P R O S P E C T U S

<u>THIS IS A SCALE SALE**</u>**

ASHLAND RESOURCE AREA
JACKSON MASTER UNIT

Medford Sale #ORM06-TS16-16
September 22, 2016 (DN)

#4 <u>Nedsbar Timber Sale</u>, Jackson County, O&C. BID DEPOSIT REQUIRED: $46,300.00

All timber designated for cutting in W ½ NE ¼, NW ¼, Sec. 17, SE ¼, Sec. 20, W ½ SW ¼, Sec. 21, W ½ NE ¼, NW ¼, N ½ SW ¼, SW ¼ SW ¼, Sec. 28, E½ NE ¼, SW ¼ NE ¼, SE ¼, Sec. 29, T. 39 S., R. 01 W.; Lot 3, Lot 4, S ½ NE ¼, S ½ NW ¼, N ½ SE ¼, Sec. 25, Lot 1, SE ¼ NE ¼ , S ½ SE ¼, Sec. 26, NE ¼ NE ¼ Sec. 34, Lot 1, N ½ NE ¼, SE ¼ NE ¼, NE ¼ NW ¼, Sec. 35, SW ¼ NW ¼, W ½ SW ¼, Sec. 36, T. 39 S., R. 02 W.; SE ¼ SE ¼, Sec. 10, W ½ NW ¼, NW ¼ SW ¼, Sec. 14, NE ¼, N ½ SE ¼, Sec. 15, Lot 3, Lot 8, Sec. 25, Lot 7, SE ¼ NE ¼, Sec. 26, S ½ NE ¼, SE ¼ NW ¼, NE ¼ SW ¼, S ½ SW ¼, SE ¼, Sec. 27, S ½ SE ¼, Sec. 28, N ½ NE ¼, SE ¼ NE ¼, Sec. 33, NE ¼ NE ¼, NW ¼, Sec. 34, Lot 1, Lot 3, NE ¼, E ½ NW ¼, NE ¼ SW ¼, Sec. 35, E ½ SW ¼ Sec. 36, T. 39 S., R 03 W., W.M. Oregon.

Approx. Number Merch. Trees	Est. Volume MBF 32' Log	Species	Est. Volume MBF 16' Log	Appr. Price Per MBF*	Est. Volume Times Appraised Price
31,770	2,864	Douglas-fir	3,366	$68.00	$228,956.00
479	57	Ponderosa Pine	74	$28.20	$2,058.60
32,249	**2,921**	**Totals**	**3,440**		**$231,014.60**

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

**Minimum stumpage values were used to compute the appraised price (10% of pond value).

<u>TIMBER AUCTION LOCATION</u> – The timber auction will be held at the Medford Interagency Office, located at 3040 Biddle Road, Medford, Oregon, at 9:00 a.m. on Thursday, September 22, 2016.

Bidders will be restricted to bidding on a unit (MBF) rate of the Douglas-fir volume. All other species will be sold at appraised price per unit (MBF). The minimum bid increment will be $0.10 per MBF.

<u>CRUISE INFORMATION</u> – All tree species in units other than Group Select have been cruised using the Plot Cruise PCMTRE method. The sample trees have been measured, and the volume expanded to a total unit volume. All tree species Group Select units have been cruised using the 100% Cruise method. These numbers were then combined for a total sale volume. With respect to merchantable trees of all conifer species: the average tree is 12.8 inches DBHOB; the average gross merchantable log contains 39 bd. ft.; the total gross volume is approximately 2,921 M bd. ft.; and 81% recovery is expected. (Average DF is 12.7 inches DBHOB; average gross merchantable log DF contains 39 bd. ft.).

Bidders will be restricted to bidding on a unit (MBF) rate of the Douglas-fir volume. All other

species will be sold at appraised price per unit (MBF). The minimum bid increment will be $0.10 per MBF.

LOG EXPORT AND SUBSTITUTION RESTRICTIONS - All timber sold to the Purchaser under the terms of the contract, except exempted species, is restricted from export from the United States in the form of unprocessed timber and is prohibited from use as a substitute for exported private timber.

The 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 – 33 unit(s) containing 611 acres may be cut.

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

ACCESS – Access to the sale area is available via public road through the contract area, existing BLM and USFS roads. USFS Road Use Agreements as shown in Section 42(C)(12). Among other conditions, these agreements require payment of rock wear fees.

ROAD MAINTENANCE - The Purchaser will be required maintain 9.24 miles of existing roads listed in Section 42(C)(5). BLM will maintain 26.12 miles of roads listed in Section 42(C)(4). The Purchaser will be required to pay a road maintenance fee of $0.97 per thousand board foot log scale per mile for the use of roads listed in Section 42(C)(4). The Purchaser will be required to pay a rockwear fee of $0.49 per MBF per mile for the use of rocked surfaced roads listed in Section 42(C)(4) and Section 42(C)(5).

ROAD CONSTRUCTION - The Purchaser will be required to construct 0.98 miles of temporary road.

SOIL DAMAGE PREVENTION - Pursuant to Section 26 of Form 5450-3, Timber Sale Contract, the Purchaser shall not operate or cause to have operated on the contract area any tractor-type logging equipment when soil moisture content is high as determined by the Authorized Officer. The Purchaser shall construct motor vehicle barricades on all primary skid roads which intersect any haul roads; water bar and decommission all skid roads; and mulch and seed fill slopes on the newly constructed landings fill slope.

EQUIPMENT REQUIREMENTS - LOGGING: 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.

SLASH DISPOSAL - Slash disposal will consist of hand piling slash within units, mechanically piling slash at landings, and covering piles.

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, or protection through survey and manage and/or protection buffers in accordance with the Standards and Guidelines of the Medford District Record of Decision (ROD) and Resource Management Plan (RMP). This contract provision limits

the liability of the Government to the actual costs incurred by the Purchaser which have not been amortized by timber removed from the contract area.

