Way	0.0
Total Acres:	31.0

Unit: 11-4

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	130.0	143.0	150.0	839
Ponderosa Pine	17.0	18.0	19.0	104
White Fir	4.0	5.0	5.0	21
Sugar Pine	1.0	1.0	1.0	7
Totals:	152.0	167.0	175.0	971

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

Unit: 13-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	20.0	22.0	23.0	82

Regeneration Harvest	0.0
Partial Cut	5.0
Right of Way	0.0

Shady Elk TS

Totals:	20.0	22.0	23.0	82
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ORM05-TS-2017.0005

Total Acres:	5.0
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Unit: 13-2

Net Volume/Acre: 6.3 MBF

Unit: 13-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	17.0	19.0	20.0	83
Totals:	17.0	19.0	20.0	83

Net Volume/Acre: 5.7 MBF

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

Unit: 13-4

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	222.0	244.0	255.0	1,519
Ponderosa Pine	9.0	9.0	10.0	47
Sugar Pine	1.0	1.0	1.0	7
Totals:	232.0	254.0	266.0	1,573

Net Volume/Acre: 9.7 MBF

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

Unit: 13-5

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	324.0	357.0	373.0	1,876
Ponderosa Pine	6.0	7.0	7.0	36
White Fir	1.0	1.0	1.0	3
Sugar Pine	1.0	1.0	2.0	10
Incense-cedar	1.0	1.0	1.0	6
Totals:	333.0	367.0	384.0	1,931

Net Volume/Acre: 11.1 MBF

Regeneration Harvest	0.0
Partial Cut	30.0
Right of Way	0.0
Total Acres:	30.0

Unit: 13-6**Net Volume/Acre: 11.7 MBF**

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	358.0	395.0	413.0	2,190
White Fir	57.0	62.0	63.0	265
Ponderosa Pine	5.0	6.0	6.0	29
Sugar Pine	1.0	1.0	2.0	8
Incense-cedar	1.0	1.0	1.0	8
Totals:	422.0	465.0	485.0	2,500

Unit: 13-7

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	37.0	41.0	42.0	287
White Fir	8.0	9.0	9.0	56
Totals:	45.0	50.0	51.0	343

Unit: 13-8

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	257.0	283.0	296.0	1,638
White Fir	17.0	19.0	19.0	75
Ponderosa Pine	7.0	8.0	8.0	42
Sugar Pine	1.0	1.0	2.0	11
Incense-cedar	1.0	1.0	1.0	12
Totals:	283.0	312.0	326.0	1,778

Unit: 13-9

Regeneration Harvest	0.0
Partial Cut	36.0
Right of Way	0.0
Total Acres:	36.0

Net Volume/Acre: 11.3 MBF

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

Net Volume/Acre: 12.9 MBF

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

Net Volume/Acre: 10.2 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	76.0	84.0	88.0	509
White Fir	55.0	60.0	61.0	254
Ponderosa Pine	1.0	1.0	1.0	5
Sugar Pine	1.0	1.0	1.0	4
Totals:	133.0	146.0	151.0	772

Unit: 13-10

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	649.0	715.0	748.0	4,085
White Fir	44.0	48.0	49.0	163
Ponderosa Pine	12.0	13.0	13.0	77
Sugar Pine	3.0	3.0	3.0	22
Incense-cedar	1.0	1.0	1.0	10
Totals:	709.0	780.0	814.0	4,357

Unit: 13-11

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	23.0	25.0	26.0	96
Totals:	23.0	25.0	26.0	96

Unit: 14-1

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

Net Volume/Acre: 9.0 MBF

Regeneration Harvest	0.0
Partial Cut	79.0
Right of Way	0.0
Total Acres:	79.0

Net Volume/Acre: 2.9 MBF

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

Net Volume/Acre: 8.4 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	931.0	1,024.0	1,075.0	5,417
White Fir	94.0	104.0	106.0	397
Ponderosa Pine	25.0	28.0	29.0	107
Sugar Pine	9.0	11.0	11.0	64
Incense-cedar	9.0	10.0	10.0	153
Totals:	1,068.0	1,177.0	1,231.0	6,138

Unit: 14-1L

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	20.0	21.0	22.0	34
White Fir	10.0	10.0	12.0	66
Incense-cedar	1.0	1.0	1.0	6
Totals:	31.0	32.0	35.0	106

Unit: 21-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	264.0	292.0	305.0	1,268
Incense-cedar	2.0	3.0	3.0	27
Ponderosa Pine	1.0	1.0	1.0	2
Totals:	267.0	296.0	309.0	1,297

Unit: 23-1

Regeneration Harvest	0.0
Partial Cut	127.0
Right of Way	0.0
Total Acres:	127.0

Net Volume/Acre: 31.0 MBF

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

Net Volume/Acre: 5.3 MBF

Regeneration Harvest	0.0
Partial Cut	50.0
Right of Way	0.0
Total Acres:	50.0

Net Volume/Acre: 11.2 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	79.0	87.0	91.0	240
White Fir	22.0	24.0	24.0	59
Totals:	101.0	111.0	115.0	299

Unit: 26-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	87.0	96.0	100.0	460
Ponderosa Pine	64.0	69.0	71.0	335
White Fir	6.0	7.0	7.0	21
Incense-cedar	1.0	1.0	1.0	8
Totals:	158.0	173.0	179.0	824

Unit: 27-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	41.0	45.0	47.0	139
White Fir	22.0	24.0	24.0	87
Incense-cedar	3.0	3.0	3.0	18
Totals:	66.0	72.0	74.0	244

Unit: 27-2

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

Net Volume/Acre: 7.9 MBF

Regeneration Harvest	0.0
Partial Cut	20.0
Right of Way	0.0
Total Acres:	20.0

Net Volume/Acre: 6.6 MBF

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

Net Volume/Acre: 4.7 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	17.0	18.0	19.0	59
White Fir	9.0	10.0	10.0	40
Incense-cedar	2.0	2.0	2.0	15
Totals:	28.0	30.0	31.0	114

Unit: 27-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	10.0	11.0	11.0	44
White Fir	1.0	1.0	1.0	5
Totals:	11.0	12.0	12.0	49

Unit: 27-4

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	10.0	11.0	12.0	52
White Fir	1.0	1.0	1.0	4
Totals:	11.0	12.0	13.0	56

Unit: 27-5

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	27.0	29.0	31.0	116
White Fir	7.0	8.0	8.0	29
Totals:	34.0	37.0	39.0	145

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

Net Volume/Acre: 5.5 MBF

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

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

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

Unit: 31-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	200.0	220.0	230.0	851
Ponderosa Pine	2.0	3.0	3.0	11
White Fir	1.0	1.0	1.0	3
Totals:	203.0	224.0	234.0	865

Net Volume/Acre: 4.5 MBF

Regeneration Harvest	0.0
Partial Cut	45.0
Right of Way	0.0
Total Acres:	45.0

Unit: 31-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	25.0	28.0	29.0	123
Ponderosa Pine	4.0	4.0	4.0	12
White Fir	2.0	2.0	2.0	8
Sugar Pine	2.0	2.0	2.0	2
Totals:	33.0	36.0	37.0	145

Net Volume/Acre: 6.6 MBF

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

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	239.0	263.0	276.0	663
White Fir	15.0	16.0	17.0	53
Ponderosa Pine	9.0	9.0	10.0	23

Incense-cedar	8.0	9.0	10.0	95
Totals:	271.0	297.0	313.0	834

Unit: 32-1 Net Volume/Acre: 10.8 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	170.0	187.0	196.0	718
Ponderosa Pine	9.0	10.0	10.0	33
Incense-cedar	4.0	4.0	4.0	36
White Fir	1.0	1.0	1.0	7
Totals:	184.0	202.0	211.0	794

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

Unit: 32-2

Net Volume/Acre: 23.4 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	259.0	285.0	299.0	836
Ponderosa Pine	21.0	22.0	23.0	54
White Fir	13.0	15.0	15.0	44
Incense-cedar	11.0	13.0	13.0	113
Totals:	304.0	335.0	350.0	1,047

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

Unit: 32-3 Net Volume/Acre: 30.1 MBF Unit: 35-1 Net Volume/Acre: 2.8 MBF

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

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	17.0	18.0	19.0	81
Totals:	17.0	18.0	19.0	81

Unit: 35-2

Species	Net	Gross Merch	Gross	# of Trees
White Fir	72.0	79.0	81.0	415
Douglas Fir	71.0	79.0	82.0	494
Ponderosa Pine	2.0	2.0	3.0	11
Incense-cedar	2.0	2.0	2.0	21
Totals:	147.0	162.0	168.0	941

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

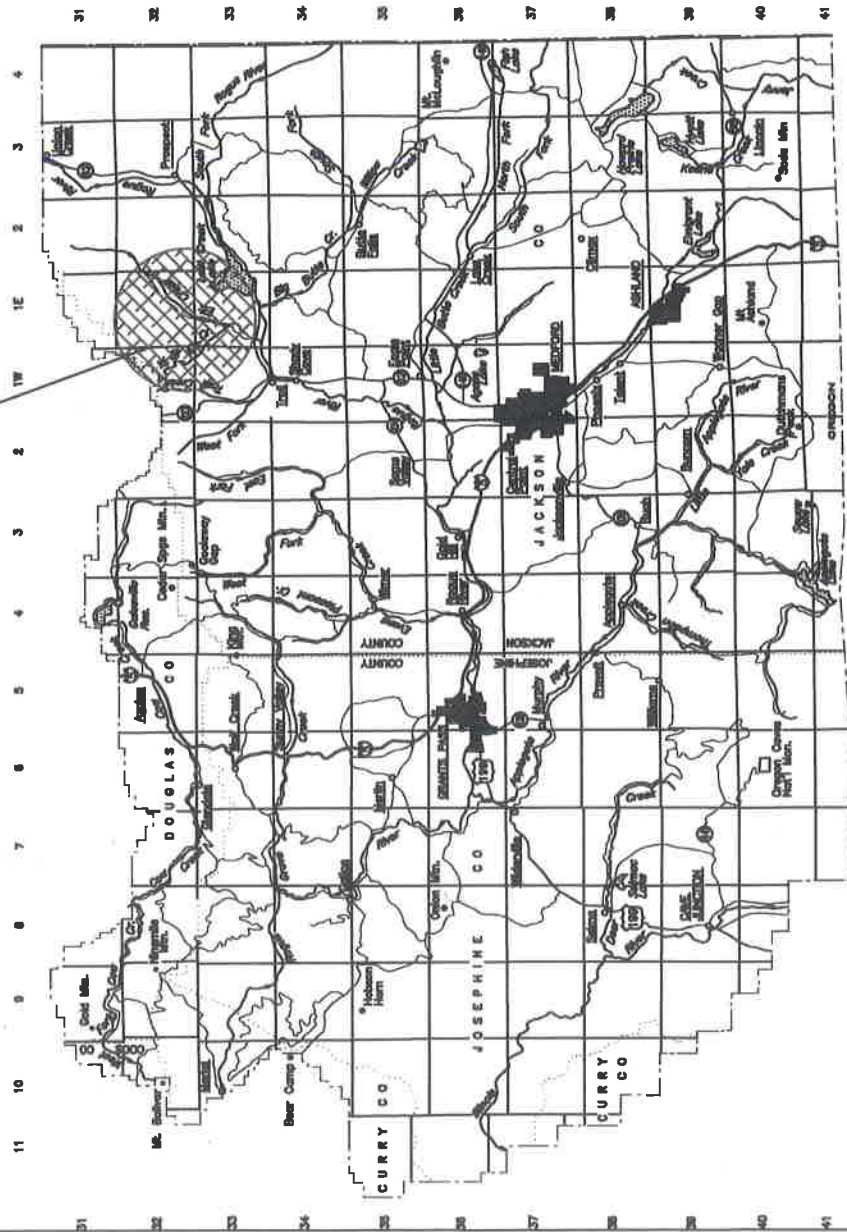
Net Volume/Acre: 7.4 MBF

Regeneration Harvest	0.0
Partial Cut	20.0
Right of Way	0.0
Total Acres:	20.0

EXHIBIT C-1 SHEET 1 OF 1

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT SHADY ELK TIMBER SALE TRACT NO. ORM05-TS-2017-0005

PROJECT LOCATION



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Exhibit No.	Description
C-1	TITLE SHEET
C-2	ROAD LOCATION MAP
C-3	ESTIMATE OF QUANTITIES
C-4	TYPICAL ROAD DATA
C-5	CULVERT LIST
C-6	CULVERT INSTALLATION DETAILS
C-7	CULVERT BAND DETAILS
C-8	DRAINAGE AND EROSION CONTROL DETAILS
C-9	TYPICAL ARMORED WATER DIP DETAILS
C-10	STEEL PIPE GATE FABRICATION
C-11	STEEL PIPE GATE INSTALLATION
C-12	ROADSIDE BRUSHING DETAILS
C-13	ROAD RENOVATION WORK LIST
C-14	TEMP ROUTE WORK LIST
C-15	ROAD SPECIFICATIONS
C-16	SPECIAL PROVISIONS
D-1	ROAD MAINTENANCE SPECIFICATIONS
D-2	ROAD MAINTENANCE MAP
D-3	ROAD DECOMMISSIONING WORK LIST
D-4	ROAD DECOMMISSIONING MAP

REV. NO.	DESCRIPTION	DATE	APPROV.
	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON		
	SHADY ELK T.S. TITLE SHEET		
	DESIGNED		
	REVIEWED		
	APPROVED		
	DRAWN JAB		
	DATE JULY 2017		
	SCALE AS SHOWN		
	SHEET 1 OF 1		
	DRAWING NO. ORM05-TS-2017-0005-C1		

EXHIBIT C-2

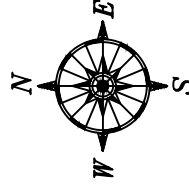
SHEET 1 OF 6

SHADY L TIMBER SAL

TRACT O

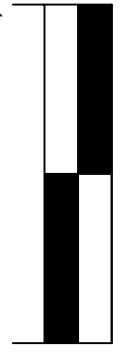
ORM05-TS-201-0005

- BLM OWNERSHIP
- T.S. ITS
- BST ROAD
- ROCK ROAD
- AT. SURFACE ROAD
- PRIMITIVE ROAD
- ROAD RIGHT OF WAY
- ROADSIDE BRUSHING



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SCALE IN MILES

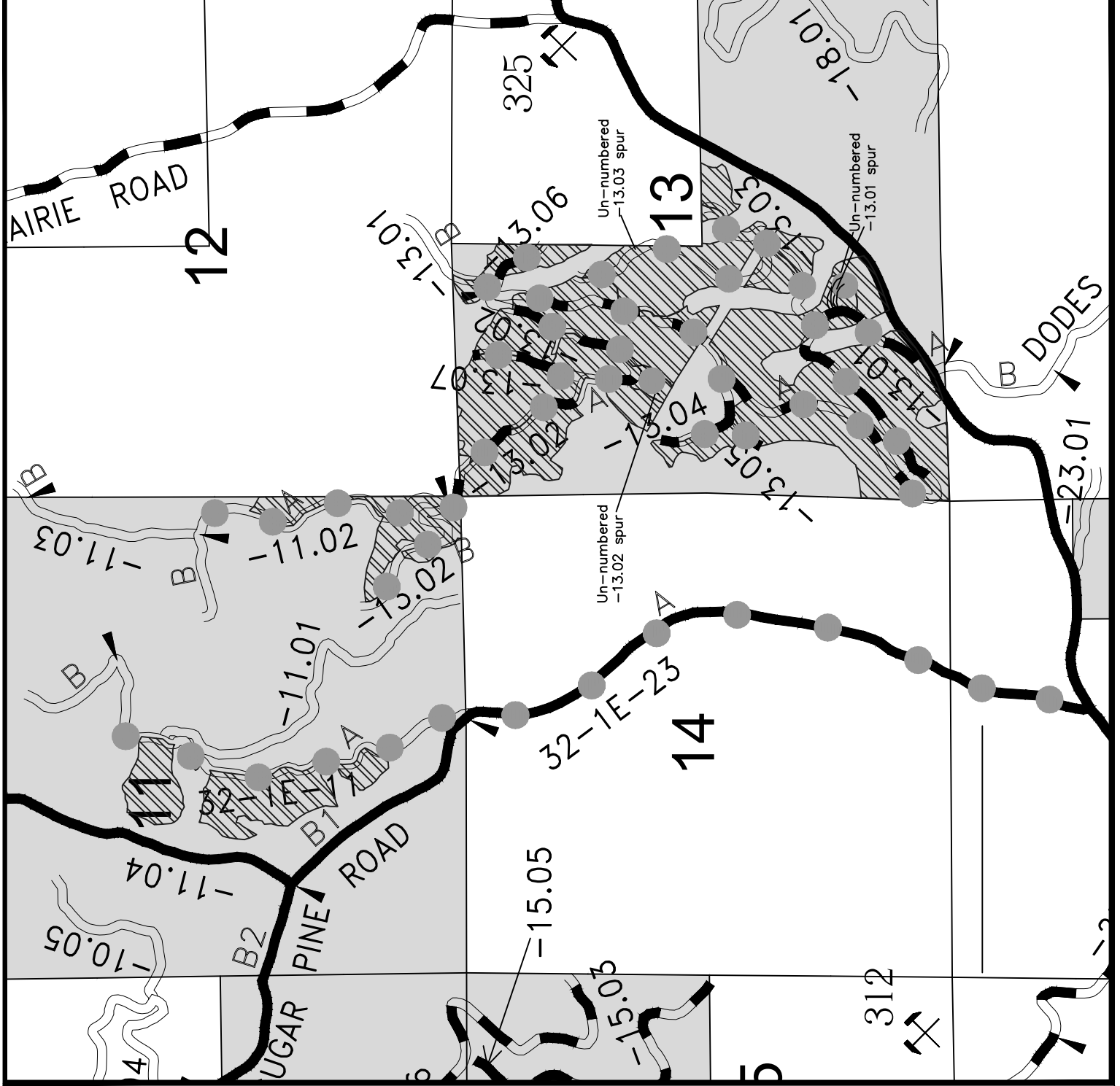


EXHIBIT C-2

SHEET 2 OF 6

SHADY ELK TIMBER SALE

TRACT NO.:

ORM05-TS-2017-0005

BLM OWNERSHIP

T.S. UNITS

BST ROAD

ROCKED ROAD

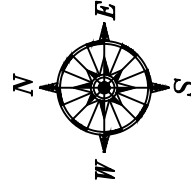
NAT. SURFACE ROAD

PRIMITIVE ROUTE

ROAD RENOVATION &
ROADSIDE BRUSHING

STOCKPILE SITE

CONSTRUCT HELICOPTER
LANDING



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SCALE IN MILES

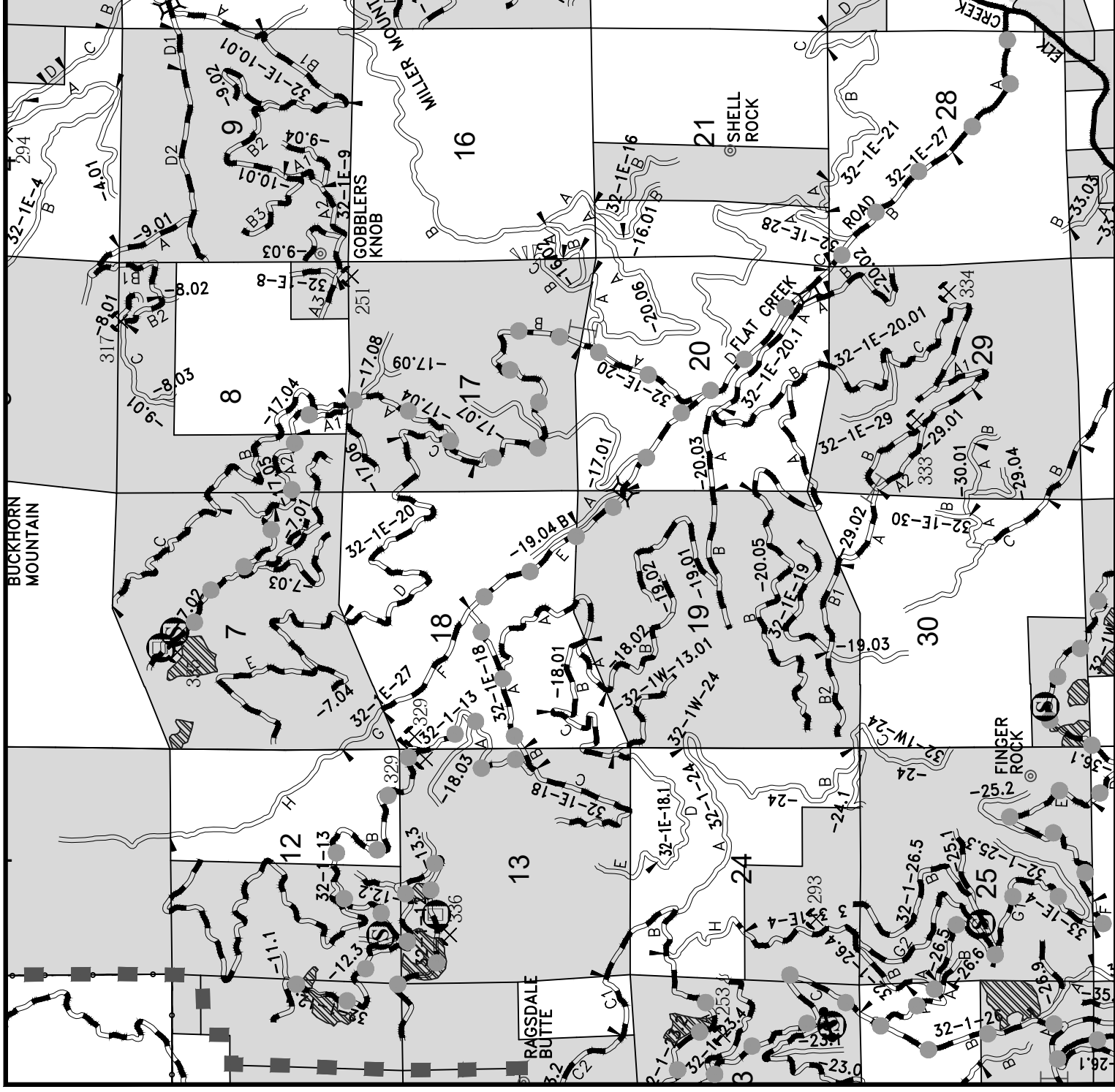


EXHIBIT C-2

SHEET 3 OF 6

SHADY ELK TIMBER SALE

TRACT NO.:

ORM05-TS-2017-0005

BLM OWNERSHIP

T.S. UNITS

BST ROAD

ROCKED ROAD

NAT. SURFACE ROAD

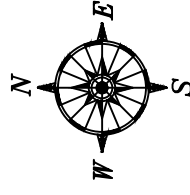
PRIMITIVE ROUTE

ROAD RENOVATION &
ROADSIDE BRUSHING

TEMP ROUTES

STOCKPILE SITE

CONSTRUCT HELICOPTER
LANDING



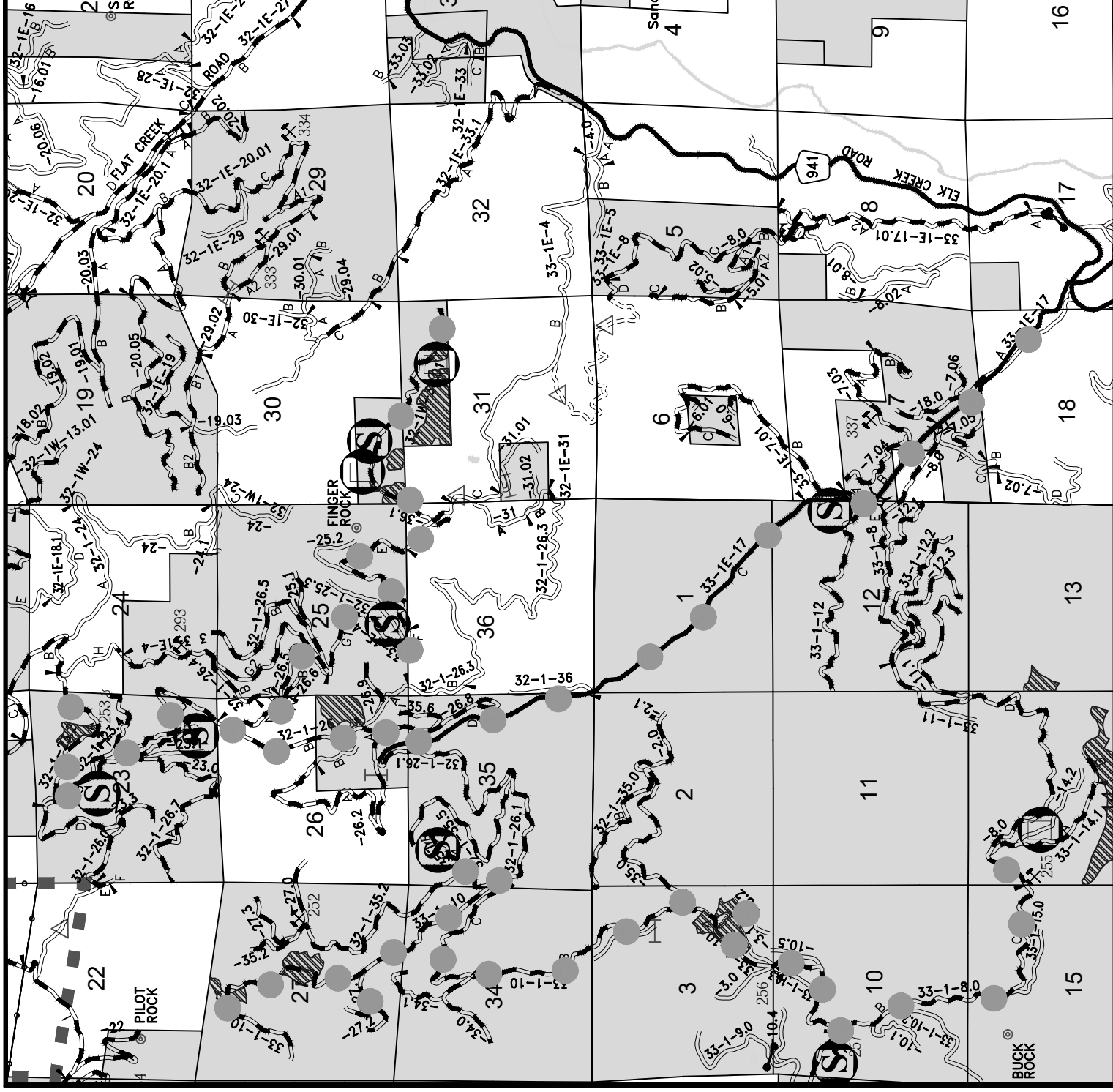
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SCALE IN MILES



XHIBIT C-2

SHOOT 4 OF 6

SHADY L TIMBER SAL

TRACT O.

ORM05-TS-201-0005

BLM OWNERSHIP

T.S. ITS

BST ROAD

ROCK ROAD

AT. SURFACE ROAD

PRIMITIVE ROAD

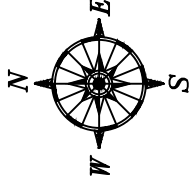
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ROADSIDE BRUSHING

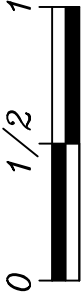
TEMP ROAD

STOCKPILE SITE

CONSTRUCT HELICOPT LANDING



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SCALE IN MILES

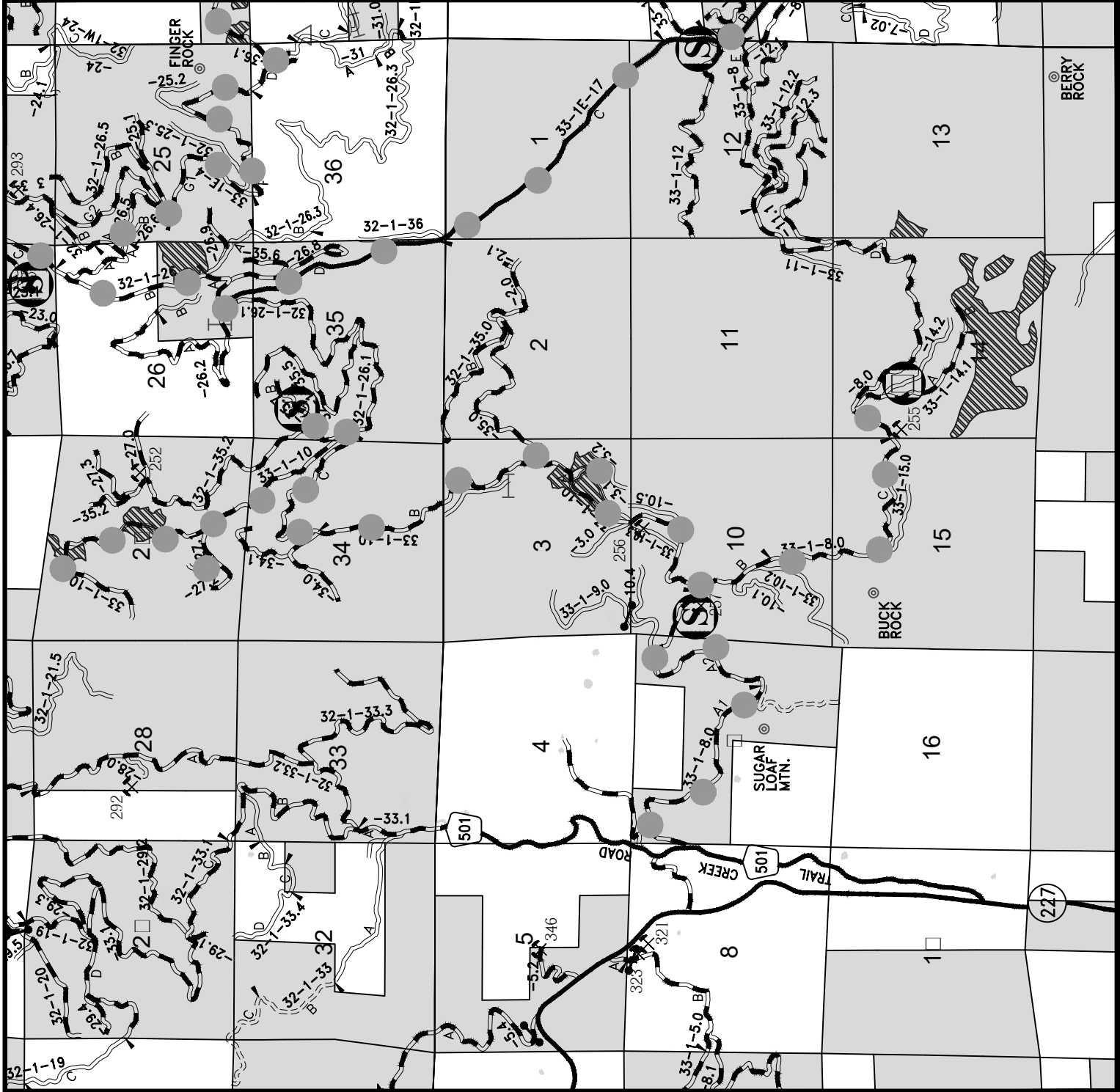


EXHIBIT C-2

SHEET 5 OF 6

SHADY L TIMBER SAL

TRACT O.

ORM05-TS-201-0005

BLM OWNERSHIP

T.S. ITS

BST ROAD

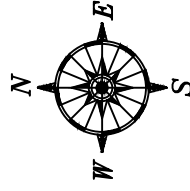
ROCK ROAD

AT. SURFACE ROAD

PRIMITIVE ROAD

ROAD RIGHT OF WAY
ROADSIDE BRUSHING

CONSTRUCT HELICOPTER
LANDING



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SCALE IN MILES

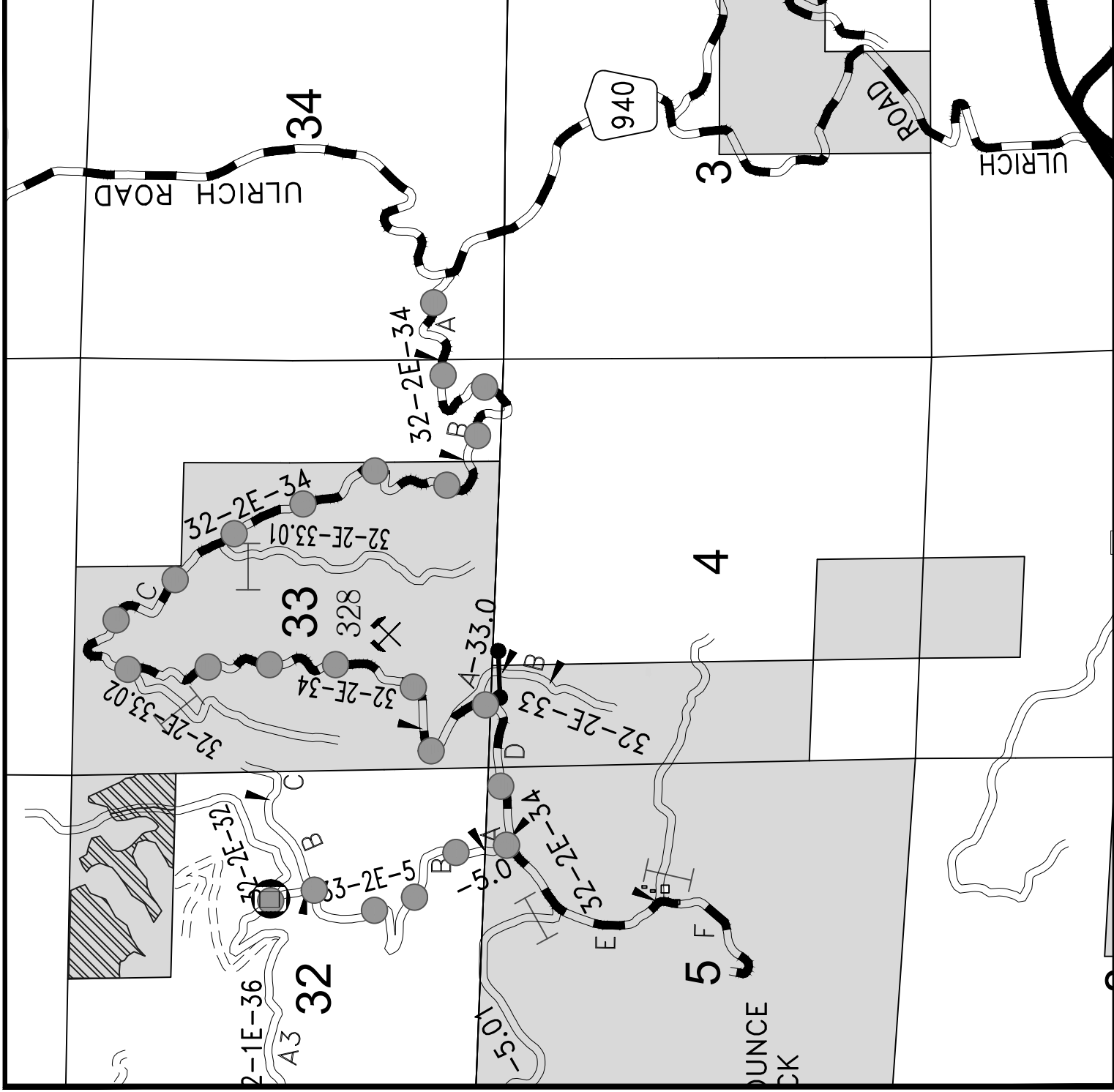


EXHIBIT C-2

SHEET 6 OF 6

SHADY L TIMBER SAL

TRACT O.

