P R O S P E C T U S

DXP SCALED-SALE

GRANTS PASS RESOURCE AREA
JOSEPHINE MASTER UNIT

Medford Sale # ORM07- TS14-13
July 24, 2014

Rogue Cow Salvage, (5900)
Douglas County, (O&C) (P.D.)

BID DEPOSIT REQUIRED: $83,500.00

All timber designated for cutting in Lot 4, NW¼NE¼, SE¼SW¼, SW¼SE¼ Section 7, NW¼NE¼, S½NE¼, N½SW¼ Section 9, SE¼SW¼ Section 17, Lot 2, Lot 3, Lot 4, E½NE¼ Section 19, N½NE¼, SE¼NE¼, SW¼SW¼, NE¼SE¼, SW¼SE¼ Section 23, Lot 3, Lot 4, Lot 5, NE¼, N½SE¼ Section 27, T. 32 S., R. 7 W., Willamette Meridian, SW¼SW¼ Section 3, Lot 2, N½NE¼ Section 11, SW¼NW¼, N½SW¼, N½SE¼ Section 12, W½NE¼, E½NW¼, NE¼SW¼, SE¼ Section 13, SE¼NE¼, SE¼SW¼, SE¼ Section 14, E½NE¼, NE¼NW¼, S½SE¼ Section 15, NE¼, N½NW¼, W½SW¼, SE¼SW¼, SE¼ Section 23, NW¼NE¼, N½SW¼, SW¼SW¼ Section 25, NW¼NE¼, N½NW¼, SW¼NW¼, NW¼SW¼ Section 27, W½NW¼ Section 35, T. 32 S., R. 8 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
17,561	5,506	Douglas-fir	6,685	$117.80	$787,493.00
939	831	Ponderosa pine	1,005	$18.60	$18,693.00
1,446	789	Sugar pine	942	$22.00	$20,724.00
1,105	147	Incense cedar	189	$40.10	$7,578.90
21,051	7,273	**Totals**	8,821		$834,488.90

*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.

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 9:00 a.m. on Thursday, July 24, 2014.

CRUISE INFORMATION - The Timber has been cruised using the PCMTRE sampling method to select sample trees. The Douglas-fir in the Hazard Tree areas and Right-of-Way units have been cruised using the BLM 100% sampling method to cruise trees.

Volume for all Coniferous species in the Harvest Areas was variable plot cruised. Plot data is then used to calculate v-bar and basal area per acre using the ***National Cruise Processing Program***. The basal area was determined with a Relaskop using a 40 BAF. This sale contains a total of 186 plots. 96 sample trees were randomly selected on these plots to determine v-bar. A map showing the location of the sample trees is available at the Grants Pass Interagency Office.

With respect to merchantable trees of all conifer species: the average tree is 20.0 inches DBHOB; the average gross merchantable log contains 128 bd. ft.; the total gross volume is approximately 10,275 mbf; and 86% recovery is expected. With respect to merchantable DF trees: the average tree is 19.1 inches DBHOB; the average gross merchantable log contains 118 bd. ft.; the total gross volume is approximately 7,768 mbf; and 86% recovery is expected.

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 seven (57) units containing three hundred thirty eight (338) acres must be clear cut. This includes two (2) rights-of-way containing two (2) harvest acres. Additionally, approximately one (1) acre must be partial cut for right-of-way hazard trees.

CUTTING TIME - Contract duration will be twenty four (24) months for cutting and removal of timber.

ACCESS – Access to the sale is provided by:

1. A public road;
2. BLM existing roads;
3. Roads covered by a Right-of-Way and Road Use Agreement M-605A and M-700 between Roseburg Resources Company and the United States. In the construction and renovation of private roads, the Purchaser shall enter into a license agreement with Roseburg Resources Company. The license agreement shall be delivered to Roseburg Resources Company for execution at least 15 days prior to any use of company roads. See the Prospectus for full terms and conditions of use.
4. Roads covered by a Right-of-Way and Road Use Agreement M-605 between Plum Creek Timber Company and the United States. In the construction and renovation of private roads, the Purchaser shall enter into a license agreement with Plum Creek Timber Company. The license agreement shall be delivered to Plum Creek Timber Company for execution at least 15 days prior to any use of company roads. See the Prospectus for full terms and conditions of use.

ROAD MAINTENANCE - The Purchaser shall pay Roseburg Resources Co. road use fees of $24,391.41, based on an estimated MBF/mile and rockwear fees of $2,402.29, based on an estimated MBF/mile. The Purchaser shall pay Plum Creek Timberlands, LP road use fees of $3,120.00, based on an estimated MBF/mile and rockwear fees of $622.43, based on an estimated MBF/mile. The Purchaser shall pay the BLM a road maintenance fee of $42,479.10 and a rockwear fee of $4,718.87, based on an estimated MBF/mile. See Exhibit D map for specification of road maintenance responsibility. Only the map pages of Exhibit D are included in the Prospectus. Refer to the contract file for the full Exhibit D.

ROAD CONSTRUCTION AND RENOVATION - The contract will require the Purchaser to renovate 35.92 miles of existing road and construct and renovate 1.57 miles of temporary roads. Additional information is available in the timber sale prospectus. All temporary road construction, decommissioning, and barricade construction shall occur during the dry season.

SOIL DAMAGE PREVENTION - Pursuant to Section 26 of Form 5450-4, Timber Sale Contract, the Purchaser shall not conduct mechanical ground-based harvesting, ground-based yarding, skyline based yarding, helicopter based yarding, skid trail and landing rehabilitation, temporary route construction, or temporary route decommissioning in Timber Sale Units 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. If wetting winter rains have not occurred; the weather forecast is monitored daily; all winterization actions can reasonably occur prior to the season ending storm event; soil moisture conditions are dry, as determined by the inability of a soil sample taken at four (4) to six (6) inches to maintain form when compressed and by the inability of soil moisture at the surface to be readily displaced, causing ribbons and ruts along equipment tracks, then the Contracting Officer may approve a conditional waiver. If impacts to soil resulting from said conditional waiver are not acceptable as determined by the Authorized Officer, the waiver will be revoked.

Pursuant to Section 26 of Form 5450-4, Timber Sale Contract, the Purchaser shall not conduct any haul on natural surface and rocked roads on the Contract 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. If the Authorized 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 capable of one-end suspension with a minimum lateral yarding capability of seventy-five (75) feet while maintaining a fixed position during inhaul. A helicopter capable of yarding with a minimum dropline length of one hundred fifty (150) feet.

SLASH DISPOSAL - Slash disposal within the harvest units will consist of a combination of site preparation, machine pile, lop and scatter, slashing, hand pile and cover hand piles, hand pile burn, and cover and burn landing decks, and YUM yarding as described in SD-5 of the Special Provisions. Lop and scatter areas of high slash concentration within units. Hand pile and cover slash located in harvest units where a main road and/or ridgeline coincides with a harvest unit boundary. A post--logging assessment shall be conducted to determine treatment needs in all units. The initial appraisal prescribed nineteen (19) acres of site preparation, fifteen (15) acres of machine pile, two hundred ninety-six (296) acres of lop and scatter, thirty-five (35) acres of hand pile and cover hand piles, nineteen (19) acres of slashing, forty-seven (47) acres of cover and burn landing piles, and twenty (20) acres of YUM yarding.

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. **Harvest operations on Plum Creek Timber land in Section 9 and Section 14 are planned.** Based upon requested road right-of-way construction through Rogue Cow Timber Sale Units 9-7A and 14-1A, along with harvest activities adjacent to Units 14-2A and 14-3A by Plum Creek Timber Company, a modification to the Rogue Cow Timber Sale Contract could be warranted.

2. No extension of time beyond the normal 30 days will be granted for completing bonding and contract signing requirements.

3. One-end suspension cable yarding, mechanical ground-based harvesting, and ground-based yarding operations would be restricted to dry conditions. See special provision L-18 and seasonal restriction matrix for more information.

4. No tree felling or yarding shall be conducted in Harvest unit 23A, and portions of Units 25-6 and 27-2A as shown on Exhibit A 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. If wetting winter rains have not occurred; the weather forecast is monitored daily; soil moisture conditions are dry, as determined by the inability of a soil sample taken at four (4) to six (6) inches to maintain form when compressed and by the inability of soil moisture at the surface to be readily displaced, causing ribbons and ruts along equipment tracks, then the Contracting Officer may approve a conditional waiver. If impacts to soil resulting from said conditional waiver are not acceptable as determined by the Authorized Officer, the waiver will be revoked.

5. No harvest operations within Units 7-2A, 11-3B, 12-1, 12-3B, 12-4, 12-4B, 13-B, 14-1A, 23-3, and 23-4 shall be conducted between March 1 and June 30 of the same calendar year, both days inclusive. This restriction will not apply if it can be shown from northern spotted owl protocol surveys conducted by the Bureau of Land Management in accordance with accepted standards that northern spotted owl nesting and/or fledging activities are not occurring during the year and/or time of harvest.

6. All leave trees will be selected by the Purchaser through Designation by Prescription (DxP) criteria as outlined in Exhibit E.

7. In cable and ground based yard units, all trees designated for cutting shall be whole tree yarded or yarded with tops attached unless tops are needed in contour felling areas or are needed to meet coarse woody debris (CWD) requirements as determined by the Authorized Officer.

8. The purchase of this salvage timber entitles the Purchaser to volume-for-volume and contract term-for-contract term extensions without reappraisal of qualifying Federal Timber Sale contracts for green timber held by the Purchaser.

NARRATIVE DESCRIPTION OF HOW TO GET TO THE TIMBER SALE AREA – To access units in Rogue Cow Salvage: From Interstate 5 take exit 80 toward Glendale. Turn left onto Glendale Valley Rd. Continue onto Sether Ave. Sether Ave. turns slightly left and becomes Gilbers Ave. Turn left onto Molly St. Turn right onto Pacific Ave. Pacific Ave. becomes Mt. Rueben Rd. Continue on Mt. Rueben Rd. for about 4.5 miles where it becomes Cow Creek Rd. Continue on Cow Creek Rd. and follow Vicinity map to Harvest Units.

ENVIRONMENTAL ASSESSMENT – An environmental assessment DOI-BLM-OR-M070-2014-006-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.

ROGUE COW SALVAGE SPECIAL PROVISIONS

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

Section 41. Timber Reserved from Cutting - The following timber on this 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-2 All timber except approximately two hundred twenty-five (225) hazard trees, marked for cutting heretofore by the Government with blue paint above and below stump height along BLM Rd Nos. 32-7-19.3, 32-7-19.8, 32-8-23.0, 32-8-23.1, 32-8-24.0, and
(C) 32-8-24.1, as shown on Exhibit A.

(D) IR-6 All leave trees required to meet the Selection Criteria as outlined in Exhibit E, in harvest units as shown on Exhibit A. If leave trees must be felled for safety, they shall be left on-site if retention would not cause safety hazards.

(E) IR-6 All pre-existing dead and down wood required to meet the Selection Criteria as outlined in Exhibit E, in harvest units as shown on Exhibit A.

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 (8-3/4) inches in thickness; (3) split or round bolts or other roundwood not processed to standards or specifications suitable for end product uses; or (4) western red cedar lumber which does not meet lumber of American Standards Grades of Number 3 dimension or better, or Pacific Lumber Inspection Bureau R-List Grades of Number 3 Common or better. Thus, timber manufactured into the following will be considered processed: (1) lumber and construction timbers regardless of size, manufactured to standards and specifications suitable for end-product uses; (2) chips, pulp, and pulp products; (3) green or dry veneer and plywood; (4) poles and piling cut or treated for use as such; (5) cants, squares, and lumber cut for remanufacturing of eight and three quarters (8-3/4) inches in thickness or less; or (6) shakes and shingles.

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

The Purchaser is required to maintain and upon request to furnish the following information:

1. Date of last export sale.

2. Volume of timber contained in last export sale.

3. Volume of timber exported in the past twelve (12) months from the date of last export sale.

4. Volume of Federal timber purchased in the past twelve (12) months from the date of last export sale.

5. Volume of timber exported in succeeding twelve (12) months from date of last export sale.

6. Volume of Federal timber purchased in succeeding twelve (12) months from date of last export sale.

In the event the Purchaser elects to sell any or all of the timber sold under this contract in the form of unprocessed timber, the Purchaser shall require each party buying, exchanging, or receiving such timber to execute a "Certificate as to

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

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

Prior to the termination of this contract, the Purchaser shall submit to the Authorized Officer Form 5460-15 (Log Scale and Disposition of Timber Removed Report), which shall be executed by the Purchaser. In addition, the Purchaser is required under the terms of this contract to retain for a three-year period from the date of termination of the contract the records of all sales or transfer of logs involving timber from the sale for inspection and use of the Bureau of Land Management.

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

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

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

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

(B) Logging

(1) L-1 Before beginning operations on the contract area for the first time or after a shutdown of seven (7) or more days, the Purchaser shall notify the Authorized Officer in writing of the date they plan to begin operations. This written notification must be received by the Authorized Officer no less than seven (7) days prior to the date the Purchaser plans to begin or resume operations. The Purchaser shall also notify the Authorized Officer in writing if they intend to cease operations for any period of seven (7) or more days.

(2) L-3 All trees designated for cutting in salvage harvest units 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.

(3) L-4 All conifer trees eight (8) inches or larger D.B.H.O.B. and not reserved in Section 41 nor in Exhibit E shall be felled in all salvage harvest units as shown on Exhibit A.

(4) L-6 In cable and ground based yard harvest units 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; except when tops are needed to meet contour felling requirements; or except when tops are needed to meet coarse woody debris (CWD) requirements as determined by the Authorized Officer. If excessive stand damage occurs, all trees shall be bucked into log lengths prior to being yarded.

(5) L-7 In the cable yarding areas of harvest units as shown on Exhibit A, all trees designated for cutting shall be manually felled. Ground-based yarding portions of harvest units as shown on Exhibit A 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) 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.

(6) 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
CABLE UNITS 7-6A, 9-1A, 9-2A, 9-5A, 9-6A, 9-7A, 9-8A, 11-2A, 11-3A, 11-3B, 12-1, 13-E, 13-F, 13-A1, 14-1A, 14-2A, 14-3A, 15-1, 15-3, 25-2, 25-5, 25-6, 25-7, 27-2A, 27-5, 35-4, 35-5	Yarding shall 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. Full log suspension is required over streams and for two hundred (200) feet on each side of the stream with prior approval of the Authorized Officer. 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. Yarding corridors shall be perpendicular to the contours. Prior to applying the Selection Criteria outlined in Exhibit E and/or falling any timber in the unit, all yarding corridors, tail/lift trees, and/or intermediate support trees shall be pre-designated by the Purchaser and approved by the Authorized Officer. Directional falling to lead away from streams, reserve trees and snags, resource concern buffers, and unit boundaries will be required. Existing cable corridors shall be used whenever possible. Yarding corridors shall be approximately one hundred fifty (150) feet apart, measured at the tailholds. Yarding corridor widths shall not exceed six (6) feet either side of the skyline centerline. Landing size shall not exceed one-quarter (¼) acre, shall be located along existing roads, swing trails, and/or temporary routes within unit boundaries, and shall be approved by the Authorized Officer. Expansion of existing landings within the Riparian Reserve shall not be permitted. Design landings with adequate drainage so that they are not hydrologically connected to the ditchline of roads. All yarding corridors will be water-barred and will be covered with slash prior to seasonal winter rains.

	Do not yard cull material greater than sixteen (16) inches diameter at the large end and sixteen (16) feet in length and greater to landings.
GROUND BASED UNITS 3-2A, 13-1, 17-1A, 19-2, 23-1, 25-6, 27-2A, 27-4A, 27-5A, RW Unit 5, RW Unit 6	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. Prior to applying the Selection Criteria outlined in Exhibit E and/or 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. 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. Upon completion of harvest, utilized skid trails would be rehabilitated. Yarding tractors will be equipped with integral arches and winch systems capable of lining logs at least seventy-five (75) feet. Landing size shall not exceed one-quarter (¼) acre, shall be located along existing roads and/or temporary routes within unit boundaries, and shall be approved by the Authorized Officer. Expansion of existing landings within the Riparian Reserve shall not be permitted. Design landings with adequate drainage so that they are not hydrologically connected to the ditchline of roads. Directional falling to lead and away from streams, reserve trees and snags, resource concern buffers, and unit boundaries will be required. The use of blades while tractor yarding will be limited, equipment shall walk over as much ground litter as possible. Do not yard cull material greater than sixteen (16) inches diameter at the large end and sixteen (16) feet in length and greater to landings.

HELICOPTER UNITS 7-2A, 7-6B, 7-6C, 7-6D, 7-6E, 9-7A, 12-3A, 12-3B, 12-4, 12-4B, 13-A2, 13-A3, 13-B, 13-E, 13-1, 15-3B, 15-4, 23-A, 23-B, 23-C, 23-D, 23-F, 23-G, 23-3, 23-4, 27-2A, 27-3B, 27-4	All yarding will be done with an aerial system. Landing size shall not exceed one (1) acre and all landings are to be approved by the Authorized Officer prior to construction. Expansion of existing landings within the Riparian Reserve shall not be permitted. Design landings with adequate drainage so that they are not hydrologically connected to the ditchline of roads. Service pads and helispot construction cannot occur without prior approval of the Contract Administrator and shall not be larger than necessary. A dropline with a minimum length of one hundred fifty (150) feet is required. Logs to be yarded will be lifted vertically to a height above the adjacent leave trees without horizontal movement. 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.
ROADSIDE HAZARD TREES BLUE-MARKED FOR CUT See roads 32-7-19.2, 32-7-19.3, 32-7-19.8, 32-8-23.0, 32-8-23.1, 32-8-24.0, and 32-8-24.1 as shown on Exhibit A	The Purchaser shall not skid logs on any road, from ditchline to outside shoulder of road, unless approved by the Authorized Officer. Care shall be taken to avoid damaging roads during operations. Any road damage shall be repaired by the Purchaser to the satisfaction of the Authorized Officer. Log decks shall only be allowed on the fill slope. Log decks will not be permitted in the ditchline, nor the cutslope, unless approved by the Authorized Officer. Landing size shall not exceed one-quarter (¼) acre, shall be located along existing roads and/or temporary routes, and shall be approved by the Authorized Officer. No landing creation or expansion shall occur without prior approval from the Authorized Officer. Design landings with adequate drainage. Conifer tops and limbs, hardwoods, brush, and other cut vegetation created from the roadway clearing treatment shall be lopped and scattered and treated concurrently with felling operations. All logging debris shall be removed from roads and ditches upon completion of yarding operations. All mechanized equipment shall only operate on existing road surfaces.

	Do not yard cull material greater than sixteen (16) inches diameter at the large end and sixteen (16) feet in length and greater to landings.

(7) L-11 No new landings shall be located within two hundred (200) feet of streams as shown on Exhibit A.

(8) L-12 Helicopter landings shall be placed at the approximate locations as shown on Exhibit A, unless an alternate landing site is approved by the Authorized Officer.

(9) L-15 In portions of harvest units 7-2A, 7-6A, 7-6B, 7-6C, 7-6D, 7-6E, 9-2A, 9-6A, 9-7A, 11-3A, 11-3B, 12-3B, 12-4, 13-A1, 13-A2, 13-A3, 13-B, 13-E, 13-F, 13-1, 14-1A, 15-3, 15-4, 17-1A, 19-2, 23-A, 23-B, 23-C, 23-D, 23-G, 25-2, 25-5, 25-6, 27-2A, 27-3B,27-4, 27-4A, 27-5, 27-5A, and 35-5 shown on Exhibit F, all trees needed to meet Exhibit F except those reserved, shall be felled parallel to the contour of the slope and prior to falling trees, except right-of-way trees, on the adjacent slope.

(10) L-18 No mechanical ground-based harvesting or ground-based yarding 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. Purchaser may request, in writing, a conditional waiver of this restriction. If wetting winter rains have not occurred; the weather forecast is monitored daily; all winterization actions can reasonably occur prior to the season ending storm event; the soil moisture conditions are dry, as determined by the inability of a soil sample taken at four (4) to six (6) inches to maintain form when compressed and by the inability of soil moisture at the surface to be readily displaced, causing ribbons and ruts along equipment tracks, then the Contracting Officer may approve a conditional waiver. If impacts to soil resulting from said conditional waiver are not acceptable as determined by the Authorized Officer, the waiver will be revoked.

(11) L-18 No tree felling or yarding shall be conducted in harvest units 23-A, and portions of units 25-6 and 27-2A in the **Talus Soil Area** as shown on Exhibit A 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. If wetting winter rains have not occurred; the weather forecast is monitored daily; the soil moisture conditions are dry, as determined by the inability of a soil sample taken at four (4) to six (6) inches to maintain form when compressed and by the inability of soil moisture at the surface to be readily displaced, causing ribbons and ruts along equipment tracks, then the Contracting Officer may approve a conditional waiver. If impacts to soil resulting from said conditional waiver are not acceptable as determined by the Authorized Officer, the waiver will be revoked.

(12) L-18 No one-end suspension cable yarding shall be conducted **on slopes greater than 70%** in portions of harvest units 7-6A, 9-5A, 9-6A, 12-1, 13-F, 15-1, 25-6,

27-2A, 27-5, and 35-5 as shown on Exhibit A between October 15 of one calendar year and May 15 of the following calendar year both day inclusive. Purchaser may request in writing, a conditional waiver of this restriction. If yarding can be accomplished using full suspension, then the Contracting Officer may approve a conditional waiver. If impacts to wet soil resulting form said conditional waiver are not acceptable as determined by the Authorized Officer, the waiver will be revoked.

(13) L-18 No one-end suspension cable yarding shall be conducted in harvest units 7-6A, 9-1A, 9-2A, 9-5A, 9-6A, 9-7A, 9-8A, 11-2A, 11-3A, 11-3B, 12-1, 13-E, 13-A1, 13-F, 14-1A, 14-2A, 14-3A, 15-1, 15-3, 25-2, 25-5, 25-6, 25-7, 27-2A, 27-5, 35-4, and 35-5 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. If yarding can be accomplished using full suspension or wetting winter rains have not occurred; the weather forecast is monitored daily; all winterization actions can reasonably occur prior to the season ending storm event; the soil moisture conditions are dry, as determined by the inability of a soil sample taken at four (4) to six (6) inches to maintain form when compressed and by the inability of soil moisture at the surface to be readily displaced, causing ribbons and ruts along equipment tracks, then the Contracting Officer may approve a conditional waiver. If impacts to soil resulting from said conditional waiver are not acceptable as determined by the Authorized Officer, the waiver will be revoked.

(14) L-18 No roadside hazard tree operations, landing construction, skid trail and landing rehabilitation, temporary route construction, temporary route reconstruction, or temporary route decommissioning 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. Purchaser may request in writing, a conditional waiver of this restriction. If wetting winter rains have not occurred; the weather forecast is monitored daily; all winterization actions can reasonably occur prior to the season ending storm event; moisture conditions on the road are deemed acceptable and do not result in continuous mud splash or tire slide, fines being pumped through road surfacing from the subgrade, road drainage causing a visible increase in stream turbidities, surface rutting, surface ribboning, or any condition that would result in water being chronically routed into tire tracks or away from designed road drainage during precipitation events, then the Contracting Officer may approve a conditional waiver. If moisture conditions on the road resulting from said conditional waiver are not acceptable as determined by the Authorized Officer, the waiver will be revoked.

(15) L-18 No log loading or haul on natural surface nor rocked roads shall be conducted on the Contract 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. If the Authorized 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, 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.

(16) L-18a No harvest operations within units 7-2A, 11-3B, 12-1, 12-3B, 12-4, 12-4B, 13-B, 14-1A 23-3, and 23-4 shall be conducted between March 1 and June 30 of the same calendar year, both days inclusive. This restriction will not apply if it can be shown from northern spotted owl protocol surveys conducted by the Bureau of Land Management in accordance with accepted standards that northern spotted owl nesting and/or fledging activities are not occurring during the year and/or time of harvest.

(17) L-20 During logging operations, the Purchaser shall keep all roads, where it passes through the contract area, clear of trees, rock, dirt, and other debris so far as practicable. The roads shall not be blocked by such operations for more than thirty (30) minutes.

(18) L-21 The Purchaser shall provide two (2) flagmen to control traffic along BLM roads 32-7-19.3, 32-7-19.8, 32-8-23.0, 32-8-23.1, 32-8-24.0, and 32-8-24.1 where it passes through The Approximate Area of Blue-Marked Hazard Trees whenever tree felling operations are in progress in this area.

(19) L-24 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.

(20) L-25 Before cutting and removing any trees necessary to facilitate logging in the 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/or cable yarding roads upon which timber is identified by the Purchaser to be cut and removed in accordance with this special provision must be necessary for the safe and expeditious removal of timber sold under this contact and shall be limited to the minimum width

necessary for yarding of logs with a minimum of damage to reserve trees; however, unless otherwise approved in writing by the Authorized Officer, the width of each skid road, and/or 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 color of paint designated at the pre-work meeting, 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 unless: the value of the timber must be reappraised subject to the terms for contract extension set forth in Sec. 9 of the contract.

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

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

(21) L-25M Except for logs sold and removed from the contract area, and except for logs reserved in Section 41, all hardwoods from areas specified below and shown on Exhibit E-13, which meet the length and diameter specifications shown below, shall be yarded and decked or windrowed at the log destination area(s) described below and shown on Exhibit E-13. If a log or piece of log meeting the specifications shown below is bucked and left in place, all portions of that log shall be yarded and decked or windrowed to the following described log destination area(s).

Specified Areas	Log Destination Areas	Log Specifications
Twenty (20) acres in the cable yard portion of Unit 27-2A as shown on Exhibit E-13	Deck hardwoods along Temp. Route 27-2	Logs, including hardwoods, which are eight (8) inches or larger, but less than seventeen (17) inches in diameter at the large end and longer than six (6) feet in length.

(22) L-28 In all cable yarding units, as shown on Exhibit A, the Purchaser shall make cable yarding road changes by completely spooling the cables and restringing the layout from the head spar to the new tailhold to protect advance reproduction and/or reserve trees and snags present on these areas.

(C) Road Construction, Renovation, Maintenance, and Use

(1) RC-1a The Purchaser shall construct and/or renovate all roads and other structures in strict accordance with the plans and specifications shown on Exhibit C, which is attached hereto and made a part hereof.

(2) RC-1b Prior to removal of any timber, except right-of-way timber, the required construction and/or renovation of the haul route for that timber shall be completed as specified in Exhibit C.

(3) RC-1d The Purchaser shall not commence work on road improvements, or 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-2 BLM Maintenance. The Purchaser is authorized to use the roads listed below and shown on Exhibits C and D which are under the jurisdiction of the Bureau of Land Management for the removal of Government timber sold under the terms of this contract, provided that the Purchaser pay the required maintenance obligations described in Section 42(C)(7). Any road listed below and requiring construction or renovation in Exhibit C of this contract, shall be maintained by the Purchaser until receiving written acceptance of the construction

or renovation from the Authorized Officer. The Purchaser shall pay current Bureau of Land Management maintenance fees for the sale of additional timber under modification to the contract.

Road No. and Segment	Length Miles Used	Road Control	Road Surface Type
30-6-32	0.30	BLM	BST
32-7-19.3	6.32	BLM	BST
32-8-1.1	2.60	BLM	BST
32-8-24	3.88	BLM	BST
32-8-24.1	2.40	BLM	ASC
33-7-2	10.32	BLM	BST
Total	**25.82**		

(5) RC-2a Purchaser Maintenance. The Purchaser is authorized to use the roads listed below and shown on Exhibits C and D, which are under the jurisdiction of the Bureau of Land Management, Roseburg Resources Company (RRC) and/or Plum Creek Timberlands, LP, for the removal of Government timber sold under the terms of this contract and/or the hauling of rock as required in Exhibit C, provided that the Purchaser comply with the conditions set forth in Section 42(C)(9), Section 42(C)(10), and Section 42(C)(11) and pay the required rockwear obligation described in Section 42(C)(8). The Purchaser shall pay current Bureau of Land Management rockwear fees for the sale of additional timber under modification to the contract.

Road No. and Segment	Length Miles Used	Road Control	Road Surface Type
32-7-8 A	1.81	BLM	ASC
32-7-17	0.28	BLM	GRR
32-7-18 A1-A2	2.05	BLM	GRR
32-7-18 B	0.78	Plum Creek	ASC
32-7-18.3	1.23	RRC	ASC/NAT
32-7-19.2	0.16	RRC	ASC
32-7-19.4	0.13	BLM	ASC
32-7-19.7 A	0.19	BLM	ASC
32-7-19.7 B	0.14	RRC	ASC
32-7-19.7 C	0.32	BLM	ASC
32-7-19.8	1.60	BLM	ASC
32-7-20.1 A	4.60	BLM	ASC
32-7-20.1 B	0.85	BLM	ASC
32-7-21 A	0.44	BLM	ASC
32-7-21.1	0.10	BLM	ASC
32-7-21.2 A-B	2.83	BLM	ASC
32-7-26.1 A-B	1.15	RRC	NAT*

Road No. and Segment	Length Miles Used	Road Control	Road Surface Type
32-7-28	0.87	RRC	PRR
32-7-28.1	0.05	RRC	PRR
32-7-28.2	0.36	RRC	PRR
32-7-34 A	0.57	BLM	PRR
32-7-35 A1-A2	0.71	BLM	PRR
32-7-35 B-C	1.11	RRC	PRR
32-8-9.1	0.57	BLM	PRR
32-8-10 A-B1	0.35	BLM	NAT
32-8-10 B2	0.26	RRC	NAT*
32-8-10.2 A	0.44	Plum Creek	ASC
32-8-10.2 B	0.57	RRC	ASC
32-8-11 A	1.53	RRC	ASC
32-8-15.1	0.60	BLM	NAT*
32-8-22 A	0.72	BLM	NAT*
32-8-22 B-D	0.86	Plum Creek	NAT*
32-8-22.3 A	0.35	RRC	NAT*
32-8-22.3 B	0.08	BLM	NAT*
32-8-22.3 C	0.32	Plum Creek	NAT*
32-8-22.3 D	0.13	BLM	NAT*
32-8-22.3 E	0.16	Plum Creek	NAT*
32-8-22.3 F	0.18	BLM	NAT*
32-8-22.3 G	0.10	Plum Creek	NAT*
32-8-22.3 H	0.15	BLM	NAT*
32-8-23 A	0.46	BLM	NAT*
32-8-23.1 A	0.55	BLM	NAT*
32-8-23.1 B	0.40	RRC	NAT*
32-8-25.1	0.55	BLM	ASC
32-8-26 A1-A2	2.41	BLM	ASC
32-8-26.1	0.92	BLM	NAT*
32-8-28	0.58	Plum Creek	NAT*
32-8-35.4	0.35	BLM	NAT*
Total	**35.92**		

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

(6) RC-2d The Purchaser shall be authorized to use other roads not included in Section 42(C)(4) and/or Section 42(C)(5) provided, that in the use of such roads, the Purchaser shall pay the Government current Bureau of Land Management road maintenance fees for the particular surface type of the roads used.

For administrative purposes the total maintenance and rockwear obligation due shall be based upon the estimated volume set forth in Exhibit B of this contract and mileage of roads used as determined by the Authorized Officer.

In the event logs are hauled over more than one route, the estimated volume set forth in Exhibit B shall be proportioned on the basis of actual volume removed. Prior to the use of such roads, the Purchaser shall give written notice to the Authorized Officer of the roads intended for use in the removal of the timber purchased under this contract, together with an estimate of the volume to be hauled over such roads.

Adjustments of fee obligations for additional timber volume shall be amended per Section 42(C)(7) and Section 42(C)(8) of this contract.

(7) RC-2e The Purchaser is authorized to use the roads listed in Section 42(C)(4) which are under the jurisdiction of the **Bureau of Land Management**, and maintained by the Bureau of Land Management, for the removal of Government timber sold under the terms of the contract; provided, that the Purchaser shall pay a road maintenance fee of ***$0.71*** per thousand board feet log scale per mile for the use of said BST roads. Purchaser shall pay a road maintenance fee of ***$1.25*** per thousand board feet log scale per mile for the use of said ASC road. The total maintenance fee due shall be based upon volumes determined pursuant to Section 2 and 3 of this contract and mileage of roads used as determined by the Authorized Officer. Prior to the use of such roads, the Purchaser shall give written notice to the Authorized Officer of the roads intended for use in the removal of timber purchased under this contract, together with an estimate of the volume to be hauled over such roads. **The Purchaser will be required to label, with a permanent ink marker, each load ticket with the corresponding unit number as directed by the Authorized Officer.** The Authorized Officer shall establish an installment schedule of payment of the maintenance obligation. If it is determined by the Authorized Officer, after all merchantable timber has been cut and scaled, that the total maintenance payments made under this contract exceed the total maintenance payment due, such excess shall be returned to the Purchaser within sixty 60 days after such determination is made.

(8) RC-2e$_{(rw)}$ The Purchaser is authorized to use the roads listed in Section 42(C)(5) which are under the jurisdiction of the **Bureau of Land Management**, and maintained by the Purchaser, for the removal of Government timber sold under the terms of the contract; provided, that the Purchaser shall pay a road rockwear fee of ***$0.49*** per thousand board feet log scale per mile for the use of said aggregate roads. The total rockwear fee due shall be based upon volumes determined pursuant to Section 2 and 3 of this contract and mileage of roads used as determined by the Authorized Officer. Prior to the use of such roads, the Purchaser shall give written notice to the Authorized Officer of the roads intended for use in the removal of timber purchased under this contract, together with an estimate of the volume to be hauled over such roads. **The Purchaser will be**

required to label, with a permanent ink marker, each load ticket with the corresponding unit number as directed by the Authorized Officer. The Authorized Officer shall establish an installment schedule of payment of the rockwear obligation. If it is determined by the Authorized Officer, after all merchantable timber has been cut and scaled, that the total rockwear payments made under this contract exceed the total rockwear payment due, such excess shall be returned to the Purchaser within sixty 60 days after such determination is made.

(9) RC-2e$_{(LA)}$ The Purchaser shall pay an estimated road maintenance fee for each License Agreement specified in Section 42(C)(12) and Section42(C)(13), per thousand board feet log scale per mile for the use of roads specified in Section 42(C)(5). The total maintenance fee due to each Licensor shall be based upon volumes determined pursuant to Section 2 and 3 of this contract and mileage of roads used as determined by the Authorized Officer. Prior to the use of such roads, the Purchaser (Licensee) shall give written notice to the Authorized Officer and licensor of the roads intended for use in the removal of timber purchased under this contract, together with an estimate of the volume to be hauled over such roads from each unit. **The Purchaser will be required to label, with a permanent ink marker, each load ticket with the corresponding unit number as directed by the Authorized Officer.** The Licensee shall comply with the terms of the License Agreements for the use of roads listed in Section 42(C)(5), for payment of fees and final fee reconciliation with the Licensor upon report of final volume removed as determined by the Authorized Officer.

(10) 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)(5). 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.

(11) RC-2h Except for road maintenance in accordance with Section 42(C)(12) and Section 42(C)(13), the Purchaser shall perform any required road repair and maintenance work on roads used by him, under the terms of Exhibit D, "Road Maintenance Specifications," of this contract, which is attached hereto and made a part hereof.

(12) RC-3 In the use of roads listed in Section 42(C)(5), controlled by **Roseburg Resources Company (RRC)**, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. M-605A or M-700 between the United States of America and Roseburg Resources Company and pay the required

fees associated with timber haul for this contract. These documents are available for inspection at the Bureau of Land Management, Medford District Office, 3040 Biddle Road, Medford, Oregon 97504. Prior to the use of said roads, 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.

(13) RC-3 In the use of roads listed in Section 42(C)(5), controlled by **Plum Creek Timberlands, LP**, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. M-605 between the United States of America and Plum Creek Timberlands, LP and pay the required fees associated with timber haul for this contract. This document is available for inspection at the Bureau of Land Management, Medford District Office, 3040 Biddle Road, Medford, Oregon 97504. Prior to the use of said roads, 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.

(14) 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 request and agree to the modification of this contract to provide for such use and for allowances for amortization of the Government's share of the capital investment of any such road.

(15) 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:

(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 will be allowed to operate within the Contract 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 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.

(3) 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.

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

(5) 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 dry draws and swales. If landing location cannot be avoided, ensure that properly installed sediment control measures are placed and maintained, as needed, to keep eroded material onsite.

(6) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall cover cable yarding corridors and other areas of exposed soil resulting from this action. Slash, wood chips, and/or straw mulch shall be placed over them to reduce the risk of surface erosion and to protect water quality. This would occur prior to seasonal winter rains. Slash shall not exceed a depth of 18 inches.

(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.

(8) 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, 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 headwalls, slide areas, high landslide hazard locations or steep erodible fill slopes as directed by the Authorized Officer.

(9) 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 temporary routes, skid trails, 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 eighteen (18) inches, and no further than thirty six (36) 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 twenty four (24) months of harvest and during the dry season.

(10) 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.

(11) 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.

(12) 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;

(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 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.a. of the contract. Any First Installment amount temporarily reduced may be refunded or transferred

to another BLM contract at the request of the Purchaser. However, if the Purchaser has outstanding debt owing the United States, the Contracting Officer must first apply the amount of First Installment that could be refunded to the debt owed in accordance with the Debt Collection Improvement Act, as amended (31 USC 3710, *et seq.*). Upon Purchaser's receipt of a bill for collection and written notice from the Contracting Officer lifting the suspension, the Purchaser shall restore the First Installment to the full amount shown in Section 3.a. of the contract within 15 days after the bill for collection is issued, subject to Section 3.g. 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 a Court-ordered injunction results in a suspension period in which the Purchaser loses operating time of 30 calendar days or more during operating seasons within the contact period, the Contracting Officer shall unilaterally modify the contract based on reappraisal of the remaining volume as of the date that the suspension is lifted. The 30 days can be the sum of days accruing during more than one operating season. Reappraisal may result in a decrease to the unit price bid per species. Reappraisal will be based on the loss of net volume due to the deterioration of logs during the period of delay and any associated changes in amortization of logging costs per unit of volume, as determined by the Authorized Officer. Amortization of road construction cost over a reduced net volume will be considered as well as any additional move-in or logging costs caused by the delay, as determined by the Authorized Officer. Reappraisal will adjust Exhibit B volume and values, and will not consider changes in the market price of timber.

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

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

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

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

(13) E-6 The Purchaser shall notify the Authorized Officer in writing by February 1 of each calendar year if operations are expected to take place on the contract area as limited in Section 42(B)(16)(L-18a) of the contract, between March 1 and September 30, both days inclusive. If notification is not received by the Authorized Officer by February 1, felling, bucking, yarding, road construction, or any other activity with the potential to disturb nesting northern spotted owls may not be allowed during this time period.

Upon receipt of a notice that the Purchaser expects to perform such operations during this time period, the Government will conduct surveys to determine whether spotted owls are nesting within 0.25 miles of the harvest units. If it is

determined that spotted owls are not nesting or that no young have been produced, the Authorized Officer may lift the seasonal restriction on such operations in writing. Without this written approval, such operations are prohibited from March 1 through September 30 of each year.

(E) Miscellaneous

(1) M-2 The Government at its option may check scale any portion of the timber removed from the contract area. The Purchaser hereby agrees to make such contract timber available for scaling at a location designated by the Authorized Officer. In the event that BLM elects to check scale and if such check scaling causes a delay in log transportation time, an adjustment will be made to the purchase price as follows. If the entire sale is check scaled, the purchase price of this contract shall be reduced by Six Thousand Six Hundred Fifteen and 75/100 dollars ($6,615.75). In the event that only a portion of the contract timber is scaled, the purchase price shall be reduced by that portion of Six Thousand Six Hundred Fifteen and 75/100 dollars ($6,615.75), which is equal to the percentage of timber sold which was actually scaled by the Government. For purposes of computing this price reduction, the percentage of timber sold which has been scaled shall be determined by the Government. Any reduction in purchase price under the terms of this provision shall be full compensation to the Purchaser for any expense or loss incurred as a result of such scaling.

(F) Fire Prevention and Control

(1) F-1a Fire Prevention and Control. Primarily for purposes of fire prevention and control, the Purchaser shall comply with the following provisions:

(a) Prior to the operation of power driven equipment in construction or logging operations under this contract during the closed fire season or periods of fire danger, prepare a fire prevention and control plan to the satisfaction of the State of Oregon, Department of Forestry.

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

1. F-2a Fire fighting tools shall be kept at each landing or at such other place as the Authorized Officer shall designate whenever people are working on the contract area. All fire fighting tools shall be kept in a sturdily constructed box which shall be painted red and lettered on the front or top in large letters, "For Fire Only."

The box shall have a hinged lid and a hasp by which the lid can be sealed. One box may serve two landings not over six hundred (600) feet apart. When filled, the box shall not weigh over two hundred (200) pounds. The fire tools shall be in good condition, be tight on

strong handles, and have sharp cutting edges. There shall not be less than four (4) tools in each box nor less than one (1) tool for each person working on the contract area. Three-fourths (¾) of all fire tools shall be shovels, hazel hoes, or other scraping tools. The fire tools shall be used only for fighting fire.

2. F-2b A round pointed size "0" or larger shovel in good condition shall be within fifty (50) feet of any power saw when in operation.

3. F-2c At each landing during periods of operation one (1) tank trucks. Each truck shall have three hundred (300) gallons minimum capacity with five hundred (500) feet minimum of hose and a nozzle acceptable to the Authorized Officer and a mounted or portable pump conforming to the standards set forth in Oregon Revised Statute ORS 477.645 through ORS 477.670 and any rule promulgated pursuant to those statutes. All hose couplings shall have the standard thread adopted by the State Fire Marshall pursuant to ORS 476.410 as amended or be provided with suitable adapters. At the close of each working day, all bulldozers and tank trucks shall be filled with fuel and made ready for immediate use. All tank trucks and portable tanks shall be filled with water and made available for immediate use.

4. F-2d Serviceable radio or radio-telephone equipment able to provide prompt and reliable communication between the contract area, the Medford BLM District Office, and Oregon Department of Forestry. Such communication shall be available during periods of operation including the time watch-service is required.

5. F-2e A pair of headlights capable of being quickly attached to each bulldozer used on the contract area. The headlights shall be adequate to provide illumination sufficient to allow use of the bulldozers for fire fighting and construction of fire trails at night.

6. F-2f A headlight for each person in the woods crew adequate to provide sufficient illumination for night fire fighting. A headlight shall be of the type that can be fastened to the head so as to allow independent use of the hands. It shall be equipped with a battery case so designed that it can be either carried in the hip pocket or fastened to the belt. 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.

7. F-2g Two (2) back-pack pumps at each landing and one (1) at each tail block, all to be kept full of water and in good operating condition.

8. F-2h A chemical fire extinguisher of at least eight (8) ounces minimum capacity of a type approved by the Oregon State Forester shall be carried during the closed fire season or periods of fire danger by each saw operator using a power saw on the contract area. Such fire extinguisher shall be filled and in effective operating condition and shall at all times be immediately available to the operator when the saw is being fueled or the motor of the saw is running. A size "0" or larger shovel shall be available with each gas can when refueling. Any fueling of a power saw shall be done in an area which has first been cleared of all flammable material. Power saws shall be moved at least twenty (20) feet from the place of fueling before the engine is started. Each power saw shall be equipped with an exhaust system and a spark arresting device which are of types approved by the Oregon State Forester.

9. 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.

(G) 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:

Prior to commencement of any operation under this Section G 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 located in units 3-2A, 7-2A, 7-6A, 7-6B, 7-6C, 7-6D, 7-6E, 9-1A, 9-2A, 9-5A, 9-6A, 9-7A, 9-8A, 11-2A, 11-3A, 11-3B, 12-1, 12-3A, 12-3B, 12-4, 12-4B, 13-A1, 13-A2, 13-A3, 13-B, 13-E, 13-F, 13-1, 14-1A, 14-2A, 14-3A, 15-1, 15-3B, 15-4, 19-2, 23-A, 23-B, 23-C, 23-D, 23-F, 23-G, 23-1, 23-3, 23-4, 25-2, 25-5,

25-6, 25-7, 27-2A, 27-3B, 27-4, 27-5, 27-5A, 35-4, and 35-5 outside of hand and machine pile areas as directed by the Authorized Officer. All cut slash (any material less than six inches in diameter) shall be lopped to no more than four (4) 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 and cover all slash located within one hundred (100) feet of roads where the road coincides with salvage harvest unit boundaries in units 9-2A, 9-5A, 9-6A, 9-7A, 11-2A, 11-3A, 11-3B, 12-1, 12-4B, 13-E, 13-F, 13-1, 13-A1, 15-1, 15-3, 25-2, 25-5, 25-6, 25-7, 27-2A and 35-5 as directed by the Authorized Officer 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) inch 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 salvage harvest unit boundaries. Finished piles shall be tight and free of earth.

5. A five (5) foot by five (5) foot cover of 4 milimeter black plastic shall cap each handpile to maintain a dry ignition point. The cover shall be firmly fixed to the pile to hold it in place. Approximately one third (⅓) 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 (½) inch in diameter and free of dirt. Piles shall be constructed by aligning individual pieces in the same direction and placing the heavier slash on top. Piles shall have a stable base to prevent toppling. The long axis of individual pieces shall be oriented up and down the slope. Protruding pieces shall be trimmed to allow covering in a manner that permits the pile to shed water. Height shall be no less than 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 handpiles located on temporary routes, skid trails, or landings shall 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. Clear down to mineral soil within twenty (20) feet of each finished pile. Slash shall be piled by machine equipped with a hydraulic thumb or a rotating controllable grapple head or hand and 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 millimeter 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.

(e) SD-1f SITE PREPARATION Prepare cleared planting area in Harvest Unit 13-B as shown on Exhibit A. Upon completion of yarding in each salvage unit, the areas to be treated will be designated by the Authorized Officer. Clearing shall be performed manually and with a chainsaw meeting specifications as follow:

1. Spacing of planting areas shall be on an average of twelve (12) feet by twelve (12) feet but not closer than six (6) feet.

2. Planting areas shall be cleared of all slash within four (4) feet by four (4) feet circular diameter and removed.

3. All live and dead hardwoods, brush, and woody vegetation twelve (12) inches in height or taller shall be cut at a point no higher than six (6) inches from the ground. All cut material shall be cleared from the planting area.

4. Slash treatment shall be completed within four (4) months of completion of yarding on each specified salvage unit.

(f) SD-1g MACHINE PILING Pile all slash and debris in harvest units 3-2A (portion), 13-1, 17-1A, 19-2 (portion), 23-1 (portion), 25-6, 27-2A (portion), 27-4A, and 27-5A in accordance with the following specifications:

1. Piling shall be accomplished with a track mounted hydraulic excavator. The excavator shall be equipped with a hydraulic thumb or a rotating controllable grapple head. The excavator shall have a minimum reach of twenty (20) feet. Finished piles shall be tight and free of earth.

2. The excavator shall not operate on slopes greater than thirty-five (35) percent slope.

3. Excavator shall operate on existing skid trails (prior to rehabilitation). Where activity generated slash is not reachable from an existing skid trail, the excavator may make one pass off of the skid trail.

4. All equipment shall meet the approval of the Authorized Officer.

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

6. Machine piles shall be kept free of dirt and other non-wood debris and constructed as compactly as possible. There should be an adequate supply of finer fuels located within and under the covered area of the pile to ensure ignition of the larger fuels. Completed piles shall be free of projecting limbs or slash which would interfere with the adequate covering of the piles. To maximum extent possible, hardwood slash shall be mixed with conifer slash to create piles that are more burnable. Logging debris greater than eight (8) inches in diameter at the small end shall not be piles.

7. The machine piles shall be adequately covered with a cap ten (10) feet by ten (10) feet of four (4) millimeter black polyethylene plastic to ensure ignition. The plastic shall be held in place with woody debris or tied with rope or twine to ensure coverage. Coverage shall be completed when piles are constructed, or as directed by the Authorized Officer.

(g) L-4 SLASHING Slash all live and dead standing hardwoods and brush greater than twelve (12) inches in height, but not over six (6) inches D.B.H.O.B. concurrently with logging as directed by the Authorized Officer in harvest unit 13-B as shown on Exhibit A.

(h) SD-4a SLASHING DAMAGED RESIDUALS Slash all sprung or otherwise severely damaged trees between one (1) inch and eight (8) inches D.B.H.O.B. concurrently with logging as directed by the Authorized Officer in all harvest units as shown on Exhibit A.

(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 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, 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(G)(2) and 42(G)(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 and 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 in units 3-2A, 9-2A, 9-5A, 9-6A, 9-7A, 11-2A, 11-3A, 11-3B, 12-1, 12-4B, 13-A1, 13-E, 13-F, 13-1, 15-1, 15-3, 17-1A, 19-2, 23-1, 25-2, 25-5, 25-6, 25-7, 27-2A, 27-4A, 27-5A, 35-5 and All Landing Piles 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.

4. For Mop-up of Piles in units 3-2A, 9-2A, 9-5A, 9-6A, 9-7A, 11-2A, 11-3A, 11-3B, 12-1, 12-4B, 13-A1, 13-E, 13-F, 13-1, 15-1, 15-3, 17-1A, 19-2, 23-1, 25-2, 25-5, 25-6, 25-7, 27-2A, 27-4A, 27-5A, 35-5 and All Landing Piles 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.

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 ten 450 work hours for each piled unit and piled landing as directed by the Authorized Officer within a ten (10) day period for each 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.

(3) SD-5 Perform logging residue reduction and site preparation work on approximately four hundred eleven (411) acres of harvest area located in Harvest Unit No.(s) 3-2A, 7-2A, 7-6A, 7-6B, 7-6C, 7-6D, 7-6E, 9-1A, 9-2A, 9-5A, 9-6A, 9-7A 9-8A, 11-2A, 11-3A, 11-3B, 12-1, 12-3A, 12-3B, 12-4, 12-4B, 13-A1, 13-A2, 13-A3, 13-B, 13-E, 13-F, 13-1, 14-1A, 14-2A, 14-3A, 15-1, 15-3, 15-3B, 15-4, 17-1A, 19-2, 23-A, 23-B, 23-C, 23-D, 23-F, 23-G, 23-1, 23-3, 23-4, 25-2, 25-5, 25-6, 25-7, 27-2A, 27-3B, 27-4, 27-4A, 27-5, 27-5A, 35-4, and 35-5 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.

Treatment	Description	Cost/Acre
Lop and Scatter	< 20 tons/acre	$60.00
Site preparation	Cut holes in slash	$225.00
Slashing	< 60% cover	$250.00
Handpile and Cover	< 50 piles/acre	$370.00
Handpile Burn	< 50 piles/acre	$40.00
Machine Pile and Cover	< 20 piles/acre	$300.00
Machine Pile Burn	< 20 piles/acre	$35.00
Cover Landing Decks	< 20 landing piles/acre	$35.00
Burn Landing Decks	< 20 landing piles/acre	$35.00

(b) The following treatments were assumed for appraisal purposes on this contract:

Appraised Treatment	Acres	Cost/Acre	Total Cost Per Treatment
Lop and Scatter	296	$60.00	$17,760.00
Site Prep	19	$225.00	$4,275.50
Slashing	19	$250.00	$4,750.00
Handpile and Cover	35	$370.00	$12,950.00
Handpile Burn	35	$40.00	$1,400.00
Machine Pile and Cover	15	$300.00	$4,500.00

Machine Pile Burn	15	$35.00	$525.00
Cover Landing Decks	47	$35.00	$1,645.00
Burn Landing Decks	47	$35.00	$1,645.00
Total Appraised Cost			**$49,450.00**

(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(G)(3)(a) differs from $49,450.00 as calculated by using the estimated acres determined by the Authorized Officer and the per acre costs listed in Section 42(G)(3)(a).

Seasonal Restriction Matrix

Rogue Cow Salvage Timber Sale

ORM07-TS14-13

Unrestricted Period

Restricted Period

Restricted To Dry Condition; Waiver Required

Restricted Period; NSO surveys can possibly waive restriction

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

Dry Condition Haul = Loading and hauling would not occur on all hydrologically connected roads when water is flowing in the ditchlines or during any conditions that would result in any of the following; surface displacement such as rutting or ribbons; continuous mud splash or tire slide; fines being pumped through road surfacing from the subgrade and resulting in a layer of surface sludge; road drainage causing a visible increase in stream turbidities, or any condition that would result in water being chronically routed into tire tracks or away from designed road drainage during precipitation events. Hauling on natural surface or rocked roads would not resume for a minimum of 48 hours following any storm event that results in ½ inch or more precipitation within a 24 hour period, and until road surface is sufficiently dry to prevent any of the above conditions from reoccurring.

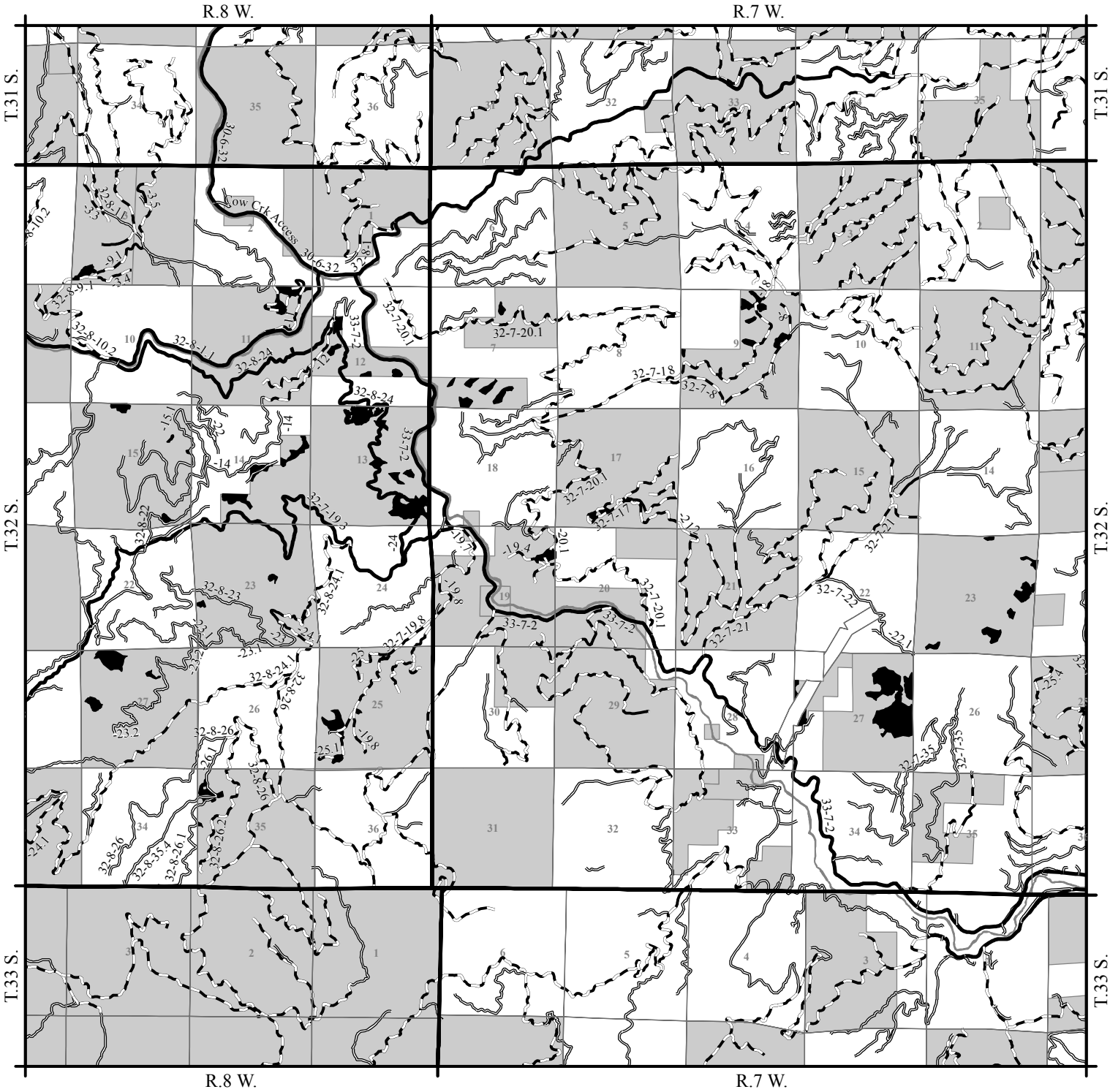
Dry Condition Yarding and Temporary Route Work= Tractor and one-end suspension cable yarding, temporary route work, and rehabilitation activities would not occur when soil moisture at a depth of 4-6 inches is wet enough to maintain form when compressed, or when soil moisture at the surface would readily displace, causing ribbons and ruts along equipment tracks. These conditions are generally found when soil moisture is 30% at a depth of 4-10 inches.