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

OTHER -

1. No extension of time beyond the normal 30 days will be granted for completing bonding and contract signing requirements.
2. BLM haul roads and harvest operations are seasonally restricted. Some variations of the restricted dates are possible depending on weather conditions.
3. The Purchaser will be required maintain 9.24 miles of existing roads listed in Section 41(C)(5) **prior** to any timber haul. Required Maintenance is specified under the terms of Exhibit D-2, "Road Maintenance Specifications – Operational Maintenance - Section 3100".
4. In the construction of helicopter landing in Section 10, Township 39 South, Range 3 West, the Purchaser shall comply with the conditions of Easement No. OR 068411 dated December 28, 2015 between the United States and the easement Grantor. These conditions include felled trees of commercial value to be bucked into standard lengths and decked adjacent to the right-of-way. This document is available for inspection at the Bureau of Land Management, Medford District Office, 3040 Biddle Road, Medford, Oregon 97504.

DESCRIPTION OF HOW TO GET TO THE SALE AREA -

East side: From Medford Oregon, take I-5 S for 8.1 miles to exit 21/W Valley View Rd. At the traffic circle, take the 1st exit onto E Main St 0.5 miles. Turn left onto W Main St for 223 feet, continue onto Wagner Creek Rd, continue onto Wagner Creek Rd 7.3 miles, turn left onto NF-22 1.5 miles, turn right onto NF-2040 1.4 miles, turn right onto NF-2250, keep right 2.0 miles to access units via the 39-1-32 road.

East Side Section 17 units: From Medford Oregon, take I-5 S for 8.1 miles to exit 21/W Valley View Rd. At the traffic circle, take the 1st exit onto E Main St 0.5 miles. Turn left onto W Main St for 223 feet, continue onto Wagner Creek Rd 1.2 miles. Turn right onto Anderson Creek Rd 7.1 miles

Central area:

From Medford Oregon, follow Hwy 238W 9.3 miles, turn left on Upper Applegate Road 2.8 miles, turn left on Little Applegate Road 7.8 miles, access units in this area via the 39-2-27 and 39-2-28 roads.

Central area units 25-22 and 25-23: From Medford Oregon, follow Hwy 238W 9.3 miles, turn left on Upper Applegate Road 2.8 miles, turn left on Little Applegate Road 10.3 miles, access units via 39-1-33 road.

West Side:

From Medford Oregon, follow Hwy 238W 9.3 miles, turn left on Upper Applegate Road 4.4,turn left on Eastside road for 2.0 miles follow the 3-39.27.0 and 27.1 roads to the Boaz Mtn Portion of the Sale Area. Follow Eastside road an additional mile past the 27.0 road junction to reach units accessed via the 39-3-28.1 road.

ENVIRONMENTAL ASSESSMENT - An environmental assessment (DOI-BLM-ORWA-M060-2016-0004-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 Interagency Office.

NEDSBAR TIMBER SALE
ORM06-TS16-16

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.

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

(A) AR-1 All timber on the Reserve Area(s) as shown on Exhibit A and all orange painted and/or posted trees which are on or mark the boundaries of the Reserve Area(s).

(B) IR-1 Approximately eleven thousand seven hundred and ninety-six (11,796) trees marked with yellow paint above and below stump height in units 17-10, 17-12, 25-22, 25-30, 26-21, 27-31, 27-33, 27-34B, 27-34C, 28-11, 29-10A, 29-10B, 29-11, 33-30, 35-32 and 36-20 as shown on Exhibit A.

(C) IR-2 All timber except approximately thirty two thousand two hundred and forty-nine (32,249) trees marked for cutting heretofore by the Government with white paint above and below stump height in units 14-30, 15-30, 20-10, 20-11, 20-12, 25-20, 25-23, 27-32, 27-34A, 27-35, 28-10, 29-12, 34-30, 35-30, 35-31, 36-22, and 36-30 as shown on Exhibit A.

(D) IR-5 All young growth less than seven (7) inches D.B.H.O.B. not damaged in the normal course of logging in all units as shown on Exhibit A, except when determined to be a safety hazard during operations and approved by the Authorized Officer.

(E) IR-6 All snags, except when determined to be a hazard during operations. Snags felled for safety will be retained on site as course woody material.

(F) IR-6 All hardwoods, except when determined to be a hazard and approved for felling by the Authorized Officer. Hardwoods felled for safety will be retained on site as course woody material.

(G) IR-10M Genetically superior trees are marked with orange paint and seed trees tags in the contract area. These trees are selected, genetically superior trees and are specially valued as a component of the tree improvement program. Any damage to such reserve trees caused by the Purchaser shall be charged for on the basis of the resulting total loss to the Government including any loss in value as a superior seed source.

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 Form 5460-16 (Certificate as to Nonsubstitution and the Domestic Processing of Timber). The original of such certification shall be filed with the Authorized Officer. Additionally, when the other party is an affiliate of the Purchaser, the Purchaser will be required to update information under item (2) of Form 5450-17 (Export Determination) and file the form with the Authorized Officer.

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. 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-6 In all harvest units as shown on Exhibit A, all trees designated for cutting shall be felled and yarded to approved landing locations either whole tree, or as log segments. If excessive stand damage occurs from whole tree yarding as determined by the authorized officer, bucking and/or limbing will be required.

(3) 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.