ORM05-TS-201-00005

BLM OWNERSHIP

T.S. ITS

BST ROAD

ROAD ROAD

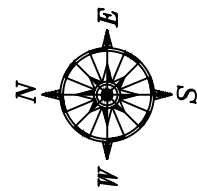
AT. SURFACE ROAD

PRIMITIVE ROAD

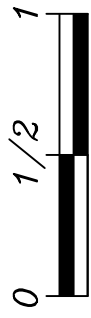
ROAD ROOVATION

ROADSIDE BRUSHING

CONSTRUCT HELICOPTER



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SCALE IN MILES

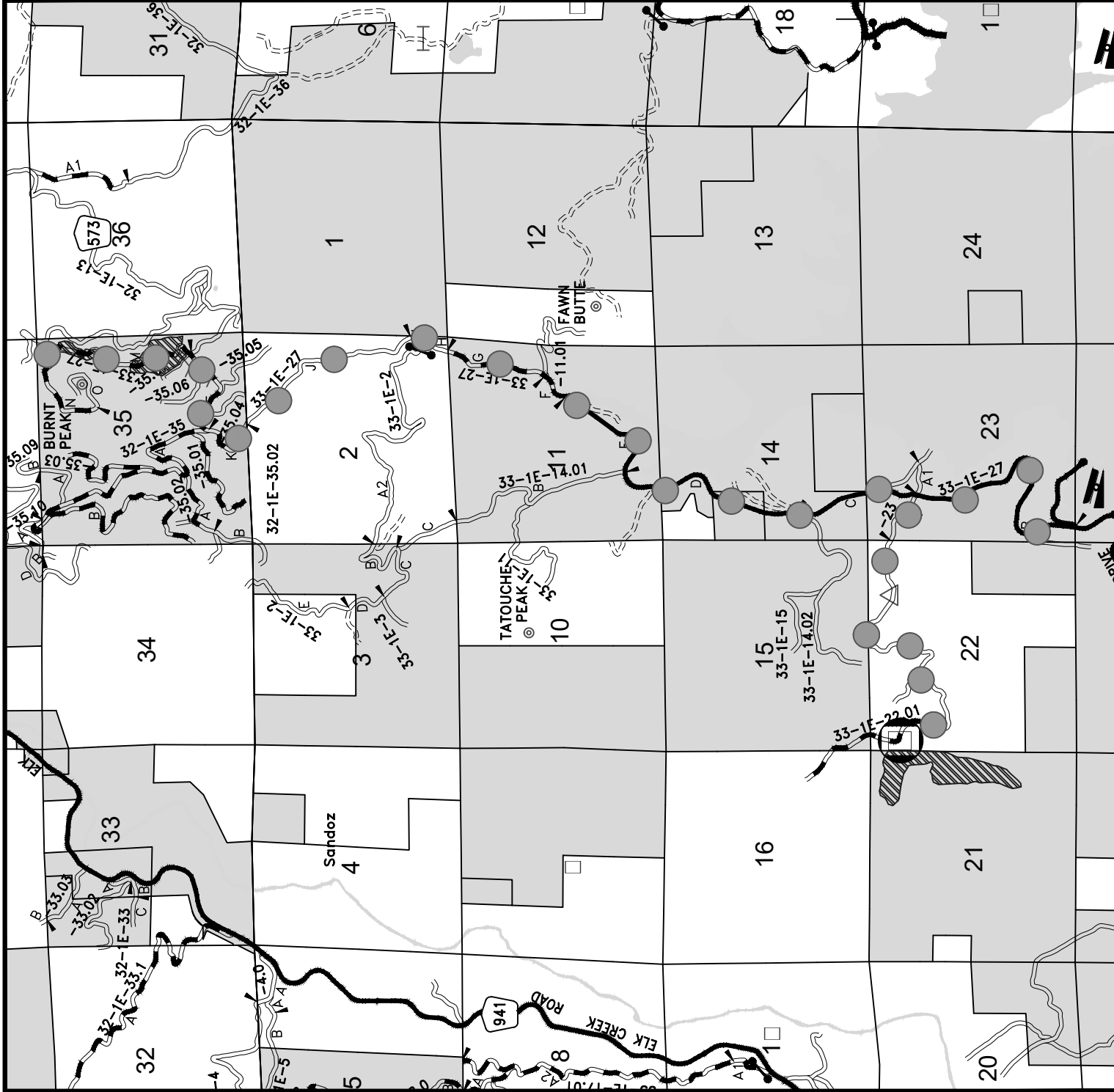
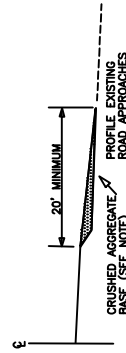
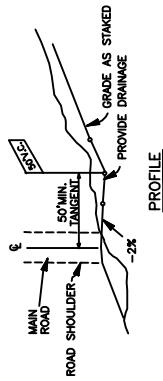
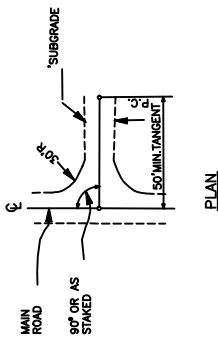


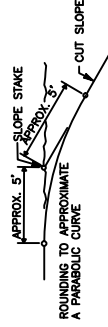
EXHIBIT C-3 SHEET 2 OF 3 SHADY ELK TIMBER SALE																																																									
ROAD NUMBER	FROM	TO	LENGTH	CLEARING AND GRUBBING	EXCAVATION	CORRUGATED METAL PIPE										RENOVATION	ROAD RECONSTRUCTION	ARMORED WATER DIPS***	Slope Protection - Class III Rip Rap	AGGREGATE**				SOIL STABILIZATION	ROADSIDE BRUSHING - SCATTER	ROADSIDE BRUSHING - CHIP	MEGA GATE INSTALLATION	WATERBARS ****	EARTHEN BARRICADE ****	DECOMMISSION****																											
						SIZE						Remove 18"	FULL ROUND DS																																												
						ROCK	COMMON	18"	24"	30"	36"		42"	48"	18"					24"	30"	48"																																			
SPECIFICATION NO.	MP/STA	MP/STA	MILE/STA	ACRE	C.Y.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	EA.	L.F.	L.F.	L.F.	L.F.	500	MILE	EA.	CY	700	C.Y.	1200	C.Y.	400	C.Y.	1800	ACRE	2100	MILE	EA.	EA.	MILE																							
32-1W-23.02 A	0.00	0.89	0.89															0.89																																							
32-1W-26.00A-C	0.00	2.66	2.66		300													2.66			300			50																																	
32-1W-26.04 A	0.00	0.42	0.42															0.42												0.42																											
32-1W-26.05 A	0.00	0.60	0.60															0.60												0.60																											
32-1W-27.01	0.00	0.38	0.38															0.38												0.38																											
32-1W-35.02	0.00	0.26	0.26															0.26												0.26																											
32-1W-35.07	0.00	0.12	0.12															0.12												0.12																											
32-1W-36.01	0.00	1.49	1.49	0.40														1.49												1.49																											
32-2E-34.00 A-D	0.00	3.80	3.80				270	78	82	42	38							3.80						260		26		1.30	3.80																												
33-1E-4.00 D-G1	0.00	2.13	2.13															2.13												2.13																											
33-1E-17.00 A	0.00	4.66	4.66															4.66												4.66																											
33-1E-22.01	0.00	0.38	0.38	0.75														0.38												0.38			7	0.38																							
33-1E-23.00A2-B	0.00	1.61	1.61															1.61												1.61		12	1.61																								
33-1E-27.00 B-M	0.00	6.93	6.93															6.93												6.93																											
33-1W-3.01	0.00	0.38	0.38															0.38												0.38			1	0.38																							
33-1W-3.02	0.00	0.10	0.10															0.10												0.10																											
33-1W-3.03	0.00	0.15	0.15															0.15												0.15			5	1	0.15																						
33-1W-8.00 A-D	0.00	5.23	5.23															5.23												5.23																											
33-1W-10.00 A-D	0.00	5.65	5.65															5.65						10						5.65																											
33-1W-14.01 A-C	0.00	0.88	0.88	0.75			40						5					0.88	6							2	1.50			0.88																											
33-1W-14.02	0.00	0.14	0.14	1.50														0.14												0.14																											
33-2E-5.00 A-C	0.00	0.84	0.84			40												0.84						20		2	0.10			0.84			29		0.84																						
PAGE 1 TOTALS				21.64	0.75		1446	552	100	36								21.64						950		70	5.60	15.33	6.31	1	27	4	0.89																								
PAGE 2 TOTALS				39.70	3.40	300	310	118	82	42	38	5						38.68	1.02	6	300		881	1010	30	2.90	37.03	2.67		53	2	3.36																									
PROJECT TOTALS				61.34	4.15	300	1756	670	82	142	74	5	380	20				60.32	1.02	6	300		1201	1960	100	8.50	52.36	8.98	1	80	6	4.25																									
ITEM 1200																		UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT MEDFORD, OREGON										DATE		APPROV.																											
ALWAYS THINK SAFETY																		**Indicate gradation.										***Armored water dip aggregate quantities calculated at 40 CY per AWD and are accounted for in aggregate column under 4" minus grade A and 20 CY per AWD are accounted under crushed surface (stockpiled). AWDs on natural surface will not be surfaced with 20 CY of stockpiled crushed surfacing.										**** Work to be completed under Exhibit D.										***** Quantities costs covered for under splash pads under drainage.									
* FOR INFORMATIONAL USE ONLY. QUANTITIES SHOWN ARE NOT PAY ITEMS.																											ESTIMATE OF QUANTITIES*										DRAWN: JAB		SCALE: NONE																		
																																					DATE: JULY 2017		SHEET 2 OF 3																		
																											DRAWING NO. ORM05-TS-2017-0005-C3																														

EXHIBIT C-4 SHEET 1 OF 1 SHADY ELK T.S.

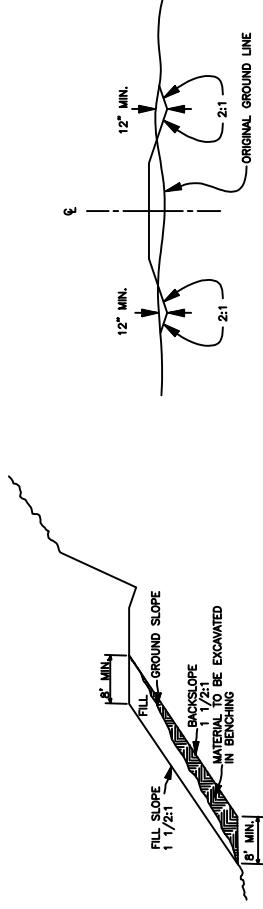
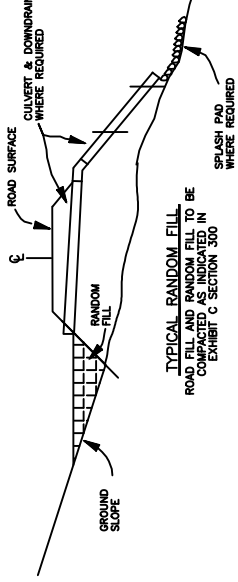
TYPICAL ROAD APPROACHES



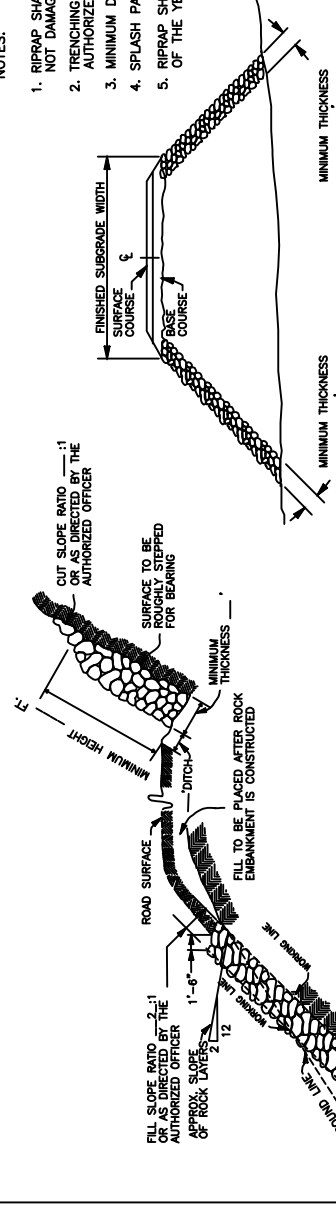
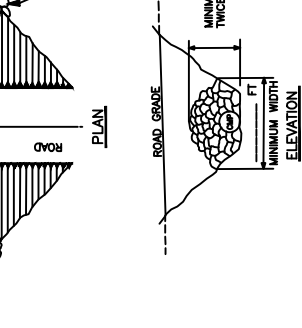
- NOTES:
- THE PROFILE OF EXISTING APPROACH ROADS SHALL BE USED TO SET THE SHOULDER LINE OF THE ROAD ROLLING SURFACE.
 - THE CRUSHED AGGREGATE BASE SHALL BE OF THE SAME GRADATION AS USED IN THE ADJACENT ROAD.
 - APPROACHES SHALL BE FINISHED WITH THE SAME TREATMENT AS SHOWN FOR THE ADJACENT ROAD.



CUT SLOPE ROUNDING



TYPICAL ROAD SECTION FOR TURNPIKE CONSTRUCTION



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* AS SHOWN IN RENOVATION WORKLIST.

- NOTES:
- RIPRAP SHALL BE PLACED IN SUCH A MANNER THAT IT WILL NOT DAMAGE THE CULVERT.
 - TRENCHING WILL BE DONE AS REQUIRED BY THE AUTHORIZED OFFICER.
 - MINIMUM DEPTH OF SPLASH PADS SHALL BE 1 FT.
 - SPLASH PAD MINIMUM QUANTITY DESIGNATED IN WORK LIST.
 - RIPRAP SHALL BE PLACED BEFORE OCTOBER 15TH OF THE YEAR THE CMP IS INSTALLED.

REV. NO.	DESCRIPTION	DATE	APPROVED
1	DESIGNED	BLM	
2	REVIEWED	BLM	
3	APPROVED	BLM	
4	DRAWN	BLM	
5	SCALE	NONE	
6	DATE	JULY 2017	SHEET 1 OF 1
7	DRAWING NO.	ORMD05-TS-2017-0005-C4	

TYPICAL ROAD DATA

REV. NO.	DESCRIPTION	DATE	APPROVED
1	DESIGNED	BLM	
2	REVIEWED	BLM	
3	APPROVED	BLM	
4	DRAWN	BLM	
5	SCALE	NONE	
6	DATE	JULY 2017	SHEET 1 OF 1
7	DRAWING NO.	ORMD05-TS-2017-0005-C4	

CULVERT LOCATIONS										DOWNSPOUTS				REMARKS
DESIGNED										1/2 ROUND	FULL ROUND	RECT. FLUME	SPLASH PADS	
ROAD NO.	STATION OR M.P.	SIZE	GAGE	LENGTH	SKEW ANGLE	STATION OR M.P.	SIZE	GAGE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	
32-1E-7.01	0.12	18" 16 34'									18" 20'			Installation Type 2
	0.29	18" 16 30'									18" 20'			Installation Type 2
32-1E-11.00 A	0.35	18" 16 40'											2	Installation Type 2
	0.50	18" 16 30'									18" 20'			Installation Type 2
	0.66	18" 16 40'											2	Installation Type 2
	0.73	18" 16 40'											2	Installation Type 2
32-1E-11.02 A	0.21	18" 16 40'											2	Installation Type 3
	0.33	18" 16 40'								18" 20'				Re-attache existing half round downspout
	0.43	18" 16 36'									18" 20'			Installation Type 2
32-1E-13.01 A1	0.16	18" 16 32'									18" 20'			Installation Type 2
	0.20	24" 16 42'											2	Installation Type 1
	0.67	24" 16 50'											2	Installation Type 3
	0.72	24" 16 40'											2	Installation Type 3
	0.78	18" 16 40'											2	Installation Type 3
	1.38	18" 16 50'											2	Installation Type 3
	1.46	18" 16 30'											2	New Installation
	1.53	18" 16 40'											2	Installation Type 3
	1.72	18" 16 40'									18" 20'			Installation Type 2
	1.75	18" 16 40'											2	Installation Type 3
	1.86	18" 16 40'											2	Installation Type 3
32-1E-13.02 A	0.14	18" 16 42'											2	Installation Type 3
	0.71	18" 16 36'											2	Installation Type 3
	0.83	18" 16 46'											2	Installation Type 3
PAGE 1 TOTAL 18" CMP: 766 Linear Feet														
PAGE 1 TOTAL 18" FRDS: 120 Linear Feet														
PAGE 1 TOTAL 24" CMP: 132 Linear Feet														
PAGE 1 TOTAL RIPRAP: 32 Cubic Yards														

NOTES:

- A. Designed culvert lengths and locations are approximate. Actual lengths and locations will be staked in the field.
- B. Summary of quantities are shown on drawing Exhibit C-3 (Estimate of Quantities).
- C. All culverts and bands shall be aluminized.

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

SHADY ELK T.S.
CULVERT LIST

DRAWN: JAB SCALE: AS SHOWN
DATE: JULY 2017 SHEET 1 OF 4
DRAWING NO. ORM05-TS-2017-0005-C5

CULVERT LOCATIONS										DOWNSPOUTS				REMARKS
DESIGNED										1/2 ROUND	FULL ROUND	RECT. FLUME	SPLASH PADS	
ROAD NO.	STATION OR M.P.	SIZE	GAGE	LENGTH	SKW	ANGLE	STATION OR M.P.	SIZE	GAGE	SIZE	LENGTH	SIZE	LENGTH	
32-1E-13.03	0.06	24" 16	34'											Installation Type 1
	0.34	18" 16	40'											Installation Type 3
32-1E-17.04 A	0.02	24" 16	50'											Installation Type 1
	0.22	18" 16	30'							18" 20'				Installation Type 2
32-1E-17.05 A1	0.08	18" 16	30'											Installation Type 2
32-1E-18.00 A	0.11	24" 16	36'											Installation Type 2
	0.61	42" 14	36'											Installation Type 1
32-1E-27.00 E	3.04	24" 16	36'											Installation Type 3
	3.33	18" 16	34'											Installation Type 3
32-1W-12.00	0.32	24" 16	40'											Installation Type 1
	0.39	18" 16	30'							18" 20'				Installation Type 2
	0.46	36" 14	40'											Installation Type 1
	0.65	18" 16	32'											Installation Type 3
	0.82	24" 16	40'											Installation Type 1
	0.89	18" 16	36'											Installation Type 2
	1.04	18" 16	32'							18" 20'				Installation Type 2
	1.16	18" 16	30'							18" 20'				Installation Type 2
	1.30	18" 16	30'							18" 20'				Installation Type 2
	1.40	18" 16	30'											Installation Type 2
32-1E-12.01	0.00	24" 16	50'											Installation Type 3
	0.08	18" 16	30'							18" 20'				Installation Type 2
	0.25	24" 16	50'											New Installation
	0.38	18" 16	30'							18" 20'				Installation Type 2
	PAGE 2 TOTAL 18" CMP: 414 Linear Feet													
	PAGE 2 TOTAL 18" FRDS: 140 Linear Feet													
	PAGE 2 TOTAL 24" CMP: 336 Linear Feet													
	PAGE 2 TOTAL 36" CMP: 40 Linear Feet													
	PAGE 2 TOTAL 42" CMP: 36 Linear Feet													
	PAGE 2 TOTAL RIPRAP: 32 Cubic Yards													

NOTES:

- Designed culvert lengths and locations are approximate. Actual lengths and locations will be staked in the field.
- Summary of quantities are shown on drawing Exhibit C-3 (Estimate of Quantities).
- All culverts and bands shall be aluminized.

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

SHADY ELK T.S.
CULVERT LIST

DRAWN: JAB SCALE: AS SHOWN
DATE: JULY 2017 SHEET 2 OF 4
DRAWING NO. ORM05-TS-2017-0005-C5

CULVERT LOCATIONS										DOWNSPOUTS				REMARKS
DESIGNED										1/2 ROUND	FULL ROUND	RECT. FLUME	SPLASH PADS	
ROAD NO.	STATION OR M.P.	SIZE	GAGE	LENGTH	SKW ANGLE	STATION OR M.P.	SIZE	GAGE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	
32-1W-12.01	0.49	18" 16	28'								18" 20'			Installation Type 2
	0.57	18" 16	34'										2	Installation Type 2
32-1W-13.00A-B	0.29	36" 14	60'										2	Installation Type 1
	0.49	18" 16	50'								18" 20'			Installation Type 2
	0.62	18" 16	38'								18" 20'			Installation Type 2
	1.12	18" 16	40'								18" 20'			Installation Type 2
	1.29	18" 16	36'								18" 20'			Installation Type 2
	1.50	24" 16	44'										2	Installation Type 1
	1.74	18" 16	40'								18" 20'			Installation Type 2
	1.92	24" 16	40'								24" 20'			New Installation
32-2E-34.00A-D	0.01	18" 16	36'										2	Installation Type 3
	0.08	18" 16	44'										2	Installation Type 1
	0.55	24" 16	38'										2	Installation Type 1
	0.85	24" 16	40'										2	Installation Type 3
	1.11	36" 14	42'										2	Installation Type 1
	1.32	30" 14	42'										2	Installation Type 1
	1.45	42" 14	38'										2	Installation Type 1
	1.88	30" 14	40'										2	Installation Type 1
	2.38	18" 16	40'										2	Installation Type 3
	2.74	18" 16	34'										2	Installation Type 3
	2.93	18" 16	40'										2	Installation Type 3
	3.01	18" 16	36'										2	Installation Type 3
	3.79	18" 16	40'										2	Installation Type 3
	PAGE 3 TOTAL 18" CMP: 536 Linear Feet													
	PAGE 3 TOTAL 18" FRDS: 140 Linear Feet													
	PAGE 3 TOTAL 24" CMP: 162 Linear Feet													
	PAGE 3 TOTAL 24" FRDS: 20 Linear Feet										PAGE 3 TOTAL 42" CMP: 38 Linear Feet			
	PAGE 3 TOTAL 30" CMP: 82 Linear Feet										PROJECT TOTAL RIPRAP: 32 Cubic Yards			
	PAGE 3 TOTAL 36" CMP: 102 Linear Feet													

NOTES:

- Designed culvert lengths and locations are approximate. Actual lengths and locations will be staked in the field.
- Summary of quantities are shown on drawing Exhibit C-3 (Estimate of Quantities).
- All culverts and bands shall be aluminized.

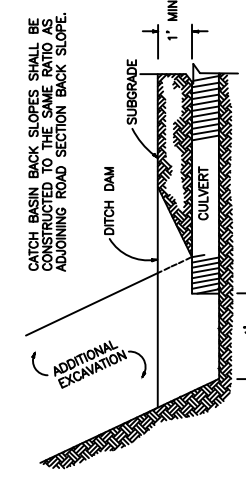
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UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT - MEDFORD, OREGON

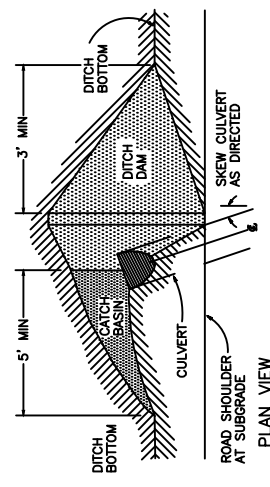
SHADY ELK T.S.
CULVERT LIST

DRAWN: JAB SCALE: AS SHOWN
DATE: JULY 2017 SHEET 3 OF 4
DRAWING NO. ORM05-TS-2017-0005-C5

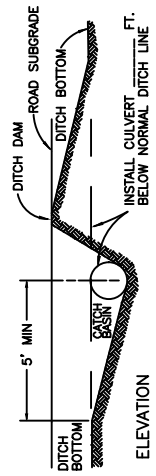
EXHIBIT C-6
SHEET 1 OF 1
SHADY ELK T.S.



CROSS SECTION AT CATCH BASIN

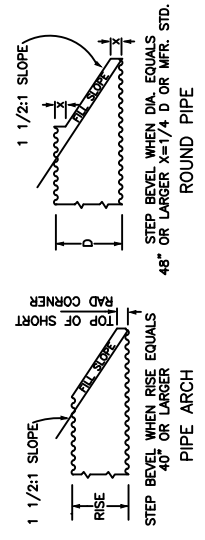


PLAN VIEW

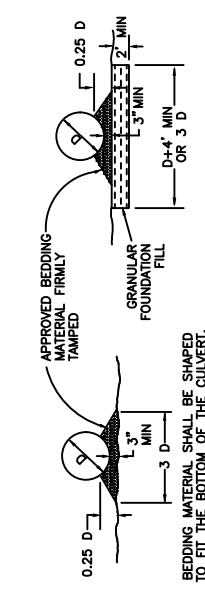


ELEVATION

CATCH BASIN



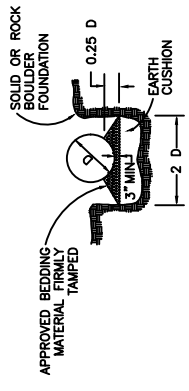
BEVELED END DETAIL



BEDDING OF CULVERTS ON STABLE NATURAL GROUND FOUNDATION OR COMPACTED EMBANKMENT

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

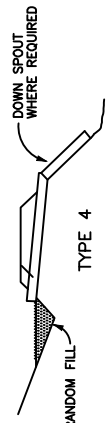
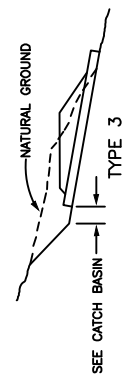
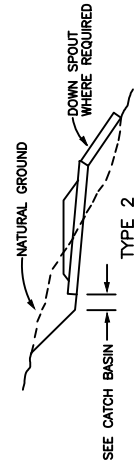
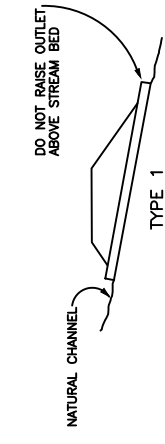
BEDDING OF CULVERTS ON SOFT SPONGY OR UNSTABLE SOIL FOUNDATION



BEDDING MATERIAL SHALL BE SHAPED TO FIT THE BOTTOM OF THE CULVERT. EARTH CUSHIONING OF SILTY CLAY LOAM OR SAND MAY BE USED IF MATERIAL CAN BE PLACED IN THE DRY CONDITION. IF THE EXCAVATION IS WET, USE GRANULAR FILL MATERIAL. MAINTAIN 8\"/>

BEDDING OF CULVERT IN SOLID ROCK OR BOULDER FOUNDATION

BEDDING OF CULVERTS

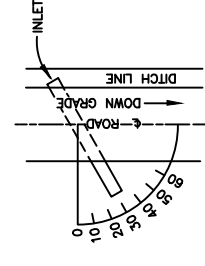


CULVERT INSTALLATION TYPES

Surfacing:

Place 20 CY crushed rock over installation unless otherwise noted in the work list.

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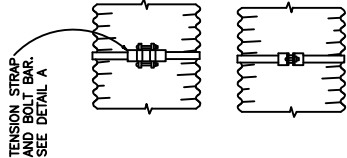
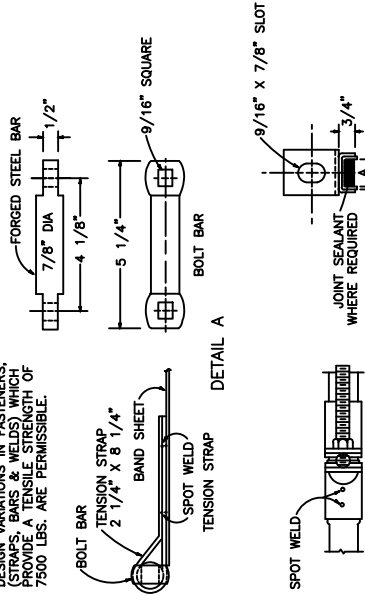
THE GRADE OF CROSSEDRAINS SHALL BE AT LEAST 2% GREATER THAN THE GRADE OF THE DITCH.

SKEW DIAGRAM

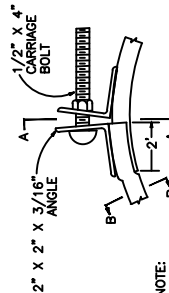
REV.	NO.	DESCRIPTION	DATE	APPROV.
		UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON		
CULVERT INSTALLATION DETAILS				
DRAWN	JAB	SCALE	NONE	
DATE	JULY 2017	SHEET	1 OF 1	
DRAWING NO.	ORM05-TS-2017-0005-C6			

EXHIBIT C-7
SHEET 1 OF 1
SHADY ELK T.S.

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

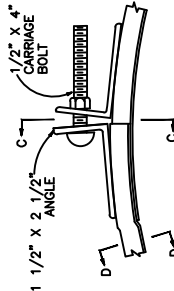


DIMENSIONS IN INCHES	
T	A
.079	3/4
.109	1
	1.38 OR HEAVIER

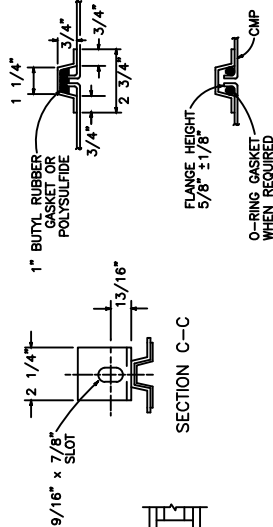


NOTE:
AS AN ALTERNATE TO SWEDGE, AN
OVERSIZE BRIDGE CLIP MAY BE USED.

CHANNEL
BAND
COUPLER



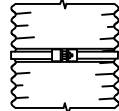
FLANGED END COUPLER



SECTION C-C

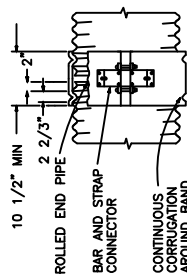
SECTION D-D

SHOWN WITH ALTERNATE TYPES
OF JOINT SEALERS



STANDARD COUPLER BANDS									
CULVERT SIZE INCHES	CORRUGATED					FLAT-DIMPLED			
	STD. ANNUAL WIDTH INCHES	HELI- CAL	3" X 1" WIDTH NO. OF BOLTS	6" X 1" WIDTH NO. OF BOLTS	WIDTH NO. OF BOLTS	(A)	(B)	(C)	(D)
UNDER 18	7	2	7	2	10 1/2	2	2	2	2
18 TO 54	12	3	12	3	14	3	10 1/2	2	3
OVER 54	24	5	24	5	24	4	16 1/2	4	5

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
BE MADE OF STEEL OR ALUMINUM. THE COUPLER BANDS SHALL
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 ANNUAL CORRUGATION INWARD FROM
THE END OF EACH OF THE CONDUIT SECTIONS JOINED.



WHEN DESIGNATED ON THE PLANS OR IN THE SPECIAL
PROVISIONS, GASKETS SHALL BE INSTALLED WHEN THE
HUGGER PIPE OR AN APPROVED EQUIVALENT COUPLER
BAND IS INSTALLED ON SPILLWAY, OVERSIDE OR DOWN DRAINS.

"HUGGER" COUPLER BANDS

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

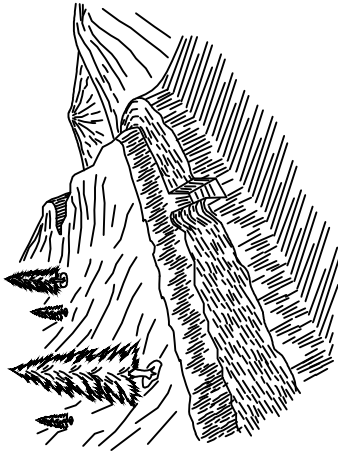
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DATA IN THIS BLOCK DOES NOT APPLY TO PERFORATED PIPE UNDERDRAIN.
FOR BANDS WITH PUNCH-OUT TYPE CONNECTIONS, 2 BOLTS ARE
PERMISSIBLE FOR EACH USE. BANDS SHALL HAVE 1/2 WIDTH ONTO EACH
SECTION OF PIPE AND MUST FULLY SURROUND THE JOINT FORMING A
NEARLY WATERTIGHT CONNECTION. SEE SECTION 400.

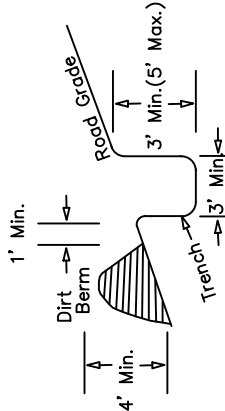
CULVERT BAND
DETAILS

DRAWN: JAB	SCALE: NONE
DATE: JULY 2017	SHEET: 1 OF 1
DRAWING NO. ORM05-TS-2017-0005-C7	

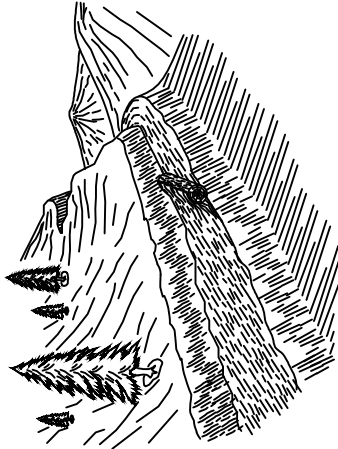
REV. NO. DESCRIPTION DATE APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT - MEDFORD, OREGON



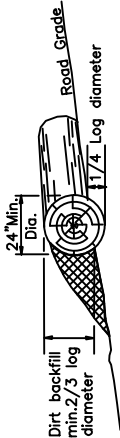
TRENCH BARRICADE



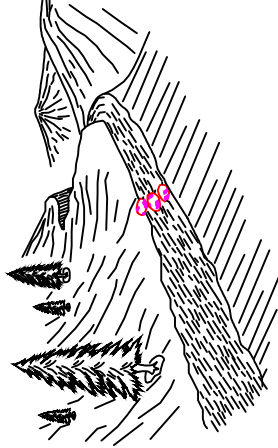
1. BARRICADE LENGTH SHALL EXTEND ACROSS THE ENTIRE ROAD SURFACE TO A POINT SUFFICIENT TO PROHIBIT MOTOR VEHICLE TRAFFIC.
2. THE EXACT LOCATION SHALL BE AS STAKED IN THE FIELD.
3. THE BARRICADE SHALL BE SKEWED AS NEEDED TO DRAIN OR AS DIRECTED BY THE AUTHORIZED OFFICERS REPRESENTATIVE.
4. A MINIMUM OF 1' IS OF LEVEL GROUND IS NEEDED BETWEEN TOE OF THE DIRT BERM AND THE EDGE OF THE TRENCH.



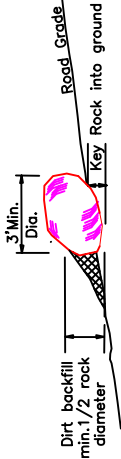
LOG BARRICADE



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".

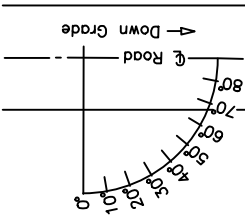


ROCK BARRICADE



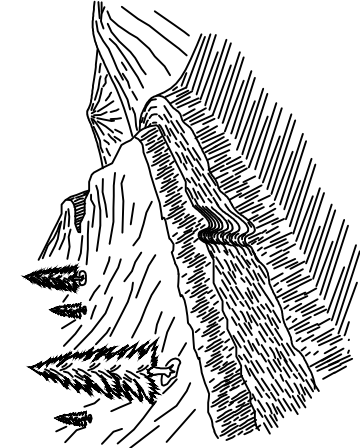
1. ROCK BARRICADE SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. THE LENGTH SHALL BE SUFFICIENT TO BLOCK ROAD FROM VEHICLE USE.
4. THE MINIMUM DIAMETER OF ROCK SHALL BE 3 FEET.
5. THE MAXIMUM SPACE BETWEEN ROCKS SHALL BE 36" OR AS APPROVED BY THE AUTHORIZED OFFICER.

SKIEW DIAGRAM

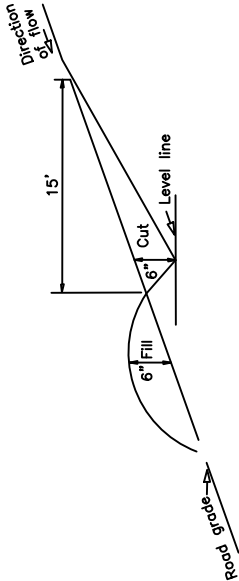


REV.	NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON				
DRAINAGE & EROSION CONTROL DETAILS				
DRAWN	JAB	SCALE	NONE	
DATE	JULY 2017	SHEET	1 OF 2	
DRAWING NO.	ORM05-TS-2017-0005-C8			

EXHIBIT C-8
SHEET 2 OF 2
SHADY ELK T.S.

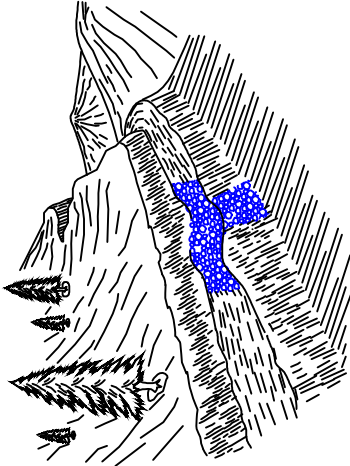
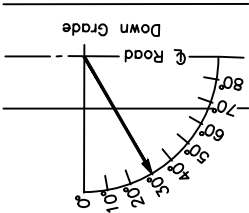


WATER BAR



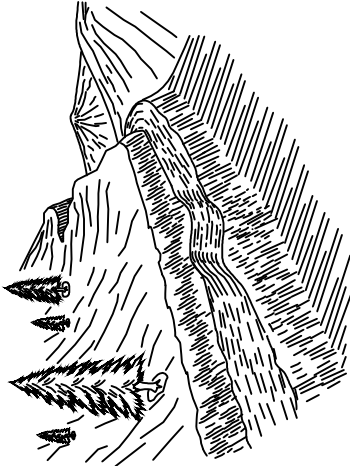
1. CROSS-DRAINS SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. ALL CROSS DRAINS SHALL BE SKEWED 30 DEGREES.
4. THE CROSS-DRAINS INVERT SHALL BE SMOOTH AND FREE DRAINING.

SKEW DIAGRAM

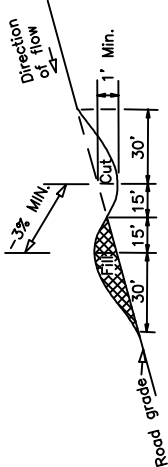


ARMORED WATER DIP

1. SEE EXHIBIT C-9 FOR ARMORED WATER DIP DETAILS.



WATER DIP



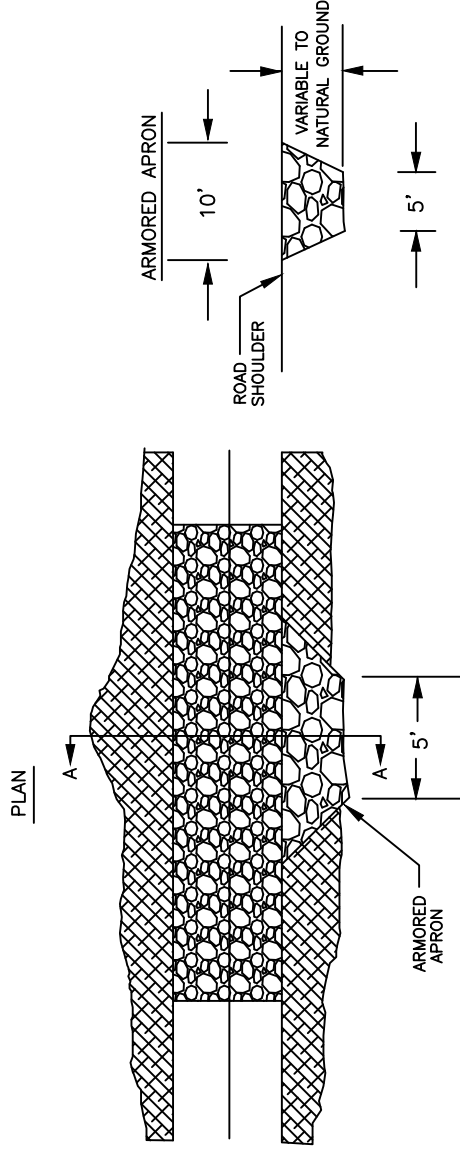
1. WATER DIPS SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. ALL WATER DIPS SHALL BE SKEWED 30 DEGREES.
4. THE LENGTH SHALL BE SUFFICIENT TO EXTEND FROM THE CUT BANK TO THE FILL SLOPE AND BE READILY CROSSED BY HIGH CLEARANCE TYPE VEHICLES.

REV.	NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR				
BUREAU OF LAND MANAGEMENT				
MEDFORD DISTRICT - MEDFORD, OREGON				
DRAINAGE & EROSION				
CONTROL DETAILS				
DRAWN	JAB	SCALE	NONE	
DATE	JULY 2017	SHEET	2 OF 2	
DRAWING NO.	ORM05-TS-2017-0005-C8			

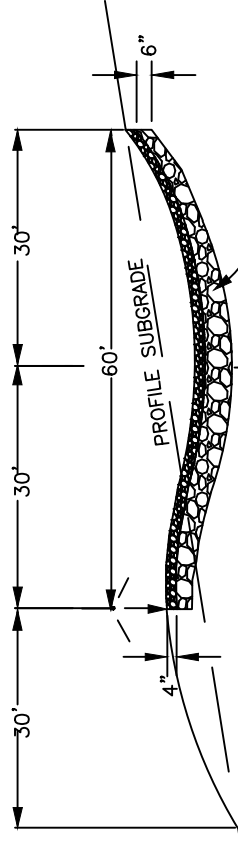
EXHIBIT C-9
SHEET 1 OF 1
SHADY ELK T.S.

TYPICAL ARMORED WATER DIP CONSTRUCTION DETAIL

PLAN

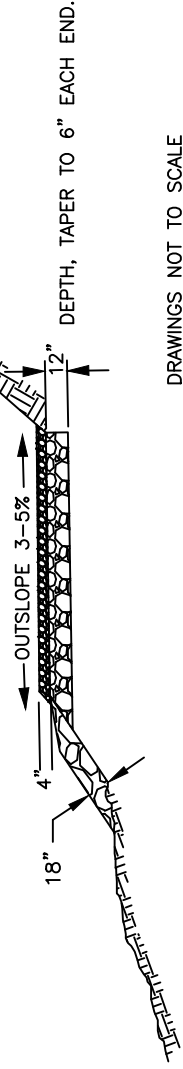


PROFILE



STATION OR MILEPOST
LOCATION

SECTION A-A



DRAWINGS NOT TO SCALE

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 MATERIAL SHALL BE UTILIZED IN CONSTRUCTION OF WATER DIP. SIDECASTING IS NOT PERMITTED.
- 6) PIT RUN ROCK MATERIAL SHALL BE PLACED ON FILL SLOPE OF 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" MINUS ROCK, ON ROADWAY AND PIT RUN AT OUTFALL.
- 9) EACH DIP ON EXISTING ROCKED ROADS SHALL BE SURFACED WITH 20 CUBIC YARDS OF 3/4" MINUS ROCK, EXTENDING AND TAPERING IN DEPTH 20' ON EACH SIDE OF THE AWD, TO MEET THE EXISTING ROAD SURFACE. NATURAL SURFACE ROADS WILL JUST USE THE 4" MINUS AGGREGATE.

LEGEND



CUT/FILL SLOPES



SUBGRADE ARMOR MATERIAL
(4" minus)



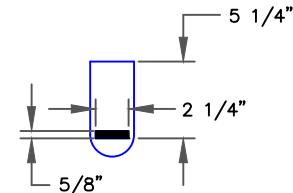
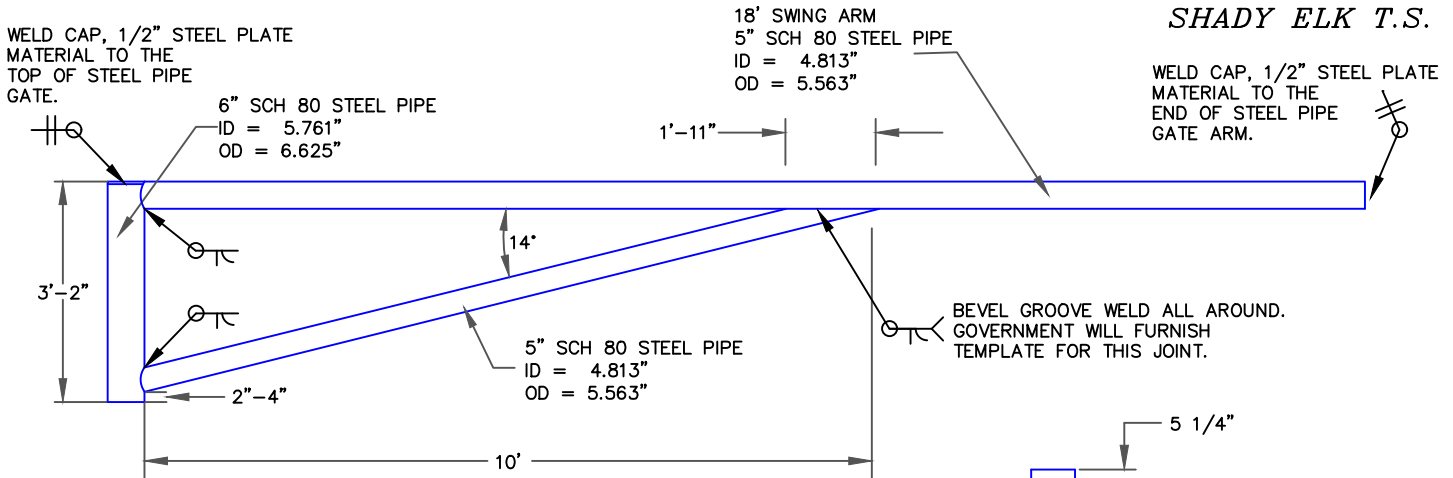
FILL SLOPE ARMOR MATERIAL PIT RUN
OR OTHER APPROVED MATERIAL.