Sale Area	Activity	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
		1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15
Cable Units: 9-1A,9-2A, 9-7A, 9-8A, 11-2A, 11-3A, 11-3B, 13-E, 13-A1, 14-1A, 14-2A, 14-3A, 15-3, 25-2, 25-5, 25-7, and 35-4	Manual Falling and Bucking																								
	Cable Yarding																								
	Loading, Hauling, and Road Construction, Reconstruction, Decommissioning & Maintenance*																								
Cable Units: 7-6A, 9-5A, 9-6A, 12-1, 13-F, 15-1, 25-6 (portion), 27-2A (portion), 27-5, and 35-5	Manual Falling and Bucking																								
	Cable Yarding on slopes < 70%																								
	Cable Yarding (one-end suspension) on slopes > 70%																								
	Loading, Hauling, and Road Construction, Reconstruction, Decommissioning & Maintenance*																								
Ground Base Units: 3-2A, 13-1, 17-1A, 19-2, 23-1, 27-2A, 25-6, 27-4A, 27-5A, RW Unit 5, RW Unit 6 and Blue marked Hazard tree areas	Manual Falling and Bucking																								
	Mechanical Ground Based Harvesting and Yarding																								
	Loading, Hauling, and Road Construction, Reconstruction, Decommissioning & Maintenance*																								
Helicopter Units: 7-2A, 7-6B, 7-6C, 7-6D, 7-6E, 9-7A, 12-3A, 12-3B, 12-4, 12-4B, 13-A2, 13-A3, 13-B, 13-E, 13-1, 15-3B, 15-4, 23-B, 23-C, 23-D, 23-F, 23-G, 23-3, 23-4, 27-2A, 27-3B, 27-4	Manual Falling and Bucking																								
	Helicopter Yarding																								
	Loading, Hauling, and Road Construction, Reconstruction, Decommissioning & Maintenance*																								
Talus Soil Areas: 23-A, 25-6 (portion), 27-2A (portion)	Manual Falling and Bucking																								
	Helicopter Yarding																								
	Cable Yarding																								
	Mechanical Ground Based Harvesting and Yarding																								
	Loading, Hauling, and Road Construction, Reconstruction, Decommissioning & Maintenance*																								
Owl Seasonal Restriction: 7-2A, 11-3B, 12-1, 12-3B, 12-4, 12-4B, 13-B, 14-1A, 23-3, 23-4	Manual Falling and Bucking																								
	Helicopter Yarding																								
	Cable Yarding																								
	Loading, Hauling, and Road Construction, Reconstruction, Decommissioning & Maintenance*																								

Timber Sale Location Map
Rogue Cow Salvage

T.32 S., R.7 W., Secs. 7, 9, 17, 19, 23, & 27

T.32 S., R.8 W., Secs. 3, 11, 12, 13, 14, 15, 23, 25, 27, , & 35



Timber Harvest Area

BLM Ownership

Road, Paved

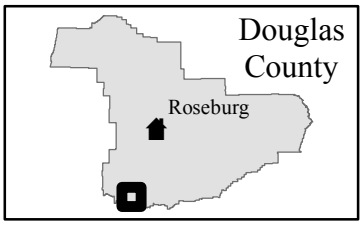
Road, Rock

Road, Other

River

Miles

0 1 2 3



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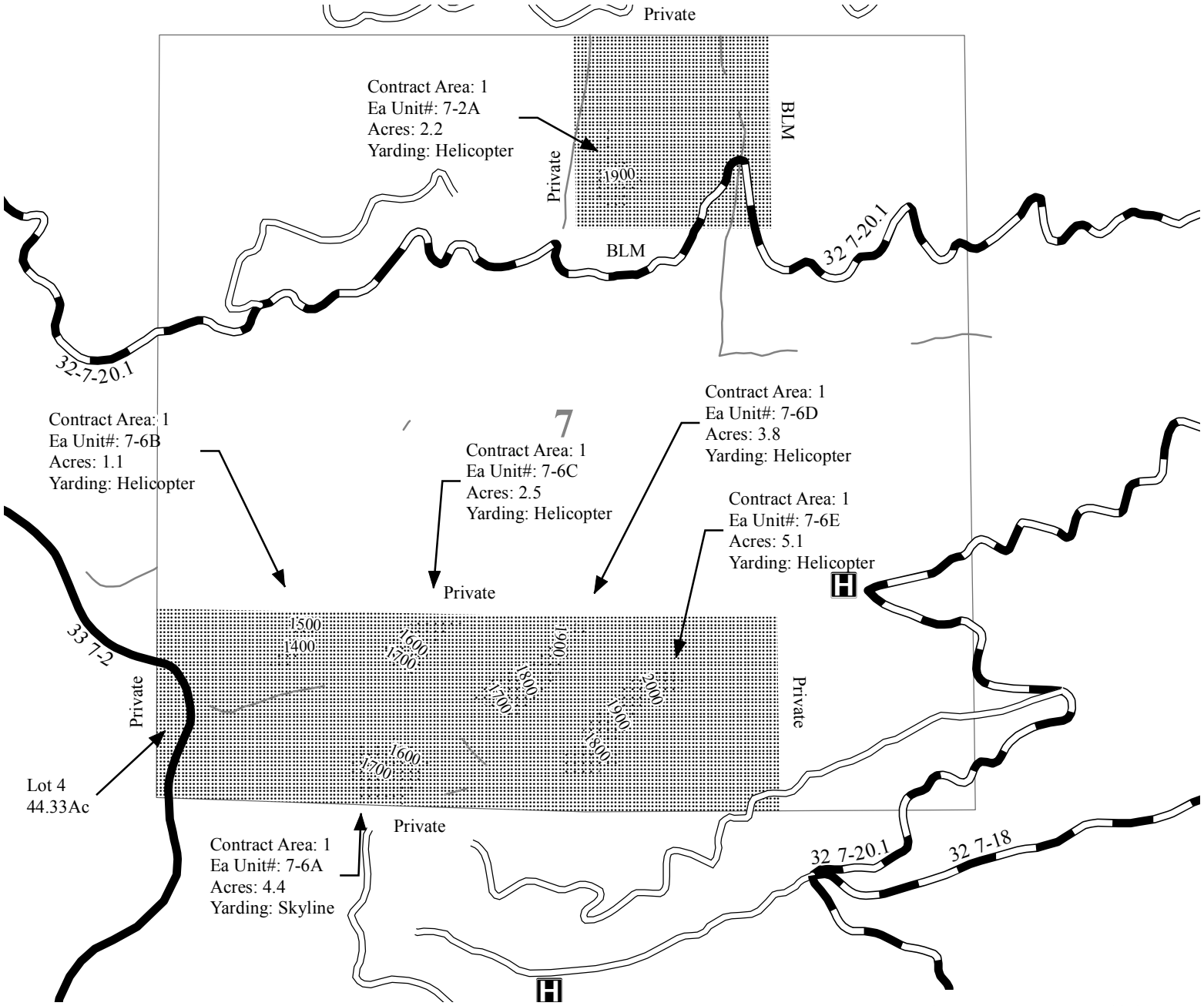
UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District

Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.7 W., Sec. 7, Will. Mer.

Exhibit A
Sheet 1 of 16



Harvest Area	19.10
Reserve Area	145.23
Contract Area	164.33 Ac.

Total Harvest Area	335.80
Total Reserve Area	2900.65
Total Contract Area	3236.45 Ac.

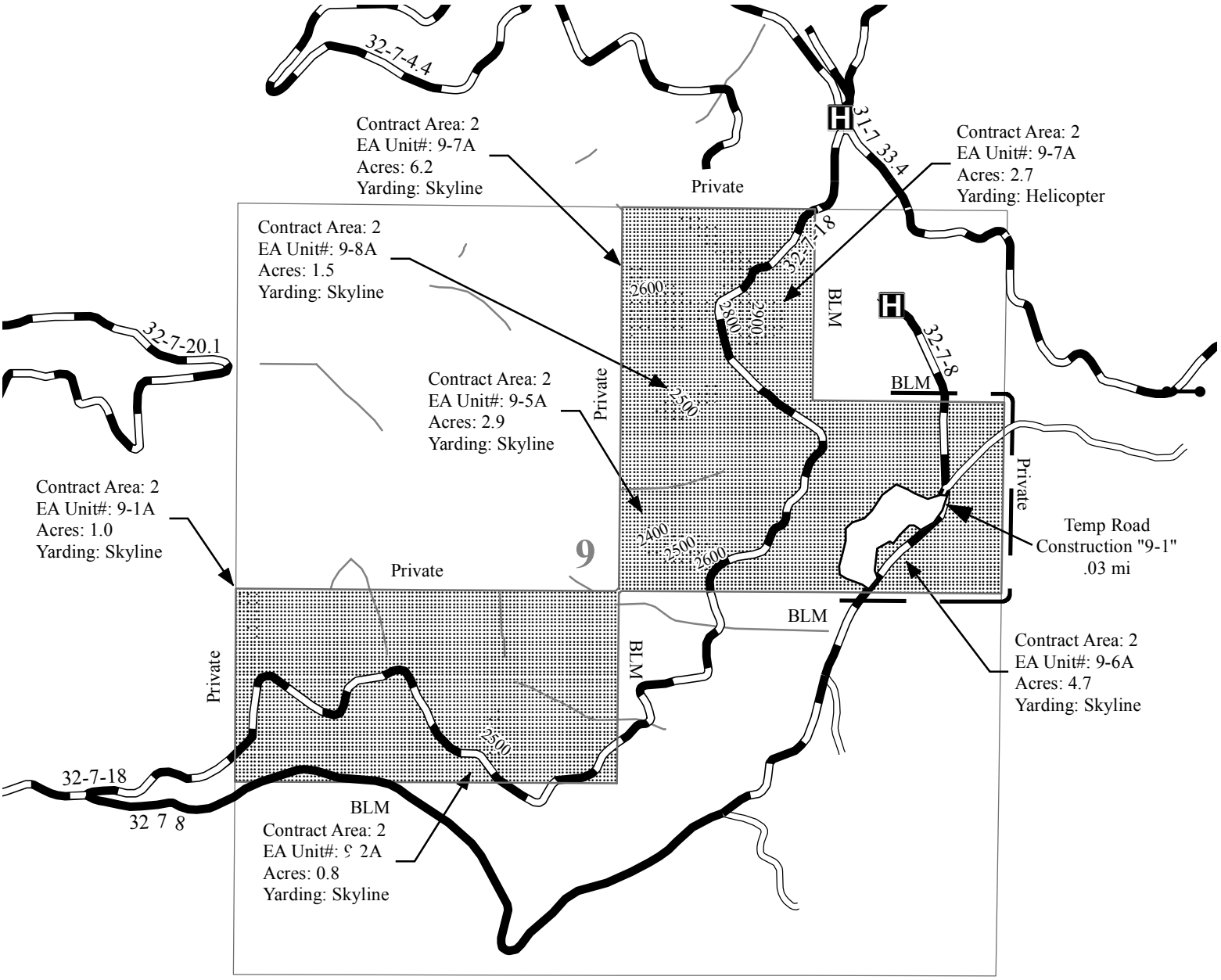
Boundary - Contract Area
Harvest Area
Reserve Area
Stream
Road - Paved Surface
Road - Rock Surface
Road - Other Surface
Helicopter Landings

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District

Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.7 W., Sec. 9, Will. Mer.

Exhibit A
Sheet 2 of 16



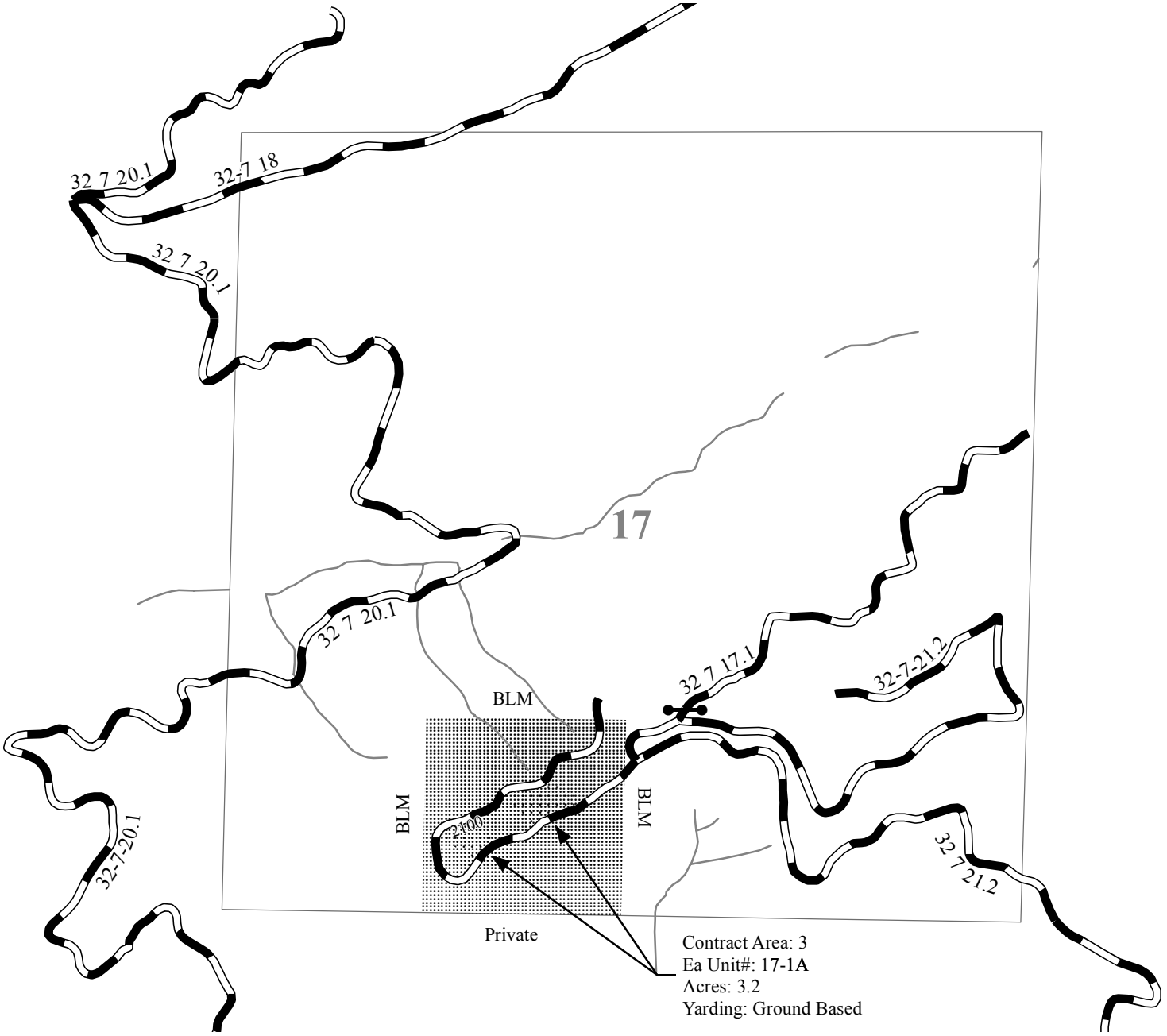
Harvest Area	19.8
Reserve Area	180.2
Contract Area	200.0Ac.

Boundary - Contract Area
Harvest Area
Reserve Area
Stream
Road - Rock Surface
Road - Other Surface
Route - Temporary - To Construct
Helicopter Landing

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.7 W., Sec. 17, Will. Mer.

Exhibit A
Sheet 3 of 16



Harvest Area	3.2
Reserve Area	36.8
Contract Area	40.0 Ac.

Boundary - Contract Area
Road - Rock Surface
Harvest Area
Reserve Area
Stream

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.7 W., Sec. 19, Will. Mer.

Exhibit A
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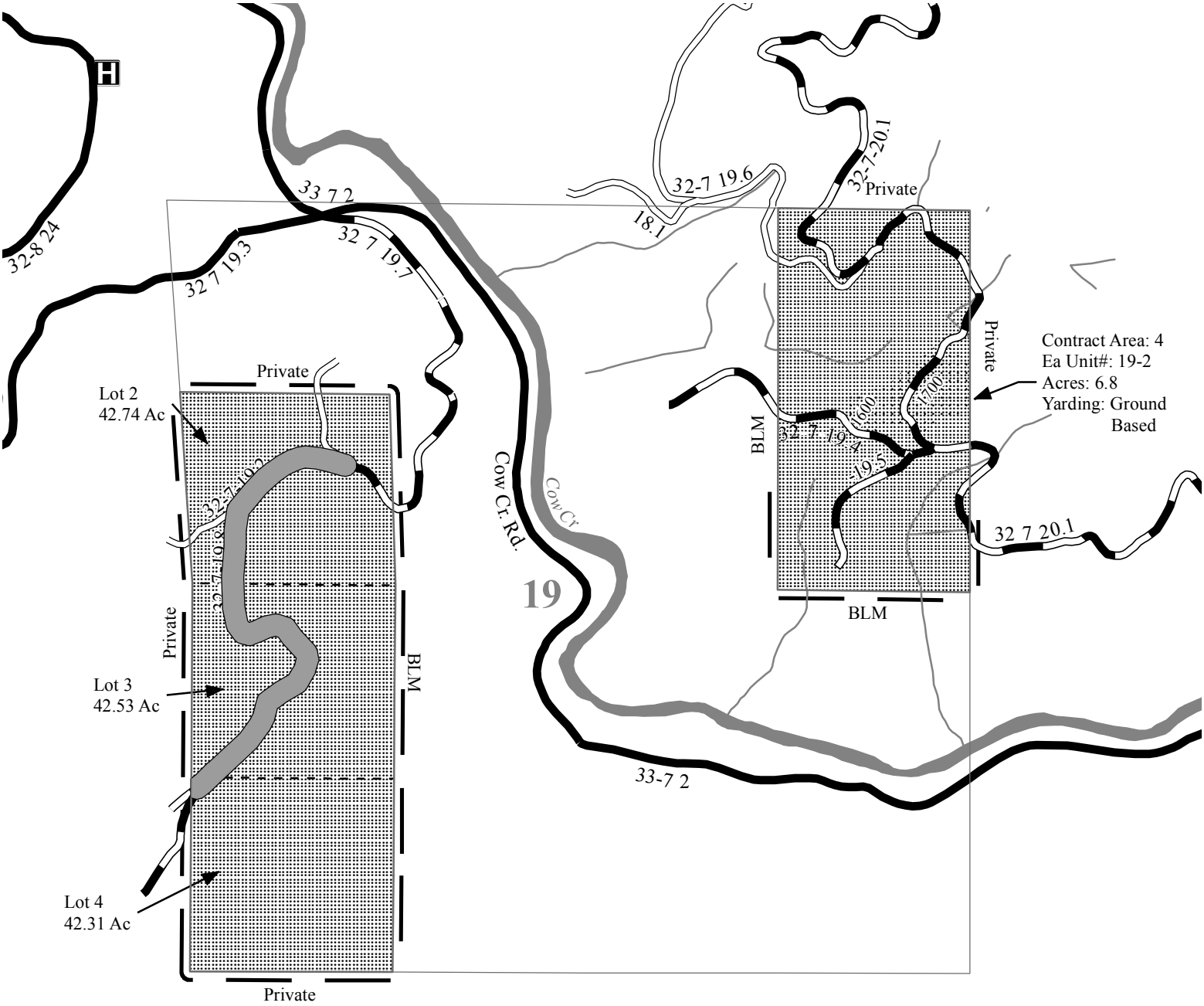

Harvest Area	6.80
Reserve Area	200.78
Contract Area	207.58 Ac.

Boundary - Contract Area
Harvest Area
Approximate Area of Blue Marked Hazard Trees
Reserve Area
Stream
Road - Paved Surface
Road - Rock Surface
Road - Other Surface

N

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District

Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.7 W., Sec. 23, Will. Mer.

Exhibit A
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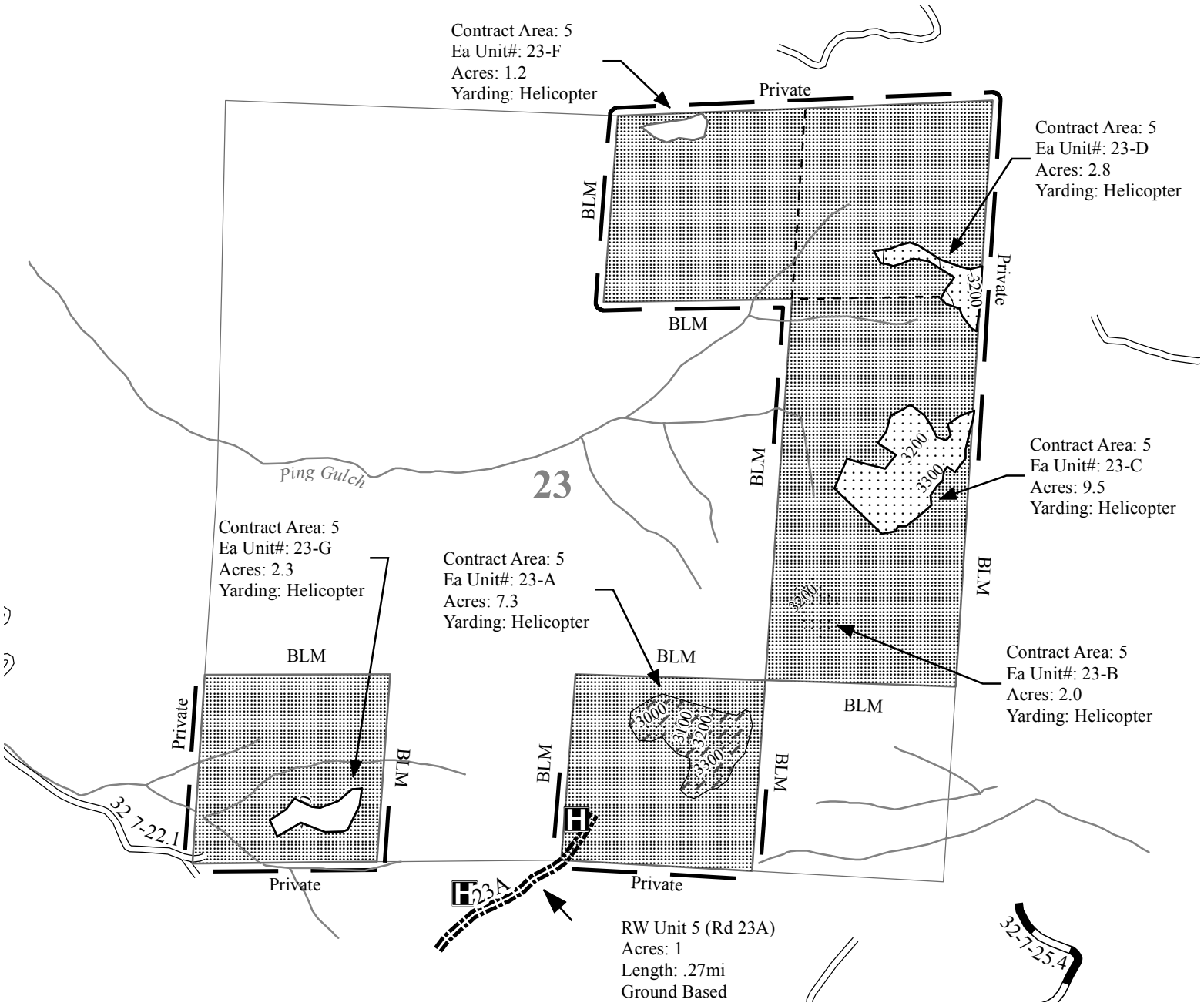

Harvest Area	25.1
Reserve Area	214.9
Contract Area	240.0 Ac.

Boundary - Contract Area
Harvest Area
Reserve Area
Talus Soil Area
Stream
Road - Rock Surface
Road - Other Surface
Route - Temporary - To Construct
Helicopter Landings

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District

Rogue Cow Timber Sale Contract No: ORM07-TS-14-13

T.32 S., R.7 W., Sec. 27, Will. Mer.

Exhibit A

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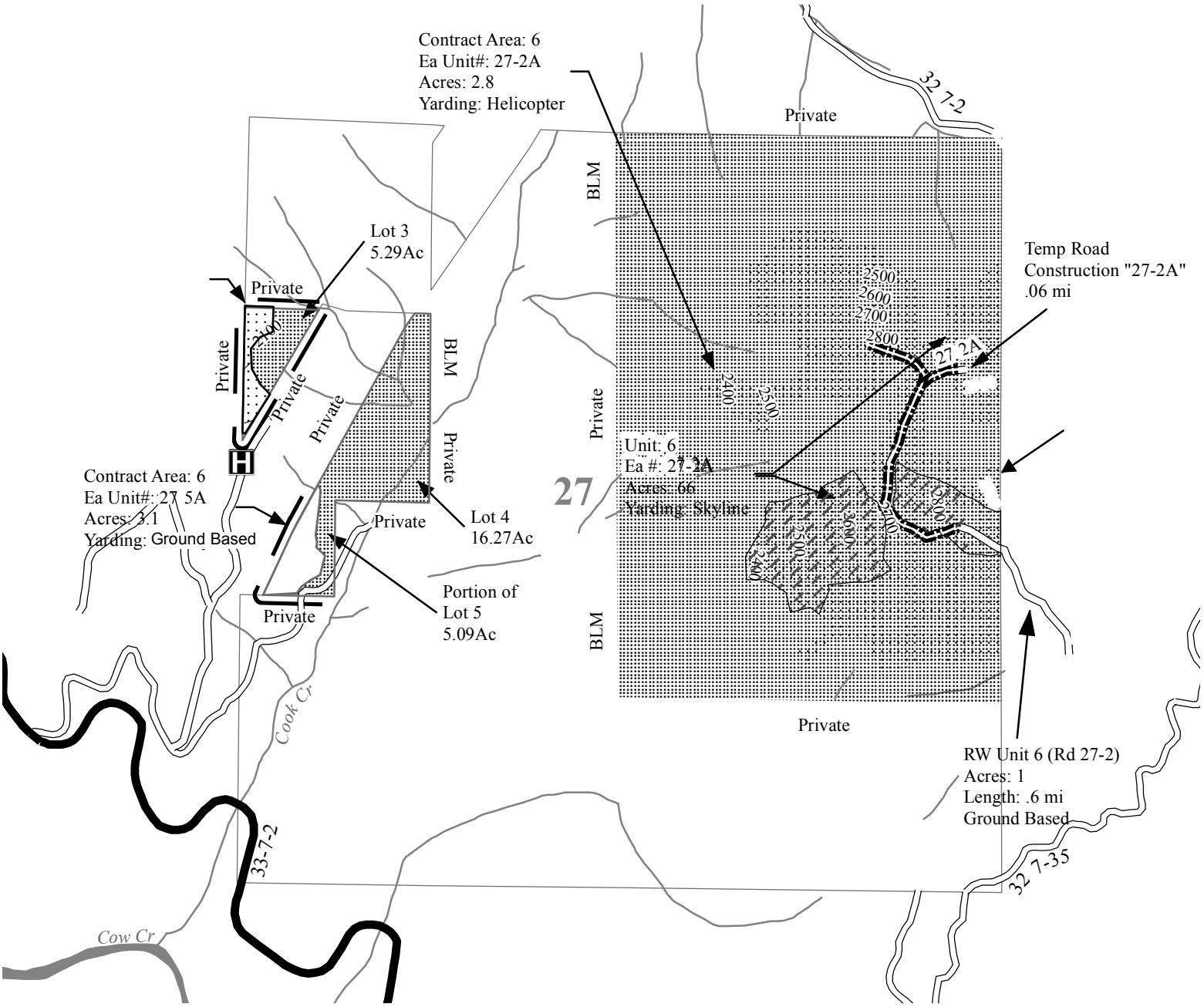


Harvest Area	86.0
Reserve Area	180.65
Contract Area	266.65 Ac.

Boundary - Contract Area

Harvest Area

Reserve Area

Talus Soil Area (flagged in white)

Stream

Road - Paved Surface

Road - Other Surface

Road - Temporary - To Construct

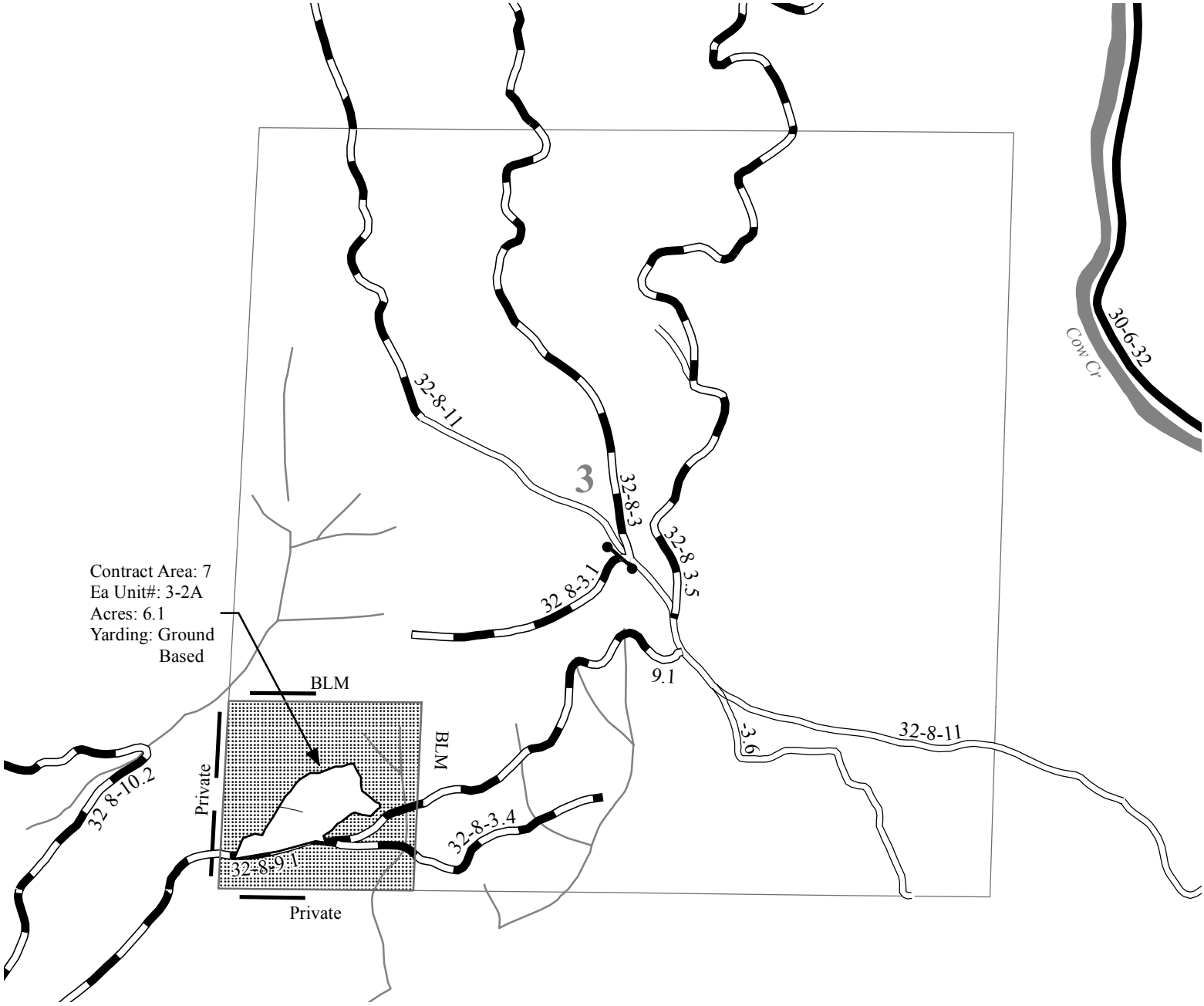
Helicopter Landings

Feet

0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 3, Will. Mer.

Exhibit A
Sheet 7 of 16



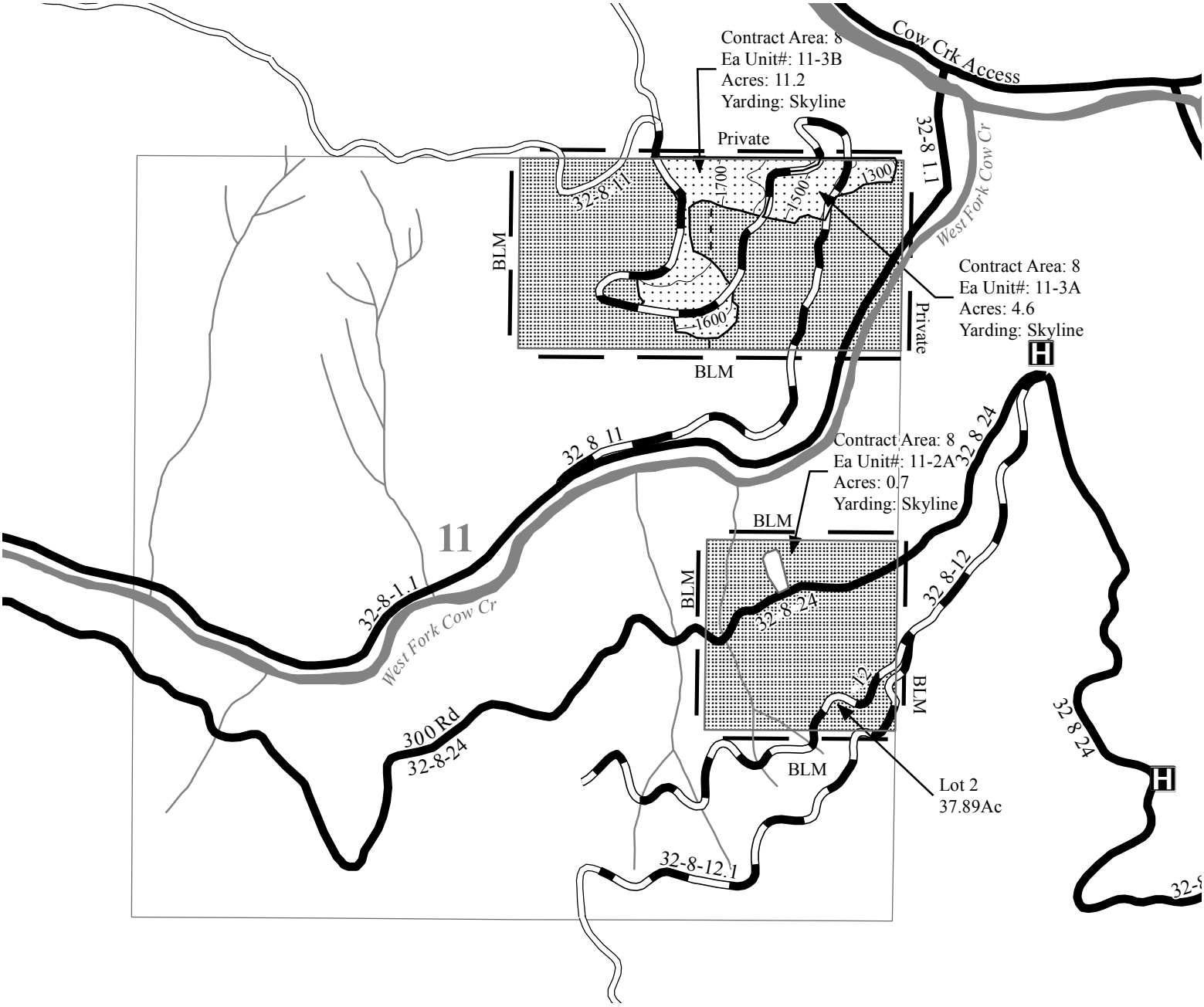
Harvest Area	6.1
Reserve Area	33.9
Contract Area	40.0 Ac.

Boundary - Contract Area
Harvest Area
Reserve Area
Stream
Road - Paved Surface
Road - Rock Surface
Road - Other Surface

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 11, Will. Mer.

Exhibit A
Sheet 8 of 16



Partial Harvest Area	16.50
Reserve Area	101.39
Contract Area	117.89 Ac.

Boundary - Contract Area
Harvest Area
Reserve Area
Stream
Road - Paved Surface
Road - Rock Surface
Road - Other Surface
Helicopter Landings

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 12, Will. Mer.

Exhibit A
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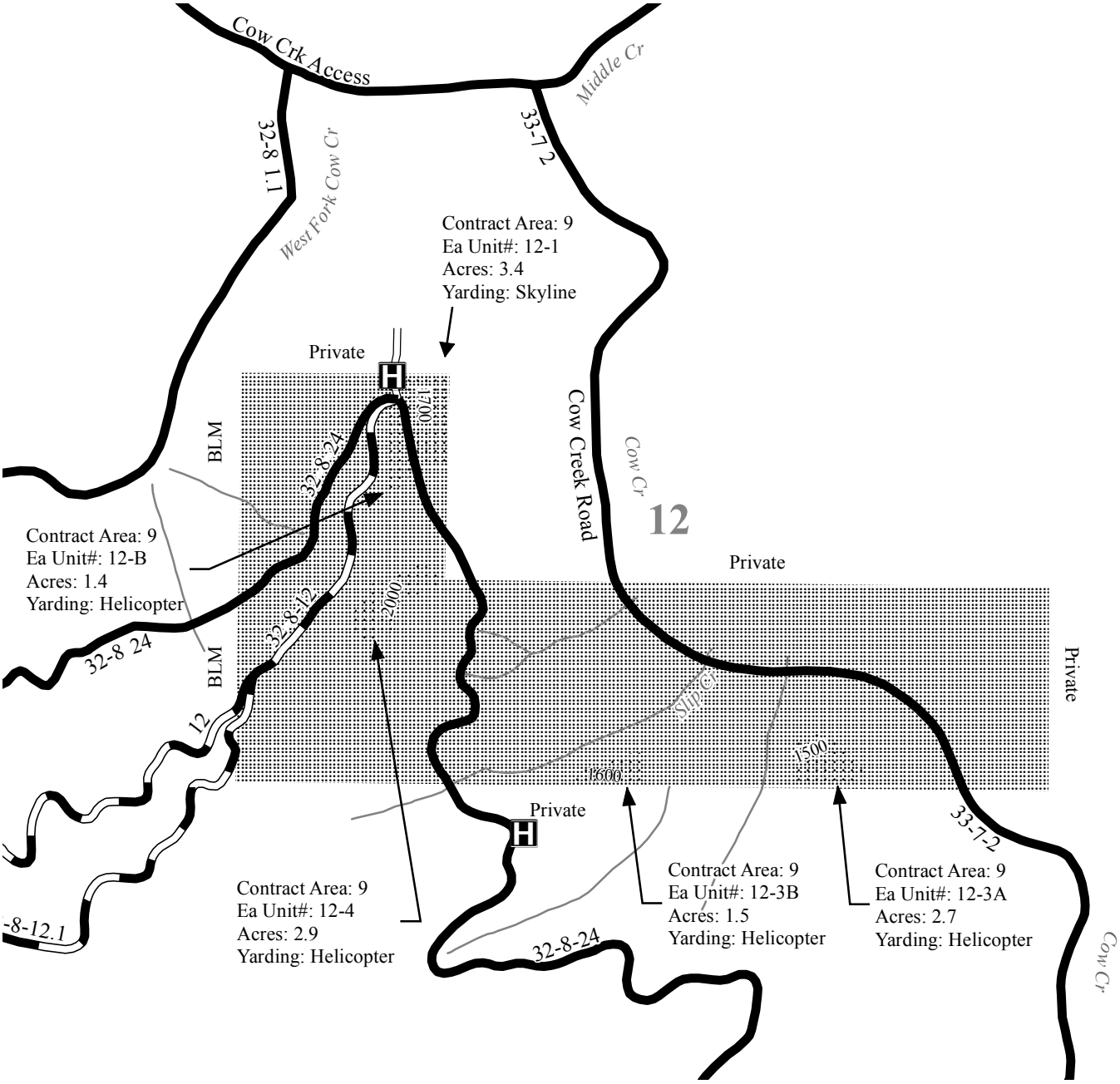

Harvest Area	11.9
Reserve Area	188.1
Contract Area	200.0 Ac.

Boundary - Contract Area
Harvest Area
Approximate Area of Blue Marked Hazard Trees
Reserve Area
Stream
Road - Paved Surface
Road - Rock Surface
Road - Other Surface
Helicopter Landings

N

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District

Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 13, Will. Mer.

Exhibit A
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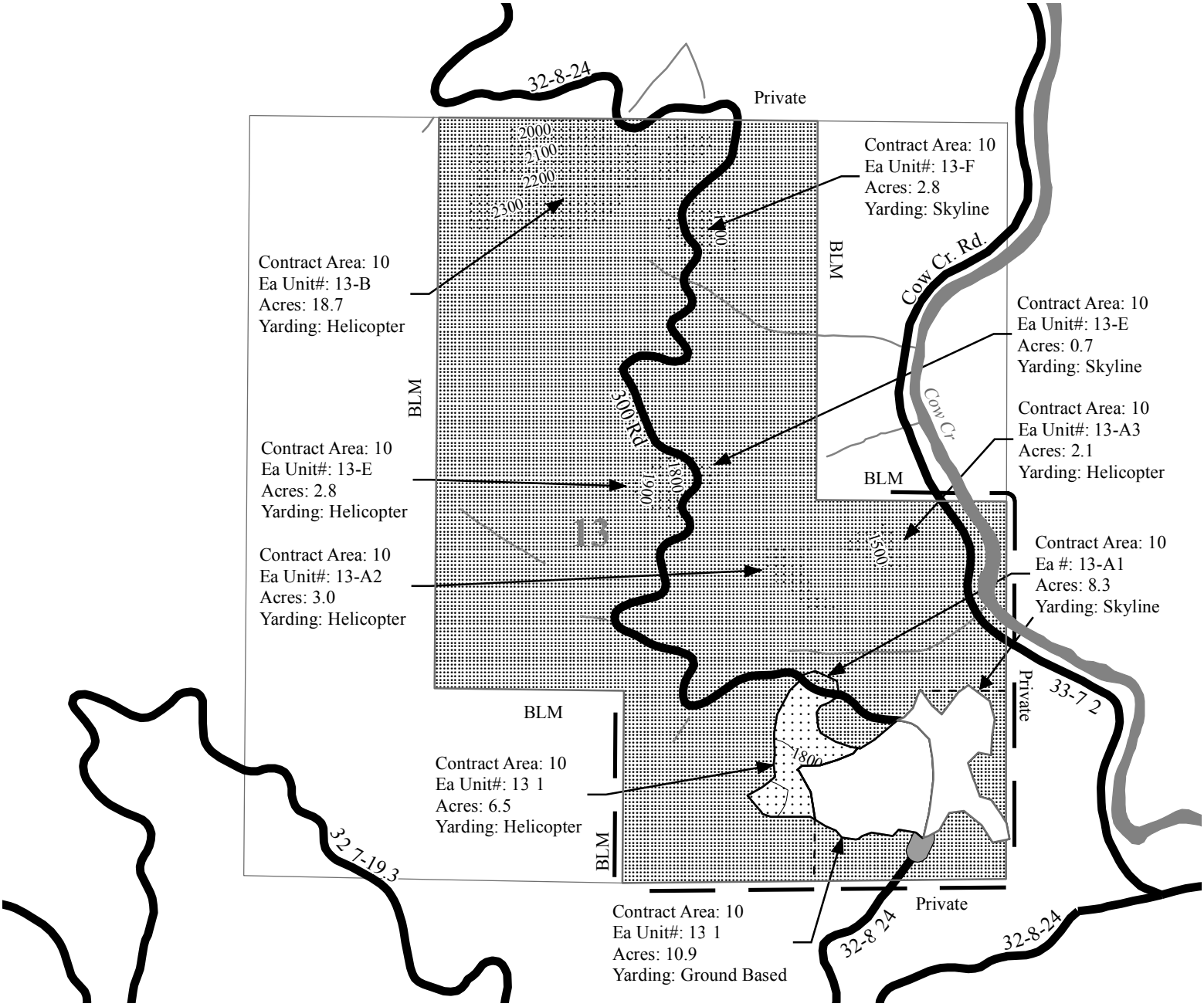

Harvest Area	55.8
Reserve Area	304.2
Contract Area	360.0 Ac.

Boundary - Contract Area
Harvest Area
Approximate Area of Blue Marked Hazard Trees
Reserve Area
Stream
Road - Paved Surface
Helicopter Landings

N

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 14, Will. Mer.

Exhibit A
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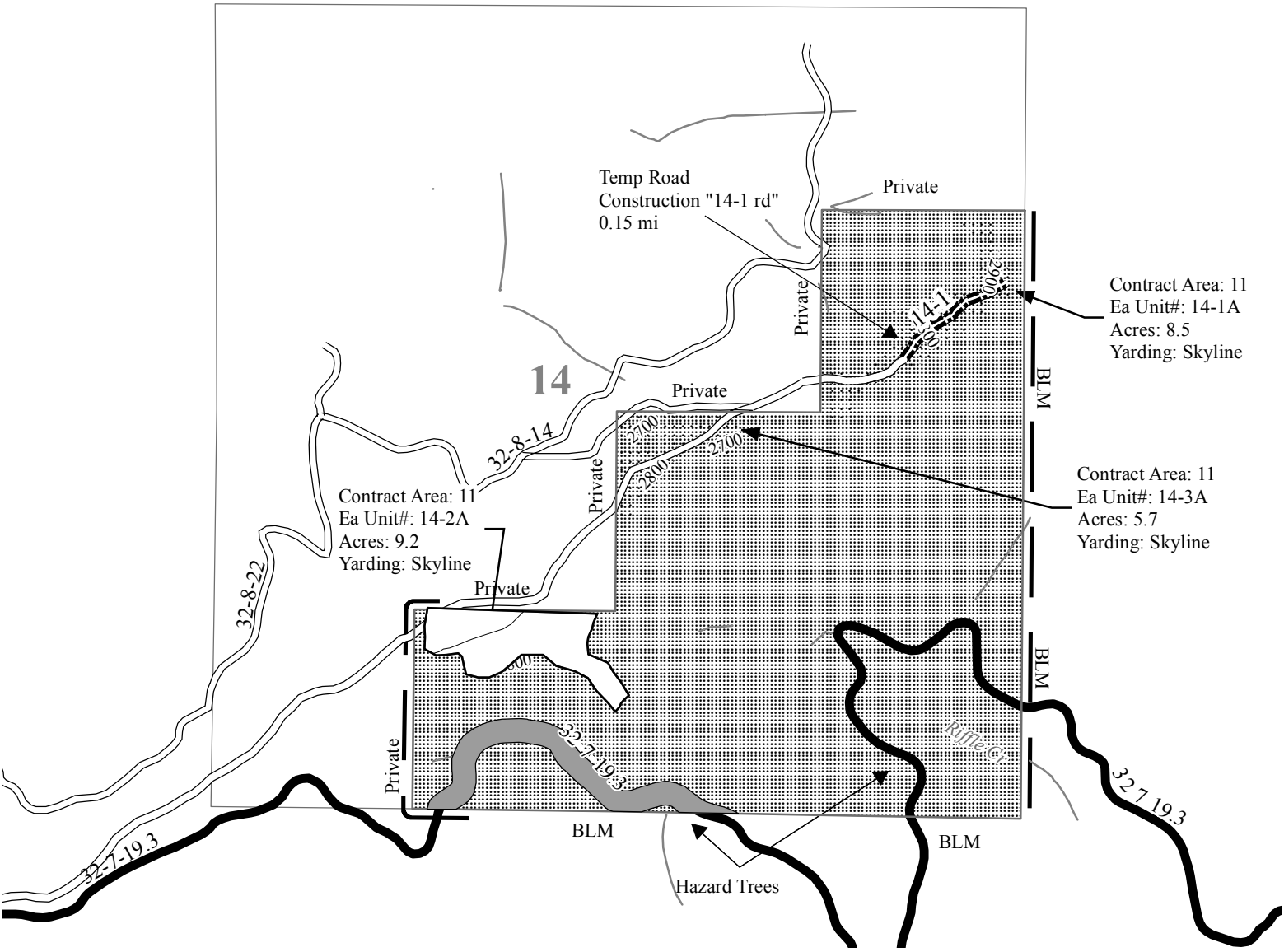

Harvest Area	23.4
Reserve Area	216.6
Contract Area	240.0 Ac.

Boundary - Contract Area
Harvest Area
Approximate Area of Blue Marked Hazard Trees
Stream
Road - Paved Surface
Road - Other Surface
Road - Temporary - To Construct

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District

Rogue Cow Timber Sale Contract No: ORM07-TS-14-13

T.32 S., R.8 W., Sec. 15, Will. Mer.

Exhibit A

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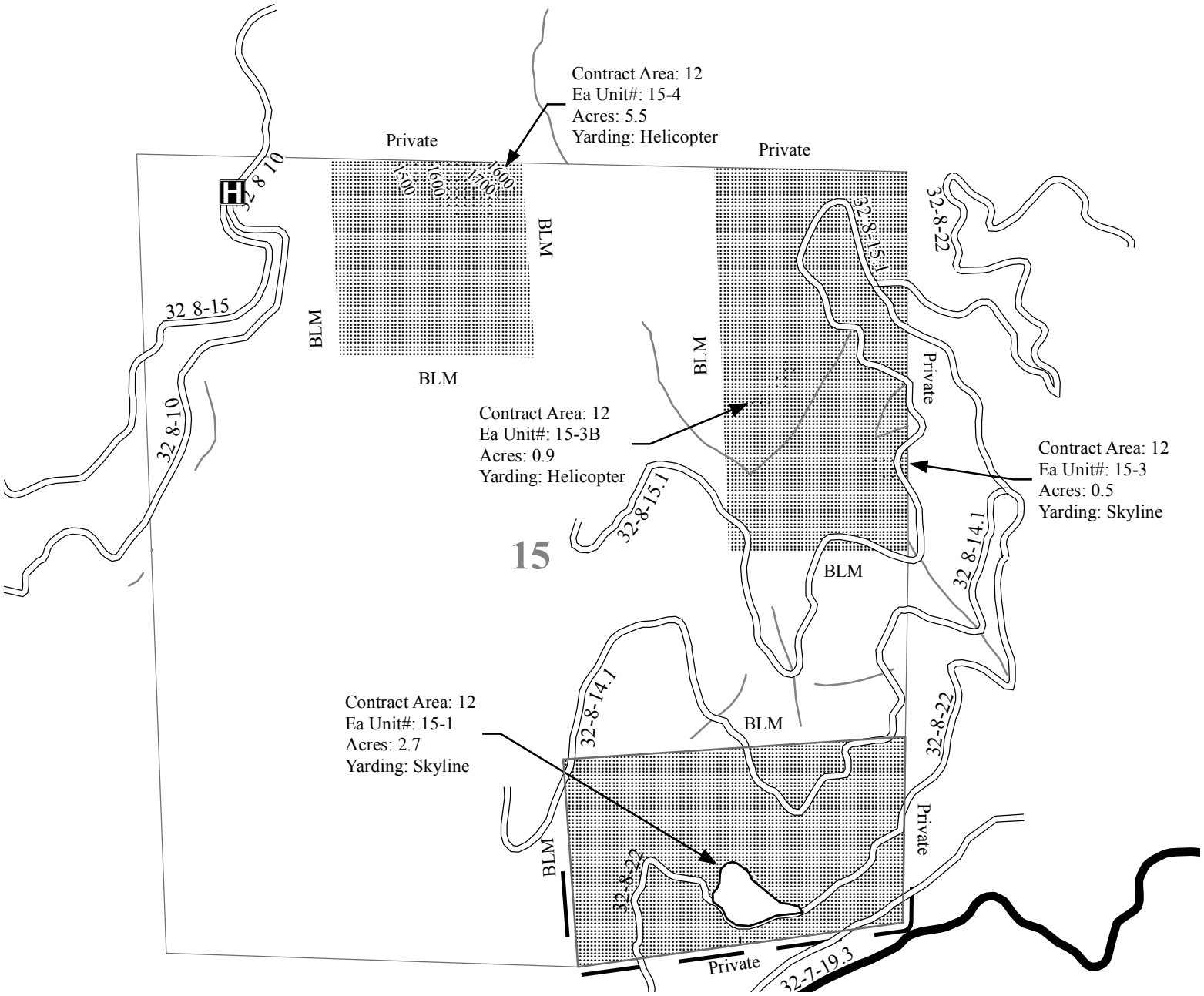


Harvest Area	9.6
Reserve Area	190.4
Contract Area	200.0 Ac.

Boundary - Contract Area

Harvest Area

Reserve Area

Stream

Road - Paved Surface

Road - Other Surface

Helicopter Landing

Feet

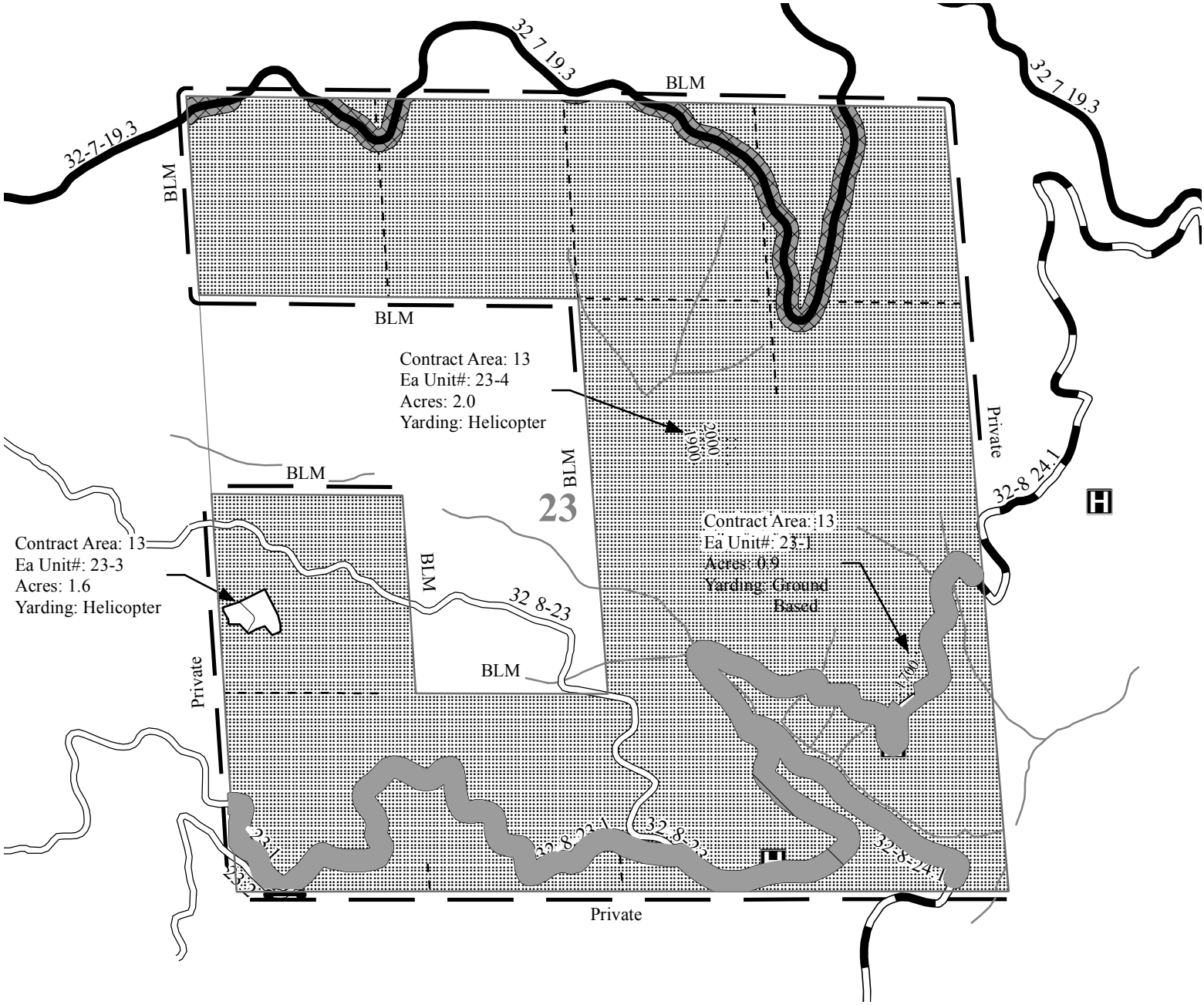
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District

Rogue Cow Timber Sale Contract No: ORM07-TS-14-13

T.32 S., R.8 W., Sec. 23, Will. Mer.