Tractor Units: 20-11, 26-21, 27-31, 27-32, 27-35, 29-10B, 29-11, 36-20	All ground-based yarding systems shall be approved by the Authorized Officer. Yarding tractors will operate only on tractor skid trails approved by the Authorized Officer. Skid trail locations will be approved prior to felling of timber to be yarded over that skid trail and trees shall be felled to the lead. The location of the tractor skid trails must be clearly designated on the ground and spaced at approximately one hundred

	fifty (150) foot intervals where feasible. Existing skid trails will be utilized where possible. Ground based yarding systems shall be limited to slopes thirty-five (35) percent or less except as approved by the Authorized Officer. No yarding will be allowed up or down draw bottoms. No yarding will be allowed within Riparian Reserves, except for unit 27-35. Skid trails within these units shall be approved by the Authorized Officer prior to the felling of trees, and trees shall be felled toward the lead Skid trails shall avoid wet areas or areas with standing water. Skid trail width shall average 12 feet. 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. No tractor yarding is permitted when soil moisture content at a depth of four to six (4-6) inches is greater than thirty (30) percent as determined by oven dry weight. Yarding will be limited in accordance with Section 26 if detrimental soil damage about to occur, as determined by the Authorized Officer. Mechanized equipment capable of creating and walking on slash (such as a cut-to-length system) may work off designated skid trails for one or two passes on at least 8 inches of slash and under dry soil conditions (less than twenty (20) percent soil moisture content at a depth of four to six (4-6) inches). Limit secondary trails to a minimum of fifty (50) foot spacing off designated skid trails. Mechanized equipment (feller-buncher systems) may work off designated skid trails when soil moisture content is less than fifteen (15) percent at a depth of four to six (4-6) inches for one or two (1 or 2) passes only (one round-trip). These one to two (1 to 2) pass secondary trails must be spaced a minimum of fifty (50) feet apart off of designated skid trails.

	If indications of detrimental soil compaction are observed (loss of soil structure, platiness) off of designated skid trails, use of logging equipment off of designated skid trails shall be suspended until the soil strength is sufficient to resist detrimental compactive forces. Where skid trails encounter course woody debris (CWD) sixteen (16) inches and larger at the small end, a section of the CWD is to be bucked out for equipment access. The bucked out portion shall be as narrow as operationally feasible, (maximum of fourteen (14) feet). The remainder of the CWD shall be left in place and not disturbed. Front end loaders shall not be used in units or on landings. Whole tree skidding is not allowed on the designated skid trail south of Unit 35-32 (See Exhibit A). This designated skid trail may not be graded or widened. Waterbars shall be constructed on skid trails to direct water off of skid trail, as determined by the Authorized Officer.

Skyline Units: 17-12, 20-12, 25-20, 25-30, 27-33, 27-34A, 27-34B, 35-30A, 35-31, 35-32, 36-22, 36-30	Yarding will be done with a cable yarding system which will suspend one end of the log clear of the ground during inhaul on the yarding corridor. 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. The carriage will be a minimum of fifteen (15) feet above the ground during lateral yarding. Yarding corridors will be perpendicular to the contours and landings shall be spaced at an average of one hundred fifty (150) foot intervals where feasible. The width of the skyline corridors shall be as narrow (maximum fifteen (15) feet) as operationally feasible. The number of corridors for each cable setting is limited to two (2). Exceptions must have prior approval from the Authorized Officer. No yarding will be allowed up or down draw bottoms and no yarding corridors will be allowed in riparian reserves. Trees shall be felled to the lead in respect to the yarding corridor. Front end loaders shall not be used in units or on landings. All yarding corridors, guyline trees, tailholds and lift trees shall be designated on the ground by the Purchaser and approved by the Authorized Officer. For all cable yarding units, maximum operational suspension shall be maintained on slopes greater than fifty (50) percent. Water bars shall be constructed manually on steeper slopes and where gouging has occurred, as determined by the Authorized Officer.

Helicopter Units: 14-30, 15-30, 17-10, 20-10, 25-22, 25-23, 27-34C, 28-10, 28-11, 29-10A, 29-12, 33-30, 34-30	All yarding will be done with an aerial system. Landing size shall not exceed one (1) acre. All helicopter landing locations require BLM approval prior to construction and use. Log landings, service pads and helispots can be constructed with prior approval of the Authorized Officer 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.

(4) L-9 No harvest operations or ground disturbing activities may occur within reserve areas, as shown on Exhibit A.

(5) L-11 No new construction of landings or expansion of old landings shall occur within the Riparian Reserve of any stream, unless approved by the Authorized Officer.

(6) L-18 No ground-based operations 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. This restriction may be waived during dry soil conditions, thirty (30) percent soil moisture or less measured using four water content samples using the oven dry method. Soil samples must be collected between depths of four to six (4-6) inches, as approved by the Authorized Officer. During the dry season, the Purchaser shall immediately shut down all timber harvest operations if excessive soil damage would occur due to weather or soil moisture conditions.

(7) L-18 No ground-based operations shall be conducted on the designated skid trail south of Unit 35-32 between January 1st and June 15th, both days inclusive. (See Exhibit A).

(8) L-18 No road maintenance shall be permitted on the contract area between October 15th of one calendar year and May 15th of the following calendar year, both days inclusive, except for

spot rocking and road brushing by hand. Spot rocking during the restricted period shall not occur within 200 feet of any stream. Variations in these dates would be permitted dependent upon site specific conditions as determined by the Authorized Officer in consultation with resource scientists.

(9) L-18 No road grading or ditch-pulling will be permitted on the contract area July 15th to September 1st, both days inclusive. Adjustments to these dates may be made by the Authorized Officer.

(10) L-18 No road construction, road renovation/maintenance, landing construction, or road decommissioning activities shall be permitted on the contract area between October 15th of one calendar year and May 15th of the following calendar year, both days inclusive. Variations in these dates would be permitted dependent upon weather and soil moisture conditions and with a specific erosion control plan (e.g. rocking, waterbarring, seeding, mulching, barricading) as determined by the Authorized Officer in consultation with aquatic and/or soils scientists. All construction activities shall be stopped during a rain event of 0.2 inches or more within a 24-hour period or if determined by the Authorized Officer that resource damage would occur if construction is not halted. If on-site information is inadequate, measurements from the nearest Remote Automated Weather Station would be used. Construction activities shall not resume until determination is made by the Authorized Officer that resource damage would not occur.