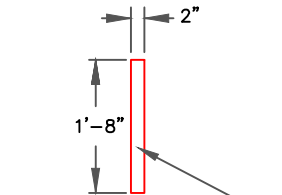
SURFACE COURSE AGGREGATE
(3/4" minus - from BLM Stockpiles)

REV. NO.	DESCRIPTION	DATE	APPROV.
	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON		
ARMORED WATER DIP DETAILS			
DRAWN	JAB	SCALE	NONE
DATE	JULY 2017	SHEET	1 OF 1
DRAWING NO.	ORM05-TS-2017-0005-C9		

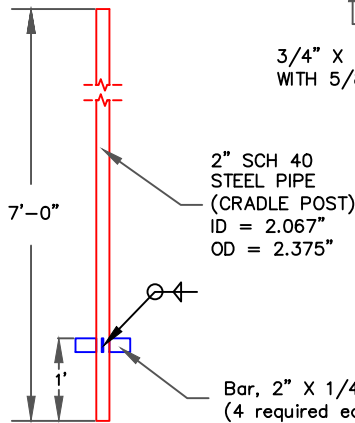
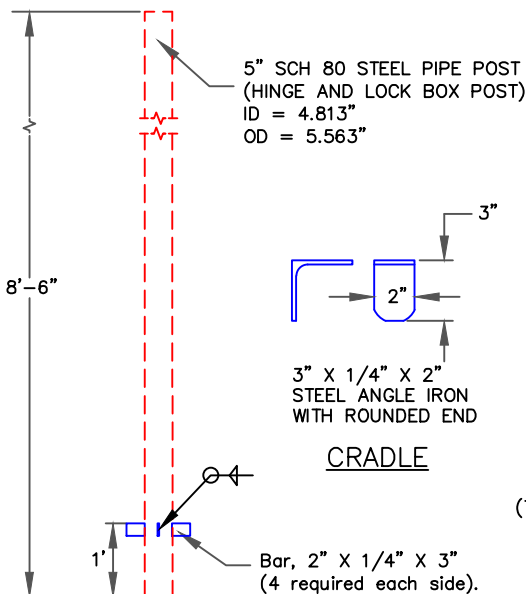
EXHIBIT C-10
SHEET 1 OF 1
SHADY ELK T.S.



GATE PIN

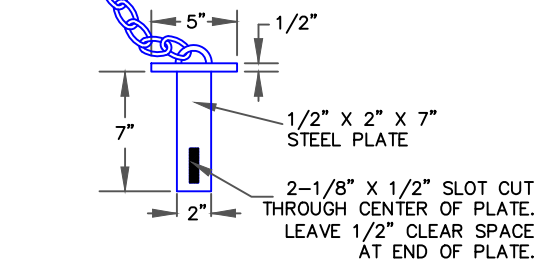


LOCK BOX BARS



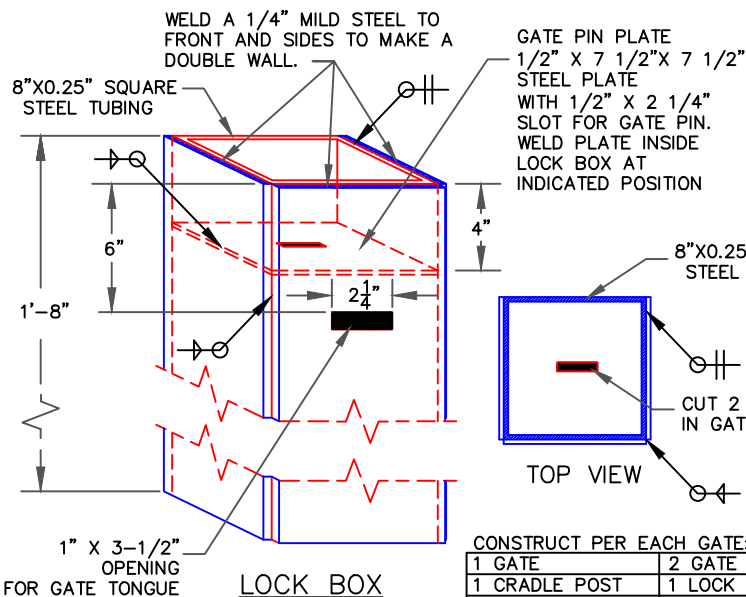
(To secure gate in open position)

THE LOCKING PIN SHALL BE WELDED TO THE LOCK BOX WITH A 3/8" Ø GALV. PROOF-COIL CHAIN X 2' LONG



GATE PIN DETAIL

THE ENTIRE ASSEMBLY, INCLUDING GATE, POSTS, LOCKBOX AND LOCKING PIN SHALL BE CLEANED AND GIVEN ONE COAT OF RUST-OLEUM #7769 METAL PRIMER OR EQUIVALENT.

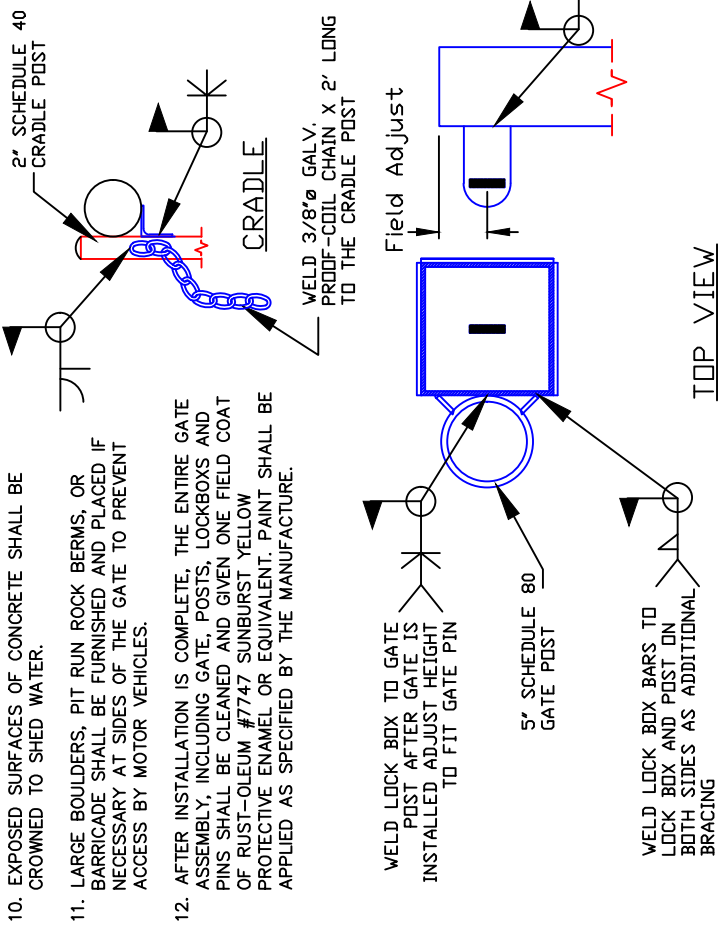
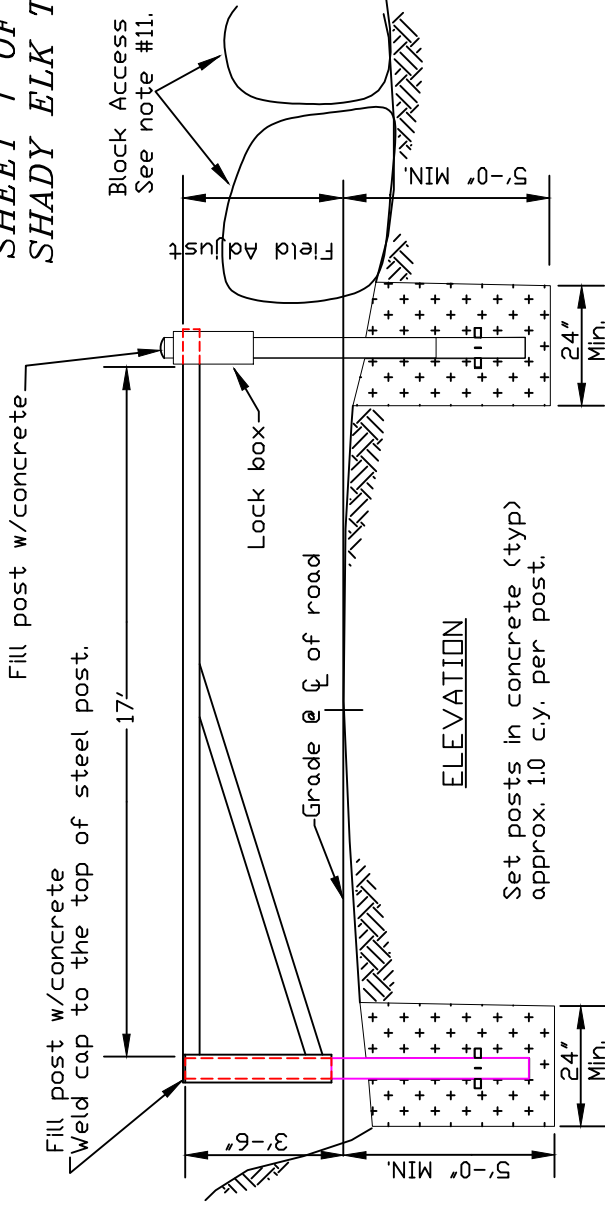


CONSTRUCT PER EACH GATE:

1 GATE	2 GATE POSTS
1 CRADLE POST	1 LOCK BOX W/ PIN & CHAIN
2 LOCK BOX BARS	1 GATE PIN
1 CRADLE	1 3/8" Ø X 2' GALV. CHAIN

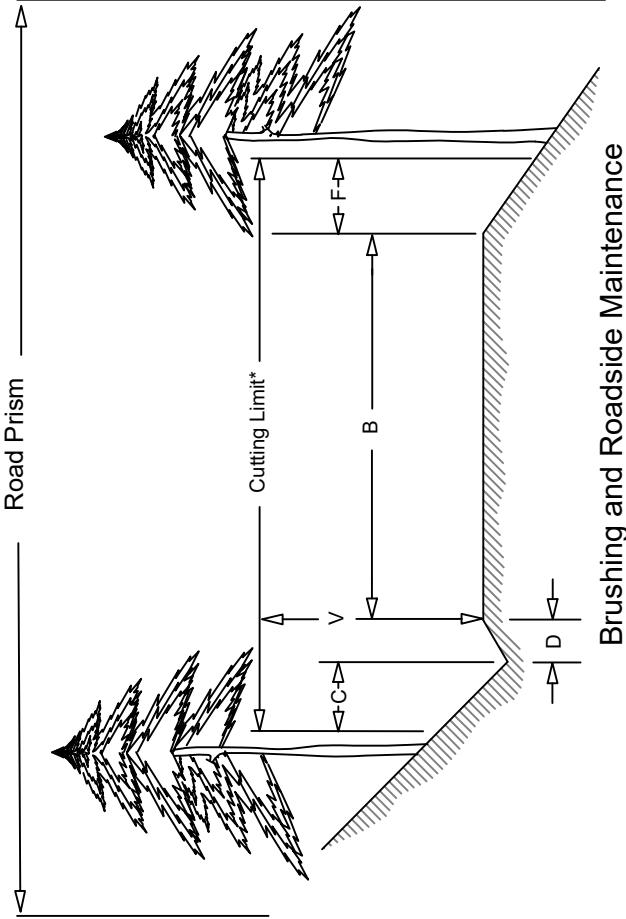
REV. NO.	DESCRIPTION	DATE	APPROV.
	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON		
STEEL PIPE GATE FABRICATION			
DRAWN	JAB	SCALE	NONE
DATE	JULY 2017	SHEET	1 OF 1
DRAWING NO.	DRM05-TS-2017-0005-C10		

EXHIBIT C-11
SHEET 1 OF 1
SHADY ELK T.S.



- NOTES:
- PRIOR TO INSTALLATION, ANY BARE METAL SHALL BE CLEANED AND GIVEN ONE COAT OF RUST-OLEUM #7769 METAL PRIMER OR EQUIVALENT.
 - PRIOR TO FIELD INSTALLATION, FINAL GATE LOCATION SHALL BE DETERMINED OR APPROVE BY THE GOVERNMENT.
 - POST HOLES WALLS SHALL BE NEAR VERTICAL AS SHOWN. CONSTRUCTION BY BACK HOE IS NOT PERMITTED.
 - GATE, POSTS AND LOCKBOXES SHALL BE INSTALLED AS SHOWN. POSTS SHALL BE SET PLUMB IN THE CONCRETE AND GATE SHALL HANG STRAIGHT AND LEVEL.
 - GATE UNIT SHALL BE INSTALLED WITH HINGED SECTION ON THE CUTSLOPE SIDE OF THE ROAD UNLESS OTHERWISE DIRECTED THE GOVERNMENT.
 - GATE SHALL BE INSTALLED TO OPEN IN THE DIRECTION SPECIFIED BY THE GOVERNMENT.
 - FIELD WELDS SHALL BE SLAGGED AND CLEANED.
 - CONCRETE SHALL BE 3000 PSI MINIMUM. CURE TIME: ALLOW CONCRETE TO CURE A MINIMUM OF 72 HOURS BEFORE PERFORMING OTHER WORK ON POSTS.
 - EXPOSED SURFACES OF CONCRETE SHALL BE CROWNED TO SHED WATER.
 - LARGE BOULDERS, PIT RUN ROCK BERMS, OR BARRICADE SHALL BE FURNISHED AND PLACED IF NECESSARY AT SIDES OF THE GATE TO PREVENT ACCESS BY MOTOR VEHICLES.
 - AFTER INSTALLATION IS COMPLETE, THE ENTIRE GATE ASSEMBLY, INCLUDING GATE, POSTS, LOCKBOXES AND PINS SHALL BE CLEANED AND GIVEN ONE FIELD COAT OF RUST-OLEUM #7747 SUNBURST YELLOW PROTECTIVE ENAMEL OR EQUIVALENT. PAINT SHALL BE APPLIED AS SPECIFIED BY THE MANUFACTURE.

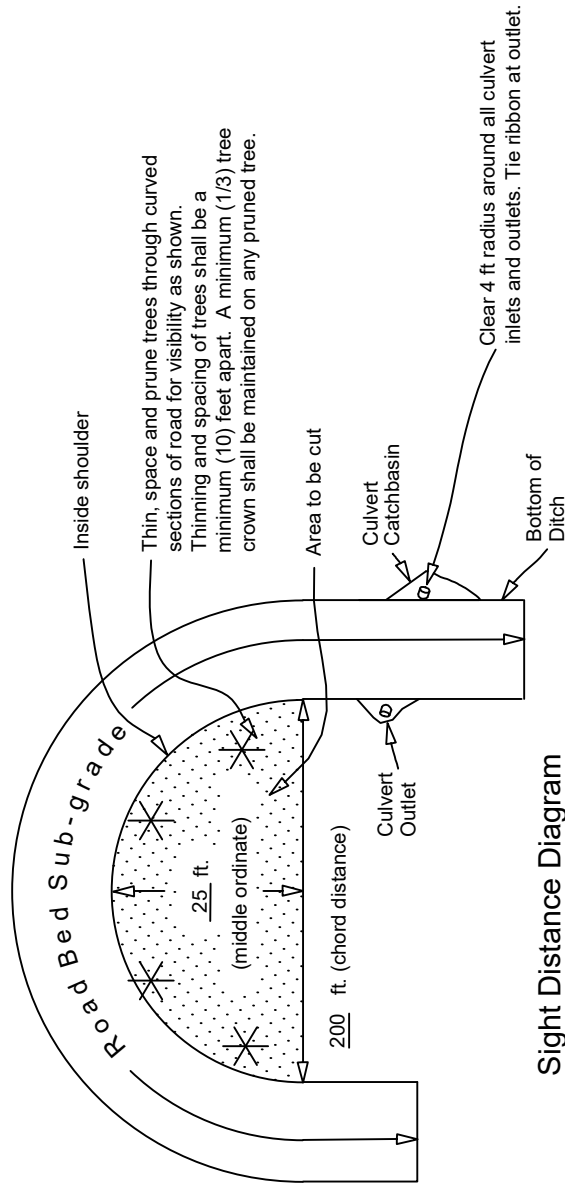
REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
STEEL PIPE GATE INSTALLATION			
DRAWN	JAB	SCALE	NONE
DATE	JULY 2017	SHEET	1 OF 1
DRAWING NO.	DRM05-TS-2017-0005-C11		



- Cutting Limit = $C + D + B + F$
- B = Road Bed Subgrade (includes turnouts)
Cut all vegetation to max. height of 1".
- C = 4 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".
- F = 4 ft - Distance to be brushed on fill slope beyond outside shoulder
Cut all vegetation to max. height of 6".
- V = 14 ft - Height of vertical cutting limit

Brushing and Roadside Maintenance

Inside Corner



Sight Distance Diagram** Road Side Brushing**

ALWAYS
THINK
SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.

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

ROADSIDE BRUSHING DETAILS

DRAWN: JAB	SCALE: NONE
DATE: JULY 2017	SHEET: 1 OF 1
DRAWING NO. ORM05-TS-2017-0005-C12	

Road Renovation Work List

Renovation: This consists of road work to be performed on the road prior to its use. The work includes, but not limited to; blading and/or rolling the road surface, cleaning ditches where needed, 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 culvert replacements shall be capped with 20 cubic yards of government furnished ¾" minus crushed aggregate from stockpiles located on Exhibit C-2 maps. Constructed armored water dips on existing rocked roads shall be capped with 20 cubic of government furnished ¾" minus crushed aggregate from stockpiles located on Exhibit C-2 maps.

Roadside Brushing: This consists of road work to be performed on the road prior to its use. The work includes, but not limited to; brushing 4 horizontal feet from the centerline of the ditch and 4 horizontal feet from the outside shoulder of the road prism, removing brush near inlet or outlet of CMPs, removing brush, limbs, and trees along the roadway to improve sight distance. Vegetation to be cut and disposed of will generally be 6 inches in diameter at breast height or less. Disposal from roadside brushing shall be lop and scatter unless otherwise noted as chipping in the work list. In sections where road crosses through private property, conifer trees shall be pruned rather than cut down. Brush shall be cut to meet regular specifications.

Jct. – Junction	CY – Cubic Yards
AWD – Armored Water Dip	WD – Water Dip
CMP – Corrugated Metal Pipe	ASC – Aggregate Surface Course
PRR – Pit Run Rock	BST – Bituminous Surface Treatment
GRR – Grid Rolled Rock	NAT – Natural Surface Roads
DO – Ditch Out	WB – Water Bar
COE – Corps of Engineers	PVT - Private

Road 32-1E-7.01 (Hole in Rock TS Sp) ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1E-17.04. Begin road renovation and roadside brushing and chipping.
0.06	Existing culvert w/ a 10' half round downspout, cross drain.
0.12	Replace existing 18" cross drain culvert w/ a 10' half round downspout with an 18" x 34' CSP with a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.17	Existing culvert w/ a 20' full round downspout, cross drain.
0.22	Existing culvert w/ a 10' half round downspout, cross drain.
0.29	Replace existing 18" cross drain culvert w/ a 10' half round downspout with an 18" x 30' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.36	Existing culvert, cross drain.

0.39 Jct. w/ 32-1E-7.02 right. End road renovation and roadside brushing and chipping.

Road 32-1E-7.02 (Hole in Rock TS Sp)

Segment A ASC

MP **Remarks**

0.00 Jct. w/ 32-1E-7.01. Begin road renovation and roadside brushing and chipping.

0.45 Existing quarry. Existing BLM stockpile (300CY). Widen quarry floor to construct helicopter landing. Drilling and shooting may be required. Submit blast plan if drilling and shooting is required.

0.60 End segment A. End road renovation and roadside brushing and chipping.

Road 32-1E-11.00 (Sugar Pine Creek Sp)

Segment A ASC

MP **Remarks**

0.00 Jct. w/ 32-1E-23.00. Begin road renovation and roadside brushing and chipping.

0.04 Install mega gate.

0.05 Low water ford. Place ¾" BLM stockpiled rock for 100' both sides of low water ford to a width of 15 feet and a compacted depth of 6 inches.

0.07 Jct. w/ powerline road right.

0.08 Existing culvert, cross drain.

0.19 Existing culvert, draw.

0.21 Ditch out, left.

0.23 Jct. w/ un-numbered road right.

0.24 Ditch out, right.

0.35 Replace existing 18" cross drain culvert with an 18" x 40' CSP w/ a 2 cubic yard splash pad. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).

0.41 Existing culvert, cross drain.

0.50 Replace existing 18" cross drain culvert with an 18" x 30' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 with new culvert outlet 2' lower than existing culvert outlet (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).

0.66 Replace existing 18" cross drain culvert with an 18" x 40' CSP w/ a 2 cubic yard splash pad. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).

0.72 Jct. w/ 32-1E-11.01 right.

0.73 Replace existing 18" cross drain culvert with an 18" x 40' CSP w/ a 2 cubic yard splash pad. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).

0.82 Existing culvert, cross drain. End road renovation and roadside brushing and chipping.

Road 32-1E-11.02 (Hawk Point Sp)

Segment A ASC

MP **Remarks**

0.00 Jct. w/ 32-1E-13.02. Begin road renovation and roadside brushing. Existing culvert,

- cross drain.
- 0.21 Replace existing 18" cross drain culvert with an 18" x 40' CSP w/ a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 0.33 Replace existing 18" cross drain culvert w/ a 20' half round downspout with an 18" x 40' CSP. Re-use existing half round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 0.43 Replace existing 18" cross drain culvert with an 18" x 36' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 0.59 Jct. w/ 32-1E-11.03 right. End segment A. End road renovation and roadside brushing.

Road 32-1E-13.01 (Hawk Point ML)
Segment A1 ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ Elk Creek County Road. Begin road renovation and roadside brushing. Existing culvert, cross drain.
0.10	Existing culvert, cross drain.
0.16	Replace existing 18" cross drain culvert with an 18" x 32' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.20	Replace existing 18" draw culvert with a 24" x 42' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.28	Jct. w/ un-numbered road right.
0.32	Jct. w/ 32-1E-13.03 right.
0.40	Existing culvert, draw.
0.50	Existing culvert, cross drain.
0.67	Replace existing 18" cross drain culvert with a 24" x 50' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.72	Replace existing 18" cross drain culvert with a 24" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.78	Replace existing 18" cross drain culvert with an 18" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.81	Jct. w/ private road left.
0.86	Existing culvert, cross drain.
0.90	Existing culvert, cross drain.
1.11	Existing culvert, cross drain.
1.26	Existing culvert, cross drain.
1.37	Jct. w/ 32-1E-13.04 left.
1.38	Replace existing 18" cross drain culvert with an 18" x 50' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation

- Details Sheet for installation type).
- 1.43 Overhead power line.
- 1.44 Remove existing 18" cross drain culvert.
- 1.46 Install new 18" x 30' CSP at a 30° angle with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 1.53 Replace existing 18" cross drain culvert with an 18" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 1.65 Existing culvert, cross drain.
- 1.72 Replace existing 18" cross drain culvert with an 18" x 40' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 1.75 Replace existing 18" cross drain culvert with an 18" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 1.86 Replace existing 18" cross drain culvert with an 18" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 1.89 Existing culvert with a half round downspout, draw.
- 1.90 Jct. w/ 32-1E-13.06 right and jct. w/ 32-1E-13.02 left. End segment A.

Segment B ASC

MP **Remarks**

- 1.90 Continue road renovation and roadside brushing.
- 1.92 Existing private mega gate.
- 1.99 Property line. End road renovation and roadside brushing.

Un-numbered Spur Road off 32-1E-13.01 NAT

MP **Remarks**

- 0.00 Jct. w/ 32-1E-13.02. Begin road renovation and roadside brushing and chipping.
- 0.09 End road renovation and roadside brushing and chipping.

Road 32-1E-13.02 (Hawk Point TS ML)

Segment A ASC

MP **Remarks**

- 0.00 Jct. w/ 32-1E-13.01. Begin road renovation and roadside brushing.
- 0.02 Existing culvert, draw.
- 0.14 Replace existing 18" cross drain culvert with an 18" x 42' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 0.26 Existing culvert, cross drain. Cut and remove tree off culvert inlet.
- 0.35 Jct. w/ un-numbered power line road left.
- 0.40 Existing culvert, cross drain.
- 0.45 Jct. w/ un-numbered and barricaded road left.
- 0.47 Jct. w/ 32-1E-13.07 right.

- 0.49 Existing culvert, cross drain.
- 0.60 Existing culvert, cross drain.
- 0.71 Replace existing 18" cross drain culvert with an 18" x 36' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 0.83 Replace existing 18" cross drain culvert with an 18" x 46' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 0.84 Property line.
- 0.88 Property line.
- 0.90 Jct. w/ 32-1E-11.02 right. End segment A.

Segment B NAT

MP Remarks

- 0.90 Continue road renovation and roadside brushing.
- 0.91 Existing barricade. Re-establish barricade after use. Road has been previously ripped and water barred from this point on. Re-rip and water bar after use.
- 1.25 End road renovation and roadside brushing.

Un-numbered Spur Road off 32-1E-13.02 NAT

MP Remarks

- 0.00 Jct. w/ 32-1E-13.02. Begin road renovation and roadside brushing and chipping.
- 0.01 Existing barricade. Re-establish barricade after use.
- 0.09 End road renovation and roadside brushing and chipping.

Road 32-1E-13.03 ASC

MP Remarks

- 0.00 Jct. w/ 32-1E-13.01. Begin road renovation and roadside brushing.
- 0.06 Replace existing 18" draw culvert with a 24" x 34' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 0.22 Overhead power line.
- 0.28 Jct. w/ un-numbered road left. Existing culvert, cross drain.
- 0.34 Replace existing 18" cross drain culvert with an 18" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 0.42 End road renovation and roadside brushing.

Un-numbered Spur Road off 32-1E-13.03 NAT

MP Remarks

- 0.00 Jct. w/ 32-1E-13.03. Begin road renovation and roadside brushing.
- 0.03 Overhead power line.
- 0.14 Overhead power line.
- 0.52 End road renovation and roadside brushing.

Road 32-1E-13.04 (Mule Hill TS SP)

Segment A ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1E-13.01. Begin road renovation and roadside brushing.
0.06	Existing culvert, cross drain.
0.10	Jct. w/ 32-1E-13.05 left.
0.26	End segment A. Existing Pacific Power gate. End road renovation and roadside brushing.

Road 32-1E-13.05 (Mule Hill TS Sp) ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1E-13.04. Begin road renovation and roadside brushing.
0.09	End road renovation and roadside brushing.

Road 32-1E-13.06 (Mule Hill TS Sp) ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1E-13.01. Begin road renovation and roadside brushing.
0.15	End road renovation and roadside brushing.

Road 32-1E-13.07 (Mule Hill TS Sp) ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1E-13.02. Begin road renovation and roadside brushing.
0.27	End road renovation and roadside brushing.

Road 32-1E-17.04 (White Rock ML)

Segment A ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1E-20.00. Begin road renovation and roadside brushing.
0.02	Replace existing 18" draw culvert with a 24" x 50' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.07	Existing culvert, cross drain.
0.15	Existing culvert, cross drain.
0.22	Replace existing 18" cross drain culvert w/ a 20' half round downspout with an 18" x 30' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.31	Existing culvert, cross drain.
0.38	Existing culvert, cross drain.
0.46	Existing culvert, cross drain.
0.55	Existing culvert, cross drain.
0.64	Existing culvert, cross drain.
0.70	Jct. w/ 32-1E-17.08 right.
0.75	Jct. w/ 32-1E-17.05 left. End segment A. End road renovation and roadside brushing.

Road 32-1E-17.05 (White Rock ML)

Segment A1 ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1E-17.04. Begin road renovation and roadside brushing.
0.04	Jct. w/ 32-1E-17.06 left.
0.08	Replace existing 18" cross drain culvert with an 18" x 30' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.14	Existing culvert, cross drain.
0.22	Existing culvert, cross drain.
0.32	Existing culvert, cross drain.
0.38	Property line. End segment A1.

Segment A2 ASC

<u>MP</u>	<u>Remarks</u>
0.38	Continue road renovation and roadside brushing.
0.65	Existing culvert, cross drain.
0.85	Jct. w/ 32-1E-7.01 left. Existing culvert, cross drain. End segment A2. End road renovation and roadside brushing.

Road 32-1E-18.00 (Ragsdale Sp)

Segment A ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1E-27.00. Begin road renovation and roadside brushing.
0.11	Replace existing 18" cross drain culvert with a 24" x 36' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.26	Existing culvert, draw.
0.30	Jct. w/ 32-1E-18.01 left.
0.31	Existing culvert, cross drain.
0.32	Concrete bridge.
0.49	Existing culvert, cross drain.
0.55	Place 30 cubic yards of crushed rock to smooth road surface.
0.61	Replace existing 24" draw culvert with a 42" x 36' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.63	Property line. End segment A.

Segment B ASC

<u>MP</u>	<u>Remarks</u>
0.63	Continue road renovation and roadside brushing.
0.75	Jct. w/ 32-1W-13.00 right. End road renovation and roadside brushing.

Road 32-1E-20.00 (Gobblers Knob)

Segment A (Private) ASC

<u>MP</u>	<u>Remarks</u>
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0.00 Jct. w/ 32-1E-27.00. Begin road renovation and roadside brushing.
0.08 Existing culvert, cross drain.
0.19 Existing culvert, cross drain.
0.27 Existing culvert, cross drain.
0.42 Jct. w/ 32-1E-20.04 right.
0.56 Existing culvert, draw.
0.58 Property line. End segment A.

Segment B ASC

MP **Remarks**

0.58 Continue road renovation and roadside brushing.
0.64 Existing culvert, draw.
0.69 Existing culvert, draw.
0.79 Existing culvert, cross drain.
0.90 Jct. w/ 32-1E-17.00 right (barricaded).
0.97 Existing culvert, draw.
1.05 Jct. w/ 32-1E-17.02 left (barricaded).
1.06 Jct. w/ 32-1E-17.03 right (barricaded).
1.18 Existing culvert, cross drain.
1.30 Existing culvert, cross drain.
1.52 Existing culvert, cross drain.
1.64 Jct. w/ 32-1E-17.01 left (barricaded).
1.65 Jct. w/ 32-1E-17.07 right.
1.66 Existing culvert, cross drain.
1.78 Existing culvert, cross drain.
1.86 Existing culvert, cross drain.
2.02 Jct. w/ 32-1E-17.04 right. End segment B. End road renovation and roadside brushing.

Road 32-1E-23.00 (Sugar Pine – Timber Creek)

Segment A BST

MP **Remarks**

0.00 Jct. w/ 32-1E-28.00. Begin cleaning ditches where needed, cleaning culvert inlets and outlets, and roadside brushing and chipping. Haul waste material from ditch and culvert cleaning to the waste disposal site at milepost 1.80 or where approved by the Authorized Officer.
0.01 Existing culvert, cross drain.
0.02 Existing cattle guard.
0.14 Jct. w/ spur left. Existing culvert, cross drain.
0.19 Driveway right.
0.21 Driveway right.
0.33 Jct. w/ spur left. Existing culvert, cross drain.
0.36 Driveway right.
0.44 Existing culvert, cross drain.
0.54 Existing culvert, cross drain.
0.59 Existing culvert, draw.
0.60 Driveway right.

- 0.81 Existing culvert, cross drain.
- 0.93 Existing culvert, cross drain.
- 1.06 Existing culvert, cross drain.
- 1.07 Driveway right.
- 1.12 Existing culvert, draw.
- 1.14 Existing culvert, draw.
- 1.19 Existing culvert, cross drain.
- 1.30 Driveway right.
- 1.31 Existing culvert, draw.
- 1.36 Jct. w/ 32-1E-11.00 right. End cleaning ditches where needed, cleaning culvert inlets and outlets, and roadside brushing and chipping.
- 1.80 Waste disposal site.

Road 32-1E-27.00 (Flat Creek)

Segment A BST/ASC

MP Remarks

- 0.00 Jct. w/ Elk Creek County Road. Begin roadside brushing and chipping.
- 0.02 Existing culvert, cross drain.
- 0.08 Jct. w/ private road right.
- 0.13 Existing culvert, cross drain.
- 0.25 Jct. w/ driveway left and jct. w/ private road right.
- 0.36 Private mega gate. Begin road renovation. End chipping.
- 0.41 Existing culvert, cross drain.
- 0.47 End BST – Begin ASC.
- 0.48 Existing culvert, cross drain.
- 0.55 Existing culvert, cross drain.
- 0.60 Existing culvert, cross drain.
- 0.67 Existing culvert, draw.
- 0.73 Existing culvert, cross drain. End segment A.

Segment B (Private) ASC

MP Remarks

- 0.14 Continue road renovation and roadside brushing.
- 0.78 Existing culvert, cross drain.
- 0.85 Existing culvert, cross drain.
- 0.95 Existing culvert, cross drain.
- 0.98 Existing culvert, cross drain.
- 1.05 Existing culvert, cross drain.
- 1.11 Existing culvert, cross drain.
- 1.14 Existing culvert, draw.
- 1.28 Existing culvert, draw.
- 1.29 Jct. w/ 32-1E-28.00 right.
- 1.37 Existing culvert, cross drain.
- 1.41 Existing culvert, cross drain.
- 1.43 Property line. End segment B.

Segment C ASC

MP **Remarks**

- 1.43 Continue road renovation and roadside brushing.
- 1.46 Property line. End segment C.

Segment D (Private) ASC

MP **Remarks**

- 1.46 Continue road renovation and roadside brushing.
- 1.63 Existing culvert, cross drain.
- 1.65 Jct. w/ 32-1E-20.01 left.
- 1.79 Existing culvert, draw.
- 1.84 Existing culvert, cross drain.
- 2.18 Existing culvert, cross drain.
- 2.21 Jct. w/ 32-1E-20.00 right.
- 2.25 Existing culvert, cross drain.
- 2.30 Existing culvert, draw.
- 2.40 Existing culvert, cross drain.
- 2.52 Existing culvert, cross drain.
- 2.68 Existing culvert, cross drain.
- 2.77 End segment D.

Segment E ASC

MP **Remarks**

- 2.77 Continue road renovation and roadside brushing.
- 2.78 Bridge.
- 2.88 Existing culvert, cross drain.
- 3.00 Existing culvert, draw.
- 3.04 Replace existing 18" cross drain culvert with a 24" x 36' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 3.14 Existing culvert, cross drain.
- 3.27 Existing culvert, draw.
- 3.33 Replace existing 18" cross drain culvert with an 18" x 34' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type). Culvert outlet ditch shall be cleaned for 40' to drain water away from culvert outlet.
- 3.46 Existing culvert, cross drain.
- 3.57 Existing culvert, cross drain.
- 3.62 Jct. w/ 32-1E-18.00 left. End road renovation and roadside brushing.

Road 32-1E-36.00 (East Fork Dodes Creek)

Segment A3 (Private) NAT

MP **Remarks**

- 0.00 Jct. w/ 33-2E-5.00. Begin road renovation and roadside brushing.
- 0.09 Jct. w/ 32-2E-32.00 right. Construct helicopter landing. End road renovation and roadside brushing.

Road 32-1W-12.00 (County Line TS Spur Left) ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1W-13.00. Begin road renovation and roadside brushing. Use rock for culvert replacements from BLM pit run stockpile at milepost 0.53.
0.05	Existing culvert, cross drain.
0.22	Existing culvert, cross drain.
0.32	Replace existing 18" draw culvert with a 24" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.39	Replace existing 18" cross drain culvert with an 18" x 30' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.46	Replace existing 18" draw culvert with a 36" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.47	Begin placing pit run rock to a width of 15' and compacted depth of 6" to shore up surface.
0.53	End placing pit run rock. Existing BLM stockpile of pit run rock (300CY).
0.54	Jct. w/ 32-1W-12.03 right (overgrown).
0.60	Jct. w/ 32-1W-12.01 right.
0.65	Replace existing 18" cross drain culvert with an 18" x 32' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.82	Replace existing 18" draw culvert with a 24" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 with new culvert outlet 3' lower than existing culvert outlet (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.89	Replace existing 18" cross drain culvert with an 18" x 36' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 2 with new culvert outlet 2' lower than existing culvert outlet (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
1.04	Replace existing 18" cross drain culvert with an 18" x 32' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
1.14	Jct. w/ 32-1W-12.02 left.
1.16	Replace existing 18" cross drain culvert with an 18" x 30' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
1.30	Replace existing 18" cross drain culvert with an 18" x 30' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
1.31	Jct. w/ 32-1W-13.03 left.
1.40	Replace existing 18" cross drain culvert with an 18" x 30' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation

- Details Sheet for installation type).
- 1.54 Existing quarry left. Lower road grade approximately 8'. Use material from lowering road grade to construct helicopter landing within quarry limits. Drilling and shooting may be required. Submit blast plan if drilling and shooting is required.
- 1.82 Existing culvert, cross drain.
- 2.05 Existing culvert, cross drain.
- 2.07 End road renovation and roadside brushing.

Road 32-1W-12.01 (County Line TS Spur Right) ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1W-12.00. Begin road renovation and roadside brushing and chipping. Use rock for culvert replacements from BLM pit run stockpile at milepost 0.53 on BLM Road #32-1W-12.00. Replace existing 18" cross drain culvert with a 24" x 50' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.08	Replace existing 18" cross drain culvert with an 18" x 30' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.25	Install new 24" x 50' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.28	Existing culvert, draw.
0.38	Replace existing 18" cross drain culvert with an 18" x 30' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.49	Replace existing 18" cross drain culvert with an 18" x 28' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.57	Replace existing 18" cross drain culvert with an 18" x 34' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.65	Jct. w/ 32-1W-11.01 right. End road renovation and roadside brushing and chipping.

Road 32-1W-13.00 (County Line TS Mainline)
Segment A ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1E-18.00. Begin road renovation and roadside brushing and chipping.
0.08	Existing culvert, cross drain.
0.29	Replace existing 24" draw culvert with a 36" x 60' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.34	Existing culvert, cross drain.
0.39	Property line.
0.49	Replace existing 18" cross drain culvert with an 18" x 50' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).

- 0.61 Jct. w/ 32-1E-18.03 left.
0.62 Replace existing 18" cross drain culvert with an 18" x 38' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
0.93 Property line. End segment A.

Segment B ASC

MP **Remarks**

- 0.93 Continue road renovation and roadside brushing and chipping.
0.95 Existing quarry left.
0.99 Existing culvert, cross drain.
1.12 Replace existing 18" cross drain culvert with an 18" x 40' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
1.15 Property line.
1.29 Replace existing 18" cross drain culvert with an 18" x 36' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
1.50 Replace existing 18" draw culvert with a 24" x 44' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
1.60 Existing culvert, cross drain.
1.74 Replace existing 18" cross drain culvert with an 18" x 40' CSP with a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
1.92 Install new 24" x 40' CSP w/ a 20' full round downspout. Culvert installation shall be a Type 2 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type). Excavate approximately 20 cubic yards of unsuitable material where hole has formed in road and replace with suitable material from quarry located at milepost 0.95.
1.95 Jct. w/ 32-1W-12.00 left. End road renovation and roadside brushing and chipping.

Road 32-1W-23.02 (Wild Lily)

Segment A ASC

MP **Remarks**

- 0.00 Jct. w/ 32-1W-26.00. Begin road renovation and roadside brushing.
0.06 Existing culvert, cross drain.
0.15 Jct. w/ 32-1W-23.06 left.
0.16 Existing culvert, cross drain. Jack culvert inlet open. Culvert outlet ditch shall be cleaned for 25' to drain water away from culvert outlet.
0.18 Existing culvert, cross drain.
0.27 Existing culvert, cross drain.
0.36 Existing culvert, draw.
0.46 Existing culvert, cross drain.
0.50 Existing culvert w/ a 20' half round downspout, cross drain.
0.66 Existing culvert, cross drain.
0.75 Existing culvert, cross drain.