Exhibit A



Harvest Area	4.5
Reserve Area	515.5
Contract Area	520.0 Ac.

Boundary - Contract Area

Harvest Area

Approximate Area of Blue Marked Hazard Trees

Reserve Area

Stream

Road - Paved Surface

Road - Rock Surface

Road - Other Surface

Helicopter Landing

N

Feet

0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District

Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 25, Will. Mer.

Exhibit A
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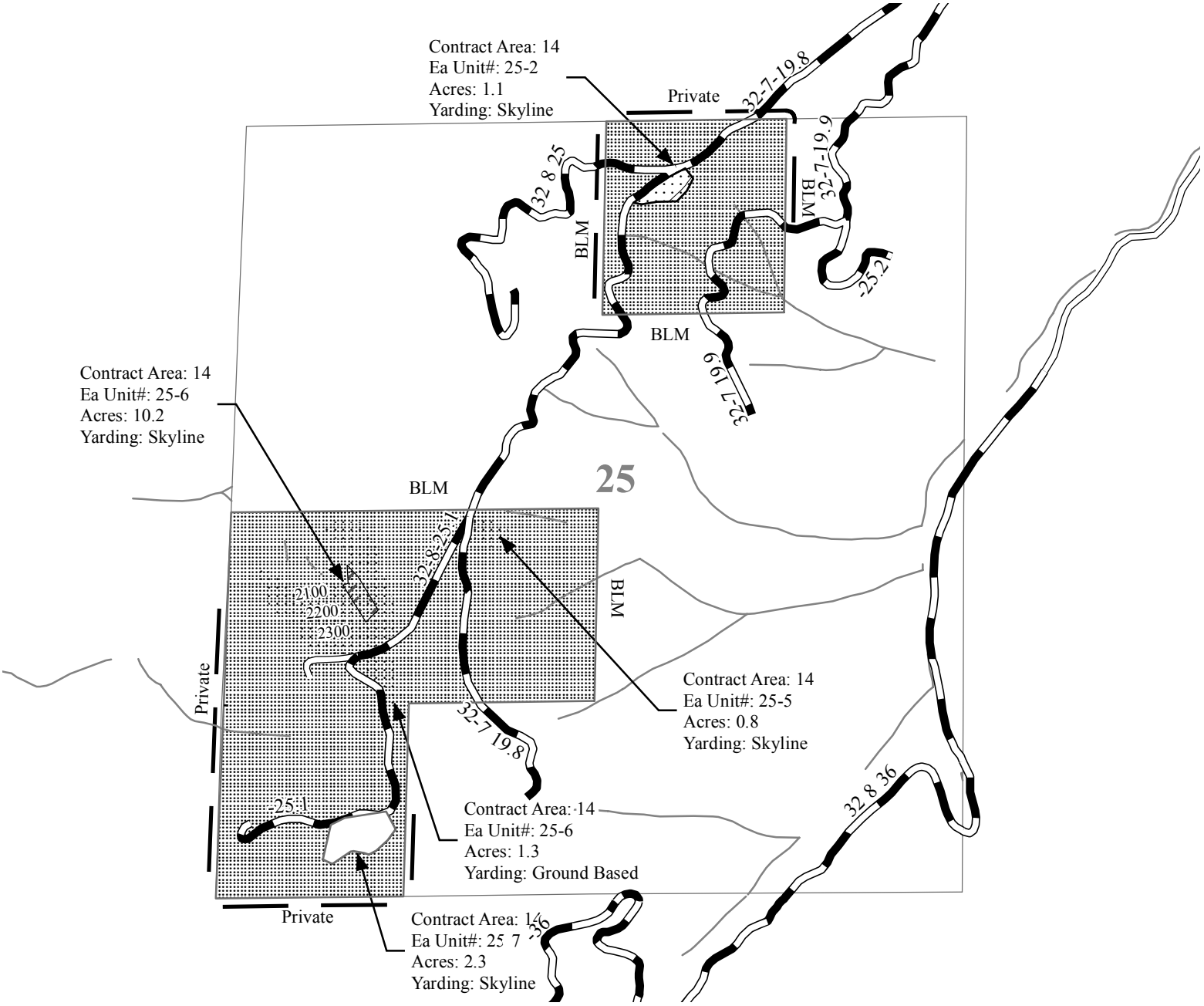

Harvest Area	15.7
Reserve Area	144.3
Contract Area	160.0 Ac.

Boundary - Contract Area
Harvest Area
Reserve Area
Talus Soil Area (flagged in white)
Stream
Road - Rock Surface
Road - Other Surface

N

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 27, Will. Mer.

Exhibit A
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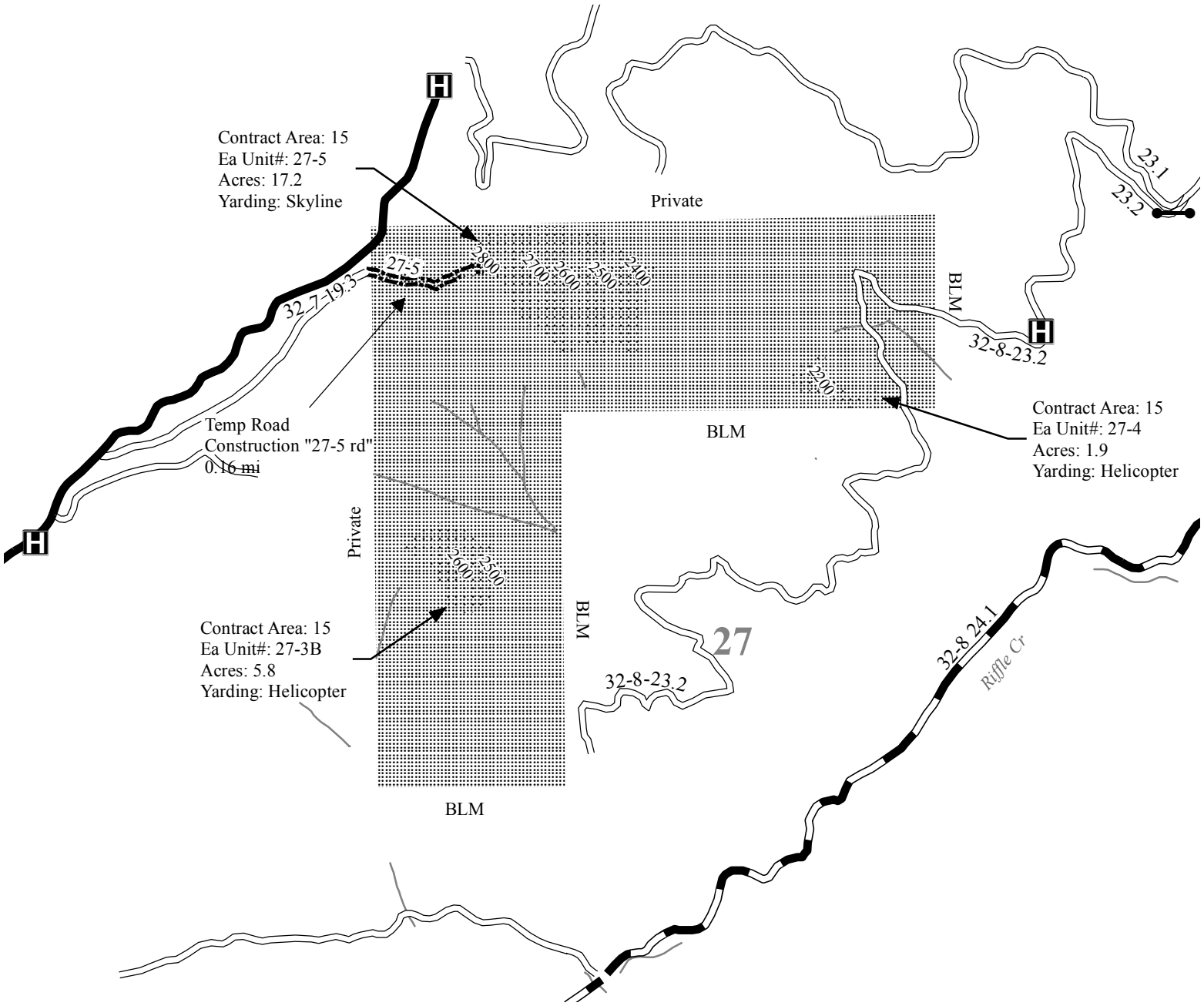


Harvest Area	24.9
Reserve Area	175.1
Contract Area	200.0 Ac.

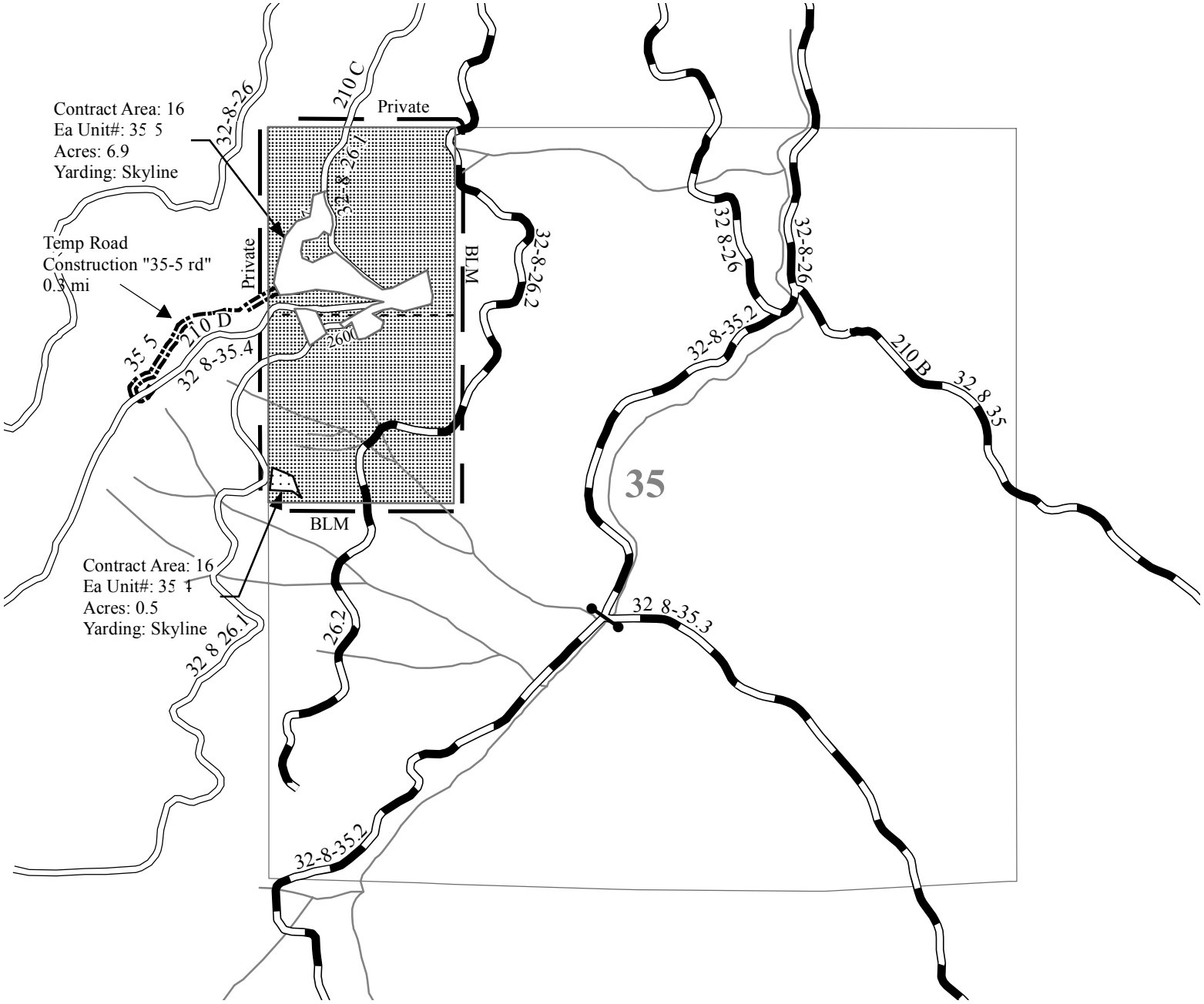
Boundary - Contract Area
Harvest Area
Reserve Area
Stream
Road - Paved Surface
Road - Rock Surface
Road - Other Surface
Road - Temporary - To Construct
Helicopter Landing

N

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 35, Will. Mer.

Exhibit A
Sheet 16 of 16



Harvest Area	7.4
Reserve Area	72.6
Contract Area	80.0 Ac.

Boundary - Contract Area
Harvest Area
Reserve Area
Stream
Road - Rock Surface
Road - Other Surface
Road - Temporary - To Construct

Feet
0 500 1,000 1,500

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

Contract No.: ORM07-TS-14-13
Sale Name: Rogue Cow
Issuing Office: Medford District

EXHIBIT B
SCALE SALE
PURCHASE PRICE SCHEDULE AND MEASUREMENT SPECIFICATIONS

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

Schedule of Species, Measurement Units, and Prices		
Species	Measurement Unit	Price Per Measurement Unit
Merchantable logs - Douglas-fir	MBF	
Ponderosa Pine	MBF	
Sugar Pine	MBF	
Incense Cedar	MBF	
Utility logs	MBF	Not Applicable

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

Schedule of Minimum Material Specifications			
Species and Products	Length	Diameter (inside bark at small end)	Net Scale
All Species	8 feet	6 inches	33 1/3% of gross volume of any log segment or 10 bf.

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

IV. **Scaling**

A. **Log Rule and Measurement** - All logs shall be scaled according to the Northwest Log Rules Eastside Log Scaling Handbook, as amended, or

supplemented by BLM before the first advertisement date of the sale. A Scaling Authorization Form (OR 5300-18) must be completed prior to beginning of operations. If sample log scaling is agreeable to Purchaser and the Contracting Officer, the procedures will be agreed upon in writing regarding sample design, number of log sorts, expansion of sample volumes for computation of Merchantable Timber volume, etc.

B. **Scaling Service** - Log scaling services shall be provided and performed by BLM personnel or parties under contract to BLM.

1. All logs shall be scaled and volumes determined by BLM or a certified contract scaler.

2. The BLM scaler or contract scaler is designated to collect Eastside MBF scale data from all loads.

C. **Other Timber** - If any timber is of a species or size not listed in Section II of this Exhibit (above) or is of a quality different from merchantable timber described herein, the Authorized Officer shall establish volumes and values in accord with Standard BLM methods.

D. **Defect Caused by Abnormal Delay** - Scaling deductions made for rot, check or other defect resulting from abnormal delay in scaling caused by Purchaser shall be recorded separately and charged to the Purchaser in accordance with Section 3. of the contract.

E. **Log Presentation** - Purchaser shall present logs so that they may be scaled in an economical and safe manner in accordance with the Memorandum(s) of Agreement for Yard Scaling required in Section IV.G.5. of this Exhibit.

F. **Check Scale** - The Government will conduct check scales as set forth in the following section.

Normally a check scale includes at least 200 short logs (20 feet or less) or at least 100 multiple-segment logs. Sample the species and defect situation as fairly as possible. Individually analyze more complex scaling situations and increase the number of logs check scaled if necessary.

The following standards will be used to determine the proficiency of individual scalers.

Gross Scale. A variance of one percent in gross scale is the standard unless otherwise justified.

Net scale. The allowable variance is as follows:

Check scaler's percent defect in logs	Scalers allowable variance
0-10 percent	2 percent
over 10 percent	.2 x percent defect to a maximum of 5 percent

Determinations as to volume of timber made by a government check scaler in conformance with the standards as set forth herein shall be final. All loads check scaled by BLM will be identified with the check scaler's initials legibly marked or painted in the face of the first log in each load. When such checks show a variance in scale in excess of acceptable standards, in two or more consecutive check scales, an adjustment to the volume reported as scaled will be made by BLM. Such adjustments will be made based on the difference between available BLM check scales and the original scale during the period covered by the unsatisfactory check scales. Unless otherwise approved in writing by the Authorized Officer, the volume to which this difference will be applied will be 50 percent of the volume scaled between the last satisfactory check and the first unsatisfactory check, 100 percent of the volume scaled during the unsatisfactory check, and 50 percent of the volume between the last unsatisfactory check scale and the next satisfactory check scale.

G. **Accountability**

1. Purchaser shall notify the Authorized Officer three (3) days prior to starting or stopping of hauling operations performed under the contract.

2. All logs will be painted and branded at the landing and accounted for in accordance with Sec. 41(A)(1) of the contract. Each truck driver shall obtain a load receipt and a BLM scaler receipt from the Log Truck Ticket Book issued by the Authorized Officer and comply with the instructions specified on the cover of said book. While products are in transit, the truck driver shall display the load receipt and BLM scaler receipt on the bunk or wing log at the front of the load on the driver's side. All logs on each load shall be delivered to the destination listed on the woods receipt. The BLM scaler receipt shall be surrendered at the location of BLM scaling, the unloading location, or as requested by BLM.

3. The Purchaser shall not haul logs from the contract area on weekends; Memorial Day, Fourth of July, Labor Day, Thanksgiving, Christmas, and New Year's holidays; or outside the hours of 4:00 a.m. to 8:00 p.m. daily, unless otherwise approved in writing by the Authorized Officer or designated in the Approved Logging Plan (Refer to Section 41 (B.10) of the contract).

4. The Purchaser shall furnish BLM a map showing the route which shall be used to haul logs from the timber sale area to the scaling location. Such route shall be the most direct haul route between the two points, unless another route is approved by BLM. The route of haul may be changed only with advance notice to and approval by BLM. The haul route map shall be attached to the Approved Logging Plan.

5. All loads will be scaled at scale locations listed on the Scaling Authorization (Form OR 5300-18) as approved by the Authorized Officer. The Purchaser shall ensure that all scale site owners listed on the Scaling Authorization enter into a Memorandum of Agreement for Yard Scaling before requesting BLM approval of the Scaling Authorization. Areas for scaling BLM

logs will be designated on the ground and identified on the yard map as required in the Memorandum(s) of Agreement for Yard Scaling.

6. Any removal of logs from loaded trucks before being accounted for and/or scaled as required by the contract shall be considered a willful trespass and render the Purchaser liable for damages under applicable law. Any payment made for purchase of such logs shall be deducted from amount due because of trespass.

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

V. **Estimated Volumes and Values -** The following volume estimates and calculations of value of timber sold are made solely as an administrative aid for determining payment amounts, when payments are due, the value of timber subject to any special bonding provisions, and other purposes specified in various portions of the contract. The cutting areas are shown on Exhibit A of the contract.

A. **Merchantable Timber Volume Removed from Contract Area** - The total volume of removed timber shall be determined using the Government's records of scaled volumes of timber skidded or yarded monthly, or a shorter period if agreed to by the Purchaser and Government, to loading points or removed from the contract area.

B. **Merchantable Timber Not Yet Removed from Contract Area** - The value of merchantable timber which has not been removed will be determined by multiplying the value per acre as shown below times the amount of acreage subject to the purpose of the value determination, as determined by the Authorized Officer:

Total Estimated Purchase Price And/Or Schedule of Volumes and Values for Merchantable Timber Not Yet Removed from Contract Area					
Cutting Area		Total Estimated Volume (MBF)		Total Estimated Purchase Price	
Cutting Area Number	Approximate Number of Acres	Volume per Acre	Total Volume	Value per Acre	Total Value
1	19	25.7	488		
2	20	25.9	518		
3	3	26.0	78		
4	7	26.0	182		
5	25	27.1	651		
6	86	26.2	2,226		
7	6	26.0	156		

United States of America

Department of the Interior

Bureau Of Land Management

Timber Sale Appraisal

District :	Medford	**Contract # :**	ORM07-TS-14-13
Sale Name :	Rogue Cow	**Job File # :**	M11303
Sale Date :	07/24/2014	**Master Unit :**	Josephine
Appraisal Method :	16' MBF	**Planning Unit :**	Grants Pass

Contents

Exhibit B 2

8	16	25.8	412		
9	12	25.6	307		
10	56	26.0	1,455		
11	23	25.7	592		
12	10	25.8	258		
13	5	25.6	128		
14	16	26.1	417		
15	25	26.0	649		
16	7	25.9	181		
Right-of-Way Unit 5	1	11.0	11		
Right-of-Way Unit 6	1	53.0	53		
Hazard Tree	1	59	59		
Sale Totals	339	26.2	8,821		

OVERNIGHT LOAD CONTROL RECORD	
Log Delivery Location	
Timber Sale	
1	Time and Date Load Delivered
2	Sale Name
3	Load Receipt No.
4	Number of Logs
5	Signature of Person Receiving the Load
6	Date and Time Load Released
7	Signature of Person Releasing the Load

Instructions:

1. Designated individual fills out the heading and lines 1 through 5 (including FULL SIGNATURE in ink on line 5.)

2. Contractor or BLM scaler will fill out lines 6 and 7 (including FULL SIGNATURE in ink) when loads are released for scaling, otherwise the BLM and/or yard owner will be required to sign.

3. Unless otherwise agreed, scaler will attach this form to the Load Receipt.

OVERNIGHT LOAD CONTROL RECORD	
Log Delivery Location	
Timber Sale	
1	Time and Date Load Delivered
2	Sale Name
3	Load Receipt No.
4	Number of Logs
5	Signature of Person Receiving the Load
6	Date and Time Load Released
7	Signature of Person Releasing the Load

Instructions:

1. Designated individual fills out the heading and lines 1 through 5 (including FULL SIGNATURE in ink on line 5.

2. Contractor or BLM scaler will fill out lines 6 and 7 (including FULL SIGNATURE in ink) when loads are released for scaling, otherwise the BLM and/or yard owner will be required to sign.

3. Unless otherwise agreed, scaler will attach this form to the Load Receipt.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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	6,685		
Ponderosa Pine	1,005		
Sugar Pine	942		
Incense-cedar	189		
Sale Totals	**8,821**		

Unit Details (16' MB)

Unit 1 **19 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	368		
Incense-cedar	11		
Ponderosa Pine	56		
Sugar Pine	53		
Unit Totals	**488**		

Unit 10 **56 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	1,103		
Incense-cedar	31		
Ponderosa Pine	165		
Sugar Pine	156		
Unit Totals	**1,455**		

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Unit 11 **23 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	447		
Incense-cedar	13		
Ponderosa Pine	68		
Sugar Pine	64		
Unit Totals	**592**		

Unit 12 **10 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	195		
Incense-cedar	6		
Ponderosa Pine	29		
Sugar Pine	28		
Unit Totals	**258**		

Unit 13 **5 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	96		
Incense-cedar	3		
Ponderosa Pine	15		
Sugar Pine	14		
Unit Totals	**128**		

Unit 14 **16 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	317		
Incense-cedar	9		
Ponderosa Pine	47		
Sugar Pine	44		
Unit Totals	**417**		

Unit 15 **25 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	492		
Incense-cedar	14		
Ponderosa Pine	74		
Sugar Pine	69		
Unit Totals	**649**		

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Unit 16 **7 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	137		
Incense-cedar	4		
Ponderosa Pine	21		
Sugar Pine	19		
Unit Totals	**181**		

Unit 2 **20 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	392		
Incense-cedar	11		
Ponderosa Pine	59		
Sugar Pine	56		
Unit Totals	**518**		

Unit 3 **3 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	59		
Incense-cedar	2		
Ponderosa Pine	9		
Sugar Pine	8		
Unit Totals	**78**		

Unit 4 **7 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	138		
Incense-cedar	4		
Ponderosa Pine	21		
Sugar Pine	19		
Unit Totals	**182**		

Unit 5 **25 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	494		
Incense-cedar	14		
Ponderosa Pine	74		
Sugar Pine	69		
Unit Totals	**651**		

UNITED STATES
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Unit 6 **86 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	1,685		
Incense-cedar	48		
Ponderosa Pine	254		
Sugar Pine	239		
Unit Totals	**2,226**		

Unit 7 **6 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	118		
Incense-cedar	3		
Ponderosa Pine	18		
Sugar Pine	17		
Unit Totals	**156**		

Unit 8 **16 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	312		
Incense-cedar	9		
Ponderosa Pine	47		
Sugar Pine	44		
Unit Totals	**412**		

Unit 9 **12 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	232		
Incense-cedar	7		
Ponderosa Pine	35		
Sugar Pine	33		
Unit Totals	**307**		

Unit Hazard Trees **1 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	56		
Ponderosa Pine	1		
Sugar Pine	2		
Unit Totals	**59**		

UNITED STATES
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BUREAU OF LAND MANAGEMENT

Unit **RW Unit 5** **1 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	11		
Unit Totals	**11**		

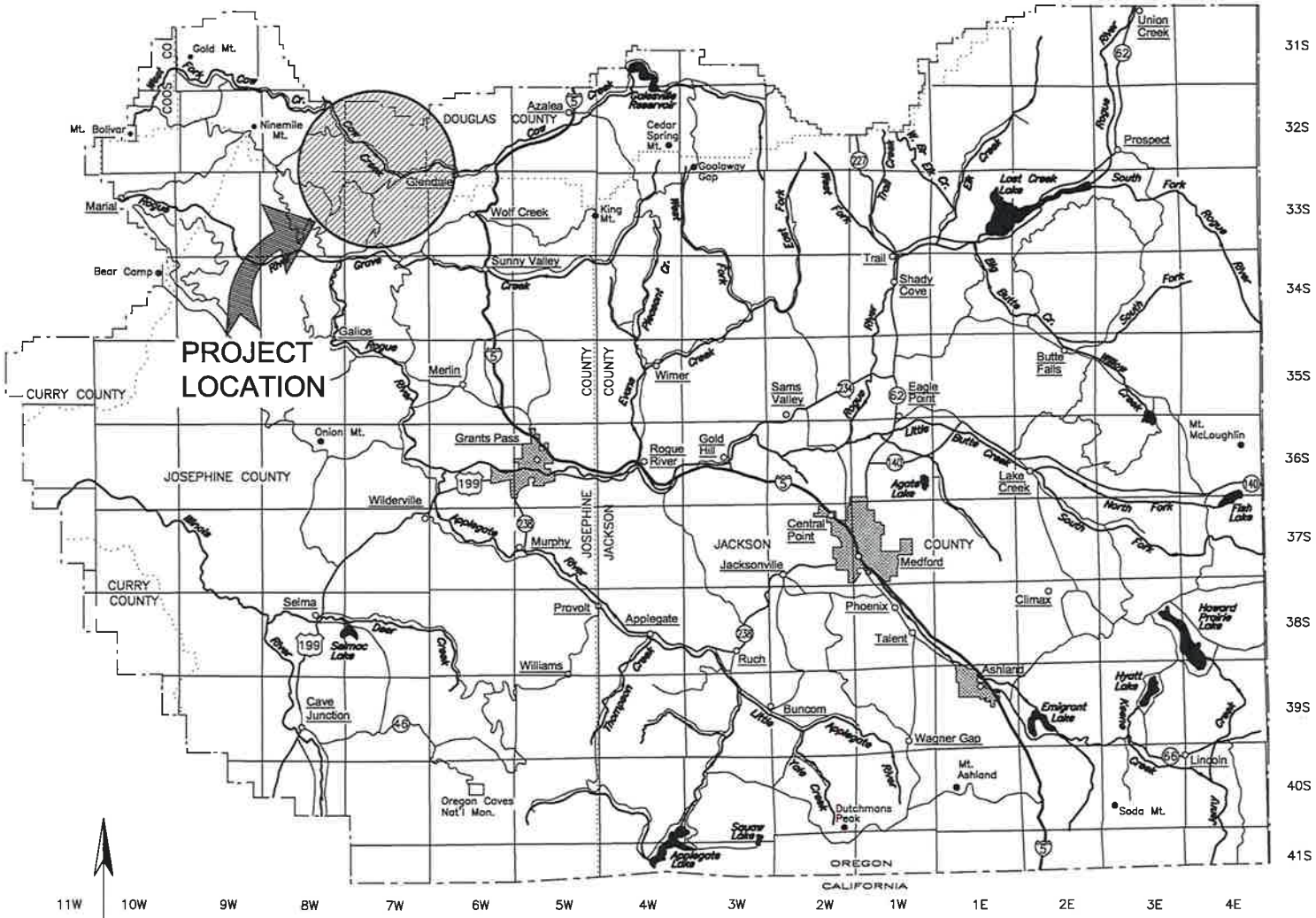
Unit **RW Unit 6** **1 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	33		
Ponderosa Pine	12		
Sugar Pine	8		
Unit Totals	**53**		

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

EXHIBIT C
SHEET 1 OF 1

ROGUE COW
TIMBER SALE
TRACT NO. ORM07-TS-14-13



ALWAYS
THINK
SAFETY

SHEET NO.	DESCRIPTION
C1	TITLE SHEET
C2	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	RENOVATION WORK LIST
C12	WRITTEN SPECIFICATIONS
C13	SPECIAL PROVISIONS

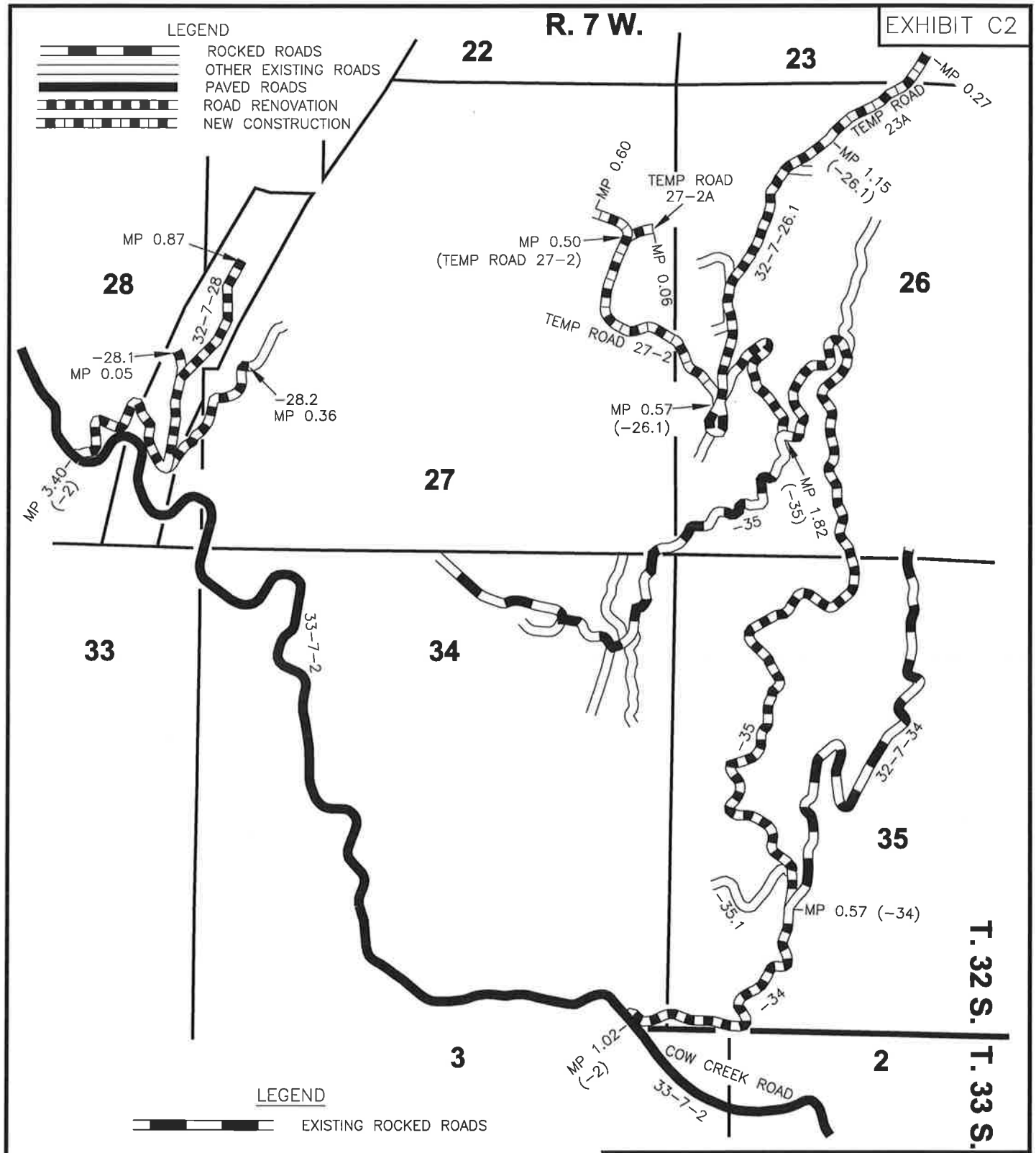
REV. NO.	DESCRIPTION	DATE	APPROV.

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

ROGUE COW
TIMBER SALE
TITLE SHEET

DESIGNED:
REVIEWED:
APPROVED:

DRAFTED BY: PH	SCALE: 1" = 12 MI
DATE: APRIL 2014	SHEET: 1 OF 1



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

RENOVATION/IMPROVEMENT PLAN/WORKLIST

RENOVATE: 32-7-26.1, -28, -28.1, -28.2, -34 & -35

CONSTRUCT: TEMP RD 23A, 27-2, & 27-2A

DATE: APRIL 2014 | C2 SHEET 1 OF 9

EXHIBIT C2.DWG

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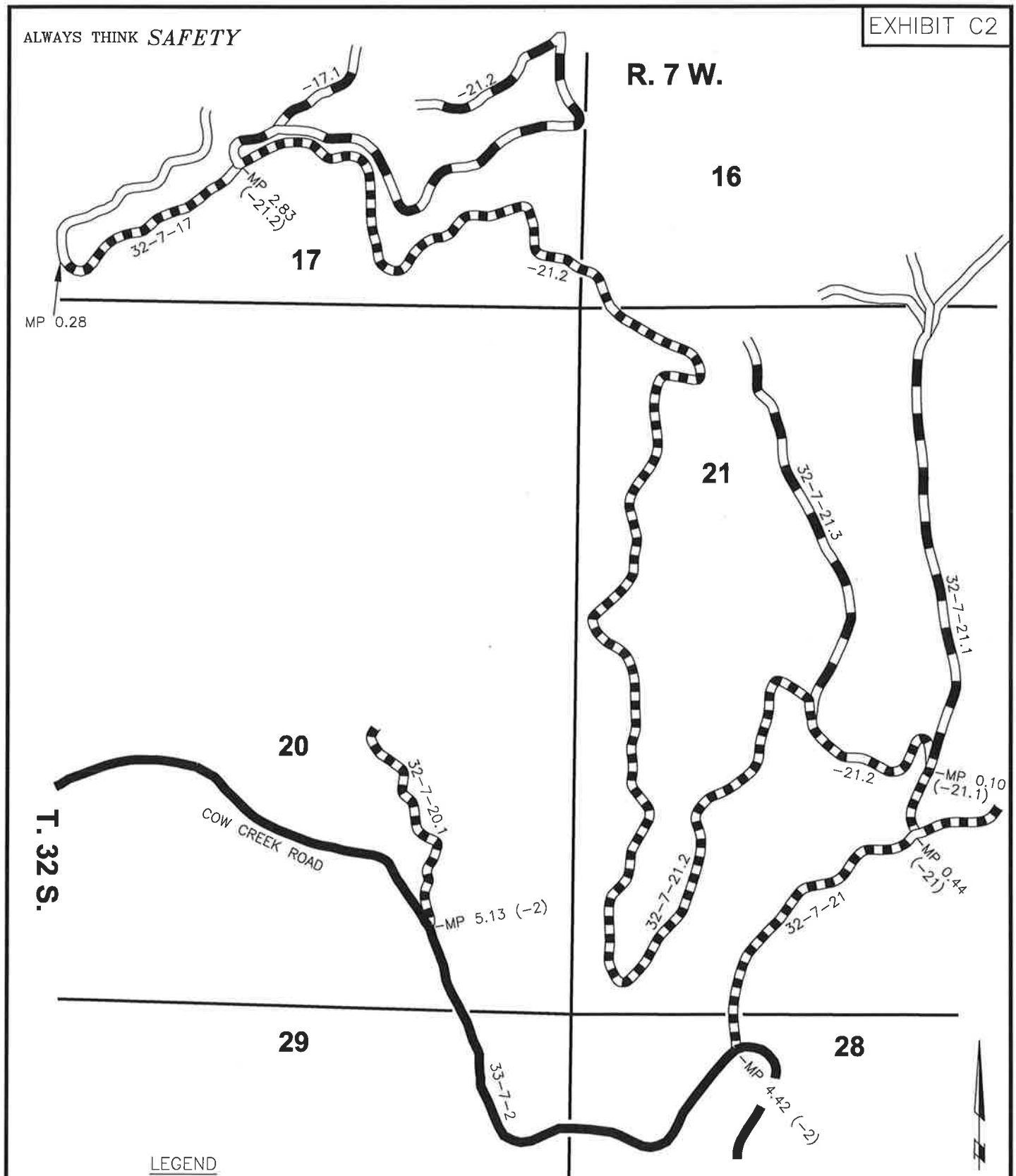
ALWAYS THINK *SAFETY*

EXHIBIT C2



LEGEND

- EXISTING ROCKED ROADS
- OTHER EXISTING ROADS
- PAVED ROADS
- ROAD RENOVATION

0' 1000' 2000'

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

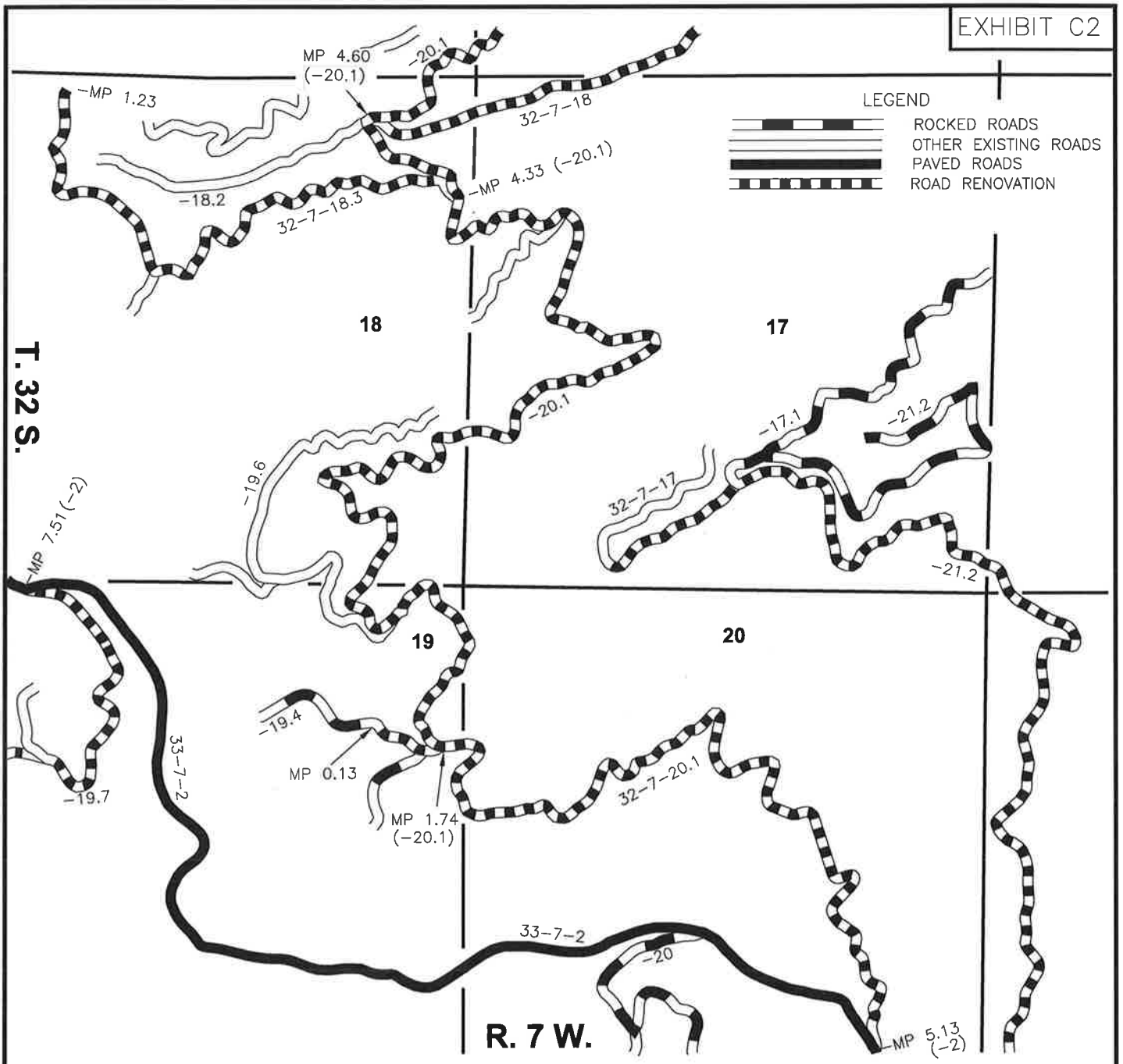
RENOVATION/IMPROVEMENT PLAN/WORKLIST

RENOVATE: 32-7-17, -21, -21.1 & -21.2

DATE: APRIL 2014 | C2 SHEET 2 OF 9

EXHIBIT C2.DWG

EXHIBIT C2



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

RENOVATION PLAN/WORKLIST

RENOVATE: 32-7-18.3, -19.4 & -20.1

DATE: APRIL 2014 | C2 SHEET 3 OF 9

EXHIBIT C2.DWG

0' 1500' 3000'

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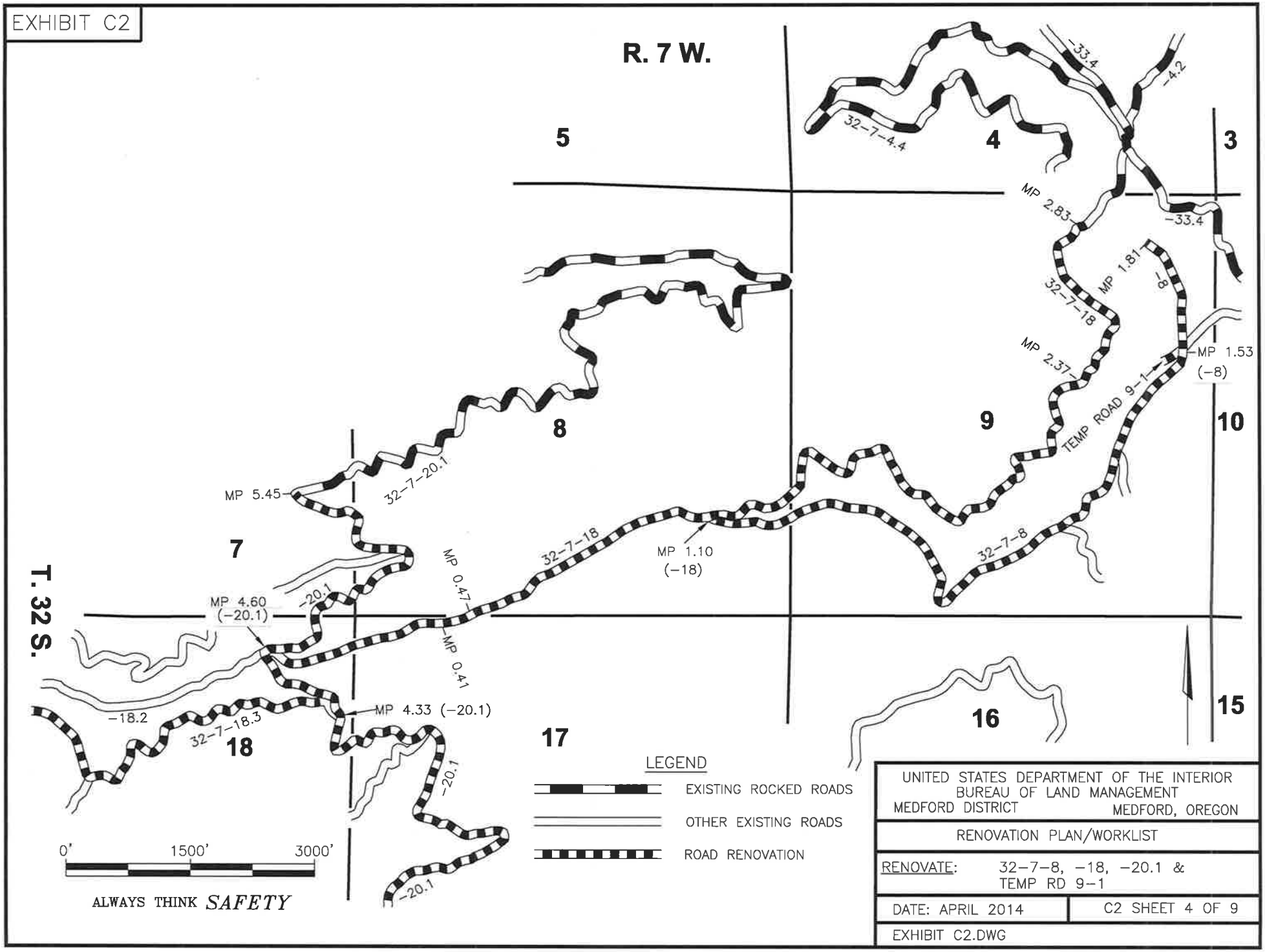
EXHIBIT C2



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

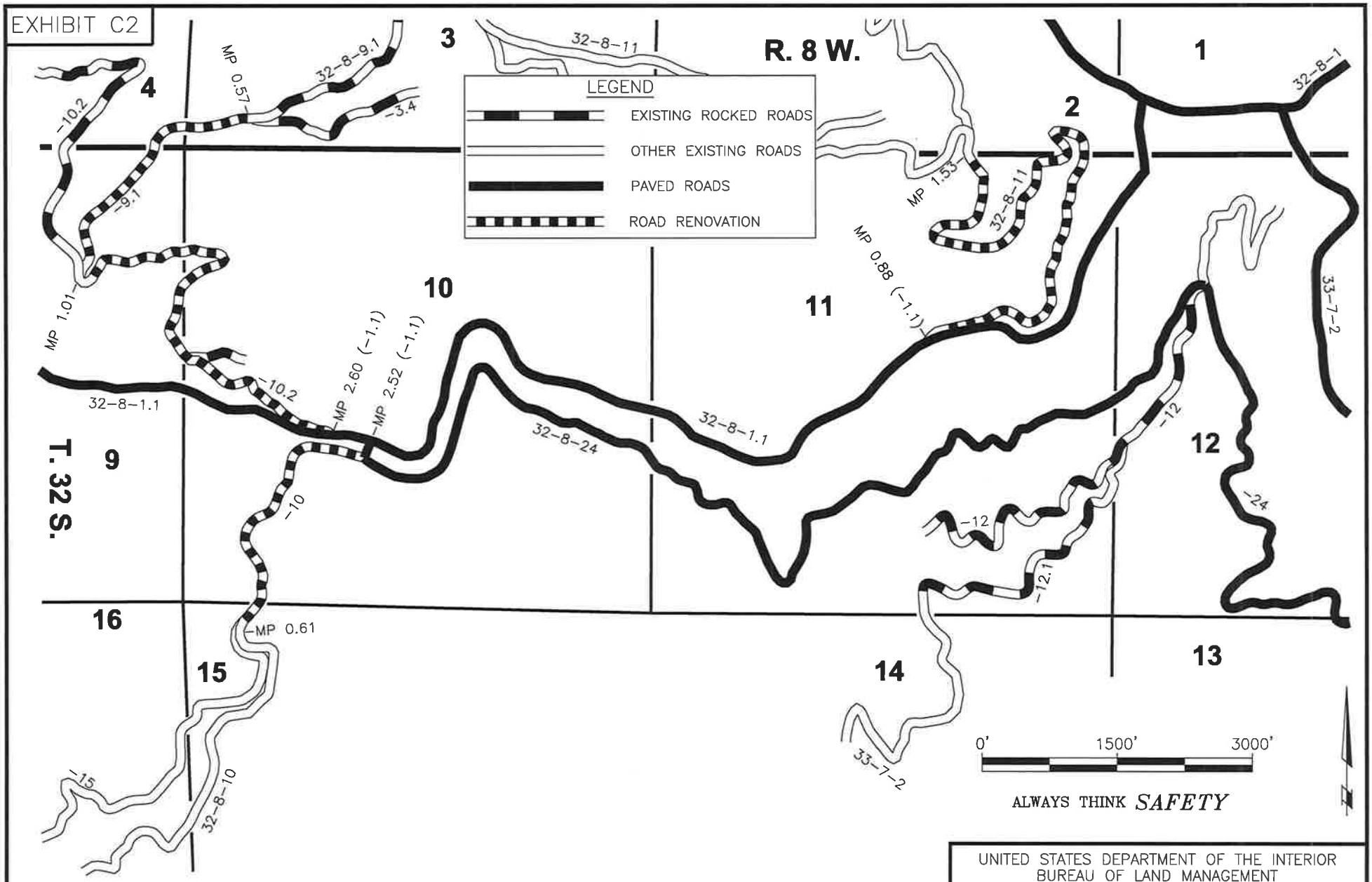
RENOVATION PLAN/WORKLIST

RENOVATE: 32-7-8, -18, -20.1 & TEMP RD 9-1

DATE: APRIL 2014 | C2 SHEET 4 OF 9

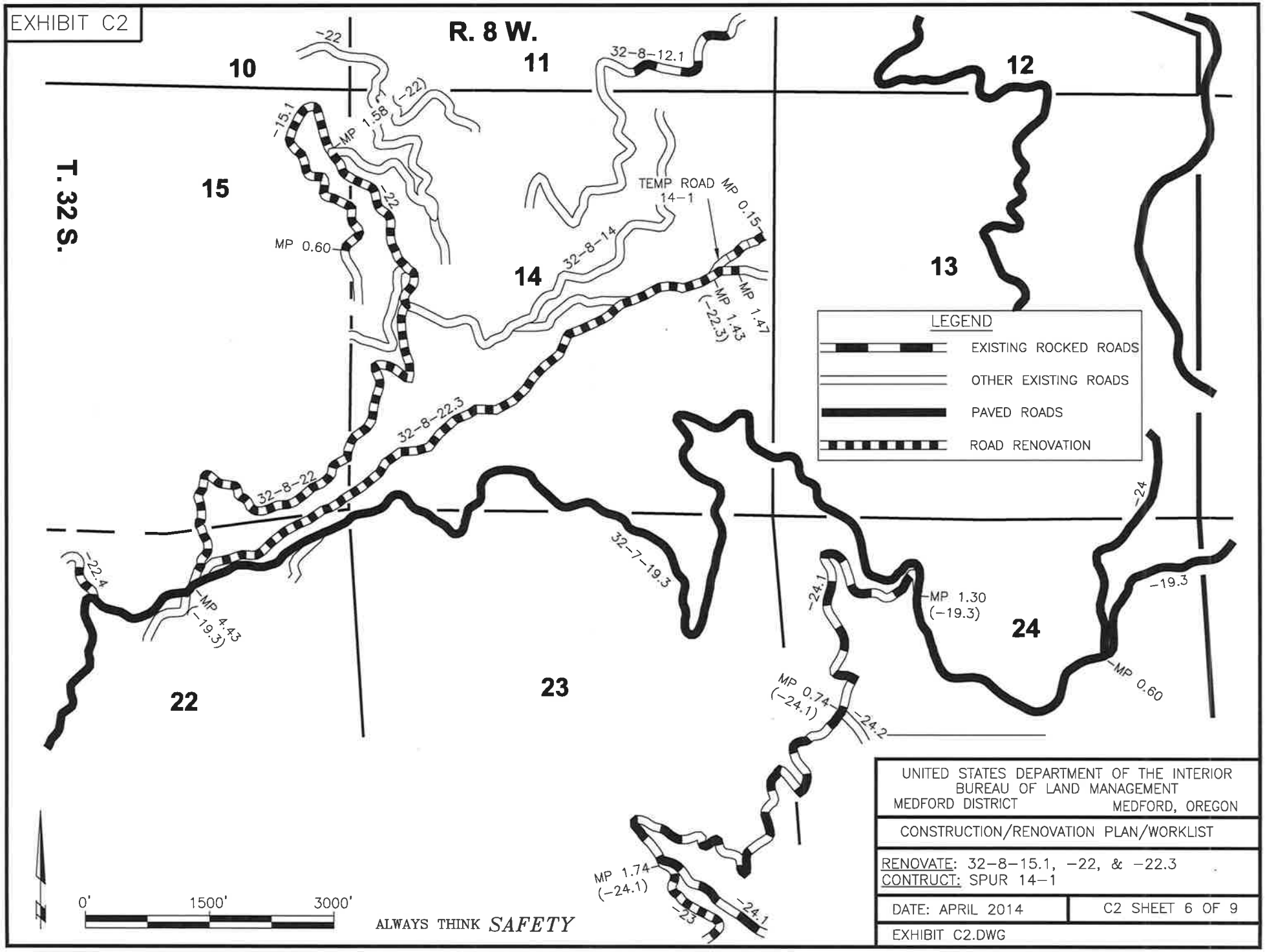
EXHIBIT C2.DWG

EXHIBIT C2



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT MEDFORD, OREGON	
RENOVATION PLAN/WORKLIST	
RENOVATE: 32-8-9.1, -10, -10.2, & -11	
DATE: APRIL 2014	SHEET 5 OF 9
EXHIBIT C2.DWG	

EXHIBIT C2



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

CONSTRUCTION/RENOVATION PLAN/WORKLIST

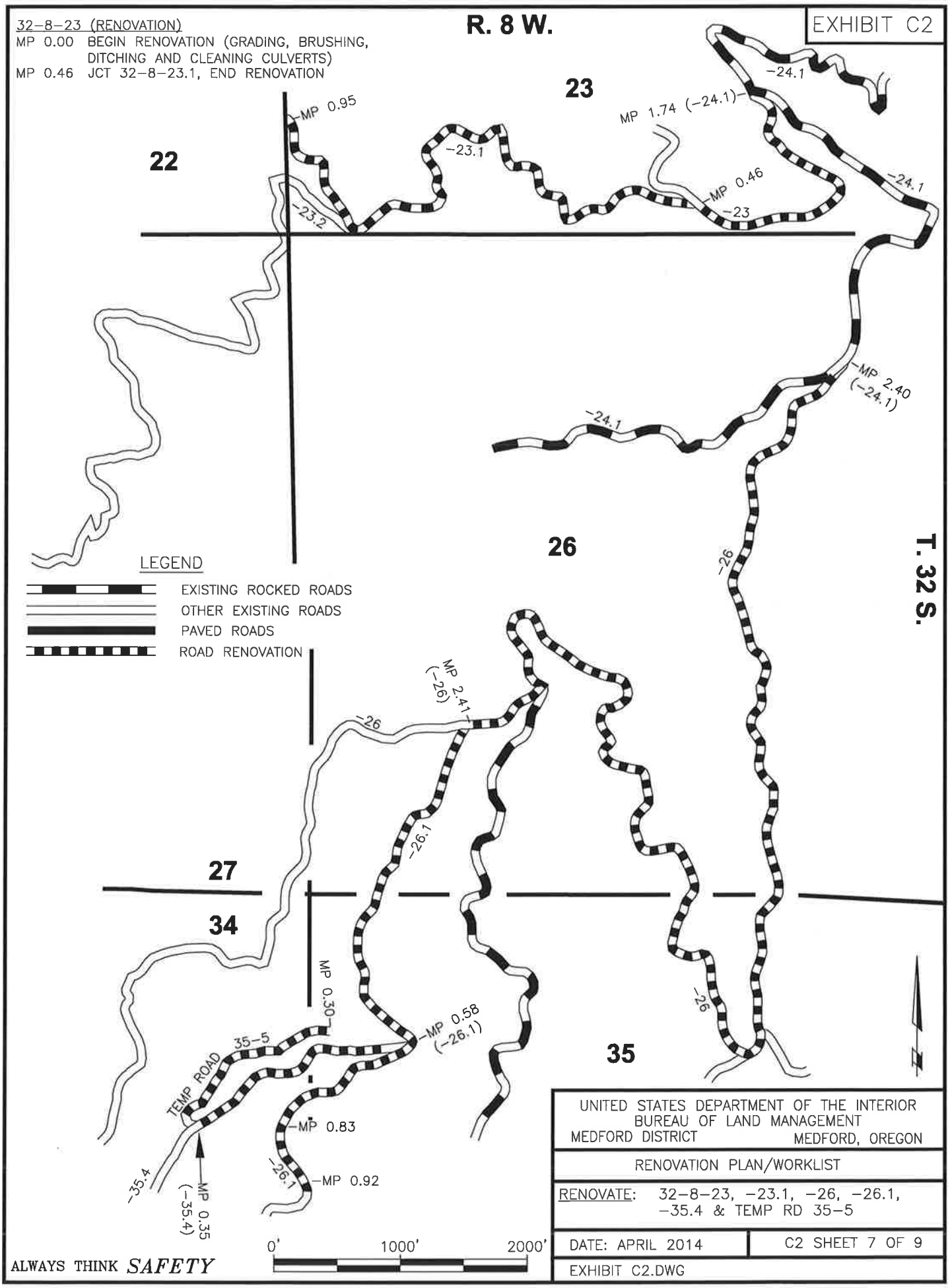
RENOVATE: 32-8-15.1, -22, & -22.3
CONTRUCT: SPUR 14-1