(11) L-18 No hauling shall be conducted on natural surface roads and roads 39-1-32.00A, 39-2-35.01A, 39-2-36.00, and 39-3-10.00 between October 15th of one calendar year and May 15th of the following calendar year, both days inclusive. No hauling shall be conducted on these roads during precipitation events when rutting is about to occur or turbid runoff is likely to reach flowing streams or other surface water as determined by the Authorized Officer. Hauling restrictions may be waived during the shoulder season (October 15th to December 1st and April 1st to May 15th) during periods of prolonged dry conditions as approved by the Authorized Officer.

(12) L-18 Hauling would be allowed between April 1st to December 15th of the same calendar year, both days inclusive on USFS roads 600, 2200, 2030, 2250 in accordance with the following conditions. Haul shall be stopped during a rain event of 0.2 inches or more within a 24-hour period or if determined by the administrative officer that resource damage would occur if haul is not halted. If on-site information is inadequate, measurements from the nearest Remote Automated Weather Station would be used. Hauling shall not resume until determination is made by the Authorized Officer that resource damage would not occur. On active haul roads, during the wet season, use durable rock surfacing and sufficient surface depth to resist rutting or development of sediment on road surfaces that drain into flowing streams or other surface water. Maintain road surface by applying rock to protect road surfaces from rutting and erosion under active haul where runoff drains to flowing streams or other surface water. When rutting is about to occur or turbid runoff is likely to reach flowing streams or other surface water haul shall be

suspended as determined by the Authorized Officer. Winter hauling on snow would be allowed on any road if at least 4 inches of packed snow is present on hauling roads. Snow plowing shall maintain at least 4 inches of packed snow on hauling roads. Drainage through the snow bank at periodic intervals to allow for snow melt to drain off the road surface shall be provided. A snowplow permit shall be obtained by the Purchaser from the Authorized Officer before plowing begins.

(13) L-18 Hauling would be allowed on roads 39-1-18.00, 39-2-27.00, 39-2-28.00A1-A2, 39-3-26.00, 39-3-27.00, 39-3-27.01, 39-3-27.02A-C, 39-3-36.00 in accordance with the following conditions. Haul shall be stopped during a rain event of 0.2 inches or more within a 24-hour period or if determined by the administrative officer that resource damage would occur if haul is not halted. If on-site information is inadequate, measurements from the nearest Remote Automated Weather Station would be used. Hauling shall not resume until determination is made by the Authorized Officer that resource damage would not occur. On active haul roads, during the wet season, use durable rock surfacing and sufficient surface depth to resist rutting or development of sediment on road surfaces that drain into flowing streams or other surface water. Maintain road surface by applying rock to protect road surfaces from rutting and erosion under active haul where runoff drains to flowing streams or other surface water. When rutting is about to occur or turbid runoff is likely to reach flowing streams or other surface water haul shall be suspended as determined by the Authorized Officer. Winter hauling on snow would be allowed on any road if at least 4 inches of packed snow is present on hauling roads. Snow plowing shall maintain at least 4 inches of packed snow on hauling roads. Drainage through the snow bank at periodic intervals to allow for snow melt to drain off the road surface shall be provided. A snowplow permit shall be obtained by the Purchaser from the Authorized Officer before plowing begins.

(14) L-18a No operations shall be conducted within 0.25 line of sight miles from bald eagle nesting sites and 0.5 line of sight miles from golden eagle nesting sites between February 1st through August 15th of the same calendar year, both days inclusive. At this time, no known sites exist which will affect treatment units.

(15) L-18a No operations shall be conducted within unit 27-34C to protect salamander habitat between November 1st and May 15th, both days inclusive, unless approved by the Authorize Officer.

(16) L-18a No operations shall be conducted within 0.25 miles of any active raptor nest sites located during harvest activity between March 1st and July 15th. At this time, no known sites exist which will affect harvest units or haul routes.

(17) L-18a No operations shall be conducted within 250 feet of mine shafts and adits that are discovered during harvest activities.

(18) L-18a No operations shall be conducted within units 29-12, 36-20, and 36-22 between March 1st through September 30th 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 or time of harvest.

(19) L-18a No operations that produce loud noises above ambient levels shall be conducted within specified distances (Table 1) of any documented owl site during the critical early nesting period, between March 1st through June 30th 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 or time of harvest.

Table 1. Mandatory Spotted Owl Restriction Distances

Activity	Zone of Restricted Operation
Heavy Equipment (including nonblasting quarry operations)	105 feet
Chain saws	195 feet
Impact pile driver, jackhammer, rock drill	195 feet
Small helicopter or plane	360 feet*
Type 1 or Type 2 helicopter	0.25 miles*
Blasting; 2 pounds of explosive or less	360 feet
Blasting; more than 2 pounds of explosives	1 mile
* If less than 1,500 feet above ground level.	

(20) L-21 The Purchaser shall provide sufficient warning signs to control traffic on all major haul roads and within the contract area wherever harvest operations are occurring, or as directed by Authorized Officer. All haul roads intersecting with State and/or County roads shall be signed informing the general public of operations. Conduct the work as to assure the safety of the general public along roadways, and to assure the protection of persons and properties. Signs shall meet current Manual on Uniform Traffic Control Devices (MUTCD) standards for traffic signs. Appropriate traffic control signs and devices shall be erected prior to use of the roadway or area and promptly removed when no longer required.

(21) L-23 Prior to the commencement of operations, the Purchaser shall obtain from the Contracting 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 ensure protection of the environment and watershed. Any requested changes to the terms and conditions of this contract (such as a change in logging systems) must be authorized by the Contracting Officer through bilateral modification of the contract. A prework conference between the Purchasers authorized representative and the Authorized Officer must be held at a location designated by the Contracting Officer before the logging plan will be approved.

