

# \*UPDATED\* PROSPECTUS

GRANTS PASS RESOURCE AREA  
JOSEPHINE MASTER UNIT

Medford Sale ORM07-TS-16-01  
August 25, 2016 (LLS)

#1. Upper Cow Timber Sale,  
Douglas County, O&C

BID DEPOSIT REQUIRED: \$151,700.00

All timber designated for cutting in Lot 3, Lot 4, E $\frac{1}{2}$ SW $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$  Sec. 19, T. 31 S., R. 3 W.; Lot 1 Sec. 21, Lot 3, Lot 4, SE $\frac{1}{4}$ NW $\frac{1}{4}$ , N $\frac{1}{2}$ SW $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$  Sec. 23, W $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$ SW $\frac{1}{4}$  Sec. 24, W $\frac{1}{2}$ NW $\frac{1}{4}$ , SW $\frac{1}{4}$  Sec. 25, Lot 2, Lot 3, Lot 4, SW $\frac{1}{4}$ NE $\frac{1}{4}$ , S $\frac{1}{2}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ SE $\frac{1}{4}$  Sec. 26, Lot 2, NW $\frac{1}{4}$ NE $\frac{1}{4}$  Sec. 27, S $\frac{1}{2}$ SW $\frac{1}{4}$  Sec. 29, Lot 4 Sec. 30, Lot 1, W $\frac{1}{2}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$ NE $\frac{1}{4}$ , E $\frac{1}{2}$ NW $\frac{1}{4}$ , N $\frac{1}{2}$ SE $\frac{1}{4}$  Sec. 31, N $\frac{1}{2}$ NW $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ SE $\frac{1}{4}$  Sec. 32, E $\frac{1}{2}$ NE $\frac{1}{4}$  Sec. 33, NE $\frac{1}{4}$ SW $\frac{1}{4}$ , W $\frac{1}{2}$ SE $\frac{1}{4}$  Sec. 34, Lot 1, Lot 2, W $\frac{1}{2}$ NE $\frac{1}{4}$ , E $\frac{1}{2}$ NW $\frac{1}{4}$ , NE $\frac{1}{4}$ SW $\frac{1}{4}$  Sec. 35, T. 31 S., R. 4 W.; SE $\frac{1}{4}$ SE $\frac{1}{4}$  Sec. 25, T. 31 S., R. 5 W.; E $\frac{1}{2}$ NE $\frac{1}{4}$ , N $\frac{1}{2}$ SE $\frac{1}{4}$  Sec. 1, Lot 1, Lot 2, Lot 7, Lot 8 Sec. 3, N $\frac{1}{2}$ NW $\frac{1}{4}$  Sec. 5, Lot 1, SE $\frac{1}{4}$ NE $\frac{1}{4}$  Sec. 9, SE $\frac{1}{4}$ SE $\frac{1}{4}$  Sec. 10, Lot 1, SE $\frac{1}{4}$ NE $\frac{1}{4}$ , S $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$ SE $\frac{1}{4}$  Sec. 11, SW $\frac{1}{4}$ NE $\frac{1}{4}$ , NW $\frac{1}{4}$ NW $\frac{1}{4}$ , SE $\frac{1}{4}$ NW $\frac{1}{4}$ , NE $\frac{1}{4}$ SW $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$  Sec. 13, NE $\frac{1}{4}$ NE $\frac{1}{4}$ , NW $\frac{1}{4}$ NW $\frac{1}{4}$  Sec. 14, N $\frac{1}{2}$ NE $\frac{1}{4}$  Sec. 15, NW $\frac{1}{4}$  Sec. 27, T. 32 S., R. 4 W.; SW $\frac{1}{4}$ NE $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$  Sec. 1, T. 32 S., R. 5 W., Willamette Meridian.

Approx. Number Merch. Trees	Est. Volume MBF 32' Log	Species	Est. Volume MBF 16' Log	Appr. Price Per MBF*	Est. Volume Times Appraised Price
57,970	6,721	Douglas-fir	8,328	\$181.50	\$1,511,532.00
410	15	Incense-cedar	18	\$166.70	\$3,000.60
327	20	Ponderosa Pine	27	\$26.70	\$720.90
88	9	White Fir	11	\$39.50	\$434.50
159	10	Western Hemlock	12	\$41.30	\$495.60
58,954	6,775	<b>Totals</b>	8,396		\$1,516,183.60

\*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.

\*\*The purchase of biomass material is optional. If the Purchaser chooses to purchase biomass/firewood, then it will be modified into the timber sale contract and a fair market price will be established at that time.

**TIMBER AUCTION LOCATION** – The timber auction will be held at the Grants Pass Inter-agency Office, located at 2164 NE Spalding Ave., Grants Pass, Oregon, at 9 a.m. on Thursday, August 25, 2016.

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.

**CRUISE INFORMATION** - The Douglas-fir has been cruised using the 3-P sampling method to select sample trees. Maps showing the location and description of these sample trees are

available at the Grants Pass Interagency Office.

The sample trees have been measured, utilizing the VOLT system of measurement, and the volume expanded to a total sale volume.

The volume of all other species in this sale has been derived from individual tree measurements taken during a 100% cruise using form class tables for estimating board foot volume of trees in 16-foot logs. Approximately 0 trees which are considered to be nonmerchantable are designated for cutting. Approximately 0% of the sale volume is salvage material. With respect to merchantable trees of all conifer species: the average tree is 13.1 inches DBHOB; the average gross merchantable log contains 44 bd. ft.; the total gross volume is approximately 9083 M bd. ft; and 92% recovery is expected. Average DF is 13.1 inches DBHOB; average gross merchantable log DF contains 44 bd. ft.

LOG EXPORT AND SUBSTITUTION RESTRICTIONS - All timber sold to the Purchaser under the terms of the contract, except exempted species, is restricted from export under the United States in the form of unprocessed timber and is prohibited from 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 – Fifty four (54) units containing seven hundred fifty (750) acres and one (1) bluemarked roadside area must be partial cut. Eight (8) temporary route rights-of-way must be clear-cut.

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 a public road system through the contract area; via existing BLM roads; via Right-of-Way and Road Use Agreement M-824 with Silver Butte; via Right-of-Way and Road Use Agreement M-851 with Roseburg Resources; via Right-of-Way and Road Use Agreement M-656 with Seneca Jones Timber Company. Among other conditions Right-Of-Way and Road Use Agreement M-824 with Silver Butte requires but is not limited to: payment of a road use fee of \$755.35 and rockwear fee of \$381.58. Among other conditions Right-of-Way and Road Use Agreement M-851 with Roseburg Resources requires but is not limited to: payment of a road use fee of \$1,225.63 and rockwear fee of \$619.13. Among other conditions Right-Of-Way and Road Use Agreement M-656 with Seneca Jones Timber Company requires but is not limited to: payment of a road use fee of \$328.52.

Road maintenance may be completed by the Purchaser upon written request approval; completion of an agreement between the Purchaser and Permittees; arbitration of conditions of road use.

ROAD MAINTENANCE - The Purchaser will be required to maintain all of the roads which he constructs plus 48.42 miles of existing BLM and private road. The purchaser will be required to pay a maintenance and rockwear fee of \$10,885.41 and a BST fee of \$69.98 for the use of these roads. The BLM may maintain specific miles of existing BLM roads upon purchaser's written request, fees will be applied.

ROAD CONSTRUCTION - The contract will require the Purchaser to construct 30.10 stations of new proposed road, renovate/improve 2,421.29 stations of existing road, and

construct/decommission 25.87 stations of temporary routes. Additional information is available in the timber sale prospectus.

Pursuant to Section 26 of Form 5450-25, Timber Sale Contract, the Purchaser shall not conduct mechanical ground based or cable yarding, loading, skid trail and landing rehabilitation, machine piling, route rehabilitation, route construction/ reconstruction, temporary route decommissioning, or non-emergency road maintenance in units with fragile soils, (1-2 portion, 11-1, 19-3, 19-4, 19-9, and 30-2) between October 15 of one calendar year and May 15 of the following calendar year both days inclusive.

Pursuant to Section 26 of Form 5450-25, Timber Sale Contract, the Purchaser shall not conduct mechanical ground based harvesting, ground based yarding, skid trail and landing rehabilitation, or machine piling in all units between October 15 of one calendar year and May 15 of the following calendar year both days inclusive.

Pursuant to Section 26 of Form 5450-25, Timber Sale Contract, the Purchaser shall not conduct mechanical ground based harvesting, ground based yarding, skid trail and landing rehabilitation, or machine piling shall be between May 16<sup>th</sup> to October 14<sup>th</sup> of each year, if soil moisture at a depth of 4-6 inches is wet enough to maintain form when compressed, or when soil at the surface would readily displace, causing ribbons and ruts along equipment tracks. These conditions are generally found when soil moisture at a depth of 4-10 inches is between 15-25%, depending on soil type.

Pursuant to Section 26 of Form 5450-25, Timber Sale Contract, the Purchaser shall not conduct route rehabilitation, temporary route construction/ reconstruction, temporary route decommissioning, landing construction/ reconstruction, or non-emergency road maintenance shall be conducted in sale area between October 15 of one calendar year and May 15 of the following calendar year both days inclusive. Purchaser may request in writing, a conditional waiver of this restriction. Waivers will be granted after a soil moisture test is performed by comparing the wet and dry weight (gravimetric method) of a representative sample in the unit or units for the requested waiver. If conditions exist that the soil surface is easily displaced, rutting or ribboning occurs or if impacts to soils are not acceptable during the operations listed above as determined by the Authorized Officer, the waiver will be revoked.

Pursuant to Section 26 of Form 5450-25, Timber Sale Contract, the Purchaser shall not haul on natural surface and rocked roads that do not have all-weather surface in the contract area between October 15 of one calendar year and May 15 of the following calendar year both days inclusive. The Purchaser may request in writing, a conditional waiver of this restriction. If the Authorize Officer 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, the Contracting Officer may approve a conditional waiver for hauling. If soil moisture conditions or rain events are anticipated to cause impacts to roads or stream water quality resulting from said conditional waiver are not acceptable as determined by the Authorized Officer, the waiver will be revoked.

**EQUIPMENT REQUIREMENTS** - A yarding tractor not greater than 9 feet wide as measured from the outer edges of standard width shoes and equipped with an integral arch and a winch for lining logs seventy-five (75) feet. A skyline yarder with a large (40-70 foot) tower; capable of one end suspension with a minimum lateral yarding capability of seventy-five (75) feet while maintaining a fixed position during inhaul; capable of multi-span; and capable of an external yarding distance of one thousand five hundred twenty eight (1,528) feet slope distance. A helicopter equipped with a dropline with a minimum length of one hundred fifty (150) feet. A minimum two hundred (200) flywheel horsepower tractor with mounted rippers no more than thirty six (36) inches apart and capable of ripping to a depth of eighteen (18) inches will be required for decommissioning temporary routes and utilized skid roads within Riparian Reserves.

SLASH DISPOSAL - Slash disposal will consist of lop and scatter, selective slashing, hand pile & cover hand piles, pile & cover landing decks, burn & mop up hand piles, and landing decks as described in SD-5 of the Special Provisions. Hand pile all slash created in units 1-1, 1-1b, 1-1c, 5-4, 9-1, 9-26, 11-34, 23-2b, 23-6, 26-3, 27-12, 32-7, 32-7s. Hand pile all slash created within one hundred (100) feet of temp. routes and roads where the route/road coincides with the harvest unit boundary. Lop and scatter all slash located beyond this one hundred (100) foot hand pile treatment in units. This lop and scatter and hand pile combination treatment will occur in units 1-2, 3-1, 11-6, 11-26, 13-37, 14-3, 15-19, 19-3, 19-4, 19-9, 21-2, 23-1, 23-2, 23-3n, 24-1, 24-3, 25-1b, 25-12, 25-37, 25-7, 26-1b, 26-3b, 27-4s, 29-1, 30-2, 31-2, 31-3, 31-6, 32-4, 33-4, 34-1, 35-15, 35-1F, 35-3, and 35-5. A post logging assessment shall be conducted to determine treatment needs in all units. The initial appraisal prescribed five hundred and six (506) acres of lop and scatter, one hundred seventy one (171) acres of hand pile, cover, burn, and mop-up handpiles, and seventy-three (73) acres of pile, cover, burn, and mop-up landing decks

CONTRACT TERMINATION - A 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 comply with the Endangered Species Act, or comply with a court order. 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. In all units except 19-3, 19-4, 19-9, 11-1, 30-2, and a portion of 1-2 as shown on Exhibit A, all trees designated for cutting shall be felled and whole tree yarded or yarded with tops attached except when excessive stand damage occurs as determined by the Authorized Officer.
3. No work activities that cause disturbance above ambient noise levels (hauling, chainsaws, yarding ect.) within ¼ mile or ½ mile line-of-site from the active bald eagle nest near unit 33-4 shall be conducted between January 1 and August 31 of the same calendar year, both days inclusive. This restriction will not apply if it can be shown from bald eagle protocol surveys conducted by the Bureau of Land Management in accordance with accepted standard that bald eagle nesting and/or fledging activities are not occurring during the time of harvest.
4. The Purchaser shall, upon completion of yarding, place slash (not to exceed 18 inches) on cable yarding corridors in units 1-2 (portion that contains fragile soils), 11-1, 19-3, 19-4, 19-9 and 30-2 as shown on Exhibit A.
5. Slash (not to exceed 18 inches) shall be placed on skidtrails prior to use in unit 19-3 and 19-9 to protect fragile soils.
6. A harvester, feller-processor, or feller-buncher with purpose built carriers with boom-mounted felling heads and a boom with a minimum lateral reach of twenty (20) feet may be used in the ground based and helicopter units. See the Upper Cow Special Provisions for full ground based harvesting restrictions.
7. Rehabilitate all ground based skid trails utilized that are within two hundred (200) feet of streams, all temporary routes, cable-tractor swing routes, and all landings outside of the road prism.



8. Helicopter landings identified on Exhibit A were ground checked as available options. The purchaser can select other sites. Alternative landings sites on BLM lands must have prior approval from the Authorized Officer.
9. \*A Fiber optic cable runs along the 31-4-27 Rd. Call 1-800-332-2344 to have a locate done before operations begin.
7. The License Agreement fees and conditions listed in the Prospectus are pending and are not final. Final fees are dependent on final signed License Agreements.

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

From Grants Pass, take Interstate 5 northbound. Take exit 88 (Galesville reservoir). At off ramp take a right onto Upper Cow Creek Road (County Road 36) and proceed to units.

ENVIRONMENTAL ASSESSMENT - An environmental assessment DOI-BLM-ORWA-M070-2015-0009-EA was prepared for this sale, and a Finding of No Significant Impact has been documented. This document is available for inspection as background for this sale at the Medford District Office.



## UPPER COW TIMBER SALE

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 Areas as shown on Exhibit A and all trees marked with a combination of orange paint, orange flagging, and/or posters which are on or mark the boundaries of the Reserve Areas.
- (B) IR-1 Approximately thirty five thousand eight hundred fifty two (35,852) conifer trees marked with orange paint above and below stump height in units 1-1, 1-1B, 1-2, 3-1, 5-4, 9-1, 9-26, 11-1, 11-25, 11-26, 11-34, 13-4, 13-37, 14-3, 19-3, 19-4, 19-9, 21-2, 23-1, 23-2, 23-2B, 23-3N, 23-6, 24-1, 24-3, 25-7, 25-12, 25-37, 26-1, 26-1b, 27-4S, 27-12, 30-2, 31-2, 31-3, 31-6, 32-4, 33-4, 34-1, 35-2, 35-3, 35-5, and 35-15 as shown on Exhibit A.
- (C) IR-2 All timber except approximately two thousand two hundred sixty four (2,264) Douglas-fir trees, and one (1) incense cedar tree marked for cutting heretofore by the Government with blue paint above and below stump height in harvest units 1-1C, 11-1, 11-6, 15-19, 25-1B, 26-3, 26-3A, 26-3B, 29-1, 32-7, 32-7S, 35-1F, and Roadside trees as shown on Exhibit A.
- (D) IR-3M All retention trees which are larger than or equal to 20 inches D.B.H.O.B. within the harvest units that need to be felled to facilitate harvest shall remain on site in the harvest units as shown on Exhibit A.
- (E) IR-6M All hardwood trees and non-hazardous snags in all harvest units shown on Exhibit A.
- (F) IR-6M All pre-existing dead and down wood in all harvest units shown on Exhibit A.
- (G) IR-6M All trees outside unit boundaries and not designated for harvest that need to be cut to facilitate logging or are knocked over during falling and yarding in all units except 1-1, 31-3, 35-15 shown on Exhibit A.
- (H) IR-8 All timber except trees outside harvest boundaries that must be cut for corridors or landings in units 1-1, 31-3, and 35-15 shown on Exhibit A.

## UPPER COW TIMBER SALE

### SPECIAL PROVISIONS

#### 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(n).

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

## UPPER COW TIMBER SALE

### SPECIAL PROVISIONS

(Certificate as to Nonsubstitution and the Domestic Processing of Timber). The original of such certification shall be filed with the Authorized Officer. Additionally, when the other party is an affiliate of the Purchaser, the Purchaser will be required to update information under item (2) of Form 5450-17 (Export Determination) and file the form with the Authorized Officer.

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. 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.

## UPPER COW TIMBER SALE

### SPECIAL PROVISIONS

#### (B) Logging

- (1) L-1 Before beginning operations on the contract area for the first time or after a shutdown of seven (7) or more days, the Purchaser shall notify the Authorized Officer in writing of the date they plan to begin operations. 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-3 All trees designated for cutting shall be cut so that the resulting stumps shall not be higher than twelve (12) inches measured from the ground on the uphill side of the trees, or be consistent with OSHA guidelines.
- (3) L-6 In all units except units 19-3, 19-4, 19-9, 11-1, 30-2, and a portion of 31-2 as shown on Exhibit A, all trees designated for cutting shall be felled and whole tree yarded or yarded with tops attached except when excessive stand damage occurs. If excessive stand damage occurs or continuous slash depth is expected to exceed eighteen (18) inches, all trees shall be bucked into log lengths not to exceed forty one (41) feet prior to being yarded.
- (4) L-7 In the cable yarding areas of harvest units as shown on Exhibit A, all trees designated for cutting shall be manually felled. In ground based and helicopter yarding portions of harvest units as shown on Exhibit A trees may be felled mechanically using a harvester, feller-processor, or feller-buncher with the approval of the Authorized Officer and in accordance with the following specifications:
  - (a) Mechanized felling operations shall be limited to slopes of thirty-five (35) percent or less.
  - (b) Mechanized felling operations are subject to seasonal operating restrictions as described in Section 42(B)(10)(L-18) of this contract.
  - (c) The harvester, feller-processor, or feller-buncher shall be approved by the Authorized Officer prior to the start of mechanized felling operations. Only purpose built carriers with boom-mounted felling heads may be approved. The boom must have a lateral reach of twenty (20) feet or more, and the machine's lateral reach must be utilized as much as possible. The purpose-built carrier may be of the articulated, rubber-tired design, or the zero-clearance tail swing leveling track-mounted design.
  - (d) The harvest equipment shall walk on existing or created slash as directed by the Authorized Officer. If Purchaser is required to create slash to walk on, then Purchaser shall not be required to whole-tree-yard.

## UPPER COW TIMBER SALE

### SPECIAL PROVISIONS

- (5) L-7MC 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
<u>CABLE UNITS</u> 1-1, 1-1B, 1-2, 3-1, 11-1, 11-25, 11-26, 11-34, 14-3, 19-3, 19-4, 19-9, 21-2, 23-1, 23-2, 23-2B, 23-3N, 23-6, 24-1, 24-3, 25-7, 25-12, 25-37, 26-1 (cable swing), 26-1B, 26-3, 27-4S, 30-2, 31-2, 31-3, 31-6, 32-4, 32-7, 33-4, 34-1, 35-2, 35-3, 35-5, 35-15	<p>Yarding will be done with a cable yarding system which will suspend one end of the log clear of the ground during inhaul on the yarding corridor. The cable yarding system shall be capable of yarding one thousand five hundred and seventy-one (1,571) feet slope distance.</p> <p>A carriage is required which will maintain a fixed position on the skyline during lateral yarding and has a minimum lateral yarding capability of seventy five (75) feet.</p> <p>Yarding corridors will be perpendicular to the contours and located outside of all buffers shown on Exhibit A.</p> <p>Prior to falling any timber in the unit, all tail/lift trees and/or intermediate support trees shall be pre-designated by the Purchaser and approved by the Authorized Officer.</p> <p>Existing cable corridors shall be used whenever possible. Yarding corridors shall be approximately one hundred fifty (150) feet apart, measured at the tailholds.</p> <p>Yarding corridor widths shall not exceed six (6) feet either side of the skyline centerline.</p> <p>Skyline equipment shall be capable of yarding in a multispan configuration.</p> <p>Landing size shall not exceed one-quarter (1/4) acre, shall be located along existing roads, temporary routes, and/or cable-tractor swing routes within unit boundaries where possible, and shall be approved by the Authorized Officer.</p> <p>Short purchaser spurs in units 3-1 and 11-26 may be necessary to achieve one-end log suspension. Fully decommission following use.</p> <p>Design landings with adequate drainage so that they are not hydrologically connected to draws or the ditchline of roads.</p>

# UPPER COW TIMBER SALE

## SPECIAL PROVISIONS

<p><u>CABLE UNITS</u> <u>CONTINUED</u></p> <p>1-1, 1-1B, 1-2, 3-1, 11-1, 11-25, 11-26, 11-34, 14-3, 19-3, 19-4, 19-9, 21-2, 23-1, 23-2, 23-2B, 23-3N, 23-6, 24-1, 24-3, 25-7, 25-12, 25-37, 26-1 (cable swing) 26-1B, 26-3, 27-4S, 30-2, 31-2, 31-3, 31-6, 32-4, 32-7, 33-4, 34-1, 35-2, 35-3, 35-5, 35-15</p>	<p>Landings and corridors may be needed outside of unit boundaries in units 1-1, 27-4s, 31-3, and 35-15. These landings and corridors shall not be located in any of the buffers shown on Exhibit A and shall be approved by the Authorized Officer prior to use.</p> <p>Directional falling to lead and away from streams, unit boundaries, and resource buffers shown on Exhibit A will be required.</p> <p>In unit 1-1, 19-3, 19-9, 31-3, and 25-37 the Purchaser shall be allowed to walk yarder into the unit utilizing a tractor-swing system as approved by the Authorized Officer.</p>
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Designated Area	Yarding Requirements or Limitations
<p><u>GROUND BASED UNITS</u></p> <p>1-1, 1-1B, 1-1C, 3-1, 5-4, 9-1, 9-26, 11-6, 13-4, 13-37, 19-3, 19-9, 23-2b, 25-1B, 25-37, 26-1, 26-1B, 27-12, 31-2, 31-3, 32-7S, 33-4, 35-1F, Roadside trees</p>	<p>Yarding tractor width shall not be greater than nine (9) feet track width and shall be equipped with an integral arch. Skid roads shall not exceed a width of twelve (12) feet on average per unit.</p> <p>Prior to falling any timber in the unit, all new skid roads shall be pre-designated by the Purchaser and approved by the Authorized Officer. Yarding tractors shall operate only on tractor skid roads approved by the Authorized Officer.</p> <p>Existing skid roads shall be used when possible. New skid roads shall be placed at least one hundred fifty (150) feet apart where topography will allow. New skid roads must be located on ground less than thirty-five (35) percent slope.</p> <p>Rehabilitate all utilized skid roads that are within two hundred (200) feet of streams as specified in Sec. 42 (D)(12)(E-1).</p> <p>Landing size shall not exceed one-quarter (¼) acre, shall be located along existing roads, temporary routes, and/or cable-tractor swing routes within unit boundaries, and shall be approved by the Authorized Officer. Design landings with adequate drainage so that they are not</p>



# UPPER COW TIMBER SALE

## SPECIAL PROVISIONS

<p><u>GROUND BASED</u> <u>UNITS</u> <u>CONTINUED</u> 1-1, 1-1B, 1-1C, 3-1, 5-4, 9-1, 9-26, 11-6, 13-4, 13-37, 19-3, 19-9, 23-2B, 25-1B, 25-37, 26-1, 26-1B, 27-12, 31-2, 31-3, 32-7S, 33-4, 35-1F, Roadside trees</p>	<p>hydrologically connected to draws or the ditchline of roads.</p> <p>Directional falling to lead and away from streams, unit boundaries, and resource buffers shown on Exhibit A will be required.</p> <p>The use of blades while tractor yarding will not occur, equipment shall walk over as much ground litter as possible.</p>
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Designated Area	Yarding Requirements or Limitations
<p><u>HELICOPTER</u> <u>UNITS</u>  11-1, 11-6, 15-19, 24-1, 24-3, 26-3A, 26-3B, 29-1, 31-6</p>	<p>All yarding will be done with an aerial system.</p> <p>Landing size shall not exceed one (1) acre and all landings are to be approved by the Authorized Officer prior to construction.</p> <p>Service pads and helispots cannot be constructed without prior approval of the Contract Administrator and shall not be larger than necessary.</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>

- (6) L-9 No yarding or loading is permitted in or through the streams, seeps, wetlands, or resource buffers as shown on Exhibit A.
- (7) L-11 No landing shall be located in stream buffers, seeps, wetlands, resource buffers, unstable locations, or locations that would deliver sediment to streams as shown on Exhibit A.

## UPPER COW TIMBER SALE

### SPECIAL PROVISIONS

- (8) L-12 Helicopter landings shall be placed at the approximate locations as shown on Exhibit A, unless an alternate site is identified by the Purchaser and approved by the Authorized Officer.
- (9) L-18 No ground based or cable yarding, loading, skid trail and landing rehabilitation, machine piling, temporary route rehabilitation, temporary route construction/ reconstruction, temporary route decommissioning, or non-emergency road maintenance shall be conducted in units with fragile soils, 1-2 (portion shown on exhibit A), 11-1, 19-3, 19-4, 19-9, and 30-2 between October 15 of one calendar year and May 15 of the following calendar year both days inclusive.
- (10) L-18 No mechanical ground based harvesting, ground based yarding, skid trail and landing rehabilitation, or machine piling shall be conducted in units 1-1, 1-1B, 1-1C, 3-1, 5-4, 9-1, 9-26, 11-6, 13-4, 13-37, 23-2B, 25-1B, 25-37, 26-1, 26-1B, 27-12, 31-2, 31-3, 32-7S, 33-4, 35-1F and roadside trees between October 15 of one calendar year and May 15 of the following calendar year both days inclusive.
- (11) L-18 No mechanical ground based harvesting, ground based yarding, skid trail and landing rehabilitation, or machine piling shall be conducted in units 1-1, 1-1B, 1-1C, 3-1, 5-4, 9-1, 9-26, 11-6, 13-4, 13-37, 19-9, 23-2B, 25-1B, 25-37, 26-1, 26-1B, 27-12, 31-2, 31-3, 32-7S, 33-4, 35-1F and roadside trees from May 16<sup>th</sup> to October 14<sup>th</sup> of each year, if soil moisture at a depth of four (4) to six (6) inches is wet enough to maintain form when compressed, or when soil at the surface would readily displace, causing ribbons and ruts along equipment tracks.
- (12) L-18 No temporary route rehabilitation, temporary route construction/ reconstruction, temporary route decommissioning, landing construction/ reconstruction, or non-emergency road maintenance shall be conducted in the sale area between October 15 of one calendar year and May 15 of the following calendar year both days inclusive. Purchaser may request in writing, a conditional waiver of this restriction. Waivers will be granted after a soil moisture test is performed by comparing the wet and dry weight (gravimetric method) of a representative sample in the unit or units for the requested waiver. If conditions exist that the soil surface is easily displaced, rutting or ribboning occurs or if impacts to soils are not acceptable during the operations listed above as determined by the Authorized Officer, the waiver will be revoked.
- (13) L-18 No hauling on natural surface and rocked roads that do not have all-weather surface shall be conducted in the contract area between October 15 of one calendar year and May 15 of the following calendar year both days inclusive. The Purchaser may request in writing, a conditional waiver of this restriction. If the Authorize Officer determines that hauling would not result in road damage or the transport of sediment to nearby stream channels based on soil moisture conditions

## UPPER COW TIMBER SALE

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or rain events, the Contracting Officer may approve a conditional waiver for hauling. If soil moisture conditions or rain events are anticipated to cause impacts to roads or stream water quality resulting from said conditional waiver are not acceptable as determined by the Authorized Officer, the waiver will be revoked.

- (14) L-18a No work activities that cause disturbance above ambient noise levels (hauling, chainsaws, yarding ect.) within ¼ mile or ½ mile line-of-site from the active bald eagle nest near unit 33-4 shall be conducted between January 1 and August 31 of the same calendar year, both days inclusive. This restriction will not apply if it can be shown from bald eagle protocol surveys conducted by the Bureau of Land Management in accordance with accepted standard that bald eagle nesting and/or fledging activities are not occurring during the time of harvest.
- (15) L-20 During logging operations, the Purchaser shall keep the 31-4-14, 31-4-25, 31-4-27, 31-4-31, 31-4-32, 31-5-35, 32-4-1, 32-4-5.1, 32-4-6, 32-4-7.2, and 32-4-9 roads, where it passes through the contract area, clear of trees, rock, dirt, and other debris so far as is practicable. The road shall not be blocked by such operations for more than thirty (30) minutes.
- (16) L-21 The Purchaser shall provide flaggers and/or signs to control traffic or alert forest road users of active operations on roads where it passes through or near active logging or hauling operations as required by OSHA regulations.
- (17) L-23 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 prework 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 developed by this provision.
- (18) L-25 Before cutting and removing any trees necessary to facilitate logging in the harvest units shown on Exhibit A, the Purchaser shall identify the location of the 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 and cable yarding roads upon which timber is identified by the Purchaser to be cut and removed in accordance with this special provision must be necessary for the safe and expeditious removal of timber sold under this contract and shall be limited to the minimum width

## UPPER COW TIMBER SALE

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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, and cable yarding road shall be limited to twelve (12) feet.

- (b) The Purchaser may immediately cut and remove additional timber to clear skid roads and cable yarding roads; and provide tailhold, tieback, guyline, lift and intermediate support trees; and clear danger trees when the trees have been marked with pink paint above and below stump height by the Authorized Officer and thereby approved for cutting and removal by the Authorized Officer. The volume of the timber to be sold will be determined by the Authorized Officer in accordance with Bureau of Land Management prescribed procedures. No timber may be cut or removed under terms of this provision unless sufficient installment payments have been made in accordance with Sec. 3.(b). of the contract or sufficient bonding has been provided in accordance with Sec. 3.(d). 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.
- (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 blacking out blue paint, applying orange paint as replacements

## UPPER COW TIMBER SALE

### SPECIAL PROVISIONS

for additional trees cut and removed to accommodate logging operations when the Authorized Officer determines such reservation is necessary to maintain stand densities consistent with objectives set forth in the management prescriptions. This applies to trees less than 20" DBH. 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.

#### (C) Road Construction – Maintenance – Use

- (1) RC-1a The Purchaser shall construct, improve, and renovate all roads in strict accordance with the plans and specifications shown in Exhibit C, which is attached hereto and made a part hereof.
- (2) RC-1b Prior to removal of any timber, except danger trees and right-of-way timber from all temporary routes, the Purchaser shall complete all construction and/or renovation of roads as specified in Exhibit C.
- (3) RC-1d The Purchaser shall not commence work on road construction, improvements, and renovation until receiving written notice to do so from the Authorized Officer. Work shall be commenced no later than 5 days after such notice, and shall be completed within 1 year after such notice.
- (4) RC-1f Upon completion of logging activities, the Purchaser shall scarify the entire roadway of all temporary routes shown on Exhibit C, in strips of not less than twenty-four (24) inches or more than twenty-eight (28) inches in width to a minimum depth of twelve (12) inches, provided that no scarification shall be required where the road traverses rock outcroppings. All natural water courses shall be opened to prevent erosion of the roadways. Barriers shall be constructed so as to prevent further use of the road by vehicles.
- (5) RC-2a The Purchaser is authorized to use the roads listed below and shown on Exhibit C and D which are under the jurisdiction of the Bureau of Land Management, Seneca Jones, Roseburg Resources, and SilverButte for the removal of Government timber sold under the terms of this contract, provided that the Purchaser comply with the conditions set forth in Section 42(C)(8), and pay the required rockwear obligation described in Section 42(C)(7), Section 42(C)(9), Section 42(C)(10), and in Section 42(C)(11). The Purchaser shall pay current Bureau of Land Management rockwear fees for the sale of additional timber under modification to the contract.

# UPPER COW TIMBER SALE

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Road No. and Segment	Length Miles Used	Road Control	Road Surface Type
31-3-19.4	0.32	BLM	NAT
31-3-19.5	0.14	BLM	NAT
31-3-19.6	0.12	BLM	NAT
31-3-31	1.81	BLM	GRR
31-4-14.0	0.51	BLM	GRR
31-4-21.5	0.06	BLM	NAT
31-4-23.1	0.30	BLM	GRR
31-4-23.2	0.07	BLM	NAT
31-4-23.3	0.27	BLM	GRR
31-4-25.0	1.45	BLM	GRR
31-4-25.0 SPUR 1	0.27	BLM	NAT
31-4-25.2	1.18	BLM	GRR
31-4-25.5	0.49	BLM	GRR
31-4-26.0	0.22	BLM	PRR
31-4-27.0	2.16	BLM	PRR
31-4-27.0 SPUR	0.10	BLM	NAT
31-4-30	0.43	BLM	PRR
31-4-31.0	0.79	BLM	PRR
31-4-32.0	0.91	BLM	PRR
31-4-34.0	1.56	BLM	PRR
33-4A SPUR	0.13	SENECA	NAT
33-4B SPUR	0.11	SENECA	NAT
31-4-35.4 SPUR	0.07	BLM	NAT
31-4-35.5 SPUR	0.05	BLM	NAT
31-4-36.0	0.16	BLM	PRR
31-5-35.0	1.38	BLM	PRR
32-4-1.0	1.12	BLM	PRR
32-4-1.3	0.28	BLM	GRR

# UPPER COW TIMBER SALE

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32-4-1.3 SPUR	0.43	BLM	NAT
32-4-11.0	0.98	BLM	PRR
32-4-11.5	1.37	BLM	NAT
32-4-13.0	0.73	BLM	PRR
32-4-13.2	0.97	BLM	PRR
32-4-13.3	0.15	BLM	PRR
32-4-13.3 SPUR	0.05	BLM	NAT
32-4-13.4 SPUR	0.15	BLM	NAT
32-4-15.0	0.42	BLM	PRR
32-4-2.0	1.69	BLM	PRR
32-4-27.3	0.24	BLM	PRR
32-4-3.0	1.61	BLM	PRR
32-4-3.1	0.80	BLM	PRR
32-4-3.2	0.15	BLM	NAT
32-4-3.4	0.54	BLM	PRR
32-4-3.4 SPUR	0.02	BLM	NAT
32-4-4.0	5.42	BLM	PRR
32-4-4.0 SPUR	0.19	BLM	NAT
32-4-5.1	1.55	BLM	PRR
32-4-6.0	3.16	BLM	PRR
32-4-7.2	2.57	BLM	PRR
32-4-7.2 SPUR	0.03	BLM	NAT
32-4-9.0	5.20	BLM	PRR
32-5-1.0	0.19	BLM	PRR
32-4-13.3	0.24	Silver Butte	GRR
32-4-13.2	0.38	Silver Butte	GRR
32-4-1	1.36	Silver Butte	GRR
31-4-23.6	0.30	Roseburg Resources	GRR
31-4-24.3	0.12	Roseburg Resources	GRR
31-4-24.4	0.40	Roseburg Resources	GRR

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31-4-25.2	0.74	Roseburg Resources	GRR
31-4-25.0	0.57	Roseburg Resources	GRR
31-5-35.0(M)	0.84	Seneca	GRR
<b>Total</b>	<b>48.42</b>		

*\*No rockwear fees assessed on NAT surfaced roads; listed only for authorization of use.*

- (6) RC-2f The Authorized 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 fees for the particular surface type of the roads involved. These fees will be applied to the remaining contract volume on the sale area to be transported over road or roads listed in Section 42(C)(6). The Purchaser shall pay the total maintenance amount for said roads within thirty (30) days following receipt of written notice; provided, however, that if the total amount exceeds five hundred and no/100 dollars (\$500.00), the Purchaser may elect to make payment in installments in the same manner as and together with payments required in Section 3 of this contract.
- (7) RC-2g The Purchaser shall also pay to the Government a road maintenance obligation for rockwear in the amount of **Ten Thousand Eight Hundred Eighty Five and 41/100 dollars (\$10,885.41)** for the transportation of timber included in the contract price required under terms of the contract over road or roads listed in Section 42(C)(6). The amount of the rockwear shown above shall be paid prior to removal of timber from the contract area; provided, however, that if the total of such amount exceeds five hundred and no/100 dollars (\$500.00), the Purchaser may elect to make the payment in installments in the same manner as and together with payments required in Section 3 of this contract.
- (8) RC-2h The Purchaser shall perform any required road repair and maintenance work on roads used by the purchaser, under the terms of Exhibit D, "Road Maintenance Specifications," of this contract, which is attached hereto and made a part hereof.
- (9) RC-3 In the use of road; 32-4-13.2(B-C), 32-4-13.3(B), 32-4-1.0(B), the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. M-824 between the United States of America and **Silver Butte**. These conditions include, but are not limited to: Payment to Silver Butte, a road use obligation of **seven hundred fifty five and 35/100 (\$755.35)** and a road use rockwear obligation of **three hundred eighty one and 58/100 dollars (\$381.58)** payable at the time indicated in the license agreement. Other special conditions and fees may apply; see the license agreement for additional terms and conditions. This document is available for inspection at the Bureau of Land Management, Medford



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Interagency Office, 3040 Biddle Road, Medford, Oregon 97504. Prior to the use of said road(s), the Purchaser shall furnish the Authorized Officer a copy of the executed License Agreement. Default by the Purchaser of said Right-of-Way and Road Use Agreement, or any License Agreement executed pursuant thereto, for failure to pay appropriate road use fees shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision.

- (10) RC-3 In the use of roads; 31-4-23.6, 31-4-24.3, 31-4-24.4, 31-4-25.0(B), 31-4-25.2(B2), the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. M-851 between the United States of America and **Roseburg Resources Co.** These conditions include, but are not limited to: Payment to Roseburg Resources, a road use obligation of **one thousand two hundred twenty five and 63/100 dollars (\$1,225.63)** and a rockwear obligation of **six hundred nineteen and 13/100 dollars (\$619.13)** payable at the time indicated in the license agreement. Other special conditions and fees may apply; see the license agreement for additional terms and conditions. This document is available for inspection at the Bureau of Land Management, Medford Interagency Office, 3040 Biddle Road, Medford, Oregon 97504. Prior to the use of said road(s), the Purchaser shall furnish the Authorized Officer a copy of the executed License Agreement. Default by the Purchaser of said Right-of-Way and Road Use Agreement, or any License Agreement executed pursuant thereto, for failure to pay appropriate road use fees shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision.
- (11) RC-3 In the use of road, 31-5-35.0(M) the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. M-656 between the United States of America and **Seneca Jones Timber Company.** These conditions include, but are not limited to: Payment to Seneca Jones Timber Company, a road use obligation sum fee of **three hundred twenty eight and 52/100 dollars (\$328.52)** payable at the time indicated in the license agreement. Other special conditions and fees may apply; see the license agreement for additional terms and conditions. This document is available for inspection at the Bureau of Land Management, Medford Interagency Office, 3040 Biddle Road, Medford, Oregon 97504. Prior to the use of said road(s), the Purchaser shall furnish the Authorized Officer a copy of the executed License Agreement. Default by the Purchaser of said Right-of-Way and Road Use Agreement, or any License Agreement executed pursuant thereto, for failure to pay appropriate road use fees shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision.
- (12) RC-3d 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, the Purchaser shall

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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.

- (13) RC-5 In the construction/improvement of temporary routes 31-4-34.3 spur and, 31-4-34.4 spur, as shown on Exhibit C, the Purchaser shall comply with the crossing plat terms and conditions of the Right-of-Way and Road Use Agreement No. M-656 between the United States and **Seneca Jones Timber Company**. This document is available for inspection at the Bureau of Land Management, Medford Interagency Office, 3040 Biddle Road, Medford, Oregon 97504.
- (14) RC-8 The Purchaser shall be required to secure written approval to use vehicles or haul equipment over Government owned or controlled roads and/or structures when that vehicle or equipment exceeds the maximum allowable weights or dimensions established by the State for vehicles operating without a permit.

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

Details shall include:

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

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

#### (D) Environmental Protection

- (1) E-1 In addition to the requirement set forth in Section 26 of this contract, the Purchaser shall implement the following noxious weed control measures:

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- (a) In order to prevent the potential spread of noxious weeds into the Medford District BLM, the operator would be required to clean all logging, construction, chipping, grinding, shredding, rock crushing, and transportation equipment prior to entry on BLM lands.
  - (b) Cleaning shall be defined as removal of dirt, grease, plant parts, and material that may carry noxious weed seeds into BLM lands. Cleaning prior to entry onto BLM lands may be accomplished by using a pressure hose.
  - (c) Only equipment inspected by the BLM would be allowed to operate within the Analysis Area. All subsequent move-ins of equipment as described above shall be treated the same as the initial move-in.
  - (d) Prior to initial move-in of any equipment, and all subsequent move-ins, the operator shall make the equipment available for BLM inspection at an agreed upon location off Federal lands.
  - (e) Equipment would be visually inspected by the Authorized Officer to verify that the equipment has been reasonably cleaned.
- (2) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall use dust abatement measures on the 32-4-6 road near residences if hauling causes un-acceptable levels of dust, as directed by the Authorized Officer.
- (3) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall only use certified weed-free hay and native grass seed species approved by the Authorized Officer for rehabilitation activities. All seeding shall be contingent upon seed availability.
- (4) E-1 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, as directed by the Authorized Officer. Such plan shall include identification of Purchaser's representatives responsible for supervising initial containment action for releases and subsequent cleanup. Such plans must comply with the State of Oregon DEQ OAR 340-142, Oil and Hazardous Materials Emergency Response Requirements.
- (5) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall not refuel equipment, store, or cause to have stored, any fuel or other petroleum products within one hundred fifty (150) feet of all riparian management or wet areas. All Petroleum products shall be stored in durable containers and located so that any accidental releases will be contained and not drain into any stream system. Hydraulic fluid and fuel lines on heavy mechanized equipment would be in proper working condition in order to minimize potential for leakage into streams. Absorbent materials shall be onsite to allow for

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immediate containment of any accidental spills. Spilled fuel and oil shall be cleaned up and disposed of at an approved disposal site.

- (6) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall not locate new landings in areas that contribute eroded fines to streams, wet areas, dry draws and swales. If these landing locations cannot be avoided, ensure that properly installed sediment control measures are placed and maintained, as needed, to keep eroded material onsite.
- (7) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall ensure that silt fencing or other sediment control measures are properly placed and maintained during use and periods of non-use when utilizing existing landings that have the potential to release eroded fines into a stream or wet area, directly or via draws or ditchlines. Any project-related would be suspended if conditions develop that cause a potential for sediment laden runoff to enter a wetland, floodplain or waters of the state. Operations can resume when sediment control devices are in place and conditions allow turbidity standards to be met.
- (8) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall, upon completion of yarding, place slash (not to exceed eighteen (18) inches) on cable yarding corridors in units 1-2 (portion that contains fragile soils), 11-1, 19-3, 19-4, 19-9 and 30-2 as shown on Exhibit A.
- (9) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall place slash (not to exceed eighteen (18) inches) on skidtrails prior to use in unit 19-3 and 19-9 to protect fragile soils.
- (10) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall, upon completion of skidding, pull vegetation over and block skid trails if unauthorized off-highway vehicles (OHV) are identified utilizing the skid trails.
- (11) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall, prior to October 15 of the same operating season, winterize and rehabilitate temporary routes, landings, corridors in fragile soils, hydrologically connected skid trails and other areas of exposed soils by properly installing and/or using water bars, berms, sediment basins, gravel pads, hay bales, small dense woody debris, seeding and/or mulching, to reduce sediment runoff and divert runoff water away from stream channels, headwalls, slide areas, high landslide hazard locations or steep erodible fill slopes as directed by the Authorized Officer.
- (12) E-1 In addition to the requirement set forth in Section 26 of this contract, the Purchaser shall as directed by the Authorized Officer rehabilitate all ground based skid trails utilized that are within two hundred (200) feet of streams, all temporary

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routes, cable-tractor swing routes, and all landings outside of the road prism by one of the following methods:

- (a) If the Authorized Officer deems ripping will not cause unacceptable damage to the root systems of residual trees the Purchaser shall discontinuously subsoil with winged ripper teeth, simultaneously water bar, seed, mulch, and barricade.
  - 1. 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.
  - 2. Rip to a depth of twelve (12) inches, and no further than twenty eight (28) inches apart.
  - 3. Ripping will occur before **October 15** of the year of harvest.
  - 4. Any step landings shall be re-contoured following use.
- (b) If the Authorized Officer deems ripping will cause an unacceptable amount of damage to the root systems of residual trees the Purchaser shall scarify to a depth of up to six (6) inches and simultaneously water bar, seed, mulch, and barricade.

All rehabilitation shall occur within eighteen (18) months of harvest, during the dry season, and after pile burning is complete.

- (13) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall place material removed during excavation in locations where it cannot enter streams or other water bodies.
- (14) 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-8, which is attached hereto and made a part hereof.
- (15) E-4 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, 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.

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

## UPPER COW TIMBER SALE

### SPECIAL PROVISIONS

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.

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

The Contracting Officer may determine that it is necessary to terminate the cutting and removal rights under the contract in order to comply with the Endangered Species Act, 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, 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

## UPPER COW TIMBER SALE

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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.

#### (E) Fire Prevention and Control

(1) F-1 Fire Prevention and Control. Primarily for purposes of fire prevention and control, the Purchaser shall, prior to the operation of power driven equipment in construction or logging operations under this contract during the closed fire season or periods of fire danger, prepare a fire prevention and control plan to the satisfaction of the State of Oregon, Department of Forestry.

(a) 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:

a. 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."



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The box shall have a hinged lid and a hasp by which the lid can be sealed. One box may serve two landings not over six hundred (600) feet apart. When filled, the box shall not weigh over two hundred (200) pounds. The fire tools shall be in good condition, be tight on strong handles, and have sharp cutting edges. There shall not be less than four (4) tools in each box nor less than one (1) tool for each person working on the contract area. Three-fourths ( $\frac{3}{4}$ ) of all fire tools shall be shovels, hazel hoes, or other scraping tools. The fire tools shall be used only for fighting fire.

- b. F-2b A round pointed size "0" or larger shovel in good condition shall be within fifty (50) feet of any power saw when in operation.
- c. 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.
- d. F-2d Serviceable radio or radio-telephone equipment able to provide prompt and reliable communication between the contract area, Medford BLM District Office, and the Oregon Department of Forestry. Such communication shall be available during periods of operation including the time watch-service is required.
- e. 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.
- f. F-2f A headlight for each person in the woods crew adequate to provide sufficient illumination for night fire fighting. A

## UPPER COW TIMBER SALE

### SPECIAL PROVISIONS

headlight shall be of the type that can be fastened to the head so as to allow independent use of the hands. It shall be equipped with a battery case so designed that it can be either carried in the hip pocket or fastened to the belt. The head of the light and the battery case shall be connected by insulated wires. At least one extra set of batteries shall be provided for each such headlight.

- g. 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.
- h. 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.
- i. 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.

#### (F) Slash Disposal and Site Preparation

- (1) SD-1 Fire Hazard Reduction. In addition to the requirements of Sec. 15 of this contract, and notwithstanding the Purchaser's satisfactory compliance with State laws and regulations regarding offsetting or abating the additional fire hazard created by this operation and the State's willingness to release the Purchaser from liability for such hazard, the Purchaser shall remain responsible to the Government for performance of the following hazard reduction measures required by this contract:

## UPPER COW TIMBER SALE

### SPECIAL PROVISIONS

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

- a. SD-1a LOP AND SCATTER Lop and scatter all slash that was not piled in units as directed by the Authorized Officer. All cut slash (any material less than six inches in diameter) shall be lopped to no more than eight (8) feet in length and all top and side branches must be free of the central stem so that slash is reduced to the extent that it is within eighteen (18) inches of the ground at all points. All slash shall be arranged in a discontinuous pattern across the forest floor.
- b. SD-1c HAND PILING Hand pile all slash situated within one hundred (100) feet of roads where the route/road coincides with harvest units: 1-2, 3-1, 11-6, 11-26, 13-37, 14-3, 15-19, 19-3, 19-4, 19-9, 21-2, 23-1, 23-2, 23-3N, 24-1, 24-3, 25-1B, 25-12, 25-37, 25-7, 26-1B, 26-3B, 27-4S, 29-1, 30-2, 31-2, 31-3, 31-6, 32-4, 33-4, 34-1, 35-15, 35-1F, 35-3, 35-5 and the entirety of units 1-1, 1-1B, 1-1C, 5-4, 9-1, 9-26, 11-34, 23-2B, 23-6, 26-3, 27-12, 32-7, 32-7S in accordance with the following specifications:
  1. Slash, as defined for this section, shall mean all material (brush, limbs, tops, unmerchantable stems, and chunks) severed or knocked over as a result of purchasers operations under the terms of this contract.
  2. Piling shall be accomplished by hand. Finished piles shall be tight and free of earth.
  3. Pile all slash which is between one (1) and six (6) inches in diameter on the large end and exceeds two (2) feet in length.
  4. Piles shall be placed within unit boundaries, however, outside of wildlife buffers, roadways, turnouts, shoulders, or cut banks. No piles shall be placed on down logs or stumps. No piles shall be placed adjacent to or within twenty five (25) feet of commercial thin unit boundaries. Finished piles shall be tight and free of earth.
  5. A five (5) foot by five (5) foot cover of 4 mm black plastic shall cap each hand pile to maintain a dry ignition point. The cover shall be firmly fixed to the pile to hold it in place. Approximately

## UPPER COW TIMBER SALE

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one third ( $\frac{1}{3}$ ) of the pile shall lie above this plastic cover. 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 five (5) feet and no greater than eight (8) feet; width shall be no less than six (6) feet and shall not exceed eight (8) feet; piles shall be circular and not windrowed. No pile shall be located in any stream channel; on down logs or stumps; within ten (10) feet of any other pile or the trunk of the nearest living reserve tree. No portion of the pile will be under the crown of any living tree.

- c. SD-1d Operations required by this provision shall be kept current with yarding as directed by the Authorized Officer and shall be conducted as follows:

1. Units shall be piled and covered during the same season that they are logged.
2. Landing piles and hand piles located on temporary routes, skid trails, or landings would be burned, chipped, or otherwise removed from these sites within eighteen (18) months of unit harvest completion.

- d. SD-1e LANDING SLASH Pile all slash situated in harvest unit landings and within twenty (20) feet of each finished pile. Piles shall be firelined within twenty (20) feet, or within safe working condition, of each finished pile. Fireline shall be to mineral soil and a minimum of eighteen (18) inches wide. A minimum fuel break of two (2) feet on each side of the fireline of removing logging slash greater than one (1) inch diameter at the small end. Slash shall be piled by machine or hand. Landing piles shall be located in tractor skid trails, cable yarding corridor chutes, or on landings located away from reserve trees, snags, and coarse woody debris. Finished piles shall be tight and free of earth.