DATE: APRIL 2014 | C2 SHEET 6 OF 9

EXHIBIT C2.DWG

EXHIBIT C2

32-8-23 (RENOVATION)
MP 0.00 BEGIN RENOVATION (GRADING, BRUSHING, DITCHING AND CLEANING CULVERTS)
MP 0.46 JCT 32-8-23.1, END RENOVATION



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

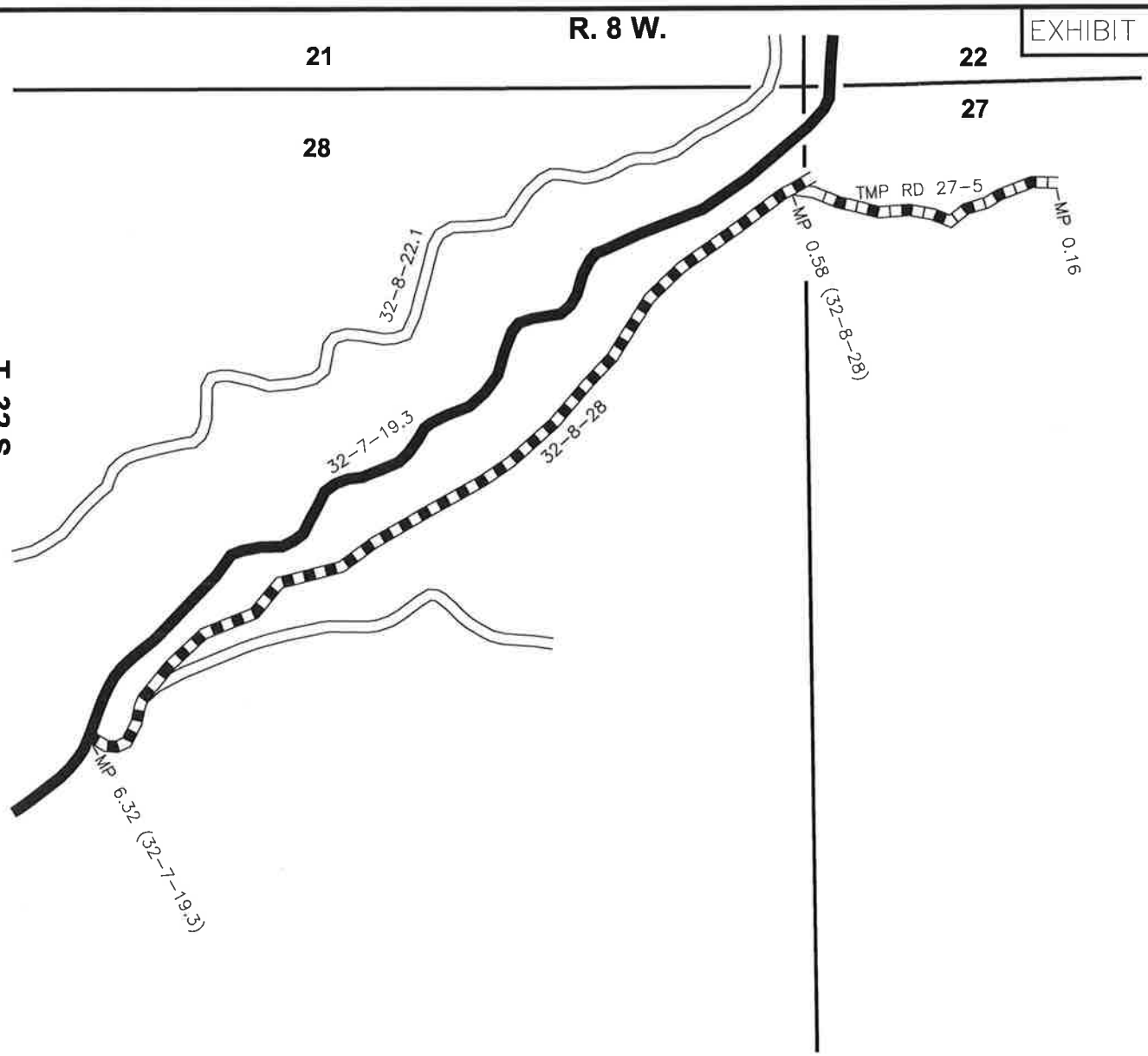
RENOVATION PLAN/WORKLIST

RENOVATE: 32-8-23, -23.1, -26, -26.1, -35.4 & TEMP RD 35-5

DATE: APRIL 2014 | C2 SHEET 7 OF 9

EXHIBIT C2.DWG

EXHIBIT C2



LEGEND

- ROCKED ROADS
- OTHER EXISTING ROADS
- PAVED ROADS
- ROAD RENOVATION
- NEW CONSTRUCTION

0' 500' 1000'

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

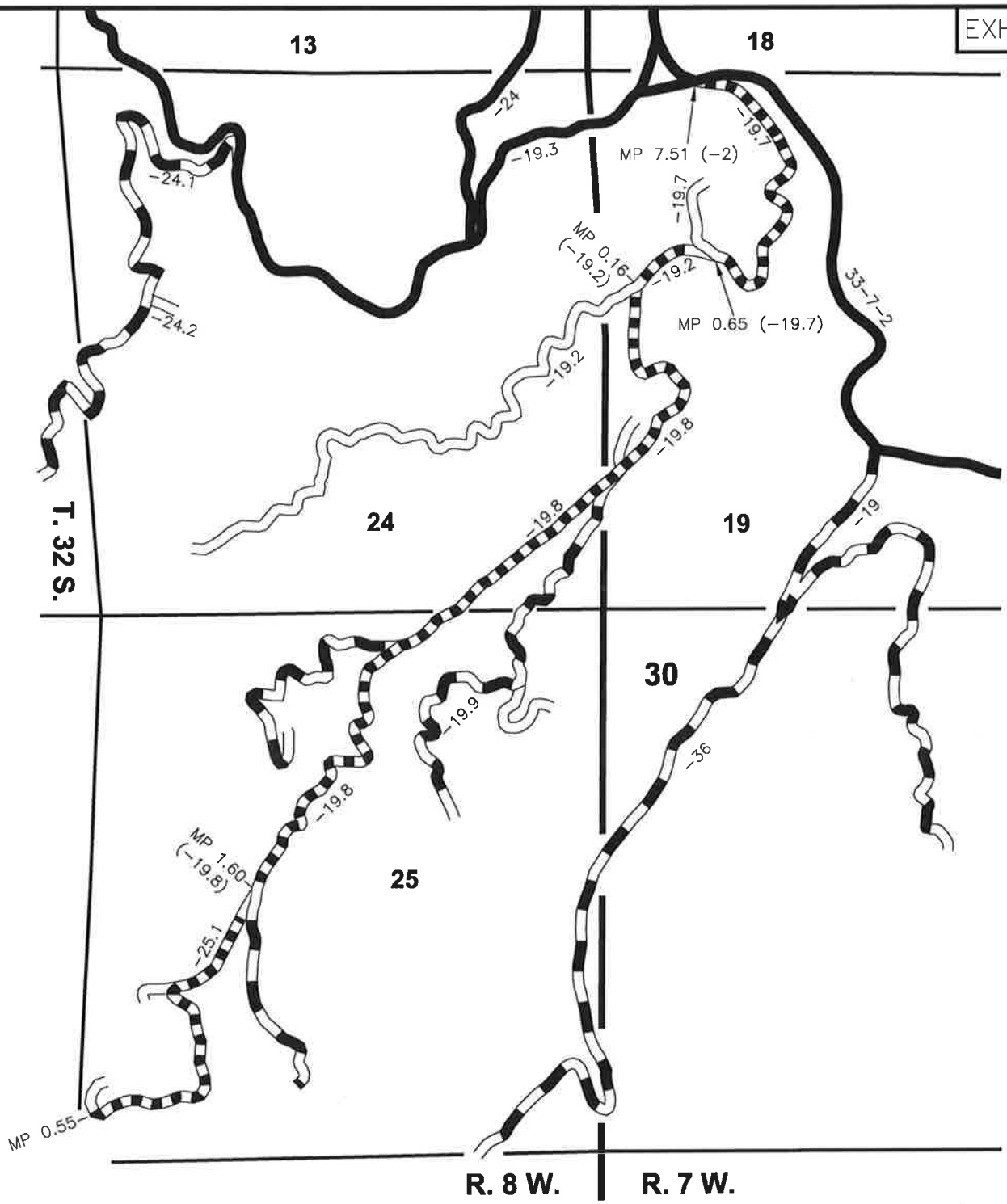
RENOVATION/CONSTRUCTION PLAN/WORKLIST

RENOVATE: 32-8-28
CONSTRUCT: SPUR 27-5

DATE: APRIL 2014 | C2 SHEET 8 OF 9

EXHIBIT C2.DWG

EXHIBIT C2



LEGEND

- ROCKED ROADS
- OTHER EXISTING ROADS
- PAVED ROADS
- ROAD RENOVATION

0' 1500' 3000'

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

RENOVATION PLAN/WORKLIST

RENOVATE: 32-7-19.2, -19.7, 19-8 AND 32-8-25.1

DATE: APRIL 2014 | C2 SHEET 9 OF 9

EXHIBIT C2.DWG

EXHIBIT C3
SHEET 1 OF 3

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	CLEARING AND GRUBBING	EXCAVATION		DRAINAGE									RENOVATION			AGGREGATE						MISC.				
							CORRUGATED METAL PIPE 16 GA																						
							SIZE					DOWNSPOUT																	
												FULL ROUND		HALF ROUND															
					ROCK	COMMON	18"	24"	30"	36"	ELBOWS	18"	24"	18"	24"	RESHAPE EX. ROAD SURFACE	DITCH & CULVERT CLEANING	SCARIFICATION	PIT RUN	CRUSHED BASE ROCK	BORROW MATERIAL	RIP RAP	SOIL STABILIZATION	ROADSIDE BRUSHING	RESHAPE EX. WATERDIPS	RECONSTRUCT WATERBARS	CONSTRUCT WATERDIPS	CONSTRUCT WATERBARS	RMV., CONST., OR RECONST., BARRICADE
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	EA	EA
32-7-8	0.00	1.81	1.81													1.81	1.81							1.81					
32-7-17	0.00	0.28	0.28													0.28	0.28							0.28					
32-7-18	0.00	2.83	2.83				30									2.83	2.83							2.83					
32-7-18.3	0.00	1.23	1.23													1.23	1.23							1.23					
32-7-19.2	0.00	0.16	0.16													0.16	0.16							0.16					
32-7-19.4	0.00	0.13	0.13													0.13	0.13							0.13					
32-7-19.7	0.00	0.65	0.65													0.65	0.65							0.65					
32-7-19.8	0.00	1.60	1.60													1.60	1.60							1.60					
32-7-20.1	0.00	5.45	5.45													5.45	5.45							5.45					
32-7-21	0.00	0.44	0.44													0.44	0.44							0.44					
32-7-21.1	0.00	0.10	0.10													0.10	0.10							0.10					
32-7-21.2	0.00	2.83	2.83													2.83	2.83							2.83					
32-7-26.1	0.00	1.15	1.15													1.15	1.15							1.15		12			1
TOTALS	*SEE EXHIBIT C3 - SHEET 3 OF 3 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.

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

AGGREGATE GRADATION REQUIREMENTS

ITEM 900

SIZE	GRADATION
4 inch	A
3 inch	B
2 inch	C
1 1/2 inch	D

ITEM 1000

SIZE	GRADATION
3 inch	A,C,F
2 inch	B,D,G,H

ITEM 1200

SIZE	GRADATION
1 1/2 inch	C,C-1
1 inch	D,D-1
3/4 inch	E,E-1

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REV. NO.	DESCRIPTION	DATE	APPROV.

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

ROGUE COW
TIMBER SALE
ESTIMATE OF QUANTITIES

DESIGNED:
REVIEWED:
APPROVED:

DRAFTED BY: BLM	SCALE: NONE
DATE: APRIL 2014	SHEET: 1 OF 3
DRAWING: EXHIBIT C3.DWG	

EXHIBIT C3
SHEET 2 OF 3

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	CLEARING AND GRUBBING	EXCAVATION		DRAINAGE									RENOVATION			AGGREGATE						MISC.				
							CORRUGATED METAL PIPE 16 GA																						
							SIZE				ELBOWS	DOWNSPOUT																	
												FULL ROUND		HALF ROUND															
					ROCK	COMMON	18"	24"	30"	36"		18"	24"	18"	24"	RESHAPE EX. ROAD SURFACE	DITCH & CULVERT CLEANING	SCARIFICATION	PIT RUN	CRUSHED BASE ROCK	BORROW MATERIAL	RIPRAP	SOIL STABILIZATION	ROADSIDE BRUSHING	RESHAPE EX. WATERDIPS	RECONSTRUCT WATERBARS	CONSTRUCT WATERDIPS	CONSTRUCT WATERBARS	RMV., CONST.* OR RECONST. BARRICADE
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	EA	EA
32-7-28	0.00	0.87	0.87													0.87	0.87							0.87					1
32-7-28.1	0.00	0.05	0.05													0.05	0.05							0.05					
32-7-28.2	0.00	0.36	0.36													0.36	0.36							0.36					
32-7-34	0.00	0.57	0.57													0.57	0.57							0.57					
32-7-35	0.00	1.82	1.82													1.82	1.82							1.82					
32-8-9.1	0.00	0.57	0.57													0.57	0.57							0.57					
32-8-10	0.00	0.61	0.61													0.61	0.61							0.61					
32-8-10.2	0.00	1.01	1.01													1.01	1.01							1.01					
32-8-11	0.00	1.53	1.53													1.53	1.53							1.53					
32-8-15.1	0.00	0.60	0.60													0.60	0.60							0.60					
32-8-22	0.00	1.58	1.58													1.58	1.58							1.58					
32-8-22.3	0.00	1.47	1.47													1.47	1.47							1.47					
32-8-23	0.00	0.46	0.46													0.46	0.46							0.46					
32-8-23.1	0.00	0.95	0.95													0.95	0.95							0.63					
32-8-25.1	0.00	0.55	0.55													0.55	0.55							0.55					
32-8-26	0.00	2.41	2.41													2.41	2.41							2.41					
TOTALS	*SEE EXHIBIT C3 - SHEET 3 OF 3 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.

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

AGGREGATE GRADATION REQUIREMENTS

ITEM 900

SIZE	GRADATION
4 inch	A
3 inch	B
2 inch	C
1 1/2 inch	D

ITEM 1000

SIZE	GRADATION
3 inch	A,C,F
2 inch	B,D,G,H

ITEM 1200

SIZE	GRADATION
1 1/2 inch	C,C-1
1 inch	D,D-1
3/4 inch	E,E-1

ALWAYS THINK SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.

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

ROGUE COW
TIMBER SALE
ESTIMATE OF QUANTITIES

DESIGNED:
REVIEWED:
APPROVED:

DRAFTED BY: BLM	SCALE: NONE
DATE: APRIL 2014	SHEET: 2 OF 3
DRAWING: EXHIBIT C3.DWG	

EXHIBIT C3
SHEET 3 OF 3

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	CLEARING AND GRUBBING	EXCAVATION		DRAINAGE									RENOVATION			AGGREGATE						MISC.				
							CORRUGATED METAL PIPE 16 GA																						
							SIZE					DOWNSPOUT																	
												FULL ROUND		HALF ROUND															
					ROCK	COMMON	18"	24"	30"	36"	ELBOWS	18"	24"	18"	24"	RESHAPE EX. ROAD SURFACE	DITCH & CULVERT CLEANING	SCARIFICATION	PIT RUN	CRUSHED BASE ROCK	BORROW MATERIAL	RIP RAP	SOIL STABILIZATION	ROADSIDE BRUSHING	RESHAPE EX. WATERDIPS	RECONSTRUCT WATERBARS	CONSTRUCT WATERDIPS	CONSTRUCT WATERBARS	RMV., CONST., OR RECONST. BARRICADE
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	EA	EA
32-8-26.1	0.00	0.92	0.92													0.92	0.92		20					0.92			1		
32-8-28	0.00	0.58	0.58													0.58	0.58							0.58		6			
32-8-35.4	0.00	0.35	0.35													0.35	0.35							0.35					
TMP RD 9-1	0.00	0.03	0.03	0.01		170												0.01					0.01			1			1
TMP RD 14-1	0.00	0.15	0.15	0.40		401												0.40					0.40			3			1
TMP RD 23A	0.00	0.27	0.27	1.00	800	1000												1.00					1.00			5			1
TMP RD 27-2	0.00	0.60	0.60	2.40		3390												2.40					2.40			10			1
TMP RD 27-2A	0.00	0.06	0.06	0.20		155												0.20					0.20			1			1
TMP RD 27-5	0.00	0.16	0.16	0.40		905												0.40					0.40			3			1
TMP RD 35-5	0.00	0.30	0.30	0.70		270												0.70					0.70			5			1
TOTALS			37.49	5.11	800	6291	30									35.92	35.92	5.11	20				5.11	35.92		46	1		9

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.

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

AGGREGATE GRADATION REQUIREMENTS

ITEM 900

SIZE	GRADATION
4 inch	A
3 inch	B
2 inch	C
1 1/2 inch	D

ITEM 1000

SIZE	GRADATION
3 inch	A,C,F
2 inch	B,D,G,H

ITEM 1200

SIZE	GRADATION
1 1/2 inch	C,C-1
1 inch	D,D-1
3/4 inch	E,E-1

ALWAYS
THINK
SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.

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

ROGUE COW
TIMBER SALE
ESTIMATE OF QUANTITIES

DESIGNED:
REVIEWED:
APPROVED:

DRAFTED BY: BLM | SCALE: NONE
DATE: APRIL 2014 | SHEET: 3 OF 3
DRAWING: EXHIBIT C3.DWG

EXHIBIT C4
SHEET 1 OF 4

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	TYPICAL STATION TYPE	ALIGNMENT	ROAD WIDTH [1-3]		GRADIENT		BRUSHING WIDTH				SURFACING [3]								REMARKS
										BEYOND		EXISTING ROAD(S)		BASE COURSE				SURFACE COURSE				
					MAXIMUM DEGREE OF CURVE	SUBGRADE	DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	TOP CUT	TOE FILL	L	R	MINIMUM WIDTH	COMPACTION DEPTH	TYPE [2]	GRADING	MINIMUM WIDTH	COMPACTION DEPTH	TYPE [2]	GRADING	
32-7-8	0.00	1.81	1.81	6		17'	3'					4	4							D		
32-7-17	0.00	0.28	0.28	6		14'	3'					4	4							B		
32-7-18	0.00	2.83	2.83	6		17'	3'					4	4							B		
32-7-18.3	0.00	1.23	1.23	6		14'	3'					4	4							D/NA		D and NAT both
32-7-19.2	0.00	0.16	0.16	6		16'	3'					4	4							D		
32-7-19.4	0.00	0.13	0.13	6		16'	3'					4	4							D		
32-7-19.7	0.00	0.65	0.65	6		18'	3'					4	4							D		
32-7-19.8	0.00	1.60	1.60	6		16'	3'					4	4							D		
32-7-20.1	0.00	5.45	5.45	6		17'	3'					4	4							D		
32-7-21	0.00	0.44	0.44	6		14'	3'					4	4							D		
32-7-21.1	0.00	0.10	0.10	6		14'	3'					4	4							D		
32-7-21.2	0.00	2.83	2.83	6		17'	3'					4	4							D		
32-7-26.1	0.00	1.15	1.15	3		14'						4	4							NAT		

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

REV. NO.	DESCRIPTION	DATE	APPROV.

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

ROGUE COW
TIMBER SALE
SPECIFICATION SHEET

DESIGNED:
REVIEWED:
APPROVED:

DRAFTED BY: BLM | SCALE: NONE
DATE: APRIL 2014 | SHEET: 1 OF 4
DRAWING: EXHIBIT C4.DWG

EXHIBIT C4
SHEET 2 OF 4

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	TYPICAL STATION TYPE	ALIGNMENT	ROAD WIDTH 1-3		GRADIENT		BRUSHING WIDTH				SURFACING 3								REMARKS
										BEYOND		EXISTING ROAD(S)		BASE COURSE				SURFACE COURSE				
					MAXIMUM DEGREE OF CURVE	SUBGRADE	DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	TOP CUT	TOE FILL	L	R	MINIMUM WIDTH	COMPACTION DEPTH	TYPE 2	GRADING	MINIMUM WIDTH	COMPACTION DEPTH	TYPE 2	GRADING	
32-7-28	0.00	0.87	0.87	6		14'	3'					4	4							A		
32-7-28.1	0.00	0.05	0.05	6		14'	3'					4	4							A		
32-7-28.2	0.00	0.36	0.36	6		14'	3'					4	4							A		
32-7-34	0.00	0.57	0.57	6		16'	3'					4	4							A		
32-7-35	0.00	1.82	1.82	6		16'	3'					4	4							A		
32-8-9.1	0.00	0.57	0.57	6		17'	3'					4	4							A		
32-8-10	0.00	0.61	0.61	5		16'	3'					4	4							NAT		
32-8-10.2	0.00	1.01	1.01	6		14'	3'					4	4							D		
32-8-11	0.00	1.53	1.53	6		14'	3'					4	4							D		
32-8-15.1	0.00	0.60	0.60	5		14'	3'					4	4							NAT		
32-8-22	0.00	1.58	1.58	6		17'	3'					4	4							NAT		
32-8-22.3	0.00	1.47	1.47	5		14'	3'					4	4							NAT		
32-8-23	0.00	0.46	0.46	5		14'	3'					4	4							NAT		
32-8-23.1	0.00	0.95	0.95	5		14'	3'					4	4							NAT		
32-8-25.1	0.00	0.55	0.55	6		14'	3'					4	4							D		
32-8-26	0.00	2.41	2.41	6		17'	3'					4	4							A		

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
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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

ROGUE COW
TIMBER SALE
SPECIFICATION SHEET

DESIGNED:
REVIEWED:
APPROVED:

DRAFTED BY: BLM | SCALE: NONE
DATE: APRIL 2014 | SHEET: 2 OF 4
DRAWING: EXHIBIT C4.DWG

EXHIBIT C4
SHEET 3 OF 4

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	TYPICAL STATION TYPE	ALIGNMENT	ROAD WIDTH 1-3		GRADIENT		BRUSHING WIDTH				SURFACING 3								REMARKS
										BEYOND		EXISTING ROAD(S)		BASE COURSE				SURFACE COURSE				
					MAXIMUM DEGREE OF CURVE	SUBGRADE	DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	TOP CUT	TOE FILL	L	R	MINIMUM WIDTH	COMPACTION DEPTH	TYPE 2	GRADING	MINIMUM WIDTH	COMPACTION DEPTH	TYPE 2	GRADING	
32-8-26.1	0.00	0.92	0.92	5		14'	3'					4	4							NAT		
32-8-28	0.00	0.58	0.58	5		14'	3'					4	4							NAT		
32-8-35.4	0.00	0.35	0.35	5		20'	3'					4	4							NAT		
TEMP ROAD 9-1	0.00	0.03	0.03	5		12'														NAT		
TEMP ROAD 14-1	0.00	0.15	0.15	3		12'														NAT		
TEMP ROAD 23A	0.00	0.27	0.27	3		12'														NAT		
TEMP ROAD 27-2	0.00	0.60	0.60	3		12'														NAT		
TEMP ROAD 27-2A	0.00	0.06	0.06	3		12'														NAT		
TEMP ROAD 27-5	0.00	0.16	0.16	3		12'														NAT		
TEMP ROAD 35-5	0.00	0.30	0.30	5		12'														NAT		

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.
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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
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   - 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.

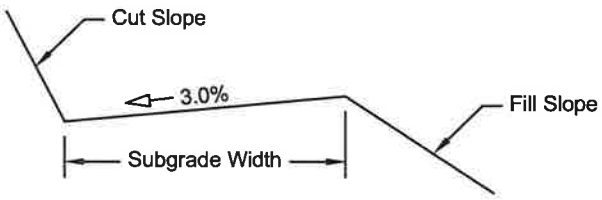
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT - MEDFORD, OREGON

ROGUE COW
TIMBER SALE
SPECIFICATION SHEET

DESIGNED:
REVIEWED:
APPROVED:

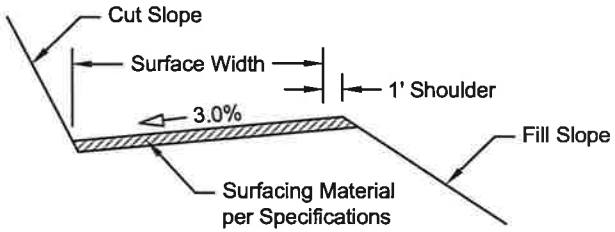
DRAFTED BY: BLM | SCALE: NONE
DATE: APRIL 2014 | SHEET: 2 OF 4
DRAWING: EXHIBIT C4.DWG

EXHIBIT C4
SHEET 4 OF 4



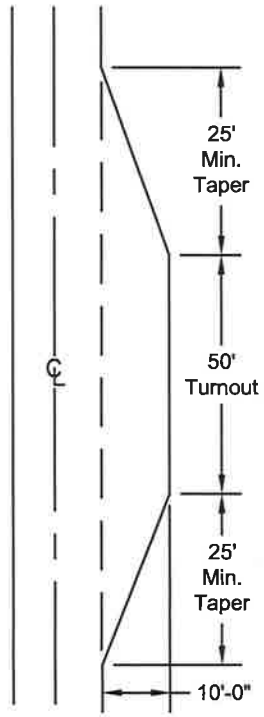
TYPICAL GRADING SECTION

TYPE 1



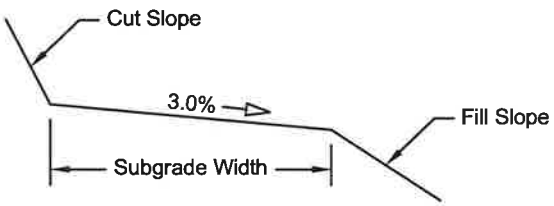
TYPICAL SURFACING SECTION

TYPE 2



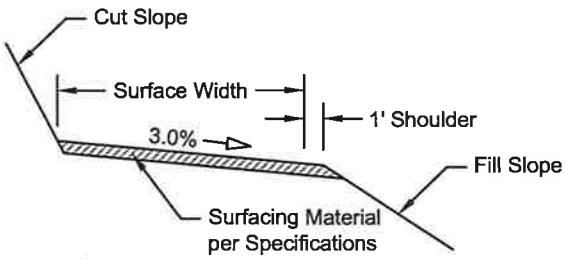
TYPICAL TURNOUT

PLAN VIEW



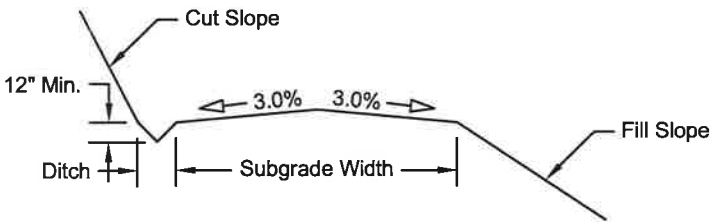
TYPICAL GRADING SECTION

TYPE 3



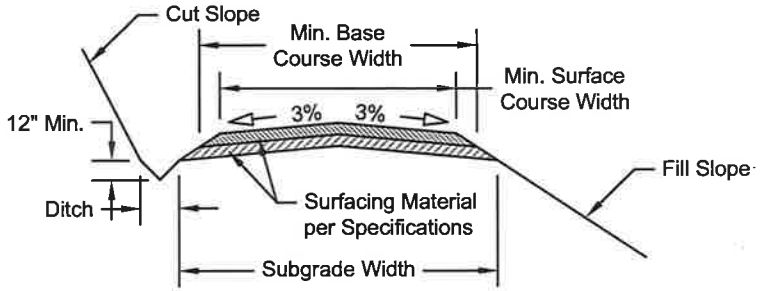
TYPICAL SURFACING SECTION

TYPE 4



TYPICAL GRADING SECTION

TYPE 5



TYPICAL SURFACING SECTION

TYPE 6

ALWAYS
THINK
SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.

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

ROGUE COW TIMBER SALE SPECIFICATION SHEET

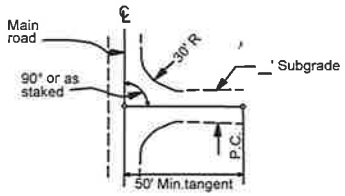
DESIGNED:
REVIEWED:
APPROVED:

DRAFTED BY: BLM	SCALE: NONE
DATE: APRIL 2014	SHEET: 1 OF 4

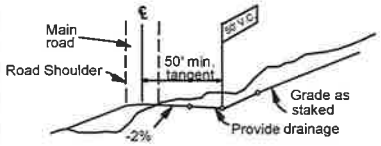
DRAWING: EXHIBIT C4.DWG

EXHIBIT C5
SHEET 1 OF 1

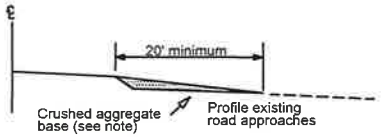
TYPICAL ROAD APPROACHES



PLAN



PROFILE



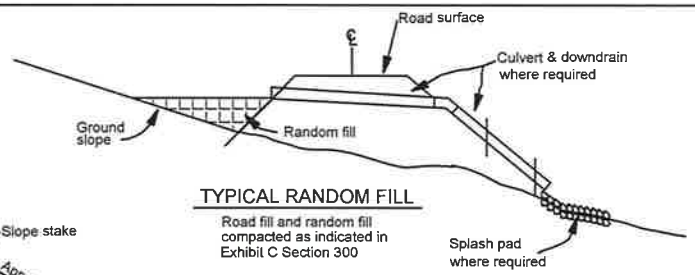
TYPICAL SURFACING SECTION

NOTES:

1. The profile of the existing approach roads shall be tapered to meet the shoulder line of the main roadway and shall receive the same wearing surface.

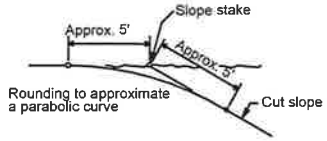
2. The crushed aggregate base shall be of the same gradation as used in the adjacent roadbed.

3. Approaches shall be finished with the same treatment as shown for the adjacent roadbed.

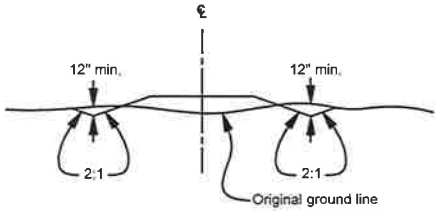


TYPICAL RANDOM FILL

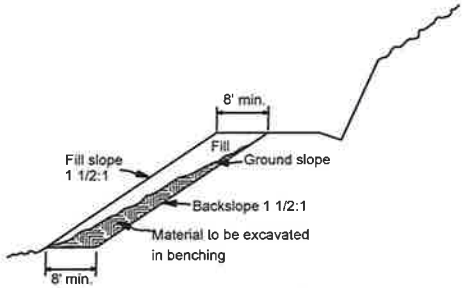
Road fill and random fill compacted as indicated in Exhibit C Section 300



CUT SLOPE ROUNDING

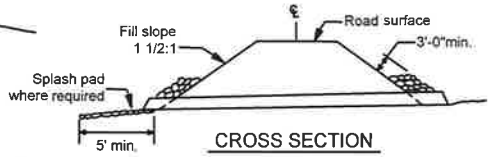


TYPICAL ROAD SECTION FOR TURNPIKE CONSTRUCTION

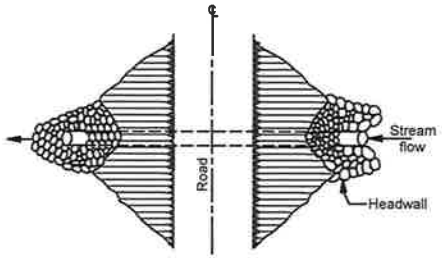


SPECIAL COMPACTION TYPICAL BENCHING SECTION

RIPRAP AT CULVERTS



CROSS SECTION



PLAN

NOTES: RIPRAP AT CULVERTS

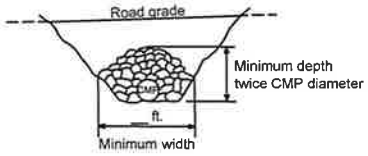
1. Riprap shall be placed in such a manner that it will not damage the culvert.

2. Trenching will be done as required by the Authorized Officer.

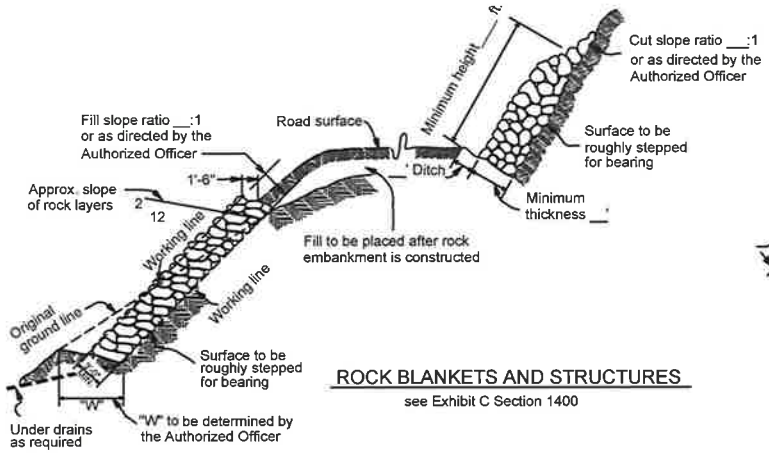
3. Minimum depth of splash pads shall be 1FT.

4. Minimum quantity shall be 1CY per culvert.

5. Riprap shall be placed before October 1st of the year the culvert is installed.

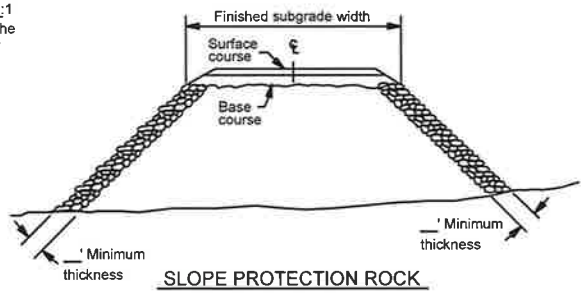


ELEVATION



ROCK BLANKETS AND STRUCTURES

see Exhibit C Section 1400



SLOPE PROTECTION ROCK

see Exhibit C Section 1400

ALWAYS THINK SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.

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

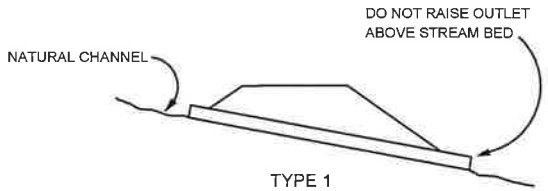
ROGUE COW
TIMBER SALE
TYPICAL ROAD DATA

DESIGNED:
REVIEWED:
APPROVED:

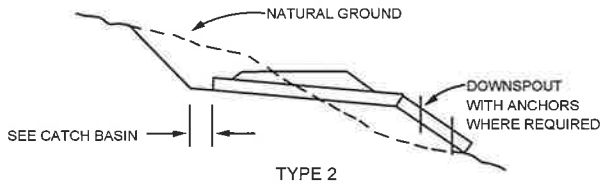
DRAFTED BY: BLM	SCALE: NONE
DATE: NOV 2012	SHEET: 1 OF 1
DRAWING: EXHIBIT C5.DWG	

EXHIBIT C6
SHEET 1 OF 2

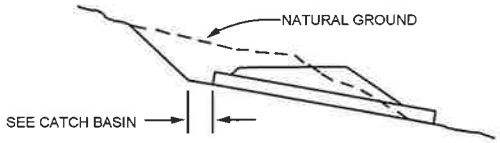
CULVERT INSTALLATION TYPES



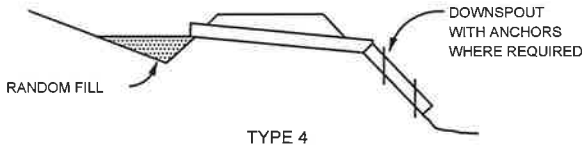
TYPE 1



TYPE 2

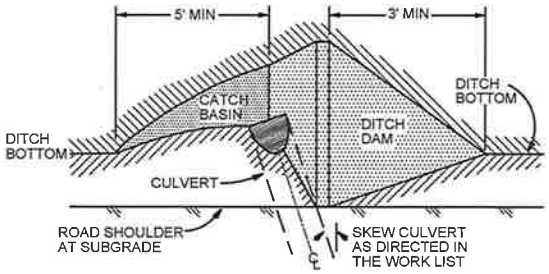


TYPE 3

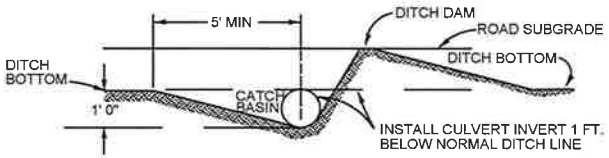


TYPE 4

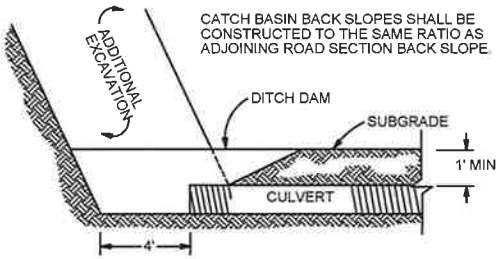
CATCH BASIN



PLAN VIEW

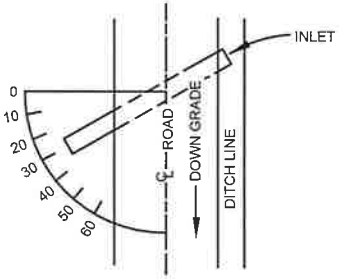


ELEVATION



CROSS SECTION AT CATCH BASIN

SKEW DIAGRAM



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

ALWAYS THINK SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.

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

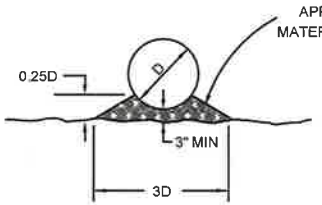
ROGUE COW TIMBER SALE CULVERT INSTALL DETAIL

DESIGNED:
REVIEWED:
APPROVED:

DRAFTED BY: BLM	SCALE: NONE
DATE: APRIL 2014	SHEET: 1 OF 2
DRAWING: EXHIBIT C6.DWG	

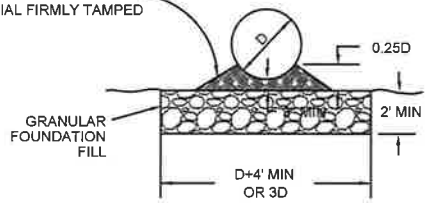
EXHIBIT C6
SHEET 2 OF 2

BEDDING OF CULVERTS



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

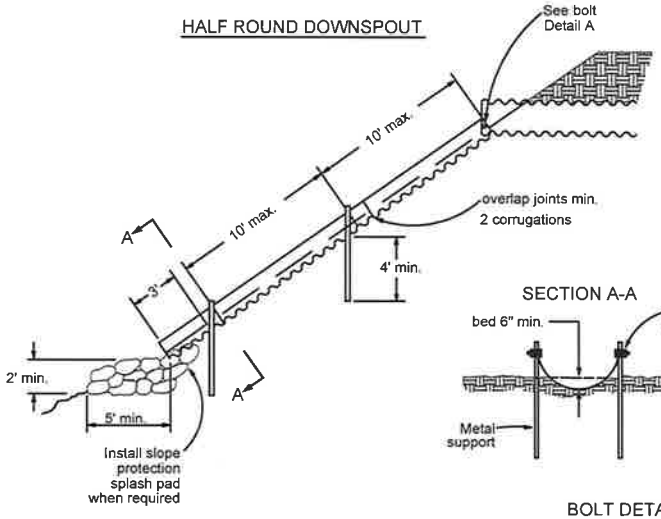
BEDDING OF CULVERTS ON STABLE NATURAL GROUND FOUNDATION OR COMPACTED EMBANKMENT



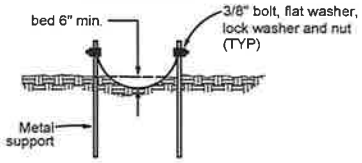
BEDDING MATERIAL SHALL BE SHAPED TO FIT THE BOTTOM OF THE CULVERT.

BEDDING OF CULVERTS ON SOFT SPONGY OR UNSTABLE SOIL FOUNDATION

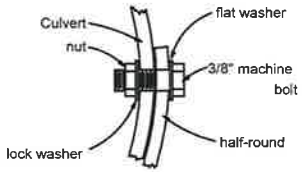
HALF ROUND DOWNSPOUT



SECTION A-A

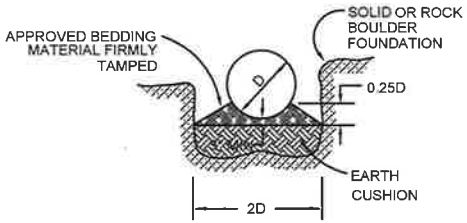


BOLT DETAIL A



Join pipe culvert to starter section as shown. Field drill 5/8" dia. thru starter section and culvert and install 3/8" x 2" bolts, flat washers, lock washers and nuts.

BEDDING OF CULVERT IN SOLID ROCK OR BOULDER FOUNDATION



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

ALWAYS THINK SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.

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

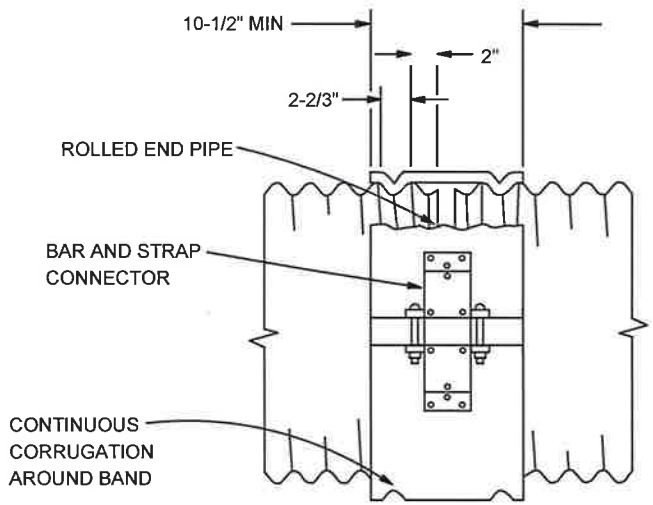
ROGUE COW TIMBER SALE CULVERT INSTALL DETAIL

DESIGNED:
REVIEWED:
APPROVED:

DRAFTED BY: BLM	SCALE: NONE
DATE: APRIL 2014	SHEET: 2 OF 2
DRAWING: EXHIBIT C6.DWG	

EXHIBIT C7
SHEET 1 OF 1

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 GUAGE 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.

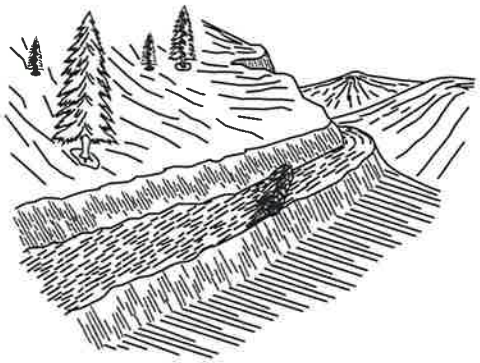
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT - MEDFORD, OREGON

ROGUE COW
TIMBER SALE
CULVERT BAND DETAIL

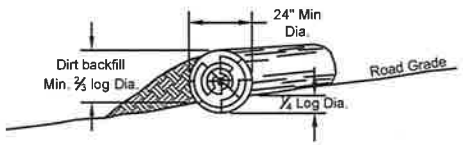
DESIGNED:
REVIEWED:
APPROVED:

DRAFTED BY: BLM	SCALE: NONE
DATE: APRIL 2014	SHEET: 1 OF 1
DRAWING: EXHIBIT C7.DWG	

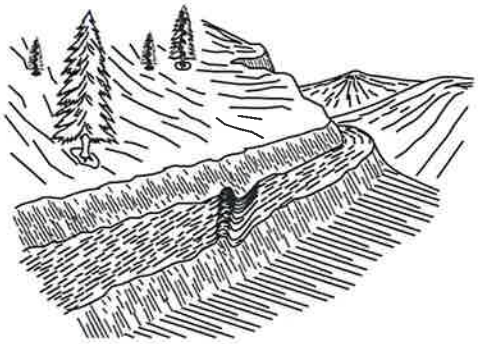
EXHIBIT C8
SHEET 1 OF 1



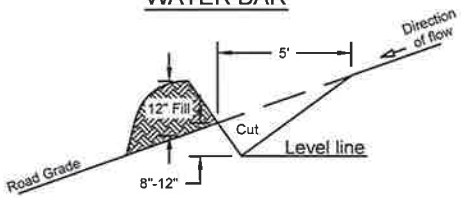
LOG BARRICADE



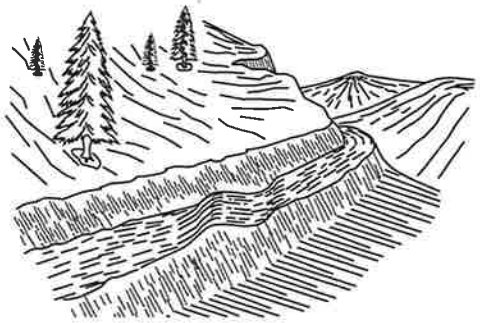
1. Log barricade shall be constructed as shown above.
2. Exact location will be flagged by the authorized officer prior to construction.
3. All barricades shall be skewed 30 degrees.
4. The length shall be sufficient to extend from the cut bank to the fill slope.
5. The minimum small end diameter of the log barricade shall be 24".



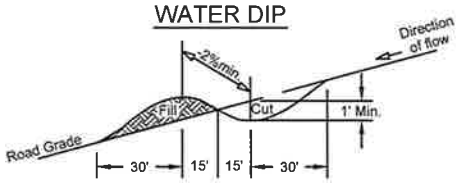
WATER BAR



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.



WATER DIP

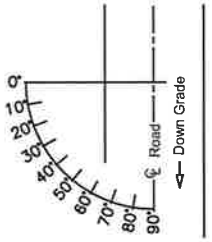


1. Water dips shall be constructed as shown above.
2. Exact location will be flagged by the Authorized Officer prior to construction.
3. All water dips shall be skewed 30 degrees.
4. The length shall be sufficient to extend from the cut bank to the fill slope and be readily crossed by passenger type 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

SKEW DIAGRAM



WATER DIP/BAR SPACING*

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

* Distances are maximum.

** On grades in excess of 10%, construct water bars.

ALWAYS THINK SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.

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

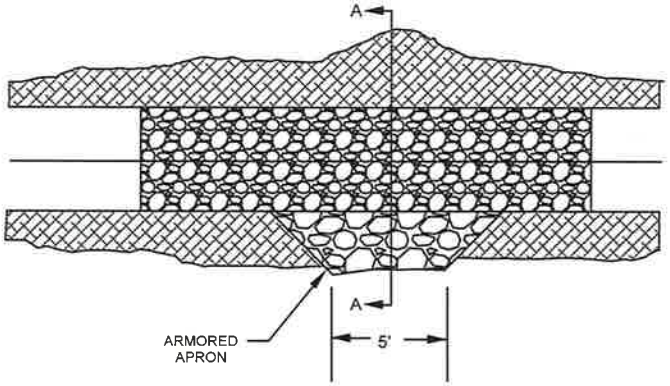
ROGUE COW
TIMBER SALE
DRAINAGE & EROSION
CONTROL DETAILS

DESIGNED:
REVIEWED:
APPROVED:

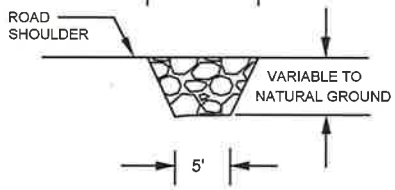
DRAFTED BY: BLM	SCALE: NONE
DATE: APRIL 2014	SHEET: 1 OF 1
DRAWIN: EXHIBIT C8.DWG	

EXHIBIT C9
SHEET 1 OF 1

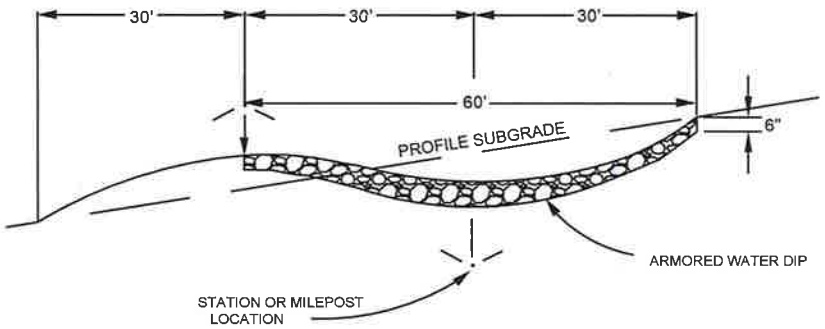
PLAN



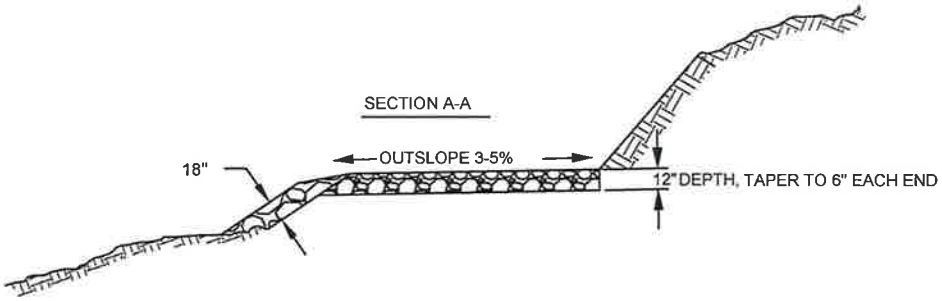
ARMORED APRON



PROFILE



SECTION A-A



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.

REV. NO.	DESCRIPTION	DATE	APPROV.

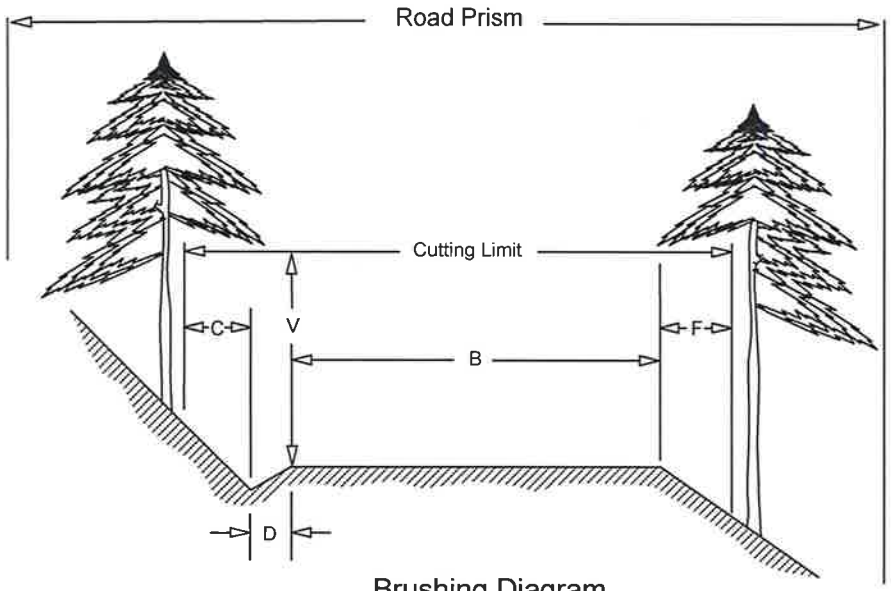
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT - MEDFORD, OREGON

ROGUE COW
TIMBER SALE
ARMORED WATER DIP

DESIGNED:
REVIEWED:
APPROVED:

DRAFTED BY: BLM	SCALE: NONE
DATE: APRIL 2014	SHEET: 1 OF 1
DRAWING: EXHIBIT C9.DWG	

EXHIBIT C10
SHEET 1 OF 1



Brushing Diagram

Cutting Limit = C + D + B + F

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

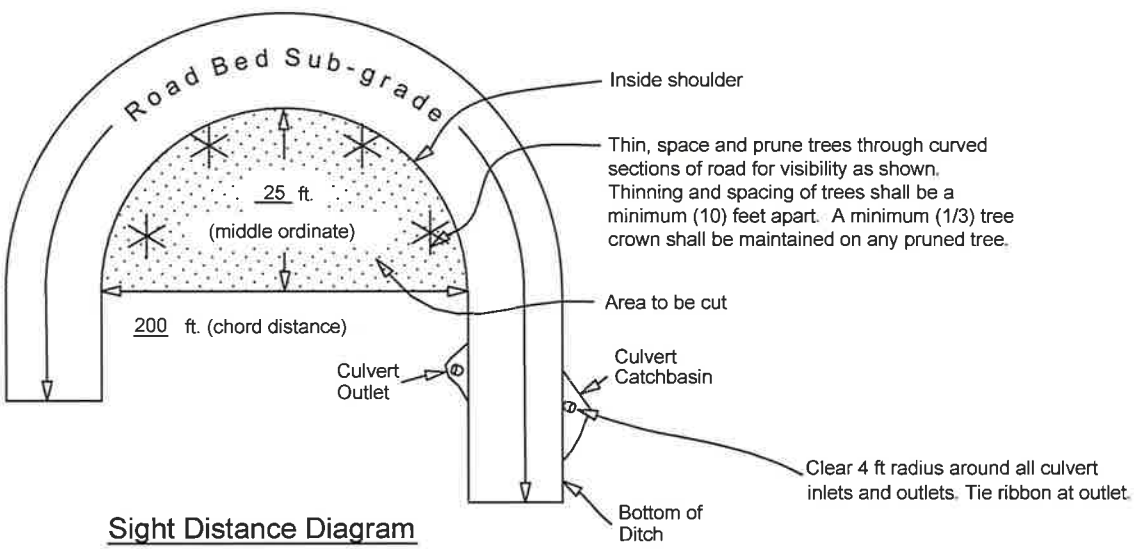
C = 4 ft - Distance to be brushed on cut slope
beyond centerline of ditch. Cut all vegetation to max height of 6".

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

Inside Corner



Sight Distance Diagram

ALWAYS THINK SAFETY

revised 08/2010

All distances shown are horizontal except for V

REV. NO.	DESCRIPTION	DATE	APPROV.

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

ROGUE COW
TIMBER SALE
ROADSIDE BRUSHING DETAIL

DESIGNED:
REVIEWED:
APPROVED:

DRAFTED BY: CMW	SCALE: NONE
DATE: APRIL 2014	SHEET: 1 OF 1
DRAWING: EXHIBIT C10.DWG	

Road Renovation Work List

Definitions:

ABC = Aggregate Base Course	ASC = Aggregate Surface Course	BST = Bituminous
CY = Cubic Yard	CMP = Corrugated Metal Pipe	GRR = Grid Rolled Rock
MP = Mile Post	NAT = Natural Road Surface	PRR= Pit Run Rock
Seg = Segment		

*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.*

Existing Road Renovation

32-7-8
ASC

MP	Description
0.00	Junction with 32-7-18 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
1.53	Junction TMP 9-1 left
1.81	End road renovation.