- 0.83 Existing culvert, draw.
0.89 Property line. End road renovation and roadside brushing.

Road 32-1W-26.00 (North Mainline – West Branch Elk Creek)
Segment A ASC

MP **Remarks**

- 0.00 Jct. w/ 33-1E-17.00. Begin road renovation and roadside brushing.
0.01 Existing culvert, draw.
0.02 Jct. w/ 32-1W-26.02 left.
0.03 Existing culvert, draw.
0.07 Existing culvert, cross drain.
0.16 Jct. w/ 32-1W-26.08 right.
0.27 Existing culvert, draw.
0.28 Jct. w/ 32-1W-26.03 right. End segment A.

Segment B ASC

MP **Remarks**

- 0.28 Continue road renovation and roadside brushing.
0.34 Existing culvert, cross drain.
0.37 Existing culvert, draw.
0.50 Existing culvert, draw.
0.55 Existing culvert, cross drain.
0.60 Existing culvert, cross drain.
0.64 Existing culvert, cross drain.
0.66 Excavate unsuitable material and replace with Class III rip rap material from the BLM quarry located at milepost 2.26. Haul unsuitable material to waste disposal site located at milepost 1.75. Excavation dimensions are approximately 15' deep, 50' in length along the road, and 7' into the road surface. Compaction of rip rap material shall be by running tracked equipment across site in layers. Road repair shall have crushed aggregate placed on surface of road for 150' over excavation, 15' wide, and to a compacted depth of 6". Crushed aggregate can be obtained from a BLM stockpile located at milepost 2.26.
0.68 Existing culvert, cross drain.
0.73 Existing culvert, draw.
0.77 Existing culvert, cross drain.
0.82 Existing culvert, cross drain.
0.94 Existing culvert, cross drain.
1.04 Jct. w/ 32-1W-26.04 right.
1.07 Existing culvert, cross drain.
1.11 Property line. End segment B.

Segment C ASC

MP **Remarks**

- 1.11 Continue road renovation and roadside brushing.
1.15 Existing culvert, draw.
1.20 Existing culvert, cross drain.
1.25 Existing culvert, draw.
1.31 Existing culvert, draw.
1.38 Existing culvert with a 10' half round downspout, cross drain.

1.50 Existing culvert, draw.
1.52 Existing culvert, cross drain.
1.65 Existing culvert, cross drain.
1.75 Jct. w/ 32-1W-23.00 left. Existing BLM stockpile (100CY).
1.76 Existing culvert, cross drain.
1.94 Existing culvert, draw.
2.07 Existing culvert, cross drain.
2.16 Existing culvert, cross drain.
2.25 Existing culvert, draw.
2.26 Jct. w/ 32-1W-23.04 right. Existing quarry. Existing BLM stockpile (400CY).
2.36 Existing culvert, cross drain.
2.46 Existing culvert, cross drain.
2.55 Existing culvert, cross drain.
2.66 Jct. w/ 32-1W-23.02 right. Existing culvert, draw. End segment C. End road renovation and roadside brushing.

Road 32-1W-26.04 (Alco Rock)

Segment A (Private) ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1W-26.00. Begin road renovation and roadside brushing and chipping.
0.02	Private mega gate.
0.10	Existing culvert, cross drain.
0.25	Existing culvert, cross drain.
0.42	Jct. w/ 32-1W-26.05 right. End road renovation and roadside brushing and chipping.

Road 32-1W-26.05 (Alco Honey Bee Sp)

Segment A ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1W-26.04. Begin road renovation and roadside brushing and chipping.
	Existing culvert, cross drain.
0.22	Existing culvert, cross drain.
0.29	Existing culvert, cross drain.
0.32	Existing culvert, draw.
0.43	Existing culvert, cross drain.
0.57	Jct. w/ 33-1E-4.00 right.
0.60	Existing BLM stockpile (100CY). Jct. w/ 33-1E-4.00 left. End road renovation and roadside brushing and chipping.

Road 32-1W-27.01 (Blue Chip Quarry Road) ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 33-1W-10.00. Begin road renovation and roadside brushing. Existing culvert, cross drain.
0.10	Existing culvert, cross drain.
0.14	Jct. w/ 32-1W-27.02.
0.18	Existing culvert, cross drain.

- 0.29 Existing quarry.
- 0.38 End road renovation and roadside brushing.

Road 32-1W-35.02 (Oliver Springs Sp) ASC

MP Remarks

- 0.00 Jct. w/ 33-1W-10.00. Begin road renovation and roadside brushing.
- 0.23 Existing culvert, cross drain.
- 0.26 Jct. w/ 32-1W-35.07 right. End road renovation and roadside brushing.

Road 32-1W-35.07 (Sawed Off Sp)

Segment A ASC

MP Remarks

- 0.00 Jct. w/ 32-1W-35.02. Begin road renovation and roadside brushing.
- 0.11 Existing BLM stockpile (750CY).
- 0.12 End road renovation and roadside brushing.

Road 32-1W-36.01 (Middle Creek Ridge) ASC

MP Remarks

- 0.00 Jct. w/ 33-1E-4.00. Begin road renovation and roadside brushing.
- 0.02 Existing culvert, cross drain.
- 0.09 Existing culvert, cross drain.
- 0.17 Property line.
- 0.19 Existing culvert, cross drain.
- 0.32 Existing culvert, cross drain.
- 0.37 Existing culvert, cross drain.
- 0.45 Construct helicopter landing. Use cut material as fill material to level out landing on both sides of road. Compact fill material. Use 50CY of BLM stockpile rock from milepost 0.47 to surface landing.
- 0.47 Existing BLM stockpile (50CY).
- 0.59 Existing culvert, cross drain.
- 0.66 Existing culvert, cross drain.
- 0.76 Existing culvert, cross drain.
- 0.86 Existing culvert with a 20' half round downspout, cross drain.
- 0.98 Existing culvert, cross drain.
- 1.19 Existing culvert, cross drain.
- 1.37 Jct. w/ un-numbered road left (barricaded).
- 1.49 End road renovation and roadside brushing.

Road 32-2E-34.00 (Flounce Rock)

Segment A ASC

MP Remarks

- 0.00 Jct. w/ Ulrich County Road. Begin road renovation and roadside brushing.
- 0.01 Replace existing 18" cross drain culvert with an 18" x 36' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 0.03 "Y" Jct. w/ Ulrich County Road right.

- 0.08 Replace existing 18" cross drain culvert with an 18" x 44' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 0.17 Existing culvert, draw.
- 0.29 Existing culvert, cross drain. End segment A.

Segment B ASC

MP **Remarks**

- 0.29 Continue road renovation and roadside brushing.
- 0.39 Existing culvert, draw.
- 0.43 Existing culvert, draw.
- 0.55 Replace existing 18" cross drain culvert with a 24" x 38' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 0.74 Existing culvert, cross drain.
- 0.81 End segment B.

Segment C ASC

MP **Remarks**

- 0.81 Continue road renovation and roadside brushing.
- 0.85 Replace existing 18" cross drain culvert with a 24" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 0.91 Existing culvert, draw.
- 0.93 Jct. w/ pump chance road left. Pump chance left.
- 1.11 Replace existing 30" cross drain culvert with a 36" x 42' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 1.32 Replace existing 18" cross drain culvert with a 30" x 42' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 1.45 Replace existing 36" cross drain culvert with a 42" x 38' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 1.63 Jct. w/ 32-2E-33.01 left (barricaded).
- 1.70 Jct. w/ 32-2E-33.03 right.
- 1.88 Replace existing 18" cross drain culvert with a 30" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 2.24 Jct. w/ 32-2E-33.02 right (barricaded).
- 2.38 Replace existing 18" cross drain culvert with an 18" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 2.74 Replace existing 18" cross drain culvert with an 18" x 34' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 2.93 Replace existing 18" cross drain culvert with an 18" x 40' CSP with a 2 cubic yard splash

- pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 3.01 Replace existing 18" cross drain culvert with an 18" x 36' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 3.10 End segment C.

Segment D ASC

MP **Remarks**

- 3.10 Continue road renovation and roadside brushing.
- 3.19 Existing culvert, draw.
- 3.28 Jct. w/ 32-2E-33.00 left.
- 3.62 Existing culvert, cross drain.
- 3.79 Replace existing 18" cross drain culvert with an 18" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 3 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 3.80 Jct. w/ 33-2E-5.00 right. End segment D. End road renovation and roadside brushing.

Road 33-1E-4.00 (Alco Creek)

Segment G1 ASC

MP **Remarks**

- 0.00 Jct. w/ 32-1W-26.05. Begin road renovation and roadside brushing.
- 0.21 Existing culvert, cross drain.
- 0.31 Existing culvert, cross drain.
- 0.41 Existing culvert, cross drain.
- 0.51 Existing culvert, cross drain.
- 0.62 Existing culvert, cross drain.
- 0.63 Jct. w/ 32-1W-25.03 left (barricaded).
- 0.74 Existing culvert, cross drain.
- 0.78 Property line. End segment G1.

Segment F (Private) ASC

MP **Remarks**

- 0.78 Continue road renovation and roadside brushing.
- 0.84 Existing culvert, cross drain.
- 0.92 Property line. End segment F.

Segment E ASC

MP **Remarks**

- 0.92 Continue road renovation and roadside brushing.
- 1.02 Existing culvert, cross drain.
- 1.16 Existing culvert, cross drain.
- 1.26 Existing culvert, cross drain.
- 1.36 Existing culvert, cross drain.
- 1.40 Jct. w/ 32-1W-25.02 left.
- 1.54 Existing culvert, draw.
- 1.60 Existing culvert, cross drain.
- 1.65 Existing culvert, cross drain.

- 1.84 Existing culvert, cross drain.
- 1.88 Existing culvert, cross drain.
- 1.94 Property line. End segment E.

Segment D (Private) ASC

MP Remarks

- 1.94 Continue road renovation and roadside brushing.
- 1.97 Existing culvert, cross drain.
- 2.06 Existing culvert, cross drain.
- 2.13 Jct. w/ 32-1W-36.01 left. End road renovation and roadside brushing.

Road 33-1E-17.00 (West Branch Elk Creek)

Segment A BST

MP Remarks

- 0.00 Jct. w/ Elk Creek County Road. Begin cleaning ditches where needed, cleaning culvert inlets and outlets, and roadside brushing. Haul waste material from ditch and culvert cleaning to the waste disposal sites at mileposts 1.17 or 1.75, or where approved by the Authorized Officer.
- 0.65 Jct. w/ 33-1E-18.00 right.
- 0.74 Cattle guard.
- 1.09 Jct. w/ 33-1W-8.00 left.
- 1.17 Waste disposal site left.
- 1.20 Jct. w/ spur road left.
- 1.38 Jct. w/ 33-1E-7.03 right (gated).
- 1.62 Bridge.
- 1.73 Jct. w/ 33-1E-7.01 right.
- 1.75 Waste disposal site right.
- 1.76 Jct. w/ 33-1E-7.01 right. Jct. w/ 33-1W-12.00 left. Existing BLM stockpile (1,000CY).
- 3.57 Jct. w/ 32-1W-36.00 right (gated).
- 3.64 Jct. w/ 32-1W-35.00 left (barricaded).
- 4.66 Jct. w/ 32-1W-26.01 left and 32-1W-26.00 straight. End cleaning ditches where needed, cleaning culvert inlets and outlets, and roadside brushing.

Road 33-1E-22.01 (Yellow Rock R/W)

(Private) NAT

MP Remarks

- 0.00 Jct. w/ 33-1E-23.00. Begin road renovation and roadside brushing. Replace all water bars after use.
- 0.01 Existing water bar.
- 0.05 Existing water bar.
- 0.08 Existing water bar.
- 0.14 Existing water bar.
- 0.20 Existing water bar.
- 0.23 Existing culvert, cross drain.
- 0.26 Existing water bar.
- 0.32 Existing water bar.

0.38 Construct helicopter landing. End road renovation and roadside brushing.

Road 33-1E-23.00 (Lower Lost Creek Spur)

Segment A2 ASC/NAT

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 33-1E-27.00. Begin road renovation and roadside brushing. Replace all water bars after use.
0.01	Existing pipe gate.
0.13	Existing culvert, draw.
0.20	Existing water bar.
0.23	Existing water bar.
0.25	End ASC, begin NAT.
0.29	Jct. w/ 33-1E-22.03 left. Jct. w/ private road left. End segment A2.

Segment B (Private) NAT

<u>MP</u>	<u>Remarks</u>
0.29	Continue road renovation and roadside brushing.
0.38	Existing culvert, cross drain.
0.46	Existing culvert, cross drain.
0.51	Ditch out left.
0.53	Existing water bar.
0.55	Existing culvert, cross drain.
0.66	Existing culvert, draw.
0.73	Existing culvert, draw.
0.76	Property line.
0.79	Existing culvert, draw.
0.80	Property line.
0.83	Ditch out right.
0.88	Existing culvert, draw.
0.90	Existing water bar.
0.92	Existing culvert, draw.
0.98	Existing water bar.
1.04	Jct. w/ private road right.
1.07	Existing water bar.
1.15	Existing culvert, cross drain.
1.17	Existing water bar.
1.21	Ditch out left.
1.26	Jct. w/ private road left.
1.28	Existing water bar.
1.33	Existing water bar.
1.35	Jct. w/ private road right.
1.41	Existing water bar.
1.42	Ditch out left.
1.48	Existing water bar.
1.57	Existing water bar.
1.60	Existing culvert, cross drain.

1.61 Jct. w/ 33-1E-22.01 right. End road renovation and roadside brushing.

Road 33-1E-27.00 (Burnt Peak Road)

Segment B ASC

MP **Remarks**

0.00 Jct. w/ Takelma County Road. Begin road renovation and roadside brushing.
0.03 Existing culvert, cross drain.
0.10 Jct. w/ substation road left.
0.16 Substation left.
0.17 Existing culvert, draw.
0.19 Jct. w/ power line road left.
0.35 Existing culvert, cross drain.
0.64 Existing culvert with half round downspout, cross drain.
0.91 Existing culvert, cross drain.
1.00 Existing culvert, draw.
1.05 Existing culvert, draw.
1.16 Existing culvert, cross drain.
1.22 Jct. w/ 33-1E-23.00 left and right. End segment B.

Segment C ASC

MP **Remarks**

1.22 Jct. w/ 33-1E-23.00. Continue road renovation and roadside brushing.
1.31 Existing culvert, draw.
1.46 Existing culvert, cross drain.
1.57 Existing culvert, cross drain.
1.67 Existing culvert, draw.
1.82 Jct. w/ 33-1E-14.02 left and right (fenced). End segment C.

Segment D ASC

MP **Remarks**

1.82 Jct. w/ 33-1E-14.02. Continue road renovation and roadside brushing.
1.92 Existing culvert, cross drain.
1.98 Existing culvert, draw.
2.01 Existing culvert, draw.
2.06 Existing culvert, draw.
2.18 Existing culvert, draw.
2.24 Existing culvert, draw.
2.29 Existing culvert, cross drain.
2.48 Existing culvert, cross drain.
2.53 Existing culvert, draw.
2.55 Jct. w/ road left.
2.65 Jct. w/ 33-1E-11.02 left.
2.67 Existing culvert, draw.
2.72 Existing culvert, draw.
2.78 Existing culvert, draw.
2.80 Jct. w/ 33-1E-14.01 left. End segment D.

Segment E ASC

MP **Remarks**

- 2.80 Jct. w/ 33-1E-14.01. Continue road renovation and roadside brushing.
- 3.09 Existing culvert, draw.
- 3.19 Existing culvert, draw.
- 3.29 Existing culvert, draw.
- 3.37 Jct. w/ trailhead access road right. End segment E.

Segment F **ASC**

MP **Remarks**

- 3.37 Jct. w/ trailhead access road. Continue road renovation and roadside brushing.
- 3.42 Existing culvert, draw.
- 3.48 Jct. w/ road powerline access road left.
- 3.49 Jct. w/ 33-1E-11.01 right. End segment F.

Segment G **ASC**

MP **Remarks**

- 3.49 Jct. w/ 33-1E-11.01 right. Continue road renovation and roadside brushing.
- 3.53 Existing culvert, cross drain.
- 3.60 Existing culvert, cross drain.
- 3.72 Existing culvert, cross drain.
- 3.84 Existing culvert, draw.
- 3.92 Existing culvert, draw.
- 4.00 Existing culvert, cross drain.
- 4.05 Property line. End segment G.

Segment H (Private) **ASC**

MP **Remarks**

- 4.05 Property line. Continue road renovation and roadside brushing.
- 4.11 Existing culvert, draw.
- 4.12 Property line. End segment H.

Segment I **ASC**

MP **Remarks**

- 4.12 Property line. Continue road renovation and roadside brushing.
- 4.14 Existing culvert, cross drain.
- 4.19 Jct. w/ 33-1E-2.00 left.
- 4.30 Property line. End segment I.

Segment J (Private) **ASC**

MP **Remarks**

- 4.30 Property line. Continue road renovation and roadside brushing.
- 4.31 Existing culvert, cross drain.
- 4.36 Existing culvert, cross drain.
- 4.48 Existing culvert, cross drain.
- 4.57 Existing culvert, cross drain.
- 4.69 Existing culvert, cross drain.
- 4.76 Existing culvert, cross drain.
- 4.88 Jct. w/ private road left. Existing culvert, cross drain.
- 5.05 Existing culvert, cross drain.
- 5.15 Existing culvert, cross drain.

5.23 Existing culvert, cross drain. End segment J.

Segment K ASC

MP **Remarks**

5.23 Existing culvert. Continue road renovation and roadside brushing.

5.27 Existing culvert, cross drain.

5.31 Existing culvert, cross drain.

5.35 Jct. w/ private road left.

5.38 Existing culvert, draw.

5.41 Existing culvert, cross drain.

5.48 Existing culvert, cross drain.

5.55 Existing culvert, cross drain.

5.58 Jct. w/ 32-1E-35.00 left. End segment K.

Segment L ASC

MP **Remarks**

5.58 Continue road renovation and roadside brushing.

5.64 Existing culvert, draw.

5.66 Existing culvert, draw.

5.67 Jct. w/ 32-1E-35.04 right (barricaded).

5.71 Existing culvert, cross drain.

5.78 Existing culvert, cross drain.

5.82 Jct. w/ 32-1E-35.05 right (barricaded).

5.87 Existing culvert, cross drain.

5.92 Existing culvert, draw.

5.99 Jct. w/ 32-1E-35.06 left (barricaded).

6.07 Jct. w/ 32-1E-13.00 right. End segment L.

Segment M ASC

MP **Remarks**

6.07 Continue road renovation and roadside brushing.

6.14 Existing culvert, cross drain.

6.20 Existing culvert, cross drain.

6.30 Existing culvert, cross drain.

6.45 Existing culvert, cross drain.

6.53 Existing culvert, cross drain.

6.67 Existing culvert with a 10' half round downspout, cross drain.

6.72 Existing culvert with a 20' half round downspout, cross drain.

6.93 Existing culvert, cross drain. End road renovation and roadside brushing.

Road 33-1W-3.01 (USFS RD #6605 130) NAT

MP **Remarks**

0.00 Jct. w/ 33-1W-10.00. Begin road renovation and roadside brushing and chipping.

0.03 Existing barricade. Re-establish barricade after use.

0.20 Remove 50 cubic yard slide. Haul waste material to quarry across from the beginning of the road.

0.29 Existing culvert, cross drain.

0.38 Jct. w/ 33-1W-3.02 left. End road renovation and roadside brushing and chipping.

Road 33-1W-3.02 (USFS RD #6605 135) NAT

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 33-1W-3.01. Begin road renovation and roadside brushing and chipping.
0.10	End road renovation and roadside brushing and chipping.

Road 33-1W-3.03 (USFS RD #6605 140) NAT

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 33-1W-10.00. Begin road renovation and roadside brushing and chipping.
0.04	Place 10 cubic yards of pit run in hole in road to make passable for sale.
0.05	Existing water dip.
0.09	Existing water dip.
0.15	End road renovation and roadside brushing and chipping.

Road 33-1W-8.00 (Buck Rock Road)
Segment A ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ East Trail Creek County Road. Begin road renovation and roadside brushing.
0.11	Existing culvert, cross drain. Property line.
0.21	Existing culvert, cross drain.
0.27	Existing culvert, cross drain.
0.40	Existing culvert, cross drain.
0.43	Jct. w/ private driveway left.
0.50	Existing culvert, cross drain.
0.58	Existing culvert, cross drain.
0.64	Existing culvert, draw.
0.83	Jct. w/ private driveway right.
0.85	Existing culvert, draw.
1.00	Existing culvert, cross drain.
1.04	Existing culvert, cross drain.
1.12	Existing culvert, draw.
1.23	Existing culvert, cross drain.
1.35	Existing culvert, cross drain.
1.44	Jct. w/ 33-1W-9.01 right (gated).
1.46	Existing culvert, draw.
1.55	Existing culvert, cross drain.
1.62	Existing culvert, cross drain.
1.74	Existing culvert with a 10' half round downspout, cross drain.
1.82	Existing culvert, draw.
1.94	Existing culvert with a 10' half round downspout, cross drain.
2.03	Existing culvert with an 8' half round downspout, cross drain.
2.13	Existing culvert, cross drain.
2.15	Jct. w/ 33-1W-9.00 left (gated).
2.27	Existing culvert, cross drain.

- 2.34 Existing culvert, cross drain.
- 2.44 Existing culvert, cross drain.
- 2.51 Existing culvert, cross drain.
- 2.55 Existing culvert, cross drain.
- 2.56 Jct. w/ lower Buck Rock Quarry entrance left. Move existing stockpile rock to upper quarry bench. Use as waste disposal site.
- 2.57 Jct. w/ upper Buck Rock Quarry entrance left. Service landing.
- 2.65 Jct. w/ 33-1W-10.00 left. End segment A.

Segment B ASC

MP **Remarks**

- 2.65 Continue road renovation and roadside brushing.
- 2.67 Existing culvert, cross drain.
- 2.77 Existing culvert, cross drain.
- 2.88 Jct. w/ 33-1W-10.01 right (barricaded).
- 2.91 Existing culvert, cross drain.
- 2.95 Jct. w/ old temp route left (barricaded).
- 2.98 Jct. w/ 33-1W-10.02 right.
- 3.08 Existing culvert, cross drain. End segment B.

Segment C ASC

MP **Remarks**

- 3.08 Continue road renovation and roadside brushing.
- 3.29 Existing culvert, cross drain.
- 3.45 Existing culvert, cross drain.
- 3.58 Existing culvert, cross drain.
- 3.67 Jct. w/ 33-1W-15.00 right.
- 3.73 Existing culvert, cross drain.
- 3.79 Existing culvert, cross drain.
- 3.87 Existing culvert, cross drain.
- 4.01 Existing culvert, cross drain.
- 4.19 Existing culvert, cross drain.
- 4.32 Existing culvert, draw.
- 4.43 Existing quarry right. End segment C.

Segment D ASC

MP **Remarks**

- 4.43 Continue road renovation and roadside brushing.
- 4.65 Existing culvert, cross drain.
- 4.69 Existing culvert, cross drain.
- 4.81 Existing culvert, draw.
- 5.02 Existing culvert, draw.
- 5.06 Existing culvert, cross drain.
- 5.14 Existing culvert, draw.
- 5.23 Jct. w/ 33-1W-14.00 left. End road renovation and roadside brushing.

Road 33-1W-10.00 (Oliver Springs)

Segment A ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 33-1W-8.00. Begin road renovation and roadside brushing.
0.01	Existing culvert, cross drain.
0.11	Existing culvert with a 10' half round downspout, cross drain.
0.24	Existing culvert with a 20' half round downspout, cross drain.
0.34	Jct. w/ 33-1W-10.03 left (barricaded).
0.51	Existing culvert with a 10' half round downspout, cross drain.
0.72	Existing culvert, cross drain.
0.74	Jct. w/ Road 33-1W-10.03 and 33-1W-3.00 left. Existing quarry left. Jct. w/ 33-1W-3.01 right.
0.84	Jct. w/ jeep road left.
0.88	Existing culvert, cross drain.
0.96	Existing culvert with a 10' half round downspout, cross drain.
1.10	Jct. w/ 33-1W-3.03 right.
1.15	Existing culvert with an 8' half round downspout, cross drain.
1.23	Existing culvert with a 20' half round downspout, cross drain.
1.33	Existing culvert with a 30' half round downspout, cross drain.
1.43	Jct. w/ 32-1W-35.00 right. Existing BLM stockpile (100CY). End segment A.

Segment B ASC

<u>MP</u>	<u>Remarks</u>
1.43	Continue road renovation and roadside brushing.
1.52	Existing culvert, cross drain.
1.60	Existing culvert, cross drain. Culvert outlet ditch shall be cleaned for 20' to drain water away from culvert outlet.
1.68	Existing culvert with an 8' half round downspout, cross drain.
1.74	Existing culvert, cross drain.
1.75	Jct. w/ 33-1W-3.05 left.
1.89	Existing culvert, cross drain.
2.00	Existing culvert with an 8' half round downspout, cross drain.
2.09	Existing culvert, cross drain.
2.22	Existing culvert, cross drain.
2.34	Jct. w/ jeep road left.
2.43	Existing culvert, cross drain.
2.50	Existing culvert with an 8' half round downspout, cross drain.
2.61	Existing culvert, draw.
2.71	Existing culvert, cross drain.
2.73	Jct. w/ 32-1W-34.00 left. End segment B

Segment C ASC

<u>MP</u>	<u>Remarks</u>
2.73	Continue road renovation and roadside brushing.
2.77	Existing culvert, cross drain.
2.96	Existing culvert, draw.
3.09	Existing culvert, draw.
3.22	Existing culvert with a 20' half round downspout, cross drain.
3.37	Existing culvert, cross drain.

- 3.55 Existing culvert, cross drain.
3.71 Jct. w/ 32-1W-26.01 right. End segment C.

Segment D ASC

MP **Remarks**

- 3.71 Continue road renovation and roadside brushing.
3.75 Existing culvert, cross drain.
3.76 Jct. w/ 32-1W-35.02 right.
4.00 Existing culvert, cross drain.
4.06 Existing culvert, cross drain.
4.14 Existing culvert, cross drain.
4.25 Existing culvert, cross drain.
4.35 Existing culvert, cross drain. Culvert outlet ditch shall be cleaned for 10' to drain water away from culvert outlet.
4.45 Existing culvert, cross drain.
4.64 Jct. w/ 32-1W-27.01 left.
4.67 Place 10 cubic yards of ASC to repair hole in road.
4.75 Existing culvert, cross drain.
4.81 Remove large tree from roadway.
4.86 Existing culvert, cross drain.
4.94 Existing culvert, cross drain.
5.02 Existing culvert, cross drain.
5.15 Existing culvert, cross drain.
5.24 Existing culvert, cross drain.
5.30 Existing culvert, cross drain.
5.33 Existing culvert with a 12' half round downspout, cross drain.
5.36 Existing culvert, cross drain.
5.49 Existing culvert with a 14' half round downspout, cross drain.
5.57 Existing culvert, cross drain.
5.65 End road renovation and roadside brushing.

Road 33-1W-14.01 (West Side Road)

Segment A PRR

MP **Remarks**

- 0.00 Jct. w/ 33-1W-8.00. Begin road reconstruction and roadside brushing and chipping. Reconstruction includes re-establishing ditch lines, turnouts, and full driving surfaces. Stumps from cut trees shall be grubbed and the road repaired. Slash from reconstruction shall be hauled (if needed) and piled where room allows along road. Begin placing 8" of BLM stockpiled ASC 14' wide on road.
0.10 Remove existing 18" cross drain culvert. Construct AWD (see Exhibit C-9; Armored Water Dip Construction Sheet for details).
0.19 Jct. w/ 33-1W-14.02 left. End placing 8" of BLM stockpiled ASC 14' wide on road.

Segment B PRR

MP **Remarks**

- 0.19 Continue road reconstruction and roadside brushing and chipping.
0.24 Remove existing 18" cross drain culvert. Construct AWD (see Exhibit C-9; Armored

- Water Dip Construction Sheet for details).
- 0.34 Remove existing 18" cross drain culvert. Construct AWD (see Exhibit C-9; Armored Water Dip Construction Sheet for details).
- 0.47 Replace existing 18" draw culvert with a 24" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 with new culvert outlet 2' lower than existing culvert outlet (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 0.66 Construct AWD (see Exhibit C-9; Armored Water Dip Construction Sheet for details).
- 0.72 Remove existing 18" cross drain culvert. Construct AWD (see Exhibit C-9; Armored Water Dip Construction Sheet for details).
- 0.79 Remove existing 18" cross drain culvert. Construct AWD (see Exhibit C-9; Armored Water Dip Construction Sheet for details).
- 0.88 End road reconstruction and roadside brushing and chipping.

Road 33-1W-14.02 NAT

MP Remarks

- 0.00 Jct. w/ 33-1W-14.01. Begin road reconstruction and roadside brushing and chipping. Begin rocking road with 12" of pit run rock. Pit Run rock can be used from the BLM Buck Rock Quarry at milepost 2.57 on BLM Road 33-1W-8.00.
- 0.02 Existing guardrail gate. Re-close guardrail gate after use.
- 0.11 Construct helicopter landing.
- 0.14 End road reconstruction and roadside brushing and chipping. End rocking road with 12" of pit run rock.

Road 33-2E-5.00 (Section 32 Connect)

Segment A NAT

MP Remarks

- 0.00 Jct. w/ 32-2E-34.00. Begin road renovation and roadside brushing. Replace water bars after use.
- 0.01 Replace existing 18" draw culvert with an 18" x 40' CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-6; Culvert Installation Details Sheet for installation type).
- 0.07 Pump Chance right.
- 0.10 Property line. End segment A.

Segment B (Private) NAT

MP Remarks

- 0.10 Continue road renovation and roadside brushing.
- 0.23 Jct. w/ private road right.
- 0.26 Jct. w/ private road right.
- 0.60 Existing culvert, draw. Pump chance right.
- 0.64 Private mega gate. Property line. End segment B.

Segment C (Private) NAT

MP Remarks

- 0.64 Continue road renovation and roadside brushing.
- 0.84 Jct. w/ 32-1E-36.00 left and right. End road renovation and roadside brushing.

SHADY ELK TIMBER SALE
Temp Route Work List

Temp Route 31-1 T32S-R01E-Section 31 NAT.

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1W-36.01. Begin temp route construction. Road shall be decommissioned after use (See Exhibit D-3; Road Decommissioning Work List for details).
0.07	End temp route construction. Construct helicopter landing.

TIMBER SALE ROAD SPECIFICATIONS

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GENERAL – 100

101 - Pre-work Conference(s):

A pre-work 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 pre-work 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

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.

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

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

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

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

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

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

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

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

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

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

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

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

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

Road Centerline - The longitudinal center of a roadbed.

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

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

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

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

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

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

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

courses.

Spalls - Flakes or chips of stone.

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

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

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

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.

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.
Plastic limit - lowest water content at which the soil remains plastic.
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.

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:

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

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

The weight of the tamping-roller unit shall be such as to exert a minimum pressure of 250 pounds per square inch on the ground area in contact with the tamping feet, and the roller shall be so designed that the weight may be increased to exert a pressure up to 500 pounds per square inch on the ground area in contact with the tamping feet. The ground pressure shall be determined by dividing the total weight of the roller unit, not including the weight of the tractor, by the total cross-sectional area of the tamping feet in one row of tamping feet parallel to the axis of the roller.

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.

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.
- 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 Subsection 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.
- 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 scattering in accordance with Subsection 210 and/or piling in accordance with Subsection 211 and at the following road locations.

Road No.	From M.P.	To M.P.	Disposal Method
33-1W-14.01	0.00	0.88	Haul (if needed) and Pile
Temp Route 31-1 & Helicopter Landing	0.00	0.07	Pile
Helicopter Landing Section 7	0.00	0.00	Scatter
Helicopter Landing Section 13	0.00	0.00	Pile
Helicopter Landing Section 31	0.00	0.00	Pile
Helicopter Landing Section 14	0.00	0.00	Pile
Helicopter Landing Section 32 (PVT)	0.00	0.00	Pile
Helicopter Landing Section 22 (PVT)	0.00	0.00	Pile

- 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.
- 210 - Disposal of clearing and grubbing debris or stumps and cull logs as designated in Section 206 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 or stumps and cull logs on non-Government property by piling 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.
- 211 - Disposal of clearing and grubbing debris and stumps and cull logs as designated in Section 206 shall be by piling on government lands outside of established clearing limits in an area and in a manner acceptable to the Authorized Officer.
- 212 - No grading will be permitted prior to completion and approval by the Authorized Officer of the required clearing and grubbing work, except that stump grubbing may proceed with the excavation of the road prism.
- 213 - No clearing or grubbing debris shall be left lodged against standing trees.

EXCAVATION AND EMBANKMENT - 300

- 301 - This work shall consist of excavating, overhaul, placement of embankments, backfilling, borrowing, leveling, ditching, grading, 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.

- 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, and 317 shall be moistened or dried to a uniform optimum moisture content suitable for maximum density and compacted to full width with compacting equipment conforming to requirements of Subsections 103b, 103f, 103g, 103h, and 103i.
- 306e - The final subgrade except Temp Route 31-1 shall be compacted to full width with compacting equipment conforming to the requirements of Subsections 103b, 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. Landings and Temp Route 31-1 shall be compacted by routing construction equipment over full width.
- 306f - Compaction of embankment layers placed as specified under Subsection 305b above for the fill road repair at milepost 0.66 on BLM Road #32-1W-26.00 shall be accomplished by routing construction equipment over full width of embankment structures.
- 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.
- 312 - When material, except solid rock, encountered in cuts at subgrade, is suitable for use in forming the finished roadbed, the top 6-inch layer of the subgrade shall be thoroughly scarified for the full width of the roadbed. Roots, sod, and other deleterious material or stones that will not pass a 6-inch square opening shall be removed. The scarified material shall be processed to the optimum moisture content suitable for maximum density and compacted in accordance with with Subsection 306.
- 314 - When heavy clays, muck, clay shale, or other deleterious material for forming the roadbed is encountered in cuts at subgrade, it shall be excavated to a minimum depth of 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.

- 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.
- 322 - When so indicated on the plans, selected coarse rock encountered in the excavation shall be conserved for slope protection or special rock embankment purposes and placed in accordance with the requirements and details of section 1400 of these specifications and as shown on the plans.
- 323 - In the construction of channel changes and stream-crossing embankment sections, natural stream flow shall be maintained unless otherwise provided.
- 324 - Excavated material shall not be allowed to cover boles of standing trees to a depth in excess of (2) feet on the uphill side.
- 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.

- 328 - The Purchaser shall adopt methods and procedures in using explosives, which will prevent damage to adjacent landscape features, and which will minimize scattering rocks and other debris outside the road prism.

PIPE CULVERTS - 400

- 401 - This work shall consist of furnishing and installing pipe culverts, full round downspouts, and other erosion control devices in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans. Individual lengths and locations are approximate; final lengths and locations will be determined by the Authorized Officer from established construction stakes. 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.
- 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.
- 407 - Special sections, such as elbows, branch connections, and flared-end sections, shall be of the same gauge as the pipe to which they are joined, and shall conform to the requirements of AASHTO M 36 and AASHTO M 218 or AASHTO M 274.
- 407b - Full round culvert downspouts conforming to the material and construction requirements shall be constructed for culverts at the following locations:
-

Road No.	M.P.
32-1E-7.01	0.12
	0.29
32-1E-11.00 A	0.50
32-1E-11.02	0.43
32-1E-13.01 A1	0.16
	1.72
32-1E-17.04 A	0.22
32-1W-12.00	0.39
	1.04
	1.16
	1.30
32-1W-12.01	0.08
	0.38
	0.49
32-1W-13.00 A-B	0.49
	0.62
	1.12
	1.29
	1.74
	1.92

- 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 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 BLM 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 at the following locations:

Road No.	M.P.
32-1E-7.01	0.12
	0.29
32-1E-11.00 A	0.35
	0.50
	0.66
	0.73
32-1E-11.02	0.21
	0.33
	0.43
32-1E-13.01 A1	0.16
	0.20
	0.67
	0.72
	0.78
	1.38
	1.46
	1.53
	1.72
	1.75
	1.86
32-1E-13.02 A	0.14
	0.71
	0.83
32-1E-13.03	0.06
	0.34
32-1E-17.04 A	0.02
	0.22
32-1E-17.05 A1	0.08
32-1E-18.00 A	0.11
	0.61
32-1E-27.00 E	3.04
	3.33
32-1W-12.00	0.32
	0.39

	0.46
	0.65
	0.82
	0.89
	1.04
	1.16
	1.30
	1.40
32-1W-12.01	0.00
	0.08
	0.25
	0.38
	0.49
	0.57
32-1W-13.00 A-B	0.29
	0.49
	0.62
	1.12
	1.29
	1.50
	1.74
	1.92
32-2E-34.00 A-D	0.01
	0.08
	0.55
	0.85
	1.11
	1.32
	1.45
	1.88
	2.38
	2.74
	2.93
	3.01
	3.79
33-1W-14.01 A-C	0.47
33-2E-5.00 A	0.01

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 BLM 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.

- 417 - For pipe culverts listed in Section 416, 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.

- 418 - Side fills beyond the compaction limits specified under Subsection 417 shall be compacted as specified under Section 300.
- 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.
- 424 - Construction of splash pads conforming to lines, grades, dimensions and typical diagram shown on the plans, shall be required for culverts at the following locations:

Road No.	M.P.
32-1E-11.00 A	0.35
	0.66
	0.73
32-1E-11.02	0.21
32-1E-13.01 A1	0.20
	0.67
	0.72
	0.78
	1.38
	1.46
	1.53
	1.75
	1.86
32-1E-13.02 A	0.14
	0.71
	0.83
32-1E-13.03	0.06
	0.34
32-1E-17.04 A	0.02
32-1E-17.05 A1	0.08
32-1E-18.00 A	0.11
	0.61
32-1E-27.00 E	3.04
	3.33
32-1W-12.00	0.32
	0.46
	0.65

	0.82
	0.89
	1.40
32-1W-12.01	0.00
	0.25
	0.57
32-1W-13.00 A-B	0.29
	1.50
32-2E-34.00 A-D	0.01
	0.08
	0.55
	0.85
	1.11
	1.32
	1.45
	1.88
	2.38
	2.74
	2.93
	3.01
	3.79
33-1W-14.01 A-C	0.47
33-2E-5.00 A	0.01

- 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 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.