1. A ten (10) foot by ten (10) foot cover of 4 mm 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.

- (2) SD-2 Notwithstanding the provisions of Sec. 15 of this contract, the Government shall assume all obligations for disposal or reduction of fire hazards created by Purchaser's operations on Government lands, except for burning and mop-up

## UPPER COW TIMBER SALE

### SPECIAL PROVISIONS

assistance as required herein. In accordance with written instructions to be issued by the Authorized Officer at least ten (10) days in advance of earliest date of required performance, the Purchaser shall, under supervision of the Authorized Officer or designated representative, assist in preparing units for burning, mop-up, and patrol by furnishing, at the Purchaser's own expense, the services of personnel and equipment on each unit as shown below.

a. Burn and mop-up piled units and landings as shown on Exhibit A in accordance with Section 42(F)(2) and 42(F)(3).

1. Prescribed fire plans shall be prepared for burning activities to ensure that resource and fire management objectives are met by setting parameters under which the burning may take place. Prescribed burning within the harvest units shall be conducted in a manner that will minimize damage to reserve trees, duff and soil, and to avoid loss of large, coarse woody debris and will be consistent with ecosystem management objectives. The Purchaser shall burn ninety (90) percent of piles for satisfactory completion of treatment, as directed by the Authorized Officer.

2. Piles shall be burned in the fall to spring season after one or more inches of precipitation has occurred to reduce the potential for fire spread and scorch and mortality to the residual trees and shrubs. Patrol and mop-up of burning piles shall occur when needed to prevent treated areas from re-burning or becoming an escaped fire. The timing of prescribed burns depends on these parameters and the availability of adequate fire suppression resources as a contingency plan in the event of escaped fire.

3. For igniting and burning piles on units 1-1, 1-1B, 1-1C, 1-2, 3-1, 5-4, 9-1, 9-26, 11-6, 11-26, 11-34, 13-37, 14-3, 15-19, 19-3, 19-4, 19-9, 21-2, 23-1, 23-2, 23-2B, 23-3N, 23-6, 24-1, 24-3, 25-1B, 25-12, 25-37, 25-7, 26-1B, 26-3, 26-3B, 27-4S, 27-12, 29-1, 30-2, 31-2, 31-3, 31-6, 32-4, 32-7, 32-7S, 33-4, 34-1, 35-15, 35-1F, 35-3, 35-5 and all landing piles in all units as described by the Authorized Officer:

a. One (1) person to supervise crew(s) and equipment operators, and to serve as Purchaser's representative.

b. One (1) crew with ten (10) members per crew, including a designated crew foreman. Each crew shall be equipped with fuel, ten (10) drip torches, shovels, pulaskis, one (1) power saw and one (1) backpack pump; one (1) tool for each crew member.

## UPPER COW TIMBER SALE

### SPECIAL PROVISIONS

- c. All crews shall arrive on the project area with radios capable of inter-crew communications and communication with a BLM representative at a ratio of one (1) radio per every five (5) crew members.
  - d. All ignition personnel will be directly supervised by a BLM representative.
4. For mop-up of piles on units 1-1, 1-1B, 1-1C, 1-2, 3-1, 5-4, 9-1, 9-26, 11-6, 11-26, 11-34, 13-37, 14-3, 15-19, 19-3, 19-4, 19-9, 21-2, 23-1, 23-2, 23-2B, 23-3N, 23-6, 24-1, 24-3, 25-1B, 25-12, 25-37, 25-7, 26-1B, 26-3, 26-3B, 27-4S, 27-12, 29-1, 30-2, 31-2, 31-3, 31-6, 32-4, 32-7, 32-7S, 33-4, 34-1, 35-15, 35-1F, 35-3, 35-5 and all landing piles in all units as described by the Authorized Officer:
- a. One (1) person to supervise crew(s) and equipment operators, and to serve as Purchaser's representative.
  - b. One (1) crew with ten (10) members per crew, including a designated crew foreman. Each crew shall be equipped with fuel, ten (10) drip torches, shovels, pulaskis, one (1) power saw and one (1) backpack pump; one (1) tool for each crew member.
  - c. All crews shall arrive on the project area with radios capable of inter-crew communications and communication with a BLM representative at a ratio of one (1) radio per every five (5) crew members.
  - d. All ignition personnel will be directly supervised by a BLM representative.

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

All listed personnel shall be physically fit, experienced, and fully capable of functioning as required. All personnel shall arrive at the project area(s) with the following personal safety equipment: long sleeve natural fabric shirt, full length natural fabric trousers, minimum eight (8) inch top leather boots, hardhat, and leather gloves. All listed tools and equipment shall be in good usable condition. All power-driven equipment shall be fully fueled and available for immediate use. During periods of use under this subsection, the Purchaser shall provide fuel and maintenance for all such power-driven equipment.

## UPPER COW TIMBER SALE

### SPECIAL PROVISIONS

Except as provided hereafter for fire escapement, the Purchaser shall continue the required assistance in mop-up on each unit to be burned as shown on Exhibit A as required in Section 42(G) for four hundred fifty (450) work hours for each piled unit and piled landing as directed by the Authorized Officer within a ten (10) day period for each piled unit and piled landing beginning 8:00 a.m. the day following completion of ignition in that unit or until released from such services by the Authorized Officer, whichever occurs first.

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

In situations where an escaped fire is controlled and contained by an adequate fire break (i.e., trail, road, stream, rock formation, etc.), the Government may permit the Purchaser to remove personnel for that day; provided that, all mop-up work on the escaped fire area is included with mop-up work on the prescribed fire area. In such an event, the Purchaser must sign a statement of agreement to complete mop-up work on all escaped fire areas concurrently with mop-up work on the prescribed fire area.

In case of injury to personnel or damage to equipment furnished 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.

# UPPER COW TIMBER SALE

## SPECIAL PROVISIONS

- (3) SD-5 Perform logging residue reduction and site preparation work on approximately seven hundred fifty (750) acres of harvest area located in cutting units: 1-1, 1-1B, 1-1C, 1-2, 3-1, 5-4, 9-1, 9-26, 11-1, 11-6, 11-25, 11-26, 11-34, 13-4, 13-37, 14-3, 15-19, 19-3, 19-4, 19-9, 21-2, 23-1, 23-2, 23-2B, 23-3N, 23-6, 24-1, 24-3, 25-1B, 25-7, 25-12, 25-37, 26-1, 26-1b, 26-3, 26-3a, 26-3b, 27-4s, 27-12, 29-1, 30-2, 31-2, 31-3, 31-6, 32-4, 32-7, 32-7s, 33-4, 34-1, 35-1F, 35-2, 35-3, 35-5, 35-15 as shown on Exhibit A.

- 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.	Treatment	Description	Cost/Acre
	Lop and Scatter L1	< 12 tons/acre	\$40.00
	Hand Pile and Cover L2	21-40 piles/acre	\$380.00
	Hand Pile and Cover L3	41-60 piles/acre	\$515.00
	Hand Pile Burn and Mop-Up L2	21-40 piles/acre	\$42.00
	Hand Pile Burn and Mop-Up L3	41-60 piles/acre	\$55.00
	Cover and Burn Landing Piles	< 20 piles/acre	\$80.00

Following treatments were assumed for appraisal purposes on this contract:

Appraised Treatment	Acres	Cost/Acre	Total Cost Per Treatment
Lop and Scatter L1	506	\$40.00	\$20,240.00
Hand Pile and Cover L2	171	\$380.00	\$64,980.00
Hand Pile Burn and Mop-Up L2	171	\$42.00	\$7,182.00
Cover and Burn Landing Piles	73	\$80.00	\$5,840.00
Total Appraised Cost			<b>\$98,242.00</b>

- c. The Total Purchase Price set forth in Section 2 shall be adjusted by the amount that the total cost of the site preparation treatments designated pursuant to Section 42(F)(3)(a) differs from \$98,242.00, as calculated by using the estimated acres determined by the Authorized Officer and the per acre costs listed in Section 42(F)(3)(a).



## Seasonal Restriction Matrix

Upper Cow T.S.

ORM07-TS-16-1

	Unrestricted Period
	Restricted To Dry Condition
	Restricted To Dry Condition Waiver Required
	Restricted period

\* Operations will be suspended if unacceptable damage to residual trees occur.

\*\* In-stream work periods for culvert cleaning are June 15th-September 15th

**Dry Condition Haul** =Haul is allowed on paved and all weather surface roads year round except in unite with fragile soils and eagle restrictions. No hauling on natural surface and rocky roads that do not have all-weather surface shall be conducted in the contract area between October 15 of one calendar year and May 15 of the following calendar year both days inclusive. The Purchaser may request in writing, a conditional waiver of this restriction. If the Authorize Officer 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, the Contracting Officer may approve a conditional waiver for hauling. If soil moisture conditions or rain events are anticipated to cause impacts to roads or stream water quality resulting from said conditional waiver are not acceptable as determined by the Authorized Officer, the waiver will be revoked.

**Dry Season and Dry Condition** Ground based Yarding  $\equiv$  Ground-based harvesting, yarding, and rehabilitation activities would not occur between October 15th of one calendar year and May 15th of the following calendar year, both days inclusive, and when soil moisture at a depth of 4-6 inches is wet enough to maintain form when compressed, or when soil moisture at the surface would readily displace, causing ribbons and ruts along equipment tracks.

[illegible]



[illegible]



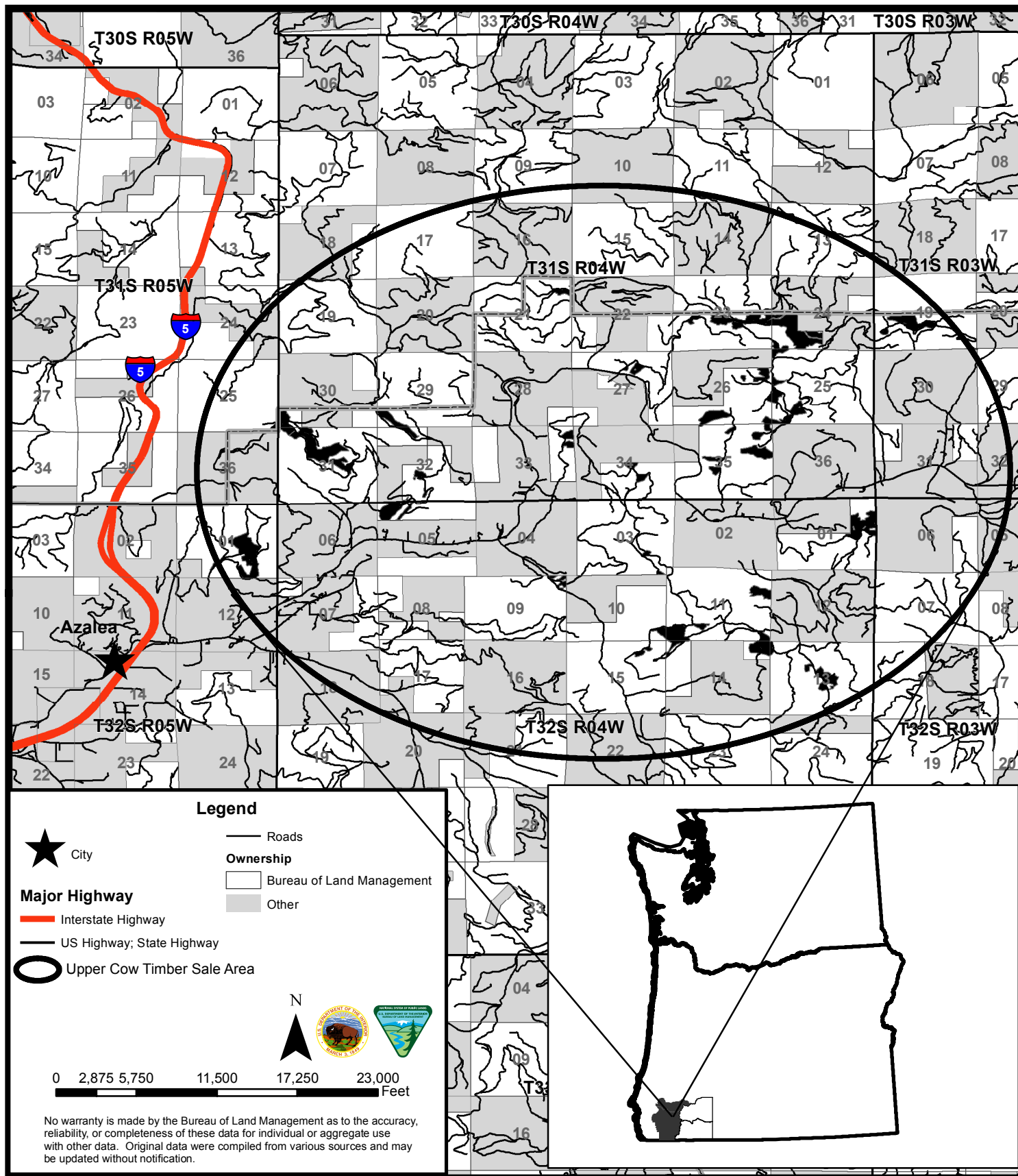
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U.S.D.I BLM MEDFORD DISTRICT  
T. 31 S., R. 3 W., Sec. 19, 21, 23, 24,  
25, 26, 27, 29, 30, 31, 32, 33, 34, 35  
T. 31 S., R. 4 W., Sec. 25  
T. 31 S., R. 5 W., Sec. 1, Sec. 3,  
Sec. 5, Sec. 9, Sec. 10, Sec. 11,  
Sec. 13, Sec. 14, Sec. 15, Sec. 27  
T. 32 S., R. 4 W., Sec. 1 WILL. MER.  
DOUGLAS COUNTY

UPPER COW TIMBER SALE LOCATION MAP  
TIMBER SALE # ORM07-TS-16-01  
DOUGLAS COUNTY

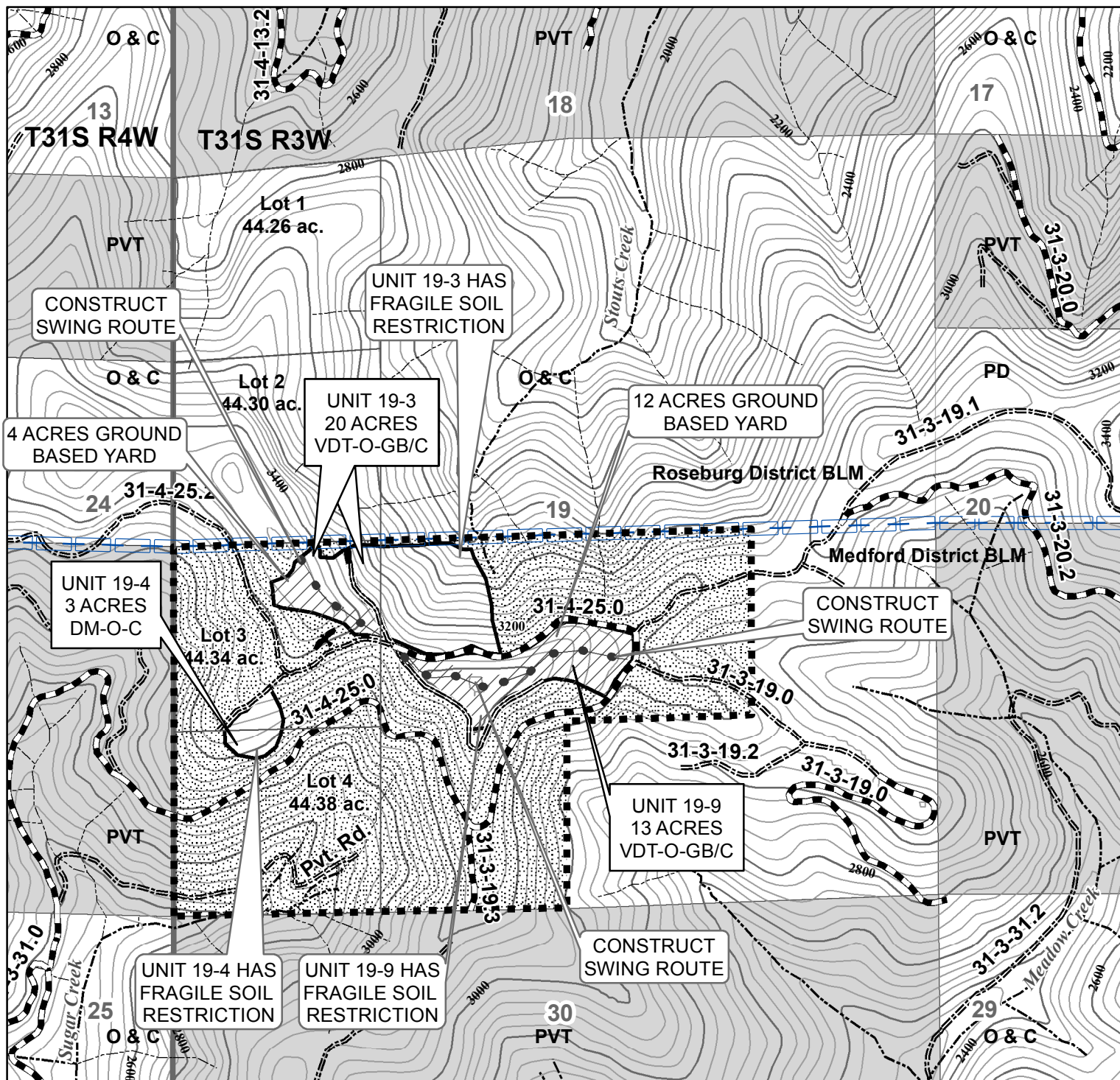
## SALE LOCATION MAP



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







0 750 1,500 3,000 Feet

1 inch = 1,000 feet

40 FOOT CONTOUR INTERVAL



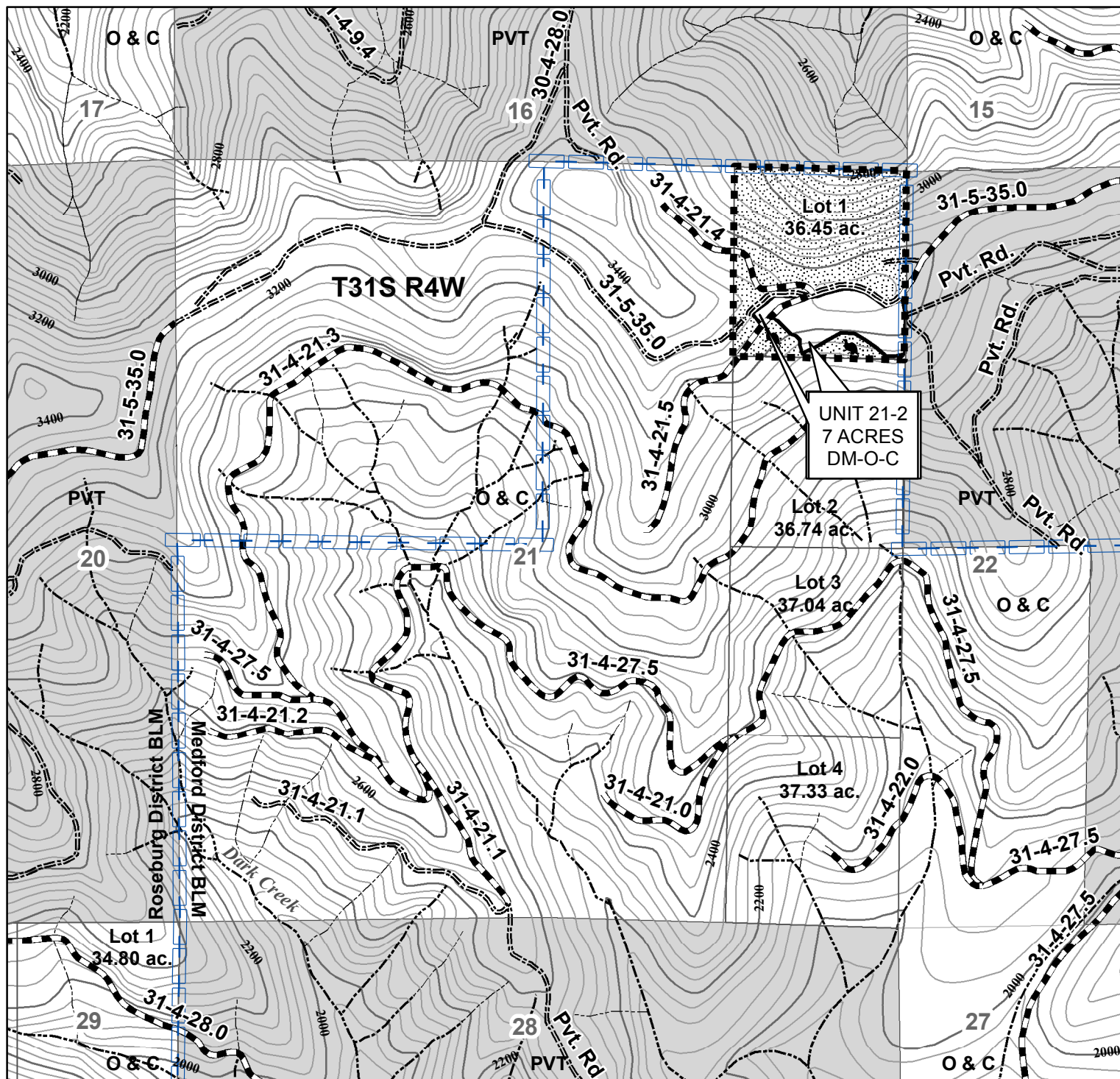
United States Department of the Interior  
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Medford District Office  
3040 Biddle Road  
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(541) 618-2200

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Map created by SQF  
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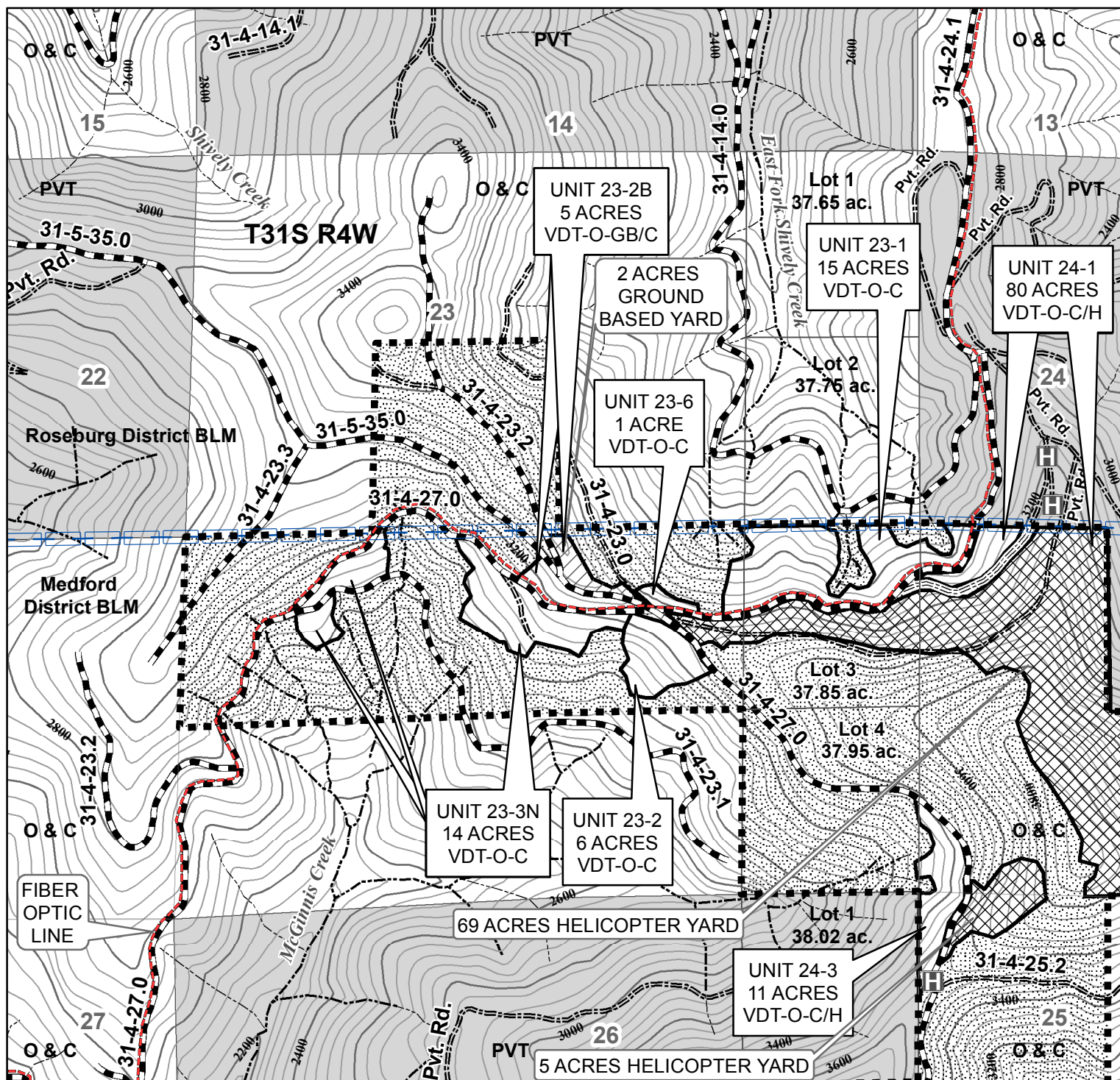
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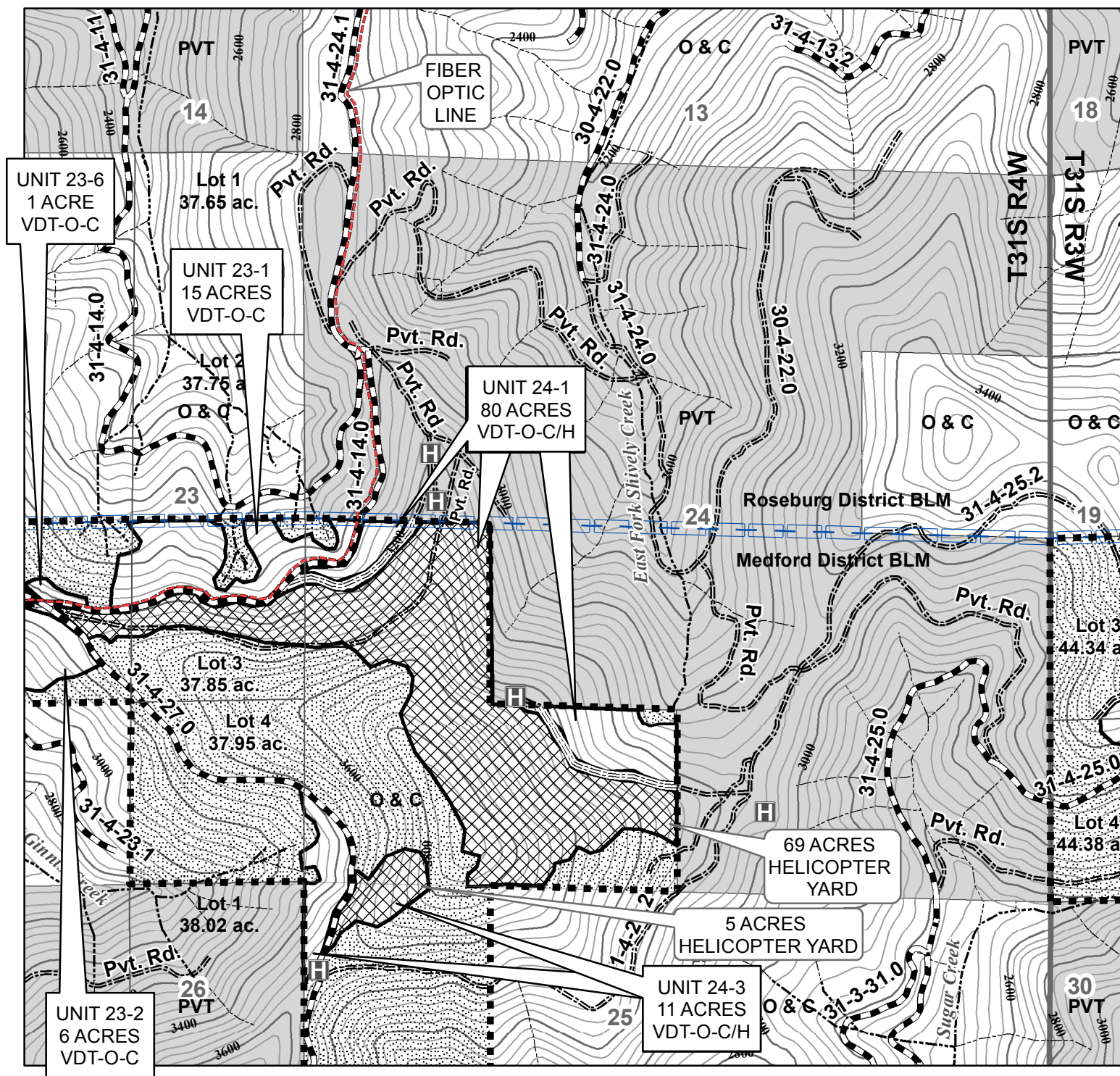
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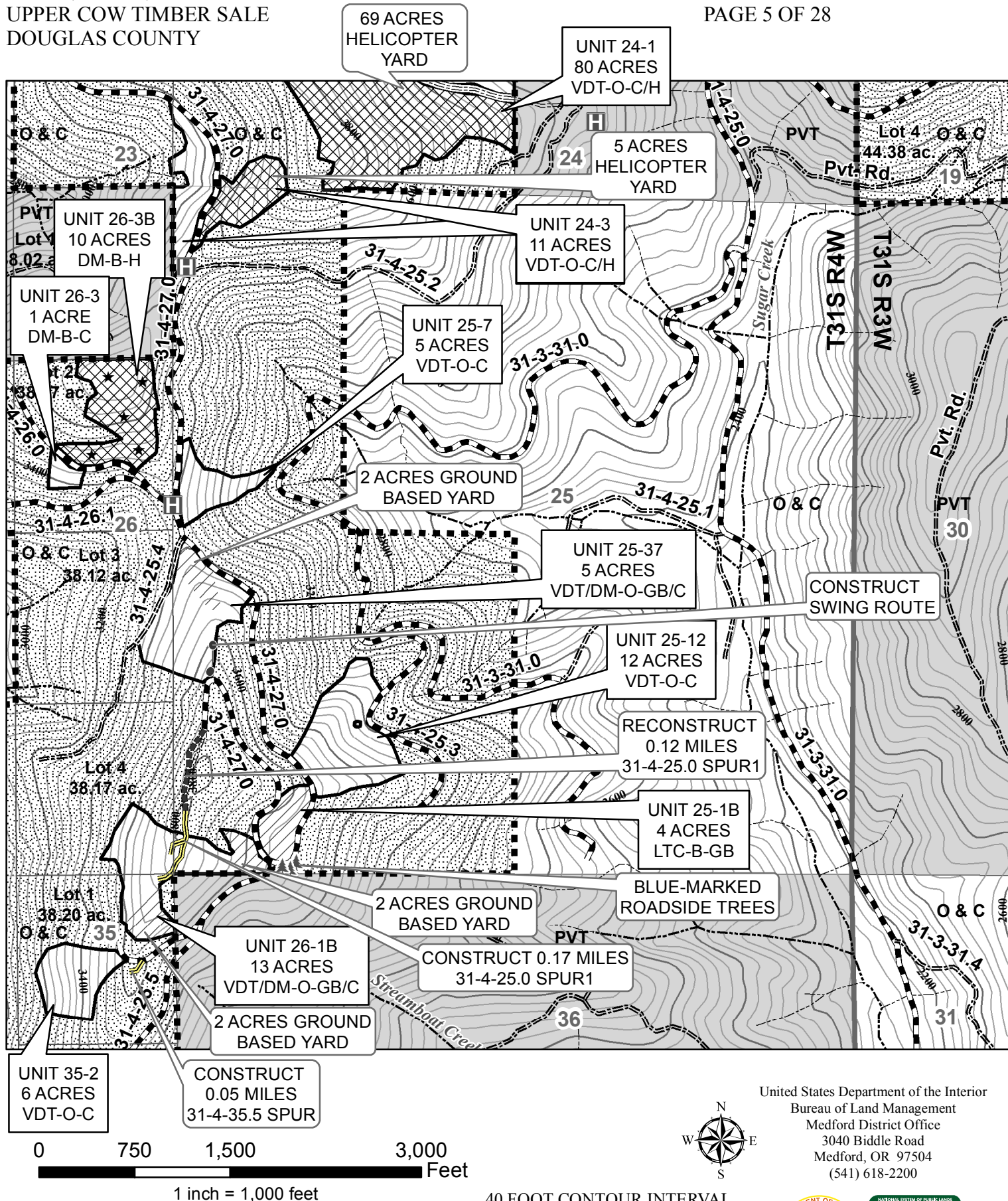
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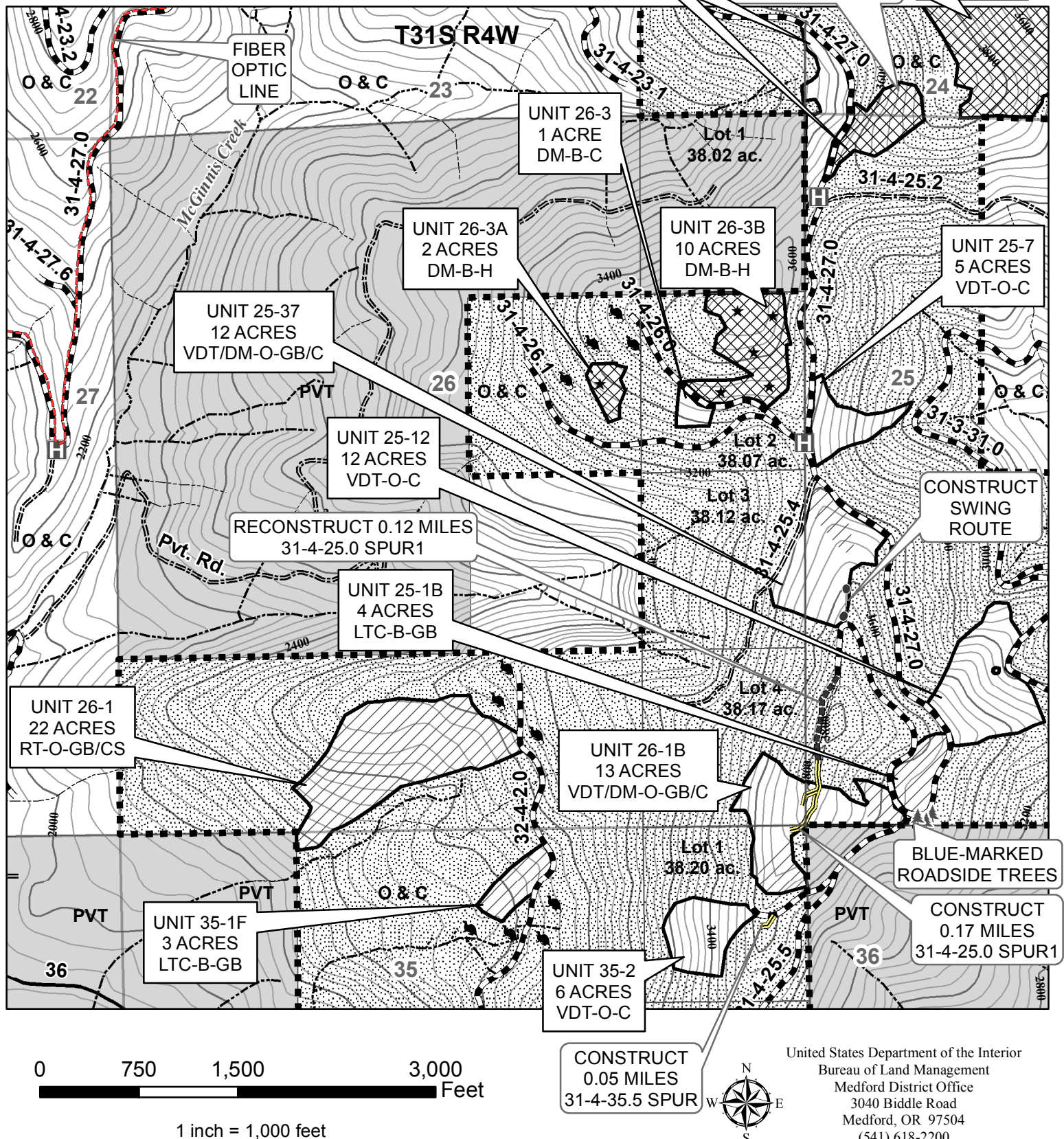
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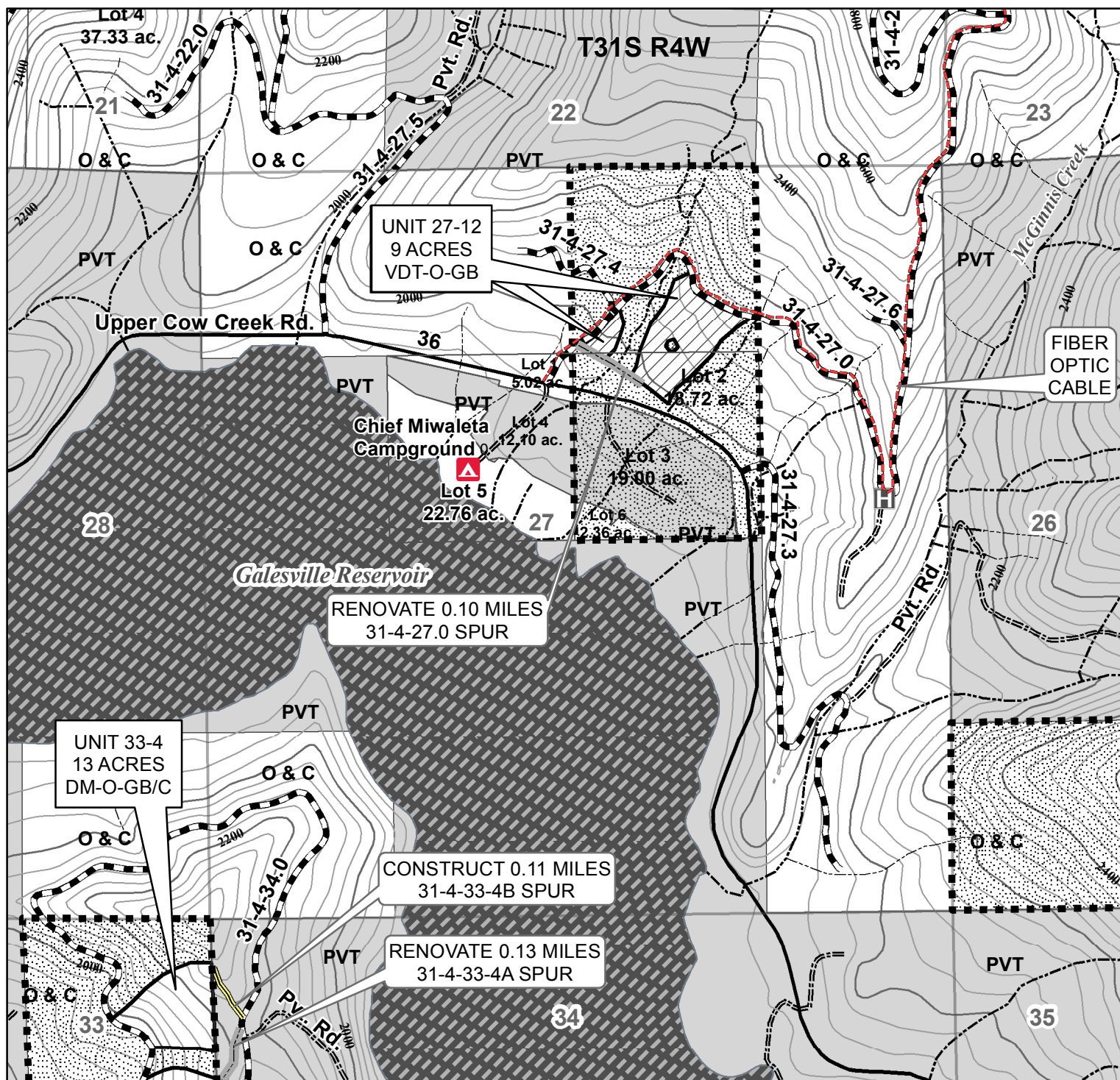
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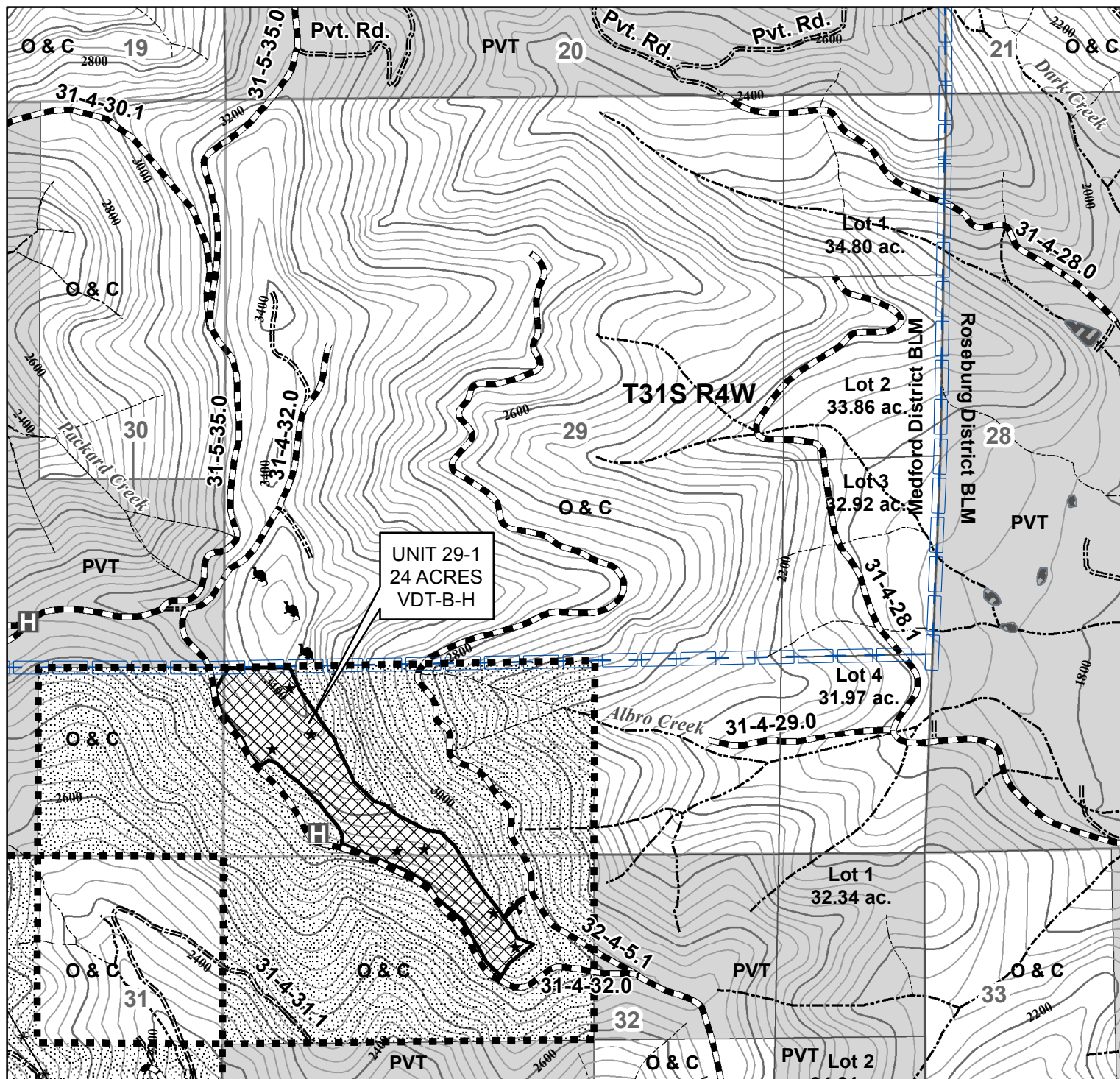


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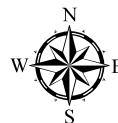






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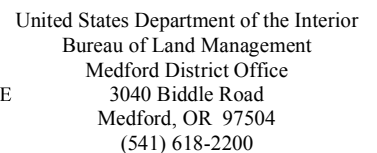
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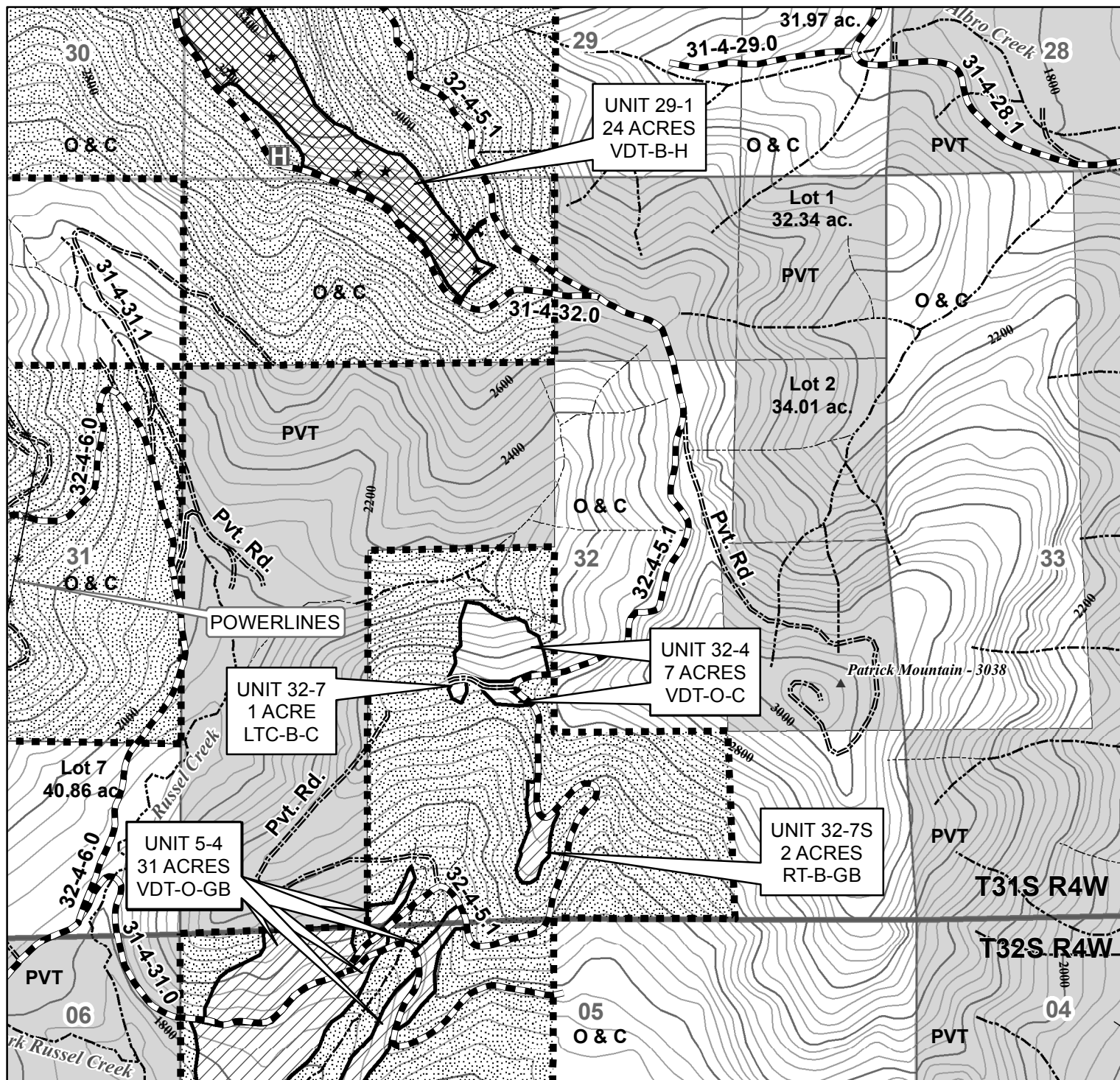