32-7-17
GRR

MP	Description
0.00	Junction with 32-7-21.21 Road; Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.28	End road renovation.

32-7-18
GRR

MP	Description
0.00	Junction with 32-7-20.1 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.41	Construct ditch out
0.47	Construct ditch out
1.10	Jct. 32-7-8 left
2.37	Excavate the void, form and compact solid roadway install 18” x 30’ culvert.
2.83	End road renovation.

32-7-18.3
ASC/NAT

MP	**Description**
0.00	Junction with 32-7-20.1 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning culvert inlets and outlets; and roadside brushing.
1.23	End road renovation.

32-7-19.2
ASC

MP	**Description**
0.00	Junction with 32-7-19.7 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing
0.16	Jct. 32-7-19.8 End road renovation.

32-7-19.4
ASC

MP	**Description**
0.00	Junction with 32-7-20.1 Road . Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.13	End road renovation

32-7-19.7
ASC

MP	**Description**
0.00	Junction with 33-7-2 Road; Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.65	End road renovation. Jct. 32-7-19.2

32-7-19.8
ASC

MP	**Description**
0.00	Junction with 33-7-19.2 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
1.60	End road renovation. Jct. 32-8-25.1

32-7-20.1
ASC

MP	Description
0.00	Junction with 32-7-2 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
1.74	Jct. 32-7-19.4
4.33	Jct. 32-7-18.3
4.60	Jct. 32-7-18.2
5.45	End road renovation

32-7-21
ASC

MP	Description
0.00	Junction with 33-7-2 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.44	End road renovation Jct. 32-7-21.1

32-7-21.1
ASC

MP	Description
0.00	Junction with 32-7-21 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; clean ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.10	End road renovation Jct. 32-7-21.2

32-7-21.2
ASC

MP	Description
0.00	Junction with 32-7-21.1 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
2.83	End road renovation Jct. 32-7-17

32-7-26.1
ASC

MP	Description
0.00	Junction with 32-7-35 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; roadside brushing; and remove and replace existing water bars approximately every 500' total (12).
0.57	Jct. TMP RD 27-2

1.15	End road renovation Jct. TMP RD 23A

32-7-28
PRR

MP	**Description**
0.00	Junction with 32-7-21 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing. Remove and replace log barricade .
0.87	End road renovation.

32-7-28.1
PRR

MP	**Description**
0.00	Junction with 32-7-28 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.05	End road renovation.

32-7-28.2
PRR

MP	**Description**
0.00	Junction with 32-7-28 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.36	End road renovation

32-7-34
PRR

MP	**Description**
0.00	Junction with 33-7-2 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.57	End road renovation Jct. 32-7-35

32-7-35
PRR

MP	**Description**
0.00	Junction with 32-7-34 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
1.82	End road renovation Jct. 32-7-26.1

32-8-9.1
PRR

MP	**Description**
0.00	Junction with 32-8-10.2 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.57	End road renovation

32-8-10
NAT

MP	**Description**
0.00	Junction with 32-8-24 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.61	End road renovation

32-8-10.2
ASC

MP	**Description**
0.00	Junction with 32-8-1.1 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
1.01	End road renovation Jct. 32-8-9.1

32-8-11
ASC

MP	**Description**
0.00	Junction with 32-8-1.1 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
1.53	End road renovation

32-8-15.1
NAT

MP	**Description**
0.00	Junction with 32-8-22 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.60	End road renovation

32-8-22
NAT

MP	**Description**
0.00	Junction with 32-7-19.3 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
1.58	End road renovation Jct. 32-8-15.1

32-8-22.3
PRR

MP	**Description**
0.00	Junction with 32-7-19.3 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
1.43	Jct. TMP RD 14-1
1.47	End road renovation

32-8-23
NAT

MP	**Description**
0.00	Junction with 32-8-24.1 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.46	End road renovation Jct. 32-8-23.1

32-8-23.1
NAT

MP	**Description**
0.00	Junction with 32-8-23 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.95	End road renovation

32-8-25.1
ASC

MP	**Description**
0.00	Junction with 32-8-19.8 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.55	End road renovation.

32-8-26
PRR

MP	**Description**
0.00	Junction with 32-8-24.1 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
2.41	End road renovation. Jct. 32-8-26.1

32-8-26.1
NAT

MP	**Description**
0.00	Junction with 32-8-26 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.58	Jct. 32-8-35.4
0.83	Construct rolling dip with 20 cys of 4” minus armoring
0.92	End road renovation.

32-8-28
NAT

MP	**Description**
0.00	Junction with 32-7-19.3 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; roadside brushing; and remove and replace existing water bars, total six (6).
0.58	End road renovation

32-8-35.4
NAT

MP	**Description**
0.00	Junction with 32-8-26.1 Road. Begin road renovation which includes reshaping road surface (blading, watering, and rolling) to road specifications; cleaning ditch; cleaning all culvert inlets and outlets; and roadside brushing.
0.35	End road renovation. Jct. TMP RD 35-5

Temporary Route Construction

All Temporary Routes are NAT surface, unless noted otherwise. Upon completion of timber extraction, all Temp Routes associated with each Unit are to be decommissioned which consists of ripping, installation of water bars see C-3 for quantity, placing of seed and mulch, and constructing earthen or log barricades. Each route listed below will be ripped unless noted otherwise.

TMP RD 9-1

MP	Description
0.00	Junction with 32-7-8 Road. Begin construction of TMP RD
0.01	Construct earthen or log barricade upon completion
0.03	End construction of TMP RD

TMP RD 14-1 This temporary road will NOT be ripped; partial decommission only.

MP	Description
0.00	Junction with 32-8-22.3 Road. Begin TMP RD construction
0.01	Construct earthen or log barricade upon completion
0.15	End TMP RD construction

TMP RD 23A This temporary road will NOT be ripped; partial decommission only.

MP	Description
0.00	Junction with 32-7-26.1 Road. Begin TMP RD construction
0.01	Construct earthen or log barricade upon completion
0.27	End TMP RD construction

TMP RD 27-2

MP	Description
0.00	Junction with 32-7-26.1 Road. Begin construction of TMP RD
0.01	Construct earthen or log barricade upon completion
0.50	Junction of TMP Rd 27-2A
0.60	End construction of TMP RD

TMP RD 27-2A

MP	Description
0.00	Junction with TMP RD 27-2. Begin construction of TMP RD
0.01	Construct earthen or log barricade upon completion
0.06	End construction of TMP RD

TMP RD 27-5

MP	**Description**
0.00	Junction with 32-8-28 Road. Begin construction of TMP RD
0.01	Construct earthen or log barricade upon completion
0.16	End construction of TMP RD

TMP RD 35-5 This temporary road will NOT be ripped; partial decommission only.

MP	**Description**
0.00	Junction with 32-8-35.4 Road. Begin construction of TMP RD
0.01	Construct earthen or log barricade upon completion
0.30	End construction of TMP RD

WRITTEN SPECIFICATIONS

GENERAL – 100

101 - Prework Conference(s):

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

The purpose will be to review the required work, exhibits and specifications, and to establish a work schedule and a list of the Purchaser's representatives and subcontractor(s).

102 - Definitions:

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

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

ACI - American Concrete Institute

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

ASTM - American Society for Testing and Materials.

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

BLM - Bureau of Land Management

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

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

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

liquids, pedestrians or livestock.

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

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

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

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

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

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

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

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

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

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

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

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

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

Plans - The approved drawings, or exact reproductions thereof which show the locations,

character, dimensions, and details of the work to be done.

Pore Size - The size of an opening between geotextile material filaments; apparent opening size (AOS) is used to quantify this geotextile material property.
Puncture Resistance - The geotextile material property determined by the force required to penetrate a geotextile material with a blunt object. Failure results in a tearing of the geotextile material.

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

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

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

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

Road Centerline - The longitudinal center of a roadbed.

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

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

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

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

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

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

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

Spalls - Flakes or chips of stone.

Specifications - A general term applied to all directions, provisions, and requirements

pertaining to performance of the work.

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

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

Subbase - Reinforcement of the subgrade with large particles of pitrun rock or crushed stone. Usually confined to roads having wet subgrades or subgrades with weak support characteristics.

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

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

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

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

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

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

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

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

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

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

Unaged Cloth - Cloth in condition received from the manufacturer or distributor.

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

102a - Tests Used in These Specifications:

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

splitter, quartering, or miniature stockpile sampling.

ASTM D 4564 Determination of relative density of cohensionless 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 on all newly constructed temporary roads.

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.

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.

306e - The final subgrade including landings shall be compacted to full width with compacting equipment conforming to the requirements of Subsections 103f, 103g, and 103i. Minimum compaction shall be 1 hour of continuous compacting for each 6 stations of road or a fraction of as measured along the centerline of the constructed road. Landings and shall be compacted by routing construction equipment over full width.

306f - Compaction of embankment layers placed as specified under Subsection 305b

above shall be accomplished by routing construction equipment over full width of embankment structures.

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.

308 - In the case of rock fills, placement of material in layers is not required and such material may be placed by end-dumping or other methods approved by the Authorized Officer provided that the rock be reasonably prevented from escaping beyond the embankment toe.

312 - When material, except solid rock, encountered in cuts at subgrade, is suitable for use in forming the finished roadbed, the top 6-inch layer of the subgrade shall be thoroughly scarified for the full width of the roadbed. Roots, sod, and other deleterious material or stones that will not pass a 6-inch square opening shall be removed. The scarified material shall be processed to the optimum moisture content suitable for maximum density and compacted in accordance with these specifications.

313 - In cut areas where solid rock is encountered at, or near subgrade, the rock shall be excavated to a minimum depth of 6 inches below subgrade elevation and the excavated area backfilled with suitable material. The backfill material shall be processed to the optimum moisture content suitable for maximum density and compacted to full width in accordance with the requirements of Subsection 306a.

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.
32-7-18	2.37

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.

406d - Pipe culverts shall be connected with "Hugger"-type coupling bands, as shown on the plans, at the following locations:

Road No.	M.P.
32-7-18	2.37

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.

423 - Construction of catch basins conforming to lines, grades, dimensions and typical diagrams shown on Exhibit C6, included in the plans, shall be required for culverts at the following locations:

Road No.	M.P.
32-7-18	2.37

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.

502 - Existing road surfaces shall be bladed and shaped to the lines, grades, dimensions, and typical cross sections shown on the plans at the following locations:

Road No.	From M.P.	To M.P.	Control
32-7-08 A	0.00	1.81	BLM
32-7-17	0.00	0.28	BLM
32-7-18 (A-B)	0.00	2.83	BLM/PC
32-7-18.3 (A-B)	0.00	1.23	RRC
32-7-19.2 A	0.00	0.16	RRC
32-7-19.4	0.00	0.13	BLM
32-7-19.7 A	0.00	0.19	BLM
32-7-19.7 B	0.19	0.33	RRC
32-7-19.7 C	0.33	0.65	BLM
32-7-19.8	0.00	1.60	BLM
32-7-20.1 (A-B)	0.00	5.45	BLM
32-7-21 A	0.00	0.44	BLM
32-7-21.1	0.00	0.10	BLM
32-7-21.2 (A-B)	0.00	2.83	BLM
32-7-26.1 (A-B)	0.00	1.15	RRC
32-7-28 (A-B)	0.00	0.87	RRC
32-7-28.1	0.00	0.05	RRC
32-7-28.2	0.00	0.36	RRC
32-7-34 A	0.00	0.57	BLM
32-7-35 (A1-A2)	0.00	0.71	BLM
32-7-35 B-C	0.71	1.82	RCC
32-8-9.1	0.00	0.57	BLM
32-8-10 (A-B1)	0.00	0.35	BLM
32-8-10 B2	0.35	0.61	RRC
32-8-10.2 A	0.00	0.44	PC
32-8-10.2 B	0.44	1.01	RRC
32-8-11 A	0.00	1.53	RRC
32-8-15.1	0.00	0.60	BLM
32-8-22 A	0.00	0.72	BLM
32-8-22 (B-D)	0.72	1.58	PC
32-8-22.3 A	0.00	0.35	RRC
32-8-22.3 B	0.35	0.43	BLM
32-8-22.3 C	0.43	0.75	PC
32-8-22.3 D	0.75	0.88	BLM
32-8-22.3 E	0.88	1.04	PC
32-8-22.3 F	1.04	1.22	BLM

RRC = Roseburg Resources Co.; PC = Plum Creek Timberlands, LC

502 - *(Continued)*

Road No.	From M.P.	To M.P.	Control
32-8-23 A	0.00	0.46	BLM
32-8-23.1 A	0.00	0.55	BLM
32-8-23.1 B	0.55	0.95	RRC
32-8-25.1	0.00	0.55	BLM
32-8-26	0.00	2.41	BLM
32-8-26.1	0.00	0.92	BLM
32-8-28	0.00	0.58	PC
32-8-35.4	0.00	0.35	BLM

RRC = Roseburg Resources Co.; PC = Plum Creek Timberlands, LC

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.

504a - Minimum compaction required shall be 1 hour of continuous rolling for each 4 stations of road as measured along the centerline of road.

506 - The inlet end of all existing drainage structures listed under 502 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.

508 - Vegetation within the drainage ditches of all existing roads listed under Subsection shall be removed by cutting and disposed of in accordance with Subsection 2100 of these specifications.

509 - The finished grading shall be approved in writing by the Authorized Officer. 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.

SOIL STABILIZATION - 1800

1801 - This work shall consist of seeding and mulching on designated cut, fill, disposal, and special areas in accordance with these specifications and as shown on the plans. This work is required for road acceptance under this contract.

1802a - Soil stabilization work consisting of seeding and mulching shall be performed on temporary route construction, temporary route reconstruction, and existing road renovations in accordance with these specifications and as shown on the plans.

1803 - Soil stabilization work as specified under Subsection 1802a shall be performed during the following seasonal periods:

From: August 1 to: October 31

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.

1804 - The BLM shall provide native grass/forb seed or other plant materials for this project.

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 - Straw 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 furnish and apply to approximately **5.11 acres** designated for treatment as shown on the plans, a mixture of grass and legume seed and mulch material at the following rate of application:

Two Stage Dry:

Grass & Legume Seed	10 lbs./acre
Mulch	2,000 lbs./acre

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 is to be applied in dry form.

1819 - The Purchaser shall notify the Authorized Officer at least 3 days in advance of the date they intend to commence the specified soil stabilization work.

1821 - Mulch that collects at the ends 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 operation shall be picked up and disposed of to the satisfaction of the Authorized Officer.

ROADSIDE BRUSHING - 2100

2101 - This work shall consist of the removal of vegetation from the road prism - variable distance, and inside curves in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the Roadside Brushing Detail Sheet of this exhibit, at designated locations as shown in the plans.

2102 - Roadside brushing may be performed mechanically with self-powered, self-propelled equipment or manually with hand tools, including chain saws.

2103 - Vegetation cut manually 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 1foot in height or higher shall be cut, within the road prism-variable distance or as directed by the Authorized Officer.

2107 - Inside curves shall be brushed out for a sight distance of 200 feet chord distance or a middle ordinate distance of 25 feet, whichever is achieved first. Overhanging limbs and vegetation in excess of 1 foot in height, shall be cut within these areas.

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

ditches.

2109 - Debris resulting from this operation shall be scattered 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.	From M.P.	To M.P.
32-7-08	0.00	1.81
32-7-17	0.00	0.28
32-7-18 (A-B)	0.00	2.83
32-7-18.3 (A-B)	0.00	1.23
32-7-19.2 A	0.00	0.16
32-7-19.4	0.00	0.13
32-7-19.7 (A-C)	0.00	0.65
32-7-19.8	0.00	1.60
32-7-20.1 (A-B)	0.00	5.45
32-7-21 (A)	0.00	0.44
32-7-21.1	0.00	0.10
32-7-21.2 (A-B)	0.00	2.83
32-7-26.1 (A-B)	0.00	1.15
32-7-28 (A-B)	0.00	0.87
32-7-28.1	0.00	0.05
32-7-28.2	0.00	0.36
32-7-34 (A1-A2)	0.00	0.57
32-7-35 (A-C)	0.00	1.82
32-8-9.1 (A-C)	0.00	0.57
32-8-10 (A-B)	0.00	0.61
32-8-10.2 (A-B)	0.00	1.01
32-8-11 (B)	0.00	1.53
32-8-15.1	0.00	0.60
32-8-22	0.00	1.58
32-8-22.3 (A-H)	0.00	1.47
32-8-23 (A-B)	0.00	0.46
32-8-23.1 (A-B)	0.00	0.95
32-8-25.1	0.00	0.55
32-8-26	0.00	2.41

2113 - *(Continued)*

Road No.	From M.P.	To M.P.
32-8-26.1	0.00	0.92
32-8-28	0.00	0.58
32-8-35.4	0.00	0.35
TOTAL		**35.92**

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 ***(only on BLM Lands)***, 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 C8.

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. 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.

3. All stream channel culvert inlets shall be cleaned between **July 1st and September 15th** in accordance with Oregon Department of Fish and Wildlife (ODFW) in-stream work period guidelines.

4. 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.

5. 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.

6. 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.**

7. 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.

8. 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.

9. 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.

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

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

GENERAL - 3000

3001 - The Purchaser shall be required to maintain all roads listed and/or referenced in Section 42, as shown on the Exhibit D maps of this contract, and in accordance with Sections 3000, 3100, 3200, 3300, and 3400 of this exhibit.

3001a - The Purchaser shall be required to provide maintenance on roads in accordance with Subsection 3403.

3002 - The Purchaser shall maintain the cross section of existing dirt or graveled roads to the existing geometric standards. Any roads required to be constructed, improved, or renovated under terms of this contract shall be maintained to the geometric standards required in Exhibit C of this contract.

3003 - The minimum required maintenance on any roads shall include the provisions specified in Subsections 3101, 3104, and 3105.

3004 - The Purchaser shall be responsible for providing timely maintenance and cleanup on any 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, suitable disposal site where material cannot erode into streams, lakes, or reservoirs or cause undue damage to road fill slopes which have been planted or mulched to control soil erosion as directed by the Authorized Officer.

3104b - The Purchaser shall be responsible for removal of all slides or slough, up to

fifteen station yards in quantity, at any one site. This work includes unlimited multiple sites on all roads required to be maintained by the Purchaser.

Prior to removal of any slough or slide material exceeding fifteen station yards at any one site, the Purchaser and the Authorized Officer or their Authorized Representatives shall agree in writing, in the field, to the quantity of material, method of disposal, and the disposal site. Work may commence immediately after agreement.

Upon completion of agreed upon work, a reduction in timber sale purchase price will be made to offset the cost of the work, based on current BLM Road Cost Guide. Adjustments in purchase price for completed work shall be made as necessary and no less than once per year when actual work is ongoing.

3105 - The Purchaser shall be responsible for maintaining normal flow in drainage structures. This includes cleaning out drainage ditches, catch basins, clearing pipe inverts of sediment and other debris lodged in the barrel of the pipe, and maintaining water dips and water-bars using equipment specified in Subsection 3104 and other culvert cleaning and flushing equipment.

3106 - The Purchaser shall be responsible for repair and replacement of all materials eroded from road shoulders and fill slopes, up to fifteen station yards in quantity, at any one site. This work includes unlimited multiple sites on all roads required to be maintained by the Purchaser. Prior to repair and replacement of eroded material exceeding fifteen station yards at any one site, the Purchaser and the Authorized Officer or their Authorized Representatives shall agree in writing, in the field, to the quantity of material, borrow source and method of repair. Work may commence immediately after agreement.

Upon completion of agreed upon work, a reduction in timber sale purchase price will be made to offset the cost of the work based upon current BLM Road Cost Guide. Adjustments in purchase price for completed work shall be made as necessary and no less than once per year when actual work is ongoing.

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

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

3108 - The Purchaser shall avoid fouling gravel or bituminous surfaces through covering with earth and debris from side ditches, slides or other sources. The Purchaser shall also avoid blading surfacing material off the running surface of the roadway. Skidding of logs on the roadway in or outside designated logging units is not authorized without prior written approval by the Authorized Officer. Repair required caused by such skidding activity is not considered maintenance and shall

be repaired at the Purchaser's expense.

3108a - The Purchaser shall perform logging operations on gravel 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 1st each year, except as specified in Subsection 3203, after initial commencement of construction or logging operations. Thereafter, all roads shall have continuous preventive maintenance and road cleanup until suspension of seasonal operations. This includes all roads used and not used during the proceeding operating seasons.

3203 - The Purchaser shall complete road cleanup and maintenance, as specified in Section 3100, at the completion of logging operations on any roads located in an area separate from the area where logging activities will resume.

3204 - The Purchaser shall be responsible for performing post storm inspections and maintenance during the winter season to minimize erosion and potential road or watershed damage.

FINAL MAINTENANCE - 3300

3301 - The Purchaser shall complete final maintenance and/or damage repairs on all roads used under terms of their contract within thirty 30 calendar days following the 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.

DECOMMISSIONING – 3500

3501 - Decommissioning shall consist of, any 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, along with ripping, installing water bars, seed and mulching, and blocking temporary routes from access by vehicles. This work is required for road acceptance under Section 18 of this contract.

3503 - Decommissioning shall be performed on temporary routes in accordance with these specifications, and as shown on the plans at the following locations:

Road No or Site	From Sta/MP	To Sta/MP
Temp Road 9-1	**0.00**	**0.03**
Temp Road 14-1	**0.00**	**0.15**
Temp Road 23A	**0.00**	**0.27**
Temp Road 27-2	**0.00**	**0.60**
Temp Road 27-2A	**0.00**	**0.06**
Temp Road 27-5	**0.00**	**0.16**
Temp Road 35-5	**0.00**	**0.30**

3504 - Decommissioning work shall be completed at the end of timber hauling. All decommissioning work shall be performed during the following seasonal periods to address soil moisture:

From: May 15th	To: October 15th

3507 - Culverts not designated as salvage by the Authorized Officer for the Government shall become the property of the Purchaser. The Purchaser shall be responsible for disposal of materials in a legal manner and for payment of any fees required. Sale of material on site is not allowed unless authorized in writing by the Authorized Officer.

3508 - Protect mulched areas from damage by Purchaser traffic or construction equipment. Damaged areas shall be repaired by the Purchaser.

3509 - Access shall be blocked with barricades as shown on the typical detail sheet as shown on Exhibit C8.

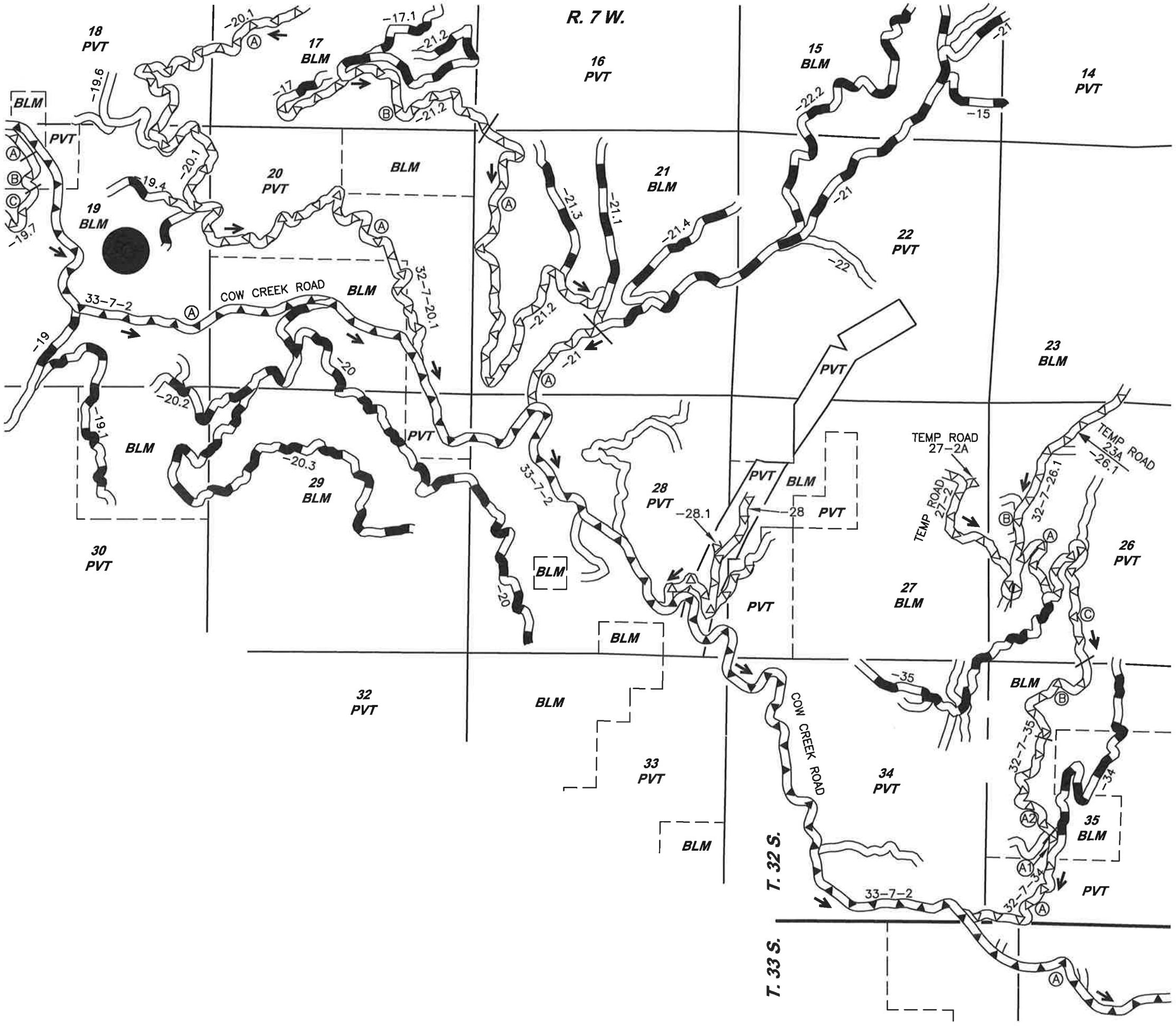
3513 - Water bars shall be installed across full width of temporary routes at locations listed on the Exhibit C11 worklist and shall be constructed as shown on Exhibit C8. No water bar will be installed closer than 50 feet to a draw crossing.

3514 - Protection of exposed surfaces shall be accomplished by placement of soil stabilization material in accordance with Section 1800 on designated roadways, disturbed areas, and other areas disturbed by the Purchaser's decommissioning operations in accordance with these specifications and as shown in the plans.

EXHIBIT D2

SHEET 1 OF 4

ROGUE COW
TIMBER SALE
TRACT NO. ORM07-TS-14-13



0' 2000' 4000'

ALWAYS THINK *SAFETY*

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT MEDFORD, OREGON

ROAD MAINTENANCE MAP
T. 32 S. R. 7 W., WILL. MER.
DOUGLAS COUNTY, OREGON

LEGEND

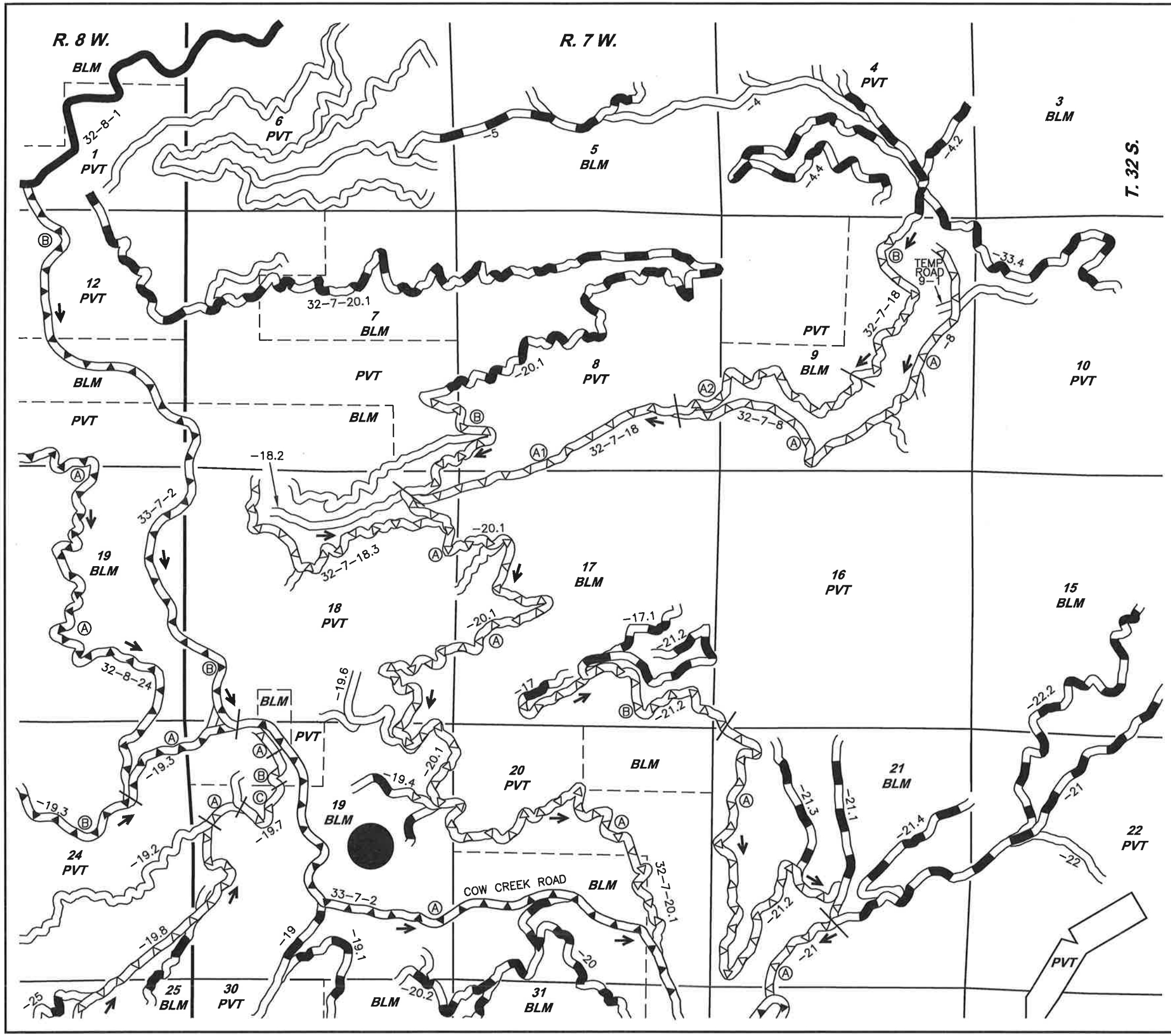
- BLM MAINTAINED ROADS
- PURCHASER MAINTAINED ROADS
- TIMBER HAUL ROUTE
- PAVED ROAD
- ROCK SURFACED ROADS
- OTHER EXISTING ROADS
- SEGMENT NAME
- SEGMENT BREAK
- GATE
- MAP REFERENCE MARKER

DESIGNED BY: P. HUPPI:
DRAWN BY: P. HUPPI
DATE: APRIL 2014

EXHIBIT D2

SHEET 2 OF 4

ROGUE COW
TIMBER SALE
TRACT NO. ORM07-TS-14-13



0' 2000' 4000'

ALWAYS THINK *SAFETY*

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT MEDFORD, OREGON

ROAD MAINTENANCE MAP
T. 32 S. R. 7 W., WILL. MER.
T. 32 S. R. 8 W., WILL. MER.
DOUGLAS COUNTY, OREGON

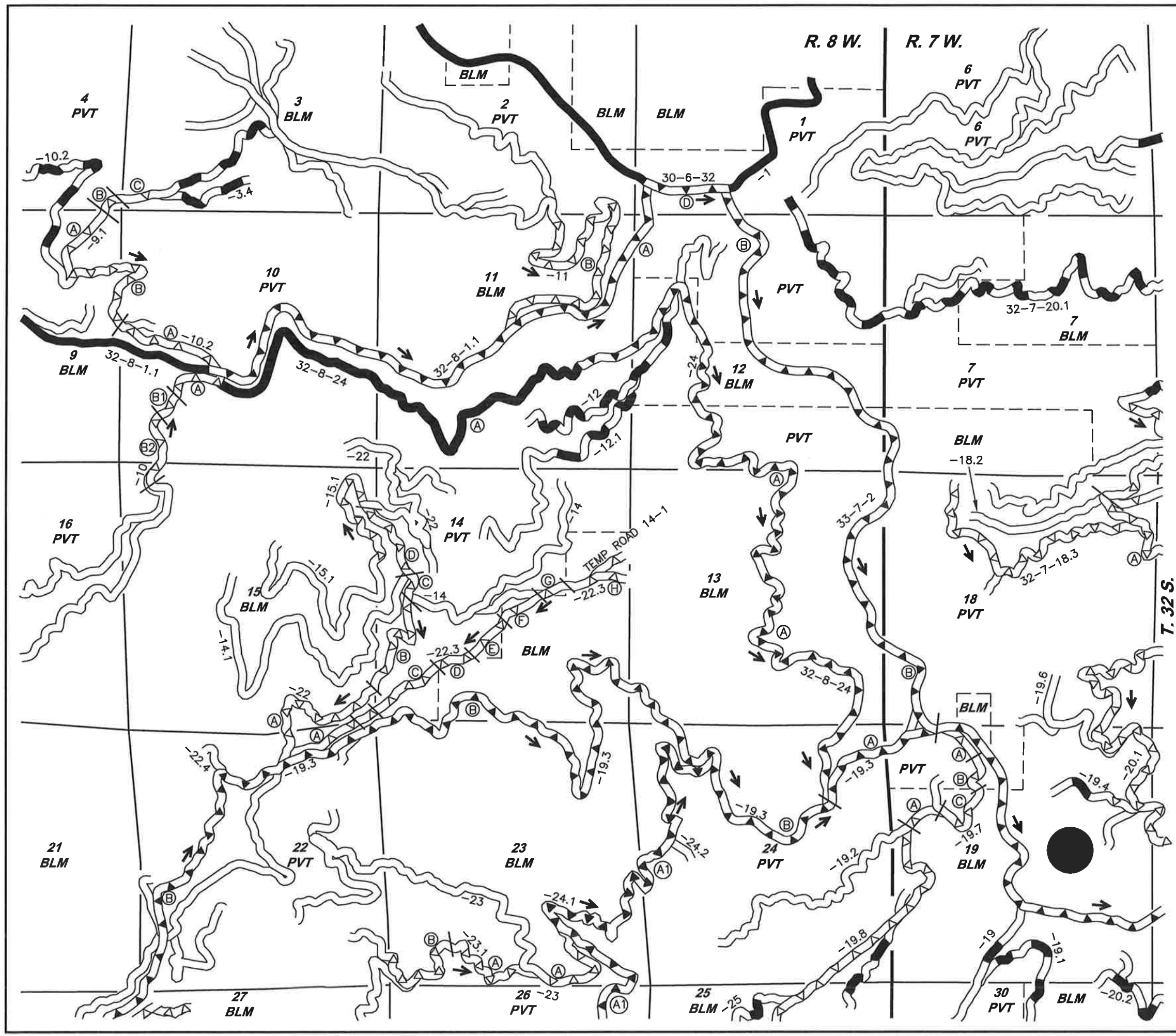
LEGEND

- BLM MAINTAINED ROADS
- PURCHASER MAINTAINED ROADS
- TIMBER HAUL ROUTE
- PAVED ROAD
- ROCK SURFACED ROADS
- OTHER EXISTING ROADS
- (A) SEGMENT NAME
- SEGMENT BREAK
- GATE
- MAP REFERENCE MARKER

DESIGNED BY: P. HUPPI:
DRAWN BY: P. HUPPI
DATE: APRIL 2014

EXHIBIT D2
SHEET 3 OF 4

ROGUE COW
TIMBER SALE
TRACT NO. ORM07-TS-14-13



0' 2000' 4000'

ALWAYS THINK *SAFETY*

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT MEDFORD, OREGON

ROAD MAINTENANCE MAP
T. 32 S. R. 7 W., WILL. MER.
T. 32 S. R. 8 W., WILL. MER.
DOUGLAS COUNTY, OREGON

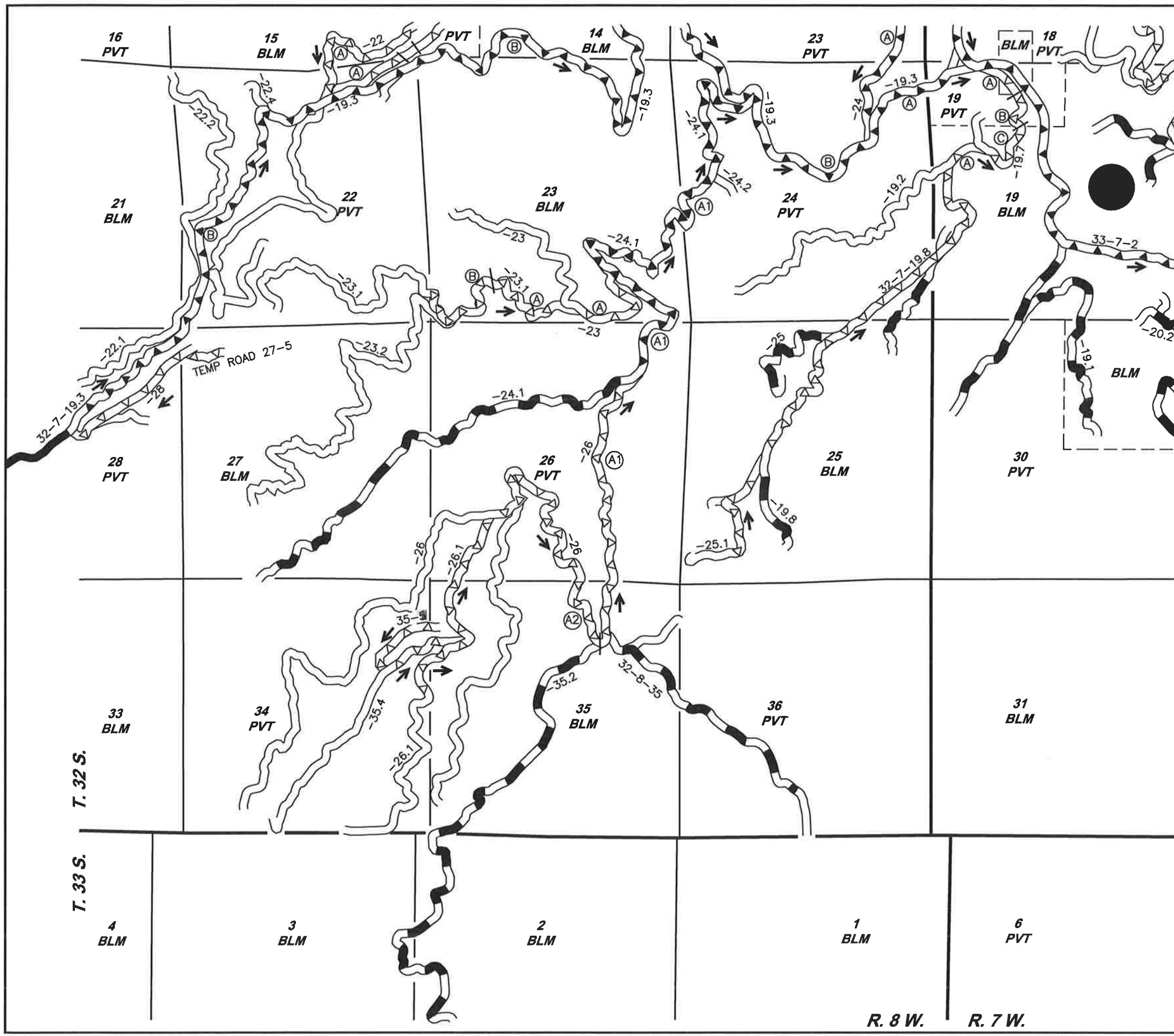
LEGEND

- BLM MAINTAINED ROADS
- PURCHASER MAINTAINED ROADS
- TIMBER HAUL ROUTE
- PAVED ROAD
- ROCK SURFACED ROADS
- OTHER EXISTING ROADS
- Ⓐ SEGMENT NAME
- SEGMENT BREAK
- GATE
- MAP REFERENCE MARKER

DESIGNED BY: P. HUPPI:
DRAWN BY: P. HUPPI
DATE: APRIL 2014

EXHIBIT D2
SHEET 4 OF 4

ROGUE COW
TIMBER SALE
TRACT NO. ORM07-TS-14-13



ALWAYS THINK *SAFETY*

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT MEDFORD, OREGON

ROAD MAINTENANCE MAP
T. 32 S. R. 7 W., WILL. MER.
T. 32 S. R. 8 W., WILL. MER.
DOUGLAS COUNTY, OREGON

LEGEND

- BLM MAINTAINED ROADS
- PURCHASER MAINTAINED ROADS
- TIMBER HAUL ROUTE
- PAVED ROAD
- ROCK SURFACED ROADS
- OTHER EXISTING ROADS
- Ⓐ SEGMENT NAME
- SEGMENT BREAK
- GATE
- MAP REFERENCE MARKER

DESIGNED BY: P. HUPPI:
DRAWN BY: P. HUPPI
DATE: APRIL 2014

SELECTION CRITERIA-DESIGNATION BY PRESCRIPTION EXHIBIT E

The Selection Criteria shown below shall be used by the Purchaser in determining which trees are to be retained and which trees are to be cut and removed. Consider safety in determining whether a fire-killed or fire-injured snag should remain standing. The operator will have flexibility and responsibility to remove any snag or tree deemed unsafe for workers on site.

The Selection of retention shall comply with Rogue Cow Special Provisions Sec 41(F)(G)(H) IR-6. The Purchaser shall leave all boundary trees marked with orange paint and/or poster tags. Within harvest units, as safety permits, the Purchaser shall also leave live trees with a low probability of mortality as defined in Appendix 1 of this Exhibit.

Before cutting and removing any trees necessary to facilitate logging in all 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. Trees that are removed to facilitate logging do not count toward the leave tree requirements described below.

Treatment Objectives: Recover mortality and anticipated mortality in designated unit areas impacted by the Douglas Complex Fire. Retain structural features of snags and coarse woody debris (CWD) per RMP direction:

- Snags: 2 snags per acre to meet the requirement for cavity nesting birds at 40 percent of potential population levels
- CWD: 120 linear feet of decay class 1 and 2 logs per acre ≥ 16 inches in diameter and ≥ 16 feet long. Where existing CWD is deficit, 2 additional snags per acre ≥ 16 inches in diameter shall be used to make up the deficit).

Retain structural features of the stand as wildlife components. See Tables 1 and 2 of this Exhibit for individual Unit retention targets.

Prescription: Salvage harvest fire-killed and fire-injured trees using the determining variable of percent crown scorch as defined in Appendix 1. Use retention criteria per unit described below to retain trees and coarse woody debris in clumps and/or dispersed stems (clumps are preferred). Fire-killed and fire-injured trees in excess of retention standards may be harvested. **Appendix 1** describes the condition of trees available for removal. **Appendix 2** illustrates desirable reserve snags and snag clumps. **Appendix 3** illustrates possible scenarios for distributing retention snags. **Appendix 4** describes the characteristics of snags and coarse woody debris.

In determining what material to retain to meet the required snag and coarse woody debris per acre, the Purchaser shall make selections based on the following criteria and apply these to **all** harvest units:

LIVE GREEN TREES

- Trees considered **not suitable** for harvest:
  - Conifers with a low probability of mortality (see Appendix 1).
  - Live hardwoods > 8 inches DBH.
  - Orange marked trees.

SNAGS

- Desired individual tree characteristics
  - Retain the largest available snags (≥ 16″ DBH) per acre if not a hazard to the operation (some units may not provide enough ≥ 16” DBH snags).
  - Favor retaining large wolf trees or trees with heavy branching or poor form.
  - Wildlife trees (painted orange “W” on the bole of the tree).
  - Favor leaving the most windfirm snags, considering taper (H/D ratio), exposure, etc.
  - Refer to **Appendix 2** for examples.
- Retained snags should reflect the species mix of the original stand.
- Retain and tally all non-hazardous large hardwood snags (≥ 16 inches DBH).
- If a retention snag needs to be fallen for safety concerns another snag of similar size will be retained in substitution.
- Leave trees may be dispersed or clumped.
  - In most units retention of clumps is preferred to dispersed single trees (**except** in **talus** portions of Del Norte Units 23-A (7.3 ac), 25-6 (0.7 ac portion of unit flagged in white as shown on Exhibit A), and 27-2A (13.8 ac and 7.9 ac portions of unit flagged in white as shown on Exhibit A) where more evenly spaced dispersed single tree retention is preferred and clumping avoided).
  - Distribution and size will depend on conditions in each unit and unit size will influence the amount of structure available. **Appendix 3** illustrates possible scenarios of distributing snags within a unit.
- When reserving snags in clumps consider the following:
  - In units greater than 5 acres, avoid placing clumps entirely on the sides or bottoms of the unit and preferably, include interior clumps in the distribution.
  - Clumps should vary in size and shape and range from a few trees to larger blocks.
  - Clumps are preferred within the interior of the unit as safe operations permit.
  - Clumps can also be placed along the bottom and/or along a portion of the sides in a wedge pattern from the edge of the unit.
  - Clumps may include any combination of live green leave trees, sub merchantable material, and snags (however only dead trees ≥ 16 inches DBH may be counted toward snag retention).
- Excess snags retained in a unit can count towards filling any deficit coarse woody debris retention.
- Options to retain dispersed snags and/or snag clumps include:
  - Among understory trees

- Among other leave trees that are live, large, and windfirm
- Around shrub understories
- Inoperable areas such as rock outcrops, steep slopes, sensitive soils
- Around clusters of coarse woody debris

COARSE WOODY DEBRIS (CWD)

- Retain 120 linear feet per acre of CWD ≥ 16 inches large end diameter and ≥ 16 ft. minimum length (16" x 16') using decay class (DC) 1 and 2 material.
  - Refer to Appendix 4 Table 4-2 for conversion from tree diameter class to the number of qualifying 16 foot logs.
  - Where this retention cannot be met with existing CWD, use standing material to make up the deficit.
- If removing down woody material (DWM) for a merchantable product, ensure that 280 linear feet per acre of non-merchantable DWM is met first (total CWD and DWM should equal 400 linear feet per acre before extraction begins).

YARDING OF UNMERCHANTABLE MATERIAL (YUM)

- Unit 27-2A has been designated as having excessive dead hardwood densities that require removal. After meeting minimum snag and/or CWD retention amounts, YUM yard excess hardwood material 8-16 inches DBH from the unit and deck along Temp. Route 27-2 as shown on Exhibit E pg. 13.

PURCHASER TALLY OF MARKED TREES:

For all units, the Purchaser shall mark and record all retention snags (as determined by Appendix 1). Marked trees shall be recorded on tally cards by species using one (1) inch diameter class as shown:

Tables 1 and 2 provide the total count required for each unit. Falling of trees in a unit will occur only after marking has been accepted.

1-in. Diameter Class	Diameter Range
16	15.6 – 16.5
17	16.6 – 17.5
18	17.6 – 18.5
19	18.6 – 19.5
20	19.6 – 20.5
21	20.6 – 21.5
22	21.6 – 22.5

COMPLIANCE INSPECTION:

Compliance inspection of the marking will occur after unit tally cards are submitted to the Government and prior to the falling of trees within the unit to be inspected. Non-compliance with the Prescription and/or Selection Criteria shall constitute a contract violation which may result in a suspension of operations as provided in Section 10 of the contract. Inspection will consist of:

1) A review of the tally cards on a unit basis to determine that each unit meets the minimum total number of snags as displayed in Tables 1 and 2.
2) Field review of the selection of leave trees in compliance with crown scorch guidelines (Appendix 1 and 2) and the Prescription in this Exhibit (pgs. 2-3).

INDIVIDUAL MARKING UNIT RETENTION

MATRIX RETENTION:

Marking (EA) Units: 09-2A (0.8 ac), 09-7A (8.9 ac), 11-2A (0.7 ac), 12-4 (2.9 ac), 12-4B (1.4 ac), 13-B (18.7 ac), 14-1A (8.5 ac), 14-2A (9.2 ac), 14-3A (5.7 ac), 15-3 (0.5 ac), 15-3B (0.9 ac), 19-2 (6.8 ac), 23-3 (1.6 ac), 23-A (7.3 ac), 23-B (2 ac), 23-C (9.5 ac), 23-D (2.8 ac), 25-2 (1.1 ac), 25-5 (0.8 ac), 25-7 (2.3 ac), 27-3B (5.8 ac), 27-4A (2.2 ac), 35-4 (0.5 ac), and 35-5 (6.9 ac):

- Retain a minimum of the **2-4 largest available** snags per acre (≥ 16″ DBH): 2 snags/ac when 120 linear feet of CWD is met, 3-4 snags/ac when CWD is deficit.
- See Table 1 for minimum required total snag retention to meet snag and CWD targets.
- Retain 280 linear feet of non-merchantable DWM before extracting merchantable DWM.

Table 1. Leave tree requirements (snags ≥ 16 inches DBH) to satisfy both snag and CWD retention guidelines

Marking Unit #	Acres	Existing linear ft. CWD ≥ 16” & ≥ 16’ per acre	Minimum total number of snags ≥ 16” to retain for snag & CWD
09-2A	0.8	240	2
09-7A	8.9	480	18
11-2A	0.7	32	3
12-4	2.9	64	9
12-4B	1.4	64	4
13-B	18.7	1184	37
14-1A	8.5	624	17
14-2A	9.2	304	18
14-3A	5.7	144	11
15-3	0.5	0	2
15-3B	0.9	64	3
19-2	6.8	448	14
23-3	1.6	96	5
23-B	2	112	6
23-C	9.5	816	19
23-D	2.8	176	6
25-2	1.1	80	3
25-5	0.8	80	2
25-7	2.3	352	5
27-3B	5.8	176	12
27-4A	2.2	528	4
35-4	0.5	0	2
35-5	6.9	704	14

WILDLIFE RETENTION:

Marking (EA) Units: 03-2A (6.1 ac), 07-2A (2.2 ac), 07-6A (4.4 ac), 07-6B (1.1 ac), 07-6C (2.5 ac), 07-6D (3.8 ac), 07-6E (5.1 ac), 09-1A (1 ac), 09-5A (2.9 ac), 09-6A (4.7 ac), 09-8A (1.5 ac), 11-3A (4.6 ac), 11-3B (11.2 ac), 12-1(3.4), 12-3A (2.7 ac), 12-3B (1.5 ac), 13-1 (17.4 ac), 13-A1 (8.3 ac), 13-A2 (3 ac), 13-A3 (2.1 ac), 13-E (3.5 ac), 13-F (2.8 ac), 15-1 (2.7 ac), 15-4 (5.5 ac), 17-1A (3.2 ac), 23-1 (0.9 ac), 23-4 (2 ac), 23-A (7.3 ac), 23-F (1.2 ac), 23-G (2.3 ac), 25-6 (11.5 ac), 27-2A (80.7 ac), 27-4 (1.9 ac), 27-5 (17.2 ac), and 27-5A (3.1 ac):

- Retain a minimum of the **4 largest available** snags per acre (≥ 16″ DBH).
- See Table 2 for minimum required total snag retention to meet snag and CWD targets.
- Retain all CWD (no extraction of DWM).
- **Talus portion** of Del Norte 23-A (7.3 ac), 25-6 (0.7 ac portion of unit flagged in white as shown on Exhibit A), and 27-2A (13.8 ac and 7.9 ac portions of unit flagged in white as shown on Exhibit A): Avoid clumping of retention trees, if possible (dispersed retention is desired throughout the talus area). **Dispersed retention** is desired throughout the talus area as shown on Exhibit A. Prescription line changes are delineated on the ground with **white colored** flagging.
- YUM Yard Portion of Unit 27-2A: After all CWD and snag retention numbers are met, YUM yard excess dead hardwoods 8-16 inches DBH from 20 acres of the SW corner of the unit as shown on Exhibit E pg. 13.

Table 2. Leave tree requirements (snags ≥ 16 inches DBH) to satisfy snag, CWD, CHU, Del Norte salamander, and NSO core retention guidelines

Marking Unit #	Acres	Existing linear ft. CWD ≥ 16” & ≥ 16’ per acre	Minimum total number of snags ≥ 16” to retain for snag & CWD
03-2A	6.1	688	24
07-2A	2.2	176	9
07-6A	4.4	144	18
07-6B	1.1	128	4
07-6C	2.5	192	10
07-6D	3.8	48	15
07-6E	5.1	416	20
09-1A	1	48	4
09-5A	2.9	288	12
09-6A	4.7	144	19
09-8A	1.5	224	6
11-3A	4.6	480	18
11-3B	11.2	192	45
12-1	3.4	0	14
12-3A	2.7	128	11
12-3B	1.5	32	6
13-1	17.4	1600	70

13-A1	8.3	560	33
13-A2	3	16	12
13-A3	2.1	96	8
13-E	3.5	128	14
13-F	2.8	288	11
15-1	2.7	240	11
15-4	5.5	128	22
17-1A	3.2	240	13
23-1	0.9	48	4
23-4	2	0	8
23-A†	7.3	512	29
23-F	1.2	64	5
23-G	2.3	144	9
25-6†	11.5	1152	46
27-2A*†	80.7	4048	323
27-4	1.9	144	8
27-5*	17.2	1072	69
27-5A	3.1	128	12

* YUM 20 acres of hardwoods 8-16” DBH in the SW corner of the Unit as shown on Exhibit E pg. 13

† Dispersed retention (not clumped): 23-A (7.3 ac), 25-6 (0.7 ac portion of unit flagged in white as shown on Exhibit A), and 27-2A (13.8 ac and 7.9 ac portions of unit flagged in white as shown on Exhibit A)

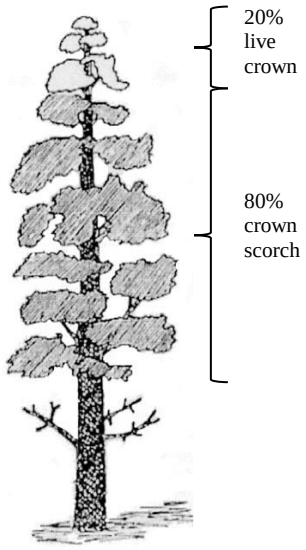
APPENDIX

1. The Southwest Oregon Forest Insect and Disease Service Center guidelines (SWOFIDSC 2001).

Species	% Crown Scorch
Douglas-fir	> 70
Sugar Pine	> 65
Ponderosa Pine	> 70
Incense Cedar	> 90
White Fir	> 40
Western Hemlock	> 25

Percent crown scorch is a measure of the proportion of foliage that has been killed by the fire relative to the entire amount of foliage that was present before the burn (scorched foliage should be obvious to the naked eye as yellowish brown or red needles). Lower branches dead before the fire should not be included when determining crown scorch.