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 at the following locations:

Road No.	From M.P.	To M.P.
32-1E-7.01	0.00	0.39
32-1E-7.02 A	0.00	0.60
32-1E-11.00 A	0.00	0.82
32-1E-11.02 A	0.00	0.59
32-1E-13.01 A1-B	0.00	1.90
Un-numbered Spur off -13.01	0.00	0.09
32-1E-13.02 A-B	0.00	1.25
Un-numbered Spur off -13.02	0.00	0.09
32-1E-13.03	0.00	0.42
Un-numbered Spur off -13.03	0.00	0.52
32-1E-13.04 A	0.00	0.26
32-1E-13.05	0.00	0.09
32-1E-13.06	0.00	0.15
32-1E-13.07	0.00	0.27
32-1E-17.04 A	0.00	0.75
32-1E-17.05 A1-A2	0.00	0.85
32-1E-18.00 A-B	0.00	0.75
32-1E-20.00 A-B	0.00	2.02
32-1E-23.00 A	0.00	1.36
32-1E-27.00 A-E	0.00	3.62
32-1E-36.00 A3	0.00	0.09
32-1W-12.00	0.00	2.07
32-1W-12.01	0.00	0.65
32-1W-13.00 A-B	0.00	1.95
32-1W-23.02 A	0.00	0.89
32-1W-26.00 A-C	0.00	2.66
32-1W-26.04 A	0.00	0.42
32-1W-26.05 A	0.00	0.60
32-1W-27.01	0.00	0.38
32-1W-35.02	0.00	0.26
32-1W-35.07 A	0.00	0.12
32-1W-36.01	0.00	1.49
32-2E-34.00 A-D	0.00	3.80
33-1E-4.00 G1-D	0.00	2.13
33-1E-17.00 A	0.00	4.66
33-1E-22.01	0.00	0.38
33-1E-23.00 A2-B	0.00	1.61
33-1E-27.00 B-M	0.00	6.93
33-1W-3.01	0.00	0.38
33-1W-3.02	0.00	0.10

33-1W-3.03	0.00	0.15
33-1W-8.00 A-D	0.00	5.23
33-1W-10.00 A-D	0.00	5.65
33-1W-14.01 A-C	0.00	0.88
33-1W-14.02	0.00	0.14
33-2E-5.00 A-C	0.00	0.84

- 502b - Drainage ditches shall be bladed and shaped in accordance with the lines, grades, dimensions, and typical cross sections shown on the plans.
- 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 103b, 103f, 103g, 103h, and 103i and in accordance with the following table:

Road No.	From M.P.	To M.P.
32-1E-7.01	0.00	0.39
32-1E-7.02 A	0.00	0.60
32-1E-11.00 A	0.00	0.82
32-1E-11.02 A	0.00	0.59
32-1E-13.01 A1-B	0.00	1.90
32-1E-13.02 A-B	0.00	0.90
32-1E-13.03	0.00	0.42
32-1E-13.04 A	0.00	0.26
32-1E-13.05	0.00	0.09
32-1E-13.06	0.00	0.15
32-1E-13.07	0.00	0.27
32-1E-17.04 A	0.00	0.75
32-1E-17.05 A1-A2	0.00	0.85
32-1E-18.00 A-B	0.00	0.75
32-1E-20.00 A-B	0.00	2.02
32-1E-23.00 A	0.00	1.36
32-1E-27.00 A-E	0.00	3.62
32-1W-12.00	0.00	2.07
32-1W-12.01	0.00	0.65
32-1W-13.00 A-B	0.00	1.95
32-1W-23.02 A	0.00	0.89
32-1W-26.00 A-C	0.00	2.66
32-1W-26.04 A	0.00	0.42
32-1W-26.05 A	0.00	0.60
32-1W-27.01	0.00	0.38
32-1W-35.02	0.00	0.26
32-1W-35.07 A	0.00	0.12
32-1W-36.01	0.00	1.49
32-2E-34.00 A-D	0.00	3.80
33-1E-4.00 G1-D	0.00	2.13

33-1E-17.00 A	0.00	4.66
33-1E-23.00 A2-B	0.00	0.25
33-1E-27.00 B-M	0.00	6.93
33-1W-8.00 A-D	0.00	5.23
33-1W-10.00 A-D	0.00	5.65
33-1W-14.01 A-C	0.00	0.88

- 504a - Minimum compaction required shall be 1 hour of continuous rolling for each 5 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.
- 507 - Existing and new drainage structures at the following locations:

Road No.	M.P.
32-1E-7.01	0.12
	0.29
32-1E-11.00 A	0.35
	0.50
	0.66
	0.73
32-1E-11.02	0.21
	0.33
	0.43
32-1E-13.01 A1	0.16
	0.20
	0.67
	0.72
	0.78
	1.38
	1.46
	1.53
	1.72
	1.75
	1.86

32-1E-13.02 A	0.14
	0.71
	0.83
32-1E-13.03	0.06
	0.34
32-1E-17.04 A	0.02
	0.22
32-1E-17.05 A1	0.08
32-1E-18.00 A	0.11
	0.61
32-1E-27.00 E	3.04
	3.33
32-1W-12.00	0.32
	0.39
	0.46
	0.65
	0.82
	0.89
	1.04
	1.16
	1.30
	1.40
32-1W-12.01	0.00
	0.08
	0.25
	0.38
	0.49
	0.57
32-1W-13.00 A-B	0.29
	0.49
	0.62
	1.12
	1.29
	1.50
	1.74
	1.92
32-2E-34.00 A-D	0.01
	0.08
	0.55
	0.85
	1.11
	1.32
	1.45
	1.88
	2.38
	2.74
	2.93

	3.01
	3.79
33-1W-14.01 A-C	0.47
33-2E-5.00 A	0.01

shall be replaced and placed with structures of the type, gauge, diameter, and length shown on the plans and in accordance with the placement requirements set forth under section 400 of these specifications.

- 508 - Vegetation encroaching on the roadbed and the drainage ditches of existing roads at the following locations:

Road No.	From M.P.	To M.P.	Total Miles	Type
32-1E-7.01	0.00	0.39	0.39	Chip
32-1E-7.02 A	0.00	0.60	0.60	Chip
32-1E-11.00 A	0.00	0.82	0.82	Chip
32-1E-11.02 A	0.00	0.59	0.59	Scatter
32-1E-13.01 A1-B	0.00	1.90	1.90	Scatter
Un-numbered Spur off -13.01	0.00	0.09	0.09	Chip
32-1E-13.02 A-B	0.00	1.25	1.25	Scatter
Un-numbered Spur off -13.02	0.00	0.09	0.09	Chip
32-1E-13.03	0.00	0.42	0.42	Scatter
Un-numbered Spur off -13.03	0.00	0.52	0.52	Scatter
32-1E-13.04 A	0.00	0.26	0.26	Scatter
32-1E-13.05	0.00	0.09	0.09	Scatter
32-1E-13.06	0.00	0.15	0.15	Scatter
32-1E-13.07	0.00	0.27	0.27	Scatter
32-1E-17.04 A	0.00	0.75	0.75	Scatter
32-1E-17.05 A1-A2	0.00	0.85	0.85	Scatter
32-1E-18.00 A-B	0.00	0.75	0.75	Scatter
32-1E-20.00 A-B	0.00	2.02	2.02	Scatter
32-1E-23.00 A	0.00	1.36	1.36	Chip
32-1E-27.00 A	0.00	0.36	0.36	Chip
32-1E-27.00 A-E	0.36	3.62	3.26	Scatter
32-1E-36.00 A3	0.00	0.09	0.09	Scatter
32-1W-12.00	0.00	2.07	2.07	Scatter
32-1W-12.01	0.00	0.65	0.65	Chip
32-1W-13.00 A-B	0.00	1.95	1.95	Chip
32-1W-23.02 A	0.00	0.89	0.89	Scatter
32-1W-26.00 A-C	0.00	2.66	2.66	Scatter
32-1W-26.04 A	0.00	0.42	0.42	Chip
32-1W-26.05 A	0.00	0.60	0.60	Chip
32-1W-27.01	0.00	0.38	0.38	Scatter
32-1W-35.02	0.00	0.26	0.26	Scatter

32-1W-35.07 A	0.00	0.12	0.12	Scatter
32-1W-36.01	0.00	1.49	1.49	Scatter
32-2E-34.00 A-D	0.00	3.80	3.80	Scatter
33-1E-4.00 G1-D	0.00	2.13	2.13	Scatter
33-1E-17.00 A	0.00	4.66	4.66	Scatter
33-1E-22.01	0.00	0.38	0.38	Scatter
33-1E-23.00 A2-B	0.00	1.61	1.61	Scatter
33-1E-27.00 B-M	0.00	6.93	6.93	Scatter
33-1W-3.01	0.00	0.38	0.38	Chip
33-1W-3.02	0.00	0.10	0.10	Chip
33-1W-3.03	0.00	0.15	0.15	Chip
33-1W-8.00 A-D	0.00	5.23	5.23	Scatter
33-1W-10.00 A-D	0.00	5.65	5.65	Scatter
33-1W-14.01 A-C	0.00	0.88	0.88	Chip
33-1W-14.02	0.00	0.14	0.14	Chip
33-2E-5.00 A-C	0.00	0.84	0.84	Scatter

shall be removed by cutting and disposed of in accordance with Subsection 2100 of these 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 source(s) selected by the Purchaser and approved by the Authorized Officer.

AGGREGATE BASE COURSE - 700 PITRUN ROCK MATERIAL

- 701 - This work shall consist of hauling and placing one or more layers of pitrun rock material on roadbeds approved for placing pitrun materials in accordance with these specifications and conforming to the dimensions and typical cross sections shown on the plans.
- 702 - Pitrun rock materials used in this work shall be obtained from pitrun stockpile at milepost 0.53 on BLM Road #32-1W-12.00 shown on the plans.
- 702a - Pitrun rock materials used in this work may be obtained from sources selected by the Purchaser at his option, providing the materials furnished comply with these specifications and the sources are approved in writing by the Authorized Officer prior to use.
- 703 - Pitrun rock materials shall consist of talus rock, bank run or river run gravels, partly decomposed granite or basalt, cinders, or other approved materials. The materials shall be reasonably free from vegetative matter or other deleterious material.
- 704 - Pitrun rock material shall consist of native materials of such a size and grading that it can be taken directly from the source and placed on the road without crushing or screening. The material shall contain only occasional oversize particles to be removed. The term "oversize" shall be construed to mean material greater than 2/3 the compacted thickness of the layer in which it is placed.
- 705 - Pitrun rock material shall be placed in layers of sufficient thickness to accommodate the material, except that the maximum thickness of any layer shall not exceed 6 inches. Where the total specified thickness is greater than 6 inches the material shall be placed in two or more layers of equal thickness.
- 706 - Oversize material that cannot be accommodated in the layer shall be removed at the source or on the road, and shall be disposed of as directed by the Authorized Officer.
- 708 - The roadbed as shaped and compacted under section 500 of these specifications shall be approved in writing by the Authorized Officer prior to placement of pitrun rock material.
- 709 - Pitrun rock material shall be placed on roadbed, blade processed and spread to required dimensions.
- 711 - Layers of pitrun rock material placed and shaped as specified shall be uniformly moistened or dried to the optimum moisture content for maximum density and compacted to full width by compacting equipment conforming to the requirements of Subsections 103b, 103g, 103h, and 103i. Minimum compaction shall be 6 passes over each full-width layer, or fraction thereof.

- 712 - Pitrun rock material shall be surface bladed during the compaction operation to remove irregularities and to produce a smooth running surface.

AGGREGATE SURFACE COURSE - 1200 CRUSHED ROCK MATERIAL

- 1201 - This work shall consist of 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.
- 1202 - Crushed rock materials used in this work shall consist of quarry rock, stone, gravel, or other approved materials obtained from sources (BLM stockpiles) shown on the plans.
- 1202a - Crushed rock materials used in this work may be obtained from commercial source(s) selected by the Purchaser at his option and expense, providing the rock materials furnished comply with the 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

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 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 Subsections 300 and 500 for placing on the roadbed.

- 1210 - Crushed rock material conforming to the requirements of these specifications shall be placed on the approved roadbed 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, and 103i . Minimum compaction shall be 6 passes over each full-width layer, or fraction thereof.
- 1215 - The Purchaser is authorized to remove crushed rock material, from BLM stockpiles for placement on the roads in accordance with the requirements and details shown on the plans and as follows:

Stockpile No.	Willamette Meridian			Available Cu. Yds.	Road No.	M.P.
	Sec.	T.	R.			
1	07	32S	01E	300	32-1E-7.02	0.45
2	27	32S	01E	250	Elk Cr. County Rd	8.30
3	12	33S	01W	1,000	33-1E-17.00	1.76
4	12	33S	01W	300	32-1W-12.00	0.53
5	23	32S	01W	400	32-1W-26.00	2.26
6	23	32S	01W	100	32-1W-26.00	1.75
7	35	32S	01W	750	32-1W-35.07	0.11
8	30	32S	01E	50	32-1W-36.01	0.47
9	10	33S	01W	1,500	33-1W-8.00	2.57

Approximately **1,960** cubic yards of additional crushed rock material required to complete the surfacing shall be furnished by the Purchaser in accordance with these specifications and as shown on the plans.

SLOPE PROTECTION - 1400

- 1401 - This work shall consist of hauling and placing stone materials for slope protection structures in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross- sections shown on the plans. Material not conforming to

these specifications will be rejected and shall be removed from the slope protection structure at the purchaser's expense and as directed by the Authorized Officer.

- 1402 - Stone material shall consist of hard angular quarry rock of such quality that it will not disintegrate on exposure to water or weathering, and shall be graded in accordance with these specifications.

NOTE: Guide for relation between volume, size and weight. (175 lbs./cu./ft.):

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

- 1404 - The material shall be well graded from the smallest to the maximum size specified. Stones smaller than the specified 10 percent size shall consist of spalls and fine rock fragments so distributed as to provide a stable compact mass.
- 1405 - Rip rap shall conform to the following gradations:

TABLE 1405

Class	Approx. Cubic Dimension (inches)	Sphere Diameter (inches)	% of Total Volume Smaller than Size of Stone
1	6-8	8	100
	5-6	6	80
	2-5	6	50
	0-2	2	10
2	8-10	12	100
	6-8	8	80
	3-6	6	50
	0-3	4	10
3	14-16	21	100
	10-14	18	80
	5-10	12	50

	0-5	6	10
4	18-20	24	100
	14-18	22	80
	6-14	18	50
	0-6	8	10

5	26-28	36	100
	20-26	32	80
	8-20	25	50
	0-8	10	10
6	28-34	42	100
	22-28	34	80
	10-22	27	50
	0-10	12	10

*Rocks smaller than six inches in diameter are not counted.

- 1406 - The placement of slope protection stones by the end dumping method shall be conducted to prevent the stones from escaping beyond the embankment toe.
- 1407 - Determination of the acceptability of the slope protection material gradation will be through visual inspection by the Authorized Officer.
- 1408b - The Purchaser shall excavate unsuitable roadway material as shown on the plans or directed by the Authorized Officer prior to the placement of the required rock blanket or structure at the following locations:

Road No.	M.P.
32-1W-26.00	0.66

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.
- 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 roads at the following location:

Road No.	From M.P.	To M.P.
Temp Route 31-1	0.00	0.07

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 dissipaters (splash pads) for pipe culverts conforming to the requirements and details shown on the respective exhibits and on the plans.

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 following locations:

Road No.	M.P.
32-1E-7.01	0.12
	0.29
32-1E-11.00 A	0.35
	0.50

	0.66
	0.73
32-1E-11.02	0.21
	0.33
	0.43
32-1E-13.01 A1	0.16
	0.20
	0.67
	0.72
	0.78
	1.38
	1.46
	1.53
	1.72
	1.75
	1.86
32-1E-13.02 A	0.14
	0.71
	0.83
32-1E-13.03	0.06
	0.34
32-1E-17.04 A	0.02
	0.22
32-1E-17.05 A1	0.08
32-1E-18.00 A	0.11
	0.61
32-1E-27.00 E	3.04
	3.33
32-1W-12.00	0.32
	0.39
	0.46
	0.65
	0.82
	0.89
	1.04
	1.16
	1.30
	1.40
32-1W-12.01	0.00
	0.08
	0.25
	0.38

	0.49
	0.57
32-1W-13.00 A-B	0.29
	0.49
	0.62
	1.12
	1.29
	1.50
	1.74
	1.92
32-2E-34.00 A-D	0.01
	0.08
	0.55
	0.85
	1.11
	1.32
	1.45
	1.88
	2.38
	2.74
	2.93
	3.01
	3.79
33-1W-14.01 A-C	0.47
33-2E-5.00 A	0.01

- 1802a - Soil stabilization work consisting of seeding and mulching shall be performed on new road construction, landings, disturbed areas, and waste 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 31 (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.

- 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 **2.30** 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.

- 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 and Roadside Vegetation Maintenance Detail Sheet (C-12) 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.
- 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 1 inch 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.

Road No.	From M.P.	To M.P.	Total Miles	Type
32-1E-7.01	0.00	0.39	0.39	Chip
32-1E-7.02 A	0.00	0.60	0.60	Chip
32-1E-11.00 A	0.00	0.82	0.82	Chip
32-1E-11.02 A	0.00	0.59	0.59	Scatter
32-1E-13.01 A1-B	0.00	1.90	1.90	Scatter
Un-numbered Spur off -13.01	0.00	0.09	0.09	Chip
32-1E-13.02 A-B	0.00	1.25	1.25	Scatter
Un-numbered Spur off -13.02	0.00	0.09	0.09	Chip
32-1E-13.03	0.00	0.42	0.42	Scatter
Un-numbered Spur off -13.03	0.00	0.52	0.52	Scatter
32-1E-13.04 A	0.00	0.26	0.26	Scatter
32-1E-13.05	0.00	0.09	0.09	Scatter
32-1E-13.06	0.00	0.15	0.15	Scatter
32-1E-13.07	0.00	0.27	0.27	Scatter
32-1E-17.04 A	0.00	0.75	0.75	Scatter
32-1E-17.05 A1-A2	0.00	0.85	0.85	Scatter
32-1E-18.00 A-B	0.00	0.75	0.75	Scatter
32-1E-20.00 A-B	0.00	2.02	2.02	Scatter

32-1E-23.00 A	0.00	1.36	1.36	Chip
32-1E-27.00 A	0.00	0.36	0.36	Chip
32-1E-27.00 A-E	0.36	3.62	3.26	Scatter
32-1E-36.00 A3	0.00	0.09	0.09	Scatter
32-1W-12.00	0.00	2.07	2.07	Scatter
32-1W-12.01	0.00	0.65	0.65	Chip
32-1W-13.00 A-B	0.00	1.95	1.95	Chip
32-1W-23.02 A	0.00	0.89	0.89	Scatter
32-1W-26.00 A-C	0.00	2.66	2.66	Scatter
32-1W-26.04 A	0.00	0.42	0.42	Chip
32-1W-26.05 A	0.00	0.60	0.60	Chip
32-1W-27.01	0.00	0.38	0.38	Scatter
32-1W-35.02	0.00	0.26	0.26	Scatter
32-1W-35.07 A	0.00	0.12	0.12	Scatter
32-1W-36.01	0.00	1.49	1.49	Scatter
32-2E-34.00 A-D	0.00	3.80	3.80	Scatter
33-1E-4.00 G1-D	0.00	2.13	2.13	Scatter
33-1E-17.00 A	0.00	4.66	4.66	Scatter
33-1E-22.01	0.00	0.38	0.38	Scatter
33-1E-23.00 A2-B	0.00	1.61	1.61	Scatter
33-1E-27.00 B-M	0.00	6.93	6.93	Scatter
33-1W-3.01	0.00	0.38	0.38	Chip
33-1W-3.02	0.00	0.10	0.10	Chip
33-1W-3.03	0.00	0.15	0.15	Chip
33-1W-8.00 A-D	0.00	5.23	5.23	Scatter
33-1W-10.00 A-D	0.00	5.65	5.65	Scatter
33-1W-14.01 A-C	0.00	0.88	0.88	Chip
33-1W-14.02	0.00	0.14	0.14	Chip
33-2E-5.00 A-C	0.00	0.84	0.84	Scatter

- 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.

SPECIAL PROVISIONS

1. **CULVERTS / CMPs:**
 - When removing culverts unless constructing armored water dips, pull slopes back to the natural slope, or at least 2:1, to minimize sloughing, erosion, and the potential for the stream to undercut stream banks during periods of high stream flows. Remove excess sediment from stream channels during culvert removal, replacement, and installation activities. Apply seed and mulch to all disturbed or exposed soils at each stream culvert removal site.
2. **DAMAGE:**
 - The 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, at least as good as the condition just prior to such damage.
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. **WATER SOURCE:**
 - The Purchaser is responsible for obtaining water and associated rights and permits.
6. **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 by CO prior to entering BLM lands. Provide 48 hours' notice of inspection to BLM prior to mobilization.
7. **SOIL STABILIZATION:**
 - All disturbed soil shall be seeded and mulched. Purchaser shall apply native grass seed and Certified Weed Free straw mulch for soil stabilization operations. BLM will furnish native grass seed, if available. The Purchaser shall supply certified weed free straw.

8. 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.

9. STREAMS:

- All in-stream work shall be done from June 15 thru September 15 both days included.
- 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 stream side of a culvert to the downstream side of the culvert.

10. 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-15.
- Construction of temporary spur routes shall be to minimum width.

11. ROADSIDE BRUSHING

- While roadside brushing, there shall be no scarring or any other damage of the tree trunk or bole allowed. 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.

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 roadside brushing and heavy equipment use for the following roads:

Road Number	Segment	Starting M.P.	Ending M.P.	Starting Seasonal Restriction	Ending Seasonal Restriction
32-1W-26.00	C	1.30	2.00	March 1	June 30

Wildlife seasonal restrictions may be waived if nesting is not determined by the wildlife biologist.

14. WET SEASON HAUL

- The Purchaser may wet season haul, with the Authorized Officer's approval on the following roads 32-1E-7.01, 32-1E-7.02, 32-1E-17.04 A, 32-1E-17.05 A1-A2, 32-1E-20.00 A-B, 32-1E-23.00 A, 32-1E-27.00 A-E, 32-1W-26.00 A-C, 32-1W-27.01, 32-2E-34.00 A-D, 33-1E-17.00, 33-1E-27.00 A-M, 33-1W-8.00 A-D, and the 33-1W-10.00 A-D (portion). 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 32-1E-11.02 A, 32-1E-13.01 A1, 32-1E-13.02 A, 32-1E-13.04, 32-1E-13.05, 32-1E-13.06, 32-1E-18.00 A-B, 32-1W-12.00, 32-1W-12.01, 32-1W-13.00 A-B, 32-1W-26.04 A, 32-1W-26.05 A-B, 32-1W-36.01, 33-1E-4.00 D-G1, and the 33-1W-10.00 D (portion) 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.

ROAD MAINTENANCE SPECIFICATIONS

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

ROAD MAINTENANCE SPECIFICATIONS

GENERAL - 3000

- 3001 The Purchaser shall be required to maintain all roads as shown on the Exhibit D-2 maps of this contract in accordance with Sections 3000, 3100, 3200, 3300, and 3400 of this exhibit.
- 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. Any roads required to be constructed, improved, or renovated under terms of this contract shall be maintained to the geometric standards required in Exhibit C of this contract.
- 3003 The minimum required maintenance on any roads shall include the provisions specified in Subsections 3101, 3104, and 3105.
- 3004 The Purchaser shall be responsible for providing timely maintenance and cleanup on any roads with logging units substantially completed prior to moving operations to other roads. The maximum length of non-maintained or non-cleanup of the road prism shall not exceed the sum of one (1) mile at any time. Release of maintenance requirements may be granted, upon written request, when the conditions specified in Sections 3300 and 3400 are met satisfactorily.

OPERATIONAL MAINTENANCE - 3100

- 3101 The Purchaser shall blade and shape the road surface and shoulders with a motor grader. Banks shall not be undercut. Back blading with tractors or similar equipment will be allowed only around landings and other areas when approved by the Authorized Officer.
- 3102 The Purchaser shall place **250** cu. yds. of stockpiled aggregate conforming to the requirements in Section 1200 of Exhibit C of this contract on the roadway at locations and in the amounts designated by the Authorized Officer.

Stockpiled aggregate shall be obtained from the following BLM stockpiles:

ROAD MAINTENANCE SPECIFICATIONS

Stockpile No.	Willamette Meridian			Available Cu. Yds.	Road No.	M.P.
	Sec.	T.	R.			
1	07	32S	01E	300	32-1E-7.02	0.45
2	27	32S	01E	250	Elk Cr. County Rd	8.30
3	12	33S	01W	1,000	33-1E-17.00	1.76
4	12	33S	01W	300	32-1W-12.00	0.53
5	23	32S	01W	400	32-1W-26.00	2.26
6	23	32S	01W	100	32-1W-26.00	1.75
7	35	32S	01W	750	32-1W-35.07	0.11
8	30	32S	01E	50	32-1W-36.01	0.47
9	10	33S	01W	1,500	33-1W-8.00	2.57

This aggregate shall be used to repair surface failures and areas of depleted surface depth excluding damages covered by Section 12 of this contract. The aggregate shall be hauled, placed, spread, and compacted by use of dump trucks, water trucks, and motor grader or similar equipment.

- 3103 The purchaser shall maintain established berms and place additional berms using adjacent material where needed to protect fills as directed 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,

ROAD MAINTENANCE SPECIFICATIONS

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.

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

ROAD MAINTENANCE SPECIFICATIONS

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. The Purchaser shall furnish oil, asphalt, gravel for necessary repairs at designated locations. Repair of the road(s) 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 15 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.
- 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

ROAD MAINTENANCE SPECIFICATIONS

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.

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

ROAD MAINTENANCE SPECIFICATIONS

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 M.P.	to M.P.
32-1E-13.01	0.00	1.90
32-1E-13.03	0.00	0.42
33-1E-27.00 A-E	0.00	3.37
33-1W-8.00 A	0.00	2.65

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

During drought periods when the transportation of water from the source to the roads noted above exceeds 15 miles, a reduction shall be made in the total purchase price to reflect the additional haul or the substitution of other acceptable dust palliatives in lieu of watering based on equipment rental rates from the current BLM Road Cost Guide.

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

ROAD MAINTENANCE SPECIFICATIONS

DECOMMISSIONING – 3500

3501 Decommissioning work includes ripping, installing water bars, placement of soil stabilization material, and blocking road from access by vehicles. This work is required for road acceptance under Section 18 of this contract.

3503 Decommissioning 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	From M.P.	To M.P.	(D)ecommission or (O)bliterate
Un-numbered Sp -13.01	0.00	0.09	Barricade & Water Bar
32-1E-13.02 B	0.91	1.25	Re-Decommission
Un-numbered Sp -13.02	0.00	0.09	Re-barricade & Water Bar
Un-numbered Sp -13.03	0.00	0.52	Barricade & Water Bar
33-1W-22.01	0.00	0.38	Re-water Bar
33-1E-23.00	0.00	1.61	Re-water Bar
33-1W-3.01	0.03	0.38	Re-barricade
33-1W-3.03	0.00	0.15	Barricade & Water Bar
33-2E-5.00 A-C	0.00	0.84	Re-water Bar
Temp 31-1	0.00	0.07	Decommission

3504 Decommissioning work shall be completed after road use. All decommissioning work shall be performed during the following seasonal periods:

From: August 1	To: October 15 (of the same year)
----------------	-----------------------------------

3506 Stockpiled slash can be used to protect exposed areas created by the Purchaser's decommissioning operations described in these sections. Slash shall be uniformly spread and placed without bunching. The operation shall produce a dense, uniform mat. Where slash is not available, exposed soil areas shall be stabilized in accordance with Section 1800.

3508 Protect areas mulched and treated with slash placement from damage by Purchaser traffic or construction equipment. Damaged areas shall be repaired by the Purchaser.

3509 Access shall be blocked with barricades as shown on the typical detail sheet Drainage and Erosion Control Detail Sheet Exhibit C-8 and at locations as shown on Exhibits D-3 and D-4.

3511 Ripping and water barring shall be done on designated roadway. Ripping shall

ROAD MAINTENANCE SPECIFICATIONS

be performed with wing-toothed rippers or excavators modified for tillage.

- 3513 Water bars shall be installed across full width of roadway at spacing shown in the specifications. Water bars shall be constructed as shown on Exhibit C-8.
- 3514 Protection of exposed surfaces shall be accomplished by placement of soil stabilization material in accordance with Section 1800 and/or placement of slash described in Subsection 3506 on designated roadways, temporary roads, landings, other areas disturbed by the purchaser's decommissioning operations in accordance with these specifications and as shown in the plans.

EXHIBIT D-2

SHEET 1 OF 6

SHADY L TIMBER SAL

TRACT O.

ORM05-TS-201-0005

BLM OWNERSHIP

T.S. ITS

BST ROAD

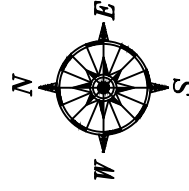
ROAD

AT. SURFACE ROAD

PRIMITIVE ROAD

PORCHAS R MAINT.

BLM MAINT A C

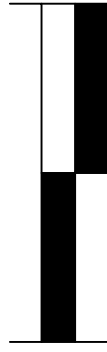


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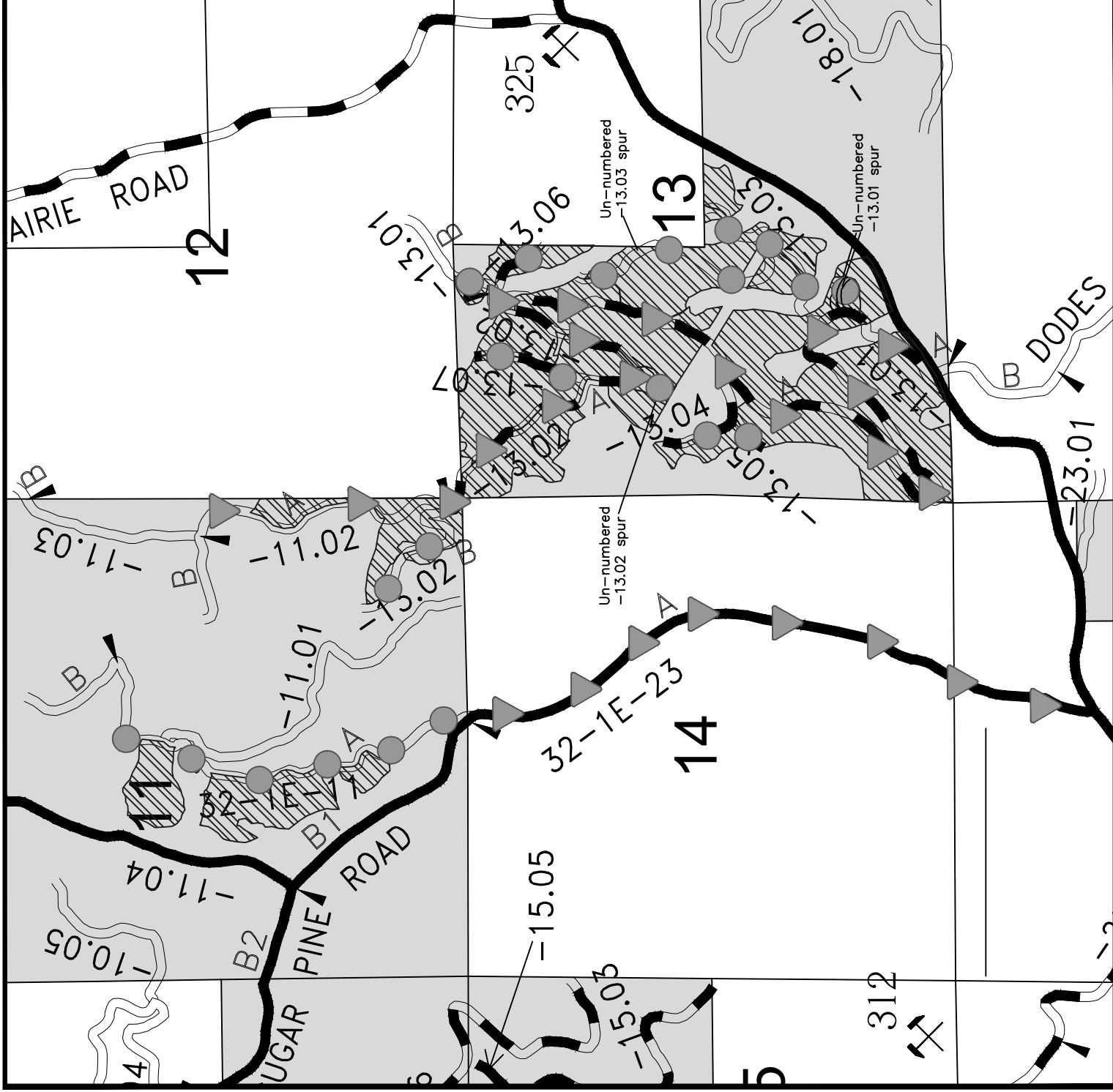


EXHIBIT D-2

SHEET 2 OF 6

SHADY ELK TIMBER SALE

TRACT NO.:

ORM05-TS-2017-0005

BLM OWNERSHIP

T.S. UNITS

BST ROAD

ROCKED ROAD

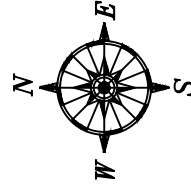
NAT. SURFACE ROAD

PRIMITIVE ROUTE

Purchaser Maintenance

BLM Maintenance

STOCKPILE SITE



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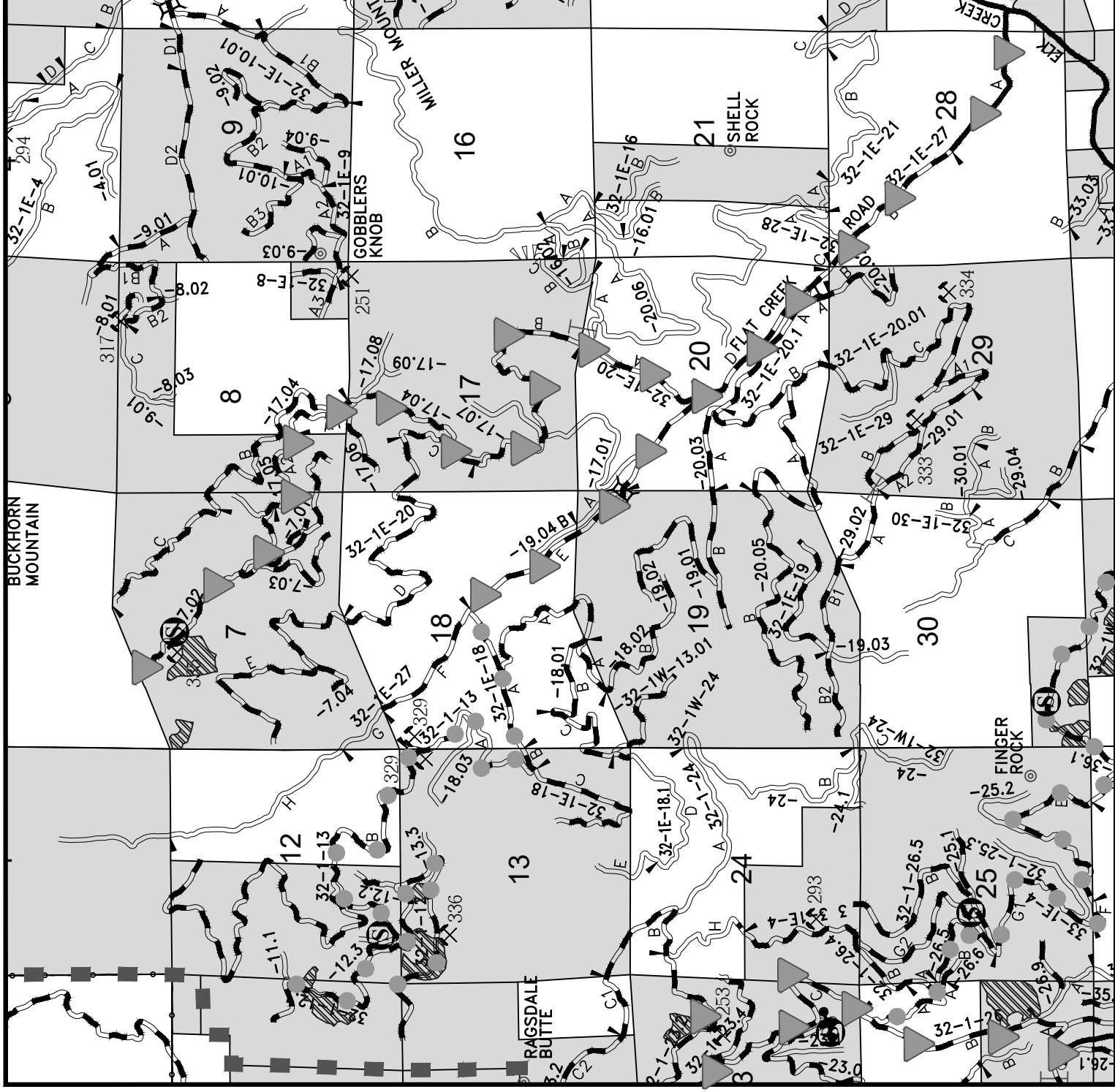


EXHIBIT D-2

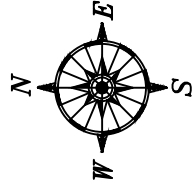
SHEET 3 OF 6

SHADY ELK TIMBER SALE

TRACT NO.:

ORM05-TS-2017-0005

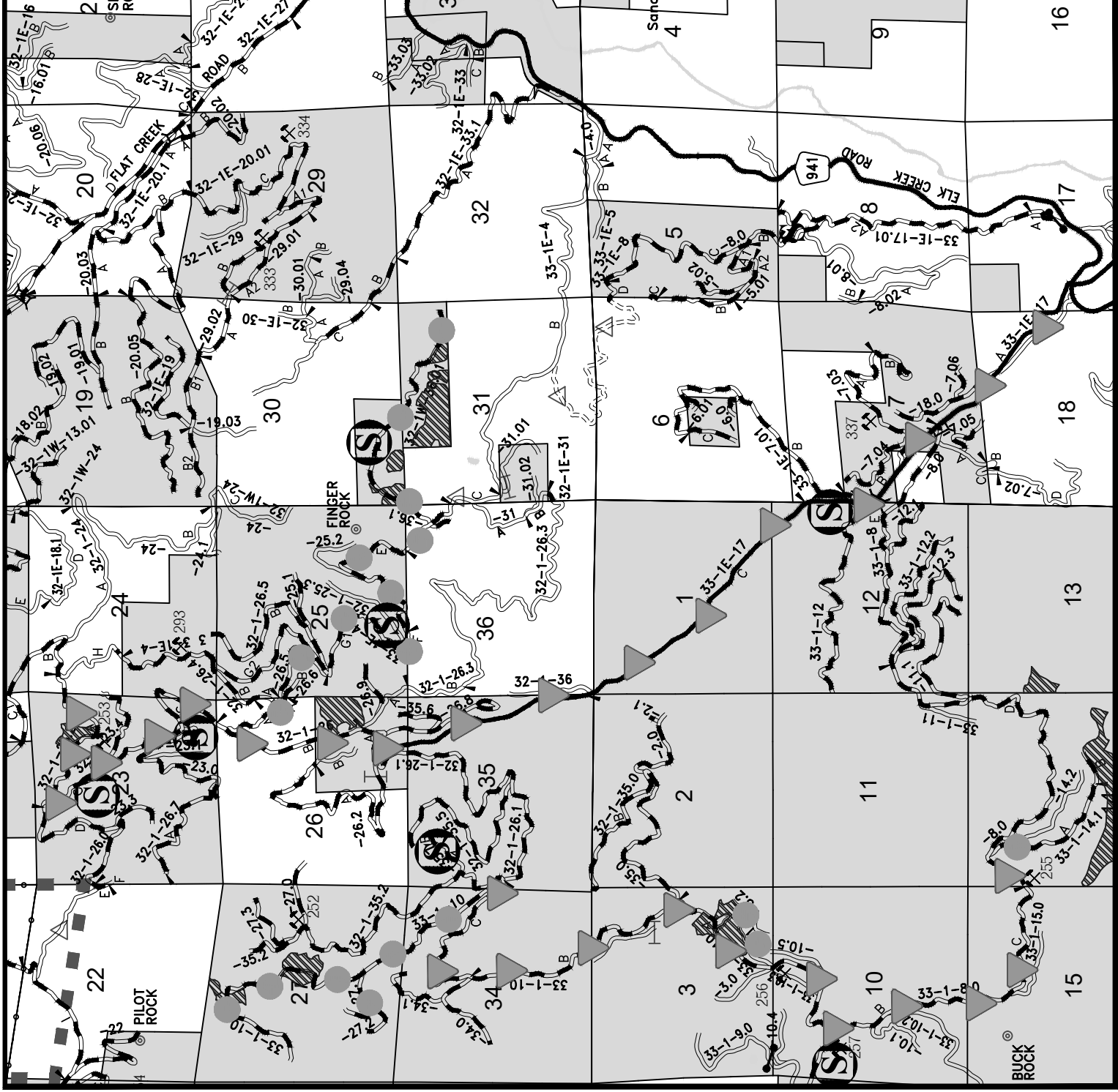
- BLM OWNERSHIP
- T.S. UNITS
- BST ROAD
- ROCKED ROAD
- NAT. SURFACE ROAD
- PRIMITIVE ROUTE
- Purchaser Maintenance
- BLM Maintenance
- STOCKPILE SITE



ALWAYS
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SCALE IN MILES



□ XHIBIT D-2

SH □ □ T 4 OF 6

SHADY □ L □ TIMB □ R SAL □

TRACT □ O. □

ORM05-TS-201 □ 0005

BLM OW □ □ RSHIP

T.S. □ □ ITS

BST ROAD

ROC □ □ D ROAD

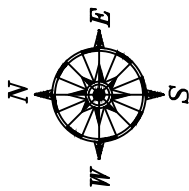
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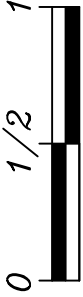
Purchaser Maintenance