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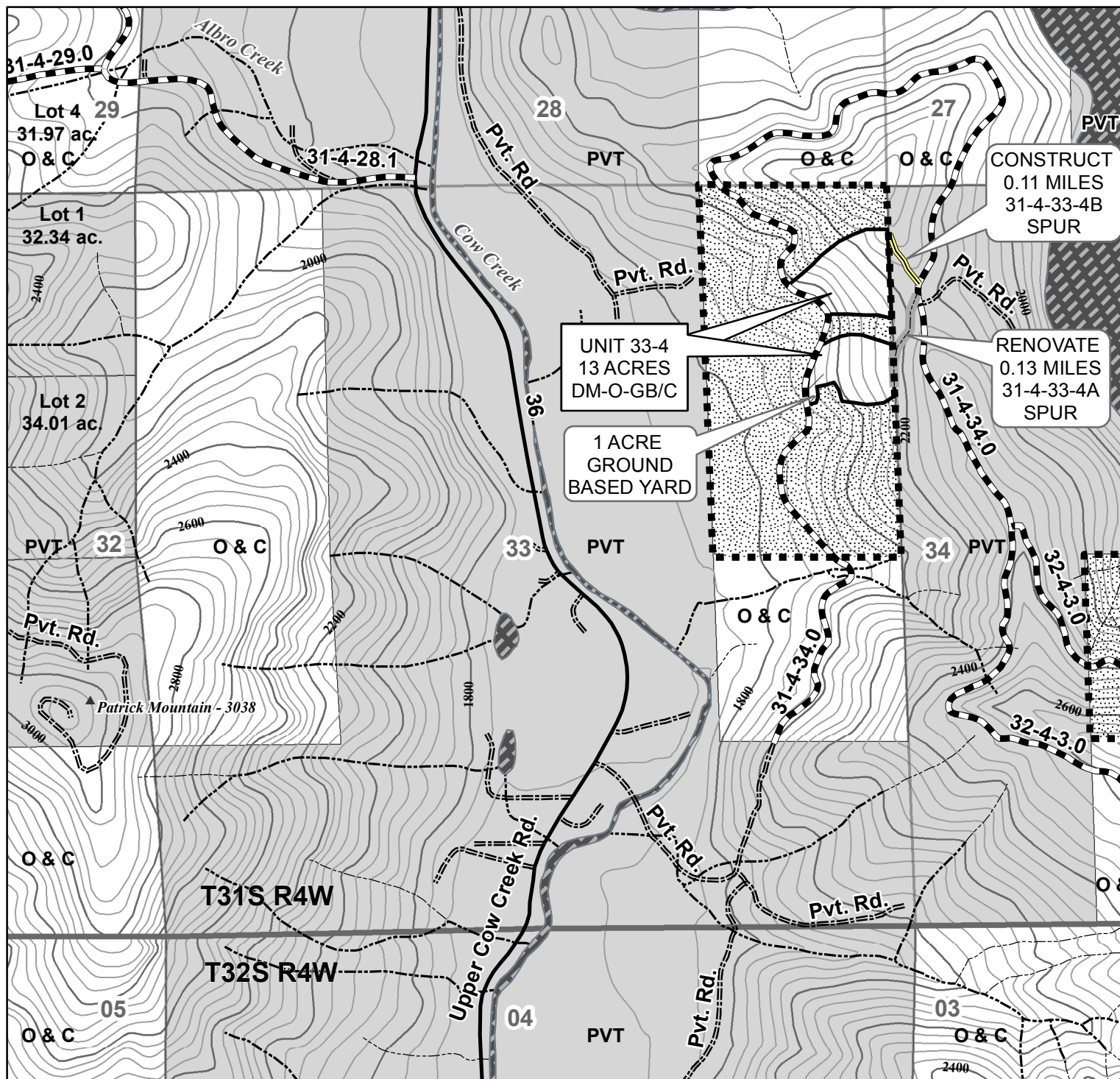
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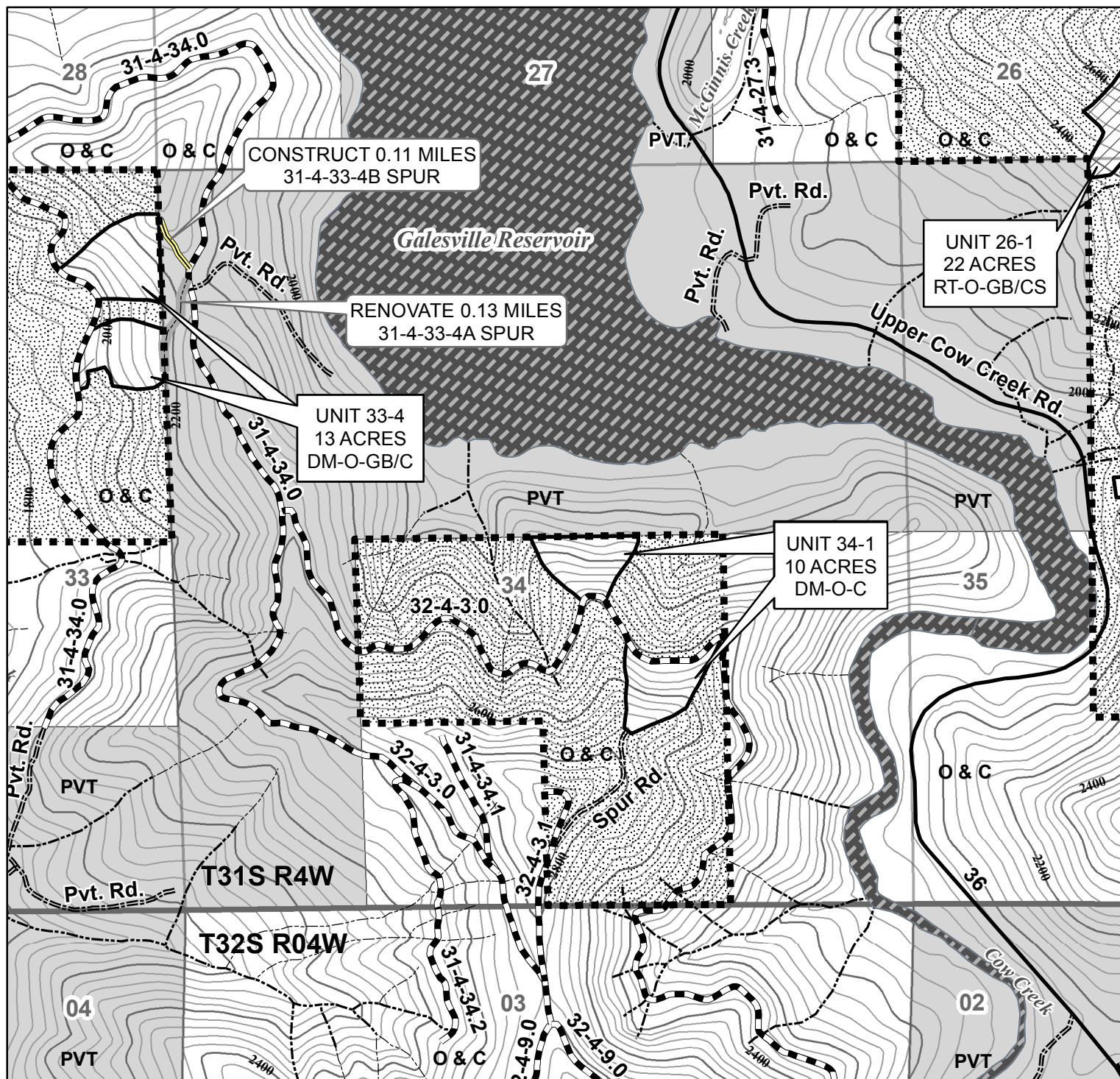
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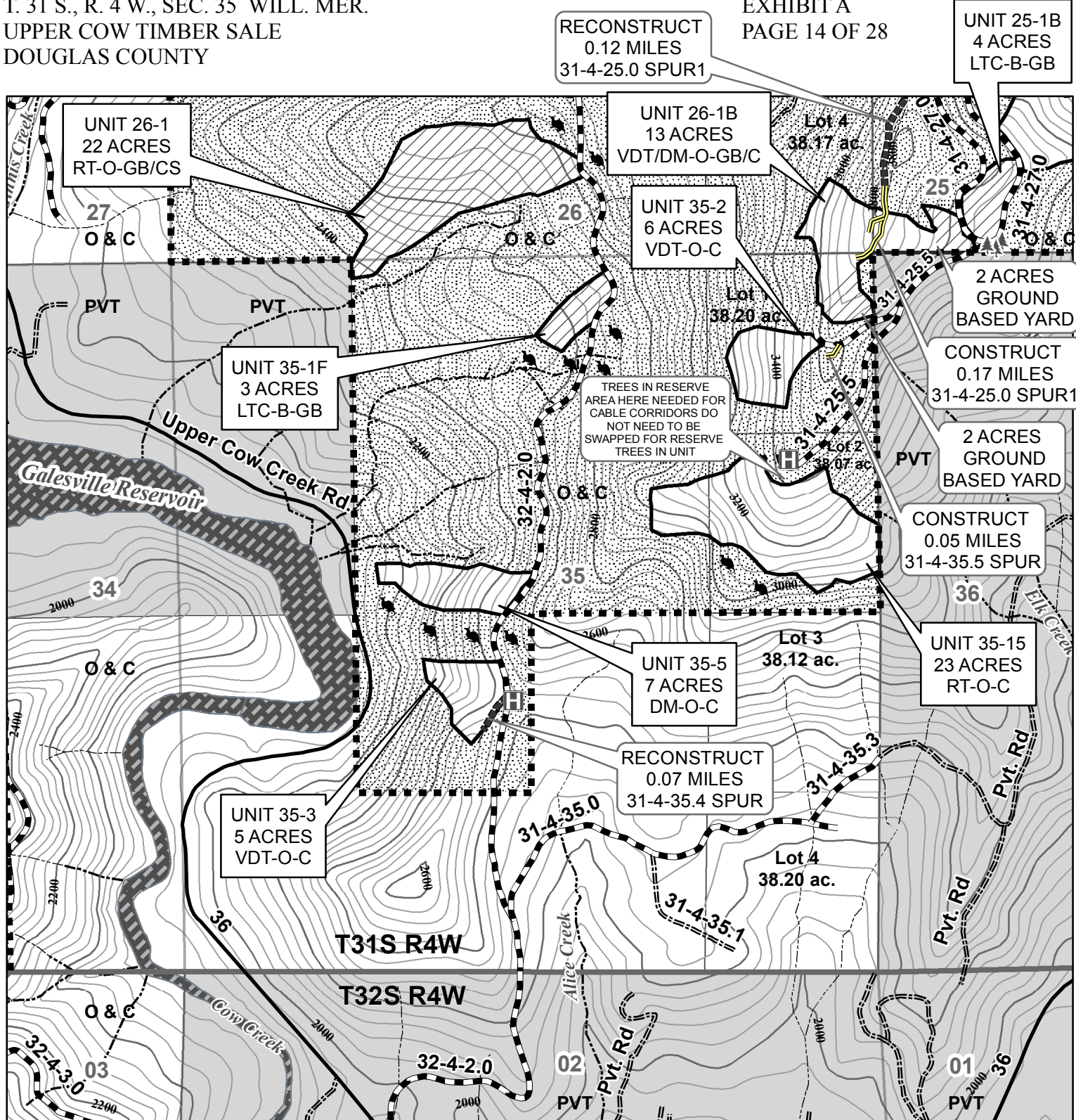
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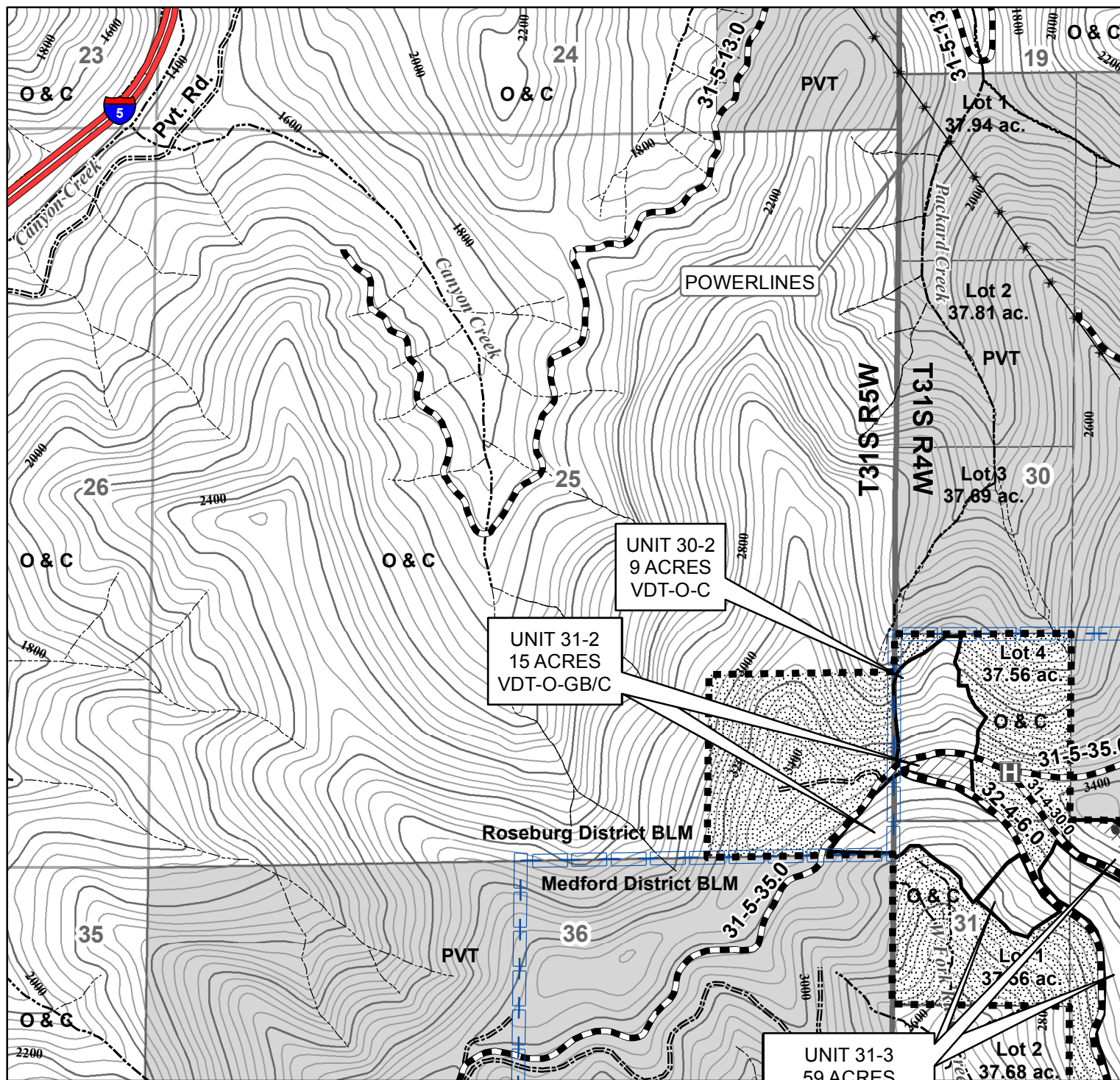
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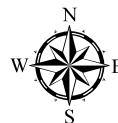






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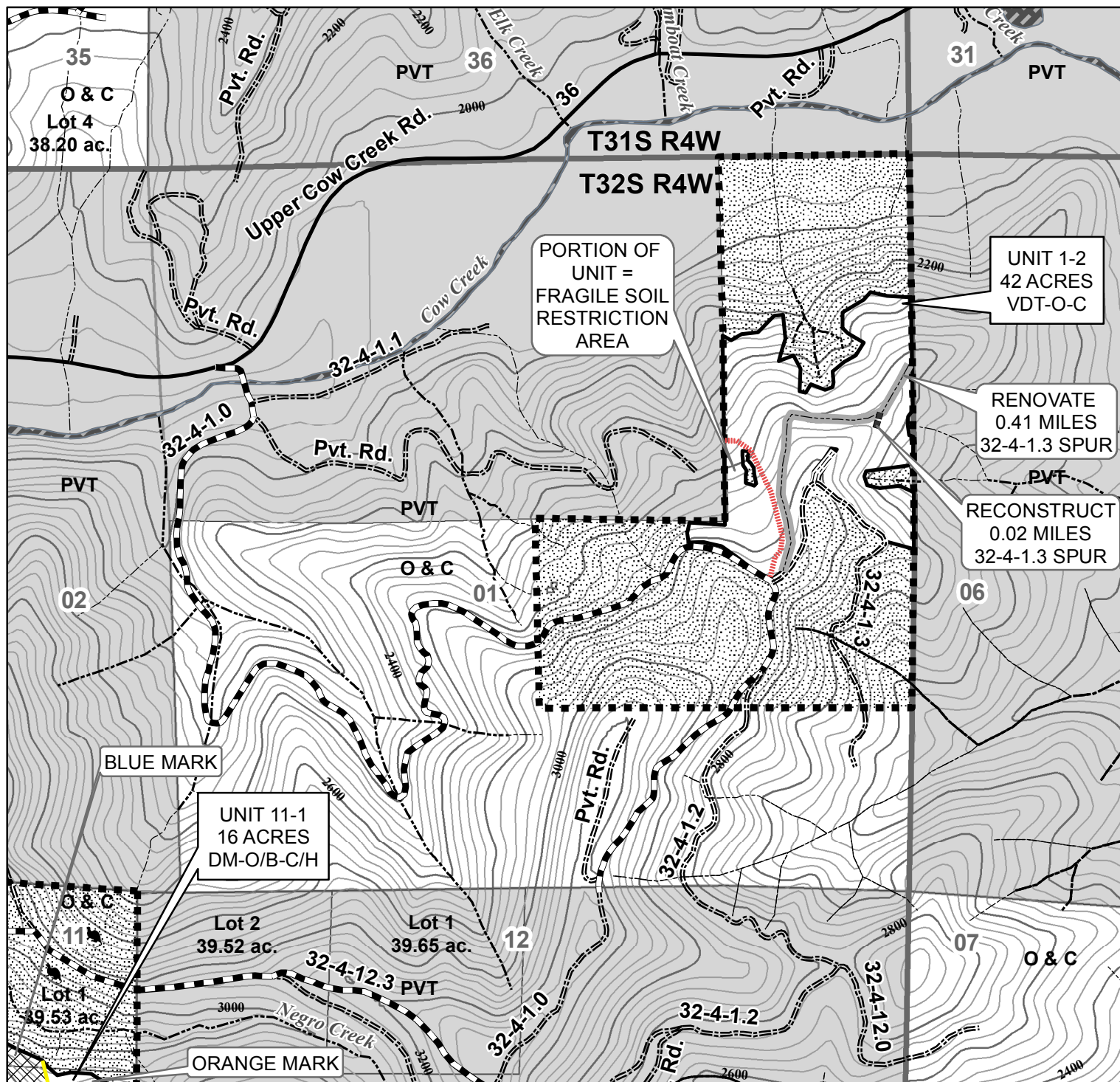
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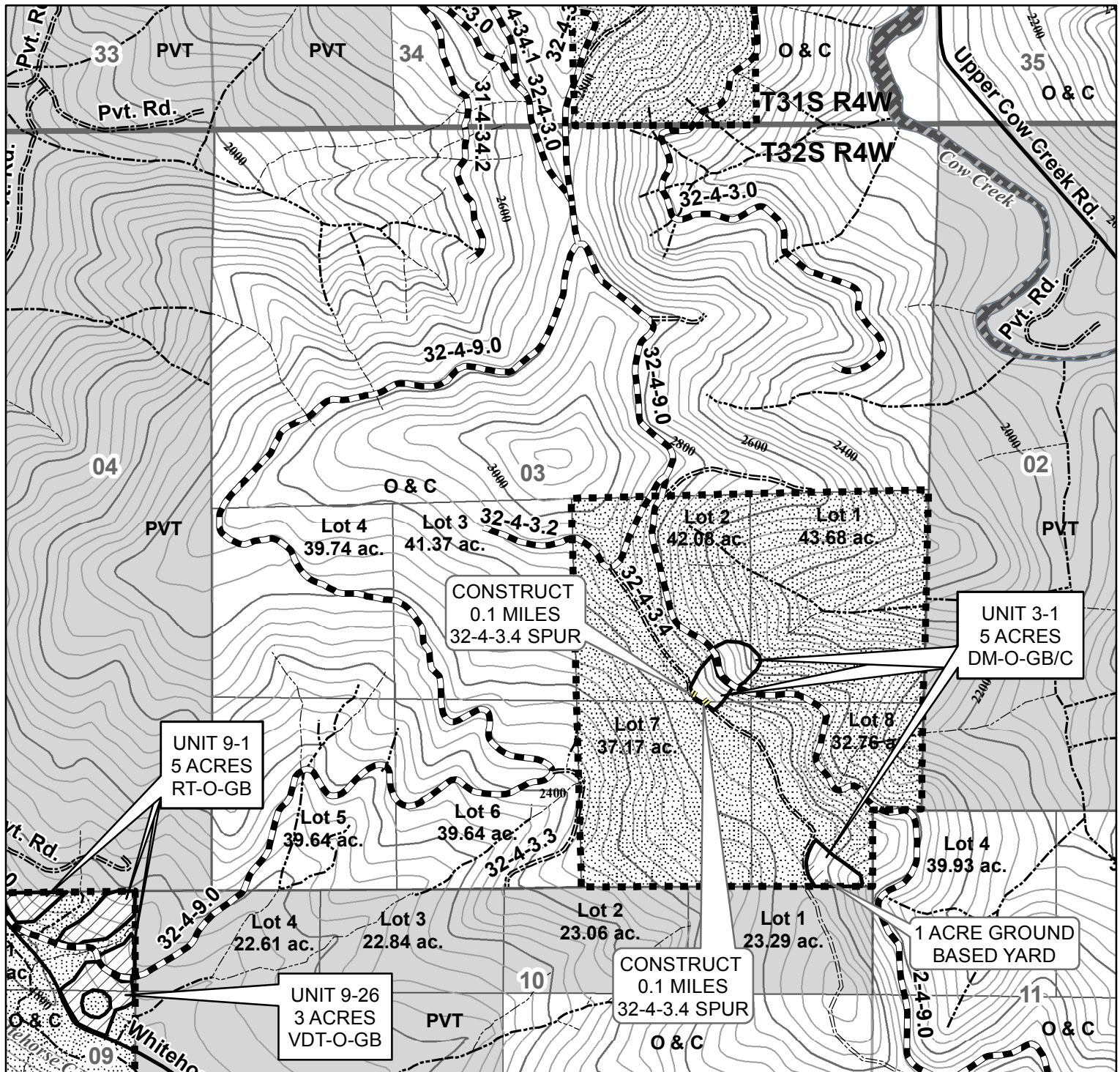
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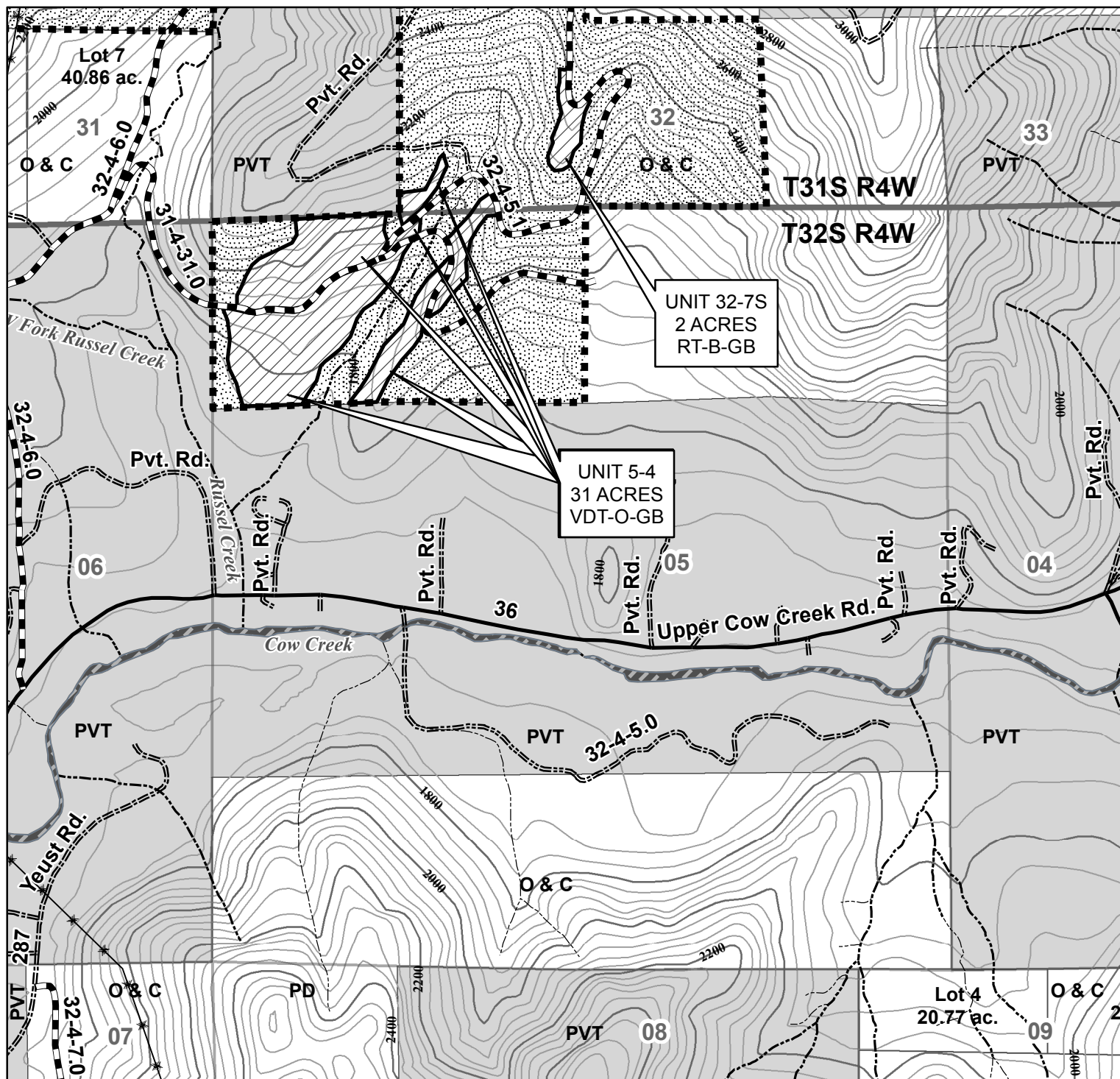


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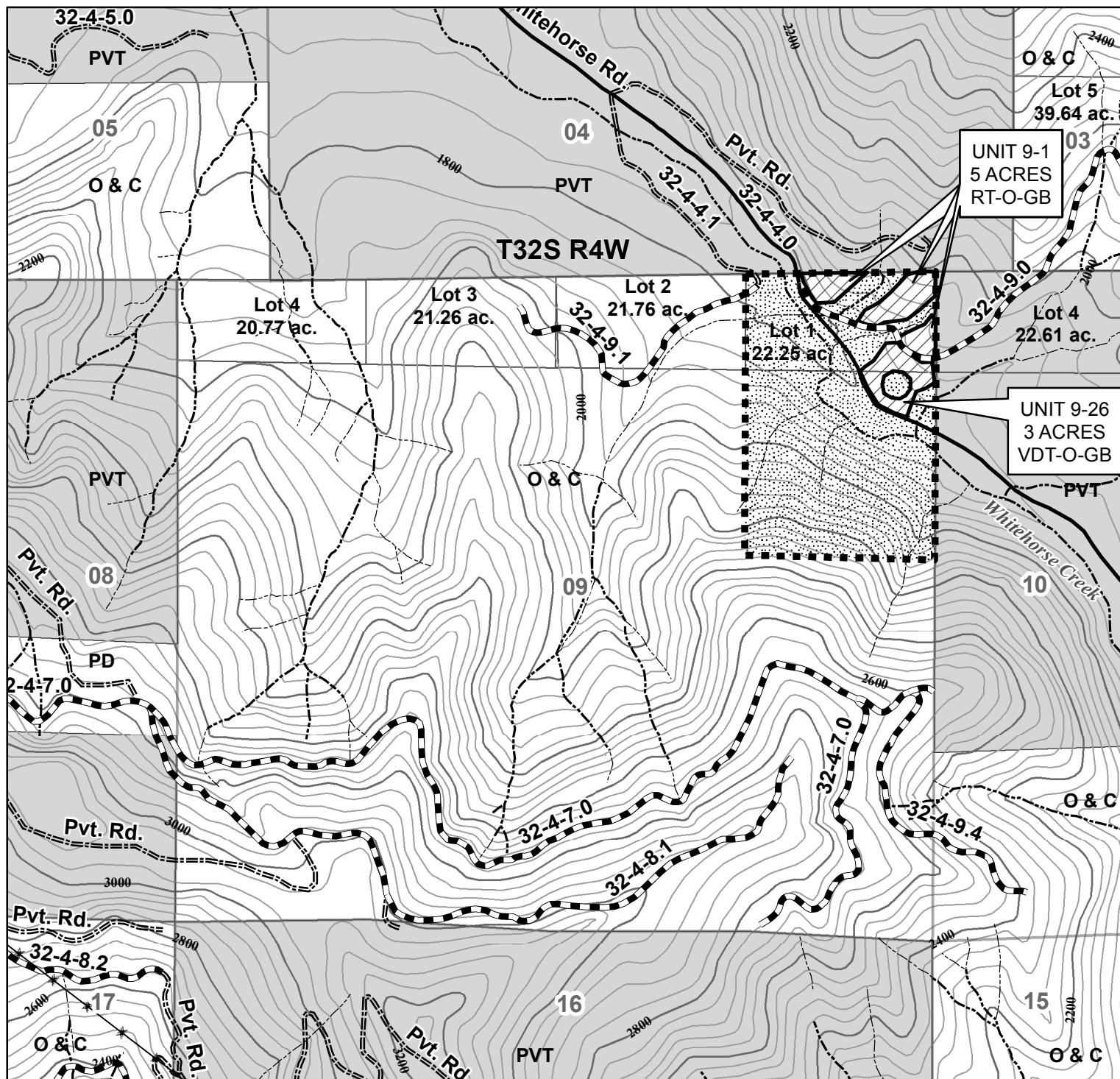
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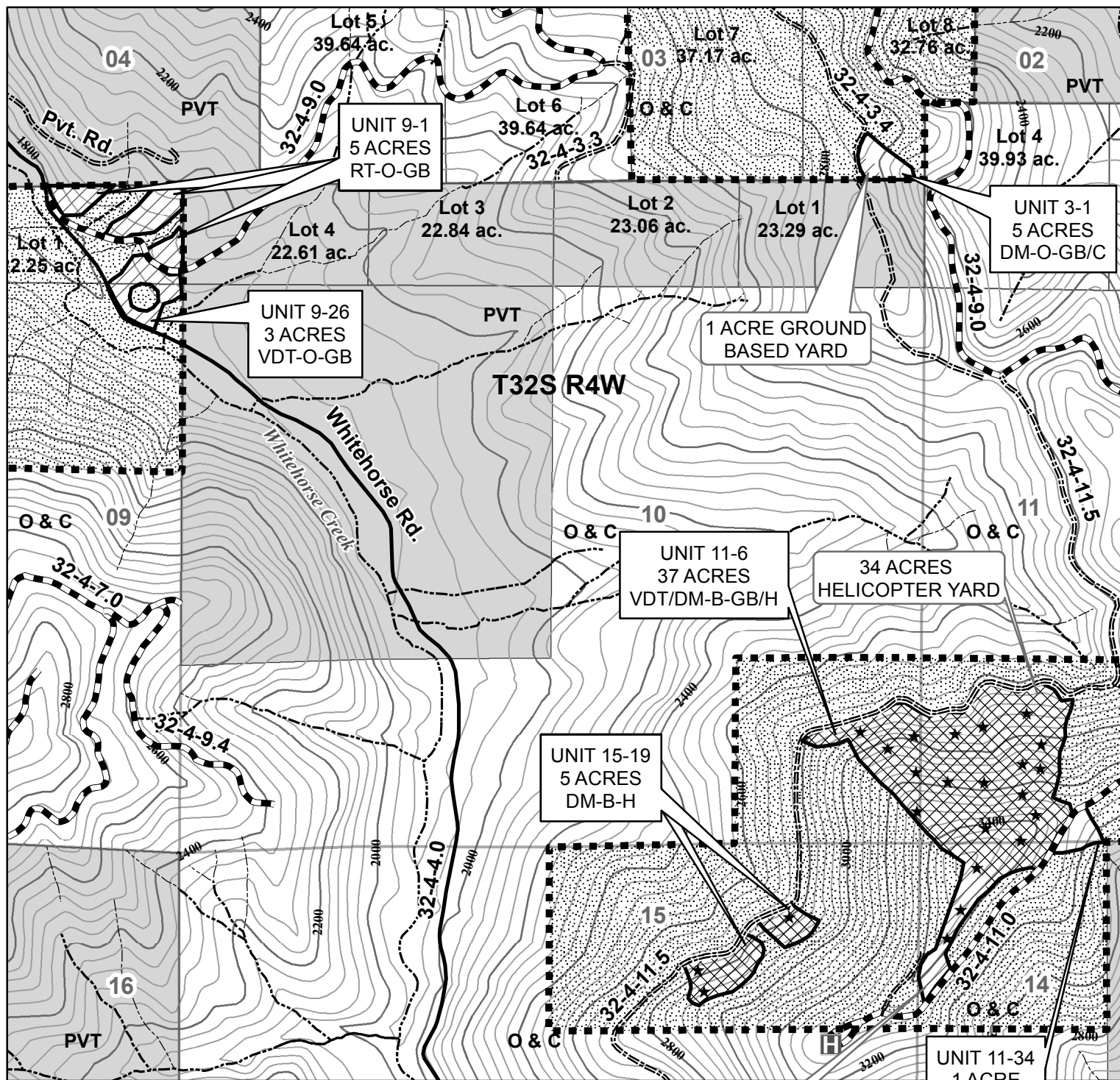
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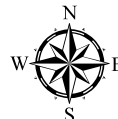






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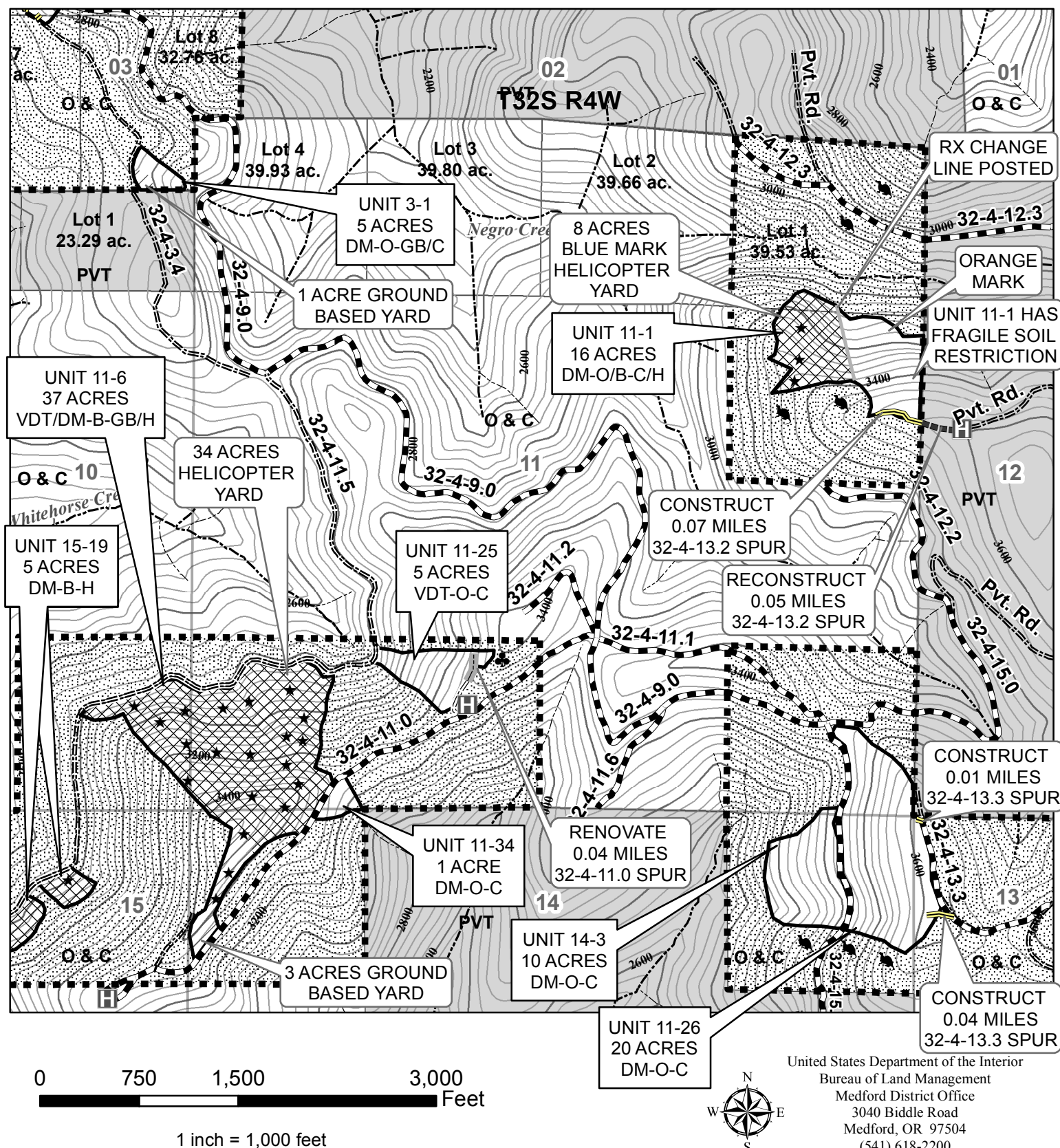
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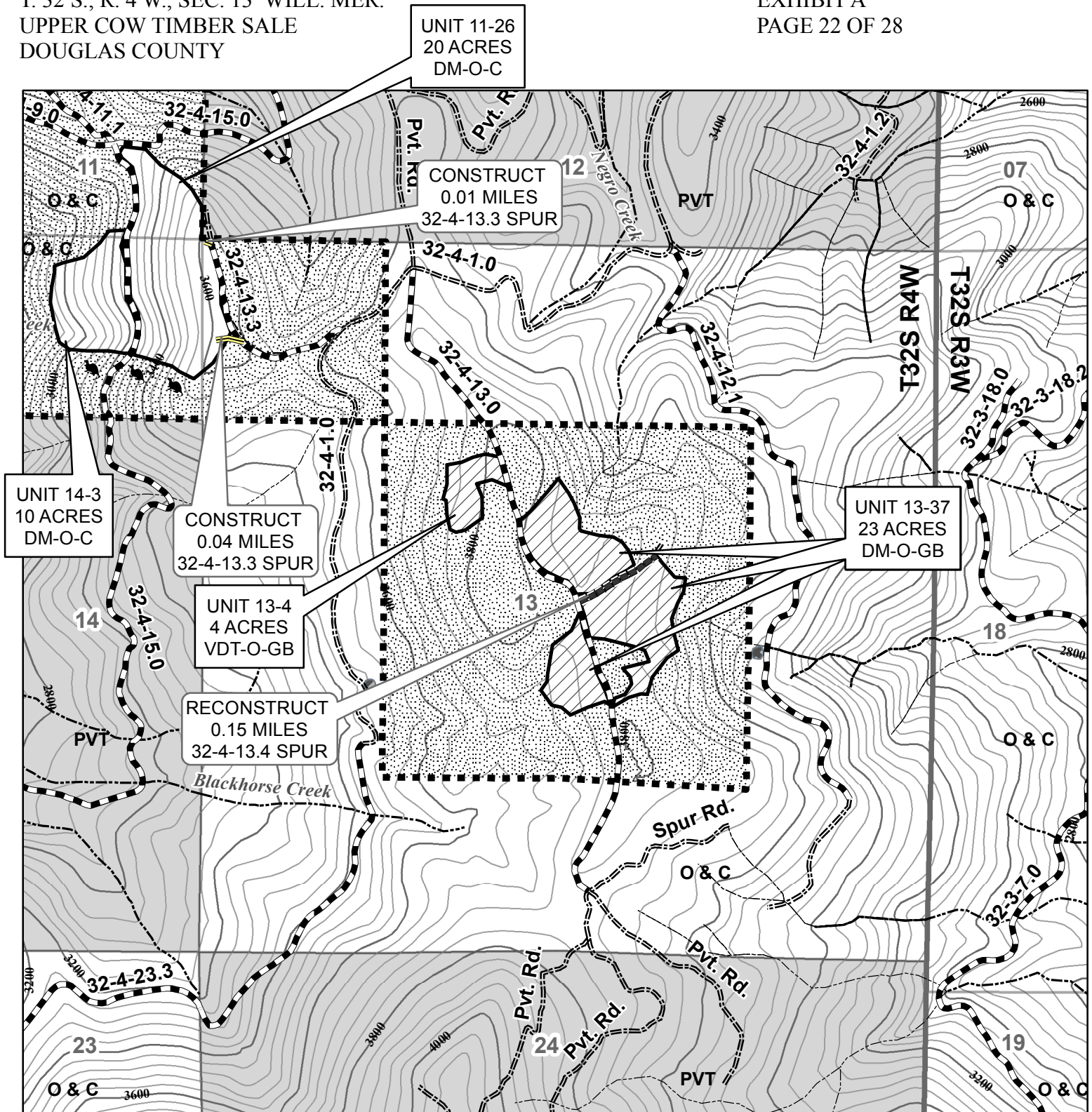
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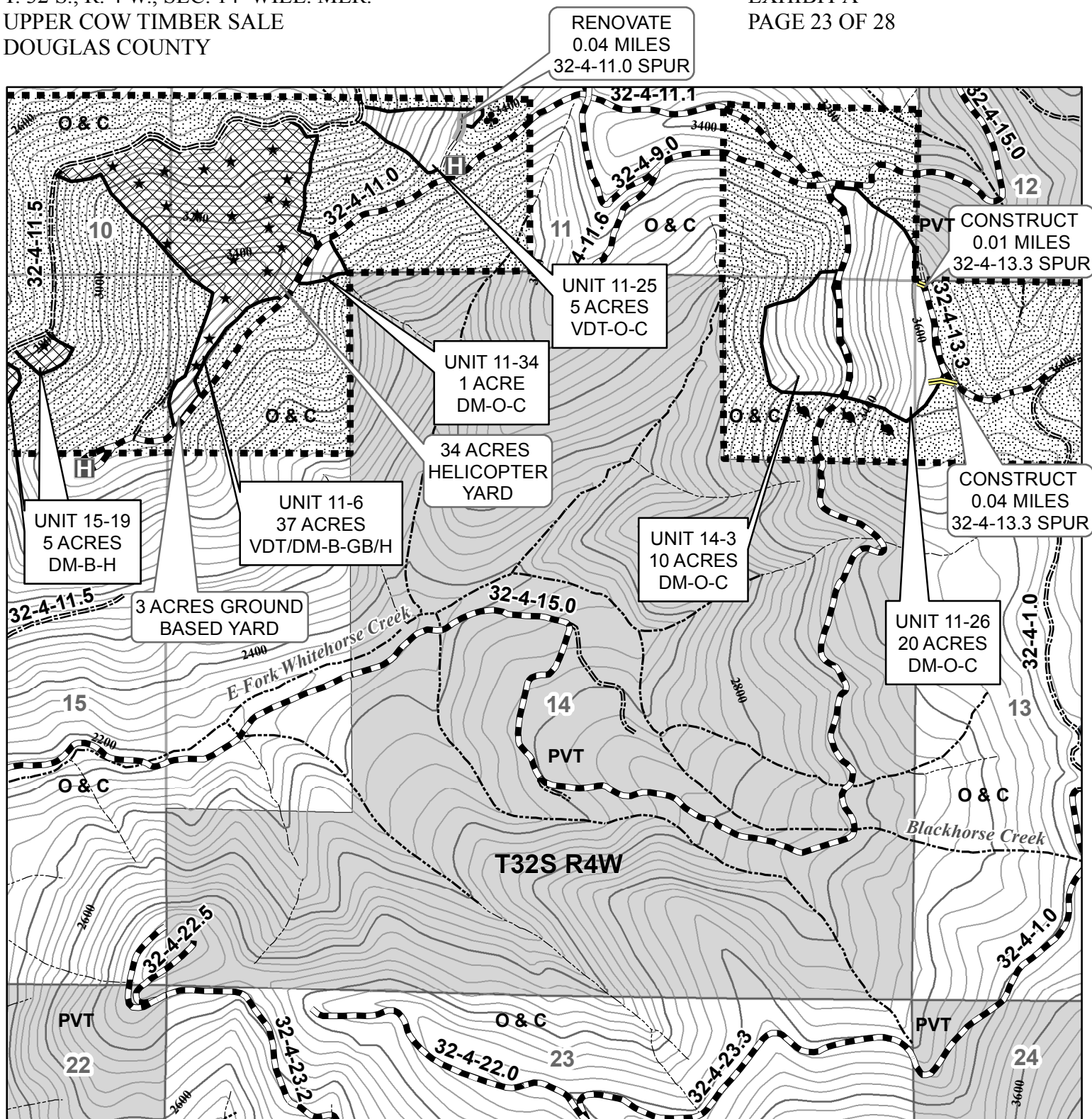
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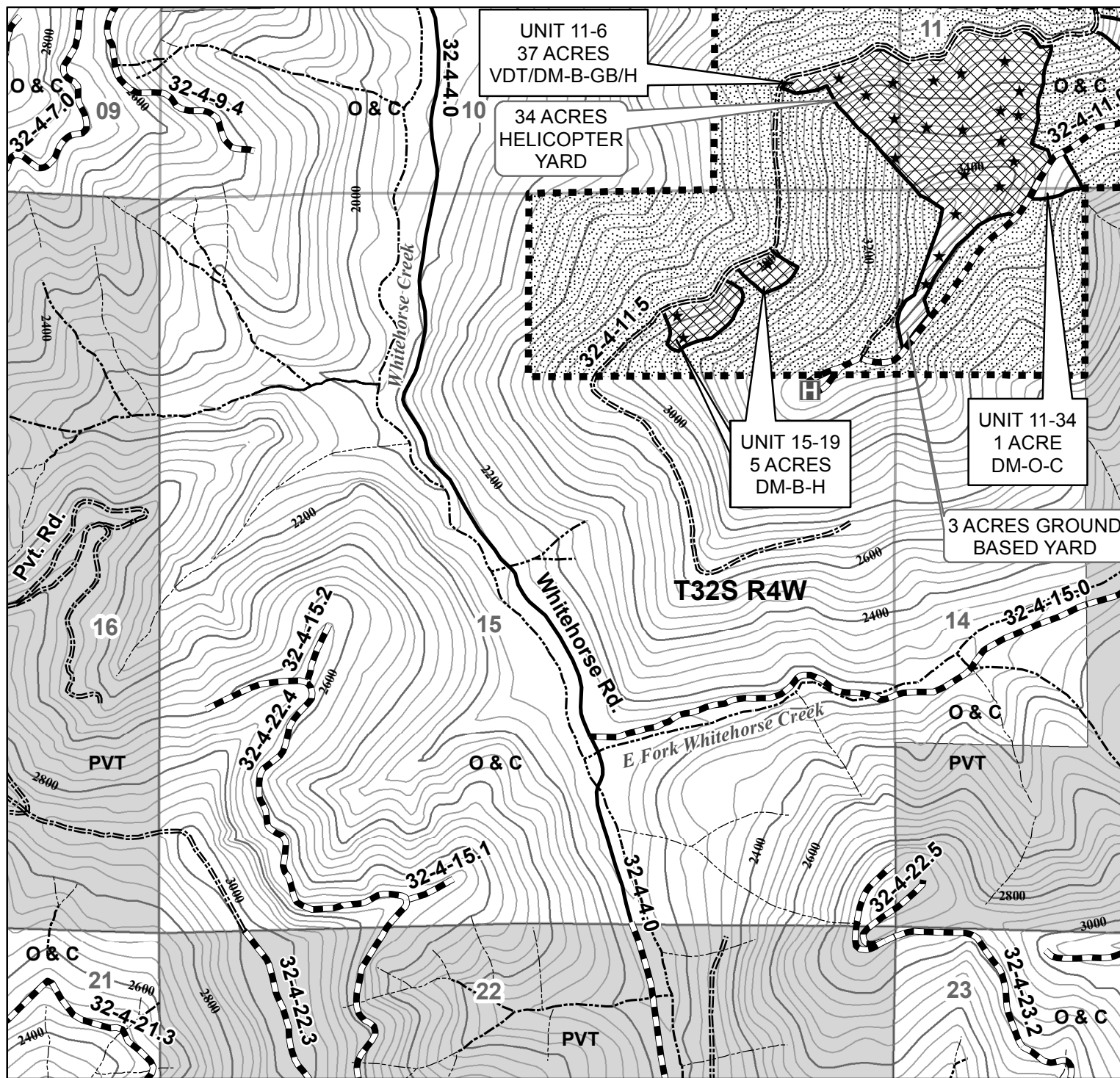
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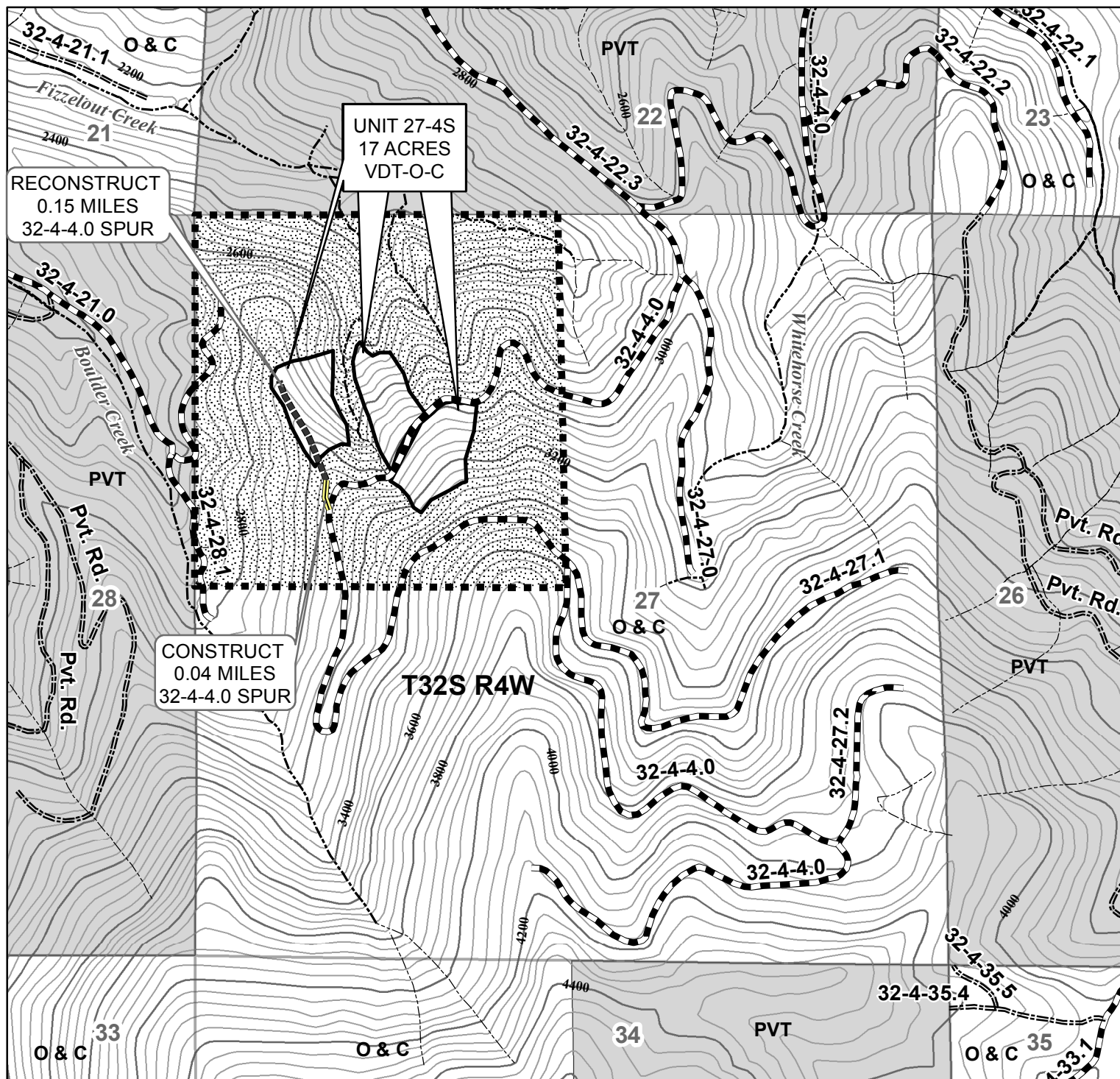
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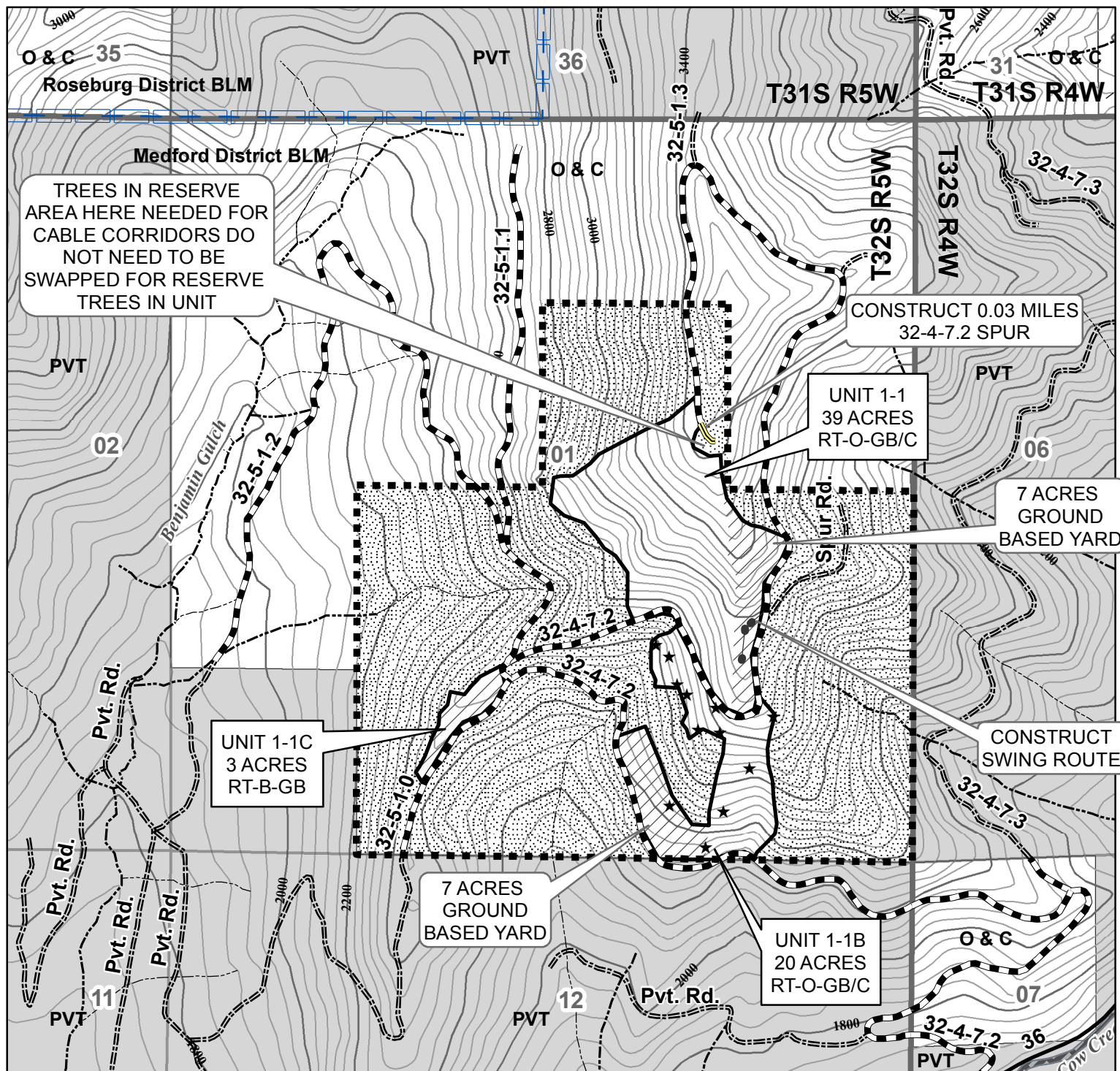
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