Percent Crown Scorch

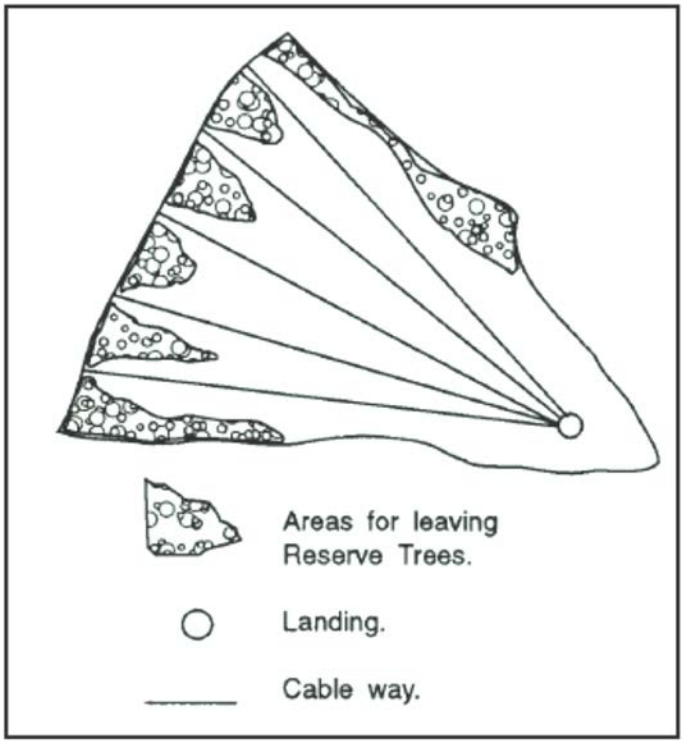


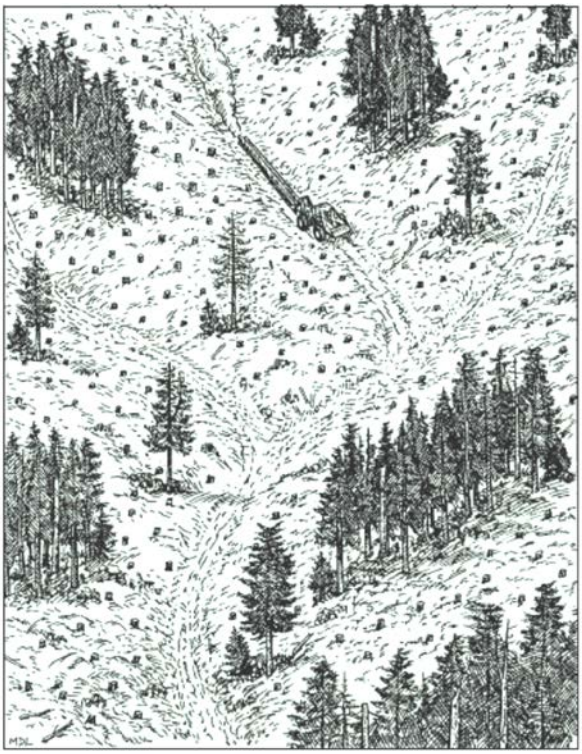
To evaluate visual estimation of percent crown scorch:

- Position yourself to view the entire tree crown, preferably at right angles to the direction of fire spread.
- Reconstruct the pre-fire crown appearance by looking at the fine branch structure and needles.
- Estimate the percent of crown killed by the fire based on your estimation of the pre-fire crown area. These include areas with yellowish brown, brown, or red needles, as well as blackened fine branches.
- Assess the tree with consideration to all sides of the crown. One side may show higher crown scorch than the opposite side.
- Borderline Douglas-fir can be evaluated for presence of boring dust. Borderline trees with boring dust greater than 90% of the bole are mass-attacked by beetles, will die regardless of fire injury, and can be removed.
- Lower crowns that contain blackened fine branches contribute to crown scorch. Lower branches lacking fine twigs were likely dead before the fire and should **not** be included in crown scorch (as pictured). Unsymmetrical crown bases may be visually moved to even out the crown shape.

2. Desirable leave tree clusters

3. Example scenarios of clump and clump-dispersed distributions in a unit.





Source: Guidelines for Selecting Reserve Trees (Publication F417-092-000 [08/2005]

4. Coarse Woody Debris and Snags

Trees designated for coarse woody debris should have characteristics of decay class 1 and 2 logs (e.g., bark intact, limbs intact, texture mostly sound, round shape). To meet the 1995 ROD/RMP guidelines, leave a minimum of 120 linear feet of logs per acre greater than or equal to 16 inches in diameter at the large end and 16 feet long (120 linear feet is equivalent to 7.5, 16-foot logs) (Information Bulletin OR-97-064 and Instruction Memorandum OR-95-028).

In addition, a minimum of 280 linear feet of DWM shall be retained, where present, to meet a combined total of 400 linear feet CWD and DWM. Where this number is met, additional merchantable DWM resulting from the fire event (windthrow, retardant drops, and other suppression activities) may be removed as a commercial product.

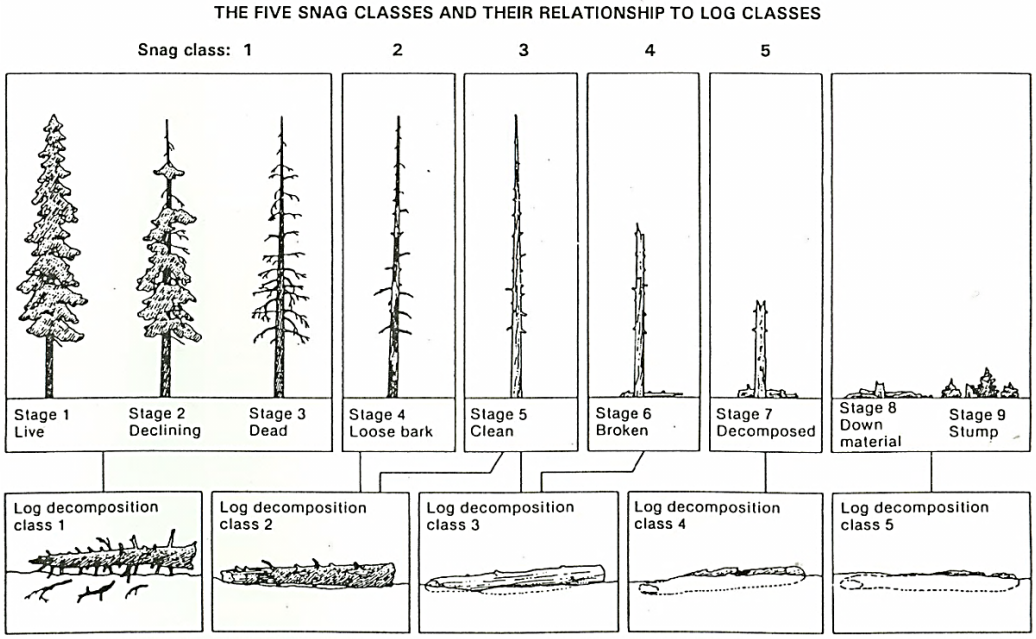
Table 4-1. Coarse Woody Debris / Down Woody Material Decay Classes

Log Characteristics	Decay Class				
	1	2	3	4	5
Bark	Intact	Intact	Trace	Absent	Absent
Twigs <3 cm.	Present	Absent	Absent	Absent	Absent
Texture	Intact	Intact to partly soft	Hard, large pieces	Small, soft blocky pieces	Soft and powdery
Shape	Round	Round	Round	Round to oval	Oval
Color of wood	Original color	Original color	Original color to faded	Light brown to reddish brown	Red brown to dark brown
Portion of log on ground	Tree elevated on support points	Tree elevated on support points but sagging slightly	Tree is sagging near ground	All of tree on ground	All of tree on ground
Invading roots	None	None	In sapwood	In heartwood	In heartwood

Table 4-2. Number of 16-foot Logs produced by Tree Diameter Class

Tree DBH	Number of logs per tree 16″ by 16′
16″	1
20″	1
24″	3
28″	4
32″	5
36″	6
40″	6
44″	7
48″	7
52″	8
56″	8
60″	9
64″	9

Source: Forest Survey Handbook BLM Manual Supplement Handbook 5250-1. 1995. Stand Exam Detail Screen



DEFINITIONS

Coarse Woody Debris (CWD): Portion of tree or entire tree that has fallen or been cut and left lying on the forest floor. Minimum qualifying stem as defined in this project must be ≥ 16 inches in diameter and ≥ 16 feet long.

Conifer: An evergreen tree that produces cones, needle-shaped leaves, and wood known commercially as "softwood".

DBH: Diameter of the tree at breast height, measured at four point five feet (4.5') above the ground level from the uphill side of the tree.

Down Woody Material (DWM): Logs lying on the forest floor that include merchantable and non-merchantable material in all decay classes.

Fire-Killed Tree: A standing or fallen conifer tree with 100% of the crown scorched showing brown needles or the crown is black with no needles.

Fire-Injured Tree: A conifer tree exhibiting crown scorch while still retaining green needles. Some fire-injured trees may die within the next 4 years (Appendix 1).

Fire-Injured Trees with a High Probability of Mortality: Standing trees that meet the description of fire-killed or fire-injured trees with a high probability of mortality defined in Appendix 1.

Hardwood: A live green broad-leaved tree which usually has a single well-devined trunk, exhibits > 30% live crown ratio and is capable of attaining a height greater than 20 feet. These include, but are not limited to alder, chinquapin, bigleaf maple, madrone, and oak species. Sprouting hardwood species may be in the form of multi-stemmed clumps originating from the base of a single defined stump.

Leave tree: Live green tree to be retained within the specifications of this prescription. These include live green conifers and large hardwoods, as well as fire-injured trees with a low probability of mortality as designated in Appendix 1.

Percent crown scorch: A measure of the proportion of foliage that has been killed by the fire relative to the entire amount of foliage that was present before the burn (scorched foliage should be obvious to the naked eye as yellowish brown or red needles).

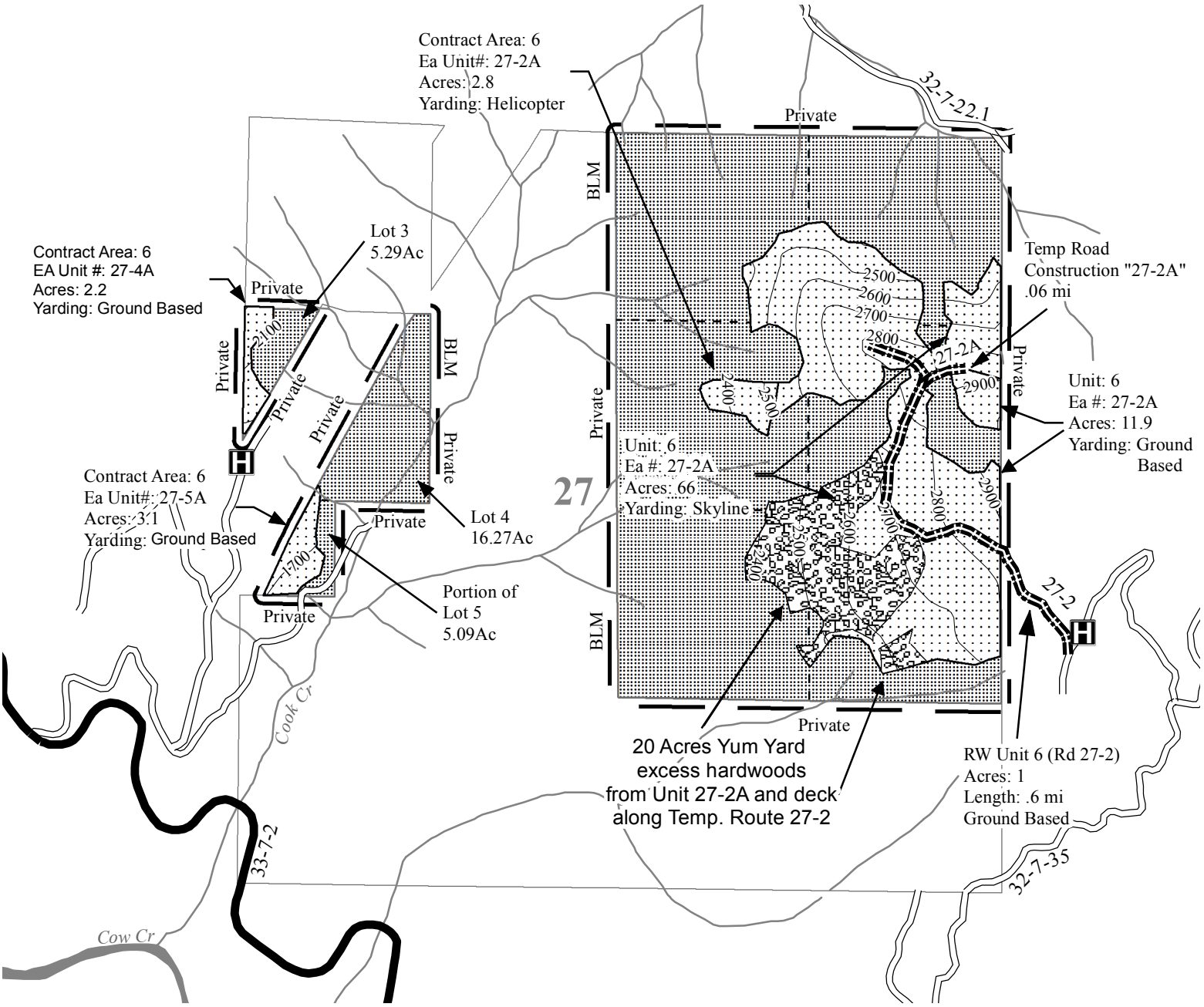
Snag: 1. A dead or dying tree with physical characteristics exhibiting varying rates of decomposition (Appendix 4, Table 4-3). 2. Standing dead conifer or hardwood tree species (with a well-defined single main stem or trunk) from which the top has died or from which the leaves and most of the branches have fallen. 3. The remaining standing section of a tree whose crown has broken away from the stem. 4. Conifer trees that exhibit a high probability of mortality within the next 4 years (Appendix 1).

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District

Rogue Cow Timber Sale Contract No: ORM07-TS-14-13

T.32 S., R.7 W., Sec. 27, Will. Mer.

Exhibit E



Harvest Area	86.0
Reserve Area	180.65
Contract Area	266.65 Ac.

Boundary - Contract Area

Harvest Area

Reserve Area

Yum Yard Areas (20 ac)

Stream

Road - Paved Surface

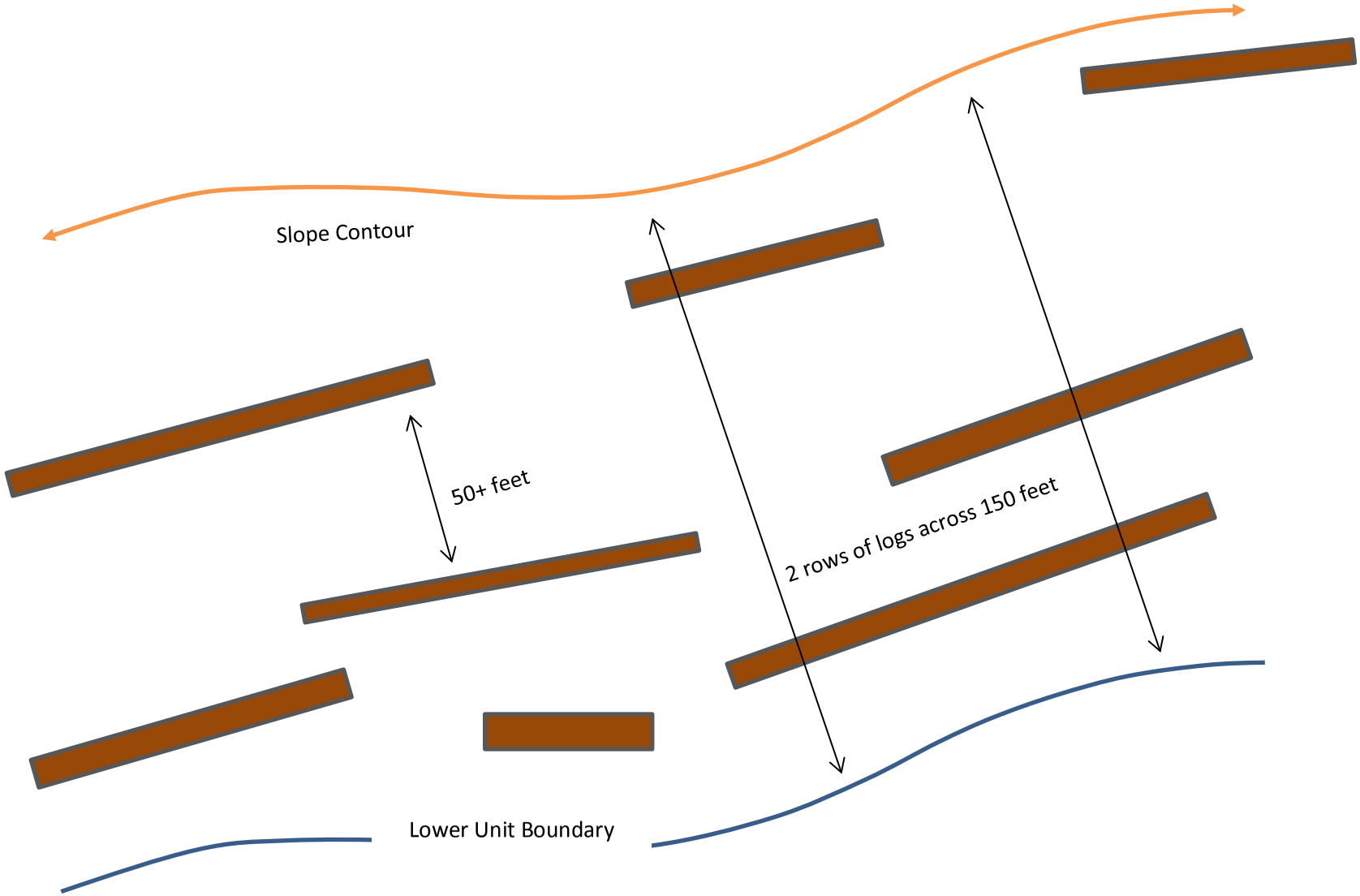
Road - Other Surface

Road - Temporary - To Construct

Helicopter Landings

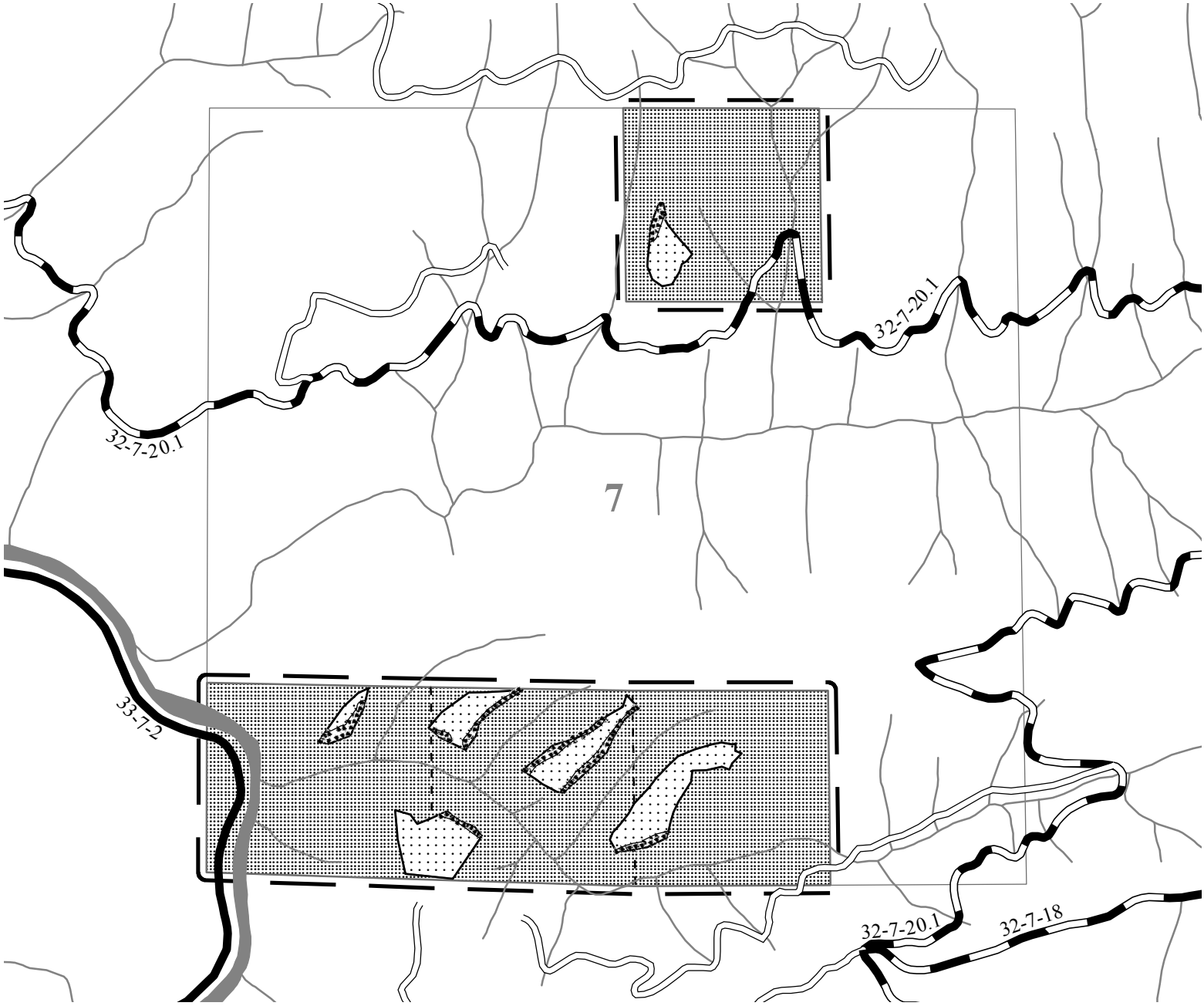
Feet

0 500 1,000 1,500


Slope Contour
50+ feet
2 rows of logs across 150 feet
Lower Unit Boundary

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.7 W., Sec. 7, Will. Mer.

Exhibit F
Sheet 2 of 15



Boundary - Contract Area
Harvest Area
Contour Felling
Reserve Area
Stream
Road - Paved Surface
Road - Rock Surface
Road - Other Surface

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.7 W., Sec. 9, Will. Mer.

Exhibit F
Sheet 3 of 15

Boundary - Contract Area
Harvest Area
Reserve Area
Contour Felling
Stream
Road - Rock Surface
Road - Other Surface
Road - Temporary - To Construct

N

Feet
0 500 1,000 1,500

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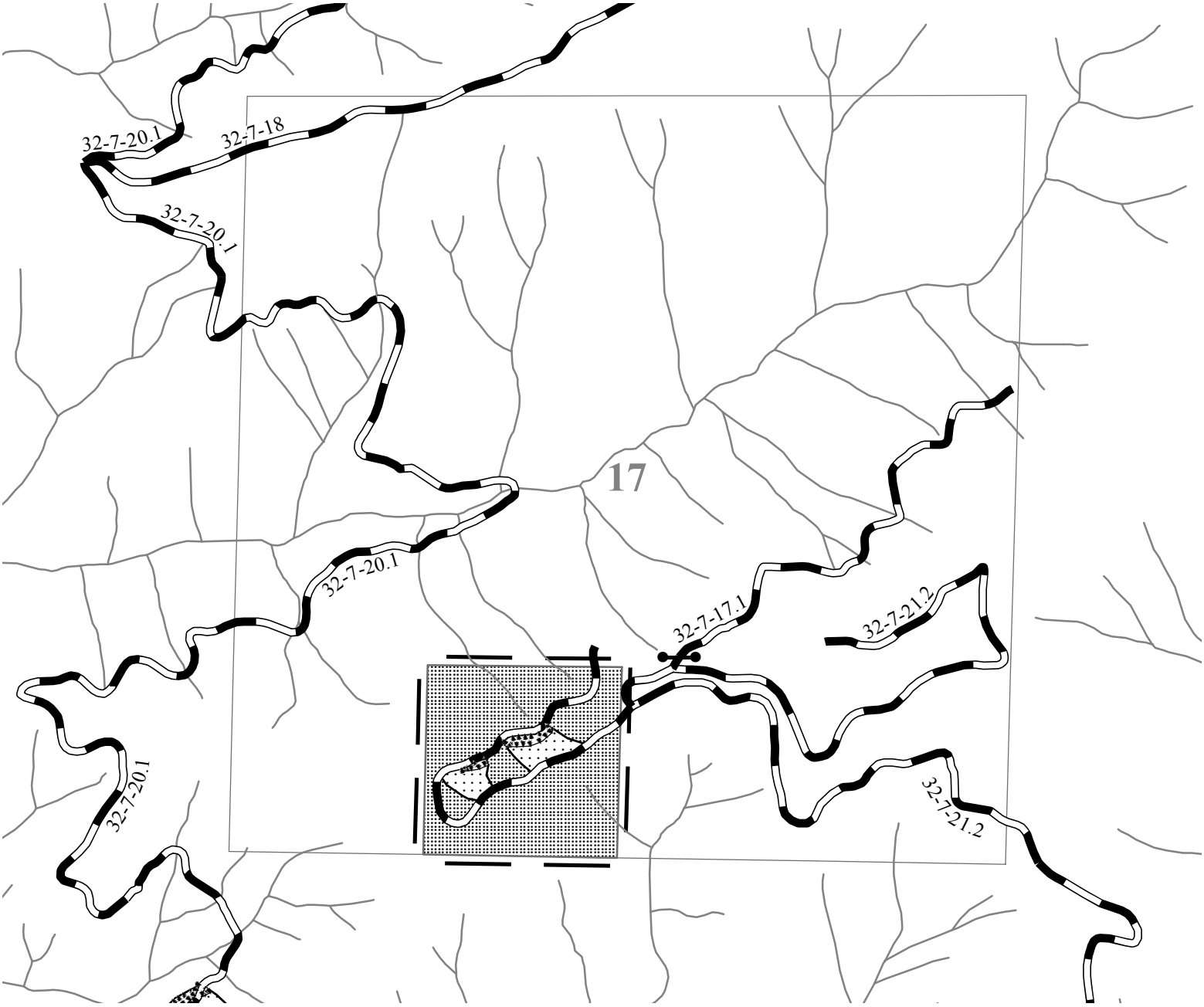
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.7 W., Sec. 17, Will. Mer.

Exhibit F
Sheet 4 of 15



Boundary - Contract Area
Road - Rock Surface
Harvest Area
Contour Felling
Reserve Area
Stream

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.7 W., Sec. 19, Will. Mer.

Exhibit F
Sheet 5 of 15

Boundary - Contract Area
Harvest Area
Approximate Area of Blue Marked Hazard Trees
Contour Felling
Reserve Area
Stream
Road - Paved Surface
Road - Rock Surface
Road - Other Surface

N

Feet
0 500 1,000 1,500

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Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.7 W., Sec. 23, Will. Mer.

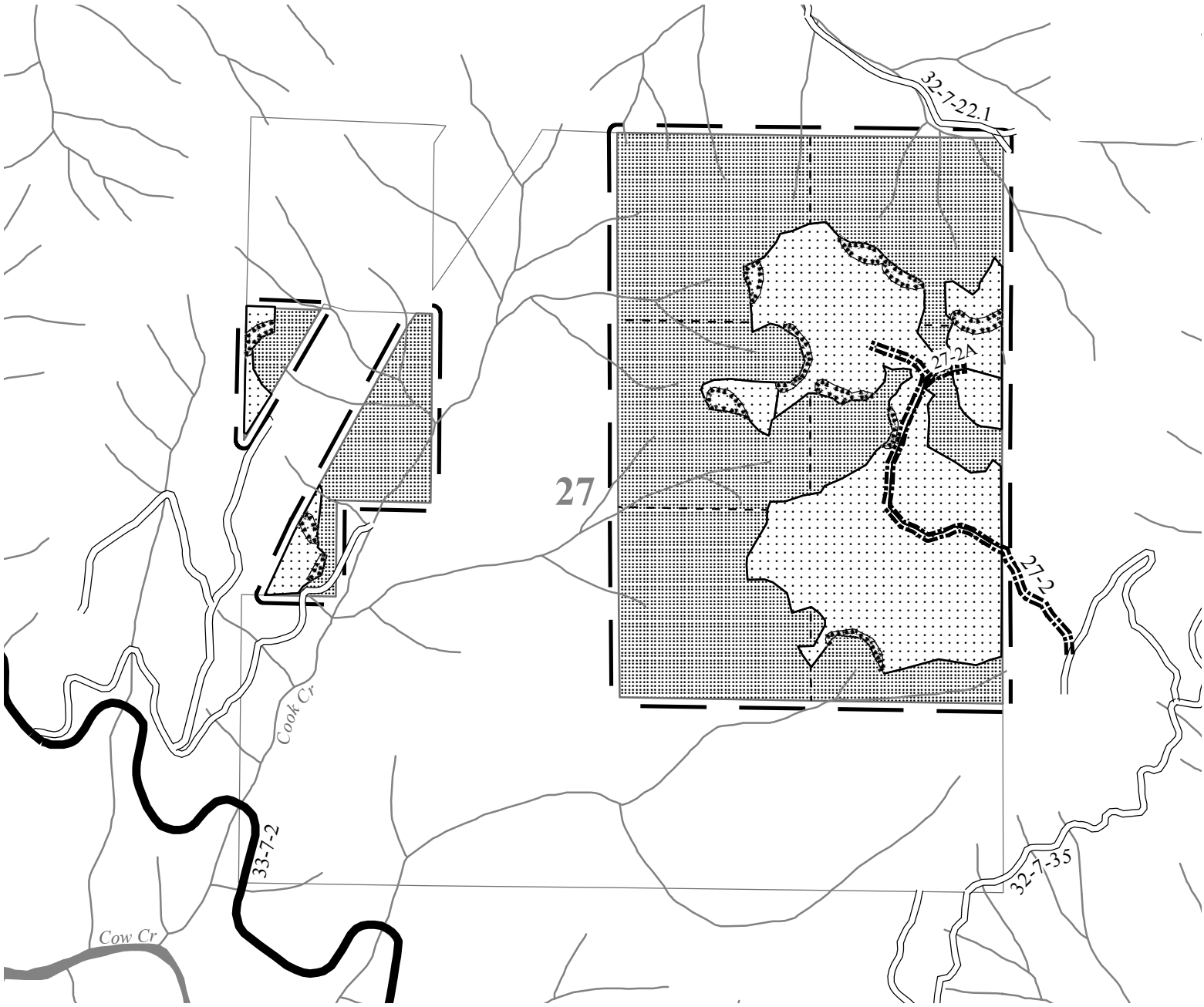
Exhibit F
Sheet 6 of 15

Boundary - Contract Area
Harvest Area
Contour Felling
Reserve Area
Stream
Road - Rock Surface
Road - Other Surface
Road - Temporary - To Construct

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.7 W., Sec. 27, Will. Mer.

Exhibit F
Sheet 7 of 15



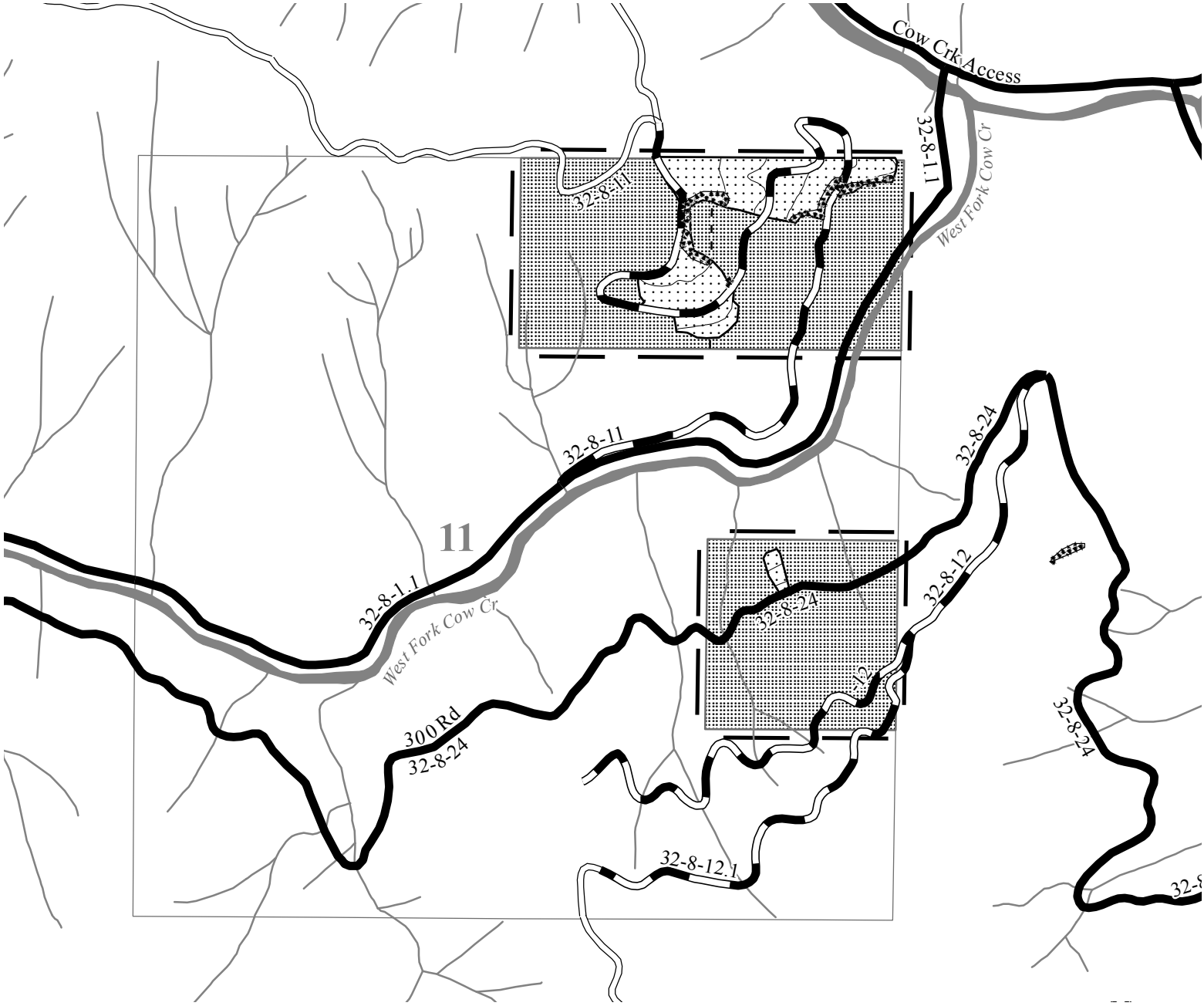
Harvest Area	86.0
Reserve Area	180.65
Contract Area	266.65 Ac.

Boundary - Contract Area
Harvest Area
Contour Felling
Reserve Area
Stream
Road - Paved Surface
Road - Other Surface
Road - Temporary - To Construct

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 11, Will. Mer.

Exhibit F
Sheet 8 of 15



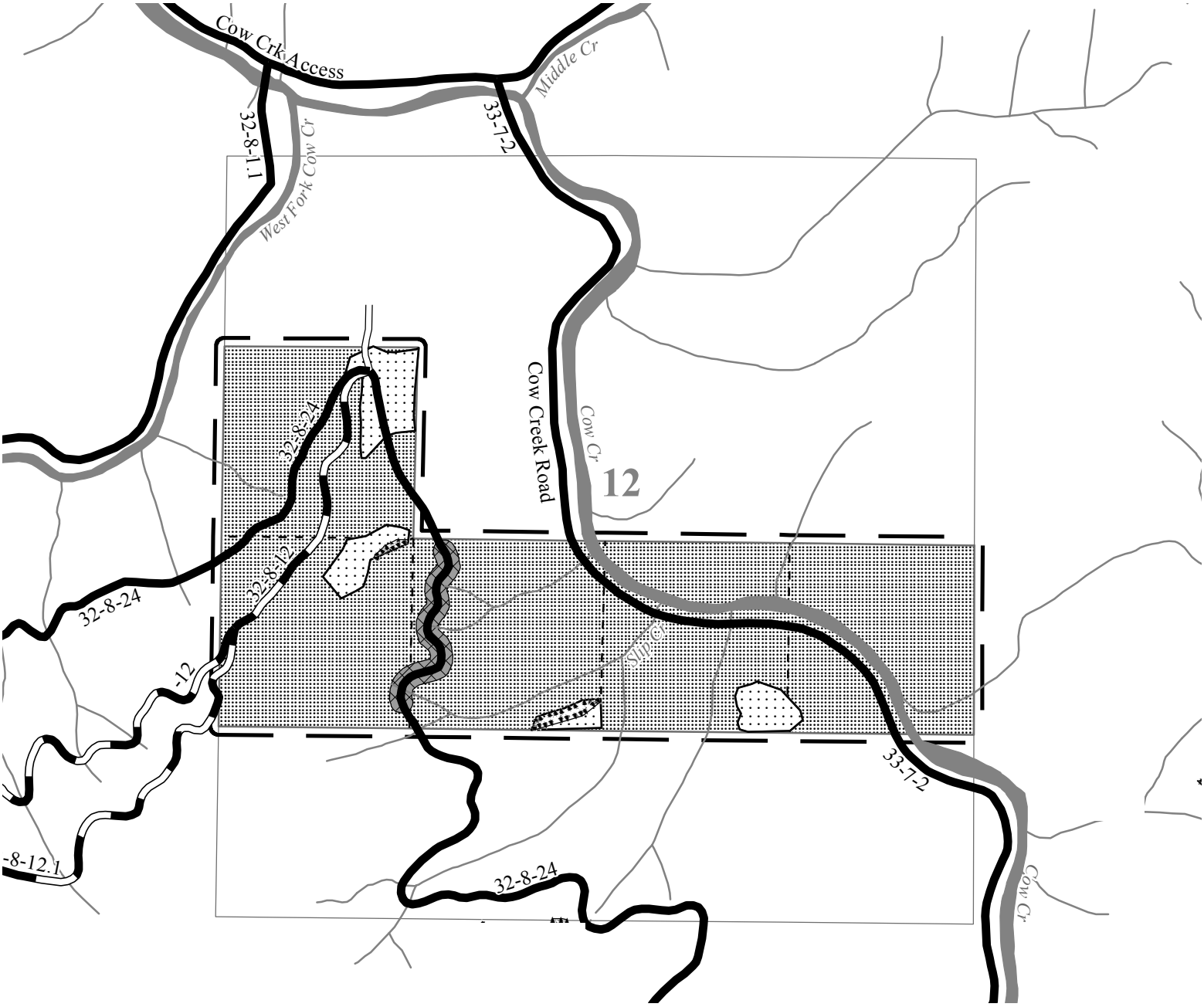
Partial Harvest Area	16.5
Reserve Area	101.39
Contract Area	117.89 Ac.

Boundary - Contract Area
Harvest Area
Contour Felling
Reserve Area
Stream
Road - Paved Surface
Road - Rock Surface
Road - Other Surface

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 12, Will. Mer.

Exhibit F
Sheet 9 of 15



Harvest Area	11.9
Reserve Area	188.1
Contract Area	200.0 Ac.

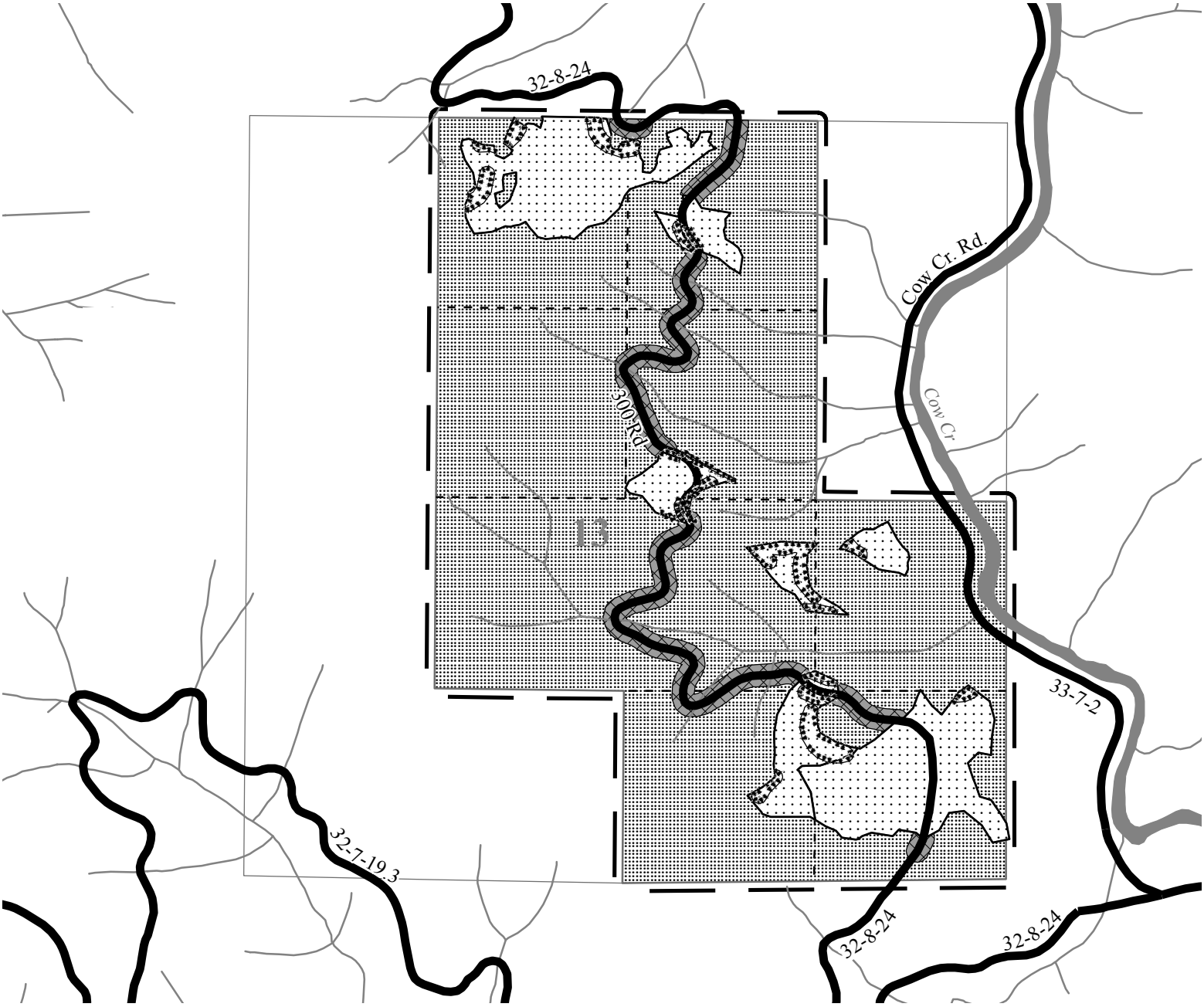
Boundary - Contract Area
Harvest Area
Contour Felling
Approximate Area of Blue Marked Hazard Trees
Reserve Area
Stream
Road - Paved Surface
Road - Rock Surface
Road - Other Surface

N

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 13, Will. Mer.

Exhibit F
Sheet 10 of 15



Harvest Area	55.8
Reserve Area	304.2
Contract Area	360.0 Ac.

Boundary - Contract Area
Road - Paved Surface
Harvest Area
Contour Felling
Approximate Area of Blue Marked Hazard Trees
Reserve Area
Stream

N

Feet
0 500 1,000 1,500

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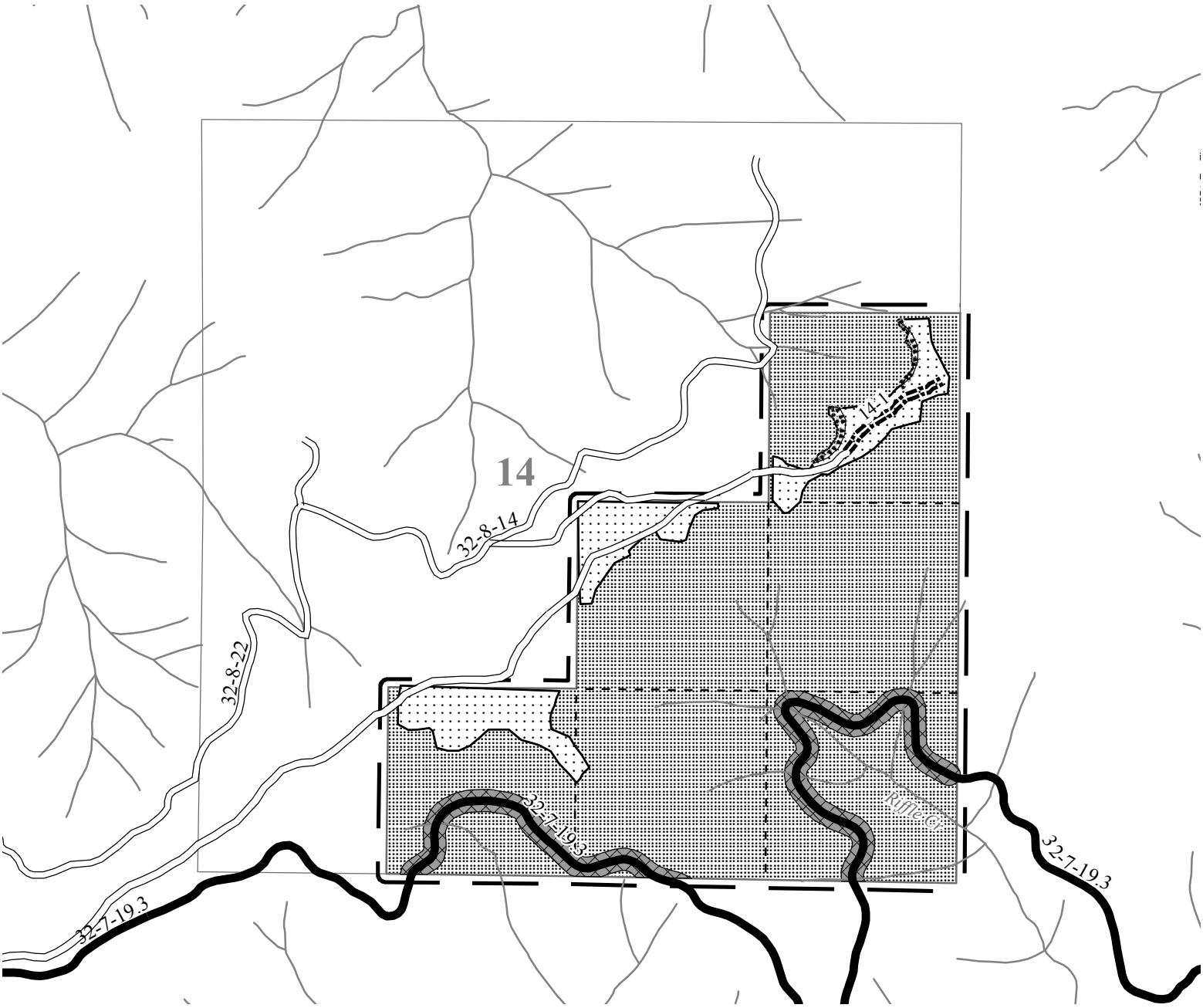
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 14, Will. Mer.

Exhibit F
Sheet 11 of 15



Harvest Area	23.4
Reserve Area	216.6
Contract Area	240.0 Ac.

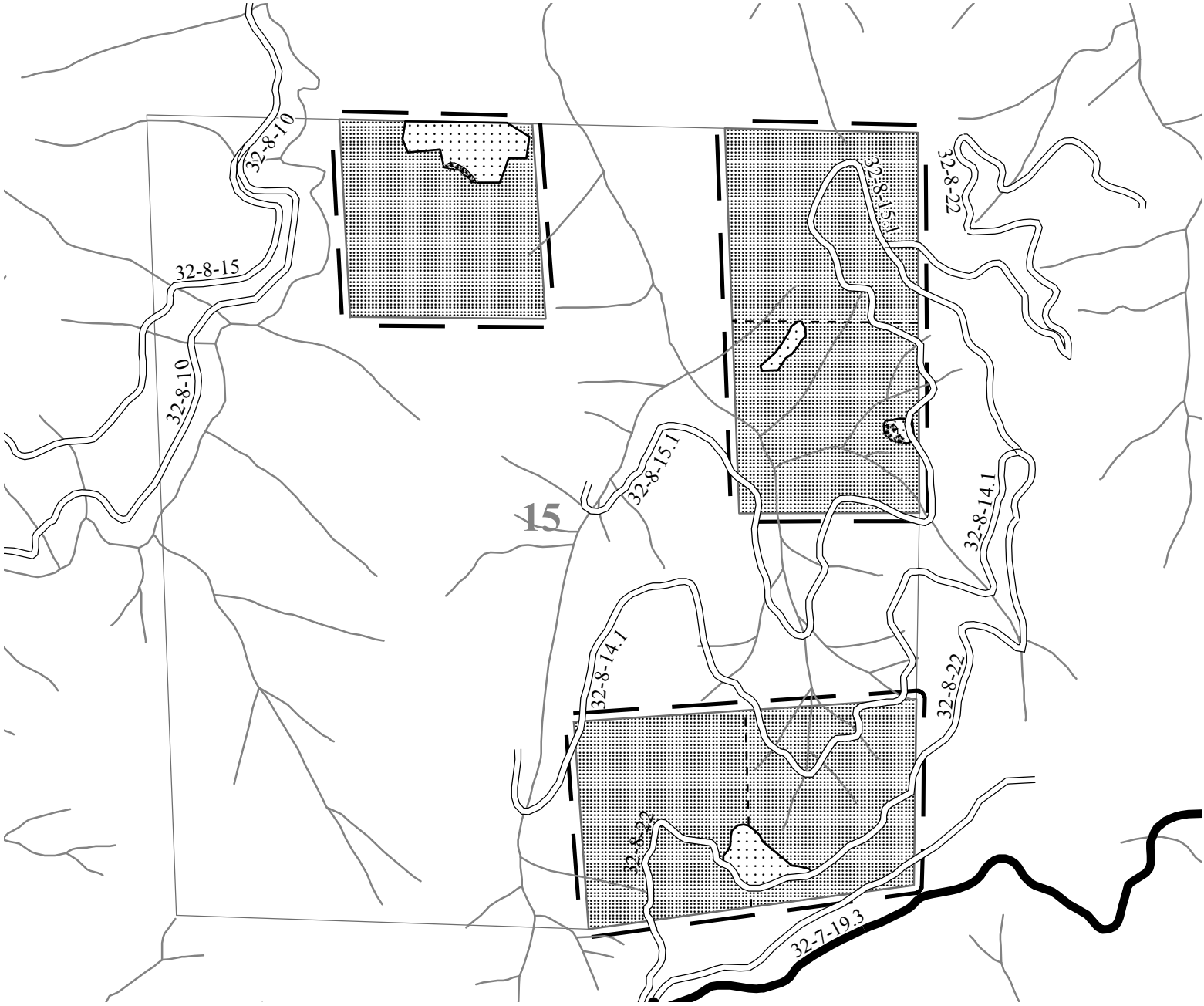
Boundary - Contract Area
Harvest Area
Contour Felling
Approximate Area of Blue Marked Hazard Trees
Stream
Road - Paved Surface
Road - Other Surface

N

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 15, Will. Mer.

Exhibit F
Sheet 12 of 15



Harvest Area	9.6
Reserve Area	190.4
Contract Area	200.0 Ac.

Boundary - Contract Area
Harvest Area
Contour Felling
Reserve Area
Stream
Road - Paved Surface
Road - Other Surface

N

Feet
0 500 1,000 1,500

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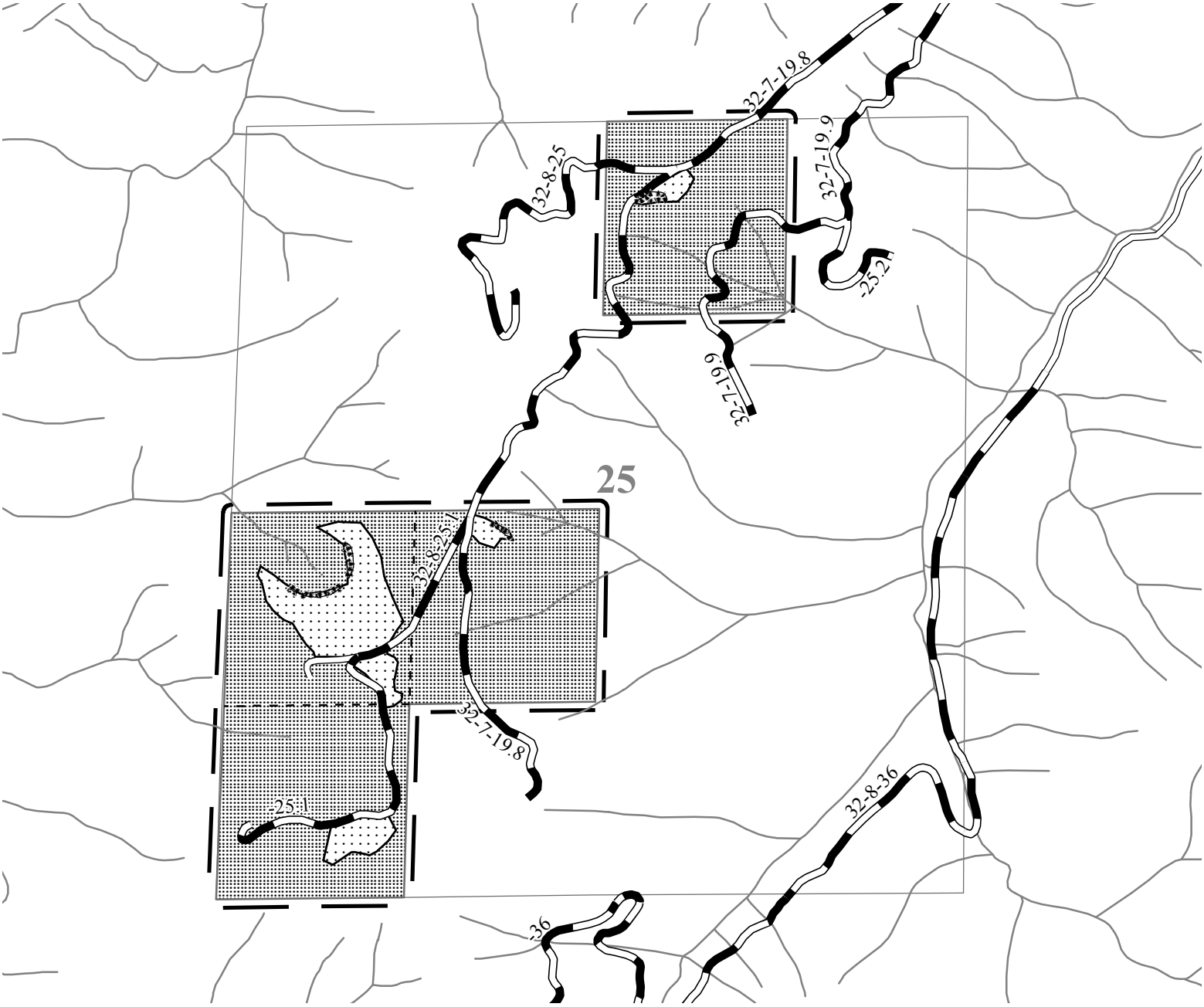
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 25, Will. Mer.

Exhibit F
Sheet 13 of 15



Harvest Area	15.7
Reserve Area	144.3
Contract Area	160.0 Ac.

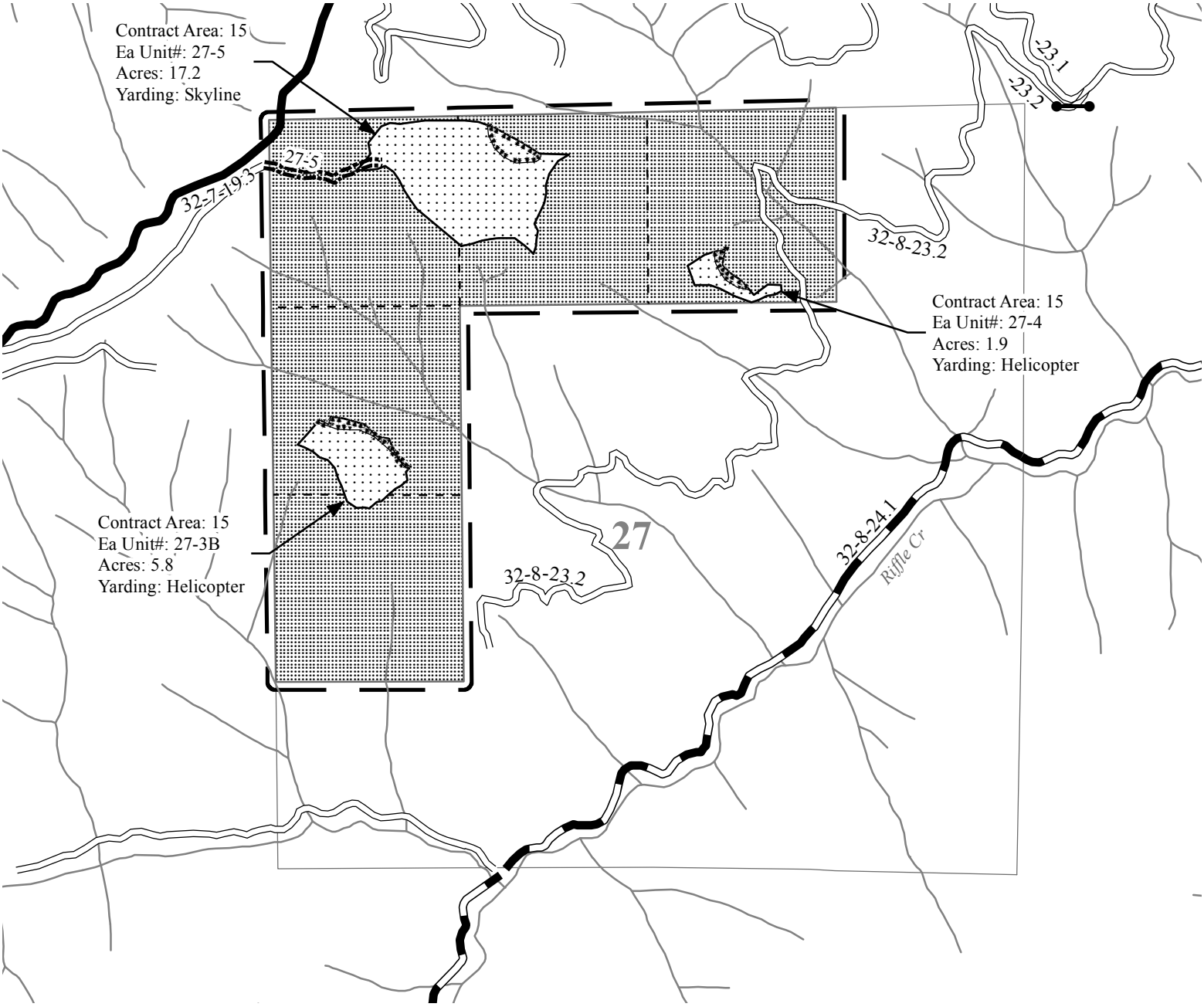
Boundary - Contract Area
Harvest Area
Contour Felling
Reserve Area
Stream
Road - Rock Surface
Road - Other Surface

N

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 27, Will. Mer.