(22) L-25 Before cutting and removing any trees necessary to facilitate logging in all units as shown on Exhibit A, the Purchaser shall identify the location of the skid trails, cable yarding corridors, and tailhold, tieback, guyline, lift, intermediate support, and hazard 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 trails, cable yarding corridors, and tailhold, tieback, guyline, lift and intermediate support trees upon which timber is identified by the Purchaser to be cut and removed in accordance with this special provision must be necessary for the safe and expeditious removal of timber sold under this 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 trail shall be limited to 12 feet and cable yarding corridors shall be limited to 15 feet.

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

(c) The Purchaser agrees that sale of this additional timber shall be accomplished by a unilateral modification of the contract executed by the Contracting Officer and that such timber shall be sold at the unit prices shown in Exhibit B of this contract unless: the value of the timber must be reappraised subject to the terms for contract extension set forth in Sec. 9 of the contract; or, the Authorized Officer determines that all trees otherwise reserved in Section 41 of the contract or any tree that exceeds 28 inches diameter at

breast height shall be appraised and sold by bilateral modification of the contract at current fair market value in accordance with Sec. 8 of the contract.

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

(e) If authorization is withdrawn, the Contracting Officer shall issue a written notice to the Purchaser that the sale of additional timber under this special provision is no longer approved. In this case, the Purchaser shall inform the Authorized Officer at least three (3) working day prior to the need for cutting and removing any additional timber, and execute a bilateral modification prior to cutting for such additional approved timber at the unit prices shown in Exhibit B of the contract or in accordance with Sec. 8 or Sec. 9 of the contract as determined by the Authorized Officer in accordance with this provision. The Contracting Officer may issue a written order to the Purchaser to suspend, delay, or interrupt any or all contract work for the period of time deemed necessary and appropriate for the Government to safely measure and mark additional timber.

(f) The Government may reserve trees previously designated for cutting and removal by applying orange paint as replacements for additional trees cut and removed for skid trails and/or cable yarding corridors when the Authorized Officer determines such reservation is necessary to maintain stand densities consistent with objectives set forth in the management prescription(s). The volume of this timber to be reserved will be determined by the Authorized Officer in accordance with Bureau of Land Management prescribed procedures and the value shall be based on the unit prices shown in Exhibit B of the contract. The Purchaser agrees that the Total Purchase Price shall be reduced accordingly through a unilateral modification to the contract executed by the Contracting Officer.

(23) L-26 In all units shown on Exhibit A, all trees designated for cutting shall be felled away from unit boundaries, property lines, fences, cattle guards, watering troughs, streams, draw bottoms, irrigation ditches, seed trees, talus sites, and reserve areas. In Riparian Reserve thinning unit 27-35, there is a fifty foot (50) no treatment buffer/reserve area on either side of the stream channel. The Purchaser shall notify the Authorized Officer three (3) days before beginning felling operations in the above area(s).

(C) Road Construction - Maintenance – Use

(1) RC-1a The Purchaser shall construct, improve 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, in construction of temporary spurs to access units 25-20, 26-21A, 27-32, 27-35 the Purchaser shall complete all construction, improvement, or renovation of structures and roads as specified in Exhibit C.

(3) RC-1f Upon completion of logging activities**,** the Purchaser shall fully decommission the entire roadway of the three (3) temporary roads identified as 25-20 Temp Loop; 26-21 Temp; and 27-32 Temp, as shown on Exhibit D. Road surface shall be decompacted for its entire length using mechanical equipment. Decompact road surface to a depth of 12 to 18 inches or to a point where 10 inch diameter stones are the dominant substrate (whichever is shallower). Where it is determined by the Authorized Officer that decompaction may cause unacceptable damage to the root systems of residual trees along a majority of the road, decompaction may be intermittent, or scarification may be used instead. Woody debris, brush, stumps, boulders, and other debris shall be placed along the roads entire length as determined by availability of materials to provide ground cover and discourage use. No live trees shall be cut or used without approval of the Authorized Officer.

(4) RC-2 The Purchaser is authorized to use the roads listed below and shown on Exhibit D-2 which under the jurisdiction of the Bureau of Land Management or US Forest Service 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 improvement or renovation in Exhibit C of this contract, shall be maintained by the Purchaser until receiving written acceptance of the improvement 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
39-1-18.00 A	0.55	BLM	AGG
39-1-32.00	2.48	BLM	AGG

39-2-27.00	4.93	BLM	AGG
39-2-28.00	2.90	BLM	AGG
39-3-10.00	1.00	BLM	AGG
39-3-26.00	1.01	BLM	GRR
39-3-27.00	0.73	BLM	GRR
39-3-27.01	0.49	BLM	GRR
39-3-27.02	5.27	BLM	GRR
39-3-36.00	0.81	BLM	GRR
USFS 2030	1.13	USFS	AGG
USFS 2030 600	0.51	USFS	NAT
USFS 2200	0.11	USFS	AGG
USFS 2250	3.75	USFS	AGG
USFS 2250 850	0.45	USFS	NAT
Total	**26.12**		

(5) RC-2a The Purchaser is authorized to use the roads listed below and shown on Exhibit D-2 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 comply with the conditions set forth in Section 42(C)(9).

Road No. and Segment	Length Miles Used	Road Control	Road Surface Type
39-1-20.00 F	0.10	BLM	NAT
39-1-20.00 G	0.03	BLM	NAT
39-1-20.00 H	0.06	BLM	NAT
39-1-20.00 I	0.57	BLM	NAT
39-1-20.00 J	0.02	BLM	NAT
39-1-28.02	2.89	BLM	NAT
39-1-28.03	0.42	BLM	NAT
39-1-29.00	0.80	BLM	NAT
39-1-31.00	1.01	BLM	NAT
39-2-25.01	0.29	BLM	NAT

39-2-34.01	0.04	BLM	NAT
39-2-34.03	0.24	BLM	NAT
39-3-27.02	1.00	BLM	NAT
39-3-28.01	0.30	BLM	NAT
39-3-28.02	0.10	BLM	NAT
Non_sys 25-20	1.15	BLM	NAT
Non_sys 36-30	0.22	BLM	NAT
Total	**9.24**		

(6) RC-2b With the prior written approval of the Authorized Officer, the Purchaser may arrange for cooperative maintenance with other users on roads included in Section 42(C)(5) of this contract; provided, that such cooperative arrangement shall not relieve the Purchaser of his liability for the maintenance and repair of such roads resulting from wear or damage, in accordance with this contract. The Purchaser shall furnish the Authorized Officer a copy of any cooperative maintenance agreements entered into with other users on these roads.