U.S.D.I BLM MEDFORD DISTRICT SALE NO. ORM07-TS-16-01  
T. 31 S., R. 3 W., SEC. 19,  
T. 31 S., R. 4 W., SEC. 21, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35  
T. 31 S., R. 5 W., SEC. 25  
T. 32 S., R. 4 W., SEC. 1, 3, 5, 9, 10, 11, 13, 14, 15, 27  
T. 32 S., R. 5 W., SEC. 1 WILL. MER.  
UPPER COW TIMBER SALE  
DOUGLAS COUNTY


TIMBER SALE CONTRACT MAP  
EXHIBIT A  
PAGE 27 OF 28


Legend


 Upper Cow Contract Area Boundary


 Upper Cow Contract Reserve Area


**Upper Cow Timber Sale Units**

 Ground Base Yard


 Cable Yard


 Helicopter Yard


 Blue Marked Roadside Tree


 Approximate Location of Blue Marked Gap


**Upper Cow Temporary Routes (Spurs)**


 Construction


 Reconstruction


 Renovation


 Cable Tractor Swing Routes


 Potential Helicopter Landing


 Mountain Peaks


 Campground


 Fiber Optic Cable


 Powerline


 Red Tree Vole Buffer

 Owl Buffer

 Plant Buffer


 Fragile Soil Portion of Unit 1-2


 Gate


 Interstate Highway


**Roads**


**Surface Type**


 Paved


 Rocked


 Natural Surface


 Lakes & Ponds


 Perennial Streams


 Intermittent Streams


 Intermediate 40-ft contour


 Index 200-ft contour


 Lots


 Section

 Township and Range




 BLM District Boundary Line

 BLM Ownership - O&C Lands

 BLM Ownership - Public Domain

 Private Ownership

SUMMARY

RT-O-GB	RESTORATION THIN-ORANGE MARK LEAVE TREE-GROUND BASE YARD (UNIT 9-1)	5 ACRES
RT-O-GB/C	RESTORATION THIN-ORANGE MARK LEAVE TREE-GROUND BASE AND CABLE YARD (UNITS 1-1, 1-1B)	59 ACRES
RT-O-GB/CS	RESTORATION THIN-ORANGE MARK LEAVE TREE-GROUND BASE CABLE SWING YARD (UNIT 26-1)	22 ACRES
RT-O-C	RESTORATION THIN-ORANGE MARK LEAVE TREE-CABLE YARD (UNIT 35-15)	23 ACRES
RT-B-GB	RESTORATION THIN-BLUE MARK CUT TREE-GROUND BASE YARD (UNITS 1-1C, 32-7S)	5 ACRES
VDT-O-GB	VARIABLE DENSITY THIN-ORANGE MARK LEAVE TREE-GROUND BASE YARD (UNITS 5-4, 9-26, 13-4, 27-12)	47 ACRES
VDT-O-GB/C	VARIABLE DENSITY THIN-ORANGE MARK LEAVE TREE-GROUND BASE AND CABLE YARD (UNITS 19-3, 19-9, 23-2B, 31-2)	53 ACRES
VDT-O-C	VARIABLE DENSITY THIN-ORANGE MARK LEAVE TREE-CABLE YARD (UNITS 1-2, 11-25, 23-1, 23-2, 23-3N, 23-6, 25-7, 25-12, 27-4S, 30-2, 32-4, 35-2, 35-3)	144 ACRES
VDT-O-C/H	VARIABLE DENSITY THIN-ORANGE MARK LEAVE TREE-CABLE AND HELICOPTER YARD (UNITS 24-1, 24-3, 31-6)	106 ACRES
VDT-B-H	VARIABLE DENSITY THIN-BLUE MARK-HELICOPTER YARD (UNIT 29-1)	24 ACRES
VDT/DM-O-GB/C	VARIABLE DENSITY THIN AND DENSITY MANAGEMENT-ORANGE MARK LEAVE TREE-GROUND BASE AND CABLE YARD (UNITS 25-37, 26-1B, 31-3)	84 ACRES
VDT/DM-B-GB/H	VARIABLE DENSITY THIN AND DENSITY MANAGEMENT-BLUE MARK CUT TREE-GROUND BASE AND HELICOPTER YARD (UNIT 11-6)	37 ACRES
DM-O-GB	DENSITY MANAGEMENT-ORANGE MARK LEAVE TREE-GROUND BASE YARD (UNIT 13-37)	23 ACRES
DM-O-GB/C	DENSITY MANAGEMENT-ORANGE MARK LEAVE TREE-GROUND BASE AND CABLE YARD (UNITS 3-1, 33-4)	18 ACRES
DM-O-C	DENSITY MANAGEMENT-ORANGE MARK LEAVE TREE-CABLE YARD (UNITS 11-26, 11-34, 14-3, 19-4, 21-2, 34-1, 35-5)	58 ACRES
DM-O/B-C/H	DENSITY MANAGEMENT-ORANGE MARK LEAVE TREE AND BLUE MARK CUT TREE-CABLE AND HELICOPTER YARD (UNIT 11-1)	16 ACRES
DM-B-C	DENSITY MANAGEMENT-BLUE MARK CUT TREE- CABLE YARD (UNIT 26-3)	1 ACRE
DM-B-H	DENSITY MANAGEMENT-BLUE MARK CUT TREE-HELICOPTER YARD (UNITS 15-19, 26-3A, 26-3B)	17 ACRES
LTC-B-GB	LEGACY TREE CULTURING-BLUE MARK CUT TREE-GROUND BASE YARD (UNITS 25-1B, 35-1F)	7 ACRES
LTC-B-C	LEGACY TREE CULTURING-BLUE MARK CUT TREE-CABLE YARD (UNIT 32-7)	1 ACRE
	TOTAL TIMBER SALE UNIT AREA	750 ACRES
	RESERVE AREA	3,134.27 ACRES
	TOTAL CONTRACT AREA	3,884.27 ACRES



U.S.D.I BLM MEDFORD DISTRICT SALE NO. ORM07-TS-16-01  
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T. 32 S., R. 4 W., SEC. 1, 3, 5, 9, 10, 11, 13, 14, 15, 27  
T. 32 S., R. 5 W., SEC. 1 WILL. MER.  
UPPER COW TIMBER SALE  
DOUGLAS COUNTY

TIMBER SALE CONTRACT MAP  
EXHIBIT A  
PAGE 28 OF 28

# LEGEND

UNIT	ACRES	PRESCRIPTION TYPE	PAINT COLOR	LOGGING SYSTEM
1-1	39	RT	O	GB/C
1-1B	20	RT	O	GB/C
1-1C	3	RT	B	GB
1-2	42	VDT	O	C
3-1	5	DM	O	GB/C
5-4	31	VDT	O	GB
9-1	5	RT	O	GB
9-26	3	VDT	O	GB
11-1	16	DM	O/B	C/H
11-6	37	VDT/DM	B	GB/H
11-25	5	VDT	O	C
11-26	20	DM	O	C
11-34	1	DM	O	C
13-4	4	VDT	O	GB
13-37	23	DM	O	GB
14-3	10	DM	O	C
15-19	5	DM	B	H
19-3	20	VDT	O	GB/C
19-4	3	DM	O	C
19-9	13	VDT	O	GB/C
21-2	7	DM	O	C
23-1	15	VDT	O	C
23-2	6	VDT	O	C
23-2B	5	VDT	O	GB/C
23-3N	14	VDT	O	C
23-6	1	VDT	O	C
24-1	80	VDT	O	C/H
24-3	11	VDT	O	C/H
25-1B	4	LTC	B	GB
25-7	5	VDT	O	C
25-12	12	VDT	O	C
25-37	12	VDT/DM	O	GB/C
26-1	22	RT	O	GB/CS
26-1B	13	VDT/DM	O	GB/C
26-3	1	DM	B	C
26-3A	2	DM	B	H
26-3B	10	DM	B	H
27-4S	17	VDT	O	C
27-12	9	VDT	O	GB
29-1	24	VDT	B	H
30-2	9	VDT	O	C
31-2	15	VDT	O	GB/C
31-3	59	VDT/DM	O	GB/C
31-6	15	VDT	O	C/H
32-4	7	VDT	O	C
32-7	1	LTC	B	C
32-7S	2	RT	B	GB
33-4	13	DM	O	GB/C
34-1	10	DM	O	C
35-1F	3	LTC	B	GB
35-2	6	VDT	O	C
35-3	5	VDT	O	C
35-5	7	DM	O	C
35-15	23	RT	O	C
Roadside			B	GB

**TOTAL 750**

ALL ACRES COMPUTED BY GPS TRAVERSE  
BOUNDARIES OF HARVEST UNITS ARE POSTED  
AND PAINTED IN ORANGE

RT = RESTORATION THIN  
VDT = VARIABLE DENSITY THIN  
DM = DENSITY MANAGEMENT  
LTC = LEGACY TREE CULTURING  
O = ORANGE PAINT (LEAVE TREE MARK)  
B = BLUE PAINT (CUT TREE MARK)  
GB = GROUND BASE YARD  
C = CABLE YARD  
GB/C = GROUND BASE AND CABLE YARD  
GB/CS = GROUND BASE CABLE SWING YARD  
GB/H = GROUND BASE AND HELICOPTER YARD  
C/H = CABLE AND HELICOPTER YARD







**United States of America**  
**Department of the Interior**  
**Bureau Of Land Management**  
**Timber Sale Appraisal**

---

**District :** Medford  
**Sale Name :** Upper Cow  
**Sale Date :** 06/23/2016  
**Appraisal Method :** 16' MBF

**Contract # :** ORM07-TS-16-01  
**Job File # :** M11324  
**Master Unit :** Josephine  
**Planning Unit :** Grants Pass

---

**Contents**

Exhibit B

2

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

Medford  
Upper Cow  
ORM07-TS-16-01

**Exhibit B**

The following estimates and calculations of timber sold are made solely as an administrative aid for determining: (1) Adjustments made or credits given in accordance with Sections 6, 9, or 11; (2) When payments are due; and (3) Value of timber subject to any special bonding provisions. The value of timber will be determined by multiplying the value per acre as shown below, times the amount of acreage as determined by the authorized officer, which has been cut or removed or designated for taking.

Except provided in Section 2, Purchaser shall be liable for the total purchase price even though the quantity of timber actually cut or removed or designated for taking is less than the estimated volume or quantity shown. Cutting areas are shown on the Exhibit A.

**Sale Totals (16' MBF)**

Species	Net Volume	Bid Price	Sale SubTotal
Douglas-fir	8,328		
Ponderosa Pine	27		
Incense-cedar	18		
Western Hemlock	12		
White Fir	11		
<b>Sale Totals</b>	<b>8,396</b>		

**Unit Details (16' MB)**

**Unit 1-1                      39 Acres                      Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	504		
Incense-cedar	2		
Ponderosa Pine	3		
<b>Unit Totals</b>	<b>509</b>		

**Unit 11-1                      8 Acres                      Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	78		
Western Hemlock	4		
<b>Unit Totals</b>	<b>82</b>		

**Unit 11-1H                      8 Acres                      Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	20		
<b>Unit Totals</b>	<b>20</b>		

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DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

Medford  
Upper Cow  
ORM07-TS-16-01

**Unit 11-25 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	51		
<b>Unit Totals</b>	<b>51</b>		

**Unit 11-26 20 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	183		
Incense-cedar			
<b>Unit Totals</b>	<b>183</b>		

**Unit 11-34 1 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	10		
<b>Unit Totals</b>	<b>10</b>		

**Unit 11-6 3 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	31		
<b>Unit Totals</b>	<b>31</b>		

**Unit 11-6H 34 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	123		
<b>Unit Totals</b>	<b>123</b>		

**Unit 1-1B 20 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	237		
Incense-cedar			
Ponderosa Pine	3		
<b>Unit Totals</b>	<b>240</b>		

**Unit 1-1C 3 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	16		
Incense-cedar			
<b>Unit Totals</b>	<b>16</b>		

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

Medford  
Upper Cow  
ORM07-TS-16-01

**Unit 1-2 42 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	494		
Incense-cedar	2		
Western Hemlock	6		
White Fir			
<b>Unit Totals</b>	<b>502</b>		

**Unit 13-37 23 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	217		
Incense-cedar	1		
Western Hemlock			
<b>Unit Totals</b>	<b>218</b>		

**Unit 13-4 4 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	36		
Incense-cedar	1		
<b>Unit Totals</b>	<b>37</b>		

**Unit 14-3 10 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	103		
Incense-cedar			
<b>Unit Totals</b>	<b>103</b>		

**Unit 15-19 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	24		
<b>Unit Totals</b>	<b>24</b>		

**Unit 19-3 20 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	316		
Incense-cedar			
Western Hemlock	1		
<b>Unit Totals</b>	<b>317</b>		

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

Medford  
Upper Cow  
ORM07-TS-16-01

**Unit 19-4 3 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	30		
<b>Unit Totals</b>	<b>30</b>		

**Unit 19-9 13 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	156		
Ponderosa Pine			
Western Hemlock			
<b>Unit Totals</b>	<b>156</b>		

**Unit 21-2 7 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	88		
Incense-cedar			
Western Hemlock			
<b>Unit Totals</b>	<b>88</b>		

**Unit 23-1 15 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	221		
Incense-cedar			
<b>Unit Totals</b>	<b>221</b>		

**Unit 23-2 6 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	118		
<b>Unit Totals</b>	<b>118</b>		

**Unit 23-2B 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	64		
Incense-cedar			
<b>Unit Totals</b>	<b>64</b>		

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**Unit 23-3N 14 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	204		
Incense-cedar	1		
Ponderosa Pine	3		
<b>Unit Totals</b>	<b>208</b>		

**Unit 23-6 1 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	13		
<b>Unit Totals</b>	<b>13</b>		

**Unit 24-1 11 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	119		
<b>Unit Totals</b>	<b>119</b>		

**Unit 24-1H 69 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	861		
Incense-cedar			
<b>Unit Totals</b>	<b>861</b>		

**Unit 24-3 6 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	61		
Ponderosa Pine	1		
<b>Unit Totals</b>	<b>62</b>		

**Unit 24-3H 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	76		
<b>Unit Totals</b>	<b>76</b>		

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Upper Cow  
ORM07-TS-16-01

**Unit 25-12 12 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	101		
Incense-cedar			
Ponderosa Pine	1		
Western Hemlock	1		
<b>Unit Totals</b>	<b>103</b>		

**Unit 25-1B 4 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	12		
<b>Unit Totals</b>	<b>12</b>		

**Unit 25-37 12 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	149		
<b>Unit Totals</b>	<b>149</b>		

**Unit 25-7 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	60		
Incense-cedar			
<b>Unit Totals</b>	<b>60</b>		

**Unit 26-1 22 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	174		
Incense-cedar			
Ponderosa Pine	2		
<b>Unit Totals</b>	<b>176</b>		

**Unit 26-1B 13 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	161		
Incense-cedar			
<b>Unit Totals</b>	<b>161</b>		



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ORM07-TS-16-01

**Unit 26-3 1 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	15		
<b>Unit Totals</b>	<b>15</b>		

**Unit 26-3A 2 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	26		
<b>Unit Totals</b>	<b>26</b>		

**Unit 26-3B 10 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	64		
<b>Unit Totals</b>	<b>64</b>		

**Unit 27-12 9 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	85		
Ponderosa Pine			
White Fir			
<b>Unit Totals</b>	<b>85</b>		

**Unit 27-4S 17 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	331		
Ponderosa Pine			
<b>Unit Totals</b>	<b>331</b>		

**Unit 29-1 24 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	87		
<b>Unit Totals</b>	<b>87</b>		

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BUREAU OF LAND MANAGEMENT**

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**Unit 30-2 9 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	99		
Incense-cedar			
Western Hemlock			
<b>Unit Totals</b>	<b>99</b>		

**Unit 3-1 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	51		
Western Hemlock			
<b>Unit Totals</b>	<b>51</b>		

**Unit 31-2 15 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	300		
Incense-cedar	1		
<b>Unit Totals</b>	<b>301</b>		

**Unit 31-3 59 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	556		
Incense-cedar	1		
<b>Unit Totals</b>	<b>557</b>		

**Unit 31-6 4 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	57		
Incense-cedar			
Ponderosa Pine			
<b>Unit Totals</b>	<b>57</b>		

**Unit 31-6H 11 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	215		
Incense-cedar	2		
<b>Unit Totals</b>	<b>217</b>		

Medford  
Upper Cow  
ORM07-TS-16-01

Species	Net Volume	Bid Price	Species Value
Douglas-fir	99		
Ponderosa Pine	1		
<b>Unit Totals</b>	<b>100</b>		

Species	Net Volume	Bid Price	Species Value
Douglas-fir	4		
<b>Unit Totals</b>	<b>4</b>		

Species	Net Volume	Bid Price	Species Value
Douglas-fir	14		
<b>Unit Totals</b>	<b>14</b>		

Species	Net Volume	Bid Price	Species Value
Douglas-fir	88		
Incense-cedar			
<b>Unit Totals</b>	<b>88</b>		

Species	Net Volume	Bid Price	Species Value
Douglas-fir	74		
Western Hemlock			
Unit Totals	74		

Species	Net Volume	Bid Price	Species Value
Douglas-fir	399		
Incense-cedar	2		
Ponderosa Pine	1		
<b>Unit Totals</b>	<b>402</b>		

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

Medford  
Upper Cow  
ORM07-TS-16-01

**Unit 35-1F 3 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	11		
<b>Unit Totals</b>	<b>11</b>		

**Unit 35-2 6 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	60		
Incense-cedar			
<b>Unit Totals</b>	<b>60</b>		

**Unit 35-3 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	57		
Incense-cedar			
Ponderosa Pine			
<b>Unit Totals</b>	<b>57</b>		

**Unit 35-5 7 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	61		
Ponderosa Pine			
<b>Unit Totals</b>	<b>61</b>		

**Unit 5-4 31 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	428		
Incense-cedar	5		
Ponderosa Pine	12		
Western Hemlock			
White Fir	11		
<b>Unit Totals</b>	<b>456</b>		

**Unit 9-1 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	29		
Incense-cedar			
<b>Unit Totals</b>	<b>29</b>		

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

Medford  
Upper Cow  
ORM07-TS-16-01

Unit    **9-26**                                      **3 Acres**                                      **Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	7		
Unit Totals	7		

EXHIBIT C1  
SHEET 1 OF 1  
UPPER COW  
TIMBER SALE  
TRACT NO. ORM07-TS-16-01



EXHIBIT NO.		DESCRIPTION	
C1		TITLE SHEET	
C2		OVERALL SALE & ROAD RENOVATION MAPS	
C3		ESTIMATE OF QUANTITIES	
C4		SPECIFICATION SHEET	
C5		TYPICAL ROAD DATA	
C6		CULVERT INSTALL DETAIL	
C7		CULVERT BAND DETAIL	
C8		DRAINAGE & EROSION CONTROL INSTALLATION	
C9		ARMORED WATER DIP	
C10		ROADSIDE BRUSHING DETAIL	
C11		ROAD RENOVATION WORKLIST	
C12		WRITTEN SPECIFICATIONS	
C13		SPECIAL PROVISIONS	
D1		ROAD MAINTENANCE SPECIFICATIONS	
D2		ROAD MAINTENANCE MAP	
REV. NO.	DESCRIPTION	DATE	APPROV
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
UPPER COW TIMBER SALE TITLE SHEET			
DESIGNED: _____			
REVIEWED: _____			
APPROVED: _____			
DRAFTED BY: CLS		SCALE: 1" = 12 MI	
DATE: DEC 2015		SHEET: 1 OF 1	
DRAWING NO.: OR-11-9113-4-1			










**EXHIBIT C-2**



### Legend

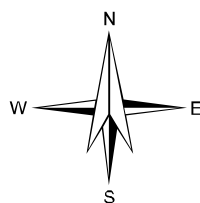
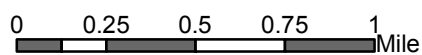
●—● Renovation

## Road Surface

 Bituminous  
 Aggregate  
 Natural  
 Unknown  
 <Null>

## Ownership

 Bureau of Land Management  
 Other  
 Upper Cow Units



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

UPPER COW  
TIMBER SALE  
ROAD RENOVATIONS

DESIGNED: \_\_\_\_\_  
REVIEWED: \_\_\_\_\_  
APPROVED: \_\_\_\_\_

DRAFTED BY: CLS	SCALE: AS SHOWN
DATE: APRIL 2015	SHEET: 1 OF 3








**EXHIBIT C-2**



### Legend

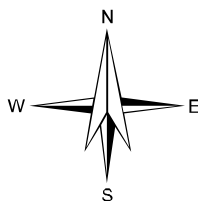
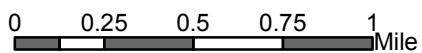
●—● Renovation

## Road Surface

 Bituminous  
 Aggregate  
 Natural  
 Unknown  
 <Null>

## Ownership

 Bureau of Land Management  
 Other  
 Upper Cow Units



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

UPPER COW  
TIMBER SALE  
ROAD RENOVATIONS

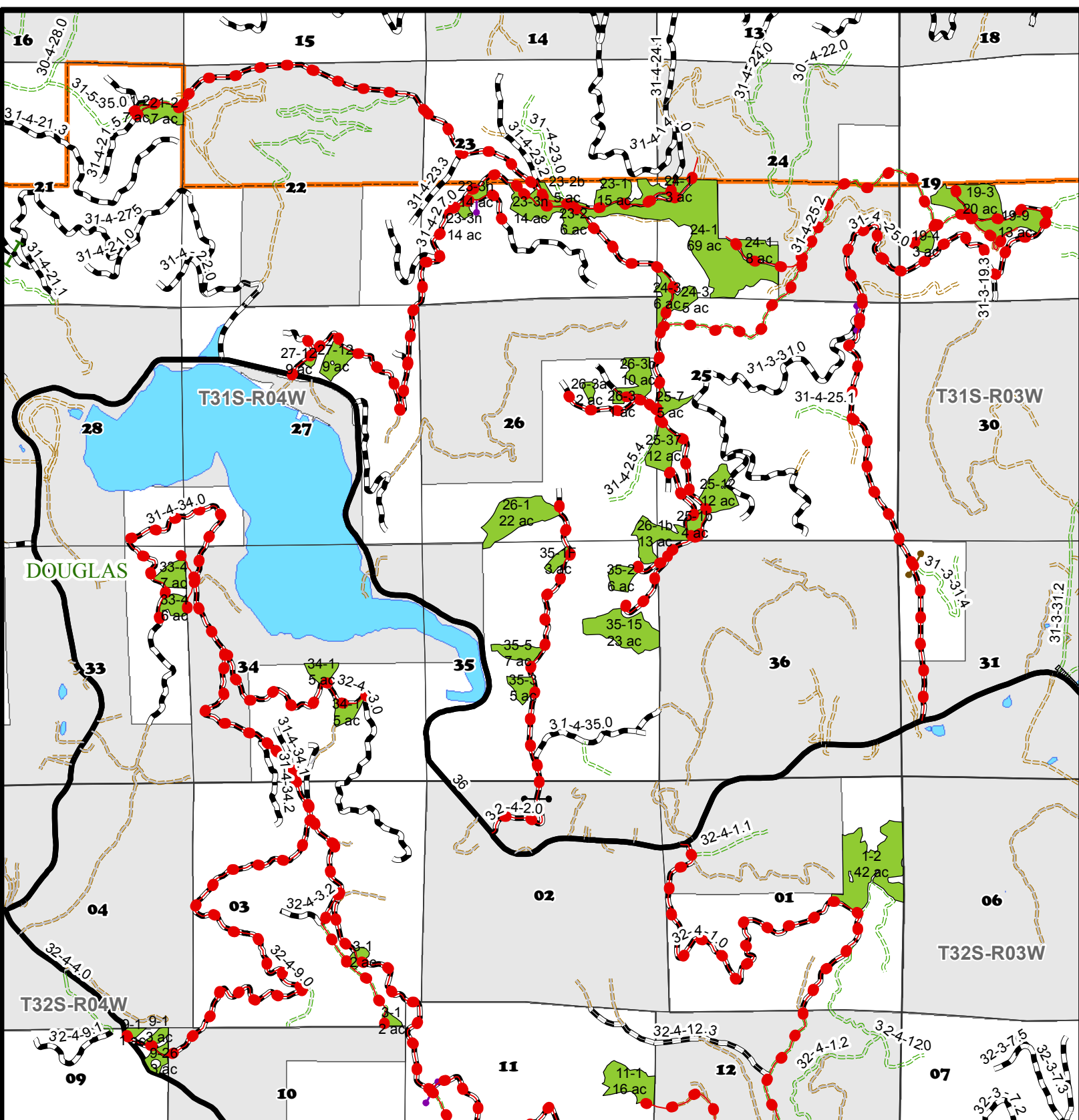
DESIGNED: \_\_\_\_\_  
REVIEWED: \_\_\_\_\_  
APPROVED: \_\_\_\_\_

DRAFTED BY: CLS	SCALE: AS SHOWN
DATE: APRIL 2015	SHEET: 2 OF 3



# UPPER COW TIMBER SALE

EXHIBIT C-2



## Legend

●—● Renovation

### Road Surface

— Bituminous

— Aggregate

--- Natural

--- Unknown

--- <Null>

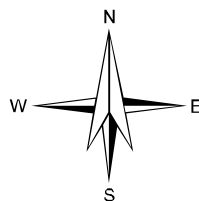
### Ownership

□ Bureau of Land Management

□ Other

■ Upper Cow Units

0 0.25 0.5 0.75 1 Mile



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

## UPPER COW TIMBER SALE ROAD RENOVATIONS

DESIGNED: \_\_\_\_\_

REVIEWED: \_\_\_\_\_

APPROVED: \_\_\_\_\_

DRAFTED BY: CLS SCALE: AS SHOWN

DATE: APRIL 2015 SHEET: 3 OF 3



EXHIBIT C3  
SHEET 1 OF 5

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	CLEARING AND GRUBBING	EXCAVATION		DRAINAGE										RENOVATION			AGGREGATE				SOIL STABILIZATION	ROADSIDE BRUSHING AND CHIPPING	MISC.				
					ROCK	COMMON	CORRUGATED METAL PIPE 16 GA						RESHAPE EX. ROAD SURFACE	DITCH & CULVERT CLEANING	SCARIFICATION	PIT RUN	CRUSHED BASE ROCK	BORROW MATERIAL	RIP RAP	RESHAPE EX. WATERDIPS	RECONSTRUCT WATERBARS	CONSTRUCT WATERDIPS	CONTINUOUS RIPPING			RMV., CONST., OR RECONST., BARRICADE				
							SIZE				ELBOWS																DOWNSPOUT			
							18"	24"	30"	64"	18"	24"															18"	24"		
SPECIFICATION NO. —————>				200	300		400								500			700	1000			1800	2100	8000						
UNITS —>	MP	MP	MILE	ACRE	CY	CY	LF	LF	LF	LF	EA	LF	LF	LF	LF	MILE	MILE	MILE	CY	CY	CY	CY	ACRE	MILE	EA	EA	EA	MI	EA	
31-3-19.4	0.00	0.32	0.32														0.32							0.32						
31-3-19.5	0.00	0.14	0.14														0.14							0.14						
31-3-19.6	0.00	0.12	0.12														0.12							0.12						
31-3-31	0.00	1.81	1.81				272	76									1.81							1.81						
31-4-14.0	0.00	0.51	0.51														0.51							0.51						
31-4-21.5	0.00	0.06	0.06														0.06							0.06						
31-4-23.1	0.00	0.30	0.30														0.30							0.30						
31-4-23.2	0.00	0.07	0.07														0.07							0.07						
31-4-23.3	0.00	0.27	0.27														0.27							0.27						
31-4-25.0	0.00	2.02	2.02														2.02							2.02						
31-4-25.0 SPUR	0.00	0.27	0.27														0.27							0.27						
31-4-25.2	0.00	1.91	1.91														1.91							1.91						
31-4-25.5	0.00	0.49	0.49														0.49							0.49						
TOTALS		SEE EXHIBIT C3 - SHEET 1 OF 5	FOR QUANTITY TOTALS																											

RENOVATION NOTES

1. ROADS LISTED FOR SURFACE RESHAPING SHALL CONSIST OF BLADING, WATERING, & ROLLING PER CONTRACT SPECIFICATIONS & DRAWINGS.
2. DITCH/CULVERT CLEANING SHALL CONSIST OF DITCH BLADING AND RESHAPING, CLEARING DEBRIS, VEGETATION, SEDIMENT, ROCK AND ALL OTHER MATERIAL HINDERING THE FLOW OF RUNOFF PER CONTRACT SPECIFICATIONS & DRAWINGS.

AGGREGATE GRADATION REQUIREMENTS

ITEM 900			ITEM 1000			ITEM 1200		
SIZE			SIZE			SIZE		
GRADATION			GRADATION			GRADATION		
4 inch		A	3 inch		A,C,F	1 1/2 inch		C,C-1
3 inch		B	2 inch		B,D,G,H	1 inch		D,D-1
2 inch		C				3/4 inch		E,E-1
1 1/2 inch		D						

\*FOR INFORMATIONAL USE ONLY.  
QUANTITIES SHOWN ARE NOT PAY ITEMS.

ALWAYS  
THINK  
SAFETY

DESIGNED: _____		
REVIEWED: _____		
APPROVED: _____		
DRAFTED BY: BLM	SCALE: NONE	
DATE: DEC 2015	SHEET: 1 OF 5	
DRAWING NO.: OR-11-9113-4-1		

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

UPPER COW TIMBER SALE ESTIMATE OF QUANTITIES
--





EXHIBIT C3  
SHEET 2 OF 5

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	CLEARING AND GRUBBING	EXCAVATION				DRAINAGE												RENOVATION				AGGREGATE				MISC.																				
					ROCK	COMMON	CORRUGATED METAL PIPE 16 GA												RESHAPE EX. ROAD SURFACE	DITCH & CULVERT CLEANING	SCARIFICATION	PIT RUN	CRUSHED BASE ROCK	BORROW MATERIAL	RIPRAP	SOIL STABILIZATION	ROADSIDE BRUSHING AND CHIPPING	8000																					
							SIZE				ELBOWS		DOWNSPOUT				400	500										700		1000	1800	2100	EA	EA	EA	MI	EA												
							18"	24"	30"	84"	18"	24"	18"	24"	18"	24"		MILE																				MILE	CY	CY	CY	CY	ACRE	MILE	EA	EA	EA	MI	EA
SPECIFICATION NO. —————>				200	300				400												500				700	1000			1800	2100	8000																		
UNITS —>	MP	MP	MILE	ACRE	CY	CY	LF	LF	LF	LF	EA	LF	LF	LF	LF	LF	MILE	MILE	MILE	CY	CY	CY	CY	ACRE	MILE	EA	EA	EA	MI	EA																			
31-4-26.0	0.00	0.22	0.22														0.22								0.22																								
31-4-27.0	0.00	2.16	2.16				30										2.16								2.16																								
31-4-27 SPUR	0.00	0.10	0.10														0.10								0.10																								
31-4-30.0	0.00	0.43	0.43														0.43								0.43																								
31-4-31.0	0.00	0.79	0.79				220										0.79								0.79																								
31-4-32.0	0.00	0.91	0.91				40										0.91								0.91																								
31-4-34.0	0.00	1.56	1.56														1.56								1.56																								
33-4A SPUR	0.00	0.13	0.13														0.13								0.13																								
33-4B SPUR	0.00	0.11	0.11														0.11								0.11																								
31-4-35.4 SPUR	0.00	0.07	0.07														0.07								0.07																								
31-4-35.5 SPUR	0.00	0.05	0.05														0.05								0.05																								
31-4-36.0	0.00	0.16	0.16														0.16								0.16																								
31-5-35.0	0.00	0.78	0.78														0.78								0.78																								
TOTALS		SEE EXHIBIT C3 - SHEET 2 OF 5	FOR QUANTITY TOTALS	—																																													

RENOVATION NOTES

1. ROADS LISTED FOR SURFACE RESHAPING SHALL CONSIST OF BLADING, WATERING, & ROLLING PER CONTRACT SPECIFICATIONS & DRAWINGS.

2. DITCH/CULVERT CLEANING SHALL CONSIST OF DITCH BLADING AND RESHAPING, CLEARING DEBRIS, VEGETATION, SEDIMENT, ROCK AND ALL OTHER MATERIAL HINDERING THE FLOW OF RUNOFF PER CONTRACT SPECIFICATIONS & DRAWINGS.

AGGREGATE GRADATION REQUIREMENTS

ITEM 900			ITEM 1000			ITEM 1200		
SIZE			SIZE			SIZE		
GRADATION			GRADATION			GRADATION		
4 inch	A		3 inch	A,C,F		1 1/2 inch	C,C-1	
3 inch	B		2 inch	B,D,G,H		1 inch	D,D-1	
2 inch	C					3/4 inch	E,E-1	
1 1/2 inch	D							

\*FOR INFORMATIONAL USE ONLY.  
QUANTITIES SHOWN ARE NOT PAY ITEMS.

ALWAYS  
THINK  
SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
UPPER COW TIMBER SALE ESTIMATE OF QUANTITIES			
DESIGNED: _____			
REVIEWED: _____			
APPROVED: _____			
DRAFTED BY: BLM		SCALE: NONE	
DATE: DEC 2015		SHEET: 2 OF 5	
DRAWING NO.: OR-11-9113-4-1			



EXHIBIT C3  
SHEET 3 OF 5

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	CLEARING AND GRUBBING	EXCAVATION										DRAINAGE										RENOVATION				AGGREGATE				SOIL STABILIZATION	MISC.				
					ROCK	COMMON	CORRUGATED METAL PIPE 16 GA										RESHAPE EX. ROAD SURFACE	DITCH & CULVERT CLEANING	SCARIFICATION	PIT RUN	CRUSHED BASE ROCK	BORROW MATERIAL	RIP RAP	ROADSIDE BRUSHING AND CHIPPING	RESHAPE EX. WATERDIPS	RECONSTRUCT WATERBARS	CONSTRUCT WATERDIPS	CONTINUOUS RIPPING	RMV., CONST., OR RECONST. BARRICADE									
							SIZE				ELBOWS		DOWNSPOUT																									
							18"	24"	30"	84"	18"	FULL ROUND		HALF ROUND																								
												18"	24"	18"	24"																							
SPECIFICATION NO. —————>					200	300		400										500			700	1000		1800	2100	8000												
UNITS —————>	MP	MP	MILE	ACRE	CY	CY	LF	LF	LF	LF	EA	LF	LF	LF	LF	MILE	MILE	MILE	CY	CY	CY	CY	ACRE	MILE	EA	EA	EA	MI	EA									
31-5-35.B	0.78	1.17	0.39														0.39							0.39														
31-5-35.C	1.17	1.38	0.21														1.13							1.13														
32-4-1.0	0.00	3.17	3.17				80	116									3.17							3.17														
32-4-1.3	0.00	0.28	0.28														0.28							0.28														
32-4-1.3 SPUR	0.00	0.43	0.43														0.43							0.43														
32-4-11.0	0.00	0.98	0.98														0.98							0.98														
32-4-11.5	0.00	1.37	1.37														1.37							1.37														
32-4-13.0	0.00	0.73	0.73														0.73		30					0.73														
32-4-13.2	0.00	0.97	0.97														0.97							0.97														
32-4-13.3	0.00	0.15	0.15														0.15							0.15														
32-4-13.3 SPUR	0.00	0.05	0.05														0.00							0.00														
32-4-13.4 SPUR	0.00	0.15	0.15														0.15							0.15														
32-4-15.0	0.00	0.42	0.42														0.42							0.42														
TOTALS		SEE EXHIBIT C3 - SHEET 3 OF 5 FOR QUANTITY TOTALS																																				

RENOVATION NOTES

1. ROADS LISTED FOR SURFACE RESHAPING SHALL CONSIST OF BLADING, WATERING, & ROLLING PER CONTRACT SPECIFICATIONS & DRAWINGS.

2. DITCH/CULVERT CLEANING SHALL CONSIST OF DITCH BLADING AND RESHAPING, CLEARING DEBRIS, VEGETATION, SEDIMENT, ROCK AND ALL OTHER MATERIAL HINDERING THE FLOW OF RUNOFF PER CONTRACT SPECIFICATIONS & DRAWINGS.

AGGREGATE GRADATION REQUIREMENTS

ITEM 900		ITEM 1000		ITEM 1200	
SIZE	GRADATION	SIZE	GRADATION	SIZE	GRADATION
4 inch	A	3 inch	A,C,F	1 1/2 inch	C,C-1
3 inch	B	2 inch	B,D,G,H	1 inch	D,D-1
2 inch	C			3/4 inch	E,E-1
1 1/2 inch	D				

\*FOR INFORMATIONAL USE ONLY.  
QUANTITIES SHOWN ARE NOT PAY ITEMS.

ALWAYS  
THINK  
SAFETY

DESIGNED: _____	SCALE: NONE
REVIEWED: _____	SHEET: 3 OF 5
APPROVED: _____	
DRAFTED BY: BLM	
DATE: DEC 2015	
DRAWING NO.: OR-11-9113.4-1	

REV. NO.	DESCRIPTION	DATE	APPROV.

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

UPPER COW  
TIMBER SALE  
ESTIMATE OF QUANTITIES



EXHIBIT C3  
SHEET 4 OF 5

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	CLEARING AND GRUBBING	EXCAVATION		DRAINAGE										RENOVATION			AGGREGATE				SOIL STABILIZATION		MSC.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
					ROCK	COMMON	CORRUGATED METAL PIPE 16 GA						RESHAPE EX. ROAD SURFACE	DITCH & CULVERT CLEANING	SCARIFICATION	PIT RUN	CRUSHED BASE ROCK	BORROW MATERIAL	RIPRAP	ROADSIDE BRUSHING AND CHIPPING	8000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
							SIZE				ELBOWS										DOWNSPOUT		RECONSTRUCT WATERBARS	CONSTRUCT WATERDIPS	CONTINUOUS RIPPING	RMV., OR CONST., BARRICADE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
							18"	24"	30"	84"	18"	24"									18"	24"																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
SPECIFICATION NO. —————>				200	300	400										500			700	1000		1800	2100	8000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
UNITS —>	MP	MP	MILE	ACRE	CY	CY	LF	LF	LF	LF	EA	LF	LF	LF	LF	MILE	MILE	MILE	CY	CY	CY	CY	ACRE	MILE	EA	EA	EA	MI	EA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
32-4-2.0	0.00	1.69	1.69				40									1.69								1.69																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
32-4-27.3 SPUR	0.00	0.24	0.24													0.24								0.24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
32-4-3.0	0.00	1.61	1.61				210									1.61								1.61																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
32-4-3.1	0.00	0.80	0.80													0.80								0.80																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
32-4-3.2	0.00	0.15	0.15													0.15								0.15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
32-4-3.4	0.00	0.54	0.54													0.54								0.54																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
32-4-3.4 SPUR	0.00	0.02	0.02													0.00								0.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
32-4-4.0	0.00	5.42	5.42				120									3.20								3.20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
32-4-4.0 SPUR	0.00	0.19	0.19													0.19								0.19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
32-4-5.1	0.00	1.55	1.55													1.55								1.55																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
32-4-6.0	0.00	3.16	3.16				40	300		50					6	3.16								3.16																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
32-4-7.2	0.00	2.57	2.57				40									2.57								2.57																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
32-4-7.2 SPUR	0.00	0.03	0.03													0.00								0.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
TOTALS					SEE EXHIBIT C3 - SHEET 4 OF 5 FOR QUANTITY TOTALS												—																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

RENOVATION NOTES

1. ROADS LISTED FOR SURFACE RESHAPING SHALL CONSIST OF BLADING, WATERING, & ROLLING PER CONTRACT SPECIFICATIONS & DRAWINGS.
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AGGREGATE GRADATION REQUIREMENTS

ITEM 900		ITEM 1000		ITEM 1200	
SIZE	GRADATION	SIZE	GRADATION	SIZE	GRADATION
	A B C D 1 1/2 inch		A,C,F B,D,G,H 2 inch		C,C-1 D,D-1 E,E-1 1 1/2 inch 3/4 inch

\*FOR INFORMATIONAL USE ONLY.  
QUANTITIES SHOWN ARE NOT PAY ITEMS.

ALWAYS  
THINK  
SAFETY

DESIGNED: _____		
REVIEWED: _____		
APPROVED: _____		
DRAFTED BY: BLM	SCALE: NONE	
DATE: DEC 2015	SHEET: 4 OF 5	
DRAWING NO.: OR-11-9113.4-1		

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

UPPER COW  
TIMBER SALE  
ESTIMATE OF QUANTITIES





**EXHIBIT C3**  
**SHEET 5 OF 5**

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	CLEARING AND GRUBBING	EXCAVATION										DRAINAGE					RENOVATION				AGGREGATE				SOIL STABILIZATION	ROADSIDE BRUSHING AND CHIPPING		MISC.				
					ROCK	COMMON	CORRUGATED METAL PIPE 16 GA								RESHAPE EX. ROAD SURFACE	DITCH & CULVERT CLEANING	SCARIFICATION	PIT RUN	CRUSHED BASE ROCK	BORROW MATERIAL	RIP RAP	RESHAPE EX. WATERDIPS	RECONSTRUCT WATERBARS	CONSTRUCT WATERDIPS	CONTINUOUS RIPPING	RMV., CONST., OR RECONST. BARRICADE									
							SIZE				ELBOWS	DOWNSPOUT																							
							18"	24"	30"	84"		FULL ROUND	18"	24"													18"		24"						
SPECIFICATION NO. —————>					200	300		400								500			700	1000		1800	2100	8000											
UNITS —>	MP	MP	MILE	ACRE	CY	CY	LF	LF	LF	LF	EA	LF	LF	LF	LF	MILE	MILE	MILE	CY	CY	CY	CY	ACRE	MILE	EA	EA	EA	MI	EA						
32-4-9.0	0.00	5.20	5.20														5.20							5.20											
32-5-1.0	0.00	0.19	0.19														0.19							0.19											

## RENOVATION NOTES

1. ROADS LISTED FOR SURFACE RESHAPING SHALL CONSIST OF BLADING, WATERING, & ROLLING PER CONTRACT SPECIFICATIONS & DRAWINGS.

2. DITCH/CULVERT CLEANING SHALL CONSIST OF DITCH BLADING AND RESHAPING, CLEARING DEBRIS, VEGETATION, SEDIMENT, ROCK AND ALL OTHER MATERIAL HINDERING THE FLOW OF RUNOFF PER CONTRACT SPECIFICATIONS & DRAWINGS.

## AGGREGATE GRADATION REQUIREMENTS

ITEM 900			ITEM 1000			ITEM 1200		
SIZE	GRADATION		SIZE	GRADATION		SIZE	GRADATION	
4 inch	A		3 inch	A,C,F		1 1/2 inch	C,C-1	
3 inch	B		2 inch	B,D,G,H		1 inch	D,D-1	
2 inch	C					3/4 inch	E,E-1	
1 1/2 inch	D							

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QUANTITIES SHOWN ARE NOT PAY ITEMS.

ALWAYS  
THINK  
SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
UPPER COW TIMBER SALE			
ESTIMATE OF QUANTITIES			
DESIGNED: _____			
REVIEWED: _____			
APPROVED: _____			
DRAFTED BY: BLM		SCALE: NONE	
DATE: DEC 2015		SHEET: 5 OF 5	
DRAWING NO.: OR-11-9113.4-1			



EXHIBIT C4  
SHEET 1 OF 6

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	TYPICAL STATION TYPE	ALIGNMENT		ROAD WIDTH <sup>1-3</sup>	GRADIENT		BRUSHING WIDTH		SURFACING <sup>3</sup>						REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
					MAXIMUM DEGREE OF CURVE	SUBGRADE		DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	BEYOND		EXISTING ROAD(S)	BASE COURSE			SURFACE COURSE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
											TOP CUT	TOE FILL		L	R	MINIMUM WIDTH	COMPACTION DEPTH		TYPE <sup>2</sup>	GRADING	MINIMUM WIDTH	COMPACTION DEPTH	TYPE <sup>2</sup>	GRADING																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
31-3-19.4	0.00	0.32	0.32	6		14'	3'			4	4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

NOTES

1. EXTRA SUB-GRADE WIDTHS  
TO EACH FILL SHOULDER, ADD 1 FOOT FOR FILLS  
OF 1-6 FEET AND 2 FEET FOR FILLS OVER 6 FEET.  
WIDEN THE INSIDE SHOULDER OF ALL CURVES AS  
FOLLOWS WHEN THE DEGREE OF CURVE EQUALS:

7-21 ADD 1 FT.  
22-35 ADD 2 FT.  
36-48 ADD 3 FT.  
49-64 ADD 4 FT.  
65-96 ADD 5 FT.

MATERIALS CUT SLOPE FILL SLOPE

COMMON 1/2 : 1 1 1/2 : 1

SOFT ROCK 1/2 : 1 1 1/2 : 1

SOLID ROCK 1/2 : 1 angle of repose

2. SURFACING TYPES  
A. PIT RUN ROCK  
B. GRID ROLLED ROCK MATERIAL  
C. SCREENED ROCK MATERIAL  
D. CRUSHED ROCK MATERIAL

3. TURNOUTS  
A. WIDTH 10 FT. IN ADDITION TO SUB-GRADE  
WIDTH, OR AS SHOWN ON THE PLANS.  
B. LOCATED APPROXIMATELY, AS SHOWN ON THE  
ROAD PLANS.  
C. INVISIBLE AND NOT MORE THAN 750 FT. APART.

4. SURFACING  
TURNOUTS, CURVE WIDENING, AND ROAD  
APPROACH APRONS SHALL BE SURFACED.

5. CLEARING WIDTH  
SEE SUBSECTION 2100

ALWAYS  
THINK  
SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
UPPER COW TIMBER SALE SPECIFICATION SHEET			
DESIGNED: _____			
REVIEWED: _____			
APPROVED: _____			
DRAFTED BY: BLM		SCALE: NONE	
DATE: DEC 2015		SHEET: 1 OF 6	
DRAWING NO.: OR-11-9113.4-1			



EXHIBIT C4  
SHEET 2 OF 6

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	TYPICAL STATION TYPE	ALIGNMENT		ROAD WIDTH <sup>1-3</sup>	GRADIENT		BRUSHING WIDTH		SURFACING <sup>3</sup>						REMARKS						
					MAXIMUM DEGREE OF CURVE	SUBGRADE		DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	BEYOND		EXISTING ROAD(S)	BASE COURSE			SURFACE COURSE							
											TOP CUT	TOE FILL		L	R	MINIMUM WIDTH	COMPACTION DEPTH		TYPE <sup>2</sup>	GRADING	MINIMUM WIDTH	COMPACTION DEPTH	TYPE <sup>2</sup>	GRADING
31-4-26.0	0.00	0.22	0.22	6		14'	3'				4	4							GRR					
31-4-27.0	0.00	2.16	2.16	6		17'	3'				4	4							PRR					
31-4-27 SPUR	0.00	0.10	0.10	6		14'					4	4							NAT					
31-4-30.0	0.00	0.43	0.43	6		17'	3'				4	4							PRR					
31-4-31.0	0.00	0.79	0.79	6		17'	3'				4	4							GRR					
31-4-32.0	0.00	0.91	0.91	6		17'	3'				4	4							GRR					
31-4-34.0	0.00	1.56	1.56	6		14'	3'				4	4							GRR					
33-4A SPUR	0.00	0.13	0.13	5		14'					4	4							NAT					
33-4B SPUR	0.00	0.11	0.11	5		12'					4	4							NAT					
31-4-35.4 SPUR	0.00	0.07	0.07	5		12'					4	4							NAT					
31-4-35.5 SPUR	0.00	0.05	0.05	5		12'					4	4							NAT					
31-4-36.0	0.00	0.16	0.16	6		14'	3'				4	4							ASC					
31-5-35.0	0.00	0.78	0.78	6		14'	3'				4	4							PRR					
TOTALS		SEE EXHIBIT C4	SHEET 2 OF 5 FOR SPECIFICATION	TOTALS																	➡			

NOTES

1. EXTRA SUB-GRADE WIDTHS  
TO EACH FILL SHOULDER, ADD 1 FOOT FOR FILLS  
OF 1-6 FEET AND 2 FEET FOR FILLS OVER 6 FEET.  
WIDEN THE INSIDE SHOULDER OF ALL CURVES AS  
FOLLOWS WHEN THE DEGREE OF CURVE EQUALS:

7-21 ADD 1 FT.  
22-35 ADD 2 FT.  
36-48 ADD 3 FT.  
49-64 ADD 4 FT.  
65-96 ADD 5 FT.

MATERIALS CUT SLOPE FILL SLOPE

COMMON 1/2 : 1 1 1/2 : 1

SOFT ROCK 1/2 : 1 1 1/2 : 1

SOLID ROCK 1/2 : 1 angle of repose

2. SURFACING TYPES  
A. PIT RUN ROCK  
B. GRID ROLLED ROCK MATERIAL  
C. SCREENED ROCK MATERIAL  
D. CRUSHED ROCK MATERIAL

3. TURNOUTS  
A. WIDTH 10 FT. IN ADDITION TO SUB-GRADE  
WIDTH, OR AS SHOWN ON THE PLANS.  
B. LOCATED APPROXIMATELY, AS SHOWN ON THE  
ROAD PLANS.  
C. INVISIBLE AND NOT MORE THAN 750 FT. APART.