Exhibit F
Sheet 14 of 15



Harvest Area	24.9
Reserve Area	175.1
Contract Area	200.0 Ac.

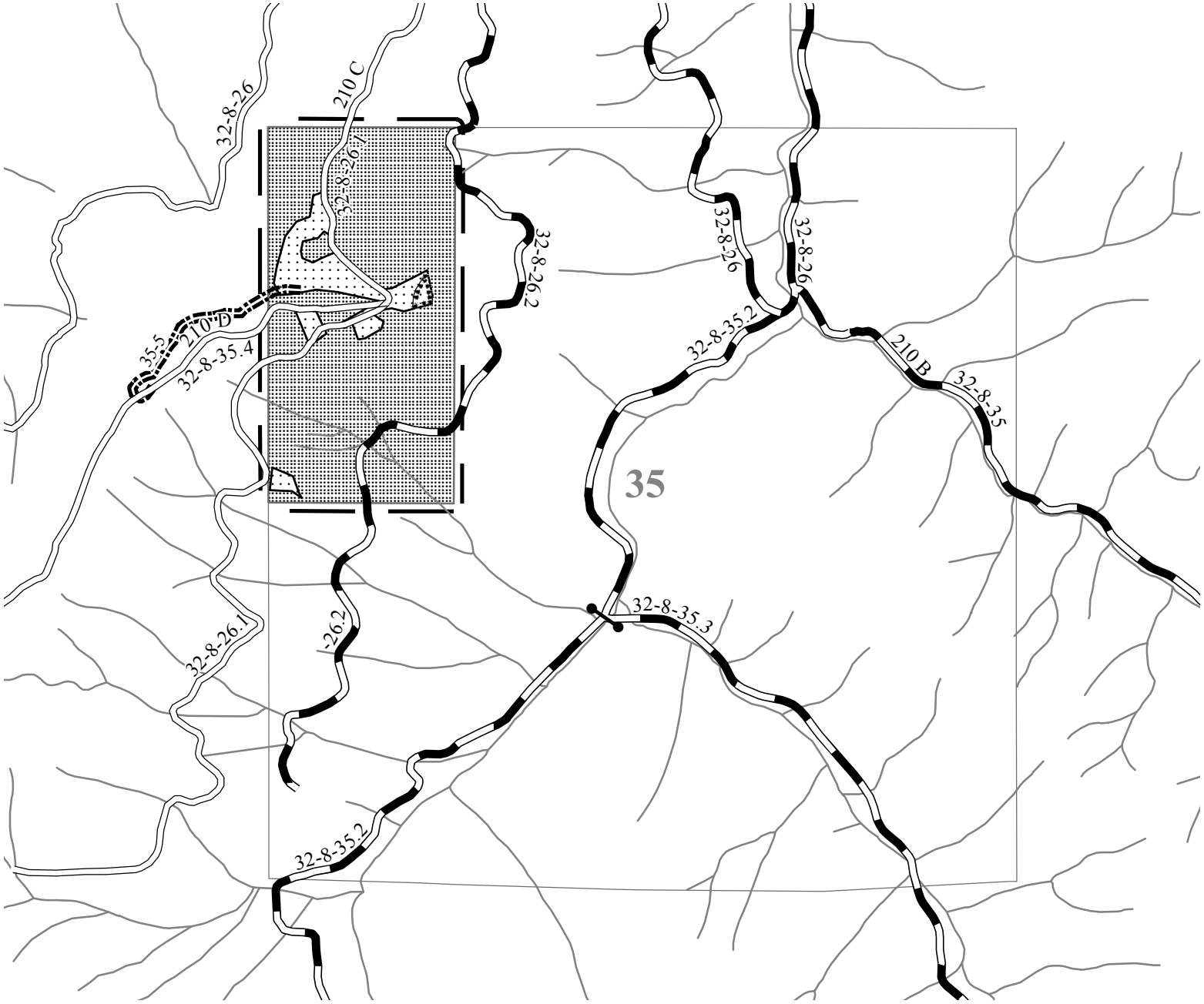
Boundary - Contract Area
Harvest Area
Contour Felling
Reserve Area
Stream
Road - Paved Surface
Road - Rock Surface
Road - Other Surface
Road - Temporary - To Construct

N

Feet
0 500 1,000 1,500

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management, Medford District
Rogue Cow Timber Sale Contract No: ORM07-TS-14-13
T.32 S., R.8 W., Sec. 35, Will. Mer.

Exhibit F
Sheet 15 of 15



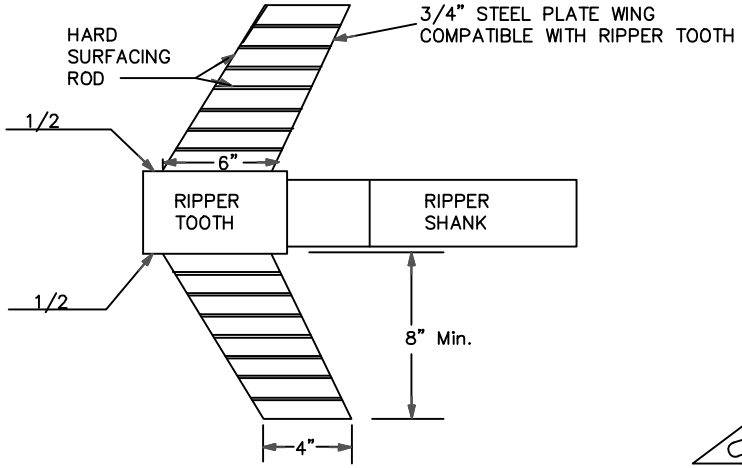
Harvest Area	7.4
Reserve Area	72.6
Contract Area	80.0 Ac.

Boundary - Contract Area
Harvest Area
Contour Felling
Reserve Area
Stream
Road - Rock Surface
Road - Other Surface
Road - Temporary - To Construct

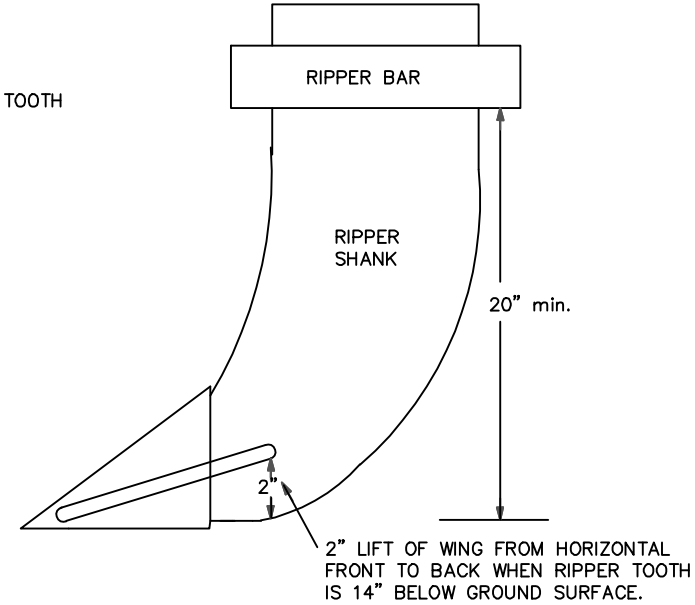
N

Feet
0 500 1,000 1,500

EXHIBIT R
SHEET _1_ OF _1_

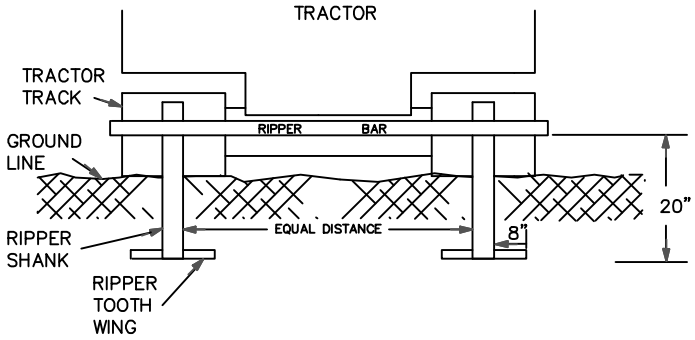


TOP VIEW



SIDE VIEW

TYPICAL RIPPER POSITION



NOTES: TYPICAL RIPPER TOOTH CONSTRUCTION

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

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

WING RIPPER DETAIL

DESIGNED
REVIEWED
APPROVED
CHIEF, BRANCH OF ENGINEERING OR DISTRICT ENGINEER

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	**Contract # :**	ORM07-TS-14-13
Sale Name :	Rogue Cow	**Job File # :**	M11303
Sale Date :	07/24/2014	**Master Unit :**	Josephine
Appraisal Method :	16' MBF	**Planning Unit :**	Grants Pass

Contents

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Stump to Truck Costs	17
Other Allowances Costs	18
Consolidated Comments	19

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

Legal Description

Forest Type	Township	Range	Section	Subdivision
O&C	32S	7W	7	Lot 4, NW¼NE¼, SE¼SW¼, SW¼SE¼
O&C	32S	7W	9	NW¼NE¼, S½NE¼, N½SW¼
O&C	32S	7W	17	SE¼SW¼
O&C	32S	7W	19	Lot 2, Lot 3, Lot 4, E½NE¼
O&C	32S	7W	23	N½NE¼, SE¼NE¼, SW¼SW¼, NE¼SE¼, SW¼SE¼
O&C	32S	7W	27	Lot 3, Lot 4, Lot 5, NE¼, N½SE¼
O&C	32S	8W	3	SW¼SW¼
O&C	32S	8W	11	Lot 2, N½NE¼
O&C	32S	8W	12	SW¼NW¼, N½SW¼, N½SE¼
O&C	32S	8W	13	W½NE¼, E½NW¼, NE¼SW¼, SE¼
O&C	32S	8W	14	SE¼NE¼, SE¼SW¼, SE¼
O&C	32S	8W	15	E½NE¼, NE¼NW¼, S½SE¼
O&C	32S	8W	23	NE¼, N½NW¼, W½SW¼, SE¼SW¼, SE¼
O&C	32S	8W	25	NW¼NE¼, N½SW¼ , SW1/4SW1/4
O&C	32S	8W	27	NW¼NE¼, N½NW¼, SW¼NW¼, NW¼SW¼
O&C	32S	8W	35	W½NW¼

Cutting Volume (16' MBF)

Unit	DF	PP	SP	IC					Total	Regen	Partial	ROW
1	368	56	53	11					488	19	0	0
2	392	59	56	11					518	20	0	0
3	59	9	8	2					78	3	0	0
4	138	21	19	4					182	7	0	0
5	494	74	69	14					651	25	0	0
6	1,685	254	239	48					2,226	86	0	0
7	118	18	17	3					156	6	0	0
8	312	47	44	9					412	16	0	0
9	232	35	33	7					307	12	0	0
10	1,103	165	156	31					1,455	56	0	0
11	447	68	64	13					592	23	0	0
12	195	29	28	6					258	10	0	0
13	96	15	14	3					128	5	0	0
14	317	47	44	9					417	16	0	0
15	492	74	69	14					649	25	0	0
16	137	21	19	4					181	7	0	0
RW Unit 5	11								11	0	0	1
RW Unit 6	33	12	8						53	0	0	1
Hazard Tre	56	1	2						59	0	1	0
Totals	**6,685**	**1,005**	**942**	**189**					**8,821**	**336**	**1**	**2**

Logging Costs per 16' MBF

Stump to Truck	$	259.28
Transportation	$	52.42
Road Construction	$	16.75
Road Amortization	$	3.12
Road Maintenance	$	5.69

Other Allowances :

Fuels Treatment	$ 5.12
Misc	$ 1.30
Other Costs	$ 4.10
Total Other Allowances :	**$ 10.53**

Total Logging Costs per 16' MBF $ **347.78**

Utilization Centers

Center #1 : Glendale	15	Miles
Center #2	0	Miles
Weighted distance to Utilization Centers	15	

Length of Contract

Cutting and Removal Time	24	Months
Personal Property Removal Time	1	Months

Profit & Risk

Total Profit & Risk		11 %
Basic Profit & Risk	8 % + Additional Risk	3 %
Back Off		0 %

Tract Features

Avg Log	Douglas-fir : 118 bf	All : 128 bf
Recovery	Douglas-fir : 86 %	All : 86 %
Salvage	Douglas-fir : 100 %	All : 100 %

Avg Volume (16' MBF per Acre)	26
Avg Yarding Slope	50 %
Avg Yarding Distance (feet)	400
Avg Age	140
Volume Cable	54 %
Volume Ground	15 %
Volume Aerial	31 %
Road Construction Stations	0.00
Road Improvement Stations	0.00
Road Renovation Stations	0.00
Road Decomission Stations	0.00

Cruise

Cruised By	Eugene District
Date	05/01/2014
Type of Cruise	PCMTRE, 100%
County, State	Josephine, OR

Net Volume

Green (16' MBF)	0
Salvage (16' MBF)	8,821
Douglas-fir Peeler	201
Export Volume	0
Scaling Allowance ($0.75 per 16' MBF)	$6,615.75

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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	17,561	6,685	$ 523.08	$ 57.54	$ 347.78			$ 117.80	$ 787,493.00
PP	939	1,005	$ 186.26	$ 20.49	$ 347.78			**$ 18.60**	$ 18,693.00
SP	1,446	942	$ 219.87	$ 24.19	$ 347.78			$ 22.00	$ 20,724.00
IC	1,105	189	$ 401.34	$ 44.15	$ 347.78			**$ 40.10**	$ 7,578.90
Totals	**21,051**	**8,821**							**$ 834,488.90**

Log Code by Percent

Species	Code #1	Code #2	Code #3	Code #4	Code #5	Code #6
Douglas-fir		1.0	2.0	72.0	24.0	1.0
Ponderosa Pine	71.0	2.0	1.0	15.0	11.0	
Sugar Pine	57.0	2.0	12.0	15.0	13.0	1.0
Incense-cedar				1.0	99.0	

Marginal Log Volume

Species	Grade #7	Grade #8
Douglas-fir		
Ponderosa Pine		
Sugar Pine		
Incense-cedar		

Appraised By : Caulfield, Dave **Date :** 06/10/2014

Area Approval By : Franks, Annie **Date :** 06/12/2014

District Approval By : **Date :**

Prospectus

Appraisal Method : (16' MBF)

Species	Trees	Net Volume 16' MBF	Net Volume 32' MBF	Net Volume CCF
Douglas-fir	17,561	6,685	5,506	
Ponderosa Pine	939	1,005	831	
Sugar Pine	1,446	942	789	
Incense-cedar	1,105	189	147	
Total	**21,051**	**8,821**	**7,273**	

All Species

Gross Volume	Number Trees	Avg bf Volume Per Tree	DBH	Gross Merch Volume	Merch Logs	Avg bf Gross Merch Log
10,275	21,051	488	20.0	10,275	79,971	128

Merch Logs	Cull Logs	Total Logs	Logs per Tree	Net Volume	Gross Volume	Recovery
79,971	2,425	82,396	3.9	8,821	10,275	86 %

Douglas-fir

Gross Volume	Number Trees	Avg bf Volume Per Tree	DBH	Gross Merch Volume	Merch Logs	Avg bf Gross Merch Log
7,768	17,561	442	19.1	7,768	66,020	118

Merch Logs	Cull Logs	Total Logs	Logs per Tree	Net Volume	Gross Volume	Recovery
66,020	1,119	67,139	3.8	6,685	7,768	86 %

Cutting Areas

Unit	Regen Acres	Partial Cut Acres	Right Of Way Acres	Total Acres
1	19			19
2	20			20
3	3			3
4	7			7
5	25			25
6	86			86
7	6			6
8	16			16
9	12			12
10	56			56
11	23			23
12	10			10
13	5			5
14	16			16
15	25			25
16	7			7
RW Unit 5			1	1
RW Unit 6			1	1
Hazard Trees		1		1
Totals :	**336**	**1**	**2**	**339**

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	6,685		
Ponderosa Pine	1,005		
Sugar Pine	942		
Incense-cedar	189		
Sale Totals	**8,821**		

Unit Details (16' MB)

Unit 1 **19 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	368		
Incense-cedar	11		
Ponderosa Pine	56		
Sugar Pine	53		
Unit Totals	**488**		

Unit 10 **56 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	1,103		
Incense-cedar	31		
Ponderosa Pine	165		
Sugar Pine	156		
Unit Totals	**1,455**		

Unit 11 **23 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	447		
Incense-cedar	13		
Ponderosa Pine	68		
Sugar Pine	64		
Unit Totals	**592**		

Unit 12 **10 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	195		
Incense-cedar	6		
Ponderosa Pine	29		
Sugar Pine	28		
Unit Totals	**258**		

Unit 13 **5 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	96		
Incense-cedar	3		
Ponderosa Pine	15		
Sugar Pine	14		
Unit Totals	**128**		

Unit 14 **16 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	317		
Incense-cedar	9		
Ponderosa Pine	47		
Sugar Pine	44		
Unit Totals	**417**		

Unit 15 **25 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	492		
Incense-cedar	14		
Ponderosa Pine	74		
Sugar Pine	69		
Unit Totals	**649**		

Unit 16 **7 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	137		
Incense-cedar	4		
Ponderosa Pine	21		
Sugar Pine	19		
Unit Totals	**181**		

Unit 2 **20 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	392		
Incense-cedar	11		
Ponderosa Pine	59		
Sugar Pine	56		
Unit Totals	**518**		

Unit 3 **3 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	59		
Incense-cedar	2		
Ponderosa Pine	9		
Sugar Pine	8		
Unit Totals	**78**		

Unit 4 **7 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	138		
Incense-cedar	4		
Ponderosa Pine	21		
Sugar Pine	19		
Unit Totals	**182**		

Unit 5 **25 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	494		
Incense-cedar	14		
Ponderosa Pine	74		
Sugar Pine	69		
Unit Totals	**651**		

Unit 6 **86 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	1,685		
Incense-cedar	48		
Ponderosa Pine	254		
Sugar Pine	239		
Unit Totals	**2,226**		

Unit 7 **6 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	118		
Incense-cedar	3		
Ponderosa Pine	18		
Sugar Pine	17		
Unit Totals	**156**		

Unit 8 **16 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	312		
Incense-cedar	9		
Ponderosa Pine	47		
Sugar Pine	44		
Unit Totals	**412**		

Unit 9 **12 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	232		
Incense-cedar	7		
Ponderosa Pine	35		
Sugar Pine	33		
Unit Totals	**307**		

Unit Hazard Trees **1 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	56		
Ponderosa Pine	1		
Sugar Pine	2		
Unit Totals	**59**		

Unit **RW Unit 5** **1 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	11		
Unit Totals	**11**		

Unit **RW Unit 6** **1 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	33		
Ponderosa Pine	12		
Sugar Pine	8		
Unit Totals	**53**		

UNITED STATES
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Volume Summary

Sale Volume Totals

339 **Acres** 336 **Regen** 1 **Partial** 2 **R/W** 19 **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	17,561	66,020	1,119	6,685	7,768	7,768	5,506	6,370	6,370	0	0	0
Ponderosa Pine	939	4,989	145	1,005	1,156	1,156	831	948	948	0	0	0
Sugar Pine	1,446	6,625	565	942	1,119	1,119	789	918	918	0	0	0
Incense-cedar	1,105	2,337	596	189	232	232	147	190	190	0	0	0
Totals	**21,051**	**79,971**	**2,425**	**8,821**	**10,275**	**10,275**	**7,273**	**8,426**	**8,426**	**0**	**0**	**0**

Unit Totals

Unit : 1 **19 Acres** **19 Regen** **0 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	973	3,663	63	429	429	368
Ponderosa Pine	51	275	8	65	65	56
Sugar Pine	81	370	32	63	63	53
Incense-cedar	62	132	34	13	13	11
Unit Totals	**1,167**	**4,440**	**137**	**570**	**570**	**488**

Unit : 2 **20 Acres** **20 Regen** **0 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,024	3,856	67	455	455	392
Ponderosa Pine	54	290	9	68	68	59
Sugar Pine	85	390	34	66	66	56
Incense-cedar	66	139	36	14	14	11
Unit Totals	**1,229**	**4,675**	**146**	**603**	**603**	**518**

Unit : 3 **3 Acres** **3 Regen** **0 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	154	578	10	63	63	59
Sugar Pine	13	58	5	10	10	8
Ponderosa Pine	8	43	1	10	10	9
Incense-cedar	10	21	5	2	2	2
Unit Totals	**185**	**700**	**21**	**85**	**85**	**78**

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

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	359	1,350	23	161	161	138
Ponderosa Pine	19	101	3	24	24	21
Sugar Pine	30	136	12	23	23	19
Incense-cedar	23	49	12	5	5	4
Unit Totals	**431**	**1,636**	**50**	**213**	**213**	**182**

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

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,281	4,820	83	574	574	494
Ponderosa Pine	67	362	11	85	85	74
Sugar Pine	106	487	42	82	82	69
Incense-cedar	82	174	44	17	17	14
Unit Totals	**1,536**	**5,843**	**180**	**758**	**758**	**651**

Unit : 6 **86 Acres** **86 Regen** **0 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	4,405	16,581	287	1,959	1,959	1,685
Ponderosa Pine	231	1,246	37	293	293	254
Sugar Pine	365	1,675	144	283	283	239
Incense-cedar	283	598	153	60	60	48
Unit Totals	**5,284**	**20,100**	**621**	**2,595**	**2,595**	**2,226**

Unit : 7 **6 Acres** **6 Regen** **0 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	307	1,157	20	138	138	118
Ponderosa Pine	16	87	3	20	20	18
Sugar Pine	25	117	10	20	20	17
Incense-cedar	20	42	11	4	4	3
Unit Totals	**368**	**1,403**	**44**	**182**	**182**	**156**

Unit : 8 **16 Acres** **16 Regen** **0 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	820	3,085	53	363	363	312
Ponderosa Pine	43	232	7	54	54	47
Sugar Pine	68	312	27	53	53	44
Incense-cedar	53	111	28	11	11	9

Unit Totals	**984**	**3,740**	**115**	**481**	**481**	**412**

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

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	615	2,314	40	268	268	232
Ponderosa Pine	32	174	5	41	41	35
Sugar Pine	51	234	20	40	40	33
Incense-cedar	39	83	21	8	8	7
Unit Totals	**737**	**2,805**	**86**	**357**	**357**	**307**

Unit : 10 **56 Acres** **56 Regen** **0 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	2,869	10,797	187	1,283	1,283	1,103
Ponderosa Pine	151	811	24	190	190	165
Sugar Pine	238	1,091	94	184	184	156
Incense-cedar	184	389	100	39	39	31
Unit Totals	**3,442**	**13,088**	**405**	**1,696**	**1,696**	**1,455**

Unit : 11 **23 Acres** **23 Regen** **0 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,178	4,434	77	525	525	447
Ponderosa Pine	62	333	10	78	78	68
Sugar Pine	98	448	39	76	76	64
Incense-cedar	76	160	41	16	16	13
Unit Totals	**1,414**	**5,375**	**167**	**695**	**695**	**592**

Unit : 12 **10 Acres** **10 Regen** **0 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	512	1,928	33	226	226	195
Ponderosa Pine	27	145	4	34	34	29
Sugar Pine	42	195	17	33	33	28
Incense-cedar	33	70	18	7	7	6
Unit Totals	**614**	**2,338**	**72**	**300**	**300**	**258**

Unit : 13 **5 Acres** **5 Regen** **0 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	256	964	17	114	114	96
Ponderosa Pine	13	72	2	17	17	15

Sugar Pine	21	97	8	16	16	14
Incense-cedar	16	35	9	3	3	3
Unit Totals	**306**	**1,168**	**36**	**150**	**150**	**128**

Unit : 14 **16 Acres** **16 Regen** **0 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	820	3,085	53	368	368	317
Ponderosa Pine	43	232	7	54	54	47
Sugar Pine	68	312	27	53	53	44
Incense-cedar	53	111	28	11	11	9
Unit Totals	**984**	**3,740**	**115**	**486**	**486**	**417**

Unit : 15 **25 Acres** **25 Regen** **0 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,281	4,820	83	573	573	492
Ponderosa Pine	67	362	11	85	85	74
Sugar Pine	106	487	42	82	82	69
Incense-cedar	82	174	44	17	17	14
Unit Totals	**1,536**	**5,843**	**180**	**757**	**757**	**649**

Unit : 16 **7 Acres** **7 Regen** **0 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	359	1,350	23	160	160	137
Ponderosa Pine	19	101	3	24	24	21
Sugar Pine	30	136	12	23	23	19
Incense-cedar	23	49	12	5	5	4
Unit Totals	**431**	**1,636**	**50**	**212**	**212**	**181**

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

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	28	119		11	11	11
Unit Totals	**28**	**119**		**11**	**11**	**11**

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

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	110	379		37	37	33
Ponderosa Pine	26	98		13	13	12
Sugar Pine	15	63		9	9	8

Unit Totals	**151**	**540**		**59**	**59**	**53**

Unit : Hazard Trees **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	210	740		61	61	56
Sugar Pine	4	17		3	3	2
Ponderosa Pine	10	25		1	1	1
Unit Totals	**224**	**782**		**65**	**65**	**59**

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Stump to Truck Costs

Total (16' MBF)

Total Stump to Truck Costs	Net Volume	Cost / Net Volume
$ 2,287,103.36	8,821	$ 259.28

Detail

Yarding & Loading

Yarding System	Unit Of Measure	Units	Cost / Unit	Total Cost
Med Twr=40-70	GM MBF	5,562	$ 153.58	$ 854,211.96
Helicopter	GM MBF	3,178	$ 368.37	$ 1,170,679.86
Track Skidder	GM MBF	1,535	$ 120.42	$ 184,844.70
Subtotal				**$ 2,209,736.52**

Other Costs

Explanation	Unit Of Measure	Units	Cost / Unit	Total Cost
Directional Falling	MBF	882	$ 9.52	$ 8,396.64
Med Twr YUM Yarding	GM MBF	340	$ 98.03	$ 33,330.20
Subtotal				**$ 41,726.84**

Additional Move-Ins

Equipment	# Move-In	Cost / Move In	Total Cost
Yarder / Loader	28	$ 150.00	$ 4,200.00
Yarder / Loader	104	$ 150.00	$ 15,600.00
Dozer	68	$ 110.00	$ 7,480.00
Delimber	76	$ 110.00	$ 8,360.00
Subtotal			**$ 35,640.00**

Other Allowances Costs

Total (16' MBF)

Total Other Allowances Costs	Net Volume	Cost / Net Volume *	Total Buy Out Cost
$92,874.22	8,821	$10.53	$0.00

Fuels Treatment

Detail (16' MBF)

Cost Item	Total Cost	Cost / Net Vol *	Buy Out	Buy Out Cost
Lop and Scatter-Lvl 1	$ 17,760.00	$ 2.01	N	$ 0.00
Slashing - Level 1	$ 4,750.00	$ 0.54	N	$ 0.00
Hand Pile, Cvr - Level 1	$ 12,950.00	$ 1.47	N	$ 0.00
Hand Pile Brn-Level 1	$ 1,400.00	$ 0.16	N	$ 0.00
Excavator	$ 5,025.00	$ 0.57	N	$ 0.00
Hand Pile, Cvr - Level 2	$ 3,290.00	$ 0.37	N	$ 0.00
Subtotal	**$ 45,175.00**	**$ 5.12**		**$ 0.00**

Misc

Detail (16' MBF)

Cost Item	Total Cost	Cost / Net Vol *	Buy Out	Buy Out Cost
Cut Planting Holes	$ 4,275.00	$ 0.48		$ 0.00
Winterizing Corridors	$ 3,200.00	$ 0.36		$ 0.00
Excavator Move In	$ 2,064.00	$ 0.23	N	$ 0.00
Skid Trail Decom	$ 1,963.22	$ 0.22	N	$ 0.00
Subtotal	**$ 11,502.22**	**$ 1.30**		**$ 0.00**

Other Costs

Detail (16' MBF)

Cost Item	Total Cost	Cost / Net Vol *	Buy Out	Buy Out Cost
Equipment Washing	$ 2,220.00	$ 0.25	N	$ 0.00
Equipment Washing	$ 1,500.00	$ 0.17	N	$ 0.00
Flaggers (2)	$ 5,472.00	$ 0.62	N	$ 0.00
Hand Seeding @ 17 lb seed per hour	$ 880.00	$ 0.10	N	$ 0.00
Mulching (2 hours/5 bales)	$ 2,400.00	$ 0.27	N	$ 0.00
Landing Construction	$ 6,975.00	$ 0.79	N	$ 0.00
Landing Clean up	$ 9,300.00	$ 1.05	N	$ 0.00
Barricades	$ 1,200.00	$ 0.14	N	$ 0.00
Intermediate Support	$ 6,250.00	$ 0.71	N	$ 0.00
Subtotal	**$ 36,197.00**	**$ 4.10**		**$ 0.00**

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

General

Fire Salvage Sale.
No Cubic Volume Report was provided
Code 1 in Sugar Pine and Ponderosa Pine is Blue Stain
Douglas-fir old-growth pricing
Retention/Leave Tree Volume was removed from appraisal but not from cruise printouts

Yarding & Loading

Contour falling is included in directional falling costs.
Med Twr YUM Yarding: 20 acres of cable YUM Yarding in unit 27-2A, estimate HW volume as 340 GM MBF
ADDITIONAL MOVEINS:
Yarder/Loader: Yarder - Estimate no more than 28 hours @ $150/hour to move yarder
Yarder/Loader: Loader - Estimate no more than 104 hours @ $150/hour to move loader
Dozer: Estimate no more than 68 hours @ $110/hour to move tractor/skidder
Delimber: Estimate no more than 76 @ $110/hour to move processor

Road Costs

(see Engineering Appraisal for details).

Transportation

(see Transportation appendix for details).

Other Allowances

Fuels Treatment:
Excavator: Combined Machine pile & cover ($300/acre) AND Machine pile burn ($35/acre)
Hand Pile, Cvr - Level 2: Combined Cover landing decks ($35/acre) AND Burn landing decks ($35/acre)
Equipment Washing: $370/piece for yarder, loader (cable, tractor and helicopter sides)
Equipment Washing: $25/piece for tractor (cable, tractor) and delimber/processor (cable, tractor, helicopter)

Prospectus

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Summary of All Roads and Projects Updated: 5/1/2013
T.S. Contract Name: Rogue Cow Tract No: TS14-13 Sale Date: 07/24/2014
Prepared by: E.Freeman Ph: 5414716601 Print Date: 6/21/2014 2:25:51 PM
Construction: 0.00 sta
Improve: 0.00 sta Renov: 1896.58 sta Decom: 0.00 sta Temp: 83.14 sta

200 Clearing and Grubbing: 0.0 acres $6,361.72
Clearing: 83.1 sta Grubbing: 5.3 acres
Slash Treatment: 0.0 acres

300 Excavation: 7,091 cy $20,777.21
Haul: 0 sta-yds

400 Drainage: $970.20
Culvert: 30 lf wt = 630 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $85,082.86
Blading 35.92 mi

Surfacing: $1,157.67
Quarry Name: 4" Minus 20 cy

1300 Geotextiles: $0.00

1400 Slope Protection: $0.00

1800 Soil Stabilization: 3.9 acres $2,036.38
Includes Small Quantity Factor of 1.42

1900 Cattleguards: $0.00

2100 RoadSide Brushing: 34.8 acres $19,038.46

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $7,896.08

Mobilization: Const. $4,023.41 Surf. $371.64..... $4,395.05

Quarry Development: $0.00

Total: 8,821 mbf @ $16.746/mbf = $147,715.63

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities are COMPACTED in place cubic yards.

File T:\GP-GL\ENGINEERING\Timber Sales\2014 TS\Douglas Complex Fire Salvage TS\Rogue Cow T.S\Exhibit C\XC Appraisal\Rogue Cow Appriasal - Revised.mdb

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-08 Road Name:
Road Renovation: 1.81 mi 17 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $4,231.92
Blading 1.81 mi

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 $1,002.02

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $146.93 Surf. $0.00..... $146.93

Quarry Development: $0.00

Total: $5,380.88

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-08 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: $519.72/mi x 1.81 mi = $940.69
Pull Ditches: $140.38/mi x 1.81 mi = $254.09
Compaction: $1329.15/mi x 1.81 mi = $2,405.76
Clean Culverts: $270.05/mi x 1.81 mi = $488.79
Water for Compaction
Water Truck 2000 Gal 1.81 hr x $78.78/hr = $142.59

Subtotal: $4,231.92

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 Medium: $556.68/acre x 1.80 acres = $1,002.02

Subtotal: $1,002.02

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:

Construction - 3.65% of total Costs = $146.93
Surfacing - 0.00% by rock volume = $0.00

Subtotal: $146.93

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $5,380.88

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-17 Road Name:
Road Renovation: 0.28 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $654.66
Blading 0.28 mi

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 $167.00

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $23.07 Surf. $0.00..... $23.07

Quarry Development: $0.00

Total: $844.73

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-17 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: $519.72/mi x 0.28 mi = $145.52
  Pull Ditches: $140.38/mi x 0.28 mi = $39.31
  Compaction: $1329.15/mi x 0.28 mi = $372.16
  Clean Culverts: $270.05/mi x 0.28 mi = $75.61
  Water for Compaction
   Water Truck 2000 Gal 0.28 hr x $78.78/hr = $22.06

Subtotal: $654.66

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 Medium: $556.68/acre x 0.30 acres = $167.00

Subtotal: $167.00

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.57% of total Costs = $23.07
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $23.07

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $844.73

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-18 Road Name:
Road Renovation: 2.83 mi 17 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $970.20
Culvert: 30 lf wt = 630 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $7,037.79
Blading 2.83 mi

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: 2.7 acres $1,503.04

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $267.00 Surf. $0.00..... $267.00

Quarry Development: $0.00

Total: $9,778.02

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-18 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Aluminized MP 2.37 18 inch 14 ga 30 lf x $26.95/lf x 1.2 = $970.20

Subtotal: $970.20

Section 500 Renovation:

Blading: $519.72/mi x 2.83 mi = $1,470.81
Pull Ditches: $140.38/mi x 2.83 mi = $397.28
Compaction: $1329.15/mi x 2.83 mi = $3,761.49
Clean Culverts: $270.05/mi x 2.83 mi = $764.24
Construct Ditchout
Motor Grader 14G (MP 0.41 & 0.47) .5 hr x $139.10/hr = $69.55
Hole in Road (MP 2.37)
Excavator 235B (1.75 CY) 2 hr x $112.93/hr = $225.86
Tamper – handheld 3 hr x $41.87/hr = $125.61
Water for Compaction
Water Truck 2000 Gal 2.83 hr x $78.78/hr = $222.95

Subtotal: $7,037.79

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 Medium: $556.68/acre x 2.70 acres = $1,503.04

Subtotal: $1,503.04

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:

Construction - 6.64% of total Costs = $267.00
Surfacing - 0.00% by rock volume = $0.00

Subtotal: $267.00

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $9,778.02

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-18.3 Road Name:
Road Renovation: 1.23 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $2,875.84
Blading 1.23 mi

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: 1.2 acres $668.02

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $99.49 Surf. $0.00..... $99.49

Quarry Development: $0.00

Total: $3,643.34

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-18.3 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: $519.72/mi x 1.23 mi = $639.26
  Pull Ditches: $140.38/mi x 1.23 mi = $172.67
  Compaction: $1329.15/mi x 1.23 mi = $1,634.85
  Clean Culverts: $270.05/mi x 1.23 mi = $332.16
  Water for Compaction
   Water Truck 2000 Gal 1.23 hr x $78.78/hr = $96.90

Subtotal: $2,875.84

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 Medium: $556.68/acre x 1.20 acres = $668.02

Subtotal: $668.02

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 2.47% of total Costs = $99.49
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $99.49

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $3,643.34

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-19.2 Road Name:
Road Renovation: 0.16 mi 16 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $374.09
Blading 0.16 mi

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 $111.34

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $13.63 Surf. $0.00..... $13.63

Quarry Development: $0.00

Total: $499.06

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-19.2 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: $519.72/mi x 0.16 mi = $83.16
  Pull Ditches: $140.38/mi x 0.16 mi = $22.46
  Compaction: $1329.15/mi x 0.16 mi = $212.66
  Clean Culverts: $270.05/mi x 0.16 mi = $43.21
  Water for Compaction
   Water Truck 2000 Gal 0.16 hr x $78.78/hr = $12.60

Subtotal: $374.09

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 Medium: $556.68/acre x 0.20 acres = $111.34

Subtotal: $111.34

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.34% of total Costs = $13.63
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $13.63

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $499.06

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-19.4 Road Name:
Road Renovation: 0.13 mi 16 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $303.95
Blading 0.13 mi

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 $55.67

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $10.10 Surf. $0.00..... $10.10

Quarry Development: $0.00

Total: $369.71

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-19.4 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: $519.72/mi x 0.13 mi = $67.56
  Pull Ditches: $140.38/mi x 0.13 mi = $18.25
  Compaction: $1329.15/mi x 0.13 mi = $172.79
  Clean Culverts: $270.05/mi x 0.13 mi = $35.11
  Water for Compaction
   Water Truck 2000 Gal 0.13 hr x $78.78/hr = $10.24

Subtotal: $303.95

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 Medium: $556.68/acre x 0.10 acres = $55.67

Subtotal: $55.67

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.25% of total Costs = $10.10
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $10.10

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $369.71

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-19.7 Road Name:
Road Renovation: 0.65 mi 18 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $1,519.75
Blading 0.65 mi

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 $334.01

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $52.04 Surf. $0.00..... $52.04

Quarry Development: $0.00

Total: $1,905.80

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-19.7 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: $519.72/mi x 0.65 mi = $337.82
  Pull Ditches: $140.38/mi x 0.65 mi = $91.25
  Compaction: $1329.15/mi x 0.65 mi = $863.95
  Clean Culverts: $270.05/mi x 0.65 mi = $175.53
  Water for Compaction
   Water Truck 2000 Gal 0.65 hr x $78.78/hr = $51.21

Subtotal: $1,519.75

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 Medium: $556.68/acre x 0.60 acres = $334.01

Subtotal: $334.01

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 1.29% of total Costs = $52.04
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $52.04

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $1,905.80

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-19.8 Road Name:
Road Renovation: 1.60 mi 16 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $3,740.93
Blading 1.60 mi

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 $890.69

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $130.02 Surf. $0.00..... $130.02

Quarry Development: $0.00

Total: $4,761.64

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-19.8 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: $519.72/mi x 1.60 mi = $831.55
  Pull Ditches: $140.38/mi x 1.60 mi = $224.61
  Compaction: $1329.15/mi x 1.60 mi = $2,126.64
  Clean Culverts: $270.05/mi x 1.60 mi = $432.08
  Water for Compaction
   Water Truck 2000 Gal 1.60 hr x $78.78/hr = $126.05

Subtotal: $3,740.93

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 Medium: $556.68/acre x 1.60 acres = $890.69

Subtotal: $890.69

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 3.23% of total Costs = $130.02
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $130.02

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $4,761.64

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-20.1 Road Name:
Road Renovation: 5.45 mi 17 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $12,742.54
Blading 5.45 mi

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: 5.3 acres $2,950.40

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $440.54 Surf. $0.00..... $440.54

Quarry Development: $0.00

Total: $16,133.48

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-20.1 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: $519.72/mi x 5.45 mi = $2,832.47
  Pull Ditches: $140.38/mi x 5.45 mi = $765.07
  Compaction: $1329.15/mi x 5.45 mi = $7,243.87
  Clean Culverts: $270.05/mi x 5.45 mi = $1,471.77
  Water for Compaction
   Water Truck 2000 Gal 5.45 hr x $78.78/hr = $429.35

Subtotal: $12,742.54

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 Medium: $556.68/acre x 5.30 acres = $2,950.40

Subtotal: $2,950.40

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 10.95% of total Costs = $440.54
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $440.54

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $16,133.48

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-21 Road Name:
Road Renovation: 0.44 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres	$0.00
Clearing:0.0 sta Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$1,028.76
Blading 0.44 mi	
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	$222.67
2300 Engineering: 0.00 sta.	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $35.13 Surf. $0.00.....	$35.13
Quarry Development:	$0.00
Total:	$1,286.56

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-21 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: $519.72/mi x 0.44 mi = $228.68
  Pull Ditches: $140.38/mi x 0.44 mi = $61.77
  Compaction: $1329.15/mi x 0.44 mi = $584.83
  Clean Culverts: $270.05/mi x 0.44 mi = $118.82
  Water for Compaction
   Water Truck 2000 Gal 0.44 hr x $78.78/hr = $34.66

Subtotal: $1,028.76

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 Medium: $556.68/acre x 0.40 acres = $222.67

Subtotal: $222.67

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.87% of total Costs = $35.13
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $35.13

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $1,286.56

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-21.1 Road Name:
Road Renovation: 0.10 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $233.81
Blading 0.10 mi

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 $55.67

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $8.13 Surf. $0.00..... $8.13

Quarry Development: $0.00

Total: $297.60

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-21.1 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: $519.72/mi x 0.10 mi = $51.97
  Pull Ditches: $140.38/mi x 0.10 mi = $14.04
  Compaction: $1329.15/mi x 0.10 mi = $132.92
  Clean Culverts: $270.05/mi x 0.10 mi = $27.01
  Water for Compaction
   Water Truck 2000 Gal 0.10 hr x $78.78/hr = $7.88

Subtotal: $233.81

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 Medium: $556.68/acre x 0.10 acres = $55.67

Subtotal: $55.67

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.20% of total Costs = $8.13
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $8.13

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $297.60

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-21.2 Road Name:
Road Renovation: 2.83 mi 17 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $6,616.77
Blading 2.83 mi

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: 2.7 acres $1,503.04

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $227.95 Surf. $0.00..... $227.95

Quarry Development: $0.00

Total: $8,347.75

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-21.2 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: $519.72/mi x 2.83 mi = $1,470.81
  Pull Ditches: $140.38/mi x 2.83 mi = $397.28
  Compaction: $1329.15/mi x 2.83 mi = $3,761.49
  Clean Culverts: $270.05/mi x 2.83 mi = $764.24
  Water for Compaction
   Water Truck 2000 Gal 2.83 hr x $78.78/hr = $222.95

Subtotal: $6,616.77

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 Medium: $556.68/acre x 2.70 acres = $1,503.04

Subtotal: $1,503.04

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 5.67% of total Costs = $227.95
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $227.95

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $8,347.75

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-26.1 Road Name:
Road Renovation: 1.15 mi 14 ft Subgrade 0 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $2,216.80
Blading 1.15 mi

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: 1.1 acres $306.17

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $1,900.00

Mobilization: Const. $124.17 Surf. $0.00..... $124.17

Quarry Development: $0.00

Total: $4,547.14

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-26.1 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: $519.72/mi x 1.15 mi = $597.68
  Compaction: $1329.15/mi x 1.15 mi = $1,528.52
  Water for Compaction
   Water Truck 2000 Gal 1.15 hr x $78.78/hr = $90.60

Subtotal: $2,216.80

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: $278.34/acre x 1.10 acres = $306.17

Subtotal: $306.17

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:
  Remove & Reconstruct Barricade
   Tractor: D6 with winch 1 EA x $400.00/EA = $400.00
  Remove & Reconstruct Water Bar
   Motor Grader 14G 12 EA x $125.00/EA = $1,500.00

Subtotal: $1,900.00

Mobilization:
  Construction - 3.09% of total Costs = $124.17
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $124.17

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $4,547.14

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-28 Road Name:
Road Renovation: 0.87 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres	$0.00
Clearing:0.0 sta Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$2,034.13
Blading 0.87 mi	
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	$445.34
2300 Engineering: 0.00 sta.	$0.00
8000 Miscellaneous:	$400.00
Mobilization: Const. $80.83 Surf. $0.00.....	$80.83
Quarry Development:	$0.00
Total:	$2,960.31

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-28 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: $519.72/mi x 0.87 mi = $452.16
  Pull Ditches: $140.38/mi x 0.87 mi = $122.13
  Compaction: $1329.15/mi x 0.87 mi = $1,156.36
  Clean Culverts: $270.05/mi x 0.87 mi = $234.94
  Water for Compaction
   Water Truck 2000 Gal 0.87 hr x $78.78/hr = $68.54

Subtotal: $2,034.13

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 Medium: $556.68/acre x 0.80 acres = $445.34

Subtotal: $445.34

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:
  Remove & Reconstruct Log Barri
   Tractor: D6 with winch 1 EA x $400.00/EA = $400.00

Subtotal: $400.00

Mobilization:
  Construction - 2.01% of total Costs = $80.83
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $80.83

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $2,960.31

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-28.1 Road Name:
Road Renovation: 0.05 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $116.90
Blading 0.05 mi

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 $27.83

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $4.06 Surf. $0.00..... $4.06

Quarry Development: $0.00

Total: $148.80

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-28.1 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: $519.72/mi x 0.05 mi = $25.99
  Pull Ditches: $140.38/mi x 0.05 mi = $7.02
  Compaction: $1329.15/mi x 0.05 mi = $66.46
  Clean Culverts: $270.05/mi x 0.05 mi = $13.50
  Water for Compaction
   Water Truck 2000 Gal 0.05 hr x $78.78/hr = $3.94

Subtotal: $116.90

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 Medium: $556.68/acre x 0.05 acres = $27.83

Subtotal: $27.83

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.10% of total Costs = $4.06
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $4.06

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $148.80

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-28.2 Road Name:
Road Renovation: 0.36 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $841.71
Blading 0.36 mi

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 $167.00

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $28.32 Surf. $0.00..... $28.32

Quarry Development: $0.00

Total: $1,037.03

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-28.2 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: $519.72/mi x 0.36 mi = $187.10
  Pull Ditches: $140.38/mi x 0.36 mi = $50.54
  Compaction: $1329.15/mi x 0.36 mi = $478.49
  Clean Culverts: $270.05/mi x 0.36 mi = $97.22
  Water for Compaction
   Water Truck 2000 Gal 0.36 hr x $78.78/hr = $28.36

Subtotal: $841.71

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 Medium: $556.68/acre x 0.30 acres = $167.00

Subtotal: $167.00

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.70% of total Costs = $28.32
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $28.32

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $1,037.03

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-34 Road Name:
Road Renovation: 0.57 mi 16 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres	$0.00
Clearing:0.0 sta Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$1,332.71
Blading 0.57 mi	
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	$334.01
2300 Engineering: 0.00 sta.	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $46.79 Surf. $0.00.....	$46.79
Quarry Development:	$0.00
Total:	$1,713.50

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-34 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: $519.72/mi x 0.57 mi = $296.24
  Pull Ditches: $140.38/mi x 0.57 mi = $80.02
  Compaction: $1329.15/mi x 0.57 mi = $757.62
  Clean Culverts: $270.05/mi x 0.57 mi = $153.93
  Water for Compaction
   Water Truck 2000 Gal 0.57 hr x $78.78/hr = $44.90

Subtotal: $1,332.71

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 Medium: $556.68/acre x 0.60 acres = $334.01

Subtotal: $334.01

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 1.16% of total Costs = $46.79
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $46.79

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $1,713.50

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-7-35 Road Name:
Road Renovation: 1.82 mi 16 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
  Clearing:0.0 sta Grubbing:0.0 acres
  Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
  Culvert: 0 lf wt = 0 lbs factor = 1.2
  DownSpout: 0 lf
  PolyPipe: 0 lf

500 Renovation: $4,255.31
  Blading 1.82 mi

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 $1,002.02

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $147.59 Surf. $0.00..... $147.59

Quarry Development: $0.00

Total: $5,404.92

Notes:
  Quantities shown are estimates only and not pay items.
  Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-7-35 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: $519.72/mi x 1.82 mi = $945.89
  Pull Ditches: $140.38/mi x 1.82 mi = $255.49
  Compaction: $1329.15/mi x 1.82 mi = $2,419.05
  Clean Culverts: $270.05/mi x 1.82 mi = $491.49
  Water for Compaction
   Water Truck 2000 Gal 1.82 hr x $78.78/hr = $143.38

Subtotal: $4,255.31

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 Medium: $556.68/acre x 1.80 acres = $1,002.02

Subtotal: $1,002.02

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 3.67% of total Costs = $147.59
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $147.59

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $5,404.92

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-8-09.1 Road Name:
Road Renovation: 0.57 mi 17 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $1,332.71
Blading 0.57 mi

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 $334.01

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $46.79 Surf. $0.00..... $46.79

Quarry Development: $0.00

Total: $1,713.50

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-8-09.1 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: $519.72/mi x 0.57 mi = $296.24
  Pull Ditches: $140.38/mi x 0.57 mi = $80.02
  Compaction: $1329.15/mi x 0.57 mi = $757.62
  Clean Culverts: $270.05/mi x 0.57 mi = $153.93
  Water for Compaction
   Water Truck 2000 Gal 0.57 hr x $78.78/hr = $44.90

Subtotal: $1,332.71

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 Medium: $556.68/acre x 0.60 acres = $334.01

Subtotal: $334.01

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 1.16% of total Costs = $46.79
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $46.79

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $1,713.50

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-8-10 Road Name:
Road Renovation: 0.61 mi 16 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $1,426.23
Blading 0.61 mi

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 $334.01

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $49.41 Surf. $0.00..... $49.41

Quarry Development: $0.00

Total: $1,809.65

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-8-10 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: $519.72/mi x 0.61 mi = $317.03
  Pull Ditches: $140.38/mi x 0.61 mi = $85.63
  Compaction: $1329.15/mi x 0.61 mi = $810.78
  Clean Culverts: $270.05/mi x 0.61 mi = $164.73
  Water for Compaction
   Water Truck 2000 Gal 0.61 hr x $78.78/hr = $48.06

Subtotal: $1,426.23

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 Medium: $556.68/acre x 0.60 acres = $334.01

Subtotal: $334.01

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 1.23% of total Costs = $49.41
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $49.41

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $1,809.65

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-8-10.2 Road Name:
Road Renovation: 1.01 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $2,361.46
Blading 1.01 mi

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 $556.68

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $81.92 Surf. $0.00..... $81.92

Quarry Development: $0.00

Total: $3,000.06

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-8-10.2 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: $519.72/mi x 1.01 mi = $524.92
  Pull Ditches: $140.38/mi x 1.01 mi = $141.78
  Compaction: $1329.15/mi x 1.01 mi = $1,342.44
  Clean Culverts: $270.05/mi x 1.01 mi = $272.75
  Water for Compaction
   Water Truck 2000 Gal 1.01 hr x $78.78/hr = $79.57

Subtotal: $2,361.46

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 Medium: $556.68/acre x 1.00 acres = $556.68

Subtotal: $556.68

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 2.04% of total Costs = $81.92
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $81.92

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $3,000.06

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-8-11 Road Name:
Road Renovation: 1.53 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $3,577.26
Blading 1.53 mi

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 $835.02

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $123.87 Surf. $0.00..... $123.87

Quarry Development: $0.00

Total: $4,536.15

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-8-11 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: $519.72/mi x 1.53 mi = $795.17
  Pull Ditches: $140.38/mi x 1.53 mi = $214.78
  Compaction: $1329.15/mi x 1.53 mi = $2,033.60
  Clean Culverts: $270.05/mi x 1.53 mi = $413.18
  Water for Compaction
   Water Truck 2000 Gal 1.53 hr x $78.78/hr = $120.53

Subtotal: $3,577.26

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 Medium: $556.68/acre x 1.50 acres = $835.02

Subtotal: $835.02

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 3.08% of total Costs = $123.87
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $123.87

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $4,536.15

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-8-15.1 Road Name:
Road Renovation: 0.60 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $1,402.85
Blading 0.60 mi

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 $334.01

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $48.76 Surf. $0.00..... $48.76

Quarry Development: $0.00

Total: $1,785.61

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-8-15.1 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: $519.72/mi x 0.60 mi = $311.83
  Pull Ditches: $140.38/mi x 0.60 mi = $84.23
  Compaction: $1329.15/mi x 0.60 mi = $797.49
  Clean Culverts: $270.05/mi x 0.60 mi = $162.03
  Water for Compaction
   Water Truck 2000 Gal 0.60 hr x $78.78/hr = $47.27

Subtotal: $1,402.85

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 Medium: $556.68/acre x 0.60 acres = $334.01

Subtotal: $334.01

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 1.21% of total Costs = $48.76
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $48.76

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $1,785.61

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-8-22 Road Name:
Road Renovation: 1.58 mi 17 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $3,694.17
Blading 1.58 mi

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 $835.02

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $127.15 Surf. $0.00..... $127.15

Quarry Development: $0.00

Total: $4,656.33

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-8-22 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: $519.72/mi x 1.58 mi = $821.16
  Pull Ditches: $140.38/mi x 1.58 mi = $221.80
  Compaction: $1329.15/mi x 1.58 mi = $2,100.06
  Clean Culverts: $270.05/mi x 1.58 mi = $426.68
  Water for Compaction
   Water Truck 2000 Gal 1.58 hr x $78.78/hr = $124.47

Subtotal: $3,694.17

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 Medium: $556.68/acre x 1.50 acres = $835.02

Subtotal: $835.02

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 3.16% of total Costs = $127.15
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $127.15

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $4,656.33

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-8-22.3 Road Name:
Road Renovation: 1.47 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $3,436.98
Blading 1.47 mi

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: 1.4 acres $779.35

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $118.36 Surf. $0.00..... $118.36

Quarry Development: $0.00

Total: $4,334.69

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-8-22.3 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: $519.72/mi x 1.47 mi = $763.99
  Pull Ditches: $140.38/mi x 1.47 mi = $206.36
  Compaction: $1329.15/mi x 1.47 mi = $1,953.85
  Clean Culverts: $270.05/mi x 1.47 mi = $396.97
  Water for Compaction
   Water Truck 2000 Gal 1.47 hr x $78.78/hr = $115.81

Subtotal: $3,436.98

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 Medium: $556.68/acre x 1.40 acres = $779.35

Subtotal: $779.35

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 2.94% of total Costs = $118.36
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $118.36

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $4,334.69

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-8-23 Road Name:
Road Renovation: 0.46 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $1,075.52
Blading 0.46 mi

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 $222.67

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $36.44 Surf. $0.00..... $36.44

Quarry Development: $0.00

Total: $1,334.63

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-8-23 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: $519.72/mi x 0.46 mi = $239.07
  Pull Ditches: $140.38/mi x 0.46 mi = $64.57
  Compaction: $1329.15/mi x 0.46 mi = $611.41
  Clean Culverts: $270.05/mi x 0.46 mi = $124.22
  Water for Compaction
   Water Truck 2000 Gal 0.46 hr x $78.78/hr = $36.24

Subtotal: $1,075.52

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 Medium: $556.68/acre x 0.40 acres = $222.67

Subtotal: $222.67

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.91% of total Costs = $36.44
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $36.44

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $1,334.63

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-8-23.1 Road Name:
Road Renovation: 0.95 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $2,221.18
Blading 0.95 mi

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 $501.01

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $76.42 Surf. $0.00..... $76.42