(7) 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 road(s), the Purchaser shall pay the Government current Bureau of Land Management road maintenance and/or rockwear fees for the particular surface type of the road(s) 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.

Section 42(C)(7) and of this contract shall be amended to include adjustments of fee obligations.

(8) RC-2e Provided, that the Purchaser shall pay a road maintenance fee of $0.97 per thousand board feet log scale per mile for the use of said roads. 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.

(9) RC-2e$_{(rw)}$ 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 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.

(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 road(s) 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 road(s) 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 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-3a In the use of US Forest Service controlled roads No. 2030, 2030 850, 2200, 2250, 2250 600 the Purchaser shall comply with the conditions of the US Forest Service License Agreement #840. In the use of USFS controlled portion of road 39-3-10.00 the Purchaser shall comply with the conditions of the USFS Special use permit. Prior to the use of said road(s), the Purchaser shall furnish the Authorized Officer a copy of the executed License Agreement. Default by the Purchaser of said Right-of-Way and Road Use Agreement, or any License Agreement executed pursuant thereto, for failure to pay appropriate road use fees shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision.

(13) 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.

(14) RC-5 In the construction of helicopter landing in Section 10, Township 39 South, Range 3 West, the Purchaser shall comply with the conditions of Easement No. OR 068411 dated December 28, 2015 between the United States and Todd C. Pershing. These conditions include felled trees of commercial value to be bucked into standard lengths and decked adjacent to the right-of-way. This document is available for inspection at the Bureau of Land Management, Medford District Office, 3040 Biddle Road, Medford, Oregon 97504.

(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 Sec. 26 of this contract, the Purchaser shall:

(a) Temporary roads shall be fully decommissioned at the completion of log haul and within the same season as constructed/opened unless needed for other purposes, such as access for firewood, etc. If this occurs, the road shall be effectively blocked and winterized prior to onset of the wet season to prevent motorized use. Temporary roads shall be fully decommissioned by decompacting roads to a depth of twelve (12) to eighteen (18) inches, placing logs, slash, boulders, earthen berms, and other material at the entrance and throughout its length sufficient to camouflage for a minimum distance of 100 feet and preclude vehicle use as shown on Exhibit C-20. Water bars shall be constructed as determined by the authorized officer, and seed and mulch per Section 42(D)(4) of this contract.
(b) Abate dust created from hauling in accordance with Exhibit D.
(c) Construct earth and log motor vehicle barricades as shown on Exhibit D-3 on all major skid trails which intersect any haul road or radiate from landings. Lop and scatter slash on skid trails in front of and behind barrier for a minimum distance of 100 feet and along the length as needed (determined by the Authorized Officer) to camouflage and prevent OHV use.
(d) Fill slopes on all new roads and landings shall be mulched and seeded with native or approved seed per Section 42(D)(4), except where rock occurs. Slash shall be

windrowed when available at the base of newly constructed fill slopes to catch sediment.

(e) All helicopter landings, landings located along temporary roads, and other disturbed areas within Riparian Reserve thinning unit 27-35 shall be treated as follows to reduce erosion and compacted area. Unless the landing is rocked or located within a quarry, the surface shall be treated by lifting and fracturing the soil to a depth of twelve (12) to eighteen (18) inches, or as determined by the Authorized Officer. Slash, boulders and other debris shall be placed as available to provide ground cover and discourage mechanized use. These areas shall be treated with approved weed free mulch and native seed, as directed by the authorized officer. Blockage at the entrance shall be achieved by the placement of logs, slash, boulders, berms, and other materials across the running surface.

(f) Where material such as logs and other organic debris exist, this material would be placed along the length of skid trails to minimize erosion and decrease disturbance, as directed by the Authorized Officer.

(g) All pre-existing features designed to limit mechanized/vehicle access such as previously decommissioned roads, earthen berms, logs, boulders, and other utilized materials shall be returned to pre-operational condition following harvest operations, as directed by the Authorized Officer.

(h) Equipment refueling shall be conducted within a confined area outside Riparian Reserves. Equipment containing toxic fluids shall not be stored in or near (within 300 feet) a stream channel at any time.

(i) During logging activities, operators shall keep all gates closed and all livestock containment systems functional to keep livestock in authorized areas.

(j) Blading and vegetation removal shall be avoided unless necessary to remove drainage impediments when maintaining inboard ditches. Sediment control measures shall be evaluated and implemented if necessary, where ditch line blading is required within 200 feet of streams.

(k) Waste stockpile and borrow sites shall not be located within Riparian Reserves or areas of unstable soil.

(2) 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.

Store all hazardous materials and petroleum products in durable containers placed outside of Riparian Reserves. Locate so an accidental spill would be contained and would not drain into any stream system.

Refuel equipment at least 190 feet from streams, ponds, or other wet areas. Equipment shall not be stored in a stream channel overnight. Hydraulic fluid and fuel lines shall be in proper working condition in order to minimize leakage into streams.

Check equipment for leaks prior to starting work. Do not allow equipment use until leaks are repaired or leaking equipment is replaced.

(3) 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 shall be implemented by the Purchaser:

(a) In order to prevent the potential spread of noxious weeds into the Medford District BLM, the operator shall be required to clean all logging, construction, 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 logging and construction equipment inspected by the BLM shall be allowed to operate within the Timber Sale Area. All subsequent move-ins of logging and construction equipment as described above shall be treated the same as the initial move-in.