4. SURFACING  
TURNOUTS, CURVE WIDENING, AND ROAD  
APPROACH APRONS SHALL BE SURFACED.

5. CLEARING WIDTH  
SEE SUBSECTION 2100

ALWAYS  
THINK  
SAFETY

DESIGNED:			
REVIEWED:			
APPROVED:			
DRAFTED BY:	BLM	SCALE:	NONE
DATE:	DEC 2015	SHEET:	2 OF 6
DRAWING NO.: OR-11-9113.4-1			

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
UPPER COW TIMBER SALE SPECIFICATION SHEET			



EXHIBIT C4  
SHEET 3 OF 6

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	TYPICAL STATION TYPE	ALIGNMENT		ROAD WIDTH <sup>1-3</sup>	GRADIENT		BRUSHING WIDTH		SURFACING <sup>3</sup>						REMARKS			
					MAXIMUM DEGREE OF CURVE	SUBGRADE		DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	TOP CUT	TOE FILL	EXISTING ROAD(S)	BASE COURSE		SURFACE COURSE					
														BEYOND	ROAD(S)	MINIMUM WIDTH	COMPACTION DEPTH		TYPE <sup>2</sup>	GRADING	MINIMUM WIDTH
31-5-35.B	0.78	1.17	0.39	6		14'	3'				4	4							ASC		
31-5-35.C	1.17	1.38	0.21	6		14'	3'				4	4							PRR		
32-4-1.0	0.00	3.17	3.17	6		14'	3'				4	4							PRR		
32-4-1.3	0.00	0.28	0.28	6		16'	3'				4	4							NAT		
32-4-1.3 SPUR	0.00	0.43	0.43	5		16'	3'				4	4							NAT		
32-4-11.0	0.00	0.98	0.98	6		16'	3'				4	4							ASC		
32-4-11.5	0.00	1.37	1.37	6		16'	3'				4	4							PRR		
32-4-13.0	0.00	0.73	0.73	6		14'	3'				4	4							PRR		
32-4-13.2	0.00	0.97	0.97	6		14'	3'				4	4							PRR		
32-4-13.3	0.00	0.15	0.15	6		16'	3'				4	4							PRR		
32-4-13.3 SPUR	0.00	0.05	0.05	5															NAT		
32-4-13.4 SPUR	0.00	0.15	0.15	5		14'					4	4							NAT		
32-4-15.0	0.00	0.42	0.42	6		17'	3'				4	4							BST		
TOTALS		SEE EXHIBIT C4	SHEET 3 OF 5 FOR SPECIFICATION	TOTALS																▶	

NOTES

1. EXTRA SUB-GRADE WIDTHS

TO EACH FILL SHOULDER, ADD 1 FOOT FOR FILLS OF 1-6 FEET AND 2 FEET FOR FILLS OVER 6 FEET. WIDEN THE INSIDE SHOULDER OF ALL CURVES AS FOLLOWS WHEN THE DEGREE OF CURVE EQUALS:

7-21 ADD 1 FT.  
22-35 ADD 2 FT.  
36-48 ADD 3 FT.  
49-64 ADD 4 FT.  
65-96 ADD 5 FT.

MATERIALS

CUT SLOPE

FILL SLOPE

COMMON

1/2 : 1

1 1/2 : 1

SOFT ROCK & SHALE

1/2 : 1

1 1/2 : 1

SOLID ROCK

1/2 : 1

angle of repose

2. SURFACING TYPES

- A. PIT RUN ROCK  
B. GRID ROLLED ROCK MATERIAL  
C. SCREENED ROCK MATERIAL  
D. CRUSHED ROCK MATERIAL

3. TURNOUTS

- A. WIDTH 10 FT. IN ADDITION TO SUB-GRADE WIDTH, OR AS SHOWN ON THE PLANS.  
B. LOCATED APPROXIMATELY, AS SHOWN ON THE ROAD PLANS.  
C. INVISIBLE AND NOT MORE THAN 750 FT. APART.

4. SURFACING

TURNOUTS, CURVE WIDENING, AND ROAD APPROACH APRONS SHALL BE SURFACED.

5. CLEARING WIDTH

SEE SUBSECTION 2100

ALWAYS  
THINK  
SAFETY

DESIGNED: _____		
REVIEWED: _____		
APPROVED: _____		
DRAFTED BY: BLM	SCALE: NONE	
DATE: DEC 2015	SHEET: 3 OF 6	
DRAWING NO.: OR-11-9113.4-1		

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

UPPER COW  
TIMBER SALE  
SPECIFICATION SHEET





EXHIBIT C4  
SHEET 4 OF 6

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	TYPICAL STATION TYPE	ALIGNMENT		ROAD WIDTH <sup>1-3</sup>	GRADIENT		BRUSHING WIDTH			SURFACING <sup>3</sup>							REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
					MAXIMUM DEGREE OF CURVE	SUBGRADE		DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	BEYOND		EXISTING ROAD(S)	BASE COURSE			SURFACE COURSE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
											TOP CUT	TOE FILL		L	R	MINIMUM WIDTH	COMPACTION DEPTH	TYPE <sup>2</sup>	GRADING		MINIMUM WIDTH	COMPACTION DEPTH	TYPE <sup>2</sup>	GRADING																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
32-4-2.0	0.00	1.69	1.69	6		14'	3'				4	4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

NOTES

1. EXTRA SUB-GRADE WIDTHS

TO EACH FILL SHOULDER, ADD 1 FOOT FOR FILLS OF 1-6 FEET AND 2 FEET FOR FILLS OVER 6 FEET. WIDEN THE INSIDE SHOULDER OF ALL CURVES AS FOLLOWS WHEN THE DEGREE OF CURVE EQUALS:

- 7-21 ADD 1 FT.  
22-35 ADD 2 FT.  
36-48 ADD 3 FT.  
49-64 ADD 4 FT.  
65-96 ADD 5 FT.

MATERIALS

CUT SLOPE

FILL SLOPE

COMMON 1/2 : 1 1 1/2 : 1

SOFT ROCK & SHALE 1/2 : 1 1 1/2 : 1

SOLID ROCK 1/2 : 1 angle of repose

2. SURFACING TYPES

- A. PIT RUN ROCK  
B. GRID ROLLED ROCK MATERIAL  
C. SCREENED ROCK MATERIAL  
D. CRUSHED ROCK MATERIAL

3. TURNOUTS

- A. WIDTH 10 FT. IN ADDITION TO SUB-GRADE WIDTH, OR AS SHOWN ON THE PLANS.  
B. LOCATED APPROXIMATELY, AS SHOWN ON THE ROAD PLANS.  
C. INVISIBLE AND NOT MORE THAN 750 FT. APART.

4. SURFACING

TURNOUTS, CURVE WIDENING, AND ROAD APPROACH APRONS SHALL BE SURFACED.

5. CLEARING WIDTH

SEE SUBSECTION 2100

ALWAYS  
THINK  
SAFETY

DESIGNED: _____			
REVIEWED: _____			
APPROVED: _____			
DRAFTED BY: BLM	SCALE: NONE		
DATE: DEC 2015	SHEET: 4 OF 6		
DRAWING NO.: OR-11-9113.4-1			

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

UPPER COW TIMBER SALE SPECIFICATION SHEET	
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**EXHIBIT C4**  
**SHEET 5 OF 6**

[illegible]

## NOTES

1. EXTRASUB-GRADE WIDTHS  
TO EACH FILL SHOULDER, ADD 1 FOOT FOR FILLS OF 1-6 FEET AND 2 FEET FOR FILLS OVER 6 FEET. WIDEN THE INSIDE SHOULDER OF ALL CURVES AS FOLLOWS WHEN THE DEGREE OF CURVE EQUALS:

- 2. SURFACING TYPES**
- A. PIT RUN ROCK
  - B. GRID ROLLED ROCK MATERIAL
  - C. SCREENED ROCK MATERIAL
  - D. CRUSHED ROCK MATERIAL

- 7-21 ADD 1 FT.  
22-35 ADD 2 FT.  
36-48 ADD 3 FT.  
49-64 ADD 4 FT.  
65-96 ADD 5 FT.
- MATERIALS      CUT SLOPE      FILL SLOPE
3. TURNOUTS  
A. WIDTH 10 FT. IN ADDITION TO SUB-GRADE WIDTH, OR AS SHOWN ON THE PLANS.  
B. LOCATED APPROXIMATELY, AS SHOWN ON THE ROAD PLANS.  
C. INVISIBLE AND NOT MORE THAN 750 FT. APART

- |           |           |  |
|-----------|-----------|--|
| COMMON    | 1 1/2 : 1 | 4. SURFACING   |
| SOFT ROCK |           | TURNOUTS, CURVE WIDENING, AND ROAD APPROACH APRONS SHALL BE SURFACED |

- |            |         |                 |
|------------|---------|-----------------|
| 8 SHALE    | 1/2 : 1 | 1 1/2 : 1       |
| SOLID ROCK | 1/2 : 1 | angle of repose |
5. CLEARING WIDTH  
SEE SUBSECTION 2100

ALWAYS  
THINK  
SAFETY

REV. NO.	DESCRIPTION	DATE	APPROVED
	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON		
	UPPER COW TIMBER SALE		
	SPECIFICATION SHEET		
DESIGNED:			
REVIEWED:			
APPROVED:			
DRAFTED BY: BLM		SCALE: NONE	
DATE: DEC 2015		SHEET: 5 OF 6	
DRAWING NO.: OR-11-9113.4-1			



Figure 10-1 illustrates four typical cross-sections for roadways, categorized by Type 1, Type 2, Type 3, and Type 4. Each section shows the relationship between the cut slope, subgrade width, and fill slope, along with specific surfacing requirements.

**TYPE 1**

**TYPICAL GRADING SECTION**

This section shows a cross-section of a roadway with a 3.0% slope. The top surface is labeled "Cut Slope" and the bottom surface is labeled "Fill Slope". The width of the subgrade is indicated as "Subgrade Width".

**TYPICAL SURFACING SECTION**

This section shows a cross-section of a roadway with a 3.0% slope. The top surface is labeled "Cut Slope" and the bottom surface is labeled "Fill Slope". The width of the surface is indicated as "Surface Width". The surfacing material is labeled "Surfacing Material per Specifications".

**TYPE 2**

**TYPICAL GRADING SECTION**

This section shows a cross-section of a roadway with a 3.0% slope. The top surface is labeled "Cut Slope" and the bottom surface is labeled "Fill Slope". The width of the subgrade is indicated as "Subgrade Width".

**TYPICAL SURFACING SECTION**

This section shows a cross-section of a roadway with a 3.0% slope. The top surface is labeled "Cut Slope" and the bottom surface is labeled "Fill Slope". The width of the surface is indicated as "Surface Width". The surfacing material is labeled "Surfacing Material per Specifications".

**TYPE 3**

**TYPICAL GRADING SECTION**

This section shows a cross-section of a roadway with a 3.0% slope. The top surface is labeled "Cut Slope" and the bottom surface is labeled "Fill Slope". The width of the subgrade is indicated as "Subgrade Width".

**TYPICAL SURFACING SECTION**

This section shows a cross-section of a roadway with a 3.0% slope. The top surface is labeled "Cut Slope" and the bottom surface is labeled "Fill Slope". The width of the surface is indicated as "Surface Width". The surfacing material is labeled "Surfacing Material per Specifications".

**TYPE 4**

**TYPICAL GRADING SECTION**

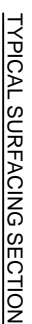
This section shows a cross-section of a roadway with a 3.0% slope. The top surface is labeled "Cut Slope" and the bottom surface is labeled "Fill Slope". The width of the subgrade is indicated as "Subgrade Width".

**TYPICAL SURFACING SECTION**

This section shows a cross-section of a roadway with a 3.0% slope. The top surface is labeled "Cut Slope" and the bottom surface is labeled "Fill Slope". The width of the surface is indicated as "Surface Width". The surfacing material is labeled "Surfacing Material per Specifications".



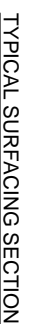
TYPE 3



TYPE 4



TYPE 5



TYPE 6

The diagram illustrates a road cross-section with a central 50' wide 'Turnout' area. On either side of the turnout, there is a '25' Min. Taper' zone. The total width of the tapered sections is indicated as '10'-0" Min.' on the left side. The road surface is shown with a dashed centerline and solid edge lines.

TYPICAL TURNOUT  
PLAN VIEW

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
UPPER COW TIMBER SALE SPECIFICATION SHEET			
DESIGNED:			
REVIEWED:			
APPROVED:			
DRAFTED BY: BLM			
DATE: DEC 2015	SCALE: NONE		
SHEET: 6 OF 6			
DRAWING NO.: OR-11-9113.4-1			

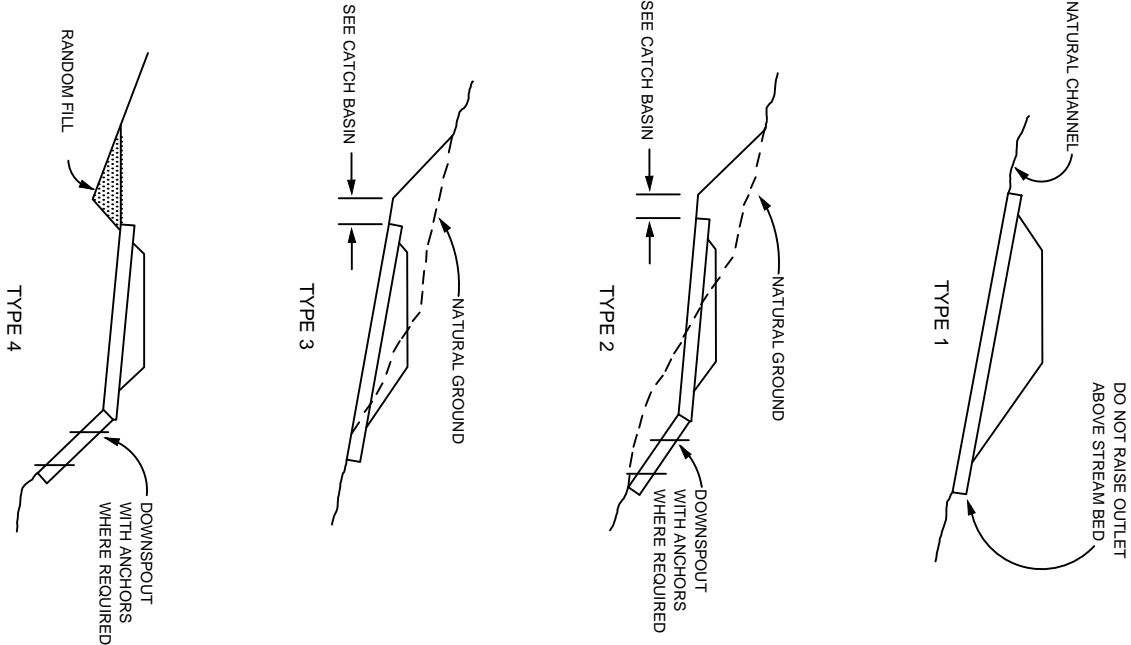








CULVERT INSTALLATION TYPES



CATCH BASIN

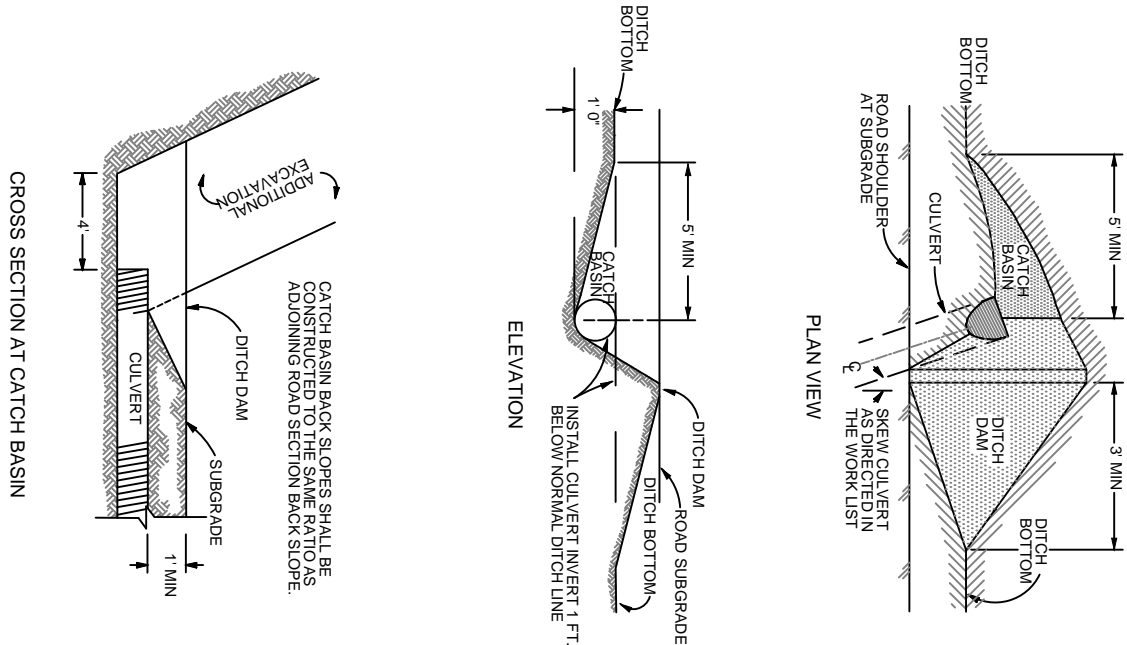
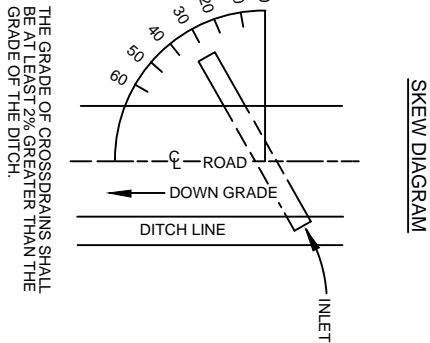


EXHIBIT C6  
SHEET 1 OF 2

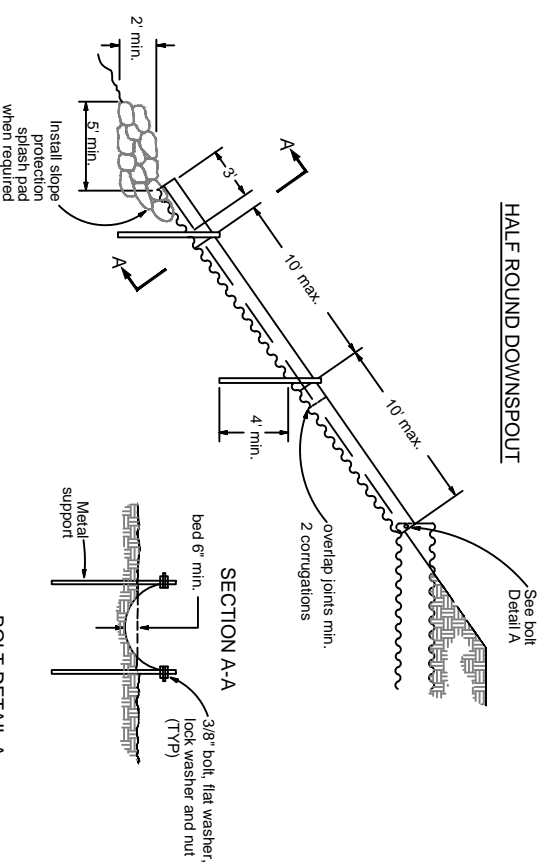


REV. NO.	DESCRIPTION	DATE	APPROV.		
	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON				
UPPER COW TIMBER SALE CULVERT INSTALL DETAIL					
DESIGNED: _____					
REVIEWED: _____					
APPROVED: _____					
DRAFTED BY: BLM		SCALE: NONE			
DATE: DEC 2015		SHEET: 1 OF 2			
DRAWING NO.: OR-11-9113.4-4					

ALWAYS  
THINK  
SAFETY

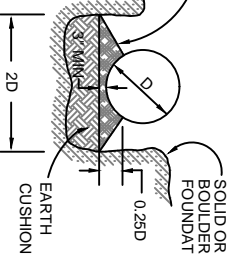


**EXHIBIT C6**  
**SHEET 2 OF 2**



SOLID OR ROCK  
BOULDER  
FOUNDATION

APPROVED BEDDING  
MATERIAL FIRMLY  
TAMPED



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 FOUNDATION FILL MATERIAL. MAINTAIN 8" DEPTH BETWEEN HIGH POINTS OF ROCKS AND/OR BOULDERS AND THE BOTTOM OF THE CULVERT.

- NOTES:**
1. The half round shall be one diameter size larger and of the same material and coating as the culvert it is attached to.
  2. The half round shall be fabricated from 16 gauge metal with 2 2/3" x 1/2" corrugations.
  3. Supports may be steel bar, angle iron, or approved equivalent metal posts.

A cross-sectional diagram of a bolted joint. A 3/8" machine bolt passes through a half-round metal plate and a flat washer. A nut is threaded onto the bolt. A lock washer is positioned between the half-round plate and the flat washer. The assembly is shown clamping a culvert pipe.

REV. NO.	DESCRIPTION	DATE	APPROV

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

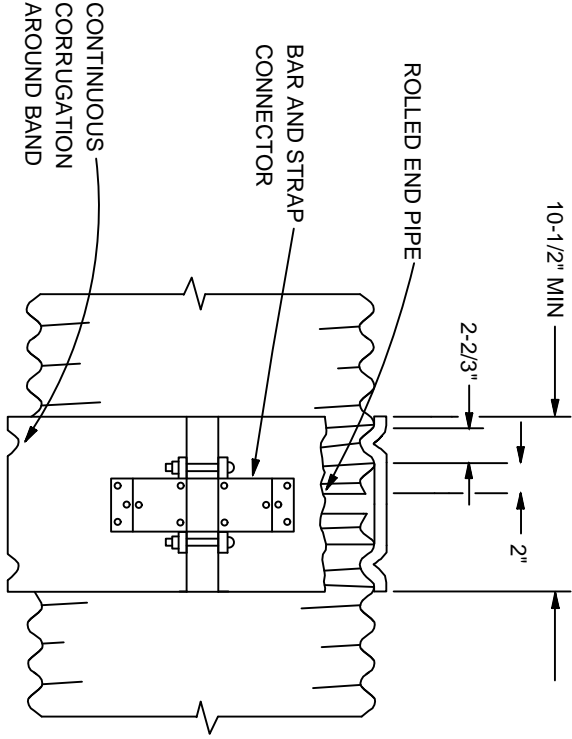
UPPER COW  
TIMBER SALE  
CULVERT INSTALL DETAIL

DESIGNED:	
REVIEWED:	
APPROVED:	
DRAFTED BY: BLM	SCALE: NONE
DATE: DEC 2015	SHEET: 2 OF 2
DRAWING NO.: OR-11-9113.4-4	

**ALWAYS  
THINK  
SAFETY**



CSP "HUGGER" COUPLER BANDS



STANDARD CONSTRUCTION IS A ONE PIECE BAND FOR 12" THRU 48" PIPES AND A TWO PIECE BAND FOR 54" PIPES AND ABOVE

THE HUGGER COUPLER BAND OR AN APPROVED EQUIVALENT COUPLER BAND SHALL BE MADE OF THE SAME MATERIAL AND FINISH AS THE PIPES JOINED. THE COUPLER BANDS SHALL BE A MINIMUM OF 10-1/2 INCHES WIDE AND BE 16 GAUGE OR HEAVIER. THE BAND SHALL BE DESIGNED TO BE DRAWN TOGETHER WITH A MINIMUM OF TWO (2) 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 ANNULER 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" TYPE, OR AN APPROVED EQUIVALENT COUPLER BAND IS INSTALLED ON SPILLWAY, OVERSIDE OR DOWN DRAINS.

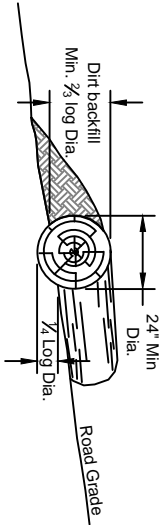
ALWAYS  
**THINK**  
SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
UPPER COW TIMBER SALE CULVERT BAND DETAIL			
DESIGNED:			
REVIEWED:			
APPROVED:			
DRAFTED BY: BLM	SCALE: NONE		
DATE: DEC 2015	SHEET: 1 OF 1		
DRAWING NO.: OR-11-9113.4.4			

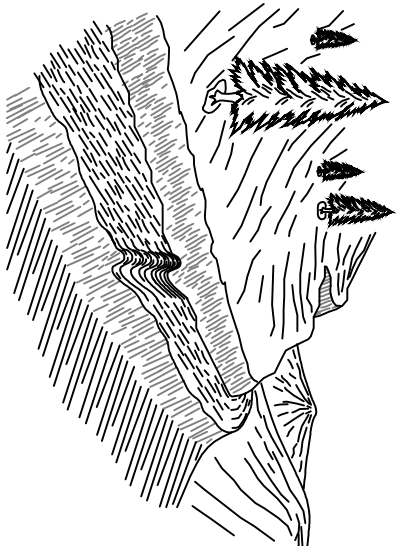




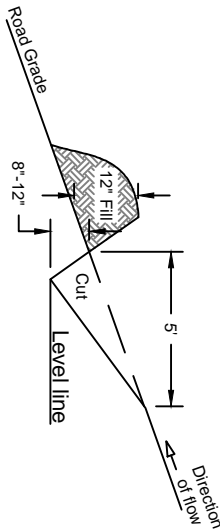
LOG BARRICADE



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".

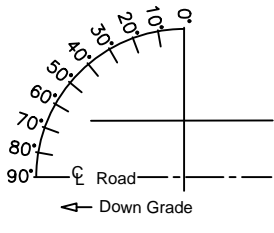


WATER BAR



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 \_\_\_\_\_, each fire trail will have cross drainage constructed as shown above.

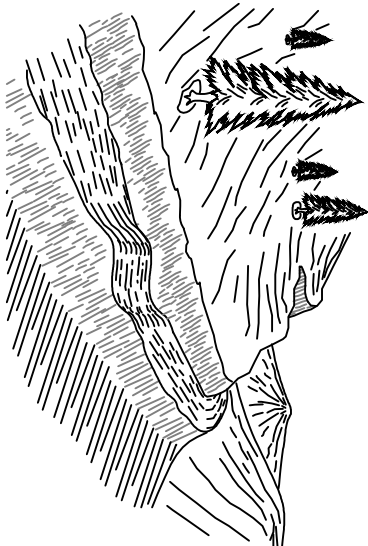
SKEW DIAGRAM



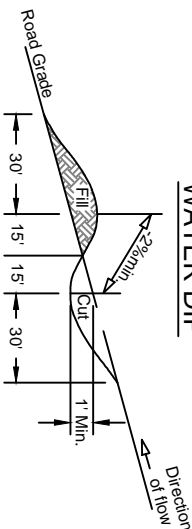
WATER DIP/BAR SPACING\*

ROAD GRADE	LOAM OR CLAY LOAM	DECOMPOSED LOAM	GRANITE
%	FEET	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.



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 passenger type vehicles.
5. Rock outlet of water dip on fill slope. Rock will be placed from outlet to natural ground a minimum of 6 LF wide by 10 LF long by 1 FT depth.

BARRICADE LOCATION

ROAD NUMBER	M.P. / STA.
TEMP ROUTE 1	0.01
TEMP ROUTE 2	0.01
TEMP ROUTE 3	0.01 & 0.12
TEMP ROUTE 4	0.01
TEMP ROUTE 5	0.01
TEMP ROUTE 6	0.01
TEMP ROUTE 7	0.01
TEMP ROUTE 8	0.01

UPPER COW  
TIMBER SALE  
DRAINAGE & EROSION  
CONTROL DETAILS

DESIGNED:	
REVIEWED:	
APPROVED:	
DRAFTED BY:	BLM
DATE:	DEC 2015
DRAWING NO.:	OR-11-9T13.4.4

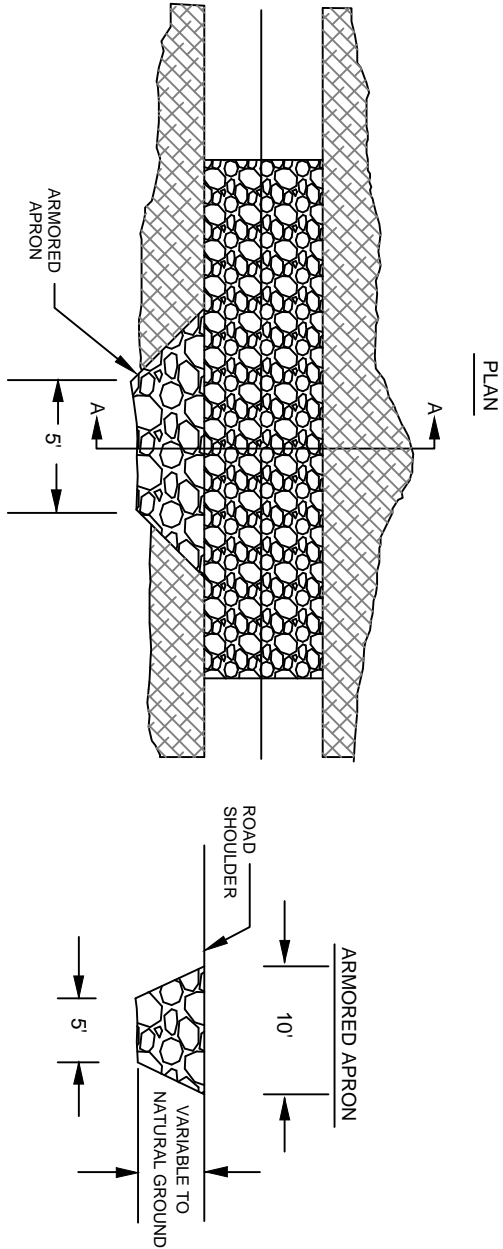
ALWAYS  
THINK  
SAFETY





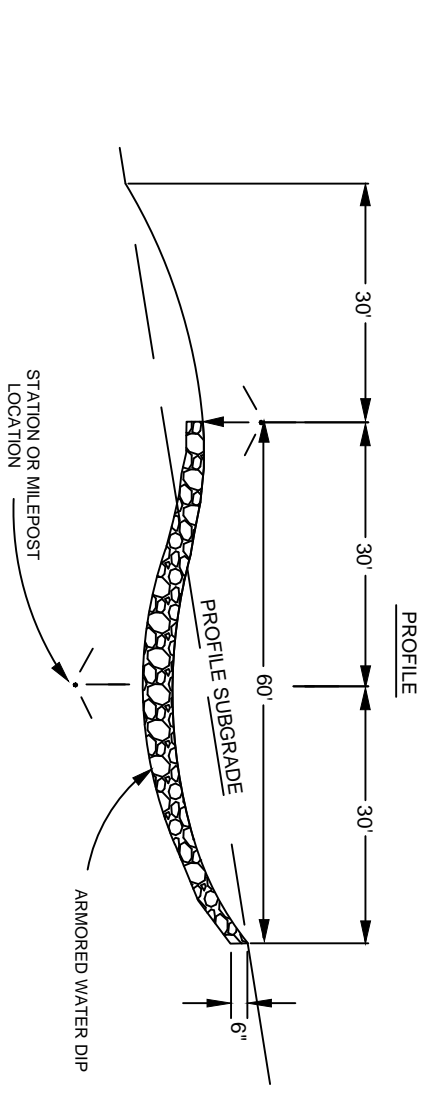
NOTES

- 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 AND SUBGRADE 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 3" MINUS ROCK, ON ROADWAY AND PIT RUN AT OUTFALL.

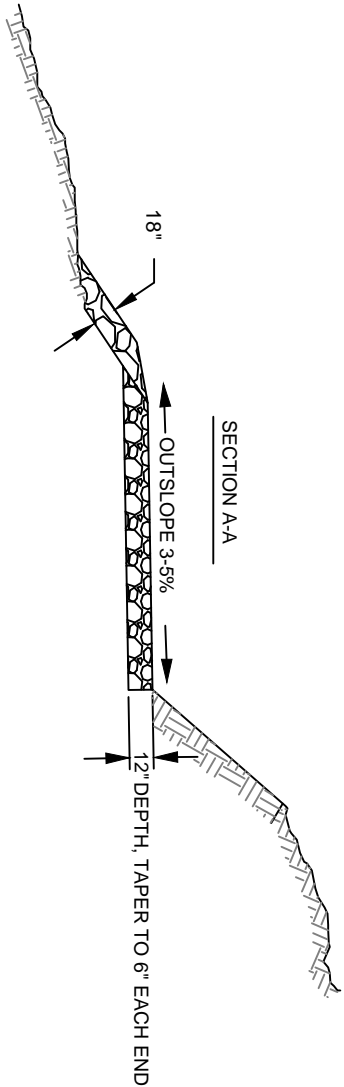


LEGEND

- CUT/FILL SLOPES
- SUBGRADE ARMOR MATERIAL (3" minus)
- FILL SLOPE ARMOR MATERIAL 12" MINUS OR OTHER APPROVED MATERIAL.



SECTION A-A



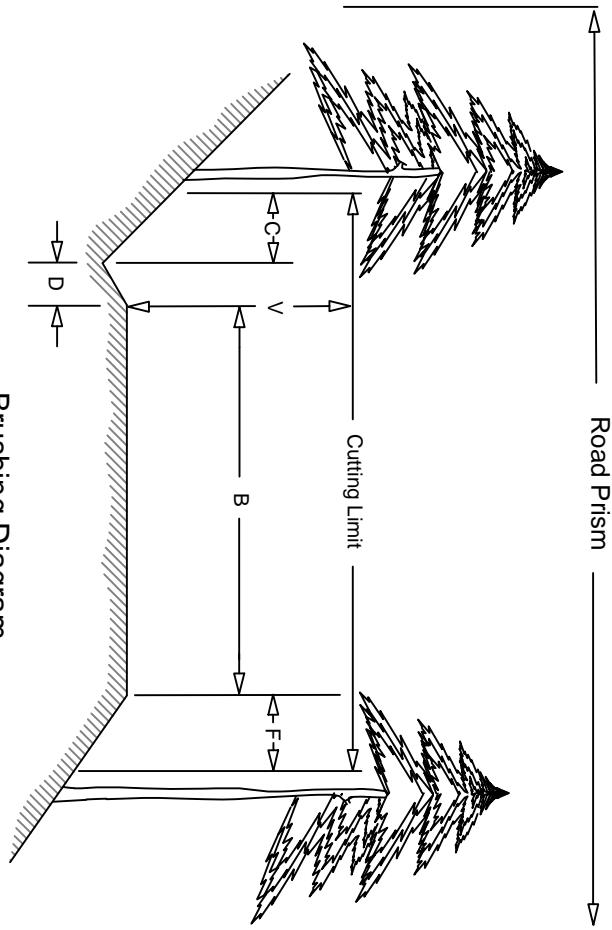
UPPER COW  
TIMBER SALE  
ARMORED WATER DIP

DESIGNED:	
REVIEWED:	
APPROVED:	
DRAFTED BY: BLM	SCALE: NONE
DATE: DEC 2015	SHEET: 1 OF 1
DRAWING NO.: OR-11-9113.4-1	

REV. NO.	DESCRIPTION	DATE	APPROV.

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





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".

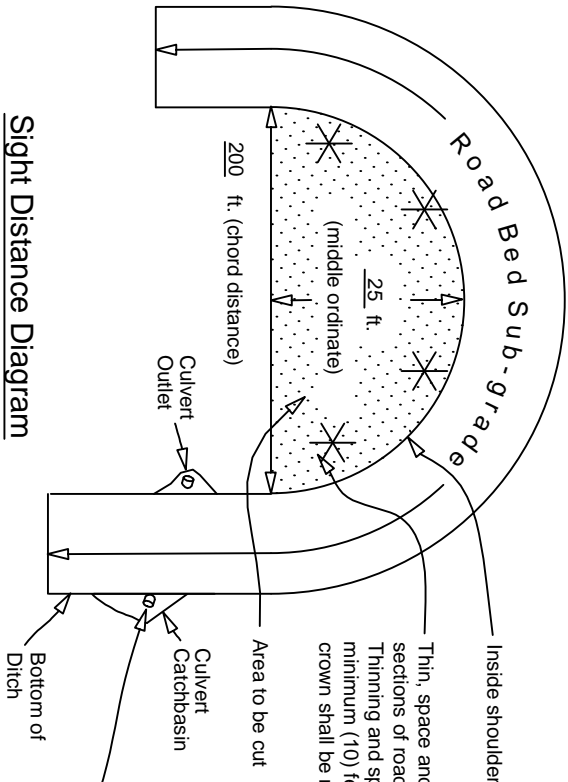
D = Centerline of ditch to inside shoulder. Cut all vegetation to max. height of 1".

F = 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 Diagram

Inside Corner



Sight Distance Diagram

Clear 4 ft radius around all culvert  
inlets and outlets. Tie ribbon at outlet.

ALWAYS

THINK

SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.

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

UPPER COW  
TIMBER SALE  
ROADSIDE BRUSHING DETAIL

DESIGNED:	
REVIEWED:	
APPROVED:	
DRAFTED BY: BLM	SCALE: NONE
DATE: JUNE 2016	SHEET: 1 OF 1
DRAWING NO.: OR-11-9113.4-4	



## Road Renovation Work List

### Definitions:

ABC = Aggregate Base Course  
CY = Cubic Yard  
MP = Mile Post  
Seg = Segment

ASC = Aggregate Surface Course  
CMP = Corrugated Metal Pipe  
NAT = Natural Road Surface

BST = Bituminous  
GRR = Grid Rolled Rock  
PRR= Pit Run Rock

*The existing road renovation work list consists of work to be performed to the road **prior** to its use. All work shall comply with the contract specifications and drawings.*

### 31-3-19.4

0.00 Begin Blading Jct w/ 31-4-25.0 . Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

0.32 EOR

### 31-3-19.5

0.00 Begin Blading Jct w/ 31-4-25.0 rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

0.14 EOR

### 31-3-19.6

0.00 Begin Blading Jct w/ 31-4-25.0 rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

0.12 EOR

### 31-3-31.0

0.00 Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

0.02 Replace CMP 18"x 36'

0.25 Replace CMP 18"x 40'

0.35 Replace CMP 18"x 40'

0.48 Replace CMP 18"x 40'

0.59 Replace CMP 18"x 40'

0.67 Replace CMP 18"x 40'

0.81 Replace CMP 18"x 40'  
0.89 Replace CMP 24" x 36'  
1.76 Replace CMP 24"x 40'  
1.81 EOR

**31-4-14.0**

0.00 Begin Blading Jct with 31-4-27.0  
0.51 End of Blading

**31-4-21.5**

0.00 Begin Blading Jct w/ 31-5-35.0  
0.06 End Blading

**31-4-23.1**

0.00 Begin Blading Jct w/ 31-4-27.0  
0.07 18" CMP  
0.08 18" CMP  
0.17 30" CMP  
0.22 18" CMP  
0.30 End of Blading

**31-4-23.2**

0.00 Jct with 31-5-35 Rd . Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.  
  
0.07 End of Blading

**31-4-25.0**

0.00 Jct w/ 31-4-27.0 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.  
  
0.01 Replace CMP 18" x 50'  
0.07 24" CMP  
0.15 24" CMP  
0.21 18" CMP  
0.26 18" CMP  
0.31 18" CMP  
0.39 18" CMP  
0.43 18" CMP  
0.49 24" CMP  
0.51 18" CMP  
0.57 18" CMP

0.66	18" CMP
0.72	18" CMP
0.79	18" CMP
0.83	18" CMP
0.88	18" CMP
0.96	18" CMP
1.06	18" CMP
1.09	18" CMP
1.16	Replace CMP 24" x 40'
1.27	18" CMP
1.33	Jct w/ 31-3-19.3
1.41	18" CMP
1.47	18" CMP
1.52	18" CMP
1.63	18" CMP
1.65	Jct w/ 31-3-19.0
1.69	Jct w/ 31-3-19.1
2.02	End of Blading

**31-4-25.0 SPUR**

0.00	Begin road renovation/construction which includes shaping road surface (blading, watering, and rolling) to road specifications.
------	---

0.27	EOR
------	-----

**31-4-25.2**

0.00	Jct w/ 31-4-27.0 (H). Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.
------	--

0.79	Jct w (H) unit
------	----------------

1.91	Jct w/ 31-3-19.1 End of Blading
------	---------------------------------

**31-4-25.5**

0.00	Jct w/ 31-4-27.0 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.
------	---

0.02	24" CMP
------	---------

0.49	EOR
------	-----



**31-4-26.0**

0.00 Jct w/ 31-4-27.0 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

0.18 18" CMP

0.22 End of blading

**31-4-27.0**

0.00 Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

0.06 Temp rd RT

0.11 31-4-27.4 LT

0.12 Unit 27-12 End

0.14 18" CMP

0.22 36" CMP

0.36 18" CMP

0.46 18" CMP

0.55 18" CMP

0.62 18" CMP

0.68 (H)

0.75 Spur RT

0.89 18" CMP , 31-4-27.6 LT

0.93 18" CMP

1.07 18" CMP

1.15 18" CMP

1.25 18" CMP

1.37 31-4-23.2 LT

1.45 18" CMP

1.52 18" CMP

1.58 18" CMP

1.62 31-4-23.1 RT

1.65 18" CMP

1.68 18" CMP

1.75 18" CMP

1.79 Unit 23-3n

1.81 18" CMP

1.86 18" CMP

1.90	18" CMP
2.00	18" CMP
2.15	Spider Jct.
2.23	18" CMP
2.28	Unit 23-2
2.41	18" CMP
2.52	18" CMP
2.55	18" CMP
2.60	18" CMP Unit 24-3
2.66	18" CMP
2.78	18" CMP
2.83	18" CMP
2.88	Jct with 31-4-25.2 LT
2.97	18" CMP
3.04	18" CMP
3.09	18" CMP
3.18	18" CMP * Replace with 18" X 30' CMP
3.27	Unit 25-7
3.35	18" CMP
3.42	Unit 25-37
3.48	18" CMP
3.57	18" CMP
3.63	18" CMP
3.66	Unit 25-12
3.83	Jct with 31-4-25.5 LT
4.17	EOR , Quarry

**31-4-27.0 SPUR**

0.00	Begin road renovation/construction which includes reshaping road surface (blading, watering, and rolling) to road specifications.
0.10	EOR

**31-4-30.0**

0.00	Jct with 31-5-35.0 (H). Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.
0.10	Unit 31-3 Begin
0.14	18" CMP
0.40	EOR

**31-4-31.0**

0.00	Jct with 32-4-6.0 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.
0.03	18" CMP with half round
0.07	60" CMP
0.26	18" CMP
0.28	18" CMP
0.31	Unit 5-4 Begin
0.33	18" CMP
0.38	18" CMP
0.49	18" CMP
0.53	Jct with 31-4-31 RT
0.58	Unit 5-4
0.61	18" CMP
0.62	Unit 5-4
0.73	18" CMP
0.76	EOR

**31-4-32.0**

0.00	Jct w/ 32-4-5.1 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.
0.01	Replace CMP 18"x40'
0.11	18" CMP
0.20	18" CMP
0.29	18" CMP
0.36	18" CMP
0.45	18" CMP
0.59	18" CMP
0.70	18" CMP
0.91	End of blading

**31-4-34.0**

0.00	Jct w/ 32-4-3.0 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.
0.33	Jct with 33-4 Spurs
0.94	18" CMP
1.27	18" CMP

1.39 18" CMP  
1.42 18" CMP  
1.56 End of blading

**33-4A SPUR**

0.00 Jct w/ 31-4-34.0 Rd. Begin road renovation /construction which includes reshaping road surface (blading, watering, and rolling) to road specifications.  
0.13 EOR

**33-4B SPUR**

0.00 Jct w/ 31-4-34.0 Rd. Begin road renovation /construction which includes reshaping road surface (blading, watering, and rolling) to road specifications.  
0.11 EOR

**31-4-35.4 SPUR**

0.00 Jct w/ 31-4-35.4 Rd. Begin road renovation /construction which includes reshaping road surface (blading, watering, and rolling) to road specifications.  
0.07 EOR

**31-4-35.5 SPUR**

0.00 Jct w/ 31-4-35.5 Rd. Begin road renovation /construction which includes reshaping road surface (blading, watering, and rolling) to road specifications.  
0.05 EOR

**31-4-36.0**

0.00 Jct with 31-4-25.5 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.  
0.16 EOR

**31-5-35.0**

0.00 Jct with 31-4-27.0 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.  
1.38 End of renovation.

**32-4-1.0**

0.00 Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.  
0.04 Bridge  
0.09 Replace CMP 24" x 40'  
0.46 Replace CMP 18" x 40'  
0.53 Replace CMP 18" x 40'  
0.85 Replace CMP 24" x 36'  
1.21 Replace CMP 24" x 40'

1.32	18" CMP
1.58	18" CMP
1.71	18" CMP
1.74	Repair 18" CMP
1.85	Jct w/ Spur
1.91	18" CMP
2.06	18" CMP
2.20	18" CMP
2.24	18" CMP
3.17	End of blading

**32-4-1.3**

0.00	Jct w/ 32-4-1.0 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.
0.28	EOR

**32-4-1.3 SPUR**

0.00	Begin road renovation /construction which includes reshaping road surface (blading, watering, and rolling) to road specifications.
0.43	End of blading/Renovation

**32-4-11.0**

0.00	Jct w/ 32-4-11.1 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.
0.48	18" CMP
0.98	End of blading

**32-4-13.0**

0.00	Jct with 32-4-1.0 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.
0.15	3-5 Yd <sup>3</sup> of Pit Run
0.24	4-5 Yd <sup>3</sup> of Pit Run
0.32	Unit 13-4
0.40	Unit 13-37 20 Yd <sup>3</sup> of Pit Run to MP 0.57
0.57	Unit 13-37
0.71	Unit End
0.98	Turn around

**32-4-13.2**

0.00 Jct with 32-4-1.0 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

0.10 Turn Out

0.26 Spider junction

0.37 Blading/Reshape through MP 0.83

0.83 EOR

**31-4-13.3**

0.00 Jct with 32-4-1.0 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

0.09 18" CPP

0.31 Unit 11-26, EOR

**31-4-13.3 SPUR**

0.00 Begin road renovation /construction which includes reshaping road surface (blading, watering, and rolling) to road specifications.

0.05 EOR

**31-4-13.4 SPUR**

0.00 Begin road renovation /construction which includes reshaping road surface (blading, watering, and rolling) to road specifications.

0.15 EOR

**32-4-15.0**

0.00 Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

0.42 End of renovations.

**32-4-2.0**

0.00 Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

0.19 Slide

0.49 Gate

0.50 Jct w 31-4-35

1.40 Replace CMP 24" x 40'

1.69 EOR

**32-4-27.3**

0.00 Jct with 32-4-27.3 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

0.24 EOR

**32-4-3.0**

0.00 Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

1.21 Replace CMP 24" x 40'

1.28 Replace CMP 24" x 40'

1.44 Replace CMP 24" x 40'

1.53 Replace CMP 24" x 50'

1.61 Replace CMP 24" x 40' , End of Blading

**32-4-3.2**

0.00 Jct with 32-4-3.0 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

0.29 Jct LT

0.80 EOR

**32-4-3.4**

0.00 Jct w/ 32-4-3.2 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

0.54 End of renovation.

**32-4-3.4 SPUR**

0.00 Jct with 32-4-3.2 Rd. Begin road renovation /construction which includes reshaping road surface (blading, watering, and rolling) to road specifications.

0.02 EOR

**32-4-4.0**

0.00 Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.

0.08 Bridge 32-4-4.08

0.10 End Bridge, Aggregate

0.40 18" CMP

0.51 18" CMP

0.66 18" CMP

0.68 Unit 9-1

0.70	Jct 32-4-9 LT
0.74	18" CPP
0.84	18" CMP
0.94	18" CMP
0.97	18" CMP , Spur LT
1.08	18" CMP
1.24	18" CMP
1.39	18" CMP
1.47	24" CMP
1.55	18" CMP
1.58	18" CMP
1.60	18" CMP
1.69	18" CMP
1.74	18" CMP
1.84	18" CMP
1.92	18" CMP
2.11	18" CMP
2.17	18" CMP
2.24	18" CMP
2.50	72" Squash pipe
2.54	Jct 32-4-15 RT
2.61	Box Culvert
2.77	18" CMP
2.85	18" CMP
2.91	18" CMP
2.96	18" CMP
3.05	Jct 32-4-22.0 LT
3.18	36" CMP
3.21	18" CMP
3.29	18" CMP
3.36	Jct32-4-22.1
3.41	18" CMP
3.48	18" CMP
3.57	12" CPP
3.69	Jct 32-4-22.2 LT
3.77	36" & 18" CMP
3.81	18" CMP
3.82	36" CMP



3.86	18" CMP
3.93	18" CMP
3.94	18" CMP
4.08	18" CMP
4.15	18" CMP
4.25	18" CMP
4.27	Jct 32-4-22.2 LT
4.30	18" CMP
4.52	12" CMP
4.60	18" CMP with full round
4.76	18" CMP
4.82	Unit 27-45
4.87	18" CMP
4.93	18" CMP
4.97	Unit 27-45
5.00	18" CMP
5.06	18" CMP
5.12	18" CMP
5.24	18" CMP
5.29	18" CMP
5.36	18" CMP
5.42	EOR , Turn Around

**32-4-4.0 SPUR**

0.00	Begin road renovation /construction which includes reshaping road surface (blading, watering, and rolling) to road specifications.
0.19	EOR

**32-4-5.1**

0.00	Jct with 31-4-31.0 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.
0.02	18" CMP
0.03	Unit 5-4
0.08	Unit 5-4
0.12	18" CMP
0.16	18" CMP Jct to LT
0.21	18" CMP End of Unit 5-4
0.37	18" CMP
0.43	18" CMP

0.49	18" CMP
0.61	Unit 32-7s
0.64	18" CMP
0.67	Unit 32-7s
0.71	18" CMP
0.77	18" CMP
0.81	Unit 32-4, Jct LT
0.86	Unit 32-4
0.94	18" CMP
0.98	18" CMP
1.02	18" CMP
1.07	18" CMP
1.19	18" CMP
1.30	Jct Spur RT
1.53	Jct RT (to 31-4-32)
1.71	18" CMP, Unit 25-1
1.80	18" CMP
1.86	18" CMP
1.95	18" CMP
2.02	Quarry (H)
2.18	18" CMP
2.30	18" CMP
2.40	EOR

**32-4-6.0**

0.00	BST
0.04	Aggregate. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.
0.31	18" CMP Replace with 24" X 40' CMP
0.42	Jct (LT)
0.51	24" CMP Failing Buried logs underneath Replace With 84" X 50' CMP
0.69	18" CMP Replace with 24" X 40' CMP
0.72	Jct w/ 31-4-41 (RT)
0.86	18" CMP Replace with 24" X 40' CMP
0.94	18" CMP Replace with 24" X 40' CMP
1.05	18" CMP
1.14	Jct w/ 31-4-31.1 (RT)
1.25	18" CMP Replace with 24" X 60' CMP

1.31 18" CMP Replace with 24" X 40' CMP  
1.32 Jct w/ 31-4-31.1 (RT)  
1.37 18" CMP  
1.44 18" CMP  
1.51 18" CMP small slide in ditch 18" X 40' CMP  
1.67 18" CMP  
1.68 Jct w/ two roads. Unit 31-6  
1.72 18" CMP  
1.86 Unit 11-6 End  
1.88 18" CMP  
1.95 18" CMP side cast build up  
2.06 Slide in ditch  
2.09 Slide, Blade Rock  
2.10 18" CMP outlet damaged  
2.20 18" CMP  
2.34 Unit 31-3 Begin  
2.40 18" CMP  
2.55 18" CMP  
2.70 18" CMP End 31-3 (RT)  
2.75 Unit 31-3 & 31-2 Begin

**32-4-7.2**

0.00 Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.  
0.07 Rock Ditch Work, Possible rock needed  
0.21 Gate Pvt  
0.26 Blade Rock corner  
0.28 Turnout  
0.64 Jct w/ 32-4-7.3 (RT) rd w/ pvt gate  
0.65 Turnout/ Watchman area  
0.70 Blading needed  
0.82 Small slide in Ditch  
0.86 18" CMP  
1.08 Unit 1-1b Begin, Property line  
1.09 18" CMP w/ downspout half round  
1.18 18" CMP  
1.26 18" CMP  
1.34 18" CMP

1.37	Unit 1-1b Unit end
1.39	18" CMP
1.40	Slide
1.41	18" CMP
1.52	18" CMP Replace With 24" X 40' CMP
1.57	Jct w/ 32-5-1.0 to (RT)
1.58	End Unit 1-1c Jct with 32-5-1.1 (LT)
1.73	Unit 1-1 Begin
1.96	End of Unit 1-1b
2.18	End of unit 1-1
2.57	Turn Around

**32-4-7.2 SPUR**

0.00	Begin road renovation /construction which includes reshaping road surface (blading, watering, and rolling) to road specifications.
0.03	EOR

**32-4-9.0**

0.00	Jct with 32-4-4.0 Rd. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.
0.07	18" CPP
0.13	Unit 9-1
0.14	18" CMP
0.23	18" CMP
0.31	18" CMP
0.36	18" CMP
0.50	18" CMP
0.56	18" CMP
0.57	18" CMP
0.71	18" CMP
0.84	18" CMP
0.91	18" CMP W/ Full Round
0.96	Spur RT
1.10	18" CMP
1.21	18" CMP
1.30	18" CMP
1.41	18" CMP
1.50	18" CMP
1.74	18" CMP

1.89	18" CMP
1.96	18" CMP
2.08	18" CMP
2.12	18" CMP
2.20	18" CMP
2.26	Jct with 32-4-3 LT
2.46	18" CMP
2.55	18" CMP
2.64	Jct with 32-4-3.2 RT
2.69	18" CMP half round
2.84	18" CMP
2.91	Unit 3-1
2.98	18" CMP with full round
3.12	18" CMP
3.20	18" CMP
3.44	18" CMP
3.55	18" CMP with full round
3.65	18" CMP with half round
3.72	Jct with Gate RT
4.06	18" CMP
4.21	18" CMP with half round
4.27	18" CMP
4.34	18" CMP
4.43	18" CMP
4.50	18" CMP
4.57	18" CMP
4.67	18" CMP
4.71	Spider Jct
4.95	32-4-11.6 RT
5.20	Jct with 32-4-15.0, Unit 11-26 – END

**32-5-1.0**

0.00	Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning all culvert inlets and outlets; and roadside brushing.
0.19	End of renovation.