BLM Maintenance

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SAFETY



SCALE IN MILES

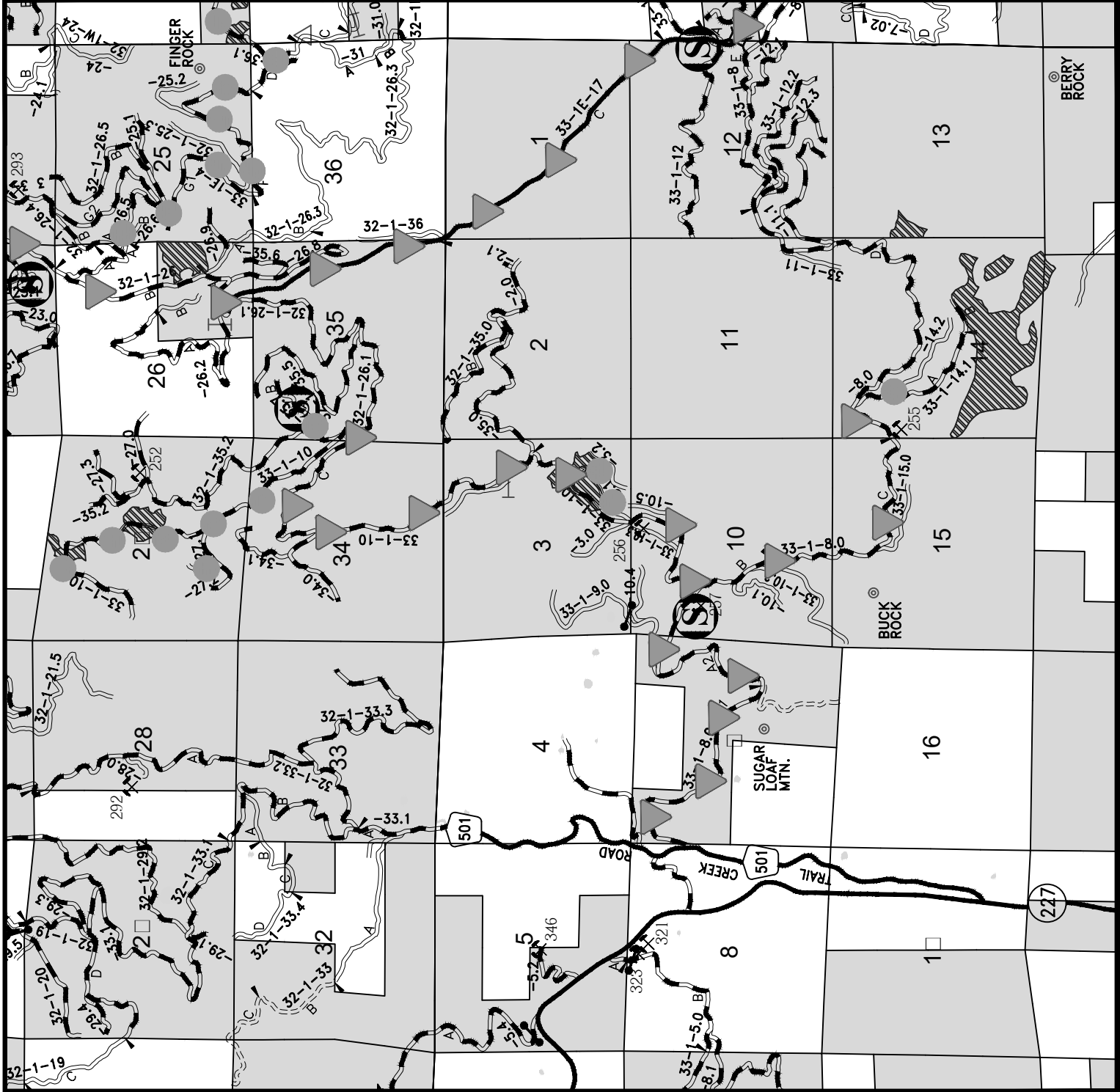


EXHIBIT D-2

SHOT 5 OF 6

SHADY ☐ L ☐ TIMB ☐ R SAL ☐

TRACT □ O. □

ORM05-TS-201 □-0005

BLM OW-00RSHIP

T.S. □□ITS

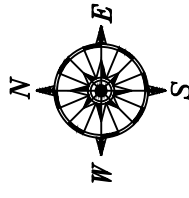
BST ROAD

ROC□□D ROAD

☐ AT. S. RFAC. ROADPRIMITIV ☐ RO ☐ T ☐

Purchaser Maintenance

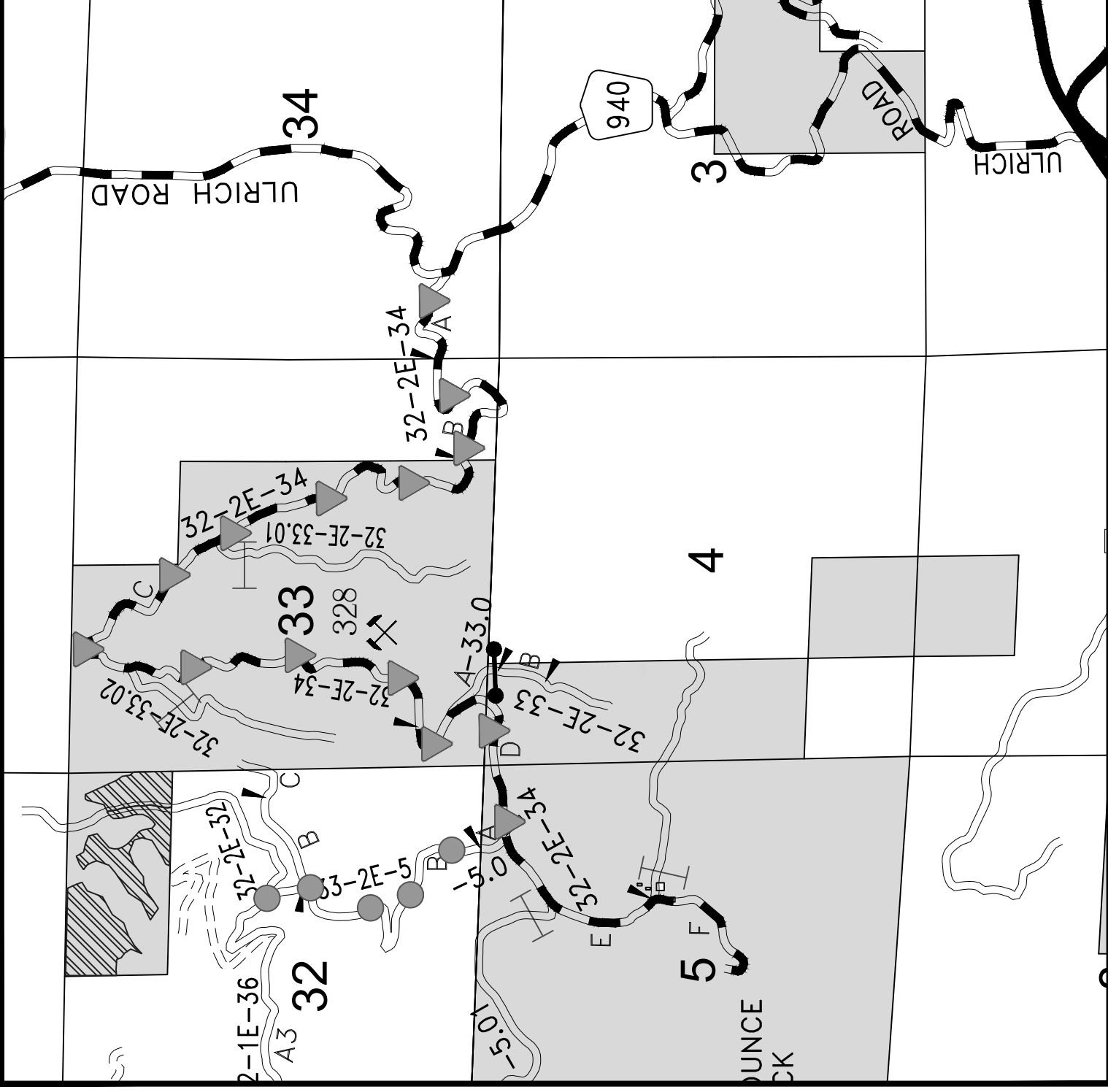
BLM Maintenance



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SCALE IN MILES



☐ XHIBIT D-2

SH ☐ T 6 OF 6

SHADY ☐ L ☐ TIMB ☐ R SAL ☐

TRACT ☐ O. ☐

ORM05-TS-201 ☐ 0005

BLM OW ☐ RSHIP

T.S. ☐ ITS

BST ROAD

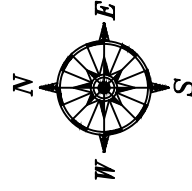
ROC ☐ D ROAD

☐ AT. S ☐ RFAC ☐ ROAD

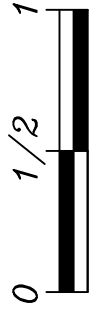
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Purchaser Maintenance

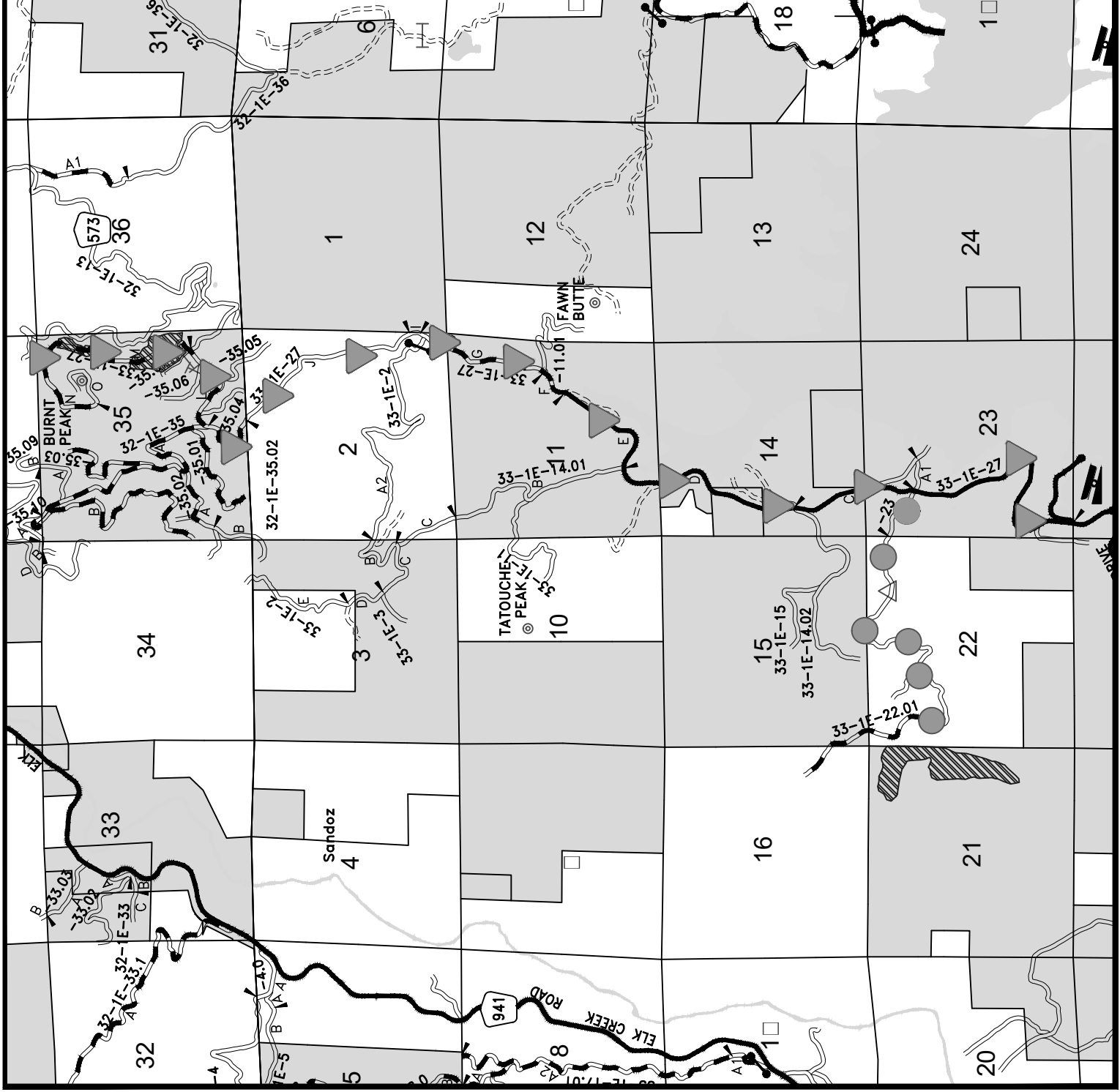
BLM Maintenance



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SCALE IN MILES



SHADY ELK TIMBER SALE Road Decommissioning Work List

GENERAL DEFINITIONS:

Decommission (Full) = Rip, Water bar (every 150' for grades <10% - every 100' grades >10%) unless otherwise noted in the work list, Barricade, and/or Remove Culverts (Armor if needed) and Seed and Mulch.

Decommission (Partial) = Water bar (every 150' for grades <10% - every 100' grades >10%) unless otherwise noted in the work list, Barricade, and/or Remove culverts (Armor if needed) and Seed and Mulch disturbed areas.

Barricade = Barricade only.

ASC - Aggregate Surface Course
CMP – Corrugated metal pipe
D.B.H.- Diameter breast height
NAT – Natural surface
WD – Water Dip

AWD – Armored water dip
Cu. Yds = CY = Cubic Yards
Jct.– Junction
PRR - Pit Run Rock
DS – Down Spout

Un-numbered Spur Road off 32-1E-13.01 NAT

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1E-13.02. Begin road partial road decommissioning.
0.02	Construct earth barricade.
0.09	End partial road decommissioning.

Road 32-1E-13.02 (Hawk Point TS ML)

Segment A ASC

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1E-13.01.
0.47	Jct. w/ 32-1E-13.07 right.
0.90	Jct. w/ 32-1E-11.02 right. End segment A.

Segment B NAT

<u>MP</u>	<u>Remarks</u>
0.90	Jct. w/ 32-1E-11.02 right.
0.91	Begin full road decommissioning. Construct earth barricade.
1.25	End full road decommissioning.

Un-numbered Spur Road off 32-1E-13.02 NAT

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1E-13.02. Begin partial road decommissioning.
0.01	Construct earth barricade.
0.09	End partial road decommissioning.

Un-numbered Spur Road off 32-1E-13.03 NAT

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1E-13.03.
0.03	Overhead power line.
0.14	Overhead power line.
0.15	Begin partial road decommissioning.
0.16	Construct earth barricade.
0.52	End partial road decommissioning.

Road 33-1E-22.01 (Yellow Rock R/W)
(Private) NAT

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 33-1E-23.00. Begin replacing existing water bars mile posted on Shady Elk Road Renovation Work List Exhibit C-13, Pages 19-20.
0.38	End water barring.

Road 33-1E-23.00 (Lower Lost Creek Spur)
Segment A2 ASC/NAT

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 33-1E-27.00. Begin replacing existing water bars mile posted on Shady Elk Road Renovation Work List Exhibit C-13, Pages 20-21.
0.29	Jct. w/ 33-1E-22.03 left. Jct. w/ private road left. End segment A2.

Segment B (Private) NAT

<u>MP</u>	<u>Remarks</u>
0.29	Continue water barring.
0.76	Property line.
0.80	Property line.
1.04	Jct. w/ private road right.
1.26	Jct. w/ private road left.
1.35	Jct. w/ private road right.
1.61	Jct. w/ 33-1E-22.01 right. End water barring.

Road 33-1W-3.01 (USFS RD #6605 130) NAT

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 33-1W-10.00.
0.03	Construct earth barricade.
0.38	Jct. w/ 33-1W-3.02 left.

Road 33-1W-3.03 (USFS RD #6605 140) NAT

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 33-1W-10.00. Begin partial road decommissioning.
0.02	Construct earth barricade.
0.15	End partial road decommissioning.

Road 33-2E-5.00 (Section 32 Connect)

Segment A NAT

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-2E-34.00. Begin water barring.
0.07	Pump Chance right.
0.10	Property line. End segment A.

Segment B (Private) NAT

<u>MP</u>	<u>Remarks</u>
0.10	Continue water barring.
0.23	Jct. w/ private road right.
0.26	Jct. w/ private road right.
0.64	Private mega gate. Property line. End segment B.

Segment C (Private) NAT

<u>MP</u>	<u>Remarks</u>
0.64	Continue water barring.
0.84	Jct. w/ 32-1E-36.00 left and right. End water barring.

Temp Route 31-1

<u>MP</u>	<u>Remarks</u>
0.00	Jct. w/ 32-1W-36.01. Begin full decommissioning.
0.07	End full decommissioning. Decommission helicopter landing.

EXHIBIT D-4

SHOOT 1 OF 4

SHADY L TIMBER SAL

TRACT O.

ORM05-TS-201-0005

BLM OWNERSHIP

T.S. ITS

BST ROAD

ROAD

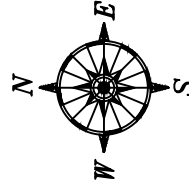
AT. SURFACE ROAD

PRIMITIVE ROAD

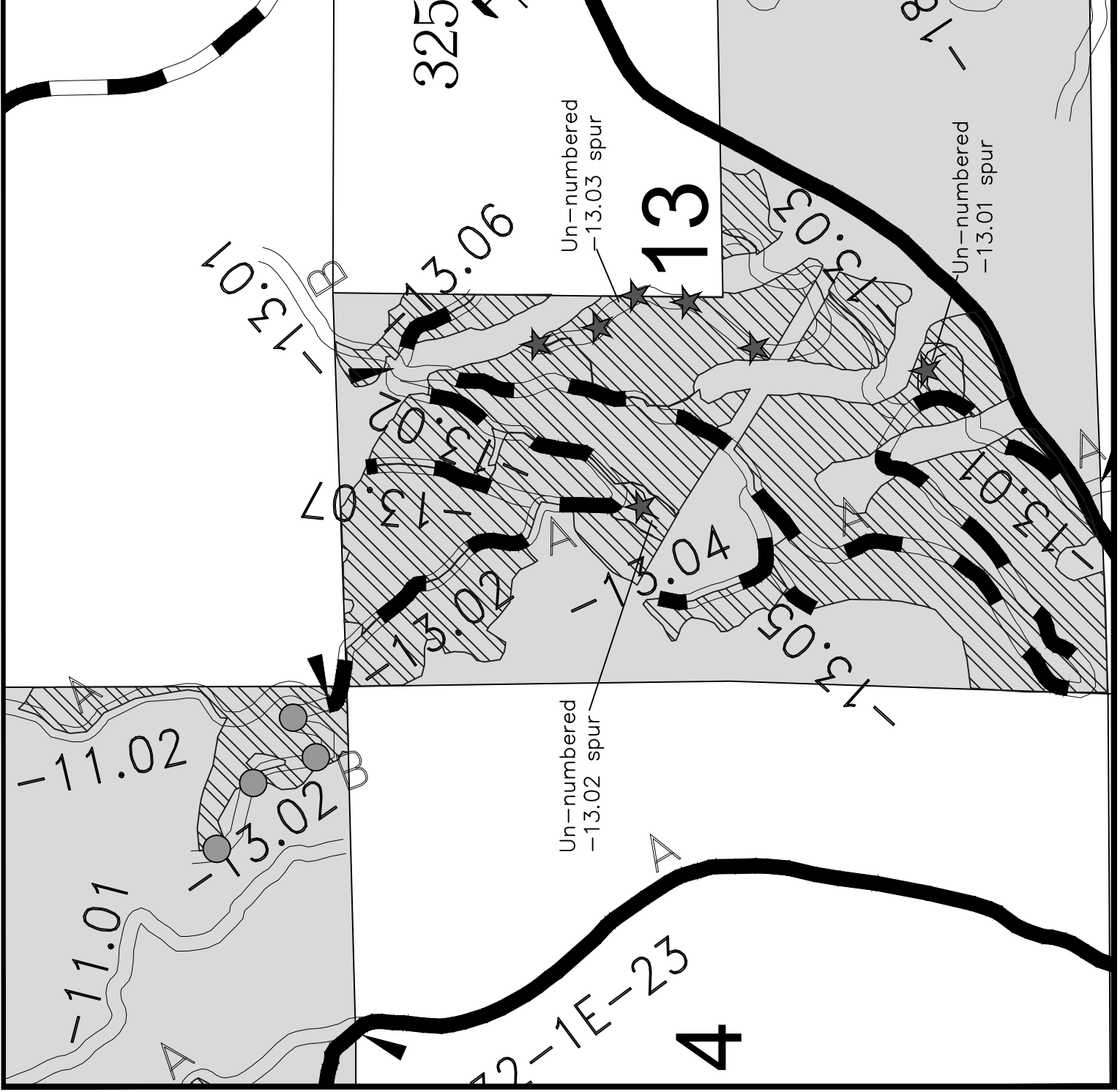
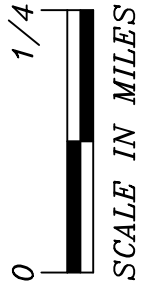
Barricade, water bar, rip,
seed, and mulch

Barricade and water bar

Water bar



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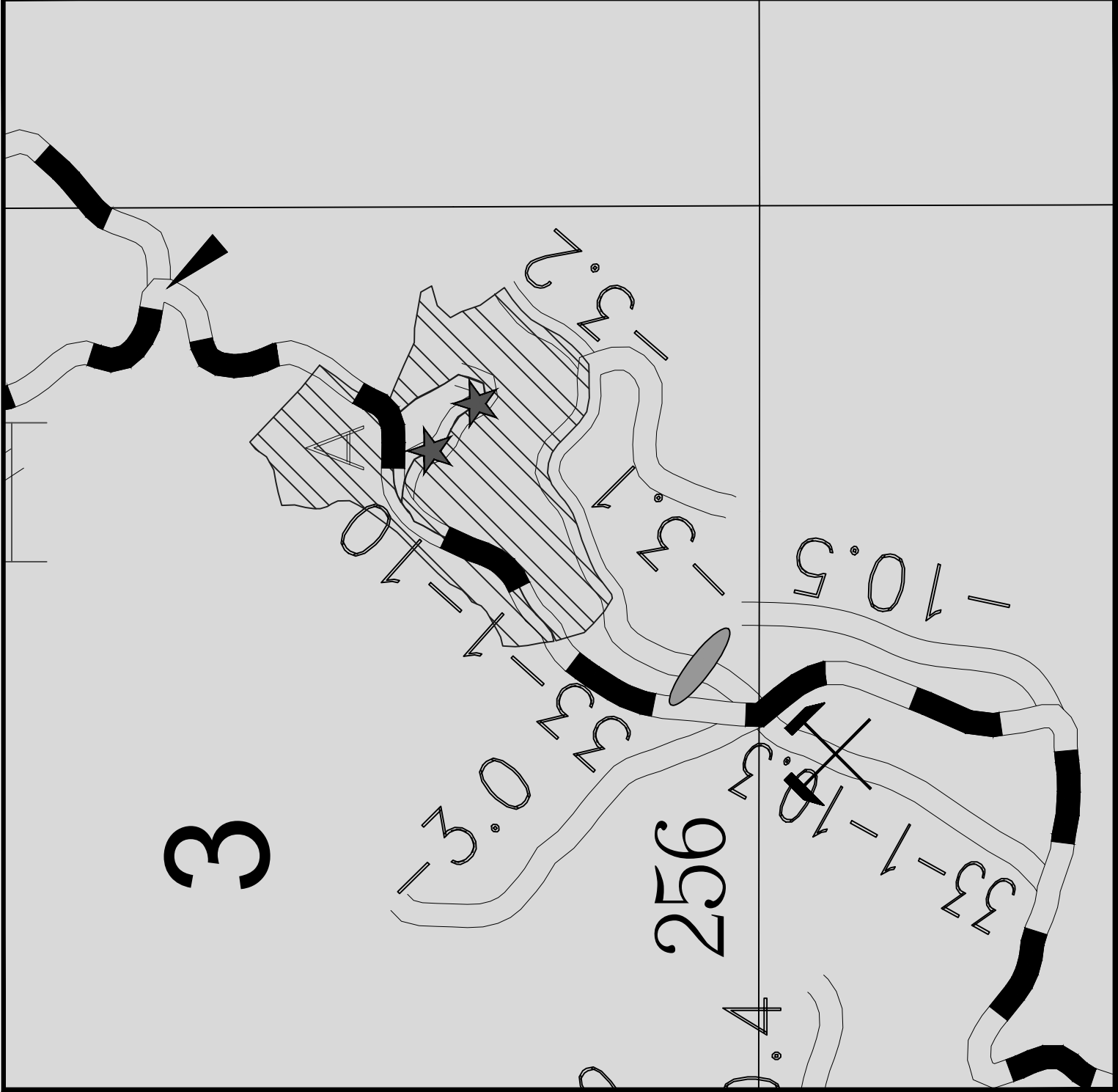
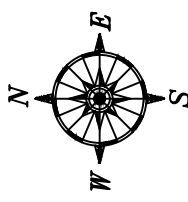
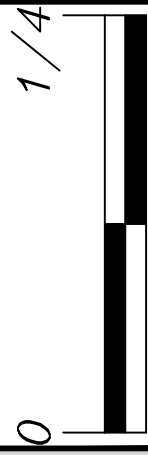


EXHIBIT D-4
SHEET 2 OF 4
SHADY L TIMBER SAL
TRACT O.
ORM05-TS-201-0005

- BLM OWNERSHIP
- T.S. ITS
- BST ROAD
- ROAD
- AT. SURFACE ROAD
- PRIMITIVE ROAD
- Barricade and Water Bar
- Construct Barricade Only



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SCALE IN MILES

EXHIBIT D-4

SHEET 3 OF 4

SHADY ☐ L ☐ TIMBER SAL ☐

TRACT ☐ O ☐

ORM05-TS-201 ☐ 0005

BLM OWNERSHIP

T.S. ☐ ITS

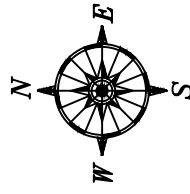
BST ROAD

ROCKY ROAD

AT. SURFACE ROAD

PRIMITIVE ROAD

Water bar



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SCALE IN MILES

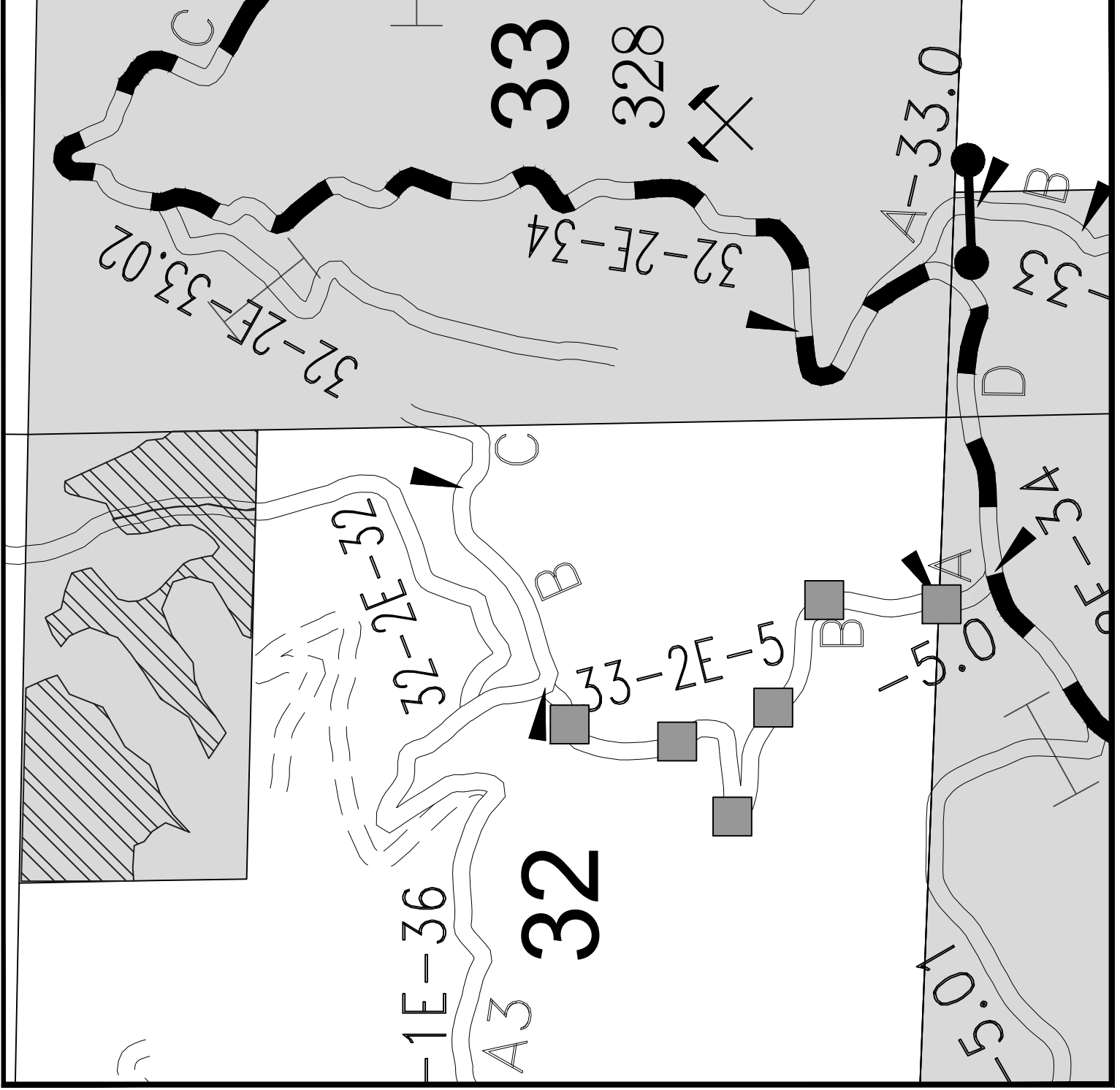
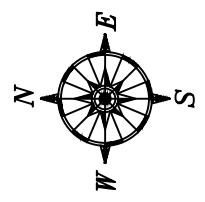


EXHIBIT D-4
 SHEET 4 OF 4
 SHADY L TIMBER SAL
 TRACT O.
 ORM05-TS-201-0005

- BLM OWNERSHIP
- T.S. ITS
- BST ROAD
- ROCK ROAD
- AT. SURFACE ROAD
- PRIMITIVE ROAD
- Water Bar



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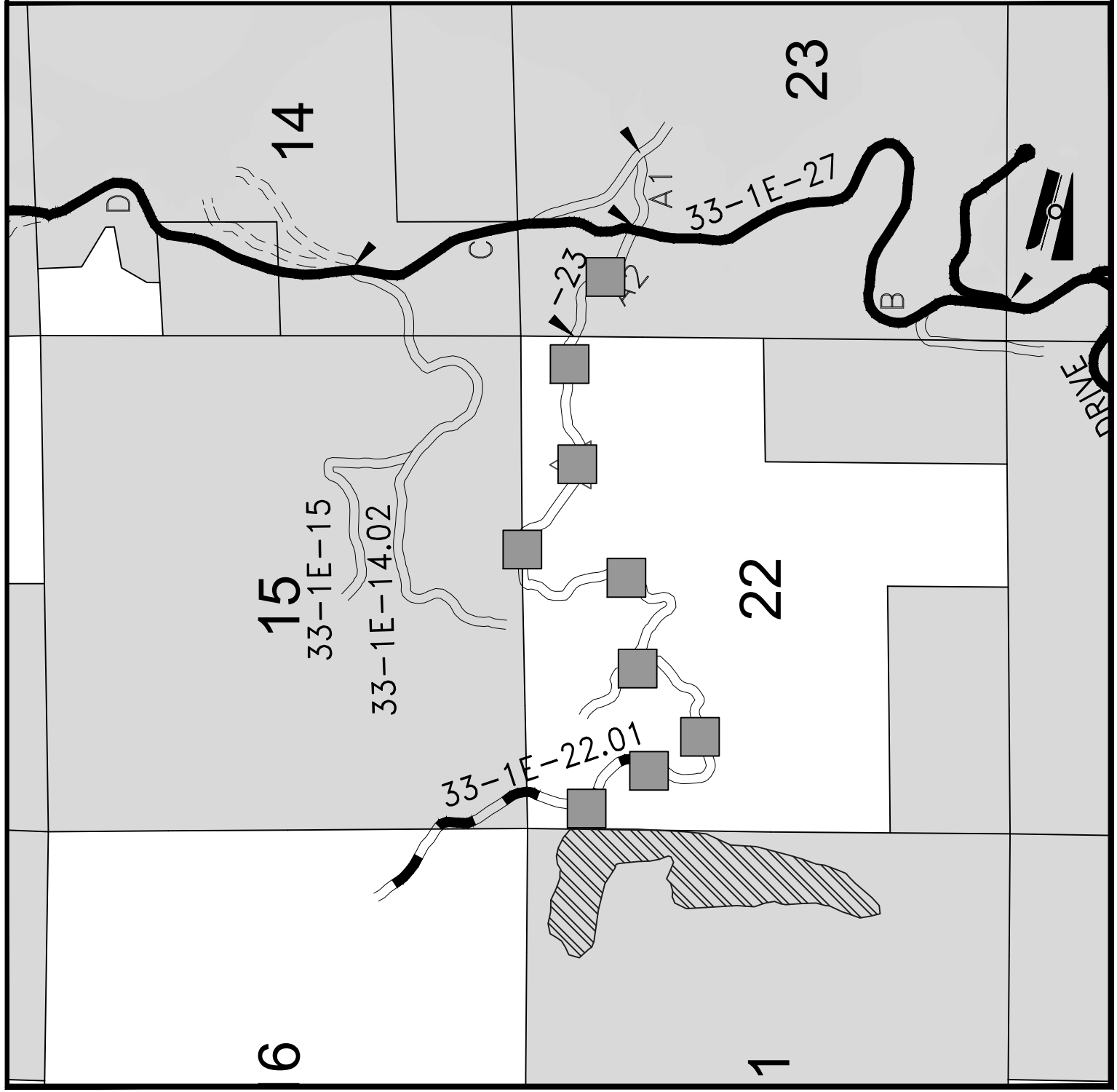
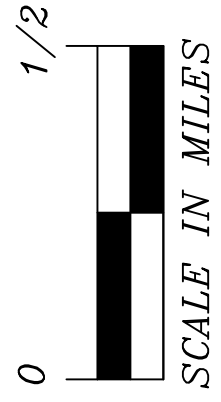
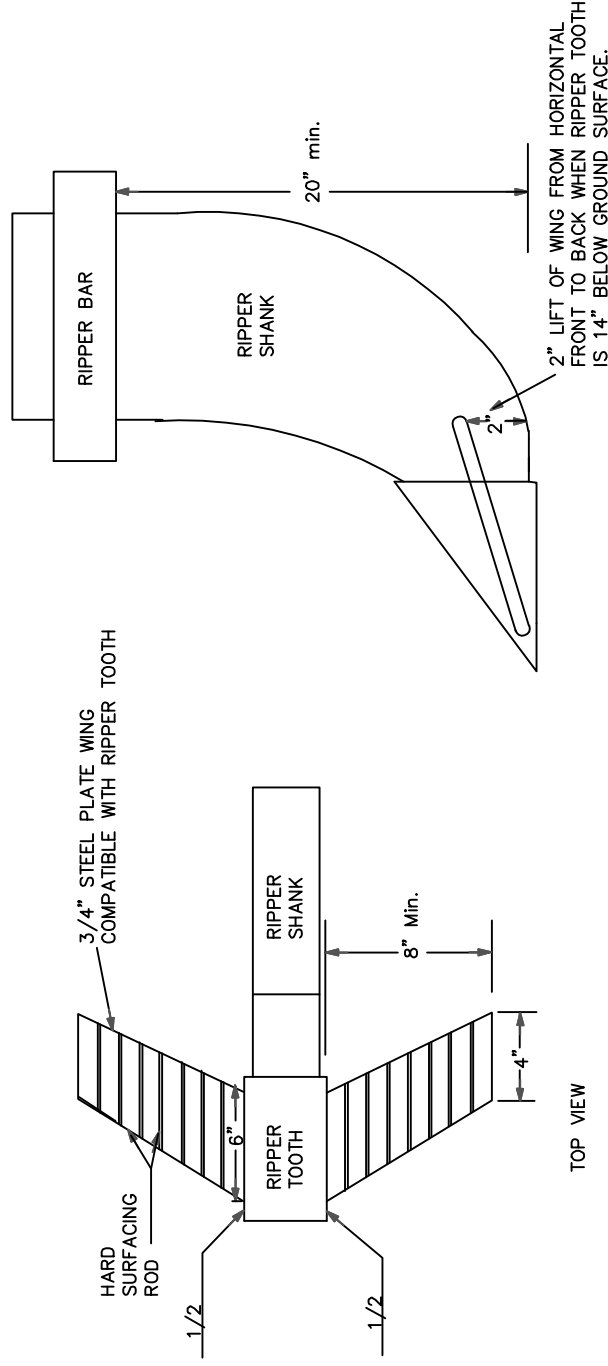


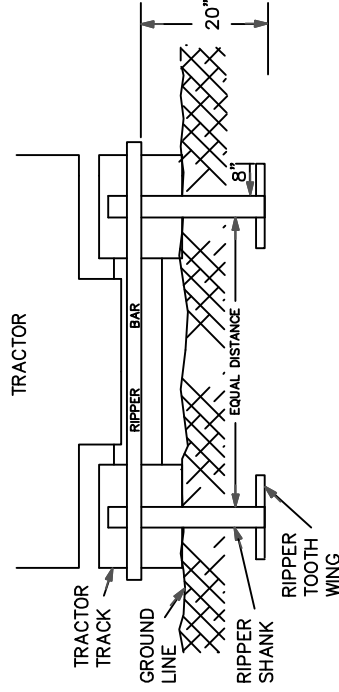
EXHIBIT R

SHEET 1 OF 1



SIDE VIEW

TYPICAL RIPPER POSITION



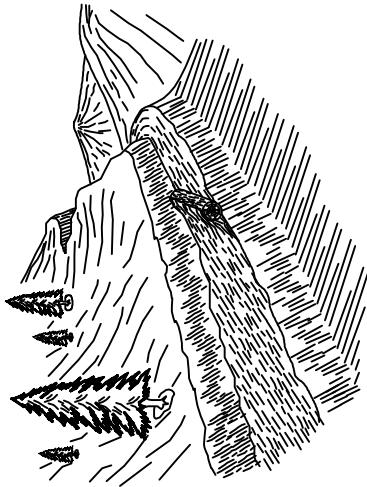
NOTES: TYPICAL RIPPER TOOTH CONSTRUCTION

1. USE HARD SURFACING ROD FOR ALL EDGE AND SURFACE REINFORCEMENT.
2. WELD THAT ATTACHES WINGS TO RIPPER TEETH MUST BE COMPATIBLE WITH METAL IN TEETH AND WINGS.
3. RIPPER SHANKS AND RIPPER TEETH MAY BE NEW OR USED.
4. WINGS SHALL PROVIDE TWO (2) INCHES OF LIFT FROM THE HORIZONTAL WHEN TEETH ARE EXTENDED FOURTEEN (14) INCHES BELOW THE GROUND SURFACE.

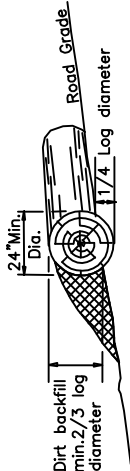
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ASHLAND RESOURCE AREA MEDFORD DISTRICT

WING RIPPER DETAIL

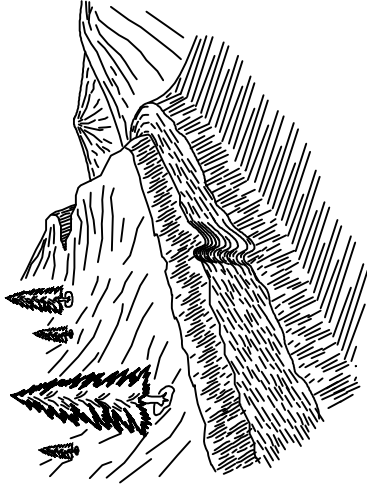
DESIGNED	
REVIEWED	
APPROVED	
DRAWN: JWR	SCALE: NONE
DATE: October 2009	SHEET 1 OF 1
DRAWING NO.	