Quarry Development: $0.00

Total: $2,798.61

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-8-23.1 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: $519.72/mi x 0.95 mi = $493.73
  Pull Ditches: $140.38/mi x 0.95 mi = $133.36
  Compaction: $1329.15/mi x 0.95 mi = $1,262.69
  Clean Culverts: $270.05/mi x 0.95 mi = $256.55
  Water for Compaction
   Water Truck 2000 Gal 0.95 hr x $78.78/hr = $74.84

Subtotal: $2,221.18

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 Medium: $556.68/acre x 0.90 acres = $501.01

Subtotal: $501.01

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 1.90% of total Costs = $76.42
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $76.42

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $2,798.61

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-8-25.1 Road Name:
Road Renovation: 0.55 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $1,285.94
Blading 0.55 mi

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 $278.34

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $43.91 Surf. $0.00..... $43.91

Quarry Development: $0.00

Total: $1,608.20

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-8-25.1 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: $519.72/mi x 0.55 mi = $285.85
  Pull Ditches: $140.38/mi x 0.55 mi = $77.21
  Compaction: $1329.15/mi x 0.55 mi = $731.03
  Clean Culverts: $270.05/mi x 0.55 mi = $148.53
  Water for Compaction
   Water Truck 2000 Gal 0.55 hr x $78.78/hr = $43.33

Subtotal: $1,285.94

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 Medium: $556.68/acre x 0.50 acres = $278.34

Subtotal: $278.34

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 1.09% of total Costs = $43.91
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $43.91

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $1,608.20

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-8-26 Road Name:
Road Renovation: 2.41 mi 17 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $5,634.77
Blading 2.41 mi

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: 2.3 acres $1,280.36

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $194.13 Surf. $0.00..... $194.13

Quarry Development: $0.00

Total: $7,109.26

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-8-26 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: $519.72/mi x 2.41 mi = $1,252.53
Pull Ditches: $140.38/mi x 2.41 mi = $338.32
Compaction: $1329.15/mi x 2.41 mi = $3,203.25
Clean Culverts: $270.05/mi x 2.41 mi = $650.82
Water for Compaction
Water Truck 2000 Gal 2.41 hr x $78.78/hr = $189.86

Subtotal: $5,634.77

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 Medium: $556.68/acre x 2.30 acres = $1,280.36

Subtotal: $1,280.36

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:

Construction - 4.82% of total Costs = $194.13
Surfacing - 0.00% by rock volume = $0.00

Subtotal: $194.13

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $7,109.26

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-8-26.1 Road Name:
Road Renovation: 0.92 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $2,551.03
Blading 0.92 mi

Surfacing: $1,157.67
Quarry Name: 4" Minus 20 cy

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 $501.01

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $118.18 Surf. $371.64..... $489.82

Quarry Development: $0.00

Total: $4,699.54

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-8-26.1 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: $519.72/mi x 0.92 mi = $478.14
Pull Ditches: $140.38/mi x 0.92 mi = $129.15
Compaction: $1329.15/mi x 0.92 mi = $1,222.82
Clean Culverts: $270.05/mi x 0.92 mi = $248.45
Const Rolling Dip (MP 0.83)
Motor Grader 14G 1 EA x $400.00/EA = $400.00
Water for Compaction
Water Truck 2000 Gal 0.92 hr x $78.78/hr = $72.48

Subtotal: $2,551.03

GP Vicinity Quarry Name: Commercial Source for 4" Minus
Comment: Rolling Dip

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									20cy

Rock Volume = 20cy
Royalty: $12.57/cy x 20cy = $251.40
Processing: $1.40/cy x 20cy = $28.00
Compaction: $0.79/cy x 20cy = $15.80
T27 Testing: $0.06/cy x 20cy = $1.20
Basic Rock Haul cost: $0.93/cy x 20cy = $18.60
Rock Haul -15% grades: $1.39/cy-mi x 20cy x 14.36 mi= $399.21
Rock Haul St& Co Roads: $0.62/cy-mi x 20cy x 34.10 mi= $422.84
Basic Water Haul cost: $0.61/cy x 20cy = $12.20
Water Haul -15% grades: $0.13/cy-mi x 20cy x 3.24 mi= $8.42

Subtotal: $1,157.67

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 Medium: $556.68/acre x 0.90 acres = $501.01

Subtotal: $501.01

Section 2300 Engineering:

Subtotal: $0.00

Road Number: 32-8-26.1 Continued

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
Construction - 2.94% of total Costs = $118.18
Surfacing - 100.00% by rock volume = $371.64

Subtotal: $489.82

Quarry Development:
Based on 100.00% of total rock volume

Subtotal: $0.00

Total: $4,699.54

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-8-28 Road Name:
Road Renovation: 0.58 mi 14 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $2,106.09
Blading 0.58 mi

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 $334.01

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $68.50 Surf. $0.00..... $68.50

Quarry Development: $0.00

Total: $2,508.59

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-8-28 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: $519.72/mi x 0.58 mi = $301.44
Pull Ditches: $140.38/mi x 0.58 mi = $81.42
Compaction: $1329.15/mi x 0.58 mi = $770.91
Clean Culverts: $270.05/mi x 0.58 mi = $156.63
Water for Compaction
Water Truck 2000 Gal 0.58 hr x $78.78/hr = $45.69
Remove & Reconstruct Water Bar
Motor Grader 14G 6 EA x $125.00/EA = $750.00

Subtotal: $2,106.09

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 Medium: $556.68/acre x 0.60 acres = $334.01

Subtotal: $334.01

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:

Construction - 1.70% of total Costs = $68.50
Surfacing - 0.00% by rock volume = $0.00

Subtotal: $68.50

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $2,508.59

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: 32-8-35.4 Road Name:
Road Renovation: 0.35 mi 20 ft Subgrade 3 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $0.00
Clearing:0.0 sta Grubbing:0.0 acres
Slash Treatment:0.0 acres

300 Excavation: $0.00

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $818.33
Blading 0.35 mi

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 $167.00

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $27.66 Surf. $0.00..... $27.66

Quarry Development: $0.00

Total: $1,012.99

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 32-8-35.4 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: $519.72/mi x 0.35 mi = $181.90
  Pull Ditches: $140.38/mi x 0.35 mi = $49.13
  Compaction: $1329.15/mi x 0.35 mi = $465.20
  Clean Culverts: $270.05/mi x 0.35 mi = $94.52
  Water for Compaction
   Water Truck 2000 Gal 0.35 hr x $78.78/hr = $27.57

Subtotal: $818.33

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 Medium: $556.68/acre x 0.30 acres = $167.00

Subtotal: $167.00

Section 2300 Engineering:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.69% of total Costs = $27.66
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $27.66

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $1,012.99

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: Temp Rd 14-1 Road Name:
Temporary Road: 0.15 mi 12 ft Subgrade 0 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $578.92
Clearing:8.2 sta Grubbing:0.4 acres
Slash Treatment:0.0 acres

300 Excavation: 401 cy $1,102.54

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $0.00

Surfacing: $0.00

1300 Geotextiles: $0.00

1400 Slope Protection: $0.00

1800 Soil Stabilization: 0.4 acres $208.86
Includes Small Quantity Factor of 1.42

1900 Cattleguards: $0.00

2100 RoadSide Brushing: 0.0 acres $0.00

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $500.00

Mobilization: Const. $67.10 Surf. $0.00..... $67.10

Quarry Development: $0.00

Total: $2,457.42

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: Temp Rd 14-1 Road Name:

Section 200 Clearing and Grubbing:
  Clearing - Medium: $30.57/sta x 8.17 sta = $249.76
  Grubbing - Medium: $822.91/acre x 0.40 acres = $329.16
Subtotal: $578.92

Section 300 Excavation:
  Excavation - Common: $1.72/cy x 401 cy = $689.72
  Layer Embankment - Common: $0.24/cy x 401 cy = $96.24
  Subgrade Compaction: 4 Sta/hr $18.88/sta. x 0.0 sta = $0.00
  Compaction - Common: $0.76/cy x 401 cy = $304.76
  Water for Compaction
   Water Truck 2000 Gal 0.15 hr x $78.78/hr = $11.82
Subtotal: $1,102.54

Section 400 Drainage:
Subtotal: $0.00

Section 500 Renovation:
Subtotal: $0.00

Surfacing:
Subtotal: $0.00

Section 1300 Geotextiles:
Subtotal: $0.00

Section 1400 Slope Protection:
Subtotal: $0.00

Section 1800 Soil Stabilization:
 Comment: NO fertilizer
  Dry Method with Mulch: $522.15/acre x 0.40 acres = $208.86
        Includes Small Quantity Factor of 1.42
Subtotal: $208.86

Section 1900 Cattleguards:
Subtotal: $0.00

Section 2100 Roadside Brushing:
Subtotal: $0.00

Section 2300 Engineering:
Subtotal: $0.00

Section 8000 Miscellaneous:
  Construct Barricade
   Tractor: D6 with winch 1 EA x $300.00/EA = $300.00
  Construct Water Bar
   Motor Grader 14G 2 EA x $100.00/EA = $200.00
Subtotal: $500.00

Mobilization:
  Construction - 1.67% of total Costs = $67.10
  Surfacing - 0.00% by rock volume = $0.00
Subtotal: $67.10

Total: $2,457.42

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: Temp Rd 23A Road Name:
Temporary Road: 0.27 mi 12 ft Subgrade 0 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $1,258.84
Clearing:14.3 sta Grubbing:1.0 acres
Slash Treatment:0.0 acres

300 Excavation: 1,800 cy $6,309.27

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $0.00

Surfacing: $0.00

1300 Geotextiles: $0.00

1400 Slope Protection: $0.00

1800 Soil Stabilization: 0.7 acres $365.50
Includes Small Quantity Factor of 1.42

1900 Cattleguards: $0.00

2100 RoadSide Brushing: 0.0 acres $0.00

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $700.00

Mobilization: Const. $242.37 Surf. $0.00..... $242.37

Quarry Development: $0.00

Total: $8,875.98

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: Temp Rd 23A Road Name:

Section 200 Clearing and Grubbing:
  Clearing - Medium: $30.57/sta x 14.26 sta = $435.93
  Grubbing - Medium: $822.91/acre x 1.00 acres = $822.91
Subtotal: $1,258.84

Section 300 Excavation:
  Excavation - Common: $1.72/cy x 1,000 cy = $1,720.00
  Excavation - Rippable: $3.46/cy x 800 cy = $2,768.00
  Layer Embankment - Common: $0.24/cy x 1,800 cy = $432.00
  Subgrade Compaction: 4 Sta/hr $18.88/sta. x 0.0 sta = $0.00
  Compaction - Common: $0.76/cy x 1,800 cy = $1,368.00
  Water for Compaction
   Water Truck 2000 Gal 0.27 hr x $78.78/hr = $21.27
Subtotal: $6,309.27

Section 400 Drainage:
Subtotal: $0.00

Section 500 Renovation:
Subtotal: $0.00

Surfacing:
Subtotal: $0.00

Section 1300 Geotextiles:
Subtotal: $0.00

Section 1400 Slope Protection:
Subtotal: $0.00

Section 1800 Soil Stabilization:
 Comment: NO fertilizer
  Dry Method with Mulch: $522.15/acre x 0.70 acres = $365.50
        Includes Small Quantity Factor of 1.42
Subtotal: $365.50

Section 1900 Cattleguards:
Subtotal: $0.00

Section 2100 Roadside Brushing:
Subtotal: $0.00

Section 2300 Engineering:
Subtotal: $0.00

Section 8000 Miscellaneous:
  Construct Barricade
   Tractor: D6 with winch 1 EA x $300.00/EA = $300.00
  Construct Water Bar
   Motor Grader 14G 4 EA x $100.00/EA = $400.00
Subtotal: $700.00

Mobilization:
  Construction - 6.02% of total Costs = $242.37
  Surfacing - 0.00% by rock volume = $0.00
Subtotal: $242.37

Total: $8,875.98

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: Temp Rd 27-2 Road Name:
Temporary Road: 0.60 mi 12 ft Subgrade 0 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $2,943.44
Clearing:31.7 sta Grubbing:2.4 acres
Slash Treatment:0.0 acres

300 Excavation: 3,390 cy $9,268.07

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $0.00

Surfacing: $0.00

1300 Geotextiles: $0.00

1400 Slope Protection: $0.00

1800 Soil Stabilization: 1.5 acres $783.22
Includes Small Quantity Factor of 1.42

1900 Cattleguards: $0.00

2100 RoadSide Brushing: 0.0 acres $0.00

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $1,798.04

Mobilization: Const. $415.27 Surf. $0.00..... $415.27

Quarry Development: $0.00

Total: $15,208.05

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: Temp Rd 27-2 Road Name:

Section 200 Clearing and Grubbing:
  Clearing - Medium: $30.57/sta x 31.68 sta = $968.46
  Grubbing - Medium: $822.91/acre x 2.40 acres = $1,974.98
Subtotal: $2,943.44

Section 300 Excavation:
  Excavation - Common: $1.72/cy x 3,390 cy = $5,830.80
  Layer Embankment - Common: $0.24/cy x 3,390 cy = $813.60
  Subgrade Compaction: 4 Sta/hr $18.88/sta. x 0.0 sta = $0.00
  Compaction - Common: $0.76/cy x 3,390 cy = $2,576.40
  Water for Compaction
   Water Truck 2000 Gal 0.60 hr x $78.78/hr = $47.27
Subtotal: $9,268.07

Section 400 Drainage:
Subtotal: $0.00

Section 500 Renovation:
Subtotal: $0.00

Surfacing:
Subtotal: $0.00

Section 1300 Geotextiles:
Subtotal: $0.00

Section 1400 Slope Protection:
Subtotal: $0.00

Section 1800 Soil Stabilization:
 Comment: NO fertiizer
  Dry Method with Mulch: $522.15/acre x 1.50 acres = $783.22
        Includes Small Quantity Factor of 1.42
Subtotal: $783.22

Section 1900 Cattleguards:
Subtotal: $0.00

Section 2100 Roadside Brushing:
Subtotal: $0.00

Section 2300 Engineering:
Subtotal: $0.00

Section 8000 Miscellaneous:
  Construct Barricade
   Tractor: D6 with winch 1 EA x $300.00/EA = $300.00
  Construct Water Bar
   Motor Grader 14G 10 EA x $100.00/EA = $1,000.00
  Decommission - Rip Road
   Tractor: D6 with winch 4 hr x $124.51/hr = $498.04
Subtotal: $1,798.04

Mobilization:
  Construction - 10.32% of total Costs = $415.27
  Surfacing - 0.00% by rock volume = $0.00
Subtotal: $415.27

Total: $15,208.05

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: Temp Rd 27-2A Road Name:
Temporary Road: 0.06 mi 12 ft Subgrade 0 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $261.18
Clearing:3.2 sta Grubbing:0.2 acres
Slash Treatment:0.0 acres

300 Excavation: 155 cy $426.33

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $0.00

Surfacing: $0.00

1300 Geotextiles: $0.00

1400 Slope Protection: $0.00

1800 Soil Stabilization: 0.1 acres $52.21
Includes Small Quantity Factor of 1.42

1900 Cattleguards: $0.00

2100 RoadSide Brushing: 0.0 acres $0.00

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $524.51

Mobilization: Const. $35.49 Surf. $0.00..... $35.49

Quarry Development: $0.00

Total: $1,299.73

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: Temp Rd 27-2A Road Name:

Section 200 Clearing and Grubbing:
  Clearing - Medium: $30.57/sta x 3.16 sta = $96.60
  Grubbing - Medium: $822.91/acre x 0.20 acres = $164.58
Subtotal: $261.18

Section 300 Excavation:
  Excavation - Common: $1.72/cy x 155 cy = $266.60
  Layer Embankment - Common: $0.24/cy x 155 cy = $37.20
  Subgrade Compaction: 4 Sta/hr $18.88/sta. x 0.0 sta = $0.00
  Compaction - Common: $0.76/cy x 155 cy = $117.80
  Water for Compaction
   Water Truck 2000 Gal 0.06 hr x $78.78/hr = $4.73
Subtotal: $426.33

Section 400 Drainage:
Subtotal: $0.00

Section 500 Renovation:
Subtotal: $0.00

Surfacing:
Subtotal: $0.00

Section 1300 Geotextiles:
Subtotal: $0.00

Section 1400 Slope Protection:
Subtotal: $0.00

Section 1800 Soil Stabilization:
 Comment: NO fertilizer
  Dry Method with Mulch: $522.15/acre x 0.10 acres = $52.21
        Includes Small Quantity Factor of 1.42
Subtotal: $52.21

Section 1900 Cattleguards:
Subtotal: $0.00

Section 2100 Roadside Brushing:
Subtotal: $0.00

Section 2300 Engineering:
Subtotal: $0.00

Section 8000 Miscellaneous:
  Construct Barricade
   Tractor: D6 with winch 1 EA x $300.00/EA = $300.00
  Construct Water Bar
   Motor Grader 14G 1 EA x $100.00/EA = $100.00
  Decommission - Rip Road
   Tractor: D6 with winch 1 hr x $124.51/hr = $124.51
Subtotal: $524.51

Mobilization:
  Construction - 0.88% of total Costs = $35.49
  Surfacing - 0.00% by rock volume = $0.00
Subtotal: $35.49

Total: $1,299.73

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: Temp Rd 27-5 Road Name:
Temporary Road: 0.16 mi 12 ft Subgrade 0 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $669.77
Clearing:8.5 sta Grubbing:0.5 acres
Slash Treatment:0.0 acres

300 Excavation: 905 cy $2,474.20

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $0.00

Surfacing: $0.00

1300 Geotextiles: $0.00

1400 Slope Protection: $0.00

1800 Soil Stabilization: 0.4 acres $208.86
Includes Small Quantity Factor of 1.42

1900 Cattleguards: $0.00

2100 RoadSide Brushing: 0.0 acres $0.00

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $749.02

Mobilization: Const. $115.15 Surf. $0.00..... $115.15

Quarry Development: $0.00

Total: $4,217.01

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: Temp Rd 27-5 Road Name:

Section 200 Clearing and Grubbing:
  Clearing - Medium: $30.57/sta x 8.45 sta = $258.32
  Grubbing - Medium: $822.91/acre x 0.50 acres = $411.46
Subtotal: $669.77

Section 300 Excavation:
  Excavation - Common: $1.72/cy x 905 cy = $1,556.60
  Layer Embankment - Common: $0.24/cy x 905 cy = $217.20
  Subgrade Compaction: 4 Sta/hr $18.88/sta. x 0.0 sta = $0.00
  Compaction - Common: $0.76/cy x 905 cy = $687.80
  Water for Compaction
   Water Truck 2000 Gal 0.16 hr x $78.78/hr = $12.60
Subtotal: $2,474.20

Section 400 Drainage:
Subtotal: $0.00

Section 500 Renovation:
Subtotal: $0.00

Surfacing:
Subtotal: $0.00

Section 1300 Geotextiles:
Subtotal: $0.00

Section 1400 Slope Protection:
Subtotal: $0.00

Section 1800 Soil Stabilization:
 Comment: NO fertilizer
  Dry Method with Mulch: $522.15/acre x 0.40 acres = $208.86
        Includes Small Quantity Factor of 1.42
Subtotal: $208.86

Section 1900 Cattleguards:
Subtotal: $0.00

Section 2100 Roadside Brushing:
Subtotal: $0.00

Section 2300 Engineering:
Subtotal: $0.00

Section 8000 Miscellaneous:
  Construct Barricade
   Tractor: D6 with winch 1 EA x $300.00/EA = $300.00
  Construct Water Bar
   Motor Grader 14G 2 EA x $100.00/EA = $200.00
  Decommission - Rip Road
   Tractor: D6 with winch 2 hr x $124.51/hr = $249.02
Subtotal: $749.02

Mobilization:
  Construction - 2.86% of total Costs = $115.15
  Surfacing - 0.00% by rock volume = $0.00
Subtotal: $115.15

Total: $4,217.01

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: Temp Rd 35-5 Road Name:
Temporary Road: 0.30 mi 12 ft Subgrade 0 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $518.98
Clearing:15.8 sta Grubbing:0.7 acres
Slash Treatment:0.0 acres

300 Excavation: 270 cy $734.40

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $0.00

Surfacing: $0.00

1300 Geotextiles: $0.00

1400 Slope Protection: $0.00

1800 Soil Stabilization: 0.7 acres $365.50
Includes Small Quantity Factor of 1.42

1900 Cattleguards: $0.00

2100 RoadSide Brushing: 0.0 acres $0.00

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $800.00

Mobilization: Const. $67.90 Surf. $0.00..... $67.90

Quarry Development: $0.00

Total: $2,486.78

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: Temp Rd 35-5 Road Name:

Section 200 Clearing and Grubbing:
  Clearing - Light: $15.28/sta x 15.84 sta = $242.04
  Grubbing - Light: $395.63/acre x 0.70 acres = $276.94
Subtotal: $518.98

Section 300 Excavation:
  Excavation - Common: $1.72/cy x 270 cy = $464.40
  Layer Embankment - Common: $0.24/cy x 270 cy = $64.80
  Subgrade Compaction: 4 Sta/hr $18.88/sta. x 0.0 sta = $0.00
  Compaction - Common: $0.76/cy x 270 cy = $205.20
Subtotal: $734.40

Section 400 Drainage:
Subtotal: $0.00

Section 500 Renovation:
Subtotal: $0.00

Surfacing:
Subtotal: $0.00

Section 1300 Geotextiles:
Subtotal: $0.00

Section 1400 Slope Protection:
Subtotal: $0.00

Section 1800 Soil Stabilization:
 Comment: NO fertilizer
  Dry Method with Mulch: $522.15/acre x 0.70 acres = $365.50
        Includes Small Quantity Factor of 1.42
Subtotal: $365.50

Section 1900 Cattleguards:
Subtotal: $0.00

Section 2100 Roadside Brushing:
Subtotal: $0.00

Section 2300 Engineering:
Subtotal: $0.00

Section 8000 Miscellaneous:
  Construct Barricade
   Tractor: D6 with winch 1 EA x $300.00/EA = $300.00
  Construct Water Bar
   Motor Grader 14G 5 EA x $100.00/EA = $500.00
Subtotal: $800.00

Mobilization:
  Construction - 1.69% of total Costs = $67.90
  Surfacing - 0.00% by rock volume = $0.00
Subtotal: $67.90

Quarry Development:
  Based on 0.00% of total rock volume
Subtotal: $0.00

Total: $2,486.78

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014
Road Number: Temp Rd 9-1 Road Name:
Temporary Road: 0.03 mi 12 ft Subgrade 0 ft ditch 5/1/2013

200 Clearing and Grubbing: 0.0 acres $130.59
Clearing:1.6 sta Grubbing:0.1 acres
Slash Treatment:0.0 acres

300 Excavation: 170 cy $462.40

400 Drainage: $0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2
DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $0.00

Surfacing: $0.00

1300 Geotextiles: $0.00

1400 Slope Protection: $0.00

1800 Soil Stabilization: 0.1 acres $52.21
Includes Small Quantity Factor of 1.42

1900 Cattleguards: $0.00

2100 RoadSide Brushing: 0.0 acres $0.00

2300 Engineering: 0.00 sta. $0.00

8000 Miscellaneous: $524.51

Mobilization: Const. $32.84 Surf. $0.00..... $32.84

Quarry Development: $0.00

Total: $1,202.55

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: Temp Rd 9-1 Road Name:

Section 200 Clearing and Grubbing:
  Clearing - Medium: $30.57/sta x 1.58 sta = $48.30
  Grubbing - Medium: $822.91/acre x 0.10 acres = $82.29
Subtotal: $130.59

Section 300 Excavation:
  Excavation - Common: $1.72/cy x 170 cy = $292.40
  Layer Embankment - Common: $0.24/cy x 170 cy = $40.80
  Compaction - Common: $0.76/cy x 170 cy = $129.20
Subtotal: $462.40

Section 400 Drainage:
Subtotal: $0.00

Section 500 Renovation:
Subtotal: $0.00

Surfacing:
Subtotal: $0.00

Section 1300 Geotextiles:
Subtotal: $0.00

Section 1400 Slope Protection:
Subtotal: $0.00

Section 1800 Soil Stabilization:
 Comment: NO fertilizer
  Dry Method with Mulch: $522.15/acre x 0.10 acres = $52.21
        Includes Small Quantity Factor of 1.42
Subtotal: $52.21

Section 1900 Cattleguards:
Subtotal: $0.00

Section 2100 Roadside Brushing:
Subtotal: $0.00

Section 2300 Engineering:
Subtotal: $0.00

Section 8000 Miscellaneous:
  Construct Barricade
   Tractor: D6 with winch 1 EA x $300.00/EA = $300.00
  Construct Water Bar
   Motor Grader 14G 1 EA x $100.00/EA = $100.00
  Decommission - Rip Road
   Tractor: D6 with winch 1 hr x $124.51/hr = $124.51
Subtotal: $524.51

Mobilization:
  Construction - 0.82% of total Costs = $32.84
  Surfacing - 0.00% by rock volume = $0.00
Subtotal: $32.84

Quarry Development:
  Based on 0.00% of total rock volume
Subtotal: $0.00

Total: $1,202.55

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Mobilization Costs - Construction and Surfacing

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014

Average Mobilization distance = 40 miles Factor = 0.83

Mobilization: Construction

Graders-all:	1 ea x (0.83 x $356.00/ea + 40 mi x $13.91/mi)=	$851.88
Brush Cutter:	1 ea x (0.83 x $356.00/ea) =	$295.48
Rollers & Comp:	1 ea x (0.83 x $356.00/ea + 40 mi x $15.10/mi)=	$899.48
Tractors <= D7:	1 ea x (0.83 x $522.00/ea + 40 mi x $29.75/mi)=	$1,623.26
Water Truck:	1 ea x (0.83 x $217.00/ea + 40 mi x $4.33/mi)=	$353.31

Subtotal: $4,023.41

Mobilization: Surfacing

Dump Truck >10cy: 1ea x (0.83 x $228.00/ea + 40 mi x $4.56/mi)= $371.64

Subtotal: $371.64

UNITED STATES
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BUREAU OF LAND MANAGEMENT

Summary of Construction Quantities

T.S. Contract Name: Rogue Cow Sale Date: 07/24/2014

Road Number	Const	Improv	Renov	Decomm	Temp
32-7-08			95.57		
32-7-17			14.78		
32-7-18			149.42		
32-7-18.3			64.94		
32-7-19.2			8.45		
32-7-19.4			6.86		
32-7-19.7			34.32		
32-7-19.8			84.48		
32-7-20.1			287.76		
32-7-21			23.23		
32-7-21.1			5.28		
32-7-21.2			149.42		
32-7-26.1			60.72		
32-7-28			45.94		
32-7-28.1			2.64		
32-7-28.2			19.01		
32-7-34			30.10		
32-7-35			96.10		
32-8-09.1			30.10		
32-8-10			32.21		
32-8-10.2			53.33		
32-8-11			80.78		
32-8-15.1			31.68		
32-8-22			83.42		
32-8-22.3			77.62		
32-8-23			24.29		
32-8-23.1			50.16		
32-8-25.1			29.04		

Road Number(Cont)	Const	Improv	Renov	Decomm	Temp
32-8-26			127.25		
32-8-26.1			48.58		
32-8-28			30.62		
32-8-35.4			18.48		
Temp Rd 14-1					8.17
Temp Rd 23A					14.26
Temp Rd 27-2					31.68
Temp Rd 27-2A					3.16
Temp Rd 27-5					8.45
Temp Rd 35-5					15.84
Temp Rd 9-1					1.58
Total Sta:			1,896.58		83.14

200 Clearing and Grubbing		Clearing stations	Grubbing acres	Slash acres
Temp Rd 14-1		8.17	0.4	0.0
Temp Rd 23A		14.26	1.0	0.0
Temp Rd 27-2		31.68	2.4	0.0
Temp Rd 27-2A		3.16	0.2	0.0
Temp Rd 27-5		8.45	0.5	0.0
Temp Rd 35-5		15.84	0.7	0.0
Temp Rd 9-1		1.58	0.1	0.0
	Totals:	83.14	5.3	0.0

300 Excavation		Excav C.Y.s	Haul sta-yds
Temp Rd 14-1		401	0
Temp Rd 23A		1,800	0
Temp Rd 27-2		3,390	0
Temp Rd 27-2A		155	0
Temp Rd 27-5		905	0
Temp Rd 35-5		270	0
Temp Rd 9-1		170	0
	Totals:	7,091	0

Water for Compaction Temp Rd 27-5
Water Truck 2000 Gal . . . . . 0.16 hr
Water for Compaction Temp Rd 27-2A
Water Truck 2000 Gal . . . . . 0.06 hr
Water for Compaction Temp Rd 27-2
Water Truck 2000 Gal . . . . . 0.60 hr
Water for Compaction Temp Rd 14-1
Water Truck 2000 Gal . . . . . 0.15 hr
Water for Compaction Temp Rd 23A
Water Truck 2000 Gal . . . . . 0.27 hr

400 Drainage

32-7-18	MP 2.37	Aluminized	18 inch 14 ga 30 lf

Continuation of Construction Quantities

500 Renovation	Miles	Slide cy
32-7-08	1.81	0
32-7-17	0.28	0
32-7-18	2.83	0
32-7-18.3	1.23	0
32-7-19.2	0.16	0
32-7-19.4	0.13	0
32-7-19.7	0.65	0
32-7-19.8	1.60	0
32-7-20.1	5.45	0
32-7-21	0.44	0
32-7-21.1	0.10	0
32-7-21.2	2.83	0
32-7-26.1	1.15	0
32-7-28	0.87	0
32-7-28.1	0.05	0
32-7-28.2	0.36	0
32-7-34	0.57	0
32-7-35	1.82	0
32-8-09.1	0.57	0
32-8-10	0.61	0
32-8-10.2	1.01	0
32-8-11	1.53	0
32-8-15.1	0.60	0
32-8-22	1.58	0
32-8-22.3	1.47	0
32-8-23	0.46	0
32-8-23.1	0.95	0
32-8-25.1	0.55	0
32-8-26	2.41	0
32-8-26.1	0.92	0
32-8-28	0.58	0
32-8-35.4	0.35	0
Totals:	35.92	0

Const Rolling Dip (MP 0.83) 32-8-26.1
Motor Grader 14G . . . . . 1 EA
Construct Ditchout 32-7-18
Motor Grader 14G (MP 0.41 & 0.47) . . . . . .5 hr
Hole in Road (MP 2.37) 32-7-18
Excavator 235B (1.75 CY) . . . . . 2 hr
Tamper – handheld . . . . . 3 hr
Remove & Reconstruct Water Bar 32-8-28
Motor Grader 14G . . . . . 6 EA
Water for Compaction 32-7-19.4
Water Truck 2000 Gal . . . . . 0.13 hr
Water for Compaction 32-7-26.1
Water Truck 2000 Gal . . . . . 1.15 hr
Water for Compaction 32-7-28
Water Truck 2000 Gal . . . . . 0.87 hr
Water for Compaction 32-7-21.2
Water Truck 2000 Gal . . . . . 2.83 hr
Water for Compaction 32-7-21.1
Water Truck 2000 Gal . . . . . 0.10 hr
Water for Compaction 32-7-21
Water Truck 2000 Gal . . . . . 0.44 hr
Water for Compaction 32-7-20.1
Water Truck 2000 Gal . . . . . 5.45 hr

Continuation of Construction Quantities

Water for Compaction 32-7-19.7
Water Truck 2000 Gal . . . . . 0.65 hr
Water for Compaction 32-7-34
Water Truck 2000 Gal . . . . . 0.57 hr
Water for Compaction 32-7-19.2
Water Truck 2000 Gal . . . . . 0.16 hr
Water for Compaction 32-7-18.3
Water Truck 2000 Gal . . . . . 1.23 hr
Water for Compaction 32-7-17
Water Truck 2000 Gal . . . . . 0.28 hr
Water for Compaction 32-7-18
Water Truck 2000 Gal . . . . . 2.83 hr
Water for Compaction 32-7-19.8
Water Truck 2000 Gal . . . . . 1.60 hr
Water for Compaction 32-8-22
Water Truck 2000 Gal . . . . . 1.58 hr
Water for Compaction 32-8-35.4
Water Truck 2000 Gal . . . . . 0.35 hr
Water for Compaction 32-8-28
Water Truck 2000 Gal . . . . . 0.58 hr
Water for Compaction 32-8-26.1
Water Truck 2000 Gal . . . . . 0.92 hr
Water for Compaction 32-8-26
Water Truck 2000 Gal . . . . . 2.41 hr
Water for Compaction 32-8-25.1
Water Truck 2000 Gal . . . . . 0.55 hr
Water for Compaction 32-8-23.1
Water Truck 2000 Gal . . . . . 0.95 hr
Water for Compaction 32-7-28.1
Water Truck 2000 Gal . . . . . 0.05 hr
Water for Compaction 32-8-22.3
Water Truck 2000 Gal . . . . . 1.47 hr
Water for Compaction 32-7-28.2
Water Truck 2000 Gal . . . . . 0.36 hr
Water for Compaction 32-8-15.1
Water Truck 2000 Gal . . . . . 0.60 hr
Water for Compaction 32-8-11
Water Truck 2000 Gal . . . . . 1.53 hr
Water for Compaction 32-8-10.2
Water Truck 2000 Gal . . . . . 1.01 hr
Water for Compaction 32-8-10
Water Truck 2000 Gal . . . . . 0.61 hr
Water for Compaction 32-7-08
Water Truck 2000 Gal . . . . . 1.81 hr
Water for Compaction 32-7-35
Water Truck 2000 Gal . . . . . 1.82 hr
Water for Compaction 32-8-09.1
Water Truck 2000 Gal . . . . . 0.57 hr
Water for Compaction 32-8-23
Water Truck 2000 Gal . . . . . 0.46 hr

Surfacing (Cubic Yards)

Quarry Name: Commercial Source for 4" Minus

GP Vicinity	Roadway	Turnouts	Other	
32-8-26.1	0	0	20	20
Totals:	0	0	20	20

1300 Geotextiles

Totals: No Quantities

1400 Slope Protection

Totals:	0

1800 Soil stabilization - acres	Dry W/O Mulch	Dry/with Mulch	Hydro Mulch
Temp Rd 14-1	0.0	0.4	
Temp Rd 23A	0.0	0.7	
Temp Rd 27-2	0.0	1.5	
Temp Rd 27-2A	0.0	0.1	
Temp Rd 27-5	0.0	0.4	
Temp Rd 35-5	0.0	0.7	
Temp Rd 9-1	0.0	0.1	
Totals:	0.0	3.9	0.0

Small Quantity Factor of 1.42 used

1900 Cattleguards

Totals: No Quantities

2100 RoadSide Brushing	acres
32-7-08	1.8
32-7-17	0.3
32-7-18	2.7
32-7-18.3	1.2
32-7-19.2	0.2
32-7-19.4	0.1
32-7-19.7	0.6
32-7-19.8	1.6
32-7-20.1	5.3
32-7-21	0.4
32-7-21.1	0.1
32-7-21.2	2.7
32-7-26.1	1.1
32-7-28	0.8
32-7-28.1	0.1
32-7-28.2	0.3
32-7-34	0.6
32-7-35	1.8
32-8-09.1	0.6
32-8-10	0.6
32-8-10.2	1.0
32-8-11	1.5
32-8-15.1	0.6
32-8-22	1.5
32-8-22.3	1.4
32-8-23	0.4
32-8-23.1	0.9
32-8-25.1	0.5
32-8-26	2.3
32-8-26.1	0.9
32-8-28	0.6
32-8-35.4	0.3
Totals:	34.8

2300 Engineering stations

Totals: 0.00

8000 Miscellaneous

Construct Barricade Temp Rd 9-1
Tractor: D6 with winch . . . . . 1 EA
Construct Barricade Temp Rd 27-5
Tractor: D6 with winch . . . . . 1 EA
Construct Barricade Temp Rd 27-2A
Tractor: D6 with winch . . . . . 1 EA
Construct Barricade Temp Rd 27-2
Tractor: D6 with winch . . . . . 1 EA
Construct Barricade Temp Rd 23A
Tractor: D6 with winch . . . . . 1 EA
Construct Barricade Temp Rd 14-1
Tractor: D6 with winch . . . . . 1 EA
Construct Barricade Temp Rd 35-5
Tractor: D6 with winch . . . . . 1 EA
Construct Water Bar Temp Rd 27-2
Motor Grader 14G . . . . . 10 EA
Construct Water Bar Temp Rd 9-1
Motor Grader 14G . . . . . 1 EA
Construct Water Bar Temp Rd 35-5
Motor Grader 14G . . . . . 5 EA
Construct Water Bar Temp Rd 27-2A
Motor Grader 14G . . . . . 1 EA
Construct Water Bar Temp Rd 23A
Motor Grader 14G . . . . . 4 EA
Construct Water Bar Temp Rd 14-1
Motor Grader 14G . . . . . 2 EA
Construct Water Bar Temp Rd 27-5
Motor Grader 14G . . . . . 2 EA
Decommission - Rip Road Temp Rd 9-1
Tractor: D6 with winch . . . . . 1 hr
Decommission - Rip Road Temp Rd 27-2A
Tractor: D6 with winch . . . . . 1 hr
Decommission - Rip Road Temp Rd 27-2
Tractor: D6 with winch . . . . . 4 hr
Decommission - Rip Road Temp Rd 27-5
Tractor: D6 with winch . . . . . 2 hr
Remove & Reconstruct Barricade 32-7-26.1
Tractor: D6 with winch . . . . . 1 EA
Remove & Reconstruct Log Barri 32-7-28
Tractor: D6 with winch . . . . . 1 EA
Remove & Reconstruct Water Bar 32-7-26.1
Motor Grader 14G . . . . . 12 EA

Sale: Rogue Cow
Sale Date: 07/24/2014
Prep. By : E.Freeman
Tract No: TS14-13

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ROAD MAINTENANCE AND ROAD USE APPRAISAL WORK SHEET

Summary of Costs

1) Road Use - Amortization: (1) $27511.41/8821 MBF = $3.12/MBF 1/
(R-3b) (Tot Sale Vol)

---

2) Road Maintenance Obligation:

$42479.10	+	$0.00	+	$2949.72	+	$4718.87	=	$50147.69
(2.1)		(3.1)		(3.2)		(5.1)		(R-2)

3) Other Maintenance Payments:

$0.00
(4.1)

4). Purchaser Maintenance Allowances:

(5.2A) Move In	$0.00
(5.2B) Culverts, Catch Basins, Downspouts	$0.00
(5.2C) Grading, Ditching	$0.00
(5.2D) Slide Removal and Slump Repair	$0.00
(5.2E) Dust Palliative (Water)	$0.00
(5.2F) Surface Repair (Aggregate)	$0.00
(5.2G) Other	$0.00

Total (5.2) = $0.00
(R-2 & Ex. D)

2)+3)+4) Total = $50,147.69/8821 MBF = $5.69/MBF 1/
(Total Sale Vol)

Costs are estimates only and do not include Profit and Risk.
1/ Enter on Timber Sale Summary Form OSO 5420-1.

OR110-9113-1

File T:\GP-GL\ENGINEERING\Timber Sales\2014 TS\Douglas Complex Fire Salvage TS\Rogue Cow T.S\Exhibit C\XC Appraisal\Rogue Cow Appriasal - Revised.mdb

1) Road Use Fees - Amortization

R/W Number	Road Number	Rd Use Fee	x	Vol MBF	=	Road Use Obligation
M-605A	32-7-26.1 (A)	2.00		2731		$5462.00
M-605A	32-7-26.1 (B)	3.00		662		$1986.00
M-605A	32-7-35.0 (B)	1.47		2731		$4014.57
M-605A	32-7-35.0 (C)	3.79		2731		$10350.49
M-700	32-8-11.0 (B)	3.53		395		$1394.35
M-605A	32-8-22.3 (A)	2.00		592		$1184.00
M-605	32-8-22.3 (C)	3.00		592		$1776.00
M-605	32-8-28.0 (A)	3.00		448		$1344.00

(1.1) Subtotal $27511.41

2) BLM Maintenance - Timber Haul 1/ 2/

Road Number and Segment	A N	Surf Type	Mi	Maint x Fee	x	Vol MBF	=	Total Maint
33-7-2.0 (A)	A	BST	1.01	0.71		8821		$6325.54
33-7-2.0 (A)	A	BST	2.35	0.71		6090		$10161.17
33-7-2.0 (A)	A	BST	1.01	0.71		5881		$4217.27
33-7-2.0 (A)	A	BST	0.72	0.71		5803		$2966.49
33-7-2.0 (A)	A	BST	2.33	0.71		4615		$7634.59
33-7-2.0 (B)	A	BST	2.47	0.71		719		$1260.91
30-6-32.0	A	BST	0.30	0.71		719		$153.15
32-8-1.1 (A)	A	BST	0.87	0.71		719		$444.13
32-8-1.1 (A)	A	BST	1.52	0.71		324		$349.66
32-8-1.1 (A)	A	BST	0.08	0.71		156		$8.86
32-8-24.0 (A)	A	BST	0.48	0.71		17		$5.79
32-8-24.0 (A)	A	BST	1.51	0.71		812		$870.55
32-8-24.0 (A)	A	BST	0.44	0.71		885		$276.47
32-8-24.0 (A)	A	BST	0.80	0.71		903		$512.90
32-8-24.0 (A)	A	BST	0.53	0.71		1778		$669.06
32-7-19.3 (A)	A	BST	0.58	0.71		3483		$1434.30
32-7-19.3 (B)	A	BST	0.66	0.71		1705		$798.96
32-7-19.3 (B)	A	BST	3.04	0.71		1325		$2859.88
32-7-19.3 (B)	A	BST	1.04	0.71		649		$479.22
32-7-19.3 (B)	A	BST	0.79	0.71		448		$251.28
32-8-24.1 (A1)	A	ASC	1.36	1.25		310		$527.00
32-8-24.1 (A1)	A	ASC	0.44	1.25		227		$124.85
32-8-24.1 (A1)	A	ASC	0.65	1.25		181		$147.06

(2.1) Subtotal $42479.10

1/ Rockwear is included in fee as a maintenance cost for BLM maintained roads.
2/ Include lump sum logging damage repair

3) Third Party Maintenance and Rockwear

Agrmnt Number	Road Number	MAINTENANCE (3.1) Mi	x	Fee	x	MBF =	Maint	ROCKWEAR (3.2) 1/ 2/ Fee	x	MBF =	Rkwear
M-605	32-8-10.2 (A)	0.44						0.49		156	$33.63
M-605	32-7-34.0 (A2)	0.44						0.49		2731	$588.80
M-605A	32-7-35.0 (C)	0.80						0.49		2731	$1070.55
M-605A	32-7-35.0 (B)	0.38						0.49		2731	$508.51
M-605A	32-7-34.0 (A1)	0.10						0.49		2731	$133.82
M-605A	32-7-28.1	0.05						0.49		72	$1.76
M-605A	32-7-28.0 (B)	0.49						0.49		129	$30.97
M-605A	32-7-28.0 (A)	0.38						0.49		209	$38.92
M-605A	32-7-19.7 (A-C)	0.61						0.49		417	$124.64
M-605A	32-7-19.2 (A)	0.15						0.49		417	$30.65
M-605A	32-7-18.3 (A)	0.73						0.49		112	$40.06
M-700	32-8-11.0 (B)	1.55						0.49		395	$300.00
M-700	32-8-10.2 (B)	0.62						0.49		156	$47.39

(3.1) Subtotal $0.00 (3.2) Subtotal $2949.72

1/ Rockwear is included in fee as a maintenance cost for BLM maintained roads.
2/ Include lump sum logging damage repair

4) Other Maintenance Payments - USFS or Others Perform Maintenance

Agency	Road Number	Fee MBF/Mi	x	Mi =	Fee /MBF	x	Vol Hauled =	Maint Cost

(4.1) Subtotal $0.00

5) Purchaser Maintenance - Rock Wear

TIMBER HAUL (5.1)/1/2

Road No 1/ and Segment	A N	Mi	RkWear x Fee x	Vol MBF =	Total RkWear
32-8-09.1 (A-C)	N	0.58	0.49	156	$44.34
32-7-08.0 (A)	N	0.27	0.49	71	$9.39
32-7-18.0 (A1)	N	1.18	0.49	50	$28.91
32-7-18.0 (A2)	N	0.98	0.49	50	$24.01
32-7-18.0 (B)	N	0.20	0.49	162	$15.88
32-7-08.0 (A)	N	1.54	0.49	194	$146.39
32-7-18.0 (B)	N	0.35	0.49	201	$34.47
32-7-18.0 (B)	N	0.55	0.49	277	$74.65
32-7-18.0 (A2)	N	0.35	0.49	298	$51.11
32-7-18.0 (A2)	N	0.35	0.49	324	$55.57
32-7-18.0 (A1)	N	1.11	0.49	518	$281.74
32-7-20.1 (B)	A	0.83	0.49	376	$152.92
32-7-20.1 (A)	A	0.25	0.49	894	$109.52
32-7-20.1 (A)	A	2.56	0.49	1006	$1261.93
32-7-20.1 (A)	A	1.77	0.49	1188	$1030.35
32-7-19.4	A	0.12	0.49	91	$5.35
32-7-17.0	A	0.28	0.49	78	$10.70
32-7-21.2	N	2.83	0.49	78	$108.16
32-7-21.1	A	0.10	0.49	78	$3.82
32-7-21.0 (A)	A	0.44	0.49	78	$16.82
32-7-35.0 (A)	N	0.50	0.49	2731	$669.10
32-8-10.0	A	0.61	0.00	168	$0.00
32-8-15.1	N	0.60	0.00	13	$0.00
32-8-22.0	N	1.15	0.00	13	$0.00
32-8-22.0	A	0.43	0.00	84	$0.00
32-8-23.0	A	0.34	0.00	46	$0.00
32-8-26.1	A	0.36	0.00	12	$0.00
32-8-26.1	A	0.57	0.00	181	$0.00
32-8-35.4	A	0.34	0.00	169	$0.00
32-8-26.0	A	2.41	0.49	181	$213.74
32-8-25.1	N	0.35	0.49	61	$10.46
32-8-25.1	N	0.24	0.49	363	$42.69
32-7-19.8	N	0.63	0.49	384	$118.54
32-7-19.8	N	0.98	0.49	413	$198.32

(5.1) Subtotal $4718.87

1/ All surfaced roads have a rockwear fee which includes an allowance for rock haul
2/ Include lump sum logging damage repair

Purchaser Operational Maintenance

Cost allowances must be limited to work required under timber sale Exhibit D.
If purchaser maint. such as dust control/damage repair is performed on BLM maint. roads, add appropriate mandatory Ex. D provisions. Note in prospectus.

Move In

Equipment 1/	No Units x	Move in x	Cost/ 50 Mi x	Dist Factor =	Sub-total
Motor Grader:			$356.00	0.59	$0.00
Back Hoe:			$356.00	0.59	$0.00
Loader:			$356.00	0.59	$0.00
Water Truck:			$217.00	0.59	$0.00
Dump Truck 2/:			$228.00	0.59	$0.00

(5.2A) Total $0.00

1/ Equipment limited to that allowed in Exhibit D.

Culvert Maintenance - Including Catchbasins and Downpipes 1/

Miles	x	Cost/Mi	=	Subtotal
		270.05		$0.00

(5.2B) Total $0.00

1/ Does not include purchase or installation of culvert pipe.

Grading (Includes Ditches and Shoulders) 1/

	Miles	x	Cost/Mi	x Freq	= Subtotal
Blade Road:	0.00		519.72	0	$0.00
Blade Ditch:	0.00		140.38	0	$0.00

(5.2C) Total $0.00

1/ Watch for double allowance on roadway preparation for dust palliative application.

Slide and Slough removal, Slump Repair (15 sta-yds. ea.) 1/

Type Equipment	No Slides /Slumps	x	Hours Each	x	Equip Cost	= Subtotal
Grader:	0		0		139.10	$0.00
Loader:	0		0		91.63	$0.00
Backhoe:	0		0		66.05	$0.00

(5.2D) Total $0.00

1/ Maximum haul is 15 sta. yds. Use grader or front end loader only.

Dust Palliative (Water) 1/

Spreading Hours

Miles	/	MPH	=	Hours	x	No Days	x	Freq /Day	=	Truck Hours
0.00		0				0		0		0
Load & Haul =				0.0		0		0		0
							Total Hours =			0

Truck Cost: $86.64/Hr. x 0.0 Hours = $0.00

(5.2E) Total $0.00

1/ Allow water for all BLM maintaintained non-oiled roads.

Surface Repair (Aggregate)

Production Cost:	0 C.Y.	x $0.00/C.Y.		=	$0.00
Haul to Stockpile:	0 C.Y.	x $3.72/C.Y.	x 0.00 Mi	=	$0.00
Stockpile:	0 C.Y.	x $1.26/C.Y.		=	$0.00
Load from Stockpile:	0 C.Y.	x $1.39/C.Y.		=	$0.00
Haul from Stockpile:	0 C.Y.	x $3.72/C.Y.	x 0.00 Mi	=	$0.00
Process with Grader:	0 C.Y.	x $1.40/C.Y.		=	$0.00

(5.2F) Total $0.00

Other

Fallen Timber Cutting: 1/	0.0 Hours x $0.00/Hour = $0.00
Brush Cutting/Tree Trimming: 2/	0.0 Hours x $0.00/Hour = $0.00
Oil/Asphalt Materials: 3/	Lump Sum = $0.00
Signing for Dust Palliatives: 4/	Lump Sum = $0.00
	Lump Sum = $0.00
	Lump Sum = $0.00
	Lump Sum = $0.00

(5.2G) Total $0.00

1/ Exhibit D Subsection 3104.
2/ Exhibit D Subsection 3107.
3/ Exhibit D Subsection 3401.
4/ Exhibit D Subsection 3405b.

Form 5440-9
(December 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

DEPOSIT AND BID FOR [X] **TIMBER*** [ ] **VEGETATIVE RESOURCE (Other Than Timber)**

SCALE SALE

Name of Bidder	
Tract Number	ORM07-TS14-13
Sale Name	Rogue Cow Salvage
Sale Notice *(dated)*	6/25/2014
BLM District	Medford

	Sealed Bid for Sealed Bid Sale	X	Written Bid for Oral Auction Sale

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 **$83,500.00** 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	6,685	X	=	X	=
Ponderosa Pine	MBF	1,005	X	=	X	=
Sugar Pine	MBF	942	X	=	X	=
Incense Cedar	MBF	189	X	=	X	=
Total		**8,821**	X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
TOTAL PURCHASE PRICE						

(Continued on reverse)

If sale contract is executed, undersigned is liable for total purchase price even though the quantity cut, removed, or designated

for taking is more or less than the total estimated volume or quantity shown above. Undersigned certifies bid was arrived at by bidder or offeror independently, and was tendered without collusion with any other bidder or offeror. In submitting or confirming this bid, undersigned agrees to the foregoing provisions, applicable regulations, and certifies that he is authorized to act as, or on behalf of, the bidder.

Bid submitted on *(date)*

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

☐ Signature, if firm is individually owned	Name of firm *(type or print)*
☐ Signatures, if firm is a partnership or L.L.C.	Business address, include zip code *(type or print)*
☐ Corporation organized under the state laws of	*(To be completed following oral bidding)* I HEREBY confirm the above oral bid By *(signature)*
Signature of Authorized Corporate Signing Officer	
Title	Date

Submit bid, in *duplicate*, to qualify for either an oral auction or sealed bid sale together with the required bid deposit made payable to the Department of the Interior – BLM. Oral Auction – Submit to Sales Supervisor prior to closing of qualifying period for tract.	Sealed Bid – Send to District Manager, who issued the sale notice, in a sealed envelope marked on the outside: (1) "Bid for Timber" (2) Vegetative Resource Other Than Timber (3) Time bids are to be opened (4) Legal description

NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 38 FR 6280 and 43 CFR 5442.1

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

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

EFFECT OF NOT PROVIDING INFORMATION: Filing this deposit and bid information is necessary only when an individual wishes to participate in a sealed or auction bid sale for timber or vegetative resources.

INSTRUCTIONS TO BIDDERS

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

2. *QUALIFICATIONS OF BIDDERS* – A bidder for sale of timber/vegetative resources must be either (a) a citizen of the United States, (b) a partnership composed wholly of such citizens, (c) an unincorporated association composed wholly of such citizens, or (d) a corporation authorized to transact business in the State in which the timber/vegetative resource is located.

3. *INSPECTION OF TIMBER/VEGETATIVE RESOURCES* – Bidder is invited, urged, and cautioned to inspect the timber/vegetative resource prior to submitting a bid. By executing the timber/vegetative resource sale contract, bidder warrants that the contract is accepted on the basis of his examination and inspection of the timber/vegetative resource and his opinion of its value.

4. *DISCLAIMER OF WARRANTY* – Government expressly disclaims any warranty of the fitness of the designated timber/vegetative resource for any purpose of the bidder; all timber/vegetative resources are to be sold "As Is" without any warranty of merchantability by Government. Any warranty as to the quantity or quality of timber/vegetative resource to be sold is expressly disclaimed by Government.

5. *BIDS* – Sealed or written bids for not less than the advertised appraised price, per timber/vegetative resource must be submitted in duplicate to the District Manager who issued *Timber/Vegetative Resource Sale Notice*.

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

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

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

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

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

(a) *Lump Sum Sales* – Bids shall specify (1) Bureau of Land Management estimated volume, (2) price per unit, and (3) total purchase price. Estimated volume and price per unit are to be used for administrative and appraisal purposes only. Upon award of contract, high bidder shall be liable for total purchase price, including any adjustment which may be made as a result of reappraisal if an extension of time is granted, even though quantity of timber/vegetative resource actually cut, removed, or designated for taking is more or less than the estimated volume or quantity listed.

(b) *Timber Scale Sales* – Bids must state price per thousand board feet that will be paid for each species. High bidder will be determined by multiplying bid price per thousand board feet per species by Bureau of Land Management estimate of volume of each species. Purchaser shall be liable for purchase price of all merchantable timber sold under contract even though all such timber is not actually cut and removed prior to expiration of time for cutting and removal as specified in contract.*

7. *BID DEPOSIT* – All bidders must make a deposit of not less than the amount specified in the *Timber/Vegetative Resource Notice*. Deposit may be in the form of cash, money orders, bank drafts, cashiers or certified checks made payable to the Department of the Interior – BLM, bid bonds of a corporate surety shown on the approved list of the United States Treasury Department*, or any approved guaranteed remittance approved by the Authorized Officer. Upon conclusion of bidding, the bid deposit of all bidders, except high bidder, will be returned. The cash deposit of the successful bidder may be applied toward the required sale deposit and/or the purchase price. Cash not applied to the sale deposit or the purchase price, or a corporate surety bid bond, will be returned at the time the contract is signed by the Government.

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

9. *TIMBER/VEGETATIVE RESOURCE SALE CONTRACT* – To be executed by purchaser, has been prepared by Government, and may be examined in the District Manager's office.

10. *PERFORMANCE BOND* -

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

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

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

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

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

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

**Applies to Timber Only*

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

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

17. *LOG EXPORT* – All timber offered for sale except as noted in the *Timber Sale Notice* is restricted from export from the United States in the form of unprocessed timber and cannot be used as a substitute for exported private timber. For the purpose of this contract, unprocessed timber is defined as: (1) any logs except those of utility grade or below, such as sawlogs, peeler logs, and pulp logs; (2) cants or squares to be subsequently remanufactured exceeding eight and three quarters (8-3/4) inches in thickness; (3) split or round bolts or other roundwood not processed to standards and specifications suitable for end product use; or (4) western red cedar lumber which does not meet lumber of American Lumber Standards Grades of Number 3 dimension or better, or Pacific Lumber Inspection Bureau R-List Grades of Number 3 common or better. Timber manufactured into the following will be considered processed: (1) lumber and construction timbers, regardless of size, manufactured to standards and specifications suitable for end product uses; (2) chips, pulp and pulp products; (3) green or dry veneer and plywood; (4) poles and piling cut or treated for use as such; (5) cants, squares, and lumber cut for remanufacture of eight and three quarters (8-3/4) inches in thickness or less; or (6) shakes and shingles. In event purchaser wishes to sell any or all of timber restricted from export in the form of unprocessed timber, the buyer, exchanges, or recipient shall be required to comply with contractual provisions relating to "*unprocessed timber*". Special reporting, branding and painting of logs may be included in contract provisions.*

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

*U.S. GOVERNMENT PRINTING OFFICE: 1993-839-310