**WRITTEN SPECIFICATIONS**  
**GENERAL – 100**

101 - Prewrite Conference(s):

A prework conference will be held prior to the start of any work or harvesting operations. The Purchaser shall request the conference at least 48 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 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:

<u>AASHTO T 11</u>	Quantity of rock finer than No. 200 sieve.
<u>AASHTO T 27</u>	Sieve analysis of fine and coarse aggregate using sieves with square openings; gradation.
<u>AASHTO T 89</u>	Liquid limit of material passing the No. 40 sieve. Water content at which the soil passes from a plastic to a liquid state.
<u>AASHTO T 90</u>	Plastic limits and plasticity index of soil. a. Plastic limit - lowest water content at which the soil remains plastic. b. Plasticity index - range of water content, within which the material is in a plastic state. Numerical difference between the liquid and plastic limits of the soil.
<u>AASHTO T 96</u>	Resistance to abrasion of small size coarse aggregate by use of the Los Angeles machine.
<u>AASHTO T 99</u>	Relationship between soil moisture and maximum density of soil. Method A - 4" mold, soil passing a No. 4 Sieve. 25 blows/layer & 3 layers. Method D - 6" mold, soil passing a 19.00mm (3/4 inches) sieve. 56 blows/layer & 5 layers.
<u>AASHTO T 176</u>	Shows relative portions of fine dust or claylike materials in soil or graded aggregate.
<u>AASHTO T 180</u>	(OSHD 106-71) moisture density relationship of soil same as AASHTO T 99 proctor but uses a 10-lb rammer & 18-in drop.
<u>AASHTO T 191</u>	<u>Sand Cone.</u> Density of soil in place: For subgrade use 6-inch or 12-inch cone. For rock surfacing for 1-1/2-inch minus to 3-inch minus use 12-inch cone.
<u>AASHTO T 205</u>	<u>Rubber balloon.</u> Density of soil in place. Use for compacted or firmly bonded soil.
<u>AASHTO T 210</u>	Durability of aggregates based on resistance to produce fines.
<u>AASHTO T 224</u>	Correction for coarse particles in the soil.
<u>AASHTO T 310</u>	Determination of density of soil and soil-aggregates in place by nuclear methods.
<u>AASHTO T 248</u>	Reducing field samples of aggregate to testing size by mechanical

splitter, quartering, or miniature stockpile sampling.

ASTM D 4564      Determination of relative density of cohesionless soils.

DMSO (dimethyl sulfide) - Determines volume of expanding clays in aggregates. Usually associated with marine basalts.

103 -      Compaction equipment shall meet the following requirements:

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

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.

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.
- 202 - Where clearing limits have not been posted, 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.
- 202a - Where clearing limits for structures have not been staked, the limits shall extend 10 feet out from the outside edge of the structure.
- 203 - Clearing shall consist of the removal and disposal of trees, logs, rotten material, brush, and other vegetative materials and surface objects in accordance with these specifications and within the limits established for clearing as specified under Subsections 202 and 202a, and as posted.
- 203b - Standing trees and snags to be cleared shall be felled within the limits established for clearing, unless otherwise authorized.
- 203c - Disposal of logs from private timber cleared within the limits established shall consist of decking at a location designated by the Authorized Officer.
- 204 - Grubbing shall consist of the removal and disposal of stumps, roots, and other wood material embedded in the ground and protruding obstacles remaining as a result of the clearing operation in accordance with Subsections 204c and 204e. Undisturbed stumps, roots and other solid objects which will be a minimum of 3 feet below subgrades or slope surfaces or embankments are excluded.
- 204c - On excavated areas, roots and embedded wood shall be removed to a depth not less than 6 inches below the subgrade.
- 204e - Roots and embedded wood material shall be removed to a depth not less than 1 foot below embankment subgrades or slope surfaces.
- 205 - Clearing and grubbing debris shall not be placed or permitted to remain in or under road embankment sections. Such debris will, however, be permitted to remain under waste material from full-bench construction on steep side slopes.

- 206 - Clearing and grubbing debris shall be disposed of by scattering in accordance with Subsection 210 and at the following road locations:

Road No.	From M.P.	To M.P.
31-4-25.0 SPUR	0.00	0.27
31-4-27.0 SPUR	0.00	0.10
33-4A SPUR	0.00	0.13
33-4B SPUR	0.00	0.11
31-4-35.4 SPUR	0.00	0.07
31-4-35.5 SPUR	0.00	0.05
32-4-1.3 SPUR	0.00	0.43
32-4-13.3 SPUR	0.00	0.05
32-4-13.4 SPUR	0.00	0.15
32-4-27.3 SPUR	0.00	0.24
32-4-3.4 SPUR	0.00	0.02
32-4-7.2 SPUR	0.00	0.03
Total		1.65

- 210 - Disposal of clearing and grubbing debris shall be by scattering over government owned lands outside of established clearing limits in a manner acceptable to the Authorized Officer. The areas for such scattering shall have the prior approval of the Authorized Officer.

- 210a - Disposal of clearing and grubbing debris on non-government property by scattering and/or 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.

Exhibit C12

Sale Name: Upper Cow T.S.

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- 212 - No grading will be permitted prior to completion and approval by the Authorized Officer of the required clearing and grubbing work, except that stump grubbing may proceed with the excavation of the road prism.
- 213 - No clearing or grubbing debris shall be left lodged against standing trees.

EXCAVATION AND EMBANKMENT - 300

- 301 - This work shall consist of excavating, overhaul, placement of embankments, backfilling, leveling, ditching, grading, out-sloping, 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 typical cross sections shown on the plans.
- 302 - Excavation shall also consist of the excavation of temporary route and landing cut sections, backfilling, leveling, ditching, grading, compaction, and other earth moving work necessary for the construction of the temporary routes in accordance with these specifications and conforming to the typical cross sections shown on the plans.
- 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.
- 305 - Embankment construction shall consist of the placement of excavated materials, backfilling, leveling, grading, compaction, and other earth-moving work necessary for the construction of the temporary routes and landings in accordance with these specifications and conforming to the typical cross sections shown on the plans.
- 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. Temporary route embankments of earth material shall be placed in horizontal layers not exceeding 8 inches in depth.
- 306a - Minimum compaction for each layer of embankment and selected temporary route excavation material placed at optimum moisture shall be 6 passes over each full-width layer or fraction thereof.
- 306g - All fill slopes shall be compacted to 85% of maximum density, either by walking with cat/excavator or by pressing with excavator bucket, to prevent surface erosion and raveling.
- 309 - The top of cut slopes shall be rounded by blending into the adjacent terrain for a distance not less than 1 foot and not more than 3 feet beyond the top of the cut. Rounding shall be performed in soils that can be shaped without ripping or blasting.

- 314 - When heavy clays, muck, clay shale, or other deleterious material for forming the temporary route 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 excavated 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 306g. Unsuitable material shall be disposed of as directed by the Authorized Officer.
- 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 end dumped and disposed of as directed by the Authorized Officer.
- 321c - End-dumping will be permitted for the placement of excess materials under Subsection 321 in designated disposal areas or within areas approved by the Authorized Officer. Watering, rolling, and placement in layers are not required. Materials placed shall be sloped, shaped, and otherwise brought to a visible condition acceptable to the Authorized Officer.
- 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.



PIPE CULVERTS - 400

401 - This work shall consist of furnishing and installing pipe culverts and half round downspouts 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.

402 - The pipe culverts shall be installed on the following roads and location locations:

Road No.	M.P.
31-3-31	0.02,0.25,0.35,0.48,0.59,0.67,0.81,0.89,1.76
31-4-25.0	0.01,1.16
31-4-27.0	3.23
31-4-31.0	0.04,0.14,0.58,0.65,0.78
31-4-31.0	0.01
32-4-1.0	0.09,0.46,0.53,0.85,1.21
32-4-2.0	1.40
32-4-3.0	1.21,1.28,1.44,1.53,1.61
32-4-4.0	2.83,4.23,5.61
32-4-6.0	0.35,0.53,0.64,0.72,0.78,0.98,1.22,1.35,1.56
32-4-7.2	1.67

403 - Grade culverts shall have a gradient of from 2 percent to 4 percent greater than the adjacent road grade, except grades shall not exceed 10 percent. 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 shall conform to the requirements of AASHTO M 274.

- 406a - "Hugger"-type coupling bands shall only be used with annular corrugated pipe culverts, or helically corrugated pipe culverts having annular reformed ends. Annular reformed ends shall consist of 2 annular corrugations.
- 408 - Pipe culverts and 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 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 shall be bedded on a fine readily compactable soil material having a depth of not less than 10 percent of the diameter or height of the drainage structure concerned or a minimum depth of:

Pipe Corrugation Depth	Minimum Bedding Depth
1/2 inch	1 inch
1 inch	2 inches
2 inches	3 inches

Foundation material shall be of uniform density throughout the length of the structure and shall be shaped to fit the pipe.

- 414 - The invert grade of the bedding shall be cambered in accordance with the requirements and details shown on the plans and as directed by the Authorized Officer.
- 416 - Side-fill material for pipe culverts shall be placed within 1 pipe diameter, or a minimum of 2 feet, of the sides of the pipe barrel, and to 1 foot over the pipe with fine, readily compactable soil 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, 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.
- 427 - The Purchaser shall record culvert sizes, lengths and location actually installed, where they vary from the plans, on a copy of the culvert list. This culvert list shall be furnished to the Authorized Officer.
- 428 - The Purchaser shall be responsible for removal and disposal of the old culverts in a legal manner, and for any fees required. The Purchaser shall remove the old culverts from the project site prior to acceptance of road construction for each road renovation.
- 429 - Dewatering: Keep excavation site dewatered so that installation of culverts are completed under dry conditions. Dispose of excess water by using pumping or natural drainage ways near the site and in a manner that will avoid damage to adjacent property. Provide for downstream water flow 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 OF EXISTING ROADS - 500

- 501 - This work shall consist of reconditioning and preparing the roadbed and shoulders, 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 and as marked on the ground with stakes.
- 502 - The existing road surface shall be scarified to its full width and to a depth of 6 inches to eliminate surface irregularities, bladed, shaped, watered, and rolled to the lines, grades, dimensions, and typical cross sections shown on the plans at the following location(s):
- 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 surfaces shall be uniformly moistened or dried to the optimum moisture content suitable for maximum density and compacted to full width with equipment conforming to requirements of Subsections 103f, 103g, and 103i and in accordance with the following table:
- 504a - Minimum compaction required shall be 6 passes over each full-width layer, or fraction thereof, as measured along the centerline per layer of material.
- 506 - The inlet end of all existing drainage structures

Road No. and Segment	Length Miles Used	Road Control	Road Surface Type
31-3-31	1.81	BLM	GRR
31-4-14.0	0.51	BLM	GRR
31-4-23.1	0.30	BLM	GRR
31-4-23.3	0.27	BLM	GRR
31-4-25.0	1.45	BLM	GRR
31-4-25.2	1.18	BLM	GRR
31-4-25.5	0.49	BLM	GRR
31-4-26.0	0.22	BLM	PRR
31-4-27.0	2.16	BLM	PRR
31-4-30	0.43	BLM	PRR
31-4-31.0	0.79	BLM	PRR

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31-4-32.0	0.91	BLM	PRR
31-4-34.0	1.56	BLM	PRR
31-4-36.0	0.16	BLM	PRR
31-5-35.0	1.38	BLM	PRR
32-4-1.0	1.12	BLM	PRR
32-4-1.3	0.28	BLM	GRR
32-4-11.0	0.98	BLM	PRR
32-4-13.0	0.73	BLM	PRR
32-4-13.2	0.97	BLM	PRR
32-4-13.3	0.15	BLM	PRR
32-4-15.0	0.42	BLM	PRR
32-4-2.0	1.69	BLM	PRR
32-4-27.3	0.24	BLM	PRR
32-4-3.0	1.61	BLM	PRR
32-4-3.1	0.80	BLM	PRR
32-4-3.4	0.54	BLM	PRR
32-4-4.0	5.42	BLM	PRR
32-4-5.1	1.55	BLM	PRR
32-4-6.0	3.16	BLM	PRR
32-4-7.2	2.57	BLM	PRR
32-4-9.0	5.20	BLM	PRR
32-5-1.0	0.19	BLM	PRR
32-4-13.3	0.24	Silver Butte	GRR
32-4-13.2	0.38	Silver Butte	GRR
32-4-1	1.36	Silver Butte	GRR
31-4-23.6	0.30	Roseburg Resources	GRR
31-4-24.3	0.12	Roseburg Resources	GRR
31-4-24.4	0.40	Roseburg Resources	GRR
31-4-25.2	0.74	Roseburg Resources	GRR
31-4-25.0	0.57	Roseburg Resources	GRR
31-5-35.0(M)	0.84	Seneca Jones Timber Co.	GRR

shall be cleared of vegetative debris and boulders that 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 all 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.

- 509 - The finished grading shall be approved in writing by the Authorized Officer 2 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 roadbeds, backfills, surface courses, finishing and reconditioning of existing roadbeds, laying dust, or for other uses in accordance with these specifications.
- 602 - Water, when needed for compaction or laying dust, shall be applied at the locations, in the amounts, and during the hours as directed by the Authorized Officer. Amounts of water to be provided will be the minimum needed to properly execute the compaction requirements in conformance with these specifications, and for laying dust during work periods.
- 603 - Water trucks used in this work shall be equipped with a distributing device of ample capacity and of such design as to ensure uniform application of water on the road bed.
- 605 - The Purchaser shall secure the necessary water permits and pay all required water fees for use of water sources selected by the Purchaser and approved by the Authorized Officer.

AGGREGATE BASE COURSE - 700  
PITRUN ROCK MATERIAL

- 701 - This work shall consist of furnishing, hauling and placing one or more layers of pitrun rock material on roadbeds and waterdips approved for placing pitrun materials in accordance with these specifications and conforming to the dimensions and typical cross sections shown on the plans.
- 702a - Pitrun rock materials used in this work may be obtained from source selected by the Purchaser at his option, providing the materials furnished comply with these specifications and the source is 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.
- 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.
- 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. Notification for final inspection prior to rocking shall be 72 hours prior to the inspection and shall be 10 days prior to start of surfacing operations.
- 709 - Pitrun rock material shall be placed on roadbed waterdip, blade processed and spread to required dimensions.
- 710 - Pitrun rock material shall be compacted by routing construction and hauling equipment over the full width of each layer placed.
- 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 furnishing, hauling, and placing one or more layers of crushed rock material on roadbeds 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.
- 1202a - Crushed rock materials used in this work may be obtained from commercial sources 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. If necessary to meet the above requirements or to eliminate an excess of filler, the gravel shall be screened before crushing.
- 1204 - Crushed rock material shall consist of hard durable rock fragments conforming to the following gradation requirements:

TABLE 1204

AGGREGATE SURFACE COURSE  
CRUSHED ROCK MATERIAL

Percentage by weight passing square mesh sieves  
AASHTO T 11 & T 27

GRADATION

Sieve Designation	C	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.
- 1207 - That portion of crushed rock material passing the No. 40 sieve, including blending filler, shall have a liquid limit of not more than 35 and a plasticity index of not less than 4 and not more than 12 as determined by AASHTO T 89 and AASHTO T 90.
- 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:

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

- 1209 - Shaping and compacting of roadbed shall be completed and approved in writing, prior to placing crushed rock material, in accordance to the requirements of Subsections 300 and 500. Notification for final inspection prior to rocking shall be 72 hours prior to the inspection and shall be 10 days prior to start of surfacing operations.
- 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. Compacted layers shall not exceed 4 inches in depth. When more than one layer is required, each shall be shaped, processed, compacted, and approved by the Authorized Officer before the succeeding layer is placed. Irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and then adding or removing crushed rock material until the surface is smooth and uniform.
- 1210a - Crushed rock material used to repair or reinforce soft, muddy, frozen, yielding, or rutted roadbed shall not be construed as surfacing required by this specification.
- 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, or 103i. Minimum compaction shall be 6 passes over each full-width layer, or fraction thereof.

- 1213a - Each layer of crushed aggregate surface rock placed, processed, and shaped in accordance with these specifications shall be uniformly moistened or dried to the optimum moisture content suitable for maximum compaction and compacted to full width until a uniform density of not less than 85 percent of the maximum density is attained.

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 and as shown on the plans. This work is required for road acceptance under Section 18 of this contract.
- 1802a - Soil stabilization work consisting of seeding and mulching shall be performed on new temporary route construction, road renovation, disturbed areas, and disposal sites in accordance with these specifications.
- 1803 - Soil stabilization work as specified under Subsection 1802a shall be performed during the following seasonal periods:

From: September 15 <sup>th</sup>	To: October 31 <sup>st</sup>
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If soil stabilization of disturbed areas is not completed by the specified fall date, the Purchaser shall treat disturbed areas and then complete the requirements of Soil Stabilization 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.
- 1811 - The Purchaser shall apply to approximately 1.30 acres designated for treatment as specified under Subsections 1802a and 1806a, Government furnished native grass seed and Purchaser furnished mulch material at the following rate of application:

a. Two Stage Dry:

Native Grass Seed	10 lbs./acre
Mulch (weed free)	2,000 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 1802a and 1806a, native 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, or other approved mechanical seeding equipment may be used when seed 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.
- 1824 - Twine, rope, sacks, and other debris resulting from the soil-stabilization operations shall be picked up and disposed of to the satisfaction of the Authorized Officer.

ROADSIDE BRUSHING - 2100

- 2101 - This work shall consist of the removal of vegetation from the road prism - variable distance, and inside curves in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the Roadside Brushing Detail Sheet of this exhibit, at designated locations as shown in the plans.
- 2102 - Roadside brushing may be performed mechanically with self-powered, self-propelled equipment or manually with hand tools, including chain saws.
- 2103 - Vegetation cut manually and/or mechanically less than 6 inches in diameter when measured at DBH 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 sloped and all limbs below the 1 inch area will be severed from the trunk.
- 2103a - Vegetation shall be cut and removed from the road bed between the outside shoulders 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 DBH 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 inch 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.

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- 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 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.
- 2113 - Roadside brushing shall be accomplished as shown on the plans and as listed below:

Road No. and Segment	Length Miles Used	Road Control	Road Surface Type
31-3-19.4	0.32	BLM	NAT
31-3-19.5	0.14	BLM	NAT
31-3-19.6	0.12	BLM	NAT
31-3-31	1.81	BLM	GRR
31-4-14.0	0.51	BLM	GRR
31-4-21.5	0.06	BLM	NAT
31-4-23.1	0.30	BLM	GRR
31-4-23.2	0.07	BLM	NAT
31-4-23.3	0.27	BLM	GRR
31-4-23.3 SPUR	0.11	BLM	NAT
31-4-25.0	1.45	BLM	GRR
31-4-25.0 SPUR 1	0.27	BLM	NAT
31-4-25.0 SPUR 2	0.08	BLM	NAT
31-4-25.2	1.18	BLM	GRR
31-4-25.5	0.49	BLM	GRR
31-4-26.0	0.22	BLM	PRR
31-4-27.0	2.16	BLM	PRR
31-4-27.0 SPUR	0.10	BLM	NAT

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31-4-30	0.43	BLM	PRR
31-4-31.0	0.79	BLM	PRR
31-4-32.0	0.91	BLM	PRR
31-4-34.0	1.56	BLM	PRR
31-4-34.3 SPUR	0.13	SENECA	NAT
31-4-34.4 SPUR	0.11	SENECA	NAT
31-4-35.4 SPUR	0.07	BLM	NAT
31-4-35.5 SPUR	0.05	BLM	NAT
31-4-36.0	0.16	BLM	PRR
31-5-35.0	1.38	BLM	PRR
32-4-1.0	1.12	BLM	PRR
32-4-1.3	0.28	BLM	GRR
32-4-11.0	0.98	BLM	PRR
32-4-11.5	1.37	BLM	NAT
32-4-13.0	0.73	BLM	PRR
32-4-13.2	0.97	BLM	PRR
32-4-13.3	0.15	BLM	PRR
32-4-13.4 SPUR	0.15	BLM	NAT
32-4-15.0	0.42	BLM	PRR
32-4-2.0	1.69	BLM	PRR
32-4-27.3	0.24	BLM	PRR
32-4-3.0	1.61	BLM	PRR
32-4-3.1	0.80	BLM	PRR
32-4-3.2	0.15	BLM	NAT
32-4-3.4	0.54	BLM	PRR
32-4-4.0	5.42	BLM	PRR
32-4-5.1	1.55	BLM	PRR
32-4-6.0	3.16	BLM	PRR
32-4-7.2	2.57	BLM	PRR
32-4-9.0	5.20	BLM	PRR
32-5-1.0	0.19	BLM	PRR

32-4-13.3	0.24	Silver Butte	GRR
32-4-13.2	0.38	Silver Butte	GRR
32-4-1	1.36	Silver Butte	GRR
31-4-23.6	0.30	Roseburg Resources	GRR
31-4-24.3	0.12	Roseburg Resources	GRR
31-4-24.4	0.40	Roseburg Resources	GRR
31-4-25.2	0.74	Roseburg Resources	GRR
31-4-25.0	0.57	Roseburg Resources	GRR
31-5-35.0(M)	0.84	Seneca Jones Timber Co.	GRR
<b>Total</b>	<b>48.41</b>		

- 2115 - Sections of roadway to have vegetation removed will be marked at start and stop points with one piece each of white and red ribbon tied to red-topped painted stakes.
- 2116 - Mechanical brush cutters shall not be operated when there are people and occupied vehicles within 400 feet of the immediate operating area.
- 2117 - Traffic warning signs shall be required at each end of the work area. Signs shall meet the requirements of the current version of the Manual on Uniform Traffic Devices.

DECOMMISSIONING – 2600

- 2601 - Decommissioning includes ripping, installing water bars, placement of slash and soil stabilization material, and blocking road from access by vehicles. This work is required for road acceptance under Section 18 of this contract.
- 2603 - Decommissioning shall be performed on all temporary routes in accordance with these specifications.
- 2604 - Decommissioning work shall be completed after timber extraction, logging activities, and after road use.
- 2605- Fill material used in the construction of temporary route beds will be pulled back, properly placed, and stabilized on a sub-soiled running surface for re-establishment of the original ground line.
- 2606 - Stockpiled slash shall 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. All slash stockpiles created by the purchaser shall be utilized for decommissioning operations. Where slash is not available or no longer remaining, exposed soil areas shall be stabilized in accordance with section 1800 – Soil Stabilization.
- 2608 - Protect areas mulched and treated with slash placement from damage by Purchaser traffic or construction equipment. Damaged areas shall be repaired by the Purchaser.
- 2609 - Access shall be blocked with barricades as shown on the typical detail sheet and at locations listed on Exhibit C11.
- 2610 - All vegetation and slash shall be removed from the immediate area designated for excavation. Temporary routes shall be cleared of all vegetation and slash prior to ripping. The resultant slash shall be stockpiled in a manner that will allow retrieval and uniform spreading in accordance with section 2606. No vegetation or slash shall be mixed with excavated material to be placed.
- 2613 - Water bars shall be installed across full width of temporary routes. Water bars shall be constructed as shown on Exhibit C8.
- 2614 - Protection of exposed surfaces shall be accomplished by placement of soil stabilization material in accordance with section 1800 and placement of slash described in section 2606 on temporary routes, disturbed areas, landings, cut banks, fill slopes and other areas disturbed by the purchaser's decommissioning operations in accordance with these specifications and as shown in the plans.





## SPECIAL PROVISIONS

1. Before the initial start of road renovation, construction, reconstruction, or surfacing operations, or after a shutdown of 7 or more days, the Purchaser shall notify the Authorized Officer 48 hours in advance of the date they plan to begin operations. The Purchaser shall also notify the Authorized Officer if they intend to cease operations for any period of 30 or more days.
2. 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. 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**. Certified weed free straw mulch will be the responsibility of the contractor.
4. All stream channel culvert inlets shall be cleaned between **July 1<sup>st</sup> and September 15<sup>th</sup>** in accordance with Oregon Department of Fish and Wildlife (ODFW) in-stream work period guidelines.
5. 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.
6. Roadside brushing cutting limits beneath or adjacent to bridges shall extend 8 feet horizontally from each side of the outermost projected line of the bridge including abutments, curbs, rails or decks. Cut brush and trees shall be removed from beneath the bridge and from the stream channel.
7. While roadside brushing, there shall be no scarring or any other damage of the tree trunk or bole allowed. All debris resulting from roadside brushing activities shall be scattered downslope. Use of Excavators for brush removal will be at the discretion of the Authorized Officer. **All culvert inlets and outlets shall be brushed for a radius of 4 feet.**
8. While roadside brushing through private industry lands, conifer trees at the edges of the cleared area (see cutting limit, Exhibit C10) shall have the branches pruned rather than being felled.
9. All stumps, designated by the Authorized Officer, which would interfere with normal blading and road renovation operations (including turnouts), shall be removed in such a way as to not cause damage to the drainage ditch or the road bed. Stumps that are ground-down, shall be ground to a minimum of 3 inches below existing grade.

10. Decommissioning of temporary spurs: fill material used in the construction of temporary route beds will be pulled back, properly placed, and stabilized on a sub-soiled running surface for re-establishment of the original ground line.

UNITED STATES  
DEPARTMENT OF INTERIOR  
BUREAU OF LAND MANAGEMENT

ROAD MAINTENANCE SPECIFICATIONS

INDEX

3000	GENERAL MAINTENANCE
3100	OPERATIONAL MAINTENANCE
3200	SEASONAL MAINTENANCE
3300	FINAL MAINTENANCE
3400	OTHER MAINTENANCE

GENERAL MAINTENANCE – 3000

- 3001 The Purchaser shall be required to maintain all roads listed and/or referenced in section 41, as shown on the Exhibit D maps of this contract in accordance with Sections 3000, 3100, 3200, 3300, and 3400 of this exhibit.
- 3002 The Purchaser shall maintain the cross section of existing dirt or graveled roads to the existing geometric standards. Any roads required to be reconstructed, 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 road(s) 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.
- 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 and 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 15 station yards at any one site, the Purchaser and the Authorized Officer or their Authorized Representatives shall agree in writing, in the field, to the quantity of material, method of disposal, and the disposal site. Work may commence immediately after agreement.

Upon completion of agreed upon work, a reduction in timber sale purchase price will be made to offset the cost of the work, based on the 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 15 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 15 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 remove 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 cutting and chipping in accordance with Section 2100 of the Exhibit C-9 Specifications.

- 3108 The Purchaser shall avoid fouling gravel surfaces through covering with earth and debris from side ditches, slides or other sources. The Purchaser shall also avoid blading surfacing material off the running surface of the roadway. Skidding of logs

on the roadway, in or outside designated logging units, is not authorized without prior written approval by the Authorized Officer. Repairs required, that were caused by such skidding activities, are not considered maintenance and shall be repaired at the Purchaser's expense.

- 3108a The Purchaser shall perform logging operations on gravel roadways only where the locations have been marked on the ground and/or approved by the Authorized Officer.

#### SEASONAL MAINTENANCE - 3200

- 3201 The Purchaser shall perform preventative maintenance at the end of Purchaser's hauling each season and during non-hauling periods which occur between other operations on the contract area. This includes requirements specified in Section 3100.
- 3202 The purchaser shall perform and complete maintenance specified in Sections 3000, 3100, and 3200 on all roads maintained by him, prior to October 1<sup>st</sup> 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 preceding operating seasons.
- 3203 The Purchaser shall complete road cleanup and maintenance, as specified in Section 3100, at the completion of logging operations on any roads located in an area separate from the area where logging activities will resume.
- 3204 The Purchaser shall be responsible for performing post storm inspections and maintenance during the winter season to minimize erosion and potential road or watershed damage.

#### FINAL MAINTENANCE - 3300

- 3301 The Purchaser shall complete final maintenance and/or damage repairs on all roads used under terms of their contract within thirty 30 calendar days following the expiration of Purchaser's right to cut and remove timber (Sec. 4) and in accordance with Sec. 16(b) of this contract. This work shall include any maintenance and/or damage repairs specified in Sections 3000, 3100, and 3200 necessary to meet the conditions specified in Subsection 3002 and shall be executed in accordance with Subsection 3302 of this section.

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

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

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

#### OTHER MAINTENANCE - 3400

- 3401 The Purchaser shall repair any damage to road surfaces that was specified under Subsection 3108 and 3108a. This repair includes restoring the roadway to the designed standard and replacement of surfacing with approved surface material. This repair is not limited to use of equipment specified in Subsection 3104.

- 3402 The Purchaser shall be permitted to remove ice and snow from roads authorized for use under this contract only when prior written approval has been secured from the Authorized Officer. The Purchaser shall submit a written request for permission to remove ice and snow in advance of the date operations are to begin.

Upon receiving written authorization for ice or snow removal, the Purchaser will perform the work according to the conditions and equipment requirements set forth in the authorization.

- 3403 The Purchaser shall be required to furnish and apply non-saline water during dry hauling periods, when directed by the Authorized Officer, for the purpose of laying dust and to prevent loss of surface material. The first application of water shall be made at the rate of one-half gallon per yd<sup>2</sup> of road surface traveled. Subsequent applications shall be made for each 40 MBF of timber or 120 yds<sup>3</sup> of rock hauled. Subsequent watering may be done at a rate less than one-half gallon per yd<sup>2</sup> when a



specified lesser rate is approved by the Authorized Officer.

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.

During drought periods when the transportation of water from the source to the roads noted above exceeds (20) 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.

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

- 3404 The Purchaser may at his option and expense substitute lignin sulfonate or magnesium chloride for water on any or all road segments listed in Subsection 3403 or 3403a provided that written approval is received from the Authorized Officer. Such authorization shall include the approval of product specifications for the application of the product to be used. Multiple applications may be required to maintain the conditions specified in Subsection 3403.
- 3405b The Purchaser shall notify affected residents along the roads to be treated of the planned application of lignin sulfonate or magnesium chloride dust palliatives at least (3) days prior to the work. Warning signs shall be posted at key intersections to alert users that the road is being treated. All signs shall be removed by the Purchaser within thirty (30) days of treatment.
- 3406 Prior to the application of lignin sulfonate or magnesium chloride dust palliatives, the roadbed shall be bladed and shaped to remove surface irregularities and excess loose material. The prepared surface must be visibly moist and drying.
- 3406b A light application of water to promote penetration shall be made in advance of the application of the specified dust palliative to allow the drying process to begin and to eliminate any saturated surface conditions.
- 3406c The prepared roadbed shall be approved by the Authorized Officer prior to application of the specified dust palliative.
- 3407 The Purchaser shall furnish in duplicate, commercial certification signed by vendor of compliance with the lignin sulfonate or magnesium chloride dust palliatives material requirements specified under Subsection (3412b) (3412c). Commercial certification

- includes the date, identification number of truck or trailer, net mass, and brand name with each shipment. Also provide the net volume and specific gravity at 60 degrees F, percent solids by mass, and PH.
- 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.
- 3411 If used, lignin sulfonate or magnesium chloride dust palliatives shall only be applied when the atmospheric temperature is 45° F and steady or rising and when the weather is not foggy or rainy. Do not apply dust palliative if rain is anticipated within 24 hours of application or when the ground is frozen.
- 3412 If used, the Purchaser shall apply to the prepared roadbed specified under Subsection 3406, a lignin sulfonate or magnesium chloride dust palliative conforming to the material requirements of Subsection (3412b) (3412c). The rate of application shall be (0.5) gallons per yd<sup>2</sup> surface.
- Applied materials not penetrating the road surface shall be blade mixed with additional water into the top 1 to 1½ inches of the surfacing at the Contractor's expense.
- 3412a If required, the lignin sulfonate or magnesium chloride shall be field diluted within the application vehicle and be circulated at least 5 minutes to assure mixing. An air gap shall be provided between any water source and the materials being diluted. Accidental spills shall be contained to prevent entry in water courses or ponded water. The surface of adjacent structures and trees shall be protected from spattering or marring.
- A wetting agent may be used in addition to the certified compound or mixed with the road surface preparation watering. A mix of less than 1:6000 is recommended.
- Water used to dilute lignin sulfonate or magnesium chloride concentrate shall be clean and free of oil, salt, acid, alkali, vegetable matter, or any other substance that contaminates the finished product.
- 3412b Specifications for Lignin Sulfonate:
- Lignin sulfonate shall be the chemical residue produced as a byproduct of the acid

sulfite pulping process and supplied as a water solution. The base cation shall be ammonia, calcium, or sodium. The product shall be water soluble to allow field dilution. Dilute with water until the mixture contains a minimum 48 percent concentration with the following properties:

Solids	50%
Specific gravity	1.25
PH, AASHTO T289	4.5 min.

Ensure that the material does not exceed the following chemical constituents:

phosphorous	25.00 ppm
cyanide	0.20 ppm
arsenic	5.00 ppm
copper	0.20 ppm
lead	1.00 ppm
mercury	0.05 ppm
chromium	0.50 ppm
cadmium	0.20 ppm
barium	10.00 ppm
selenium	5.00 ppm
zinc	10.00 ppm

Apply when the ambient air temperature is 45° F or above.

3412c Specifications for magnesium chloride:

The material shall consist of a brine containing 29 to 35 percent (magnesium chloride) (calcium chloride) by weight and 62 to 72 percent water by weight. Ensure that the material does not exceed the following chemical constituents:

phosphorous	25.00 ppm
cyanide	0.20 ppm
arsenic	5.00 ppm
copper	0.20 ppm
lead	1.00 ppm
mercury	0.05 ppm
chromium	0.50 ppm
cadmium	0.20 ppm

barium	10.00 ppm
selenium	5.00 ppm
zinc	10.00 ppm
sulfate	4.3 percent maximum
nitrate	5.0 percent maximum.

Concentration specifications for Magnesium chloride

- |                                    |                  |
|------------------------------------|------------------|
| (1) Magnesium chloride by mass     | 28% minimum      |
| (2) Water by mass                  | 72% maximum      |
| (3) Specific gravity, AASHTO T 227 | 1.290 to 1.330 ) |

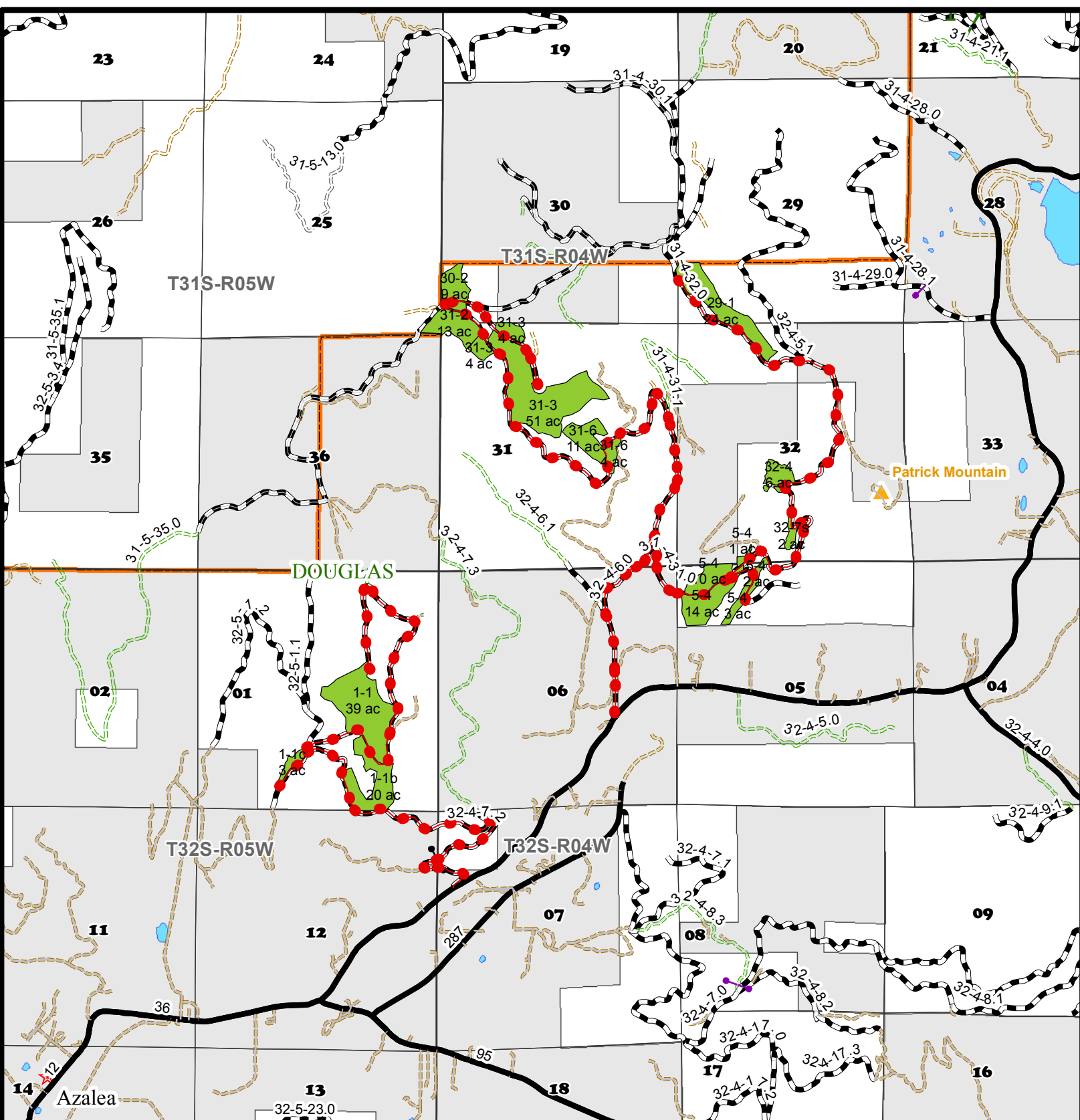
Apply when the ambient air temperature is 45° F or above.

3413        Sampling of lignin sulfonate or magnesium chloride material may be required to validate certificates furnished by the Purchaser. When sampling is directed by the Government, the actual samples will be taken by the Purchaser or his representative in the presence of the Authorized Officer.



# UPPER COW TIMBER SALE

EXHIBIT D-2



## Legend

●—● Maintenance

### Road Surface

— Bituminous

- - - Aggregate

- - - Natural

- - - Unknown

- - - <Null>

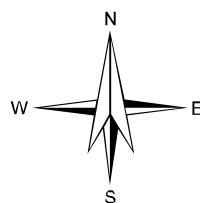
### Ownership

□ Bureau of Land Management

□ Other

■ Upper Cow Units

0 0.25 0.5 0.75 1 Mile



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

## UPPER COW TIMBER SALE ROAD MAINTENANCE

DESIGNED: \_\_\_\_\_

REVIEWED: \_\_\_\_\_

APPROVED: \_\_\_\_\_

DRAFTED BY: CLS

SCALE: AS SHOWN

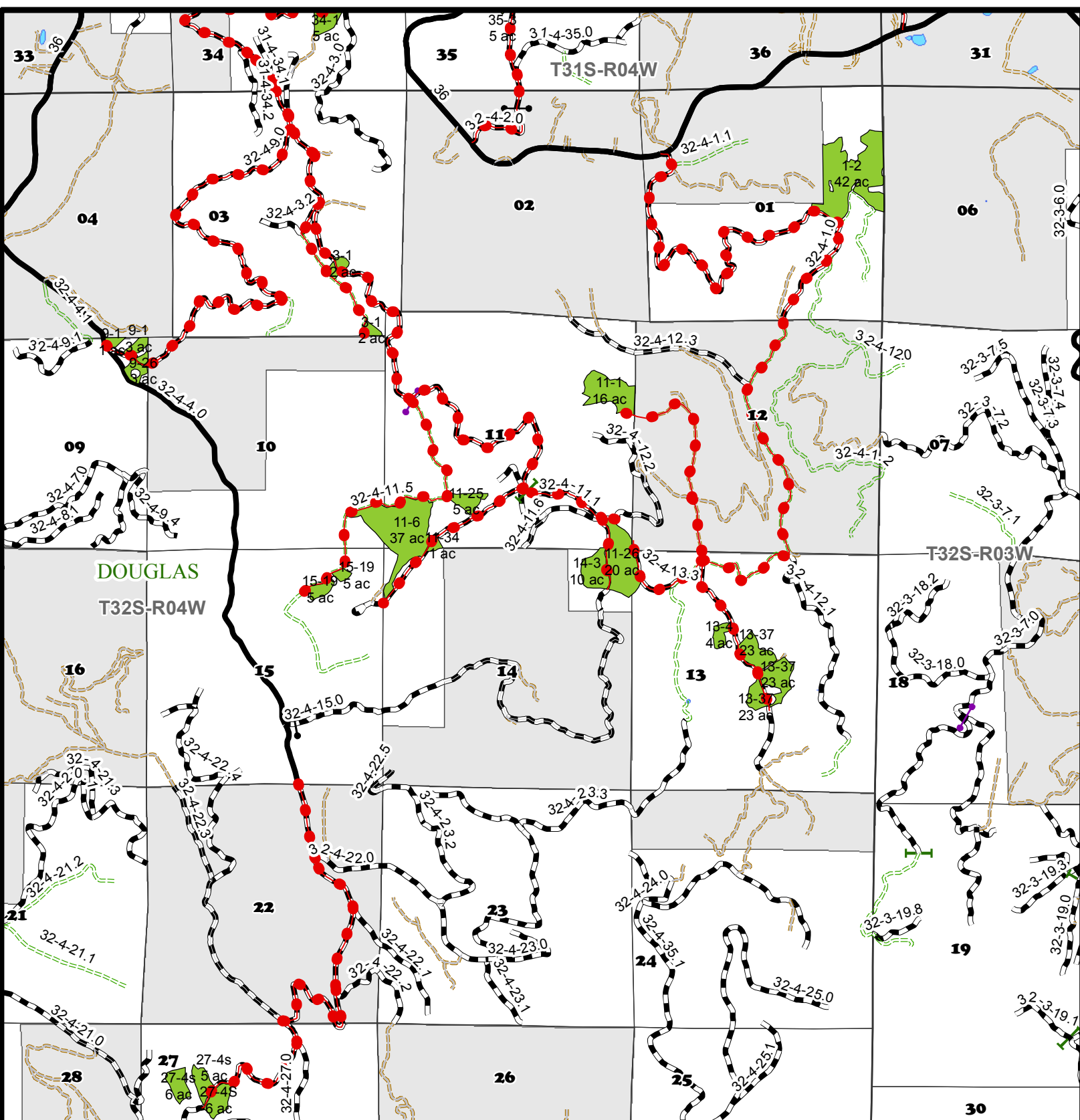
DATE: APRIL 2015

SHEET: 1 OF 3



# UPPER COW TIMBER SALE

EXHIBIT D-2



## Legend

● Maintenance

### Road Surface

— Bituminous

- - - Aggregate

... Natural

- - - Unknown

- - - <Null>

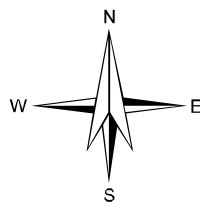
### Ownership

□ Bureau of Land Management

□ Other

■ Upper Cow Units

0 0.25 0.5 0.75 1 Mile



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

## UPPER COW TIMBER SALE ROAD MAINTENANCE

DESIGNED: \_\_\_\_\_

REVIEWED: \_\_\_\_\_

APPROVED: \_\_\_\_\_

DRAFTED BY: CLS

SCALE: AS SHOWN

DATE: APRIL 2015

SHEET: 2 OF 3





**EXHIBIT D-2**



## Road Surface

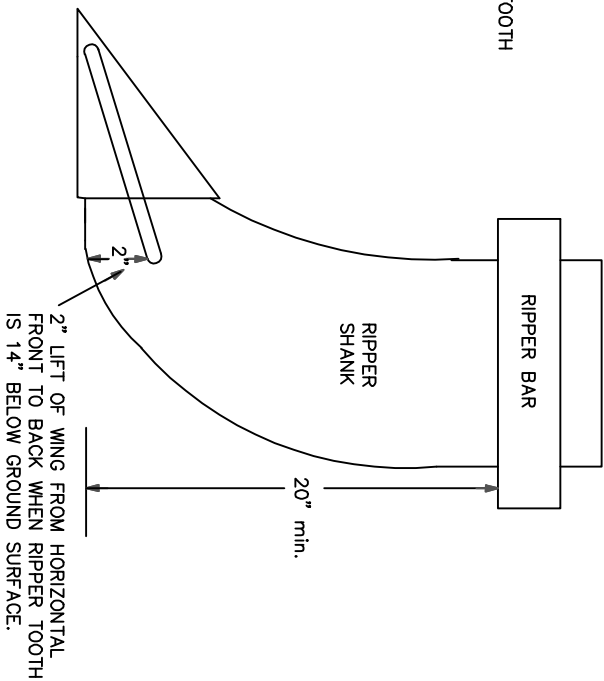
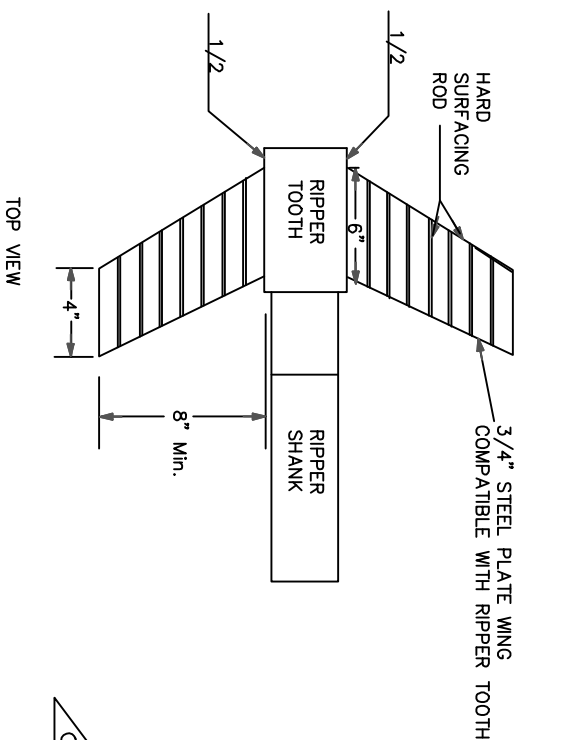
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 Upper Cow Units

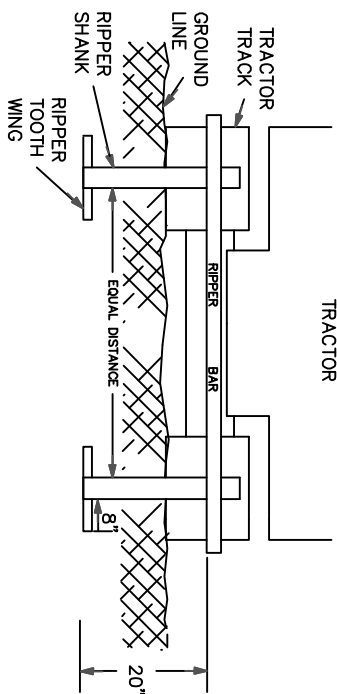


DATE: APRIL 2015	SHEET: 3 OF 3
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TYPICAL RIPPER POSITION



SIDE VIEW

- 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.

WING RIPPER DETAIL

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

DESIGNED	
REVIEWED	
APPROVED	
CHIEF, DIVISION OF ENGINEERING AND SURVEY SERVICES	
DRAWN: JWR	SCALE: NONE
DATE: October 2009	SHEET 1 OF 1
DRAWING NO.	