(d) Prior to initial move-in of any logging or construction 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) Logging and construction equipment shall be visually inspected by the Authorized officer to verify that the equipment has been reasonably cleaned.

(f) Bare soil in areas disturbed by logging operations in or adjacent to noxious weed-infested areas as identified by the BLM Botanist, shall be treated with approved weed free mulch and native seed, as directed by the Authorized Officer.

(g) There are no BLM quarries within the EA project area approved for use. Any rock needed for roads, helipads, or drainage structures will have to be purchased from a private source. The private quarry shall be inspected and approved by the BLM Authorized Officer to assure the rock material is weed free.

(4) E-1 Scarify and contour landings to provide for adequate drainage. Exposed soil on temporary roads, logging spurs, landings, skid trails/yarding corridors, and disturbed areas within unit 27-35 shall be treated with certified weed free straw and seed mixture as directed by the Authorized Officer. Areas may be left "as is" where natural rock occurs or where vegetation/topography prevents movement of sediment, as determined by the Authorized Officer. The seed mix and straw shall be provided by the Purchaser from an approved commercial source, or may be provided by the BLM if the Purchaser is unable to locate and buy the certified seed and straw. The Purchaser shall reimburse the government for the cost of seed and straw if provided by the government.

The Purchaser shall furnish and apply to acres designated for treatment as directed by the Authorized Officer, a mixture of grass seed and mulch material at the following rate of application:

Grass seed	20 lbs./acre
Straw mulch	1000 lbs./acre (approx. 2 inches in depth)

The Purchaser shall furnish the following species of grass seed meeting corresponding germination, purity, and weed content requirements:

Species	Germination Min. %	Purity Min. %	Weed Content Max. %
California Brome	85	95	0.2
Blue Wild Rye	85	95	0.2

The grass seed furnished shall meet the minimum requirement for Blue Tag Seed as set forth in the latest edition of Oregon Certification Standards published by Oregon State University. Seed source shall be approved by the Authorized Officer and shall be from the general region where the project occurs. Straw mulch shall be from native grass or other approved grain crops which are certified weed free, and free of mold or other objectionable materials. Straw mulch shall be in an air-dry condition and suitable for placing in a uniform manner.

The Purchaser shall mix grass seed in the following proportions:

Species	Percent of Total by Wt.	Lbs. per Acre
California Brome	50%	10
Blue Wild Rye	50%	10
TOTALS	100%	20 lbs./ac.

The Purchaser shall furnish the Authorized Officer a Seed Test result from a certified seed testing lab (i.e. Oregon State University), which shall include: date of test; lot number of each kind of seed; seed source; and results of tests as to name, percentages of purity and of germination, weed species and percentage of weed content, for each kind of seed furnished and, in case of mixture, the proportions of each kind of seed. The seed must have been tested within the last year to be accepted for use on this contract. The seed and straw mulch shall be applied between August 1 and October 15. The Purchaser shall notify the Authorized Officer at least 5 days in advance of the date he intends to commence the specified soil stabilization work.

(5) E-2 The water bars to be constructed as required by Sec. 26(c) shall be constructed in accordance with the specifications shown on section D-3 which is attached hereto and made a part hereof.

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

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

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

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

In the event cutting and removal rights are terminated under this subsection, the Purchaser agrees that the liability of the United States shall be limited to the 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.

(7) E-5 The Purchaser shall immediately discontinue specified construction or timber harvesting operations upon written notice from the Authorized Officer that a spotted owl has been located in the sale area. Discontinued operations may be resumed upon receipt of written instructions and authorizations by the Authorized Officer.

(8) E-6 The Purchaser shall notify the Authorized Officer in writing by February 1 of each calendar year in which operations are expected to take place within units 29-12, 36-20, and 36-22 between March 1 and September 30, both days inclusive. If notification is not received by the Authorized Officer by February 1, felling, bucking, yarding, road construction, or any other activity with the potential to disturb nesting owls may not be allowed during this time period.

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-5 The Purchaser shall, without expense to the government, be responsible for obtaining any necessary licenses and permits and for complying with any and all Federal, State, County and municipal laws, codes, regulations, and administrative rules applicable to the performance of this contract. The Purchaser shall also be responsible for all damages to any persons or property that arise out of any operations under this contract and result from any breach of contract or wrongful

or negligent act or omission of the Purchaser, its contractors, subcontractors, or employees of any of them.

(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 truck. Each truck shall have three hundred (300) gallons minimum capacity with five hundred (500) feet minimum of hose and a nozzle acceptable to the Authorized Officer and a mounted or portable pump conforming to the standards set forth in Oregon Revised Statute (ORS) 477.645 through ORS 477.670 and any rule

promulgated pursuant to those statutes. All hose couplings shall have the standard thread adopted by the State Fire Marshall pursuant to ORS 476.410 as amended or be provided with suitable adapters. At the close of each working day, all bulldozers and tank trucks shall be filled with fuel and made ready for immediate use. All tank trucks and portable tanks shall be filled with water and made available for immediate use.

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

(5) F-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.

(6) 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.

(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 measure(s) required by this contract:

(a) SD-1c HAND PILING Hand pile all slash in units in accordance with the following specifications:

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 Purchaser's operations under the terms of this contract.

Piling shall be accomplished by hand. Finished piles shall be tight and free of earth.

Piles shall be evenly dispersed across treatment areas.

Pile all slash which is between one (1) and six (6) inches in diameter on the large end and exceeds two (2) feet in length. A six (6) foot by six (6) foot sheet of six (6) mil. black plastic or equivalent material shall be placed in each pile in a manner such that approximately one-third (a) of the pile lies above it to hold it in place and so that a two (2) foot by two (2) foot dry ignition point is maintained for one (1) year or until burned. The ignition point will consist of fine fuel material such as needles, small limbs, and branches less than one-half (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 not exceed six (6) feet; piles shall be circular and not windrowed. No pile shall be located on down logs or stumps, within twenty-five (25) feet of any other pile, unit boundary or the trunk of the nearest living tree. No portion of the pile will be under the crown of any living tree. Piles may not be constructed in draw bottoms, stream channels, or in Riparian Reserves with the exception of Riparian Reserve thinning unit 27-35. In unit 27-35 slash shall be lopped and scattered within fifty (50) feet of the stream channel, and slash more than fifty (50) feet from the stream channel will be piled by hand.