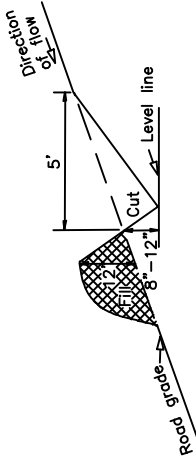
LOG BARRICADE



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".

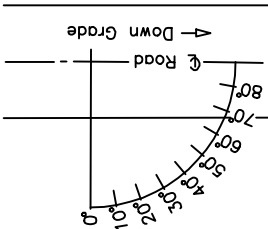


WATER BAR



1. 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
4. UPON COMPLETION OF SKIDDING LOGS, FOR THE LOGGING SEASON, EACH SKID ROAD WILL HAVE CROSS DRAINAGE CONSTRUCTED AS SHOWN ABOVE.
5. PRIOR TO BLOCKING, EACH ROAD WILL HAVE CROSS DRAINAGE CONSTRUCTED AS SHOWN ABOVE.

SKEW DIAGRAM



WATER BAR SPACING *

ROAD GRADE	LOAM OR CLAY	DECOMPOSED LOAM GRANITE
%	FEET	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
Timber Appraisal**

Sale Name:Shady Elk TS
BLM District: Medford DO
Contract #:ORM05-TS-2017.0005
Sale Type:Advertised

Sale Date: Thursday, September 14, 2017
Unit of Measure: 16' MBF
Contract Term: 36 months
Contract Mechanism: 5450-3
Sale of Timber - Lump Sum

Content

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

Prepared By: Parks, Corey J
Approved By: Rentz, George C
Timber Appraisal Summary

**Legal Description of Contract
Area**

Land Status	County	Township	Range	Section	Subdivision	Meridian
O&C	Jackson	33S	1W	23	NE1/4NE1/4.	Willamette
O&C	Jackson	32S	1E	35	E1/2NE1/4, NE1/4SE1/4.	Willamette
O&C	Jackson	33S	1E	21	E1/2NE1/4, NE1/4SE1/4.	Willamette
PD	Jackson	32S	2E	32	N1/4NE1/4.	Willamette
O&C	Jackson	32S	1W	11	E1/2SE1/4.	Willamette
O&C	Jackson	32S	1W	12	NW1/4SW1/4.	Willamette
O&C	Jackson	32S	1W	13	N1/2NW1/4.	Willamette
O&C	Jackson	32S	1W	23	N1/2NE1/4, SE1/4NE1/4.	Willamette
O&C	Jackson	32S	1W	26	E1/2SE1/4.	Willamette
O&C	Jackson	32S	1W	27	NW1/4NE1/4, SW1/4NE1/4, NE1/4NW1/4, NW1/4SE1/4.	Willamette
O&C	Jackson	33S	1W	3	SE1/4.	Willamette
O&C	Jackson	33S	1W	13	SW1/4NW1/4.	Willamette
O&C	Jackson	33S	1W	14	N1/2 SW1/4, GOVT. LOT 3, 4, N1/2SE1/4, GOVT. LOT 1, 2.	Willamette

O&C	Jackson	32S	1E	7	GOVT. LOT 6, 7, 8, 9.	Willamette
O&C	Jackson	32S	1E	11	SE1/4NW1/4, E1/2SW1/4, E1/2SE1/4.	Willamette
O&C	Jackson	32S	1E	13	W1/2, NW1/4SE1/4.	Willamette
PD	Jackson	32S	1E	30	GOVT. LOT 4.	Willamette
O&C	Jackson	32S	1E	31	N1/2NE1/4, NE1/4NW1/4.	Willamette

Species Totals

Species	Net	Gross Merch	Gross	# of Merch Logs	# of Cull Logs	# of Trees
Douglas Fir	5,102.0	5,617.0	5,881.0	100,141	2,230	27,183
White Fir	584.0	640.0	652.0	9,217	594	2,589
Ponderosa Pine	196.0	212.0	220.0	2,359	407	933
Incense-cedar	47.0	52.0	53.0	1,301	67	528
Sugar Pine	20.0	22.0	25.0	398	46	135
Totals	5,949.0	6,543.0	6,831.0	113,416	3,344	31,368

Cutting Area Acres

Regeneration Harvest Acres	Partial Cut Acres	Right of Way Acres	Total Acres	Net Volume per Acre
22.0	669.0	1.0	692.0	8.6

Timber Appraisal Summary

Logging Costs		Green	5,949.0 mbf
Stump to Truck	\$1,678,837.88	Salvage	0 mbf
Transportation	\$229,724.73	Export	0 mbf
Road Construction	\$399,566.44	<u>Ground Base Logging:</u>	
Maintenance/Rockwear	\$66,978.76	Percent of Sale Volume	33 %
Road Use	\$0.00	Average Yarding Slope	15 %
Other Allowances	\$102,443.60	Average Yarding Distance	300 ft
Total:		<u>Cable Logging:</u>	
\$2,477,551.41		Percent of Sale Volume	22 %
Total Logging Cost per MBF:		Average Yarding Slope	40 %
\$416.47		Average Yarding Distance	225 ft
Utilization Centers		<u>Aerial Logging:</u>	
Location	<u>Distance</u>	Percent of Sale Volume	45 %
	% of Net Volume	Average Yarding Slope	40 %
White City, Or	35.0 miles	Average Yarding Distance	2200 ft
	100 %	Cruise	
Profit & Risk		Cruise	July 2017
Basic Profit & Risk	10 %	Completed	
Additional Risk	0 %	Cruised By	Parks, Rentz, Darner, Siemer, Worman,
Total Profit & Risk			Dotson, Cranmer
10 %		Cruise	
Tract Features		Method	
Quadratic Mean DBH	14.4 in	3p cruise	
Average GM Log	58 bf		
Average Volume per Acre	8.6 mbf		
Recovery	87 %		
<u>Net MBF volume:</u>			

Stumpage Summary

Stumpage Computation

Species	# of Trees	Net Volume	Pond Value	(-) Profit & Risk	(-) Logging Costs	(+) Marginal Log Value	Appraised Price/MBF	Appraised Value
Douglas Fir	27,183	5,102.0	\$583.15	\$58.32	\$416.47	\$0.00	\$108.40	\$553,056.80
White Fir	2,589	584.0	\$427.63	\$42.76	\$416.47	\$0.00	\$42.80 *	\$24,995.20
Ponderosa Pine	933	196.0	\$304.85	\$30.48	\$416.47	\$0.00	\$30.50 *	\$5,978.00
Incensecedar	528	47.0	\$497.51	\$49.75	\$416.47	\$0.00	\$49.80 *	\$2,340.60
Sugar Pine	135	20.0	\$293.44	\$29.34	\$416.47	\$0.00	\$29.40 *	\$588.00
Totals	31,368	5,949.0						\$586,958.60

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

Percent of Volume By Log Grade

Species	No. 1 & 2 Peeler	No. 3 Peeler	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
Douglas Fir			2.0 %	50.0 %	42.0 %	6.0 %	

Species	Peeler	No. 1 Sawmill	Special Mill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	Camp Run
White Fir				53.0 %	44.0 %	3.0 %	

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill	No. 6 Sawmill	Camp Run

Shady Elk TS**ORM05-TS-2017.0005**

Ponderosa Pine				72.0 %	26.0 %	2.0 %	
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Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill	No. 6 Sawmill	Camp Run
Incense-cedar				19.0 %	66.0 %	15.0 %	

Species	No. 1 Sawmill	No. 2 Sawmill	No. 3 Sawmill	No. 4 Sawmill	No. 5 Sawmill	No. 6 Sawmill	Camp Run
Sugar Pine				50.0 %	42.0 %	8.0 %	

Unit Summary

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	43.0	48.0	50.0	123

Totals:	43.0	48.0	50.0	123
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Regeneration Harvest	0.0
Partial Cut	10.0
Right of Way	0.0

Shady Elk TS**ORM05-TS-2017.0005****Unit: 3-1****Net Volume/Acre: 4.1 MBF**

Total Acres:	10.0
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Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	69.0	76.0	79.0	358
White Fir	3.0	3.0	3.0	11
Ponderosa Pine	2.0	2.0	2.0	5
Totals:	74.0	81.0	84.0	374

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

Unit: 3-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	40.0	44.0	46.0	177
White Fir	1.0	1.0	1.0	5
Totals:	41.0	45.0	47.0	182

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

Unit: 3-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	10.0	11.0	12.0	53
Totals:	10.0	11.0	12.0	53

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

Unit: 7-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	127.0	140.0	147.0	446
Totals:	127.0	140.0	147.0	446

Regeneration Harvest	0.0
Partial Cut	20.0
Right of Way	0.0

Total Acres:	20.0
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Unit: 11-1

Net Volume/Acre: 4.3 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	69.0	76.0	80.0	319

Shady Elk TS

ORM05-TS-2017.0005

Totals:	69.0	76.0	80.0	319
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Regeneration Harvest	0.0
Partial Cut	11.0
Right of Way	0.0

Unit: 11-2**Net Volume/Acre: 5.0 MBF****Total Acres:****11.0**

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	15.0	16.0	17.0	28
Totals:	15.0	16.0	17.0	28

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

Unit: 11-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	149.0	164.0	172.0	880
White Fir	118.0	129.0	131.0	498
Totals:	267.0	293.0	303.0	1,378

Regeneration Harvest	0.0
Partial Cut	31.0
Right of Way	0.0
Total Acres:	31.0

Unit: 11-4

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	130.0	143.0	150.0	839
Ponderosa Pine	17.0	18.0	19.0	104
White Fir	4.0	5.0	5.0	21
Sugar Pine	1.0	1.0	1.0	7
Totals:	152.0	167.0	175.0	971

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

Unit: 13-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	20.0	22.0	23.0	82

Regeneration Harvest	0.0
Partial Cut	5.0
Right of Way	0.0

Shady Elk TS

Totals:	20.0	22.0	23.0	82
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Total Acres:	5.0
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Unit: 13-2

Net Volume/Acre: 6.3 MBF

Unit: 13-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	17.0	19.0	20.0	83
Totals:	17.0	19.0	20.0	83

Net Volume/Acre: 5.7 MBF

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

Unit: 13-4

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	222.0	244.0	255.0	1,519
Ponderosa Pine	9.0	9.0	10.0	47
Sugar Pine	1.0	1.0	1.0	7
Totals:	232.0	254.0	266.0	1,573

Net Volume/Acre: 9.7 MBF

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

Unit: 13-5

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	324.0	357.0	373.0	1,876
Ponderosa Pine	6.0	7.0	7.0	36
White Fir	1.0	1.0	1.0	3
Sugar Pine	1.0	1.0	2.0	10
Incense-cedar	1.0	1.0	1.0	6
Totals:	333.0	367.0	384.0	1,931

Net Volume/Acre: 11.1 MBF

Regeneration Harvest	0.0
Partial Cut	30.0
Right of Way	0.0
Total Acres:	30.0

Unit: 13-6**Net Volume/Acre: 11.7 MBF**

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	358.0	395.0	413.0	2,190
White Fir	57.0	62.0	63.0	265
Ponderosa Pine	5.0	6.0	6.0	29
Sugar Pine	1.0	1.0	2.0	8
Incense-cedar	1.0	1.0	1.0	8
Totals:	422.0	465.0	485.0	2,500

Unit: 13-7

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	37.0	41.0	42.0	287
White Fir	8.0	9.0	9.0	56
Totals:	45.0	50.0	51.0	343

Unit: 13-8

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	257.0	283.0	296.0	1,638
White Fir	17.0	19.0	19.0	75
Ponderosa Pine	7.0	8.0	8.0	42
Sugar Pine	1.0	1.0	2.0	11
Incense-cedar	1.0	1.0	1.0	12
Totals:	283.0	312.0	326.0	1,778

Unit: 13-9

Regeneration Harvest	0.0
Partial Cut	36.0
Right of Way	0.0
Total Acres:	36.0

Net Volume/Acre: 11.3 MBF

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

Net Volume/Acre: 12.9 MBF

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

Net Volume/Acre: 10.2 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	76.0	84.0	88.0	509
White Fir	55.0	60.0	61.0	254
Ponderosa Pine	1.0	1.0	1.0	5
Sugar Pine	1.0	1.0	1.0	4
Totals:	133.0	146.0	151.0	772

Unit: 13-10

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	649.0	715.0	748.0	4,085
White Fir	44.0	48.0	49.0	163
Ponderosa Pine	12.0	13.0	13.0	77
Sugar Pine	3.0	3.0	3.0	22
Incense-cedar	1.0	1.0	1.0	10
Totals:	709.0	780.0	814.0	4,357

Unit: 13-11

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	23.0	25.0	26.0	96
Totals:	23.0	25.0	26.0	96

Unit: 14-1

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

Net Volume/Acre: 9.0 MBF

Regeneration Harvest	0.0
Partial Cut	79.0
Right of Way	0.0
Total Acres:	79.0

Net Volume/Acre: 2.9 MBF

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

Net Volume/Acre: 8.4 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	931.0	1,024.0	1,075.0	5,417
White Fir	94.0	104.0	106.0	397
Ponderosa Pine	25.0	28.0	29.0	107
Sugar Pine	9.0	11.0	11.0	64
Incense-cedar	9.0	10.0	10.0	153
Totals:	1,068.0	1,177.0	1,231.0	6,138

Unit: 14-1L

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	20.0	21.0	22.0	34
White Fir	10.0	10.0	12.0	66
Incense-cedar	1.0	1.0	1.0	6
Totals:	31.0	32.0	35.0	106

Unit: 21-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	264.0	292.0	305.0	1,268
Incense-cedar	2.0	3.0	3.0	27
Ponderosa Pine	1.0	1.0	1.0	2
Totals:	267.0	296.0	309.0	1,297

Unit: 23-1

Regeneration Harvest	0.0
Partial Cut	127.0
Right of Way	0.0
Total Acres:	127.0

Net Volume/Acre: 31.0 MBF

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

Net Volume/Acre: 5.3 MBF

Regeneration Harvest	0.0
Partial Cut	50.0
Right of Way	0.0
Total Acres:	50.0

Net Volume/Acre: 11.2 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	79.0	87.0	91.0	240
White Fir	22.0	24.0	24.0	59
Totals:	101.0	111.0	115.0	299

Unit: 26-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	87.0	96.0	100.0	460
Ponderosa Pine	64.0	69.0	71.0	335
White Fir	6.0	7.0	7.0	21
Incense-cedar	1.0	1.0	1.0	8
Totals:	158.0	173.0	179.0	824

Unit: 27-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	41.0	45.0	47.0	139
White Fir	22.0	24.0	24.0	87
Incense-cedar	3.0	3.0	3.0	18
Totals:	66.0	72.0	74.0	244

Unit: 27-2

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

Net Volume/Acre: 7.9 MBF

Regeneration Harvest	0.0
Partial Cut	20.0
Right of Way	0.0
Total Acres:	20.0

Net Volume/Acre: 6.6 MBF

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

Net Volume/Acre: 4.7 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	17.0	18.0	19.0	59
White Fir	9.0	10.0	10.0	40
Incense-cedar	2.0	2.0	2.0	15
Totals:	28.0	30.0	31.0	114

Unit: 27-3

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	10.0	11.0	11.0	44
White Fir	1.0	1.0	1.0	5
Totals:	11.0	12.0	12.0	49

Unit: 27-4

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	10.0	11.0	12.0	52
White Fir	1.0	1.0	1.0	4
Totals:	11.0	12.0	13.0	56

Unit: 27-5

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	27.0	29.0	31.0	116
White Fir	7.0	8.0	8.0	29
Totals:	34.0	37.0	39.0	145

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

Net Volume/Acre: 5.5 MBF

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

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

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

Unit: 31-1

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	200.0	220.0	230.0	851
Ponderosa Pine	2.0	3.0	3.0	11
White Fir	1.0	1.0	1.0	3
Totals:	203.0	224.0	234.0	865

Net Volume/Acre: 4.5 MBF

Regeneration Harvest	0.0
Partial Cut	45.0
Right of Way	0.0
Total Acres:	45.0

Unit: 31-2

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	25.0	28.0	29.0	123
Ponderosa Pine	4.0	4.0	4.0	12
White Fir	2.0	2.0	2.0	8
Sugar Pine	2.0	2.0	2.0	2
Totals:	33.0	36.0	37.0	145

Net Volume/Acre: 6.6 MBF

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

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	239.0	263.0	276.0	663
White Fir	15.0	16.0	17.0	53
Ponderosa Pine	9.0	9.0	10.0	23

Incense-cedar	8.0	9.0	10.0	95
Totals:	271.0	297.0	313.0	834

Unit: 32-1 Net Volume/Acre:
10.8 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	170.0	187.0	196.0	718
Ponderosa Pine	9.0	10.0	10.0	33
Incense-cedar	4.0	4.0	4.0	36
White Fir	1.0	1.0	1.0	7
Totals:	184.0	202.0	211.0	794

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

Unit: 32-2

Net Volume/Acre: 23.4 MBF

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	259.0	285.0	299.0	836
Ponderosa Pine	21.0	22.0	23.0	54
White Fir	13.0	15.0	15.0	44
Incense-cedar	11.0	13.0	13.0	113
Totals:	304.0	335.0	350.0	1,047

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

Unit: 32-3 Net Volume/Acre: 30.1 MBF Unit: 35-1 Net Volume/Acre: 2.8 MBF

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

Species	Net	Gross Merch	Gross	# of Trees
Douglas Fir	17.0	18.0	19.0	81
Totals:	17.0	18.0	19.0	81

Unit: 35-2

Species	Net	Gross Merch	Gross	# of Trees
White Fir	72.0	79.0	81.0	415
Douglas Fir	71.0	79.0	82.0	494
Ponderosa Pine	2.0	2.0	3.0	11
Incense-cedar	2.0	2.0	2.0	21
Totals:	147.0	162.0	168.0	941

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

Net Volume/Acre: 7.4 MBF

Regeneration Harvest	0.0
Partial Cut	20.0
Right of Way	0.0
Total Acres:	20.0

Stump to Truck Costs

Total Stump To Truck	Net Volume	\$/MBF
\$1,678,837.88	5,949.0	\$282.21

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	2,969.0	\$409.23	\$1,215,003.87	
Cable: Small Yarder	GM MBF	1,435.0	\$170.44	\$244,581.40	
Harvester/Skidder	GM MBF	2,139.0	\$95.99	\$205,322.61	
Subtotal				\$1,664,907.88	

Additional Costs

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

Additional Moves

Equipment	Unit of Measure	# of Units of Measure	\$/Unit of Measure	Total Cost	Remarks
Cable: Small Yarder	Hour	16.0	\$150.00	\$2,400.00	Four moves at six hundred dollars a move...
Shovel	Hour	16.0	\$150.00	\$2,400.00	Four moves at six hundred dollars a move (cable side)
Shovel	Hour	20.0	\$150.00	\$3,000.00	Five moves at six hundred dollars a move (CAT)

Shady Elk TS**ORM05-TS-2017.0005**

Shovel	Hour	24.0	\$150.00	\$3,600.00	Six moves at six hundred a move...
Wheel Skidder	Hour	3.0	\$110.00	\$330.00	one move to sec 13
Harvester/Skidder	Hour	20.0	\$110.00	\$2,200.00	Five moves at four hundred and forty dollars a move
Subtotal				\$13,930.00	

Transportation

Total	Net Volume	\$/MBF
\$229,724.73	5,949.0	\$38.62

Utilization Center	One Way Mileage	Description	Unit of Measure	# of Units	\$/Unit of Measure	Total Cost
White City, Or	35.0	All species	GM MBF	6,543.0	\$35.11	\$229,724.73

Engineering Allowances

Total	Net Volume	\$/MBF
\$466,545.20	5,949.0	\$78.42

Cost Item	Total Cost
Road Construction:	\$399,566.44
Road Maintenance/Rockwear:	\$66,978.76
Road Use Fees:	\$0.00

Other Allowances

Total	Net Volume	\$/MBF
\$102,443.60	5,949.0	\$17.22

Environmental Protection

Cost item	Total Cost
CWD on first 100'	\$1,500.00
Log barricade	\$1,125.00
Waterbar	\$7,500.00
Harvester (washing)	\$250.00
Skidder (washing)	\$250.00
Processor (washing)	\$250.00
Loaders/Yarder (washing)	\$1,110.00
Ripping	\$2,075.00
Seed & Mulch	\$8,800.00
Subtotal	\$22,860.00

Logging

Cost item	Total Cost
Directional Falling	\$4,800.00
skid/corridor location	\$1,458.40
RMP Age/DBH Restriction Felling/Yarding	\$793.20
Subtotal	\$7,051.60

Slash Disposal & Site Prep

Cost item	Total Cost
Lop and Scatter	\$12,032.00

Hand Pile and cover	\$60,500.00
Subtotal	\$72,532.00

Comments:

Ripping = newly constructed landings
RMP Age/DBH Restriction= Heli Landing 14-1L Refer to L-32 stip

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Sale: Shady Elk T.S.
Sale Date: 9-2017
Prep. By : Brown
Tract No:

ROAD MAINTENANCE AND ROAD USE APPRAISAL WORK SHEET

Summary of Costs

1.1) Road Use - Amortization: \$0.00/5949 MBF = \$0.00/MBF

Road Maintenance Obligation:

(2.1) BLM Maintenance	\$15,720.74
(2.2) BLM Rockwear	\$9,780.69
(5.1) Purchaser Maintenance Rockwear	\$1,588.30
Total Rockwear Payable to BLM	\$11,368.99
(3.1) 3rd Party Maintenance	\$0.00
(3.2) 3rd Party Rockwear	\$560.57
(4.1) Other Maintenance Payments	\$0.00
Total Maintenance Fee Obligation (2.1-5.1)	\$27,650.30

Purchaser Maintenance Allowances:

(5.2A) Move In	\$2,831.85
(5.2B) Culverts, Catch Basins, Downspouts	\$3,658.20
(5.2C) Grading, Ditching	\$11,532.84
(5.2D) Slide Removal and Slump Repair	\$0.00
(5.2E) Dust Palliative (Water)	\$13,397.70
(5.2F) Surface Repair (Aggregate)	\$0.00
(5.2G) Other	\$0.00
Total Purchaser Maintenance Allowances (5.2A-5.2G)	\$31,420.59

(2.1-5.2G) Cost (\$27,650.30 + \$31,420.59) = \$59,070.90
Cost/MBF \$59,070.90 / 5949 MBF = \$9.93/MBF \$9.93/MBF

(5.2H) Decommissioning \$7,907.86

(5.2H) Cost/MBF \$7,907.86/5949 MBF = \$1.33/MBF

(2.1-5.2H) Cost (\$27,650.30 + \$31,420.59 + \$7,907.86) = \$66,978.76

Total Cost/MBF (Excluding Road Use) \$66,978.76/5949 MBF = \$11.26/MBF

1) Road Use Fees - Amortization

Details

R/W	Rd Use	Vol	Road Use
Number	Road Number	Fee x MBF =	Obligation

Subtotal by agreement number

(1.1) Subtotal \$0.00

2) BLM Maintenance - Timber Haul

MAINTENANCE (2.1)					ROCKWEAR (2.2)			
Road Number and Segment	A Surf N Type	Mi	Maint x Fee x	Vol MBF =	Maint	Fee x	MBF =	Rkwear
32-1E-07.01	N ASC	0.39	0.95	127	\$47.05	0.60	127	\$29.72
32-1E-07.02A	N ASC	0.60	0.95	127	\$72.39	0.60	127	\$45.72
32-1E-11.02A	N ASC	0.59	0.95	52	\$29.15	0.60	52	\$18.41
32-1E-13.01A3	A ASC	0.53	0.75	1146	\$455.54	0.60	1146	\$364.43
32-1E-13.01A2	A ASC	1.05	0.75	1603	\$1,262.36	0.60	1603	\$1,009.89
32-1E-13.01A1	A ASC	0.32	0.75	2311	\$554.64	0.60	2311	\$443.71
32-1E-13.02A1	A ASC	0.35	0.75	1046	\$274.58	0.60	1046	\$219.66
32-1E-13.02A2	A ASC	0.12	0.75	657	\$59.13	0.60	657	\$47.30
32-1E-13.02A3	A ASC	0.43	0.75	387	\$124.81	0.60	387	\$99.85
32-1E-17.04A	N ASC	0.75	0.95	127	\$90.49	0.60	127	\$57.15
32-1E-17.05A1A2N	ASC	0.85	0.95	127	\$102.55	0.60	127	\$64.77
32-1E-20.00A	N ASC	0.58	0.95	127	\$69.98	0.00	127	\$0.00
32-1E-20.00B	N ASC	1.44	0.95	127	\$173.74	0.60	127	\$109.73
32-1E-23.00	A A BST	1.36	0.92	267	\$334.07	0.00	267	\$0.00
32-1E-27.00	A A BST	0.47	0.92	291	\$125.83	0.00	291	\$0.00
32-1E-27.00	A A ASC	0.21	0.75	291	\$45.83	0.60	291	\$36.67
32-1E-27.00	B-DN ASC	1.48	0.95	291	\$409.15	0.00	291	\$0.00
32-1E-27.00	D N ASC	0.56	0.95	164	\$87.25	0.00	164	\$0.00
32-1E-27.00	E N ASC	0.85	0.95	164	\$132.43	0.60	164	\$83.64
32-1W-26.00	A-BA ASC	1.04	0.75	337	\$262.86	0.60	337	\$210.29
32-1W-26.00	B-CA ASC	1.22	0.75	101	\$92.42	0.60	101	\$73.93
32-2E-34.00	A-DA ASC	3.80	0.75	760	\$2,166.00	0.60	760	\$1,732.80
33-1E-17.00A	A BST	4.66	0.92	494	\$2,117.88	0.00	494	\$0.00
33-1E-27.00	B A ASC	1.22	0.75	433	\$396.20	0.60	433	\$316.96
33-1E-27.00	C-GA ASC	2.83	0.75	164	\$348.09	0.60	164	\$278.47
33-1E-27.00	H N ASC	0.07	0.95	164	\$10.91	0.00	164	\$0.00
33-1E-27.00	I N ASC	0.18	0.95	164	\$28.04	0.60	164	\$17.71
33-1E-27.00	J N ASC	0.91	0.95	164	\$141.78	0.00	164	\$0.00
33-1E-27.00	K-MN ASC	1.70	0.95	164	\$264.86	0.60	164	\$167.28
33-1W-08.00	A A ASC	2.65	0.75	1393	\$2,768.59	0.60	1393	\$2,214.87
33-1W-08.00	B-DA ASC	2.58	0.75	1121	\$2,169.14	0.60	1121	\$1,735.31
33-1W-10.00	A A ASC	0.74	0.75	272	\$150.96	0.60	272	\$120.77
33-1W-10.00	A A ASC	0.36	0.75	231	\$62.37	0.60	231	\$49.90
33-1W-10.00	A-CA ASC	2.61	0.75	148	\$289.71	0.60	148	\$231.77

(2.1) Subtotal \$15,720.74

(2.2) Subtotal \$9,780.69

3) Third Party Maintenance and Rockwear

MAINTENANCE (3.1)					ROCKWEAR (3.2)		
Agmmt Number	Surface Type	Road Number	Mi	x Fee x MBF =	Maint	Fee x	MBF = Rkwear
M-2000D	NAT	33-2E-5.00B	0.47			0.00	760 \$0.00
M-660I	ASC	33-1E-4.00 F	0.04			0.60	236 \$5.66
M-660I	ASC	33-1E-4.00 D	0.19			0.60	236 \$26.90
M-660I	ASC	32-1E-27.00B	0.74				

0.60	291	\$129.20					
	M-660J	ASC	33-1E-27.00J	0.91		0.60	164 \$89.54
	M-660J	ASC	33-1E-27.00H	0.07		0.60	164 \$6.89
	M-660J	ASC	32-1W-26.05A	0.03		0.60	236 \$4.25
	M-660J	ASC	32-1W-26.04A	0.43		0.60	236 \$60.89
	M-660K	NAT	33-1E-23.00 B	1.33		0.00	269 \$0.00
	M-660K	NAT	33-1E-22.01	0.52		0.00	269 \$0.00
	M-660L	NAT	33-2E-5.00C	0.21		0.00	760 \$0.00
	M-660L	ASC	32-1E-27.00D	0.56		0.60	164 \$55.10
	M-660L	ASC	32-1E-27.00C-D	0.79		0.60	291 \$137.93
	M-660L	ASC	32-1E-20.00A	0.58		0.60	127 \$44.20

Subtotal of maintenance fees by agreement number:

Subtotal of rockwear fees by agreement number:

M-2000D	\$0.00
M-660I	\$161.77
M-660J	\$161.57
M-660K	\$0.00
M-660L	\$237.23

(3.1) Subtotal \$0.00

(3.2) Subtotal \$560.57

4) Other Maintenance Payments - USFS or Others Perform Maintenance

Agency	Road Number	Miles (Log)	Vol (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 N	Mi	RkWear x Fee x	Vol MBF =	Total RkWear
32-1E-11.00A	N	0.82	0.60	267	\$131.36
32-1E-13.01B	A	0.09	0.60	10	\$0.54
Un-num -13.01SpA		0.09	0.00	44	\$0.00
Un-num -13.02SpA		0.09	0.00	121	\$0.00
Un-num -13.03SpA		0.52	0.00	284	\$0.00
32-1E-13.02B	N	0.35	0.00	100	\$0.00
32-1E-13.03	A	0.42	0.60	410	\$103.32
32-1E-13.04A	A	0.26	0.60	50	\$7.80
32-1E-13.05	A	0.09	0.60	10	\$0.54
32-1E-13.06	A	0.15	0.60	50	\$4.50
32-1E-13.07	A	0.27	0.60	220	\$35.64
32-1E-18.00A-BN		0.75	0.60	164	\$73.80
32-1E-36.00 A3N		0.09	0.00	760	\$0.00
32-1W-12.00 A N		0.60	0.60	164	\$59.04
32-1W-12.00 B N		1.47	0.60	150	\$132.30
32-1W-12.01	N	0.65	0.60	14	\$5.46

32-1W-13.00 A-BN	1.95	0.60	164	\$191.88
32-1W-26.05B N	0.57	0.60	236	\$80.71
32-1W-27.01 N	0.38	0.60	45	\$10.26
32-1W-36.01A N	0.45	0.60	236	\$63.72
32-1W-36.01B N	1.04	0.60	181	\$112.94
33-1E-04.00G1 N	0.78	0.60	236	\$110.45
33-1E-04.00E N	1.02	0.60	236	\$144.43
33-1E-22.01 N	0.52	0.00	269	\$0.00
33-1E-04.00F N	0.09	0.00	236	\$0.00
33-1E-04.00D N	0.19	0.00	236	\$0.00
32-1W-26.04 A N	0.43	0.00	236	\$0.00
32-1W-26.05 A N	0.03	0.00	236	\$0.00
33-1E-23.00A2 A	0.29	0.60	269	\$46.81
33-1E-23.00B N	1.33	0.00	269	\$0.00
33-1W-03.01 A	0.38	0.00	10	\$0.00
33-1W-03.02 A	0.10	0.00	10	\$0.00
33-1W-03.03 A	0.15	0.00	73	\$0.00
33-1W-10.00 D1A	0.93	0.60	148	\$82.58
33-1W-10.00 D2A	1.01	0.60	103	\$62.42
33-1W-14.01 A-CA	0.19	0.60	1121	\$127.79
33-1W-14.02 A	0.14	0.00	1121	\$0.00
33-2E-05.00 A-CN	0.84	0.00	760	\$0.00

(5.1) Subtotal \$1,588.30

Purchaser Operational Maintenance

Move In

Equipment	No Units	Move x in x	Cost/ 50 Mi x	Dist Factor =	Sub- total
Motor Grader:	1	5	\$410.00	0.63	\$1,291.50
Back Hoe:	1	5	\$305.00	0.63	\$960.75
Loader:			\$410.00	0.63	\$0.00
Water Truck:	1	5	\$95.00	0.63	\$299.25
Dump Truck:	1	5	\$89.00	0.63	\$280.35
Excavator:			\$410.00	0.63	\$0.00
Roller:			\$410.00	0.63	\$0.00

(5.2A) Total \$2,831.85

Culvert Maintenance - Including Catch basins and Downpipes

Miles	x	Cost/Mi	=	Subtotal
10.00		\$365.82		\$3,658.20

(5.2B) Total \$3,658.20

Grading (Includes Ditches and Shoulders)

Miles	x	Cost/Mi	x	Freq	=	Subtotal
Blade w/ Ditch:	11.90		\$694.50	1		\$8,264.55
Blade w/o Ditch:	7.62		\$428.91	1		\$3,268.29

(5.2C) Total \$11,532.84

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

Type Equipment	No Slides /Slumps	Hours x Each	Equip Cost	=	Subtotal
Grader:	0		0	\$140.96	\$0.00
Loader:	0	0	\$101.17		\$0.00
Backhoe:	0	0	\$85.84		\$0.00

(5.2D) Total \$0.00

Dust Palliative (Water)

Spreading Hours

No	Freq	Truck					
Miles	/	MPH	=	Hours	x	Days	x /Day = Hours
8.34		5		1.7		100	1 170
Load & Haul =				0.0		0	0
Total Hours =				170			

Truck Cost: \$78.81/Hr. x 170.0 Hours = \$13,397.70

(5.2E) Total \$13,397.70

Surface Repair (Aggregate)

Production Cost:	0.0 CY x \$0.00/CY	=	\$0.00
Haul to Stockpile:	0.0 CY x ((\$1.75/CY x 0.00 Mi) + \$0.58)	=	\$0.00
Stockpile:	0.0 CY x \$1.07/CY	=	\$0.00
Load from Stockpile:	0.0 CY x \$1.05/CY	=	\$0.00
Haul from Stockpile:	0.0 CY x ((\$1.75/CY x 0.00 Mi) + \$0.58)	=	\$0.00
Process with Grader:	0.0 CY x \$0.88/CY	=	\$0.00
Compaction:	0.0 CY x \$1.08/CY	=	\$0.00

(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
	Lump Sum	=	\$0.00
	Lump Sum	=	\$0.00
	Lump Sum	=	\$0.00
	Lump Sum	=	\$0.00

(5.2G) Total \$0.00

Decommissioning

Ripping

Road Number	Ripping Cost	x	(NumSta or CuYds)	= Total
32-1E-13.02A-B	\$30.34	x	18	= \$546.12

(Ripping) Total \$546.12

Other Costs

Road Number	Cubic Yds Pullback Material	Qty Waterbars	Qty Earthen Barriers	= Total
Un-num -13.01Sp	(0x\$1.77)	+	(2x\$55.35)	+ (1x\$166.04) = \$276.74
32-1E-13.02A-B	(0x\$1.77)	+	(11x\$55.35)	+ (1x\$166.04) = \$774.89
Un-num -13.02Sp	(0x\$1.77)	+	(2x\$55.35)	+ (1x\$166.04) = \$276.74
Un-num -13.03Sp	(0x\$1.77)	+	(12x\$55.35)	+ (1x\$166.04) = \$830.24
33-1E-22.01	(0x\$1.77)	+	(7x\$55.35)	+ (0x\$166.04) = \$387.45
33-1E-23.00A2-B	(0x\$1.77)	+	(12x\$55.35)	+ (0x\$166.04) = \$664.20
33-1W-03.01	(0x\$1.77)	+	(0x\$55.35)	+ (1x\$166.04) = \$166.04
33-1W-03.03	(0x\$1.77)	+	(5x\$55.35)	+ (1x\$166.04) = \$442.79

33-2E-05.00 A-C (0x\$1.77) + (29x\$55.35) + (0x\$166.04) = \$1,605.15

(Other Cost) Total \$5,424.24

Time & Equipment

32-1E-13.02A-B Seed and Mulching: 0.65 AC @ \$1250.00/AC	=\$812.50
Un-num -13.01Sp Seed and Mulching: 0.1 AC @ \$1250.00/AC	=\$125.00
Un-num -13.02Sp Seed and Mulching: 0.1 AC @ \$1250.00/AC	=\$125.00
Un-num -13.03Sp Seed and Mulching: 0.4 AC @ \$1250.00/AC	=\$500.00
33-1W-03.01 Seed and Mulching: 0.1 AC @ \$1250.00/AC	=\$125.00
33-1W-03.03 Seed and Mulching: 0.2 AC @ \$1250.00/AC	=\$250.00

(5.2H) Decommissioning Total \$7,907.86

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Version: 5.2.0.94

Updated: 6/14/2017

Summary of All Roads and Projects

T.S. Contract Name: Shady Elk T.S. Tract No: Sale Date: 9-2017

Prepared by: Brown Ph: x2322 Print Date: 7/23/2017 2:06:13 PM

Construction: 3.70 sta

Improve: 0.00 sta Renov: 3238.75 sta Decom: 0.00 sta Temp: 0.00 sta

200 Clearing and Grubbing: 5.3 acres	\$12,099.75
300 Excavation: 300 cy	\$3,130.32
Haul < 500 ft: 0 sta-yds	
Haul > 500 ft: 300 yd-mi	
400 Drainage:	\$166,403.20
Culvert: 2,724 lf DownSpout: 400 lf	
PolyPipe: 0 lf	
500 Renovation:	\$84,179.76
Blading 55.32 mi	
Slide Removal 50 cy	
700-1200 Surfacing:	\$32,470.54
3 Stage Crushed Quarry Name: Elk Creek Road Stock 160 LCY	
3 Stage Crushed Quarry Name: W Elk Sec 12 Stock 860 LCY	
3 Stage Crushed Quarry Name: White Rock Stockpile 210 LCY	
Grid Rolled / Pitrun Quarry Name: County Line Stockpil 320 LCY	
3 Stage Crushed Quarry Name: W Elk Quarry Stockpi 50 LCY	
3 Stage Crushed Quarry Name: 32-1-35.07Stockpile 10 LCY	
Grid Rolled / Pitrun Quarry Name: Buck Rock Quarry 881 LCY	
3 Stage Crushed Quarry Name: Buck Rock Stockpile 670 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$10,760.78
Gradation Class 3: 300 cy	
1800 Soil Stabilization: 8.5 acres	\$7,204.92
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing:	\$47,840.33
Manual Brushing: 59.7 acres	
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$26,402.24
Mobilization: Const. \$9,074.60 Surf. \$0.00.....	\$9,074.60
Quarry Development:	\$0.00

Total: 5,949 mbf @ \$67.165/mbf = \$399,566.44

Notes:

Quantities shown are estimates only and not pay items.
Surfacing Quantities are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-07.01 Road Name: Hole in Rock TS Sp

Road Renovation: 0.39 mi 17 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$3,965.84
Culvert: 64 lf	
DownSpout: 40 lf	
PolyPipe: 0 lf	
500 Renovation:	\$540.46
Blading 0.39 mi	
700-1200 Surfacing:	\$387.20
Quarry Name: White Rock Stockpile 40 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.2 acres	\$171.78
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.4 acres	\$607.30
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$131.82 Surf. \$0.00.....	\$131.82
Quarry Development:	\$0.00

Total: \$5,804.40

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-07.02A Road Name: Hole in Rock TS Sp

Road Renovation: 0.60 mi 17 ft Subgrade 0 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$452.63
Blading 0.60 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.6 acres	\$960.70
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$5,534.72
Mobilization: Const. \$161.46 Surf. \$0.00.....	\$161.46
Quarry Development:	\$0.00
Total:	\$7,109.51

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-11.00A Road Name: Sugar Pine Creek Sp

Road Renovation: 0.82 mi 15 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$12,139.36
Culvert: 150 lf	
DownSpout: 20 lf	
PolyPipe: 0 lf	
500 Renovation:	\$1,136.35
Blading 0.82 mi	
700-1200 Surfacing:	\$2,492.16
Quarry Name: Elk Creek Road Stock 100 LCY	
Quarry Name: W Elk Sec 12 Stock 100 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.4 acres	\$290.76
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.8 acres	\$1,280.93
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$5,000.00
Mobilization: Const. \$519.15 Surf. \$0.00.....	\$519.15
Quarry Development:	\$0.00

Total: \$22,858.70

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-11.02A Road Name: Hawk Point Sp

Road Renovation: 0.59 mi 17 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$6,383.98
Culvert: 116 lf	
DownSpout: 20 lf	
PolyPipe: 0 lf	
500 Renovation:	\$660.92
Blading 0.59 mi	
700-1200 Surfacing:	\$755.79
Quarry Name: Elk Creek Road Stock 60 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.3 acres	\$257.67
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.6 acres	\$398.02
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$196.52 Surf. \$0.00.....	\$196.52
Quarry Development:	\$0.00