**United States of America**  
**Department of the Interior**  
**Bureau Of Land Management**  
**Timber Sale Appraisal**

---

**District :** Medford  
**Sale Name :** Upper Cow  
**Sale Date :** 06/23/2016  
**Appraisal Method :** 16' MBF

**Contract # :** ORM07-TS-16-01  
**Job File # :** M11324  
**Master Unit :** Josephine  
**Planning Unit :** Grants Pass

---

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**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Timber - Sale - Summary**

Medford  
Upper Cow  
ORM07-TS-16-01

**Legal Description**

Forest Type	Township	Range	Section	Subdivision
O&C	31S	3W	19	LOT 3, 4, E1/2SW1/4, NW1/4SE1/4
O&C	31S	4W	21	LOT 1
O&C	31S	4W	23	LOT 3, 4, SE1/4NW1/4, N1/2SW1/4, NW1/4SE1/4
O&C	31S	4W	24	W1/2SW1/4, SE1/4SW1/4
O&C	31S	4W	25	W1/2NW1/4, SW1/4
O&C	31S	4W	26	LOT 2, 3, 4, SW1/4NE1/4, S1/2SW1/4, SW1/4SE1/4
O&C	31S	4W	27	LOT 2, NW1/4NE1/4
O&C	31S	4W	29	S1/2SW1/4
O&C	31S	4W	30	LOT 4
O&C	31S	4W	31	LOT 1, W1/2NE1/4, SE1/4NE1/4, E1/2NW1/4, N1/2SE1/4
O&C	31S	4W	32	N1/2NW1/4, E1/2SW1/4, SW1/4SE1/4
O&C	31S	4W	33	E1/2NE1/4
O&C	31S	4W	34	NE1/4SW1/4, W1/2SE1/4
O&C	31S	4W	35	LOT 1, 2, W1/2NE1/4, E1/2NW1/4, NE1/4SW1/4
O&C	31S	5W	25	SE1/4SE1/4
O&C	32S	4W	1	E1/2NE1/4, N1/2SE1/4
O&C	32S	4W	3	LOT 1, 2, 7, 8
O&C	32S	4W	5	N1/2NW1/4
O&C	32S	4W	9	LOT 1, SE1/4NE1/4
O&C	32S	4W	10	SE1/4SE1/4
O&C	32S	4W	11	LOT 1, SE1/4NE1/4, S1/2SW1/4, SE1/4SE1/4
O&C	32S	4W	13	SW1/4NE1/4, NW1/4NW1/4, SE1/4NW1/4, NE1/4SW1/4, NW1/4SE1/4
O&C	32S	4W	14	NE1/4NE1/4, NW1/4NW1/4
O&C	32S	4W	15	N1/2NE1/4
O&C	32S	4W	27	NW1/4
O&C	32S	5W	1	SW1/4NE1/4, E1/2SW1/4, SE1/4

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

Medford  
Upper Cow  
ORM07-TS-16-01

**Cutting Volume (16' MBF)**

Unit	DF	PP	IC	WH	WF				Total	Regen	Partial	ROW
1-1	504	3	2						509	0	39	0
1-1B	237	3	0						240	0	20	0
1-1C	16		0						16	0	3	0
1-2	494		2	6	0				502	0	42	0
11-1	78			4					82	0	8	0
11-1H	20								20	0	8	0
11-25	51								51	0	5	0
11-26	183		0						183	0	20	0
11-34	10								10	0	1	0
11-6	31								31	0	3	0
11-6H	123								123	0	34	0
13-37	217		1	0					218	0	23	0
13-4	36		1						37	0	4	0
14-3	103		0						103	0	10	0
15-19	24								24	0	5	0
19-3	316		0	1					317	0	20	0
19-4	30								30	0	3	0
19-9	156	0		0					156	0	13	0
21-2	88		0	0					88	0	7	0
23-1	221		0						221	0	15	0
23-2	118								118	0	6	0
23-2B	64		0						64	0	5	0
23-3N	204	3	1						208	0	14	0
23-6	13								13	0	1	0
24-1	119								119	0	11	0
24-1H	861		0						861	0	69	0
24-3	61	1							62	0	6	0
24-3H	76								76	0	5	0
25-12	101	1	0	1					103	0	12	0
25-1B	12								12	0	4	0
25-37	149								149	0	12	0
25-7	60		0						60	0	5	0
26-1	174	2	0						176	0	22	0
26-1B	161		0						161	0	13	0
26-3	15								15	0	1	0
26-3A	26								26	0	2	0
26-3B	64								64	0	10	0
27-12	85	0			0				85	0	9	0
27-4S	331	0							331	0	17	0
29-1	87								87	0	24	0
3-1	51			0					51	0	5	0
30-2	99		0	0					99	0	9	0
31-2	300		1						301	0	15	0
31-3	556		1						557	0	59	0
31-6	57	0	0						57	0	4	0
31-6H	215		2						217	0	11	0



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

Medford  
Upper Cow  
ORM07-TS-16-01

32-4	99	1							100	0	7	0
32-7	4								4	0	1	0
32-7S	14								14	0	2	0
33-4	88		0						88	0	13	0
34-1	74			0					74	0	10	0
35-15	399	1	2						402	0	23	0
35-1F	11								11	0	3	0
35-2	60		0						60	0	6	0
35-3	57	0	0						57	0	5	0
35-5	61	0							61	0	7	0
5-4	428	12	5	0	11				456	0	31	0
9-1	29		0						29	0	5	0
9-26	7								7	0	3	0
Totals	8,328	27	18	12	11				8,396	0	750	0

**Logging Costs per 16' MBF**

Stump to Truck	\$ 236.65
Transportation	\$ 37.85
Road Construction	\$ 18.22
Road Amortization	\$ 0.00
Road Maintenance	\$ 5.09

Other Allowances :

Fuels Treatment	\$ 11.70
Other Costs	\$ 6.95
<b>Total Other Allowances :</b>	<b>\$ 18.65</b>

Total Logging Costs per 16' MBF

**\$ 316.45**

**Utilization Centers**

Center #1 : Glendale, OR 22 Miles  
Center #2 0 Miles  
Weighted distance to Utilization Centers 22

**Length of Contract**

Cutting and Removal Time 36 Months  
Personal Property Removal Time 1 Months

**Profit & Risk**

Total Profit & Risk 8 %  
Basic Profit & Risk 8 % + Additional Risk 0 %  
Back Off 0 %

**Tract Features**

Avg Log Douglas-fir : 44 bf All : 44 bf  
Recovery Douglas-fir : 92 % All : 92 %  
Salvage Douglas-fir : 0 % All : 0 %  
Avg Volume ( 16' MBF per Acre) 11  
Avg Yarding Slope 40 %  
Avg Yarding Distance (feet) 300  
Avg Age 60  
Volume Cable 65 %  
Volume Ground 18 %  
Volume Aerial 18 %  
Road Construction Stations 0.00  
Road Improvement Stations 0.00  
Road Renovation Stations 0.00  
Road Decommission Stations 0.00

**Cruise**

Cruised By Caulfield/Cannon  
Date 02/01/2016  
Type of Cruise 3P & BLM 100  
County, State Douglas, OR

**Net Volume**

Green (16' MBF) 8,396  
Salvage (16' MBF) 0  
Douglas-fir Peeler 0  
Export Volume 0  
Scaling Allowance (\$0.75 per 16' MBF) \$6,297.00

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**Stumpage Summary**

**Stumpage Computation (16' MBF)**

Species	Trees	Net Volume	Pond Value	(-) Profit & Risk	(-) Logging Cost	(+) Marginal Log Value	(-) Back Off	Appraised Price	Appraised Value
DF	57,970	8,328	\$ 541.27	\$ 43.30	\$ 316.45			\$ 181.50	\$ 1,511,532.00
PP	327	27	\$ 266.54	\$ 21.32	\$ 316.45			\$ 26.70	\$ 720.90
IC	410	18	\$ 525.18	\$ 42.01	\$ 316.45			\$ 166.70	\$ 3,000.60
WH	159	12	\$ 388.84	\$ 31.11	\$ 316.45			\$ 41.30	\$ 495.60
WF	88	11	\$ 386.93	\$ 30.95	\$ 316.45			\$ 39.50	\$ 434.50
<b>Totals</b>	<b>58,954</b>	<b>8,396</b>							<b>\$ 1,516,183.60</b>

**Log Code by Percent**

Species	Code #1	Code #2	Code #3	Code #4	Code #5	Code #6
Incense-cedar				9.0	56.0	36.0
Ponderosa Pine				14.0	69.0	17.0
Douglas-fir				27.0	63.0	10.0
White Fir				28.0	61.0	11.0
Western Hemlock				8.0	73.0	19.0

**Marginal Log Volume**

Species	Grade #7	Grade #8
Incense-cedar		
Ponderosa Pine		
Douglas-fir		
White Fir		
Western Hemlock		

**Appraised By :** Cannon, Grant

**Date :** 05/31/2016

**Area Approval By :** Caulfield, Dave

**Date :** 05/31/2016

**District Approval By :**

**Date :**

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**Prospectus**

**Appraisal Method : (16' MBF)**

Species	Trees	Net Volume 16' MBF	Net Volume 32' MBF	Net Volume CCF
Douglas-fir	57,970	8,328	6,721	
Ponderosa Pine	327	27	20	
Incense-cedar	410	18	15	
Western Hemlock	159	12	10	
White Fir	88	11	9	
<b>Total</b>	<b>58,954</b>	<b>8,396</b>	<b>6,775</b>	

**All Species**

Gross Volume	Number Trees	Avg bf Volume Per Tree	DBH	Gross Merch Volume	Merch Logs	Avg bf Gross Merch Log
9,083	58,954	154	13.1	8,957	201,824	44

Merch Logs	Cull Logs	Total Logs	Logs per Tree	Net Volume	Gross Volume	Recovery
201,824	3,205	205,029	3.5	8,396	9,083	92 %

**Douglas-fir**

Gross Volume	Number Trees	Avg bf Volume Per Tree	DBH	Gross Merch Volume	Merch Logs	Avg bf Gross Merch Log
9,008	57,970	155	13.1	8,886	199,747	44

Merch Logs	Cull Logs	Total Logs	Logs per Tree	Net Volume	Gross Volume	Recovery
199,747	3,039	202,786	3.5	8,328	9,008	92 %

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**Cutting Areas**

Unit	Regen Acres	Partial Cut Acres	Right Of Way Acres	Total Acres
1-1		39		39
1-1B		20		20
1-1C		3		3
1-2		42		42
11-1		8		8
11-1H		8		8
11-25		5		5
11-26		20		20
11-34		1		1
11-6		3		3
11-6H		34		34
13-37		23		23
13-4		4		4
14-3		10		10
15-19		5		5
19-3		20		20
19-4		3		3
19-9		13		13
21-2		7		7
23-1		15		15
23-2		6		6
23-2B		5		5
23-3N		14		14
23-6		1		1
24-1		11		11
24-1H		69		69
24-3		6		6
24-3H		5		5
25-12		12		12
25-1B		4		4
25-37		12		12
25-7		5		5
26-1		22		22
26-1B		13		13
26-3		1		1
26-3A		2		2
26-3B		10		10
27-12		9		9
27-4S		17		17
29-1		24		24
3-1		5		5
30-2		9		9
31-2		15		15
31-3		59		59
31-6		4		4
31-6H		11		11
32-4		7		7
32-7		1		1
32-7S		2		2

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33-4		13		13
34-1		10		10
35-15		23		23
35-1F		3		3
35-2		6		6
35-3		5		5
35-5		7		7
5-4		31		31
9-1		5		5
9-26		3		3
<b>Totals :</b>		<b>750</b>		<b>750</b>

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**Exhibit B**

The following estimates and calculations of timber sold are made solely as an administrative aid for determining: (1) Adjustments made or credits given in accordance with Sections 6, 9, or 11; (2) When payments are due; and (3) Value of timber subject to any special bonding provisions. The value of timber will be determined by multiplying the value per acre as shown below, times the amount of acreage as determined by the authorized officer, which has been cut or removed or designated for taking.

Except provided in Section 2, Purchaser shall be liable for the total purchase price even though the quantity of timber actually cut or removed or designated for taking is less than the estimated volume or quantity shown. Cutting areas are shown on the Exhibit A.

**Sale Totals (16' MBF)**

Species	Net Volume	Bid Price	Sale SubTotal
Douglas-fir	8,328		
Ponderosa Pine	27		
Incense-cedar	18		
Western Hemlock	12		
White Fir	11		
<b>Sale Totals</b>	<b>8,396</b>		

**Unit Details (16' MB)**

**Unit 1-1                      39 Acres                      Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	504		
Incense-cedar	2		
Ponderosa Pine	3		
<b>Unit Totals</b>	<b>509</b>		

**Unit 11-1                      8 Acres                      Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	78		
Western Hemlock	4		
<b>Unit Totals</b>	<b>82</b>		

**Unit 11-1H                      8 Acres                      Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	20		
<b>Unit Totals</b>	<b>20</b>		

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**Unit 11-25 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	51		
<b>Unit Totals</b>	<b>51</b>		

**Unit 11-26 20 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	183		
Incense-cedar			
<b>Unit Totals</b>	<b>183</b>		

**Unit 11-34 1 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	10		
<b>Unit Totals</b>	<b>10</b>		

**Unit 11-6 3 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	31		
<b>Unit Totals</b>	<b>31</b>		

**Unit 11-6H 34 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	123		
<b>Unit Totals</b>	<b>123</b>		

**Unit 1-1B 20 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	237		
Incense-cedar			
Ponderosa Pine	3		
<b>Unit Totals</b>	<b>240</b>		

**Unit 1-1C 3 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	16		
Incense-cedar			
<b>Unit Totals</b>	<b>16</b>		

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**Unit 1-2 42 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	494		
Incense-cedar	2		
Western Hemlock	6		
White Fir			
<b>Unit Totals</b>	<b>502</b>		

**Unit 13-37 23 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	217		
Incense-cedar	1		
Western Hemlock			
<b>Unit Totals</b>	<b>218</b>		

**Unit 13-4 4 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	36		
Incense-cedar	1		
<b>Unit Totals</b>	<b>37</b>		

**Unit 14-3 10 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	103		
Incense-cedar			
<b>Unit Totals</b>	<b>103</b>		

**Unit 15-19 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	24		
<b>Unit Totals</b>	<b>24</b>		

**Unit 19-3 20 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	316		
Incense-cedar			
Western Hemlock	1		
<b>Unit Totals</b>	<b>317</b>		



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**Unit 19-4 3 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	30		
<b>Unit Totals</b>	<b>30</b>		

**Unit 19-9 13 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	156		
Ponderosa Pine			
Western Hemlock			
<b>Unit Totals</b>	<b>156</b>		

**Unit 21-2 7 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	88		
Incense-cedar			
Western Hemlock			
<b>Unit Totals</b>	<b>88</b>		

**Unit 23-1 15 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	221		
Incense-cedar			
<b>Unit Totals</b>	<b>221</b>		

**Unit 23-2 6 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	118		
<b>Unit Totals</b>	<b>118</b>		

**Unit 23-2B 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	64		
Incense-cedar			
<b>Unit Totals</b>	<b>64</b>		

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**Unit 23-3N 14 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	204		
Incense-cedar	1		
Ponderosa Pine	3		
<b>Unit Totals</b>	<b>208</b>		

**Unit 23-6 1 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	13		
<b>Unit Totals</b>	<b>13</b>		

**Unit 24-1 11 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	119		
<b>Unit Totals</b>	<b>119</b>		

**Unit 24-1H 69 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	861		
Incense-cedar			
<b>Unit Totals</b>	<b>861</b>		

**Unit 24-3 6 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	61		
Ponderosa Pine	1		
<b>Unit Totals</b>	<b>62</b>		

**Unit 24-3H 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	76		
<b>Unit Totals</b>	<b>76</b>		

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**Unit 25-12 12 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	101		
Incense-cedar			
Ponderosa Pine	1		
Western Hemlock	1		
<b>Unit Totals</b>	<b>103</b>		

**Unit 25-1B 4 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	12		
<b>Unit Totals</b>	<b>12</b>		

**Unit 25-37 12 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	149		
<b>Unit Totals</b>	<b>149</b>		

**Unit 25-7 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	60		
Incense-cedar			
<b>Unit Totals</b>	<b>60</b>		

**Unit 26-1 22 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	174		
Incense-cedar			
Ponderosa Pine	2		
<b>Unit Totals</b>	<b>176</b>		

**Unit 26-1B 13 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	161		
Incense-cedar			
<b>Unit Totals</b>	<b>161</b>		

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**Unit 26-3 1 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	15		
<b>Unit Totals</b>	<b>15</b>		

**Unit 26-3A 2 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	26		
<b>Unit Totals</b>	<b>26</b>		

**Unit 26-3B 10 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	64		
<b>Unit Totals</b>	<b>64</b>		

**Unit 27-12 9 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	85		
Ponderosa Pine			
White Fir			
<b>Unit Totals</b>	<b>85</b>		

**Unit 27-4S 17 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	331		
Ponderosa Pine			
<b>Unit Totals</b>	<b>331</b>		

**Unit 29-1 24 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	87		
<b>Unit Totals</b>	<b>87</b>		

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**Unit 30-2 9 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	99		
Incense-cedar			
Western Hemlock			
<b>Unit Totals</b>	<b>99</b>		

**Unit 3-1 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	51		
Western Hemlock			
<b>Unit Totals</b>	<b>51</b>		

**Unit 31-2 15 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	300		
Incense-cedar	1		
<b>Unit Totals</b>	<b>301</b>		

**Unit 31-3 59 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	556		
Incense-cedar	1		
<b>Unit Totals</b>	<b>557</b>		

**Unit 31-6 4 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	57		
Incense-cedar			
Ponderosa Pine			
<b>Unit Totals</b>	<b>57</b>		

**Unit 31-6H 11 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	215		
Incense-cedar	2		
<b>Unit Totals</b>	<b>217</b>		

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**Unit 32-4 7 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	99		
Ponderosa Pine	1		
<b>Unit Totals</b>	<b>100</b>		

**Unit 32-7 1 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	4		
<b>Unit Totals</b>	<b>4</b>		

**Unit 32-7S 2 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	14		
<b>Unit Totals</b>	<b>14</b>		

**Unit 33-4 13 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	88		
Incense-cedar			
<b>Unit Totals</b>	<b>88</b>		

**Unit 34-1 10 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	74		
Western Hemlock			
<b>Unit Totals</b>	<b>74</b>		

**Unit 35-15 23 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	399		
Incense-cedar	2		
Ponderosa Pine	1		
<b>Unit Totals</b>	<b>402</b>		

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**Unit 35-1F 3 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	11		
<b>Unit Totals</b>	<b>11</b>		

**Unit 35-2 6 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	60		
Incense-cedar			
<b>Unit Totals</b>	<b>60</b>		

**Unit 35-3 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	57		
Incense-cedar			
Ponderosa Pine			
<b>Unit Totals</b>	<b>57</b>		

**Unit 35-5 7 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	61		
Ponderosa Pine			
<b>Unit Totals</b>	<b>61</b>		

**Unit 5-4 31 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	428		
Incense-cedar	5		
Ponderosa Pine	12		
Western Hemlock			
White Fir	11		
<b>Unit Totals</b>	<b>456</b>		

**Unit 9-1 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	29		
Incense-cedar			
<b>Unit Totals</b>	<b>29</b>		

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Unit    **9-26**                                      **3 Acres**                                      **Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	7		
Unit Totals	7		



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Volume Summary**

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**Sale Volume Totals**

750 Acres      0 Regen      750 Partial      0 R/W      59 Units

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Net	16' MBF GM	16' MBF Gross	32' MBF Net	32' MBF GM	32' MBF Gross	CCF Net	CCF GM	CCF Gross
Douglas-fir	57,970	199,747	3,039	8,328	8,886	9,008	6,721	7,168	7,274	0	0	0
Ponderosa Pine	327	745	71	27	29	30	20	21	23	0	0	0
Incense-cedar	410	678	51	18	19	20	15	15	16	0	0	0
Western Hemlock	159	385	30	12	12	13	10	11	11	0	0	0
White Fir	88	269	14	11	11	12	9	9	9	0	0	0
<b>Totals</b>	<b>58,954</b>	<b>201,824</b>	<b>3,205</b>	<b>8,396</b>	<b>8,957</b>	<b>9,083</b>	<b>6,775</b>	<b>7,224</b>	<b>7,333</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Unit Totals**

Unit : 1-1      39 Acres      0 Regen      39 Partial      0 R/W

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	3,948	12,101	184	545	538	504
Ponderosa Pine	50	90	19	4	3	3
Incense-cedar	51	86	6	3	2	2
<b>Unit Totals</b>	<b>4,049</b>	<b>12,277</b>	<b>209</b>	<b>552</b>	<b>543</b>	<b>509</b>

Unit : 1-1B      20 Acres      0 Regen      20 Partial      0 R/W

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	2,184	5,670	86	256	253	237
Ponderosa Pine	35	92	8	4	4	3
Incense-cedar	1	2				
<b>Unit Totals</b>	<b>2,220</b>	<b>5,764</b>	<b>94</b>	<b>260</b>	<b>257</b>	<b>240</b>

Unit : 1-1C      3 Acres      0 Regen      3 Partial      0 R/W

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	132	377	6	17	17	16
Incense-cedar	1	2				
<b>Unit Totals</b>	<b>133</b>	<b>379</b>	<b>6</b>	<b>17</b>	<b>17</b>	<b>16</b>

Unit : 1-2      42 Acres      0 Regen      42 Partial      0 R/W

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	3,523	11,894	181	534	527	494

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Western Hemlock	76	180	13	6	5	6
Incense-cedar	43	65	3	2	2	2
White Fir	1	4				
<b>Unit Totals</b>	<b>3,643</b>	<b>12,143</b>	<b>197</b>	<b>542</b>	<b>534</b>	<b>502</b>

**Unit : 11-1                      8 Acres                      0 Regen                      8 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	376	1,884	29	84	83	78
Western Hemlock	42	122	9	5	5	4
<b>Unit Totals</b>	<b>418</b>	<b>2,006</b>	<b>38</b>	<b>89</b>	<b>88</b>	<b>82</b>

**Unit : 11-1H                      8 Acres                      0 Regen                      8 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	86	460	7	21	21	20
<b>Unit Totals</b>	<b>86</b>	<b>460</b>	<b>7</b>	<b>21</b>	<b>21</b>	<b>20</b>

**Unit : 11-25                      5 Acres                      0 Regen                      5 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	355	1,261	19	55	55	51
<b>Unit Totals</b>	<b>355</b>	<b>1,261</b>	<b>19</b>	<b>55</b>	<b>55</b>	<b>51</b>

**Unit : 11-26                      20 Acres                      0 Regen                      20 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	1,343	4,485	68	198	196	183
Incense-cedar	6	11	1			
<b>Unit Totals</b>	<b>1,349</b>	<b>4,496</b>	<b>69</b>	<b>198</b>	<b>196</b>	<b>183</b>

**Unit : 11-34                      1 Acres                      0 Regen                      1 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	83	243	4	11	11	10
<b>Unit Totals</b>	<b>83</b>	<b>243</b>	<b>4</b>	<b>11</b>	<b>11</b>	<b>10</b>

**Unit : 11-6                      3 Acres                      0 Regen                      3 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	213	749	11	33	33	31
<b>Unit Totals</b>	<b>213</b>	<b>749</b>	<b>11</b>	<b>33</b>	<b>33</b>	<b>31</b>

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**Unit : 11-6H                      34 Acres                      0 Regen                      34 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	622	2,993	45	133	131	123
<b>Unit Totals</b>	<b>622</b>	<b>2,993</b>	<b>45</b>	<b>133</b>	<b>131</b>	<b>123</b>

**Unit : 13-37                      23 Acres                      0 Regen                      23 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,462	5,221	79	234	231	217
Incense-cedar	20	30	2	1	1	1
Western Hemlock	4	8	2			
<b>Unit Totals</b>	<b>1,486</b>	<b>5,259</b>	<b>83</b>	<b>235</b>	<b>232</b>	<b>218</b>

**Unit : 13-4                      4 Acres                      0 Regen                      4 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	224	855	13	38	38	36
Incense-cedar	13	19	6	1	1	1
<b>Unit Totals</b>	<b>237</b>	<b>874</b>	<b>19</b>	<b>39</b>	<b>39</b>	<b>37</b>

**Unit : 14-3                      10 Acres                      0 Regen                      10 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	738	2,416	37	112	110	103
Incense-cedar	5	7				
<b>Unit Totals</b>	<b>743</b>	<b>2,423</b>	<b>37</b>	<b>112</b>	<b>110</b>	<b>103</b>

**Unit : 15-19                      5 Acres                      0 Regen                      5 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	111	558	9	26	25	24
<b>Unit Totals</b>	<b>111</b>	<b>558</b>	<b>9</b>	<b>26</b>	<b>25</b>	<b>24</b>

**Unit : 19-3                      20 Acres                      0 Regen                      20 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,883	7,629	116	341	337	316
Western Hemlock	8	19	1	1	1	1
Incense-cedar	8	15				
<b>Unit Totals</b>	<b>1,899</b>	<b>7,663</b>	<b>117</b>	<b>342</b>	<b>338</b>	<b>317</b>

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**Unit : 19-4                      3 Acres                      0 Regen                      3 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	244	713	11	32	32	30
<b>Unit Totals</b>	<b>244</b>	<b>713</b>	<b>11</b>	<b>32</b>	<b>32</b>	<b>30</b>

**Unit : 19-9                      13 Acres                      0 Regen                      13 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,225	3,771	57	169	167	156
Ponderosa Pine	1	1				
Western Hemlock	2	5				
<b>Unit Totals</b>	<b>1,228</b>	<b>3,777</b>	<b>57</b>	<b>169</b>	<b>167</b>	<b>156</b>

**Unit : 21-2                      7 Acres                      0 Regen                      7 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	555	2,055	32	95	94	88
Incense-cedar	1	4				
Western Hemlock	5	9	3			
<b>Unit Totals</b>	<b>561</b>	<b>2,068</b>	<b>35</b>	<b>95</b>	<b>94</b>	<b>88</b>

**Unit : 23-1                      15 Acres                      0 Regen                      15 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,349	5,316	81	239	235	221
Incense-cedar	1	1				
<b>Unit Totals</b>	<b>1,350</b>	<b>5,317</b>	<b>81</b>	<b>239</b>	<b>235</b>	<b>221</b>

**Unit : 23-2                      6 Acres                      0 Regen                      6 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	879	2,846	43	127	126	118
<b>Unit Totals</b>	<b>879</b>	<b>2,846</b>	<b>43</b>	<b>127</b>	<b>126</b>	<b>118</b>

**Unit : 23-2B                      5 Acres                      0 Regen                      5 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	543	1,531	23	69	68	64
Incense-cedar	2	2				
<b>Unit Totals</b>	<b>545</b>	<b>1,533</b>	<b>23</b>	<b>69</b>	<b>68</b>	<b>64</b>

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**Unit : 23-3N                      14 Acres                      0 Regen                      14 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,593	4,875	74	220	217	204
Ponderosa Pine	28	65	5	3	3	3
Incense-cedar	11	18		1	1	1
<b>Unit Totals</b>	<b>1,632</b>	<b>4,958</b>	<b>79</b>	<b>224</b>	<b>221</b>	<b>208</b>

**Unit : 23-6                      1 Acres                      0 Regen                      1 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	90	325	5	14	14	13
<b>Unit Totals</b>	<b>90</b>	<b>325</b>	<b>5</b>	<b>14</b>	<b>14</b>	<b>13</b>

**Unit : 24-1                      11 Acres                      0 Regen                      11 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	738	2,836	43	128	127	119
<b>Unit Totals</b>	<b>738</b>	<b>2,836</b>	<b>43</b>	<b>128</b>	<b>127</b>	<b>119</b>

**Unit : 24-1H                      69 Acres                      0 Regen                      69 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	5,295	20,679	315	940	918	861
Incense-cedar	3	5	1			
<b>Unit Totals</b>	<b>5,298</b>	<b>20,684</b>	<b>316</b>	<b>940</b>	<b>918</b>	<b>861</b>

**Unit : 24-3                      6 Acres                      0 Regen                      6 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	564	1,495	22	65	65	61
Ponderosa Pine	14	21	5	1	1	1
<b>Unit Totals</b>	<b>578</b>	<b>1,516</b>	<b>27</b>	<b>66</b>	<b>66</b>	<b>62</b>

**Unit : 24-3H                      5 Acres                      0 Regen                      5 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	564	1,779	27	82	81	76
<b>Unit Totals</b>	<b>564</b>	<b>1,779</b>	<b>27</b>	<b>82</b>	<b>81</b>	<b>76</b>

**Unit : 25-12                      12 Acres                      0 Regen                      12 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net

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Douglas-fir	727	2,413	37	110	108	101
Ponderosa Pine	10	22	2	1	1	1
Western Hemlock	17	36	1	1	1	1
Incense-cedar	3	4	1			
<b>Unit Totals</b>	<b>757</b>	<b>2,475</b>	<b>41</b>	<b>112</b>	<b>110</b>	<b>103</b>

**Unit : 25-1B                      4 Acres                      0 Regen                      4 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	59	303	5	13	13	12
<b>Unit Totals</b>	<b>59</b>	<b>303</b>	<b>5</b>	<b>13</b>	<b>13</b>	<b>12</b>

**Unit : 25-37                      12 Acres                      0 Regen                      12 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	913	3,497	54	161	159	149
<b>Unit Totals</b>	<b>913</b>	<b>3,497</b>	<b>54</b>	<b>161</b>	<b>159</b>	<b>149</b>

**Unit : 25-7                      5 Acres                      0 Regen                      5 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	354	1,470	22	64	64	60
Incense-cedar	2	3	1			
<b>Unit Totals</b>	<b>356</b>	<b>1,473</b>	<b>23</b>	<b>64</b>	<b>64</b>	<b>60</b>

**Unit : 26-1                      22 Acres                      0 Regen                      22 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	1,139	4,138	63	188	185	174
Ponderosa Pine	9	28	4	2	2	2
Incense-cedar	5	8	3			
<b>Unit Totals</b>	<b>1,153</b>	<b>4,174</b>	<b>70</b>	<b>190</b>	<b>187</b>	<b>176</b>

**Unit : 26-1B                      13 Acres                      0 Regen                      13 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	894	3,885	59	174	172	161
Incense-cedar	5	13				
<b>Unit Totals</b>	<b>899</b>	<b>3,898</b>	<b>59</b>	<b>174</b>	<b>172</b>	<b>161</b>

**Unit : 26-3                      1 Acres                      0 Regen                      1 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>

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Douglas-fir	79	347	5	16	16	15
<b>Unit Totals</b>	<b>79</b>	<b>347</b>	<b>5</b>	<b>16</b>	<b>16</b>	<b>15</b>

**Unit : 26-3A                      2 Acres                      0 Regen                      2 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	124	612	9	28	28	26
<b>Unit Totals</b>	<b>124</b>	<b>612</b>	<b>9</b>	<b>28</b>	<b>28</b>	<b>26</b>

**Unit : 26-3B                      10 Acres                      0 Regen                      10 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	276	1,556	24	69	69	64
<b>Unit Totals</b>	<b>276</b>	<b>1,556</b>	<b>24</b>	<b>69</b>	<b>69</b>	<b>64</b>

**Unit : 27-12                      9 Acres                      0 Regen                      9 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	614	2,053	31	92	91	85
Ponderosa Pine	2	3				
White Fir	1	1				
<b>Unit Totals</b>	<b>617</b>	<b>2,057</b>	<b>31</b>	<b>92</b>	<b>91</b>	<b>85</b>

**Unit : 27-4S                      17 Acres                      0 Regen                      17 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	2,908	7,930	121	358	354	331
Ponderosa Pine	14	18	2	1		
<b>Unit Totals</b>	<b>2,922</b>	<b>7,948</b>	<b>123</b>	<b>359</b>	<b>354</b>	<b>331</b>

**Unit : 29-1                      24 Acres                      0 Regen                      24 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	362	2,098	32	94	93	87
<b>Unit Totals</b>	<b>362</b>	<b>2,098</b>	<b>32</b>	<b>94</b>	<b>93</b>	<b>87</b>

**Unit : 3-1                      5 Acres                      0 Regen                      5 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	355	1,205	18	55	54	51
Western Hemlock	1	1				
<b>Unit Totals</b>	<b>356</b>	<b>1,206</b>	<b>18</b>	<b>55</b>	<b>54</b>	<b>51</b>

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**Unit : 30-2                      9 Acres                      0 Regen                      9 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	700	2,313	36	107	106	99
Incense-cedar	2	2				
Western Hemlock	1	1	1			
<b>Unit Totals</b>	<b>703</b>	<b>2,316</b>	<b>37</b>	<b>107</b>	<b>106</b>	<b>99</b>

**Unit : 31-2                      15 Acres                      0 Regen                      15 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	2,106	7,187	110	325	320	300
Incense-cedar	27	38	6	1	1	1
<b>Unit Totals</b>	<b>2,133</b>	<b>7,225</b>	<b>116</b>	<b>326</b>	<b>321</b>	<b>301</b>

**Unit : 31-3                      59 Acres                      0 Regen                      59 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	4,049	13,169	202	602	593	556
Incense-cedar	21	36	5	1	1	1
<b>Unit Totals</b>	<b>4,070</b>	<b>13,205</b>	<b>207</b>	<b>603</b>	<b>594</b>	<b>557</b>

**Unit : 31-6                      4 Acres                      0 Regen                      4 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	437	1,384	21	62	61	57
Incense-cedar	2	4				
Ponderosa Pine	2	6				
<b>Unit Totals</b>	<b>441</b>	<b>1,394</b>	<b>21</b>	<b>62</b>	<b>61</b>	<b>57</b>

**Unit : 31-6H                      11 Acres                      0 Regen                      11 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	1,634	5,259	79	233	230	215
Incense-cedar	31	58	4	2	2	2
<b>Unit Totals</b>	<b>1,665</b>	<b>5,317</b>	<b>83</b>	<b>235</b>	<b>232</b>	<b>217</b>

**Unit : 32-4                      7 Acres                      0 Regen                      7 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	788	2,391	36	107	106	99
Ponderosa Pine	8	25	1	1	1	1



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<b>Unit Totals</b>	<b>796</b>	<b>2,416</b>	<b>37</b>	<b>108</b>	<b>107</b>	<b>100</b>
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**Unit : 32-7                      1 Acres                      0 Regen                      1 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	19	89	1	4	4	4
<b>Unit Totals</b>	<b>19</b>	<b>89</b>	<b>1</b>	<b>4</b>	<b>4</b>	<b>4</b>

**Unit : 32-7S                      2 Acres                      0 Regen                      2 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	123	349	5	16	15	14
<b>Unit Totals</b>	<b>123</b>	<b>349</b>	<b>5</b>	<b>16</b>	<b>15</b>	<b>14</b>

**Unit : 33-4                      13 Acres                      0 Regen                      13 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	584	2,112	32	95	94	88
Incense-cedar	1	3				
<b>Unit Totals</b>	<b>585</b>	<b>2,115</b>	<b>32</b>	<b>95</b>	<b>94</b>	<b>88</b>

**Unit : 34-1                      10 Acres                      0 Regen                      10 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	539	1,762	27	80	79	74
Western Hemlock	2	3				
<b>Unit Totals</b>	<b>541</b>	<b>1,765</b>	<b>27</b>	<b>80</b>	<b>79</b>	<b>74</b>

**Unit : 35-15                      23 Acres                      0 Regen                      23 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	2,941	9,614	146	431	426	399
Incense-cedar	30	60	1	2	2	2
Ponderosa Pine	16	28	5	1	1	1
<b>Unit Totals</b>	<b>2,987</b>	<b>9,702</b>	<b>152</b>	<b>434</b>	<b>429</b>	<b>402</b>

**Unit : 35-1F                      3 Acres                      0 Regen                      3 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	58	262	4	12	11	11
<b>Unit Totals</b>	<b>58</b>	<b>262</b>	<b>4</b>	<b>12</b>	<b>11</b>	<b>11</b>

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**Unit : 35-2                      6 Acres                      0 Regen                      6 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	405	1,460	22	65	64	60
Incense-cedar	2	2				
<b>Unit Totals</b>	<b>407</b>	<b>1,462</b>	<b>22</b>	<b>65</b>	<b>64</b>	<b>60</b>

**Unit : 35-3                      5 Acres                      0 Regen                      5 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	402	1,322	20	61	60	57
Incense-cedar	3	5				
Ponderosa Pine	4	7	1			
<b>Unit Totals</b>	<b>409</b>	<b>1,334</b>	<b>21</b>	<b>61</b>	<b>60</b>	<b>57</b>

**Unit : 35-5                      7 Acres                      0 Regen                      7 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	278	1,458	22	66	65	61
Ponderosa Pine	1	5	1			
<b>Unit Totals</b>	<b>279</b>	<b>1,463</b>	<b>23</b>	<b>66</b>	<b>65</b>	<b>61</b>

**Unit : 5-4                      31 Acres                      0 Regen                      31 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	2,891	10,237	156	463	457	428
Ponderosa Pine	133	334	18	12	13	12
White Fir	86	264	14	12	11	11
Incense-cedar	104	168	11	6	6	5
Western Hemlock	1	1				
<b>Unit Totals</b>	<b>3,215</b>	<b>11,004</b>	<b>199</b>	<b>493</b>	<b>487</b>	<b>456</b>

**Unit : 9-1                      5 Acres                      0 Regen                      5 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	251	677	10	31	31	29
Incense-cedar	6	7				
<b>Unit Totals</b>	<b>257</b>	<b>684</b>	<b>10</b>	<b>31</b>	<b>31</b>	<b>29</b>

**Unit : 9-26                      3 Acres                      0 Regen                      3 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	39	178	3	8	8	7

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<b>Unit Totals</b>	<b>39</b>	<b>178</b>	<b>3</b>	<b>8</b>	<b>8</b>	<b>7</b>
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**Stump to Truck Costs**

**Total (16' MBF)**

<b>Total Stump to Truck Costs</b>	<b>Net Volume</b>	<b>Cost / Net Volume</b>
\$ 1,986,882.14	8,396	\$ 236.65

**Detail**

**Yarding & Loading**

<b>Yarding System</b>	<b>Unit Of Measure</b>	<b>Units</b>	<b>Cost / Unit</b>	<b>Total Cost</b>
Track Skidder	GM-MBF	1,561	\$ 148.68	\$ 232,089.48
Med Twr=40-70	GM-MBF	5,436	\$ 195.25	\$ 1,061,379.00
Helicopter	GM-MBF	1,598	\$ 358.65	\$ 573,122.70
<b>Subtotal</b>				<b>\$ 1,866,591.18</b>

**Other Costs**

<b>Explanation</b>	<b>Unit Of Measure</b>	<b>Units</b>	<b>Cost / Unit</b>	<b>Total Cost</b>
Tractor Swing	GM-MBF	362	\$ 232.48	\$ 84,157.76
Directional Falling	MBF	840	\$ 16.73	\$ 14,053.20
<b>Subtotal</b>				<b>\$ 98,210.96</b>

**Additional Move-Ins**

<b>Equipment</b>	<b># Move-In</b>	<b>Cost / Move In</b>	<b>Total Cost</b>
Yarder / Loader	12	\$ 600.00	\$ 7,200.00
Dozer	6	\$ 440.00	\$ 2,640.00
Delimber	6	\$ 440.00	\$ 2,640.00
Yarder / Loader	5	\$ 600.00	\$ 3,000.00
Dozer	10	\$ 440.00	\$ 4,400.00
Harvester	5	\$ 440.00	\$ 2,200.00
<b>Subtotal</b>			<b>\$ 22,080.00</b>

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**Other Allowances Costs**

**Total (16' MBF)**

<b>Total Other Allowances Costs</b>	<b>Net Volume</b>	<b>Cost / Net Volume *</b>	<b>Total Buy Out Cost</b>
\$156,553.00	8,396	\$18.65	\$0.00

**Fuels Treatment**

**Detail (16' MBF)**

<b>Cost Item</b>	<b>Total Cost</b>	<b>Cost / Net Vol *</b>	<b>Buy Out</b>	<b>Buy Out Cost</b>
Hand Pile, Cvr - Level 2	\$ 64,980.00	\$ 7.74	N	\$ 0.00
Hand Pile Brn-Level 2	\$ 7,182.00	\$ 0.86	N	\$ 0.00
Lop and Scatter-Lvl 1	\$ 20,240.00	\$ 2.41	N	\$ 0.00
Hand Pile, Cvr - Level 6	\$ 5,840.00	\$ 0.70	N	\$ 0.00
<b>Subtotal</b>	<b>\$ 98,242.00</b>	<b>\$ 11.70</b>		<b>\$ 0.00</b>

**Other Costs**

**Detail (16' MBF)**

<b>Cost Item</b>	<b>Total Cost</b>	<b>Cost / Net Vol *</b>	<b>Buy Out</b>	<b>Buy Out Cost</b>
Ripping	\$ 1,050.00	\$ 0.13	N	\$ 0.00
Skid Construction	\$ 2,550.00	\$ 0.30	N	\$ 0.00
Deadman Anchors	\$ 13,500.00	\$ 1.61	N	\$ 0.00
Waterbar Skids	\$ 6,375.00	\$ 0.76	N	\$ 0.00
Stream and Culvert Cleaning	\$ 256.00	\$ 0.03	N	\$ 0.00
Barricades	\$ 900.00	\$ 0.11	N	\$ 0.00
Landing Clean up	\$ 10,950.00	\$ 1.30	N	\$ 0.00
Temporary Spur Construction	\$ 750.00	\$ 0.09	N	\$ 0.00
Landing Construction	\$ 10,950.00	\$ 1.30	N	\$ 0.00
Hand Seeding @ 17 lb seed per hour	\$ 880.00	\$ 0.10	N	\$ 0.00
Mulching (2 hours/5 bales)	\$ 1,800.00	\$ 0.21	N	\$ 0.00
Equipment Washing	\$ 1,850.00	\$ 0.22	N	\$ 0.00
Equipment Washing	\$ 1,750.00	\$ 0.21	N	\$ 0.00
Lift Tree	\$ 1,500.00	\$ 0.18	N	\$ 0.00
Intermediate Support	\$ 3,250.00	\$ 0.39	N	\$ 0.00
<b>Subtotal</b>	<b>\$ 58,311.00</b>	<b>\$ 6.95</b>		<b>\$ 0.00</b>

\* Cost / Net Volume has been rounded to the nearest \$0.01 Subtotals may not tie to Sale Total Cost / Net Volume.

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Consolidated Comments**

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**General**

-Lump Sum Sale.  
-Tallied one Sugar Pine as a Ponderosa Pine in unit 23-3N.  
-Units with both conventional and helicopter logging systems have had the helicopter volume separated out and labeled with an H after the unit number.

**Yarding & Loading**

-Other Yard & Loading costs is for 1-1(3ac), 19-3(2ac), 19-9(1ac), 25-37(5ac), 26-1(22ac),31-3(2ac) Tractor Swing unit portions.

**Road Costs**

(see Engineering Appraisal for details).

**Transportation**

-All species appraised to Glendale, Oregon.

(see Transportation appendix for details).

**Other Allowances**

-Hand Pile Cover Level 6 is for Cover and Burn Landing Piles.  
-Temp Spur Construction: 3-1(2hrs), 11-26(4hrs), 25-37(4hrs).

**Prospectus**

-2016 use 8% profit and risk.



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Sale: Upper Cow  
Sale Date: April 2016  
Prep. By : C Smith  
Tract No: ORM07-TS-1

ROAD MAINTENANCE AND ROAD USE APPRAISAL WORK SHEET

Summary of Costs

1) Road Use - Amortization: (1)      \$0.00/8396 MBF = \$0.00/MBF

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2) Road Maintenance Obligation:

\$0.00 + \$0.00 + \$1980.98 + \$1329.22 + \$10885.41 = \$14195.61

3) Other Maintenance Payments:

\$0.00

4). Purchaser Maintenance Allowances:

(5.2A) Move In . . . . .	\$1447.60
(5.2B) Culverts, Catch Basins, Downspouts . . . . .	\$6683.40
(5.2C) Grading, Ditching . . . . .	\$14410.00
(5.2D) Slide Removal and Slump Repair . . . . .	\$1325.97
(5.2E) Dust Palliative (Water) . . . . .	\$3260.35
(5.2F) Surface Repair (Aggregate) . . . . .	\$0.00
(5.2G) Decommissioning . . . . .	\$1308.24
(5.2H) Other . . . . .	\$0.00

Total (5.2) = \$28435.56

1-4)      Total = \$42,631.17/8396 MBF = \$5.08/MBF



1) Road Use Fees - Amortization

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

(1.1) Subtotal \$0.00

## 2) BLM Maintenance - Timber Haul

MAINTENANCE (2.1)					ROCKWEAR (2.2)			
Road Number	A Surf	Maint	Vol		Maint	Fee x MBF =	Rkwear	
and Segment	N Type	Mi	x Fee x	MBF =				
31-5-35.0	A BST	1.12	0.00	88	\$0.00	0.00	88	\$0.00

(2.1) Subtotal \$0.00

(2.2) Subtotal \$0.00

## 3) Third Party Maintenance and Rockwear

MAINTENANCE (3.1)					ROCKWEAR (3.2)			
Agmmt	Road	Mi	x	Fee x MBF =	Maint	Fee x MBF =	Rkwear	
Number	Number							
M 824	32-4-13.3	0.24	0.97	183	\$42.60	0.49	183	\$21.52
M 824	32-4-13.2	0.38	0.97	1	\$0.38	0.49	1	\$0.19
M 824	32-4-1	1.36	0.97	540	\$712.37	0.49	540	\$359.86
M 851	31-4-24.3	0.12	0.97	250	\$29.10	0.49	250	\$14.70
M 851	31-4-23.6	0.30	0.97	517	\$150.45	0.49	517	\$76.00
M 851	31-4-24.4	0.40	0.97	463	\$179.64	0.49	463	\$90.75
M 851	31-4-25.2	0.74	0.97	463	\$332.34	0.49	463	\$167.88
M 851	31-4-25.0	0.57	0.97	966	\$534.10	0.49	966	\$269.80
R 656								\$328.52

(3.1) Subtotal \$1980.98

(3.2) Subtotal \$1329.22

## 4) Other Maintenance Payments - USFS or Others Perform Maintenance

Agency	Road Number	Fee	Fee	Vol	Maint
		MBF/Mi x Mi =	/MBF x	Hauled =	Cost

(4.1) Subtotal \$0.00

## 5) Purchaser Maintenance - Rock Wear

### TIMBER HAUL (5.1)

Road No	A	RkWear	Vol	Total
and Segment	N	Mi	x Fee x	MBF = RkWear
32-4-2.0	A	1.69	0.49	176
32-4-2.0	A	1.52	0.49	187
32-4-2.0	A	1.02	0.49	248
32-4-2.0	A	0.88	0.49	305
32-4-7.2	A	0.22	0.49	400
32-4-7.2	A	0.39	0.49	700
32-4-7.2	A	0.42	0.49	716
32-4-7.2	A	1.15	0.49	765
32-5-1.0	A	0.17	0.49	16
32-4-6.0	A	0.65	0.49	1878
32-4-6.0	A	1.10	0.49	957
32-4-6.0	A	1.15	0.49	1014
32-4-6.0	A	0.72	0.49	1892
31-5-35.0	A	0.14	0.49	873
31-4-30.0	A	0.27	0.49	557
31-4-32.0	A	0.50	0.49	87

32-4-5.1	A	0.70	0.49	87	\$29.84
32-4-5.1	A	0.10	0.49	191	\$9.36
32-4-5.1	A	0.68	0.49	205	\$68.31
32-4-5.1	A	0.85	0.49	260	\$108.29
31-4-31.0	A	0.45	0.49	660	\$145.53
31-4-31.0	A	0.20	0.49	15	\$1.47
31-5-35.0	A	0.65	0.49	88	\$28.03
31-4-14.0	A	0.40	0.49	650	\$127.40
31-4-25.5	A	0.39	0.49	402	\$76.82
31-4-25.5	A	0.15	0.49	460	\$33.81
31-4-36.0	A	0.16	0.49	60	\$4.70
31-4-27.0	A	0.40	0.49	160	\$31.36
31-4-27.0	A	0.58	0.49	710	\$201.78
31-4-26.0	A	0.15	0.49	15	\$1.10
31-4-27.0	A	0.36	0.49	752	\$132.65
31-27.0	A	0.75	0.49	850	\$312.38
31-4-27.0	A	1.90	0.49	1485	\$1382.54
31-4-27.0	A	0.25	0.49	1525	\$186.81
31-4-27.0	A	0.15	0.49	1565	\$115.03
31-4-25.0	A	0.83	0.49	866	\$352.20
31-3-31.0	A	1.80	0.49	866	\$763.81
32-4-3.0	A	0.66	0.49	37	\$11.97
31-4-34.0	A	0.33	0.49	88	\$14.23
31-4-34.0	A	0.91	0.49	125	\$55.74
32-4-15.0	A	0.25	0.49	100	\$12.25
32-4-9.0	A	0.50	0.49	103	\$25.24
32-4-11.0	A	0.45	0.49	10	\$2.21
32-4-9.0	A	1.08	0.49	113	\$59.80
32-4-9.0	A	0.81	0.49	342	\$135.74
32-4-9.0	A	0.79	0.49	393	\$152.13
32-4-9.0	A	2.25	0.49	555	\$611.89
32-4-9.0	A	0.15	0.49	591	\$43.44
32-4-4.0	A	2.65	0.49	331	\$429.80
32-4-1.0	A	2.05	0.49	534	\$536.40
32-4-1.0	A	1.74	0.49	1028	\$876.47

(5.1) Subtotal \$10885.41

#### **Purchaser Operational Maintenance**

##### **Move In**

Equipment	No Units	Move x in	Cost/ x 50 Mi	Dist x Factor	Sub- total
Motor Grader:	1	3	\$483.00	0.70	\$1014.30
Back Hoe:	1	2	\$149.00	0.70	\$208.60
Loader:			\$483.00	0.63	\$0.00
Water Truck:	1	3	\$107.00	0.70	\$224.70
Dump Truck:			\$113.00	0.63	\$0.00
Excavator:			\$483.00	0.63	\$0.00
Roller:			\$483.00	0.63	\$0.00

(5.2A) Total \$1447.60

#### **Culvert Maintenance - Including Catch basins and Downpipes**

Miles	x	Cost/Mi	=	Subtotal
20		\$334.17		\$6683.40

(5.2B) Total \$6683.40

#### **Grading (Includes Ditches and Shoulders)**

Miles	x	Cost/Mi	x	Freq	=	Subtotal
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Blade w/ Ditch:	20.00	\$720.50	1	\$14410.00
Blade w/o Ditch:	0.00	\$446.73	0	\$0.00

(5.2C) Total \$14410.00

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

Type	No Slides	Hours	Equip	
Equipment	/Slumps	x Each	x Cost	= Subtotal
Grader:	3	3	\$147.33	\$1325.97
Loader:	0	0	\$107.45	\$0.00
Backhoe:	0	0	\$76.21	\$0.00

(5.2D) Total \$1325.97

**Dust Palliative (Water)**

Spreading Hours						
No	Freq	Truck				
Miles	/ MPH	= Hours	x Days	x /Day	= Hours	
25.00	20	1.3	14	2	36	
Load & Haul =		0.0	0	0	0	
Total Hours =		36				

Truck Cost: \$89.57/Hr. x 36.4 Hours = \$3260.35

(5.2E) Total \$3260.35

**Surface Repair (Aggregate)**

Production Cost:	0.0 CY x \$0.00/CY	=	\$0.00
Haul to Stockpile:	0.0 CY x ((\$2.21/CY x 0.00 Mi) + \$0.74)	=	\$0.00
Stockpile:	0.0 CY x \$1.01/CY	=	\$0.00
Load from Stockpile:	0.0 CY x \$1.11/CY	=	\$0.00
Haul from Stockpile:	0.0 CY x ((\$2.21/CY x 0.00 Mi) + \$0.74)	=	\$0.00
Process with Grader:	0.0 CY x \$0.90/CY	=	\$0.00
Compaction:	0.0 CY x \$1.34/CY	=	\$0.00

(5.2F) Total \$0.00

**Decommissioning**

31-3-31 Tractor: D7 with rippers: 8 hr @ \$163.53/hr = \$1308.24

(5.2G) Total \$1308.24

**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

(5.2H) Total \$0.00



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Version: 5.2.0.45

Updated: 4/13/2016

**Summary of All Roads and Projects**

T.S. Contract Name: Upper Cow Tract No: ORM07-TS-1 Sale Date: April 2016

Prepared by: C Smith Ph: 541-471-65 Print Date: 6/8/2016 12:28:04 PM

Construction: 30.10 sta

Improve: 292.52 sta Renov: 2182.77 sta Decom: 61.78 sta Temp: 25.87 sta

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
300 Excavation: 30 cy .....	\$12,438.78
Haul < 500 ft: 0 sta-yds	
Haul > 500 ft: 0 yd-mi	
400 Drainage: .....	\$63,771.40
Culvert: 1,148 lf	DownSpout: 0 lf
PolyPipe: 0 lf	
500 Renovation: .....	\$43,979.76
Blading 44.29 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: 50.6 acres .....	\$14,582.21
2300 Engineering: 13.20 sta. ....	\$1,127.54
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$18,219.82
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00

Total: 8,396 mbf @ \$18.356/mbf = \$154,119.52

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities are loose cubic yards.



# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

**Road Number: 31-3-19.4** Road Name:

Road Decommission: 0.32 mi 14 ft Subgrade ft ditch 4/13/2016

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: .....	\$337.49
Blading 0.32 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: 0.3 acres .....	\$86.49
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00

Total: \$423.98

## Notes:

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



Road Construction Worksheet

Road Number: 31-3-19.4 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.32 mi = \$230.56

Clean Culverts: \$334.17/mi x 0.32 mi = \$106.93

Subtotal: \$337.49

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: \$288.30/acre x 0.30 acres = \$86.49

Subtotal: \$86.49

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.28% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$423.98

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

**Road Number: 31-3-19.5** Road Name:

Road Decommission: 0.14 mi 15 ft Subgrade ft ditch 4/13/2016

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: .....	\$147.65
Blading 0.14 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: 0.1 acres .....	\$28.83
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$176.48

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-3-19.5 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.14 mi = \$100.87

Clean Culverts: \$334.17/mi x 0.14 mi = \$46.78

Subtotal: \$147.65

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: \$288.30/acre x 0.10 acres = \$28.83

Subtotal: \$28.83

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.11% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$176.48

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

**Road Number: 31-3-19.6** Road Name:

Road Decommission: 0.12 mi 14 ft Subgrade ft ditch 4/13/2016

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: .....	\$126.56
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: 0.1 acres .....	\$28.83
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$811.01
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$966.40

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-3-19.6 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.12 mi = \$86.46

Clean Culverts: \$334.17/mi x 0.12 mi = \$40.10

Subtotal: \$126.56

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: \$288.30/acre x 0.10 acres = \$28.83

Subtotal: \$28.83

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Decom

Tractor: D7 with rippers 3 hr x \$163.53/hr = \$490.59

Backhoe 2 hr x \$76.21/hr = \$152.42

General Laborer 5 hr x \$33.60/hr = \$168.00

Subtotal: \$811.01

Mobilization:

Construction - 0.63% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Road Number: 31-3-19.6    Continued

Subtotal:            \$0.00

Total:                \$966.40

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-3-31.0 Road Name:

Road Improvement: 1.81 mi 15 ft Subgrade 2 ft ditch 4/13/2016

200 Clearing and Grubbing: acres .....	\$0.00
300 Excavation: .....	\$0.00
400 Drainage: .....	\$17,506.60
Culvert: 348 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$1,304.11
Blading 1.81 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: 1.8 acres .....	\$518.94
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$19,329.65

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-3-31.0 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Galvanized 18 inch 16 ga 272 lf x \$49.02/lf = \$13,333.44

Galvanized 24 inch 16 ga 76 lf x \$54.91/lf = \$4,173.16

Subtotal: \$17,506.60

Section 500 Renovation:

Blading: \$720.50/mi x 1.81 mi = \$1,304.11

Subtotal: \$1,304.11

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: \$288.30/acre x 1.80 acres = \$518.94

Subtotal: \$518.94

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 12.54% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$19,329.65



# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

**Road Number: 31-4-14.0** Road Name: Upper Shively Crk

Road Renovation: 0.51 mi 16 ft Subgrade ft ditch

4/13/2016

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: .....	\$537.88
Blading 0.51 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: 5.0 acres .....	\$1,441.50
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$1,979.38

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-14.0 Road Name: Upper Shively Crk

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.51 mi = \$367.46

Clean Culverts: \$334.17/mi x 0.51 mi = \$170.43

Subtotal: \$537.88

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: \$288.30/acre x 5.00 acres = \$1,441.50

Subtotal: \$1,441.50

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 1.28% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$1,979.38

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016  
**Road Number: 31-4-21.5** Road Name: Ump-Cow Divide H So  
 Road Renovation: 0.06 mi 17 ft Subgrade ft ditch

4/13/2016

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: .....	\$43.23
Blading 0.06 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: 0.1 acres .....	\$28.83
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$72.06

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-21.5 Road Name: Ump-Cow Divide H So

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.06 mi = \$43.23

Subtotal: \$43.23

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: \$288.30/acre x 0.10 acres = \$28.83

Subtotal: \$28.83

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.05% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$72.06

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

**Road Number: 31-4-23.1** Road Name: McBrady Divide Rd

Road Renovation: 0.30 mi 16 ft Subgrade 2 ft ditch

4/13/2016

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: .....	\$316.40
Blading 0.30 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: 0.3 acres .....	\$86.49
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$402.89

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-23.1 Road Name: McBrady Divide Rd

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.30 mi = \$216.15

Clean Culverts: \$334.17/mi x 0.30 mi = \$100.25

Subtotal: \$316.40

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: \$288.30/acre x 0.30 acres = \$86.49

Subtotal: \$86.49

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.26% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$402.89

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

**Road Number: 31-4-23.3** Road Name:

Road Renovation: 0.27 mi 14 ft Subgrade ft ditch 4/13/2016

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: .....	\$284.76
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: 0.3 acres .....	\$86.49
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$371.25

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-23.3 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.27 mi = \$194.54

Clean Culverts: \$334.17/mi x 0.27 mi = \$90.23

Subtotal: \$284.76

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.30 acres = \$86.49

Subtotal: \$86.49

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.24% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$371.25



# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-4-23.4 Road Name: McGinnis Switch

Road Renovation: 0.07 mi 16 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$73.83
Blading 0.07 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: 0.1 acres .....	\$28.83
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$102.66

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-23.4 Road Name: McGinnis Switch

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading:  $\$720.50/\text{mi} \times 0.07 \text{ mi} = \$50.44$

Clean Culverts:  $\$334.17/\text{mi} \times 0.07 \text{ mi} = \$23.39$

Subtotal: \$73.83

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light:  $\$288.30/\text{acre} \times 0.10 \text{ acres} = \$28.83$

Subtotal: \$28.83

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.07% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$102.66

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-4-25.0 Road Name:

Road Improvement: 2.02 mi 14 ft Subgrade 2 ft ditch 4/13/2016

200 Clearing and Grubbing: acres .....	\$0.00
300 Excavation: .....	\$0.00
400 Drainage: .....	\$4,867.04
Culvert: 94 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$2,130.43
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: 2.0 acres .....	\$576.60
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$7,574.07

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-25.0 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Galvanized 18 inch 16 ga 50 lf x \$49.02/lf = \$2,451.00

Galvanized 24 inch 16 ga 44 lf x \$54.91/lf = \$2,416.04

Subtotal: \$4,867.04

Section 500 Renovation:

Blading: \$720.50/mi x 2.02 mi = \$1,455.41

Clean Culverts: \$334.17/mi x 2.02 mi = \$675.02

Subtotal: \$2,130.43

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 2.00 acres = \$576.60

Subtotal: \$576.60

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 4.91% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$7,574.07

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-4-25.0 Spur1 Road Name:

Road Construction: 0.27 mi 12 ft Subgrade ft ditch 4/13/2016

200 Clearing and Grubbing: acres .....	\$0.00
300 Excavation: .....	\$12,215.28
400 Drainage: .....	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$44.67
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: 0.0 acres .....	\$0.00
2300 Engineering: 13.20 sta. ....	\$1,127.54
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$1,038.52
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$14,426.02

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-25.0 Spurl Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Construction

Tractor: D8 with rippers 16 hr x \$230.64/hr = \$3,690.24

Motor Grader 12M 8 hr x \$107.86/hr = \$862.88

Excavator - Large (2 CY) 24 hr x \$128.90/hr = \$3,093.60

Water Truck 3000 Gal 8 hr x \$89.57/hr = \$716.56

Foreman 24 hr x \$46.57/hr = \$1,117.68

General Laborer 64 hr x \$33.60/hr = \$2,150.40

Rubber tired roller 8 hr x \$72.99/hr = \$583.92

Subtotal: \$12,215.28

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading w/o Ditches: \$446.73/mi x 0.10 mi = \$44.67

Subtotal: \$44.67

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Subtotal: \$0.00

Section 2300 Engineering:

One Side Normal: \$85.42/sta x 13.20 sta = \$1,127.54

Subtotal: \$1,127.54

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Mobilization

Mobilization 1 sy x \$250.00/sy = \$250.00

decom

General Laborer 4 hr x \$33.60/hr = \$134.40

Tractor: D7 with rippers 4 hr x \$163.53/hr = \$654.12

Subtotal: \$1,038.52

Road Number: 31-4-25.0 Spurl Continued

Mobilization:

Construction - 9.36% of total Costs = \$0.00  
surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$14,426.02

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-4-25.2 Road Name: Sugar Rose Tie

Road Renovation: 1.91 mi 17 ft Subgrade 2 ft ditch

4/13/2016

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: .....	\$2,014.42
Blading 1.91 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: 1.9 acres .....	\$547.77
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$2,562.19

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.



Road Construction Worksheet

Road Number: 31-4-25.2 Road Name: Sugar Rose Tie

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 1.91 mi = \$1,376.16

Clean Culverts: \$334.17/mi x 1.91 mi = \$638.26

Subtotal: \$2,014.42

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: \$288.30/acre x 1.90 acres = \$547.77

Subtotal: \$547.77

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 1.66% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$2,562.19

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-4-25.5 Road Name: McBug rdg

Road Renovation: 0.49 mi 17 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$516.79
Blading 0.49 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: 0.5 acres .....	\$144.15
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$660.94

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-25.5 Road Name: McBug rdg

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.49 mi = \$353.05

Clean Culverts: \$334.17/mi x 0.49 mi = \$163.74

Subtotal: \$516.79

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.50 acres = \$144.15

Subtotal: \$144.15

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.43% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$660.94

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-4-26.0 Road Name: McGinnis Rdg

Road Renovation: 0.22 mi 17 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$232.03
Blading 0.22 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: 0.2 acres .....	\$57.66
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$289.69

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-26.0 Road Name: McGinnis Rdg

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.22 mi = \$158.51

Clean Culverts: \$334.17/mi x 0.22 mi = \$73.52

Subtotal: \$232.03

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.20 acres = \$57.66

Subtotal: \$57.66

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.19% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$289.69

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-4-27.0 Road Name: McGinnis Crk

Road Renovation: 2.16 mi 17 ft Subgrade 2 ft ditch 4/13/2016

200 Clearing and Grubbing: acres .....	\$0.00
300 Excavation: .....	\$0.00
400 Drainage: .....	\$1,470.60
Culvert: 30 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$2,278.09
Blading 2.16 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: 2.1 acres .....	\$605.43
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$4,354.12

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-27.0 Road Name: McGinnis Crk

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Galvanized

18 inch 16 ga 30 lf x \$49.02/lf = \$1,470.60

Subtotal: \$1,470.60

Section 500 Renovation:

Blading: \$720.50/mi x 2.16 mi = \$1,556.28

Clean Culverts: \$334.17/mi x 2.16 mi = \$721.81

Subtotal: \$2,278.09

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: \$288.30/acre x 2.10 acres = \$605.43

Subtotal: \$605.43

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 2.83% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$4,354.12

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-4-27.0 Spur Road Name:

Road Renovation: 0.10 mi 14 ft Subgrade ft ditch 4/13/2016

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: .....	\$841.39
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: 0.1 acres .....	\$28.83
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$870.22

## Notes:

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



Road Construction Worksheet

Road Number: 31-4-27.0 Spur Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Renov

Tractor: D7 with rippers 3 hr x \$163.53/hr = \$490.59

General Laborer 3 hr x \$33.60/hr = \$100.80

Mobilization 1 1 x \$250.00/1 = \$250.00

Subtotal: \$841.39

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.10 acres = \$28.83

Subtotal: \$28.83

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.56% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$870.22

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

**Road Number: 31-4-30.0** Road Name: Russel Crk Rdg

Road Decommission: 0.43 mi 16 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$192.09
Blading 0.43 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: 0.4 acres .....	\$115.32
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$2,151.68
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$2,459.09

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-30.0 Road Name: Russel Crk Rdg

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading w/o Ditches: \$446.73/mi x 0.43 mi = \$192.09

Subtotal: \$192.09

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: \$288.30/acre x 0.40 acres = \$115.32

Subtotal: \$115.32

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Decom

Tractor: D7 with rippers 8 hr x \$163.53/hr = \$1,308.24

Foreman 4 hr x \$46.57/hr = \$186.28

General Laborer 8 hr x \$33.60/hr = \$268.80

Excavator -Small (1.5 CY) 4 hr x \$97.09/hr = \$388.36

Subtotal: \$2,151.68

Mobilization:

Construction - 1.60% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Road Number: 31-4-30.0 Russel Crk Rdg Continued

Subtotal: \$0.00

Total: \$2,459.09

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-4-31.0 Road Name: Russel Crk Sp

Road Renovation: 0.79 mi 17 ft Subgrade 2 ft ditch 4/13/2016

200 Clearing and Grubbing: acres .....	\$0.00
300 Excavation: .....	\$0.00
400 Drainage: .....	\$12,080.20
Culvert: 220 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$590.62
Blading 0.56 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: 0.6 acres .....	\$172.98
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$12,843.80

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-31.0 Road Name: Russel Crk Sp

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Galvanized

24 inch 16 ga 220 lf x \$54.91/lf = \$12,080.20

Subtotal: \$12,080.20

Section 500 Renovation:

Blading: \$720.50/mi x 0.56 mi = \$403.48

Clean Culverts: \$334.17/mi x 0.56 mi = \$187.14

Subtotal: \$590.62

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.60 acres = \$172.98

Subtotal: \$172.98

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 8.33% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$12,843.80

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-4-32.0 Road Name:

Road Improvement: 0.91 mi 15 ft Subgrade 2 ft ditch 4/13/2016

200 Clearing and Grubbing: acres .....	\$0.00
300 Excavation: .....	\$0.00
400 Drainage: .....	\$1,960.80
Culvert: 40 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$959.75
Blading 0.91 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: 0.9 acres .....	\$259.47
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$3,180.02

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-32.0 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Galvanized

18 inch 16 ga 40 lf x \$49.02/lf = \$1,960.80

Subtotal: \$1,960.80

Section 500 Renovation:

Blading: \$720.50/mi x 0.91 mi = \$655.66

Clean Culverts: \$334.17/mi x 0.91 mi = \$304.09

Subtotal: \$959.75

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.90 acres = \$259.47

Subtotal: \$259.47

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 2.06% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$3,180.02



# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

**Road Number: 31-4-34.0** Road Name: Galesvale S Sp

Road Renovation: 1.56 mi 16 ft Subgrade 2 ft ditch

4/13/2016

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: .....	\$1,645.29
Blading 1.56 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: 1.6 acres .....	\$461.28
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00

Total: \$2,106.57

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-34.0 Road Name: Galesvale S Sp

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 1.56 mi = \$1,123.98

Clean Culverts: \$334.17/mi x 1.56 mi = \$521.31

Subtotal: \$1,645.29

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 1.60 acres = \$461.28

Subtotal: \$461.28

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 1.37% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$2,106.57

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

**Road Number: 31-4-34.3 Spur** Road Name: 33-4 Spur B

Road Renovation: 0.13 mi 12 ft Subgrade 0 ft ditch 4/13/2016

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: .....	\$58.07
Blading 0.13 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: 0.1 acres .....	\$28.83
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$86.90

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-34.3 Spur Road Name: 33-4 Spur B

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading w/o Ditches:  $\$446.73/\text{mi} \times 0.13 \text{ mi} = \$58.07$

Subtotal: \$58.07

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light:  $\$288.30/\text{acre} \times 0.10 \text{ acres} = \$28.83$

Subtotal: \$28.83

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.06% of total Costs = \$0.00  
surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$86.90

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-4-34.4 Spur Road Name: 33-4 Spur A

Road Construction: 0.11 mi 12 ft Subgrade 0 ft ditch 4/13/2016

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: .....	\$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: 0.0 acres .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$2,075.44
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$2,075.44

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-34.4 Spur Road Name: 33-4 Spur A

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Subtotal: \$0.00

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Spur

Tractor: D7 with winch 8 hr x \$163.33/hr = \$1,306.64

General Laborer 8 hr x \$33.60/hr = \$268.80

Mobilization 1 1 x \$500.00/1 = \$500.00

Subtotal: \$2,075.44

Mobilization:

Construction - 1.35% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$2,075.44

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

**Road Number: 31-4-35.4 Spur** Road Name: 35-2 Unit

Road Renovation: 0.07 mi 12 ft Subgrade 0 ft ditch 4/13/2016

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: .....	\$31.27
Blading 0.07 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: 0.1 acres .....	\$28.83
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$1,037.72
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$1,097.82

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-35.4 Spur Road Name: 35-2 Unit

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading w/o Ditches:  $\$446.73/\text{mi} \times 0.07 \text{ mi} = \$31.27$

Subtotal: \$31.27

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light:  $\$288.30/\text{acre} \times 0.10 \text{ acres} = \$28.83$

Subtotal: \$28.83

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Spur

Tractor: D7 with winch 4 hr x \$163.33/hr = \$653.32

General Laborer 4 hr x \$33.60/hr = \$134.40

Mobilization 1 1 x \$250.00/1 = \$250.00

Subtotal: \$1,037.72

Mobilization:

Construction - 0.71% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00



Road Number: 31-4-35.4 Spur 35-2 Unit Continued

Total: \$1,097.82

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

**Road Number: 31-4-35.5 Spur** Road Name: 35-3 unit

Road Renovation: 0.05 mi 12 ft Subgrade 0 ft ditch 4/13/2016

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: .....	\$22.34
Blading 0.05 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: 0.1 acres .....	\$28.83
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$1,037.72
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$1,088.89

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-35.5 Spur Road Name: 35-3 unit

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading w/o Ditches:  $\$446.73/\text{mi} \times 0.05 \text{ mi} = \$22.34$

Subtotal: \$22.34

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light:  $\$288.30/\text{acre} \times 0.10 \text{ acres} = \$28.83$

Subtotal: \$28.83

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Spur

Tractor: D7 with winch 4 hr x \$163.33/hr = \$653.32

General Laborer 4 hr x \$33.60/hr = \$134.40

mobilization 1 1 x \$250.00/1 = \$250.00

Subtotal: \$1,037.72

Mobilization:

Construction - 0.71% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Road Number: 31-4-35.5 Spur 35-3 unit Continued

Total: \$1,088.89

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-4-36.0 Road Name: Upper McBug

Road Decommission: 0.16 mi 17 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$71.48
Blading 0.16 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: 0.2 acres .....	\$57.66
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$524.95
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$654.09

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-4-36.0 Road Name: Upper McBug

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading w/o Ditches: \$446.73/mi x 0.16 mi = \$71.48

Subtotal: \$71.48

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.20 acres = \$57.66

Subtotal: \$57.66

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Decom

Tractor: D7 with rippers 2 hr x \$163.53/hr = \$327.06

Excavator -Small (1.5 CY) 1 hr x \$97.09/hr = \$97.09

General Laborer 3 hr x \$33.60/hr = \$100.80

Subtotal: \$524.95

Mobilization:

Construction - 0.42% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Road Number: 31-4-36.0 Upper McBug Continued

Total: \$654.09

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-5-35.0 Road Name: Skyline Ridge Rd

Road Renovation: 0.78 mi 14 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$822.64
Blading 0.78 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: 0.8 acres .....	\$230.64
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$1,053.28

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.



Road Construction Worksheet

Road Number: 31-5-35.0 Road Name: Skyline Ridge Rd

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading:  $\$720.50/\text{mi} \times 0.78 \text{ mi} = \$561.99$

Clean Culverts:  $\$334.17/\text{mi} \times 0.78 \text{ mi} = \$260.65$

Subtotal: \$822.64

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light:  $\$288.30/\text{acre} \times 0.80 \text{ acres} = \$230.64$

Subtotal: \$230.64

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.68% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$1,053.28

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-5-35.0b Road Name: Skyline Rdg

Road Renovation: 0.39 mi 14 ft Subgrade ft ditch 4/13/2016

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: .....	\$411.32
Blading 0.39 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: 0.4 acres .....	\$115.32
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$526.64

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-5-35.0b Road Name: Skyline Rdg

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.39 mi = \$281.00

Clean Culverts: \$334.17/mi x 0.39 mi = \$130.33

Subtotal: \$411.32

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.40 acres = \$115.32

Subtotal: \$115.32

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.34% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$526.64

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 31-5-35.0c Road Name: Skyline Ridge Rd

Road Renovation: 0.21 mi 14 ft Subgrade ft ditch

4/13/2016

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: .....	\$221.48
Blading 0.21 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: 0.2 acres .....	\$57.66
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$279.14

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 31-5-35.0c Road Name: Skyline Ridge Rd

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.21 mi = \$151.31

Clean Culverts: \$334.17/mi x 0.21 mi = \$70.18

Subtotal: \$221.48

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.20 acres = \$57.66

Subtotal: \$57.66

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.18% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$279.14

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-1.0 Road Name: Hauck Ranch

Road Renovation: 0.52 mi 17 ft Subgrade 2 ft ditch 4/13/2016

200 Clearing and Grubbing: acres .....	\$0.00
300 Excavation: .....	\$0.00
400 Drainage: .....	\$10,291.16
Culvert: 196 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$548.43
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: 0.5 acres .....	\$144.15
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$10,983.74

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-1.0 Road Name: Hauck Ranch

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Galvanized 18 inch 16 ga 80 lf x \$49.02/lf = \$3,921.60

Galvanized 24 inch 16 ga 116 lf x \$54.91/lf = \$6,369.56

Subtotal: \$10,291.16

Section 500 Renovation:

Blading: \$720.50/mi x 0.52 mi = \$374.66

Clean Culverts: \$334.17/mi x 0.52 mi = \$173.77

Subtotal: \$548.43

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.50 acres = \$144.15

Subtotal: \$144.15

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 7.13% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$10,983.74

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-1.0a Road Name:

Road Renovation: 0.69 mi 16 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$497.15
Blading 0.69 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: 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. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$497.15

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.



# Road Construction Worksheet

Road Number: 32-4-1.0a Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading:  $\$720.50/\text{mi} \times 0.69 \text{ mi} = \$497.15$

Subtotal: \$497.15

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.32% of total Costs = \$0.00  
surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$497.15

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-1.0b Road Name: Hauck Ranch

Road Renovation: 0.81 mi 14 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$854.28
Blading 0.81 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: 0.8 acres .....	\$230.64
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$1,084.92

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-1.0b Road Name: Hauck Ranch

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.81 mi = \$583.61

Clean Culverts: \$334.17/mi x 0.81 mi = \$270.68

Subtotal: \$854.28

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.80 acres = \$230.64

Subtotal: \$230.64

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.70% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$1,084.92

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-1.0c Road Name: Hauck Ranch

Road Renovation: 1.84 mi 16 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$1,940.59
Blading 1.84 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: 1.8 acres .....	\$518.94
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$2,459.53

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-1.0c Road Name: Hauck Ranch

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 1.84 mi = \$1,325.72

Clean Culverts: \$334.17/mi x 1.84 mi = \$614.87

Subtotal: \$1,940.59

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 1.80 acres = \$518.94

Subtotal: \$518.94

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 1.60% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$2,459.53

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-1.3 Road Name:

Road Renovation: 0.28 mi 14 ft Subgrade 0 ft ditch 4/13/2016

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: .....	\$125.08
Blading 0.28 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: 0.3 acres .....	\$86.49
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$1,879.31
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$2,090.88

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-1.3 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading w/o Ditches:  $\$446.73/\text{mi} \times 0.28 \text{ mi} = \$125.08$

Subtotal: \$125.08

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light:  $\$288.30/\text{acre} \times 0.30 \text{ acres} = \$86.49$

Subtotal: \$86.49

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Renov

Tractor: D7 with winch 3 hr x \$163.33/hr = \$489.99

General Laborer 3 hr x \$33.60/hr = \$100.80

mobilization 1 1 x \$250.00/1 = \$250.00

Decom

General Laborer 4 hr x \$33.60/hr = \$134.40

Tractor: D7 with rippers 4 hr x \$163.53/hr = \$654.12

Mobilization 1 1 x \$250.00/1 = \$250.00

Subtotal: \$1,879.31

Mobilization:

Construction - 1.36% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal:            \$0.00  
Total:                \$2,090.88



# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-1.3 Spur Road Name:

Road Renovation: 0.43 mi 14 ft Subgrade ft ditch 4/13/2016

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: .....	\$192.09
Blading 0.43 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: 0.4 acres .....	\$115.32
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$1,827.04
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$2,134.45

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-1.3 Spur Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading w/o Ditches:  $\$446.73/\text{mi} \times 0.43 \text{ mi} = \$192.09$

Subtotal: \$192.09

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light:  $\$288.30/\text{acre} \times 0.40 \text{ acres} = \$115.32$

Subtotal: \$115.32

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Renovation

Tractor: D7 with rippers 8 hr x  $\$163.53/\text{hr} = \$1,308.24$

General Laborer 8 hr x  $\$33.60/\text{hr} = \$268.80$

Mobilization 1 1 x  $\$250.00/1 = \$250.00$

Subtotal: \$1,827.04

Mobilization:

Construction - 1.38% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Road Number: 32-4-1.3 Spur Continued

Total: \$2,134.45

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

**Road Number: 32-4-11.0** Road Name: Gauge Station Sp

Road Renovation: 0.98 mi 17 ft Subgrade 2 ft ditch

4/13/2016

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: .....	\$1,033.58
Blading 0.98 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: 1.0 acres .....	\$282.53
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$1,316.11

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-11.0 Road Name: Gauge Station Sp

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.98 mi = \$706.09

Clean Culverts: \$334.17/mi x 0.98 mi = \$327.49

Subtotal: \$1,033.58

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.98 acres = \$282.53

Subtotal: \$282.53

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.85% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$1,316.11

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

**Road Number: 32-4-11.5** Road Name:

Road Renovation: 1.37 mi 14 ft Subgrade ft ditch 4/13/2016

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: .....	\$612.02
Blading 1.37 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: 1.5 acres .....	\$432.45
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$1,044.47

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-11.5 Road Name:

Section 200 Clearing and Grubbing:

Clearing - Light (Clearing): Adjustment Factor (0.93)

Total Adjustment Factor:  $0.93 + 0 + 0 + 0 = 0.93$

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading w/o Ditches:  $\$446.73/\text{mi} \times 1.37 \text{ mi} = \$612.02$

Subtotal: \$612.02

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light:  $\$288.30/\text{acre} \times 1.50 \text{ acres} = \$432.45$

Subtotal: \$432.45

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.68% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$1,044.47

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-13.0 Road Name: Vaugh Sp

Road Renovation: 0.73 mi 14 ft Subgrade 2 ft ditch 4/13/2016

200 Clearing and Grubbing: acres .....	\$0.00
300 Excavation: 30 cy .....	\$223.50
400 Drainage: .....	\$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$769.91
Blading 0.73 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: 0.7 acres .....	\$201.81
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$1,195.22

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.



Road Construction Worksheet

Road Number: 32-4-13.0 Road Name: Vaugh Sp

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Excavation - Solid: \$6.60/cy x 30 cy = \$198.00

Embankment Placement & Compaction 306.a - Rock: \$0.85/cy x 30 cy = \$25.50

Subtotal: \$223.50

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.73 mi = \$525.97

Clean Culverts: \$334.17/mi x 0.73 mi = \$243.94

Subtotal: \$769.91

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.70 acres = \$201.81

Subtotal: \$201.81

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.78% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$1,195.22

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

**Road Number: 32-4-13.2** Road Name:

Road Renovation: 0.97 mi 14 ft Subgrade ft ditch 4/13/2016

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: .....	\$221.48
Blading 0.21 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: 1.0 acres .....	\$279.65
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$501.13

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-13.2 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.21 mi = \$151.31

Clean Culverts: \$334.17/mi x 0.21 mi = \$70.18

Subtotal: \$221.48

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.97 acres = \$279.65

Subtotal: \$279.65

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.33% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$501.13

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-13.3 Road Name:

Temporary Road: 0.15 mi 14 ft Subgrade ft ditch 4/13/2016

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: .....	\$158.20
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: 0.2 acres .....	\$57.66
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$2,034.35
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$2,250.21

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-13.3 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.15 mi = \$108.08

Clean Culverts: \$334.17/mi x 0.15 mi = \$50.13

Subtotal: \$158.20

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.20 acres = \$57.66

Subtotal: \$57.66

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Temp

Tractor: D7 with winch 6 hr x \$163.33/hr = \$979.98

General Laborer 6 hr x \$33.60/hr = \$201.60

decom

Tractor: D7 with rippers 3 hr x \$163.53/hr = \$490.59

Excavator -Small (1.5 CY) 2 hr x \$97.09/hr = \$194.18

General Laborer 5 hr x \$33.60/hr = \$168.00

Subtotal: \$2,034.35

Mobilization:

Construction - 1.46% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Road Number: 32-4-13.3    Continued

Quarry Development:

Subtotal:            \$0.00

Total:              \$2,250.21

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-13.3 Spur Road Name:

Temporary Road: 0.05 mi 15 ft Subgrade ft ditch 4/13/2016

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: .....	\$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: 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. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$0.00

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

# Road Construction Worksheet

Road Number: 32-4-13.3 Spur Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Subtotal: \$0.00

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.00% of total Costs = \$0.00  
surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$0.00



# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-13.4 Spur Road Name:

Road Renovation: 0.15 mi 14 ft Subgrade 0 ft ditch 4/13/2016

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: .....	\$67.01
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: 0.2 acres .....	\$57.66
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$1,037.72
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$1,162.39

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-13.4 Spur Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading w/o Ditches:  $\$446.73/\text{mi} \times 0.15 \text{ mi} = \$67.01$

Subtotal: \$67.01

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light:  $\$288.30/\text{acre} \times 0.20 \text{ acres} = \$57.66$

Subtotal: \$57.66

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Renov

Tractor: D7 with winch 4 hr x  $\$163.33/\text{hr} = \$653.32$

General Laborer 4 hr x  $\$33.60/\text{hr} = \$134.40$

Mobilization 1 1 x  $\$250.00/1 = \$250.00$

Subtotal: \$1,037.72

Mobilization:

Construction - 0.75% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Road Number: 32-4-13.4 Spur Continued

Total: \$1,162.39

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-15.0 Road Name: Blackhorse Crk

Road Renovation: 0.42 mi 14 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$442.96
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: 0.4 acres .....	\$115.32
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$558.28

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-15.0 Road Name: Blackhorse Crk

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.42 mi = \$302.61

Clean Culverts: \$334.17/mi x 0.42 mi = \$140.35

Subtotal: \$442.96

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.40 acres = \$115.32

Subtotal: \$115.32

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.36% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$558.28

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-2.0 Road Name:

Road Renovation: 1.69 mi 16 ft Subgrade 2 ft ditch 4/13/2016

200 Clearing and Grubbing: acres .....	\$0.00
300 Excavation: .....	\$0.00
400 Drainage: .....	\$2,196.40
Culvert: 40 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$1,782.39
Blading 1.69 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: 1.7 acres .....	\$490.11
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$4,468.90

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-2.0 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Galvanized

24 inch 16 ga 40 lf x \$54.91/lf = \$2,196.40

Subtotal: \$2,196.40

Section 500 Renovation:

Blading: \$720.50/mi x 1.69 mi = \$1,217.65

Clean Culverts: \$334.17/mi x 1.69 mi = \$564.75

Subtotal: \$1,782.39

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 1.70 acres = \$490.11

Subtotal: \$490.11

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 2.90% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$4,468.90

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-27.3 Spur Road Name: 27-4s Unit

Temporary Road: 0.24 mi 14 ft Subgrade ft ditch 4/13/2016

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: .....	\$200.39
Blading 0.19 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: 0.2 acres .....	\$57.66
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$1,582.78
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$1,840.83

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.



Road Construction Worksheet

Road Number: 32-4-27.3 Spur Road Name: 27-4s Unit

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.19 mi = \$136.90

Clean Culverts: \$334.17/mi x 0.19 mi = \$63.49

Subtotal: \$200.39

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.20 acres = \$57.66

Subtotal: \$57.66

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Recon

General Laborer 6 hr x \$33.60/hr = \$201.60

Tractor: D7 with rippers 6 hr x \$163.53/hr = \$981.18

Mobilization 1 1 x \$400.00/1 = \$400.00

Subtotal: \$1,582.78

Mobilization:

Construction - 1.19% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Road Number: 32-4-27.3 Spur 27-4s Unit Continued

Total: \$1,840.83

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-3.0 Road Name: Galesvale MI

Road Renovation: 1.61 mi 16 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$1,698.02
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: 1.6 acres .....	\$461.28
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$2,159.30

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-3.0 Road Name: Galesvale MI

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 1.61 mi = \$1,160.01

Clean Culverts: \$334.17/mi x 1.61 mi = \$538.01

Subtotal: \$1,698.02

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 1.60 acres = \$461.28

Subtotal: \$461.28

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 1.40% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$2,159.30

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-3.1 Road Name:

Road Improvement: 0.80 mi 14 ft Subgrade ft ditch 4/13/2016

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: .....	\$169.76
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: 0.4 acres .....	\$109.55
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$279.31

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-3.1 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading w/o Ditches:  $\$446.73/\text{mi} \times 0.38 \text{ mi} = \$169.76$

Subtotal: \$169.76

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light:  $\$288.30/\text{acre} \times 0.38 \text{ acres} = \$109.55$

Subtotal: \$109.55

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.18% of total Costs = \$0.00  
surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$279.31

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-3.2 Road Name:

Road Renovation: 0.15 mi 14 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$896.47
Blading 0.85 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: 2.0 acres .....	\$576.60
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$1,473.07

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-3.2 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 0.85 mi = \$612.43

Clean Culverts: \$334.17/mi x 0.85 mi = \$284.04

Subtotal: \$896.47

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 2.00 acres = \$576.60

Subtotal: \$576.60

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.96% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$1,473.07



# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-3.4 Road Name:

Road Renovation: 0.54 mi 12 ft Subgrade 0 ft ditch 4/13/2016

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: .....	\$241.23
Blading 0.54 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: 0.5 acres .....	\$144.15
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$385.38

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-3.4 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading w/o Ditches: \$446.73/mi x 0.54 mi = \$241.23

Subtotal: \$241.23

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 0.50 acres = \$144.15

Subtotal: \$144.15

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.25% of total Costs = \$0.00  
surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$385.38

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-3.4 Spur Road Name:

Temporary Road: 0.02 mi 14 ft Subgrade ft ditch 4/13/2016

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: .....	\$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: 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. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$0.00

## Notes:

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

Road Construction Worksheet

Road Number: 32-4-3.4 Spur Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Subtotal: \$0.00

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.00% of total Costs = \$0.00  
surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$0.00

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-4.0 Road Name: Whitehorse

Road Renovation: 5.42 mi 12 ft Subgrade 2 ft ditch 4/13/2016

200 Clearing and Grubbing: acres .....	\$0.00
300 Excavation: .....	\$0.00
400 Drainage: .....	\$6,589.20
Culvert: 120 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$5,273.35
Blading 5.00 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: 5.4 acres .....	\$1,556.82
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$13,419.37

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-4.0 Road Name: Whitehorse

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Galvanized

24 inch 16 ga 120 lf x \$54.91/lf = \$6,589.20

Subtotal: \$6,589.20

Section 500 Renovation:

Blading: \$720.50/mi x 5.00 mi = \$3,602.50

Clean Culverts: \$334.17/mi x 5.00 mi = \$1,670.85

Subtotal: \$5,273.35

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 5.40 acres = \$1,556.82

Subtotal: \$1,556.82

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 8.71% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$13,419.37

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-4.0 Spur Road Name:

Road Construction: 0.19 mi 12 ft Subgrade ft ditch 4/13/2016

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: .....	\$84.88
Blading 0.19 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: 0.2 acres .....	\$57.66
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$1,181.58
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$1,324.12

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-4.0 Spur Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading w/o Ditches: \$446.73/mi x 0.19 mi = \$84.88

Subtotal: \$84.88

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: \$288.30/acre x 0.20 acres = \$57.66

Subtotal: \$57.66

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Renovation

Tractor: D7 with winch 6 hr x \$163.33/hr = \$979.98

General Laborer 6 hr x \$33.60/hr = \$201.60

Subtotal: \$1,181.58

Mobilization:

Construction - 0.86% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00





# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-5.1 Road Name:

Road Renovation: 1.55 mi 14 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$1,634.74
Blading 1.55 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: 1.6 acres .....	\$446.87
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$2,081.60

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-5.1 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 1.55 mi = \$1,116.78

Clean Culverts: \$334.17/mi x 1.55 mi = \$517.96

Subtotal: \$1,634.74

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 1.55 acres = \$446.87

Subtotal: \$446.87

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 1.35% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$2,081.60

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-6.0 Road Name: Russel Crk

Road Renovation: 2.09 mi 17 ft Subgrade 2 ft ditch 4/13/2016

200 Clearing and Grubbing: acres .....	\$0.00
300 Excavation: .....	\$0.00
400 Drainage: .....	\$6,809.40
Culvert: 60 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: 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. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00

Total: \$6,809.40

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-6.0 Road Name: Russel Crk

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Galvanized

48 inch 14 ga 60 lf x \$113.49/lf = \$6,809.40

Subtotal: \$6,809.40

Section 500 Renovation:

Subtotal: \$0.00

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 4.42% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$6,809.40

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-6.0b Road Name: Russel Crk

Road Renovation: 1.07 mi 17 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$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: 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. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$0.00

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-6.0b Road Name: Russel Crk

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Subtotal: \$0.00

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.00% of total Costs = \$0.00  
surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$0.00

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-7.2 Road Name: Azalea Peak

Road Renovation: 2.57 mi 16 ft Subgrade 2 ft ditch 4/13/2016

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: .....	\$2,710.50
Blading 2.57 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: 2.6 acres .....	\$749.58
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$3,460.08

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.



Road Construction Worksheet

Road Number: 32-4-7.2 Road Name: Azalea Peak

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$720.50/mi x 2.57 mi = \$1,851.69

Clean Culverts: \$334.17/mi x 2.57 mi = \$858.82

Subtotal: \$2,710.50

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light: \$288.30/acre x 2.60 acres = \$749.58

Subtotal: \$749.58

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 2.25% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$3,460.08

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-7.2 Spur Road Name:

Temporary Road: 0.03 mi 14 ft Subgrade ft ditch 4/13/2016

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: .....	\$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: 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. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$0.00

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

# Road Construction Worksheet

Road Number: 32-4-7.2 Spur Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Subtotal: \$0.00

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.00% of total Costs = \$0.00  
surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$0.00

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-4-9.0 Road Name: Whitehorse Crk Sp

Road Renovation: 5.20 mi 17 ft Subgrade ft ditch

4/13/2016

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: .....	\$5,484.28
Blading 5.20 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: 5.2 acres .....	\$1,499.16
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$6,983.44

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-4-9.0 Road Name: Whitehorse Crk Sp

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading:  $\$720.50/\text{mi} \times 5.20 \text{ mi} = \$3,746.60$

Clean Culverts:  $\$334.17/\text{mi} \times 5.20 \text{ mi} = \$1,737.68$

Subtotal: \$5,484.28

Section 700-1200 Surfacing:

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light:  $\$288.30/\text{acre} \times 5.20 \text{ acres} = \$1,499.16$

Subtotal: \$1,499.16

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 4.53% of total Costs = \$0.00

surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$6,983.44

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Upper Cow Sale Date: April 2016

Road Number: 32-5-1.0 Road Name:

Road Renovation: 0.19 mi 12 ft Subgrade ft ditch 4/13/2016

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: .....	\$84.88
Blading 0.19 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: 0.2 acres .....	\$57.66
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$0.00 Surf. \$0.00.....	\$0.00
Quarry Development: .....	\$0.00
Total:	\$142.54

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are loose cubic yards.

Road Construction Worksheet

Road Number: 32-5-1.0 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading w/o Ditches:  $\$446.73/\text{mi} \times 0.19 \text{ mi} = \$84.88$

Subtotal: \$84.88

Section 700-1200 Surfacing:  
Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

RoadSide Brushing Light:  $\$288.30/\text{acre} \times 0.20 \text{ acres} = \$57.66$

Subtotal: \$57.66

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.09% of total Costs = \$0.00  
surfacing = 0% \$0.00

Subtotal: \$0.00

Quarry Development:

Subtotal: \$0.00

Total: \$142.54

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Sale: Upper Cow  
Sale Date: April 2016  
Prep. By : C Smith  
Tract No: ORM07-TS-1

ROAD MAINTENANCE AND ROAD USE APPRAISAL WORK SHEET

Summary of Costs

1) Road Use - Amortization: (1)      \$0.00/8396 MBF = \$0.00/MBF

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2) Road Maintenance Obligation:

\$0.00 + \$0.00 + \$1980.98 + \$1329.22 + \$10885.41 = \$14195.61

3) Other Maintenance Payments:

\$0.00

4). Purchaser Maintenance Allowances:

(5.2A) Move In . . . . .	\$1447.60
(5.2B) Culverts, Catch Basins, Downspouts . . . . .	\$6683.40
(5.2C) Grading, Ditching . . . . .	\$14410.00
(5.2D) Slide Removal and Slump Repair . . . . .	\$1325.97
(5.2E) Dust Palliative (Water) . . . . .	\$3260.35
(5.2F) Surface Repair (Aggregate) . . . . .	\$0.00
(5.2G) Decommissioning . . . . .	\$1308.24
(5.2H) Other . . . . .	\$0.00

Total (5.2) = \$28435.56

1-4)      Total = \$42,631.17/8396 MBF = \$5.08/MBF



1) Road Use Fees - Amortization

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

(1.1) Subtotal \$0.00

## 2) BLM Maintenance - Timber Haul

MAINTENANCE (2.1)					ROCKWEAR (2.2)			
Road Number	A Surf	Maint	Vol		Maint	Fee x MBF =	Rkwear	
and Segment	N Type	Mi	x Fee x	MBF =				
31-5-35.0	A BST	1.12	0.00	88	\$0.00	0.00	88	\$0.00

(2.1) Subtotal \$0.00

(2.2) Subtotal \$0.00

## 3) Third Party Maintenance and Rockwear

MAINTENANCE (3.1)					ROCKWEAR (3.2)			
Agmmt	Road	Mi	x	Fee x MBF =	Maint	Fee x MBF =	Rkwear	
Number	Number							
M 824	32-4-13.3	0.24	0.97	183	\$42.60	0.49	183	\$21.52
M 824	32-4-13.2	0.38	0.97	1	\$0.38	0.49	1	\$0.19
M 824	32-4-1	1.36	0.97	540	\$712.37	0.49	540	\$359.86
M 851	31-4-24.3	0.12	0.97	250	\$29.10	0.49	250	\$14.70
M 851	31-4-23.6	0.30	0.97	517	\$150.45	0.49	517	\$76.00
M 851	31-4-24.4	0.40	0.97	463	\$179.64	0.49	463	\$90.75
M 851	31-4-25.2	0.74	0.97	463	\$332.34	0.49	463	\$167.88
M 851	31-4-25.0	0.57	0.97	966	\$534.10	0.49	966	\$269.80
R 656								\$328.52

(3.1) Subtotal \$1980.98

(3.2) Subtotal \$1329.22

## 4) Other Maintenance Payments - USFS or Others Perform Maintenance

Agency	Road Number	Fee	Fee	Vol	Maint
		MBF/Mi x Mi =	/MBF x	Hauled =	Cost

(4.1) Subtotal \$0.00

## 5) Purchaser Maintenance - Rock Wear

### TIMBER HAUL (5.1)

Road No	A	RkWear	Vol	Total
and Segment	N	Mi	x Fee x	MBF = RkWear
32-4-2.0	A	1.69	0.49	176
32-4-2.0	A	1.52	0.49	187
32-4-2.0	A	1.02	0.49	248
32-4-2.0	A	0.88	0.49	305
32-4-7.2	A	0.22	0.49	400
32-4-7.2	A	0.39	0.49	700
32-4-7.2	A	0.42	0.49	716
32-4-7.2	A	1.15	0.49	765
32-5-1.0	A	0.17	0.49	16
32-4-6.0	A	0.65	0.49	1878
32-4-6.0	A	1.10	0.49	957
32-4-6.0	A	1.15	0.49	1014
32-4-6.0	A	0.72	0.49	1892
31-5-35.0	A	0.14	0.49	873
31-4-30.0	A	0.27	0.49	557
31-4-32.0	A	0.50	0.49	87

32-4-5.1	A	0.70	0.49	87	\$29.84
32-4-5.1	A	0.10	0.49	191	\$9.36
32-4-5.1	A	0.68	0.49	205	\$68.31
32-4-5.1	A	0.85	0.49	260	\$108.29
31-4-31.0	A	0.45	0.49	660	\$145.53
31-4-31.0	A	0.20	0.49	15	\$1.47
31-5-35.0	A	0.65	0.49	88	\$28.03
31-4-14.0	A	0.40	0.49	650	\$127.40
31-4-25.5	A	0.39	0.49	402	\$76.82
31-4-25.5	A	0.15	0.49	460	\$33.81
31-4-36.0	A	0.16	0.49	60	\$4.70
31-4-27.0	A	0.40	0.49	160	\$31.36
31-4-27.0	A	0.58	0.49	710	\$201.78
31-4-26.0	A	0.15	0.49	15	\$1.10
31-4-27.0	A	0.36	0.49	752	\$132.65
31-27.0	A	0.75	0.49	850	\$312.38
31-4-27.0	A	1.90	0.49	1485	\$1382.54
31-4-27.0	A	0.25	0.49	1525	\$186.81
31-4-27.0	A	0.15	0.49	1565	\$115.03
31-4-25.0	A	0.83	0.49	866	\$352.20
31-3-31.0	A	1.80	0.49	866	\$763.81
32-4-3.0	A	0.66	0.49	37	\$11.97
31-4-34.0	A	0.33	0.49	88	\$14.23
31-4-34.0	A	0.91	0.49	125	\$55.74
32-4-15.0	A	0.25	0.49	100	\$12.25
32-4-9.0	A	0.50	0.49	103	\$25.24
32-4-11.0	A	0.45	0.49	10	\$2.21
32-4-9.0	A	1.08	0.49	113	\$59.80
32-4-9.0	A	0.81	0.49	342	\$135.74
32-4-9.0	A	0.79	0.49	393	\$152.13
32-4-9.0	A	2.25	0.49	555	\$611.89
32-4-9.0	A	0.15	0.49	591	\$43.44
32-4-4.0	A	2.65	0.49	331	\$429.80
32-4-1.0	A	2.05	0.49	534	\$536.40
32-4-1.0	A	1.74	0.49	1028	\$876.47

(5.1) Subtotal \$10885.41

#### **Purchaser Operational Maintenance**

##### **Move In**

Equipment	No Units	Move x in	Cost/ x 50 Mi	Dist x Factor	Sub- total
Motor Grader:	1	3	\$483.00	0.70	\$1014.30
Back Hoe:	1	2	\$149.00	0.70	\$208.60
Loader:			\$483.00	0.63	\$0.00
Water Truck:	1	3	\$107.00	0.70	\$224.70
Dump Truck:			\$113.00	0.63	\$0.00
Excavator:			\$483.00	0.63	\$0.00
Roller:			\$483.00	0.63	\$0.00

(5.2A) Total \$1447.60

#### **Culvert Maintenance - Including Catch basins and Downpipes**

Miles	x	Cost/Mi	=	Subtotal
20		\$334.17		\$6683.40

(5.2B) Total \$6683.40

#### **Grading (Includes Ditches and Shoulders)**

Miles	x	Cost/Mi	x	Freq	=	Subtotal
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Blade w/ Ditch:	20.00	\$720.50	1	\$14410.00
Blade w/o Ditch:	0.00	\$446.73	0	\$0.00

(5.2C) Total \$14410.00

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

Type	No Slides	Hours	Equip	
Equipment	/Slumps	x Each	x Cost	= Subtotal
Grader:	3	3	\$147.33	\$1325.97
Loader:	0	0	\$107.45	\$0.00
Backhoe:	0	0	\$76.21	\$0.00

(5.2D) Total \$1325.97

**Dust Palliative (Water)**

Spreading Hours						
No	Freq	Truck				
Miles	/ MPH	= Hours	x Days	x /Day	= Hours	
25.00	20	1.3	14	2	36	
Load & Haul =		0.0	0	0	0	
Total Hours =		36				

Truck Cost: \$89.57/Hr. x 36.4 Hours = \$3260.35

(5.2E) Total \$3260.35

**Surface Repair (Aggregate)**

Production Cost:	0.0 CY x \$0.00/CY	=	\$0.00
Haul to Stockpile:	0.0 CY x ((\$2.21/CY x 0.00 Mi) + \$0.74)	=	\$0.00
Stockpile:	0.0 CY x \$1.01/CY	=	\$0.00
Load from Stockpile:	0.0 CY x \$1.11/CY	=	\$0.00
Haul from Stockpile:	0.0 CY x ((\$2.21/CY x 0.00 Mi) + \$0.74)	=	\$0.00
Process with Grader:	0.0 CY x \$0.90/CY	=	\$0.00
Compaction:	0.0 CY x \$1.34/CY	=	\$0.00

(5.2F) Total \$0.00

**Decommissioning**

31-3-31 Tractor: D7 with rippers: 8 hr @ \$163.53/hr = \$1308.24

(5.2G) Total \$1308.24

**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

(5.2H) Total \$0.00



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 ORM07-TS-2016.0001
Sale Name Upper Cow
Sale Notice (dated) 8/25/2016
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 \$ **151,700.00** 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	8,328	X\$181.50	=\$1,511,532.00	X	=
Incense-Cedar	MBF	18	X\$166.70	=\$3,000.60	X	=
Ponderosa Pine	MBF	27	X\$26.70	=\$720.90	X	=
White Fir	MBF	11	X\$39.50	=\$434.50	X	=
Western Hemlock	MBF	12	X\$41.30	=\$495.60	X	=
<b>Total</b>		<b>8,396</b>	<b>X</b>	<b>=\$1,516,183.60</b>	<b>X</b>	<b>=</b>
			<b>X</b>	<b>=</b>	<b>X</b>	<b>=</b>
			<b>X</b>	<b>=</b>	<b>X</b>	<b>=</b>
			<b>X</b>	<b>=</b>	<b>X</b>	<b>=</b>
			<b>X</b>	<b>=</b>	<b>X</b>	<b>=</b>
			<b>X</b>	<b>=</b>	<b>X</b>	<b>=</b>
			<b>X</b>	<b>=</b>	<b>X</b>	<b>=</b>
			<b>X</b>	<b>=</b>	<b>X</b>	<b>=</b>
			<b>X</b>	<b>=</b>	<b>X</b>	<b>=</b>
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

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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.

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Bid submitted on *(date)*

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

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<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.	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
Oral Auction – Submit to Sales Supervisor prior to closing of qualifying period for tract.	

#### 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.

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## 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.