Total: \$8,652.89

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-13.01A1-B Road Name: Hawk Point ML

Road Renovation: 1.99 mi 17 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$24,509.70
Culvert: 444 lf	
DownSpout: 40 lf	
PolyPipe: 0 lf	
500 Renovation:	\$2,757.72
Blading 1.99 mi	
700-1200 Surfacing:	\$3,201.33
Quarry Name: W Elk Sec 12 Stock 220 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 1.1 acres	\$944.79
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):1.9 acres	\$1,260.38
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$759.31 Surf. \$0.00.....	\$759.31
Quarry Development:	\$0.00

Total: \$33,433.23

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-13.02A-B Road Name: Hawk Point TS ML

Road Renovation: 1.25 mi 17 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$6,445.10
Culvert: 124 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$2,211.17
Blading 1.25 mi	
700-1200 Surfacing:	\$916.29
Quarry Name: W Elk Sec 12 Stock 60 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.3 acres	\$257.67
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):1.2 acres	\$796.03
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$246.94 Surf. \$0.00.....	\$246.94
Quarry Development:	\$0.00

Total: \$10,873.20

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-13.03 Road Name:

Road Renovation: 0.42 mi 14 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$4,091.94
Culvert: 74 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$582.03
Blading 0.42 mi	
700-1200 Surfacing:	\$566.86
Quarry Name: W Elk Sec 12 Stock 40 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.2 acres	\$171.78
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.4 acres	\$265.34
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$131.95 Surf. \$0.00.....	\$131.95
Quarry Development:	\$0.00

Total: \$5,809.91

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-13.04A Road Name: Mule Hill TS Sp

Road Renovation: 0.26 mi 16 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$360.31
Blading 0.26 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.3 acres	\$199.01
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$13.00 Surf. \$0.00.....	\$13.00
Quarry Development:	\$0.00
Total:	\$572.31

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-13.05 Road Name: Mule Hill TS SP

Road Renovation: 0.09 mi 16 ft Subgrade 0 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$67.89
Blading 0.09 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.1 acres	\$66.34
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$3.12 Surf. \$0.00.....	\$3.12
Quarry Development:	\$0.00
Total:	\$137.35

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-13.06 Road Name: Mule Hill TS Sp

Road Renovation: 0.15 mi 16 ft Subgrade 0 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$113.16
Blading 0.15 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.1 acres	\$66.34
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$4.17 Surf. \$0.00.....	\$4.17
Quarry Development:	\$0.00
Total:	\$183.66

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-13.07 Road Name: Mule Hill TS Sp

Road Renovation: 0.27 mi 16 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$275.39
Blading 0.27 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.3 acres	\$199.01
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$11.02 Surf. \$0.00.....	\$11.02
Quarry Development:	\$0.00
Total:	\$485.42

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-17.04A Road Name: White Rock ML

Road Renovation: 0.75 mi 15 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$4,764.02
Culvert: 80 lf	
DownSpout: 20 lf	
PolyPipe: 0 lf	
500 Renovation:	\$1,039.34
Blading 0.75 mi	
700-1200 Surfacing:	\$432.96
Quarry Name: White Rock Stockpile 40 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.2 acres	\$171.78
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.7 acres	\$464.35
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$159.71 Surf. \$0.00.....	\$159.71
Quarry Development:	\$0.00

Total: \$7,032.16

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-17.05A1A2 Road Name: White Rock ML

Road Renovation: 0.85 mi 15 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$1,603.12
Culvert: 30 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$1,177.92
Blading 0.85 mi	
700-1200 Surfacing:	\$206.80
Quarry Name: White Rock Stockpile 20 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.1 acres	\$85.89
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.8 acres	\$530.69
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$83.76 Surf. \$0.00.....	\$83.76
Quarry Development:	\$0.00

Total: \$3,688.18

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-18.00A-B Road Name: Ragsdale Sp

Road Renovation: 0.75 mi 16 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$5,685.44
Culvert: 72 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$1,039.34
Blading 0.75 mi	
700-1200 Surfacing:	\$999.60
Quarry Name: White Rock Stockpile 70 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.2 acres	\$171.78
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.7 acres	\$464.35
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$194.29 Surf. \$0.00.....	\$194.29
Quarry Development:	\$0.00

Total: \$8,554.80

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-20.00A-B Road Name: Gobblers Knob

Road Renovation: 2.02 mi 16 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$2,799.30
Blading 2.02 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):2.0 acres	\$1,326.72
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$95.88 Surf. \$0.00.....	\$95.88
Quarry Development:	\$0.00
Total:	\$4,221.90

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-23.00 A Road Name: Sugar Pine - Timber

Road Renovation: 1.36 mi 16 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$769.52
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):1.3 acres	\$1,612.61
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$55.36 Surf. \$0.00.....	\$55.36
Quarry Development:	\$0.00
Total:	\$2,437.48

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-27.00 A-E Road Name: Flat Creek

Road Renovation: 3.62 mi 16 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$3,911.98
Culvert: 70 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$5,016.56
Blading 3.62 mi	
700-1200 Surfacing:	\$526.00
Quarry Name: White Rock Stockpile 40 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.2 acres	\$171.78
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):3.5 acres	\$2,509.32
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$282.02 Surf. \$0.00.....	\$282.02
Quarry Development:	\$0.00

Total: \$12,417.66

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1E-36.00 A3 Road Name: East Fork Dodes Cr

Road Renovation: 0.09 mi 14 ft Subgrade 0 ft ditch

200 Clearing and Grubbing: 0.8 acres	\$922.69
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$38.60
Blading 0.09 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.1 acres	\$33.17
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$1,308.24
Mobilization: Const. \$53.51 Surf. \$0.00.....	\$53.51
Quarry Development:	\$0.00
Total:	\$2,356.21

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1W-12.00 Road Name: County Line TS Sp Le

Road Renovation: 2.07 mi 15 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$20,889.12
Culvert: 340 lf	
DownSpout: 80 lf	
PolyPipe: 0 lf	
500 Renovation:	\$2,868.59
Blading 2.07 mi	
700-1200 Surfacing:	\$610.40
Quarry Name: County Line Stockpil 200 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 1.0 acres	\$858.90
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):2.0 acres	\$1,326.72
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$5,534.72
Mobilization: Const. \$745.70 Surf. \$0.00.....	\$745.70
Quarry Development:	\$0.00

Total: \$32,834.15

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1W-12.01 Road Name: County Line TS Sp R

Road Renovation: 0.65 mi 15 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$13,114.08
Culvert: 222 lf	
DownSpout: 60 lf	
PolyPipe: 0 lf	
500 Renovation:	\$900.76
Blading 0.65 mi	
700-1200 Surfacing:	\$342.48
Quarry Name: County Line Stockpil 120 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.6 acres	\$515.34
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.6 acres	\$1,171.15
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$372.84 Surf. \$0.00.....	\$372.84
Quarry Development:	\$0.00

Total: \$16,416.66

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1W-13.00 A-B Road Name: County Line TS ML

Road Renovation: 1.95 mi 16 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$22,363.68
Culvert: 348 lf	
DownSpout: 120 lf	
PolyPipe: 0 lf	
500 Renovation:	\$2,702.29
Blading 1.95 mi	
700-1200 Surfacing:	\$2,720.96
Quarry Name: W Elk Sec 12 Stock 160 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.8 acres	\$687.12
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):1.9 acres	\$2,010.62
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$708.43 Surf. \$0.00.....	\$708.43
Quarry Development:	\$0.00

Total: \$31,193.11

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1W-23.02 A Road Name: Wild Lily

Road Renovation: 0.89 mi 15 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$1,301.53
Blading 0.89 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.9 acres	\$597.02
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$44.12 Surf. \$0.00.....	\$44.12
Quarry Development:	\$0.00
Total:	\$1,942.68

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1W-26.00 A-C Road Name: N ML - W Br Elk Cr

Road Renovation: 2.66 mi 18 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation: 300 cy	\$1,233.00
Haul > 500 ft: 300 yd-mi	
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$3,686.20
Blading 2.66 mi	
700-1200 Surfacing:	\$497.00
Quarry Name: W Elk Quarry Stockpi 50 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$10,760.78
Gradation Class 3: 300 cy	
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):2.6 acres	\$1,724.74
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$416.02 Surf. \$0.00.....	\$416.02
Quarry Development:	\$0.00

Total: \$18,317.73

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1W-26.04 A Road Name: Alco Rock

Road Renovation: 0.42 mi 14 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$582.03
Blading 0.42 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.4 acres	\$602.66
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$27.53 Surf. \$0.00.....	\$27.53
Quarry Development:	\$0.00
Total:	\$1,212.23

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1W-26.05 A Road Name: Alco Honey Bee Sp

Road Renovation: 0.60 mi 14 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$831.47
Blading 0.60 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.6 acres	\$735.34
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$36.41 Surf. \$0.00.....	\$36.41
Quarry Development:	\$0.00
Total:	\$1,603.22

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1W-27.01 Road Name: Blue Chip Quarry Rd

Road Renovation: 0.38 mi 17 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$526.60
Blading 0.38 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.4 acres	\$265.34
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$18.40 Surf. \$0.00.....	\$18.40
Quarry Development:	\$0.00
Total:	\$810.35

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1W-35.02 Road Name: Oliver Springs Sp

Road Renovation: 0.26 mi 15 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$360.31
Blading 0.26 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.3 acres	\$199.01
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$13.00 Surf. \$0.00.....	\$13.00
Quarry Development:	\$0.00
Total:	\$572.31

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1W-35.07A Road Name: Sawed Off Spur

Road Renovation: 0.12 mi 15 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$122.40
Blading 0.12 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.1 acres	\$66.34
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$4.39 Surf. \$0.00.....	\$4.39
Quarry Development:	\$0.00
Total:	\$193.12

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-1W-36.01 Road Name: Middle Creek Ridge

Road Renovation: 1.49 mi 15 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: 0.4 acres	\$1,051.96
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$2,064.83
Blading 1.49 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):1.4 acres	\$928.70
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$1,897.32
Mobilization: Const. \$138.10 Surf. \$0.00.....	\$138.10
Quarry Development:	\$0.00
Total:	\$6,080.91

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 32-2E-34.00 A-D Road Name: Flounce Rock

Road Renovation: 3.80 mi 17 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$32,117.80
Culvert: 510 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$6,123.82
Blading 3.80 mi	
700-1200 Surfacing:	\$4,846.92
Quarry Name: W Elk Sec 12 Stock 260 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 1.3 acres	\$1,116.57
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):3.7 acres	\$2,454.43
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$1,084.32 Surf. \$0.00.....	\$1,084.32
Quarry Development:	\$0.00

Total: \$47,743.86

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 33-1E-04.00G1-D Road Name: Alco Creek

Road Renovation: 2.13 mi 17 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$2,951.73
Blading 2.13 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):2.1 acres	\$1,393.06
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$100.97 Surf. \$0.00.....	\$100.97
Quarry Development:	\$0.00
Total:	\$4,445.76

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 33-1E-17.00A Road Name: W Branch Elk Creek

Road Renovation: 4.66 mi 18 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$4,387.20
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):4.5 acres	\$2,985.12
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$171.32 Surf. \$0.00.....	\$171.32
Quarry Development:	\$0.00
Total:	\$7,543.65

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 33-1E-22.01 Road Name: Yellow Rock R/W

Road Renovation: 0.38 mi 14 ft Subgrade 0 ft ditch

200 Clearing and Grubbing: 0.8 acres	\$1,477.64
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$302.00
Blading 0.38 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.4 acres	\$265.34
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$1,264.88
Mobilization: Const. \$76.92 Surf. \$0.00.....	\$76.92
Quarry Development:	\$0.00
Total:	\$3,386.78

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 33-1E-23.00A2-B Road Name: Lower Lost Creek Sp

Road Renovation: 1.61 mi 15 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$1,788.48
Blading 1.61 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):1.6 acres	\$1,061.38
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$66.23 Surf. \$0.00.....	\$66.23
Quarry Development:	\$0.00
Total:	\$2,916.09

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 33-1E-27.00 Road Name: Burnt Peak Road

Road Renovation: 6.93 mi 17 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$9,603.52
Blading 6.93 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):6.7 acres	\$4,444.51
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$326.46 Surf. \$0.00.....	\$326.46
Quarry Development:	\$0.00
Total:	\$14,374.50

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 33-1W-03.01 Road Name: USFS Rd 6605 130

Road Renovation: 0.38 mi 17 ft Subgrade 0 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$653.24
Blading 0.38 mi	
Slide Removal 50 cy	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.4 acres	\$640.46
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$30.06 Surf. \$0.00.....	\$30.06
Quarry Development:	\$0.00

Total: \$1,323.77

Notes:

Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 33-1W-03.02 Road Name: USFS Rd 6605 135

Road Renovation: 0.10 mi 17 ft Subgrade 0 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$42.89
Blading 0.10 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.1 acres	\$160.12
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$4.72 Surf. \$0.00.....	\$4.72
Quarry Development:	\$0.00
Total:	\$207.72

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 33-1W-03.03 Road Name: USFS Rd 6605 140

Road Renovation: 0.15 mi 17 ft Subgrade 0 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$64.34
Blading 0.15 mi	
700-1200 Surfacing:	\$34.50
Quarry Name: Buck Rock Quarry 10 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.1 acres	\$160.12
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$6.02 Surf. \$0.00.....	\$6.02
Quarry Development:	\$0.00

Total: \$264.97

Notes:

Quantities shown are estimates only and not pay items.
 Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 33-1W-08.00 A-D Road Name: Buck Rock Road

Road Renovation: 5.23 mi 17 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$7,247.68
Blading 5.23 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):5.1 acres	\$3,383.14
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$247.05 Surf. \$0.00.....	\$247.05
Quarry Development:	\$0.00
Total:	\$10,877.87

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 33-1W-10.00 A-D Road Name: Oliver Springs

Road Renovation: 5.65 mi 16 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$7,829.71
Blading 5.65 mi	
700-1200 Surfacing:	\$99.40
Quarry Name: 32-1-35.07Stockpile 10 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):5.5 acres	\$3,648.48
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$269.05 Surf. \$0.00.....	\$269.05
Quarry Development:	\$0.00

Total: \$11,846.64

Notes:

Quantities shown are estimates only and not pay items.
 Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 33-1W-14.01 A-C Road Name: West Side Road

Road Renovation: 0.88 mi 14 ft Subgrade 3 ft ditch

200 Clearing and Grubbing: 0.8 acres	\$1,952.36
300 Excavation:	\$0.00
400 Drainage:	\$2,333.82
Culvert: 40 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$4,050.43
Blading 0.88 mi	
700-1200 Surfacing:	\$9,574.20
Quarry Name: Buck Rock Quarry 240 LCY	
Quarry Name: Buck Rock Stockpile 670 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 1.5 acres	\$1,245.41
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.9 acres	\$2,206.01
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$3,900.00
Mobilization: Const. \$587.07 Surf. \$0.00.....	\$587.07
Quarry Development:	\$0.00

Total: \$25,849.30

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 33-1W-14.02 Road Name:

Road Renovation: 0.14 mi 15 ft Subgrade 0 ft ditch

200 Clearing and Grubbing: 1.5 acres	\$3,704.14
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$649.37
Blading 0.14 mi	
700-1200 Surfacing:	\$2,871.05
Quarry Name: Buck Rock Quarry 631 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.1 acres	\$638.65
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$1,962.36
Mobilization: Const. \$228.34 Surf. \$0.00.....	\$228.34
Quarry Development:	\$0.00

Total: \$10,053.91

Notes:

Quantities shown are estimates only and not pay items.
 Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: 33-2E-05.00 A-C Road Name: Section 32 Connect

Road Renovation: 0.84 mi 15 ft Subgrade 0 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$2,084.22
Culvert: 40 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$667.57
Blading 0.84 mi	
700-1200 Surfacing:	\$388.64
Quarry Name: W Elk Sec 12 Stock 20 LCY	
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.1 acres	\$85.89
Includes Small Quantity Factor of 1.09	
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.8 acres	\$530.69
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$87.31 Surf. \$0.00.....	\$87.31
Quarry Development:	\$0.00

Total: \$3,844.32

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: Temp 31-1 Road Name:

Road Construction: 0.07 mi 15 ft Subgrade 0 ft ditch

200 Clearing and Grubbing: 1.1 acres	\$2,990.95
300 Excavation:	\$1,897.32
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$0.00
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (NONE):0.0 acres	\$0.00
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$113.60 Surf. \$0.00.....	\$113.60
Quarry Development:	\$0.00
Total:	\$5,001.87

Notes:

Quantities shown are estimates only and not pay items.
 Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: Un-num -13.01Sp Road Name:

Road Renovation: 0.09 mi 14 ft Subgrade 0 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$320.52
Blading 0.09 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.1 acres	\$217.00
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$12.49 Surf. \$0.00.....	\$12.49
Quarry Development:	\$0.00
Total:	\$550.02

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: Un-num -13.02Sp Road Name:

Road Renovation: 0.09 mi 15 ft Subgrade 0 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$288.60
Blading 0.09 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.1 acres	\$320.23
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$14.15 Surf. \$0.00.....	\$14.15
Quarry Development:	\$0.00
Total:	\$622.98

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number: Un-num -13.03Sp Road Name:

Road Renovation: 0.52 mi 15 ft Subgrade 0 ft ditch

200 Clearing and Grubbing: acres	\$0.00
300 Excavation:	\$0.00
400 Drainage:	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	\$223.03
Blading 0.52 mi	
700-1200 Surfacing:	\$0.00
1300 Geotextiles:	\$0.00
1400 Slope Protection:	\$0.00
1800 Soil Stabilization: 0.0 acres	\$0.00
1900 Cattleguards:	\$0.00
2100 RoadSide Brushing (Manual):0.5 acres	\$663.36
2300 Engineering: 0.00 sta.	\$0.00
2400 Minor Concrete:	\$0.00
2500 Gabions:	\$0.00
8000 Miscellaneous:	\$0.00
Mobilization: Const. \$20.60 Surf. \$0.00.....	\$20.60
Quarry Development:	\$0.00
Total:	\$906.99

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Summary of Construction Quantities

T.S. Contract Name: Shady Elk T.S. Sale Date: 9-2017

Road Number	Const	Improv	Renov	Decomm	Temp
32-1E-07.01			20.59		
32-1E-07.02A			31.68		
32-1E-11.00A			43.30		
32-1E-11.02A			31.15		
32-1E-13.01A1-B			105.07		
32-1E-13.02A-B			66.00		
32-1E-13.03			22.18		
32-1E-13.04A			13.73		
32-1E-13.05			4.75		
32-1E-13.06			7.92		
32-1E-13.07			14.26		
32-1E-17.04A			39.60		
32-1E-17.05A1A2			44.88		
32-1E-18.00A-B			39.60		
32-1E-20.00A-B			106.66		
32-1E-23.00 A			71.81		
32-1E-27.00 A-E			191.14		
32-1E-36.00 A3			4.75		
32-1W-12.00			109.30		
32-1W-12.01			34.32		
32-1W-13.00 A-B			102.96		
32-1W-23.02 A			46.99		
32-1W-26.00 A-C			140.45		
32-1W-26.04 A			22.18		
32-1W-26.05 A			31.68		
32-1W-27.01			20.06		
32-1W-35.02			13.73		
32-1W-35.07A			6.34		
32-1W-36.01			78.67		
32-2E-34.00 A-D			200.64		
33-1E-04.00G1-D			112.46		
33-1E-17.00A			246.05		
33-1E-22.01			20.06		
33-1E-23.00A2-B			85.01		
33-1E-27.00			365.90		
33-1W-03.01			20.06		
33-1W-03.02			5.28		
33-1W-03.03			7.92		
33-1W-08.00 A-D			276.14		
33-1W-10.00 A-D			298.32		
33-1W-14.01 A-C			46.46		
33-1W-14.02			7.39		
33-2E-05.00 A-C			44.35		
Temp 31-1	3.70				
Un-num -13.01Sp			4.75		
Un-num -13.02Sp			4.75		
Un-num -13.03Sp			27.46		
Total Sta:	3.70		3,238.75		

200 Clearing and Grubbing

Clearing
acres

32-1E-07.01	0.0
32-1E-07.02A	0.0
32-1E-11.00A	0.0
32-1E-11.02A	0.0
32-1E-13.01A1-B	0.0
32-1E-13.02A-B	0.0
32-1E-13.03	0.0
32-1E-13.04A	0.0
32-1E-13.05	0.0
32-1E-13.06	0.0
32-1E-13.07	0.0
32-1E-17.04A	0.0
32-1E-17.05A1A2	0.0
32-1E-18.00A-B	0.0
32-1E-20.00A-B	0.0
32-1E-23.00 A	0.0
32-1E-27.00 A-E	0.0
32-1E-36.00 A3	0.8
32-1W-12.00	0.0
32-1W-12.01	0.0
32-1W-13.00 A-B	0.0
32-1W-23.02 A	0.0
32-1W-26.00 A-C	0.0
32-1W-26.04 A	0.0
32-1W-26.05 A	0.0
32-1W-27.01	0.0
32-1W-35.02	0.0
32-1W-35.07A	0.0
32-1W-36.01	0.4
32-2E-34.00 A-D	0.0
33-1E-04.00G1-D	0.0
33-1E-17.00A	0.0
33-1E-22.01	0.8
33-1E-23.00A2-B	0.0
33-1E-27.00	0.0
33-1W-03.01	0.0
33-1W-03.02	0.0
33-1W-03.03	0.0
33-1W-08.00 A-D	0.0
33-1W-10.00 A-D	0.0
33-1W-14.01 A-C	0.8
33-1W-14.02	1.5
33-2E-05.00 A-C	0.0
Temp 31-1	1.1
Un-num -13.01Sp	0.0
Un-num -13.02Sp	0.0
Un-num -13.03Sp	0.0

Totals: 5.3

300 Excavation

Excav

Haul

Haul

LCY.s

sta-yds

yd-mi

32-1W-26.00 A-C

300

0

300

Totals: 300

0

300

Road Construction Temp 31-1

Tractor: D7 with rippers 12 hr

400 Drainage

Road Number	Culvert	Polypipe	Downspout
32-1E-07.01	64 lf	0 lf	40 lf
32-1E-11.00A	150 lf	0 lf	20 lf
32-1E-11.02A	116 lf	0 lf	20 lf
32-1E-13.01A1-B			
	444 lf	0 lf	40 lf
32-1E-13.02A-B	124 lf	0 lf	0 lf
32-1E-13.03	74 lf	0 lf	0 lf
32-1E-17.04A	80 lf	0 lf	20 lf
32-1E-17.05A1A2			
	30 lf	0 lf	0 lf
32-1E-18.00A-B	72 lf	0 lf	0 lf
32-1E-27.00 A-E			
	70 lf	0 lf	0 lf
32-1W-12.00	340 lf	0 lf	80 lf
32-1W-12.01	222 lf	0 lf	60 lf
32-1W-13.00 A-B			
	348 lf	0 lf	120 lf
32-2E-34.00 A-D			
	510 lf	0 lf	0 lf
33-1W-14.01 A-C			
	40 lf	0 lf	0 lf
33-2E-05.00 A-C			
	40 lf	0 lf	0 lf
Total Drainage:	2,724 lf		400 lf

Low Water Ford 32-1E-11.00A
 Install 2 temp 24"x20'CSP Culverts w/ gravel 1 LS
 Re-attach existing downspout 32-1E-11.02A
 Re-attach existing downspout 1 EA

500 Renovation	Blade Miles	Slide cy
32-1E-07.01	0.39	0
32-1E-07.02A	0.60	0
32-1E-11.00A	0.82	0
32-1E-11.02A	0.59	0
32-1E-13.01A1-B	1.99	0
32-1E-13.02A-B	1.25	0
32-1E-13.03	0.42	0
32-1E-13.04A	0.26	0
32-1E-13.05	0.09	0
32-1E-13.06	0.15	0
32-1E-13.07	0.27	0
32-1E-17.04A	0.75	0
32-1E-17.05A1A2	0.85	0
32-1E-18.00A-B	0.75	0
32-1E-20.00A-B	2.02	0
32-1E-27.00 A-E	3.62	0
32-1E-36.00 A3	0.09	0
32-1W-12.00	2.07	0
32-1W-12.01	0.65	0
32-1W-13.00 A-B	1.95	0
32-1W-23.02 A	0.89	0
32-1W-26.00 A-C	2.66	0
32-1W-26.04 A	0.42	0
32-1W-26.05 A	0.60	0
32-1W-27.01	0.38	0
32-1W-35.02	0.26	0
32-1W-35.07A	0.12	0
32-1W-36.01	1.49	0

32-2E-34.00 A-D	3.80	0
33-1E-04.00G1-D	2.13	0
33-1E-22.01	0.38	0
33-1E-23.00A2-B	1.61	0
33-1E-27.00	6.93	0
33-1W-03.01	0.38	50
33-1W-03.02	0.10	0
33-1W-03.03	0.15	0
33-1W-08.00 A-D	5.23	0
33-1W-10.00 A-D	5.65	0
33-1W-14.01 A-C	0.88	0
33-1W-14.02	0.14	0
33-2E-05.00 A-C	0.84	0
Un-num -13.01Sp	0.09	0
Un-num -13.02Sp	0.09	0
Un-num -13.03Sp	0.52	0

Totals:	55.32	50
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Barricade Removal	Un-num -13.02Sp	
Barricade Removal		1 EA
Barricade Removal	32-1E-13.02A-B	
Barricade Removal		1 EA
Clean ditches where needed	33-1E-17.00A	
Backhoe		12 hr
Motor Grader 14M		12 hr
Cleaning ditches where needed	32-1E-23.00 A	
Cleaning ditches where needed		1.36 Mile
Extra Blading	Un-num -13.01Sp	
Motor Grader 14M		2 hr
Grubbing stumps	33-1W-14.01 A-C	
Tractor: D7 with rippers		16 hr
Jack culvet inlet open	32-1W-23.02 A	
General Laborer		2 hr
Natural Surface Road Rehab	32-1E-13.02A-B	
Motor Grader 14M		4 hr
Shaping Road	33-1W-14.02	
Motor Grader 14M		4 hr

Surfacing (Loose Cubic Yards)

Note: Due to slight rounding differences between total LCY vs. subtotaled LCY,
Totals shown here may not be exactly as shown in the road summaries and worksheets.

Quarry Name: Elk Creek Road Stock

	Roadway	Turnouts	Other	
3 Stage Crusher				
32-1E-11.00A	0	0	100	100
32-1E-11.02A	0	0	60	60
Totals:	0	0	160	160

Quarry Name: W Elk Sec 12 Stock

	Roadway	Turnouts	Other	
3 Stage Crusher				
32-1E-13.01A1-B	0	0	220	220
32-1E-13.02A-B	0	0	60	60
32-1E-13.03	0	0	40	40
32-1W-13.00 A-B	0	0	160	160
32-2E-34.00 A-D	0	0	260	260
33-2E-05.00 A-C	0	0	20	20
32-1E-11.00A	0	0	100	100
Totals:	0	0	860	860

Quarry Name: White Rock Stockpile

3 Stage Crusher	Roadway	Turnouts	Other	
32-1E-17.04A	0	0	40	40
32-1E-17.05A1A2	0	0	20	20
32-1E-18.00A-B	0	0	70	70
32-1E-27.00 A-E	0	0	40	40
32-1E-07.01	0	0	40	40
Totals:	0	0	210	210

Quarry Name: County Line Stockpil

Grid Rolled / Pitrun	Roadway	Turnouts	Other	
32-1W-12.00	0	0	100	100
32-1W-12.00	0	0	100	100
32-1W-12.01	0	0	120	120
Totals:	0	0	320	320

Quarry Name: W Elk Quarry Stockpi

3 Stage Crusher	Roadway	Turnouts	Other	
32-1W-26.00 A-C	0	0	50	50
Totals:	0	0	50	50

Quarry Name: 32-1-35.07Stockpile

3 Stage Crusher	Roadway	Turnouts	Other	
33-1W-10.00 A-D	0	0	10	10
Totals:	0	0	10	10

Quarry Name: Buck Rock Quarry

Grid Rolled / Pitrun	Roadway	Turnouts	Other	
33-1W-03.03	0	0	10	10
33-1W-14.02	581	0	50	631
33-1W-14.01 A-C	0	0	240	240
Totals:	581	0	300	881

Quarry Name: Buck Rock Stockpile

3 Stage Crusher	Roadway	Turnouts	Other	
33-1W-14.01 A-C	525	25	120	670
Totals:	525	25	120	670

1300 Geotextiles

Totals: No Quantities

1400 Slope Protection

32-1W-26.00 A-C

Gradation Class 3: 300 cy

Totals: 300 cy

Continuation of Construction Quantities

Road Repair Costs 32-1W-26.00 A-C

Dump Truck 10 cy	24 hr
Front End Loader 962K (4.5 CY)	16 hr
Excavator - Large (3 CY)	16 hr
Water Truck 3000 Gal	16 hr

1800 Soil stabilization - acres	Dry W/O Mulch	Dry/with Mulch	Hydro Mulch
32-1E-07.01	0.0	0.2	
32-1E-11.00A	0.0	0.4	
32-1E-11.02A	0.0	0.3	
32-1E-13.01A1-B	0.0	1.1	
32-1E-13.02A-B	0.0	0.3	
32-1E-13.03	0.0	0.2	
32-1E-17.04A	0.0	0.2	
32-1E-17.05A1A2	0.0	0.1	
32-1E-18.00A-B	0.0	0.2	
32-1E-27.00 A-E	0.0	0.2	
32-1W-12.00	0.0	1.0	
32-1W-12.01	0.0	0.6	
32-1W-13.00 A-B	0.0	0.8	
32-2E-34.00 A-D	0.0	1.3	
33-1W-14.01 A-C	0.0	1.5	
33-2E-05.00 A-C	0.0	0.1	
Totals:	0.0	8.5	0.0
Small Quantity Factor of 1.09 used			

1900 Cattleguards

Totals: No Quantities

2100 RoadSide Brushing	acres
32-1E-07.01 - Manual Brushing	0.4
32-1E-07.02A - Manual Brushing	0.6
32-1E-11.00A - Manual Brushing	0.8
32-1E-11.02A - Manual Brushing	0.6
32-1E-13.01A1-B - Manual Brushing	1.9
32-1E-13.02A-B - Manual Brushing	1.2
32-1E-13.03 - Manual Brushing	0.4
32-1E-13.04A - Manual Brushing	0.3
32-1E-13.05 - Manual Brushing	0.1
32-1E-13.06 - Manual Brushing	0.1
32-1E-13.07 - Manual Brushing	0.3
32-1E-17.04A - Manual Brushing	0.7
32-1E-17.05A1A2 - Manual Brushing	0.8
32-1E-18.00A-B - Manual Brushing	0.7
32-1E-20.00A-B - Manual Brushing	2.0
32-1E-23.00 A - Manual Brushing	1.3
32-1E-27.00 A-E - Manual Brushing	3.5
32-1E-36.00 A3 - Manual Brushing	0.1
32-1W-12.00 - Manual Brushing	2.0
32-1W-12.01 - Manual Brushing	0.6
32-1W-13.00 A-B - Manual Brushing	1.9
32-1W-23.02 A - Manual Brushing	0.9
32-1W-26.00 A-C - Manual Brushing	2.6
32-1W-26.04 A - Manual Brushing	0.4
32-1W-26.05 A - Manual Brushing	0.6
32-1W-27.01 - Manual Brushing	0.4
32-1W-35.02 - Manual Brushing	0.3
32-1W-35.07A - Manual Brushing	0.1

Continuation of Construction Quantities

32-1W-36.01 - Manual Brushing	1.4
32-2E-34.00 A-D - Manual Brushing	3.7
33-1E-04.00G1-D - Manual Brushing	2.1
33-1E-17.00A - Manual Brushing	4.5
33-1E-22.01 - Manual Brushing	0.4
33-1E-23.00A2-B - Manual Brushing	1.6
33-1E-27.00 - Manual Brushing	6.7
33-1W-03.01 - Manual Brushing	0.4
33-1W-03.02 - Manual Brushing	0.1
33-1W-03.03 - Manual Brushing	0.1
33-1W-08.00 A-D - Manual Brushing	5.1
33-1W-10.00 A-D - Manual Brushing	5.5
33-1W-14.01 A-C - Manual Brushing	0.9
33-1W-14.02 - Manual Brushing	0.1
33-2E-05.00 A-C - Manual Brushing	0.8
Un-num -13.01Sp - Manual Brushing	0.1
Un-num -13.02Sp - Manual Brushing	0.1
Un-num -13.03Sp - Manual Brushing	0.5

Totals:	<u>59.7</u>
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Chipping 33-1W-03.02	
Brush Chipper	1 hr
Chipping 32-1E-07.02A	
Brush Chipper	6 hr
Chipping 32-1E-11.00A	
Brush Chipper	8 hr
Chipping Un-num -13.02Sp	
Brush Chipper	2 hr
Chipping 32-1E-23.00 A	
Brush Chipper	8 hr
Chipping 32-1W-12.01	
Brush Chipper	4 hr
Chipping 32-1E-07.01	
Brush Chipper	4 hr
Chipping 33-1W-03.01	
Brush Chipper	4 hr
Chipping 33-1W-14.02	
Brush Chipper	6 hr
Chipping 33-1W-03.03	
Brush Chipper	1 hr
Chipping Un-num -13.01Sp	
Brush Chipper	1 hr
Chipping 32-1W-26.05 A	
Brush Chipper	4 hr
Chipping 32-1W-26.04 A	
Brush Chipper	4 hr
Chipping 33-1W-14.01 A-C	
Brush Chipper	12 hr
Chipping 32-1W-13.00 A-B	
Brush Chipper	8 hr
Chipping next to residence 32-1E-27.00 A-E	
Brush Chipper	2 hr

2300 Engineering	stations
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Totals:	<u>0.00</u>
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2400 Minor Concrete

Totals: No Quantities

Continuation of Construction Quantities

2500 Gabions

Totals: No Quantities

8000 Miscellaneous

Construct Heli Landing	32-1E-36.00 A3	
Tractor: D7 with rippers		8 hr
Construct Helicopter Landing	32-1W-36.01	
Tractor: D7 with rippers		12 hr
Construct helicopter landing	33-1E-22.01	
Tractor: D7 with rippers		8 hr
Construct Helicopter Landing	33-1W-14.02	
Tractor: D7 with rippers		12 hr
Install Mega Gate	32-1E-11.00A	
Install Mega Gate		1 EA
Quarry Helicopter Landing	32-1E-07.02A	
Tractor: D7 with rippers		16 hr
Drill and Compressor		16 hr
Quarry Helicopter landing	32-1W-12.00	
Tractor: D7 with rippers		16 hr
Drill and Compressor		16 hr
Remove culverts, cross AWDs	33-1W-14.01 A-C	
Remove culvert		5 EA
Armored Water Dip		6 EA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

DEPOSIT AND BID FOR ☒ **TIMBER***
☐ **VEGETATIVE RESOURCE**
(Other Than Timber)

LUMP SUM SALE

Name of Bidder
Tract Number ORM05-TS-2017.0005
Sale Name Shady Elk
Sale Notice (dated) 9/14/2017
BLM District Medford

<input type="checkbox"/> Sealed Bid for Sealed Bid Sale	<input checked="" type="checkbox"/> Written Bid for Oral Auction Sale
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In response to the above dated Sale Notice, the required deposit and bid are hereby submitted for the purchase of designated timber/vegetative resource on the tract specified above.

Required bid deposited is \$ **58,700.00** and is enclosed in the form of ☐ cash ☐ money order ☐ bank draft ☐ cashier's check ☐ certified check ☐ bid bond of corporate surety on approved list of the United States Treasury ☐ guaranteed remittance approved by the authorized officer.

IT IS AGREED That the bid deposit shall be retained by the United States as liquidated damages if the bid is accepted and the undersigned fails to execute and return the contract, together with any required performance bond and any required payment within 30 days after the contract is received by the successful bidder. It is understood that no bid for less than the appraised price on a unit basis per species will be considered. If the bid is rejected the deposit will be returned.

BID SCHEDULE – LUMP SUM SALE

NOTE: Bidders should carefully check computations in completing the Bid Schedule

BID SUBMITTED					ORAL BID MADE	
PRODUCT SPECIES	UNIT	ESTIMATED VOLUME OR QUANTITY	UNIT PRICE	TOTAL VALUE	UNIT PRICE	TOTAL VALUE
Douglas-fir	MBF	5,102	X \$108.40	= \$553,056.80	X	=
White Fir	MBF	584	X \$42.80	= \$24,995.20	X	=
Ponderosa Pine	MBF	196	X \$30.50	= \$5,975.00	X	=
Incense-cedar	MBF	47	X \$49.80	= \$2,340.60	X	=
Sugar Pine	MBF	20	X \$29.40	= \$588.00	X	=
Total		5,949		\$586,958.60		
TOTAL PURCHASE PRICE						

(Continued on reverse)

If sale contract is executed, undersigned is liable for total purchase price even though the quantity cut, removed, or designated for taking is more or less than the 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” (2) Vegetative Resource Other Than Timber (3) Time bids are to be opened (4) Legal description

NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 38 FR 6280 and 43 CFR 5442.1

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

ROUTINE USE: 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 or vegetative resources.

INSTRUCTIONS TO BIDDERS

1. **AUTHORITY** – Timber 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 located on other lands and other vegetative resources on all 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 are codified in 43 CFR Group 5400.

2. **QUALIFICATIONS OF BIDDERS** – A bidder for sale of timber/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/vegetative resource is located.

3. **INSPECTION OF TIMBER/VEGETATIVE RESOURCES** – Bidder is invited, urged, and cautioned to inspect the timber/vegetative resource prior to submitting a bid. By executing the timber/vegetative resource sale contract, bidder warrants that the contract is accepted on the basis of his examination and inspection of the timber/vegetative resource and his opinion of its value.

4. **DISCLAIMER OF WARRANTY** – Government expressly disclaims any warranty of the fitness of the designated timber/vegetative resource for any purpose of the bidder; all timber/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/vegetative resource to be sold is expressly disclaimed by Government.

5. **BIDS** – Sealed or written bids for not less than the advertised appraised price, per timber/vegetative resource must be submitted in duplicate to the District Manager who issued *Timber/Vegetative Resource 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/Vegetative Resource*, time bid is to be opened, tract number, and legal description of land on which timber/vegetative resource is 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/vegetative resource 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) **Lump Sum Sales** – Bids shall specify (1) Bureau of Land Management estimated volume, (2) price per unit, and (3) total purchase price. Estimated volume and price per unit are to be used for administrative and appraisal purposes only. Upon award of contract, high bidder shall be liable for total purchase price, including any adjustment which may be made as a result of reappraisal if an extension of time is granted, even though quantity of timber/vegetative resource actually cut, removed, or designated for taking is more or less than the estimated volume or quantity listed.

(b) **Timber Scale Sales** – Bids must state price per thousand board feet that will be paid for each species. High bidder will be determined by multiplying bid price per thousand board feet per species by Bureau of Land Management estimate of volume of each species. Purchaser shall be liable for purchase price of all merchantable timber sold under contract even though all such timber is not actually cut

and removed prior to expiration of time for cutting and removal as specified in contract.*

7. **BID DEPOSIT** – All bidders must make a deposit of not less than the amount specified in the *Timber/Vegetative Resource 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*, or any approved guaranteed remittance approved by the Authorized 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/VEGETATIVE RESOURCE SALE CONTRACT** – To be executed by purchaser, has been prepared by Government, and may be examined in the District Manager's office.

10. **PERFORMANCE BOND** –

(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 Authorized Officer.

(b) If purchaser elects to cut timber 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 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 covered by the bond increase. This increased amount of bond shall be used to assure payment for timber cut in advance of payment.*

11. **PAYMENT BOND** – If purchaser elects to (a) cut and remove timber, or (b) remove timber 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 covered by the bond. Payment bond shall be used to assure payment for timber 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/vegetative resource 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/Vegetative Resource 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/vegetative resource, it may, in its discretion, keep the sale open, not to exceed ninety (90) days.

*Applies to Timber Only

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 sawlogs, peeler logs, and pulp logs; (2) cants or squares to be subsequently remanufactured exceeding eight and three quarters (8-3/4) inches in thickness; (3) split or round bolts or other roundwood not processed to standards 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 dimension 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.