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

(1) Piling shall be completed in each unit or portion thereof, within four (4) weeks after completion of yarding that unit, or portion thereof.

(b) SD-1i LANDING PILES Pile all slash located within one hundred (100) feet on each side of log landing. Slash shall be piled by hand or machine. Finished piles shall be tight and free of earth. The piling of slash at landing shall be kept current with operations and shall be completed not more than two (2) following the completion of hauling from the landing. Machine piles may not be constructed within Riparian Reserves.

(1) A ten (10) foot by ten (10) foot cover of six (6) mil. black plastic or equivalent material shall cap each landing pile to maintain a dry ignition point. The cover shall be firmly fixed to each pile to hold it in place. Maximum pile size shall be twenty (20) feet in diameter by fifteen (15) feet in height. At all tractor and helicopter landings and at cable landings where slope is <35%, piles will constructed to have a minimum 8 foot buffer of bare soil free of flammable debris around their perimeter, as directed by the Authorized Officer.

(2) SD-5 Perform logging residue reduction and site preparation work on approximately four hundred eighty-seven (487) acres of harvest area located in thirty-three (33) harvest units 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.

Handpile and Cover	**Cost/Acre**
Level I	$302.00
Level II	$420.17
Level III	$573.00

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

Handpile and Cover Appraised Treatment	**Acres**	**Cost/Acre**	**Total Cost per Treatment**
Level I	307	$302.00	$92,714.00
Level II	140	$420.17	$58,823.80
Level III	40	$573.00	$22,920.00
Total Appraised Cost			**$174,457.80**

(c) The Total Purchase Price set forth in Section 2 shall be adjusted by the amount that the total cost of the site preparation treatments designated pursuant to Section 41(G)(1)(a) differs from $174,457.80 as calculated by using the estimated acres determined by the Authorized Officer and the per acre costs listed in Section 41(G)(1)(a). Actual acres treated may vary considerably from the estimated acres shown in Section 41(G)(1)(b). The area to be treated may vary from zero acres to all harvest units shown on the Exhibit A.

(d) There is significant uncertainty as to the appropriate slash disposal. The above slash disposal requirements have been appraised. This provision establishes a "menu" of available treatments (based on the above pre-sale determination) for the selection by the Authorized Officer upon post-harvest determination of need.

(H) Equal Opportunity in Employment

Certification of Non-segregated Facilities attached hereto and made a part hereof.

Seasonal Restriction Matrix

ORM06-TS16-16
Nedsbar Timber Sale
Sheet 1 of 1

Possible to Waive Restrictions
Not Possible to Waive Restrictions

Sale Area	Activity	Jan		Feb		Mar		Apr		May		June		July		Aug		Sept		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
All GB units**	Ground disturbing activities																								
Roads	Road Construction, renovation, decommissioning, general road maintenance landing construction																								
	Grading/ditch pulling																								
	Hauling on USFS roads 600, 2200, 2030, 2250																								
	Hauling on 39-1-32.00A, 39-2-35.01A, 39-2-36.00, and 39-3-10.00																								
Sale Area	All Operations within distances listed below to documented owl sites that produce loud noise above ambient levels • Heavy Equipment-105 feet • Chains saws 195 feet • Impact pile driver, jackhammer, rock drill-195 feet • Small helicopter or plane-369 feet* • Type 1 or type 2 Helicopter- 0.25 miles * • Balsting-2# explosive or less-360 feet • Blasting >2# explosive- 1 mile *if less than 1,500 feet above ground level																								
Units 29-12, 36-20 36-22****	All operations-owls																								
Unit 27-34C	All operations-salamanders																								
35-32 Designated Skid	Skidding-FRGE																								

**Wet season restrictions may be shortened or extended depending on weather conditions.
***Hauling restriction may be shortened or extended depending on adequacy of road surfacing.
****Spotted Owl seasonal restrictions from March 1through September 30 may be shortened if it is determined that spotted owl nesting and/or fledgling activities are not occurring

U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 39 S R. 01 W SECS. 17, 20, 21, 28, 29
T. 39 S R. 02 W SECS. 25, 26, 34, 35, 36
T. 39 S R. 03 W SECS. 10, 14, 25, 26, 27, 28, 33, 34, 35, 36
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A

TRACTOR YARD HARVEST UNITS WHITE MARKED FOR CUTTING
UNITS 20-11, 27-32, 27-35.....15 ACRES

SKYLINE YARD HARVEST UNITS WHITE MARKED FOR CUTTING
UNITS 20-12, 25-20, 27-34A, 35-30, 35-31, 36-22, 36-30.....142 ACRES

HELICOPTER YARD UNITS WHITE MARKED FOR CUTTING
UNITS 14-30, 15-30, 20-10, 25-23, 28-10, 29-12, 34-30 .....238 ACRES

TRACTOR YARD HARVEST UNITS YELLOW MARKED FOR RESERVE
UNITS 26-21, 27-31 , 29-10B, 29-11, 36-20.....48 ACRES

SKYLINE YARD HARVEST UNITS YELLOW MARKED FOR RESERVE
UNITS 17-12, 25-30, 27-33, 27-34B, 35-32.....86 ACRES

HELICOPTER YARD HARVEST UNITS YELLOW MARKED FOR RESERVE
UNITS 17-10, 25-22, 27-34C, 28-11, 29-10A, 33-30.....82 ACRES

TOTAL HARVEST AREA.....611 ACRES

TOTAL CONTRACT AREA.....3770 ACRES

TOTAL RESERVE AREA.....3159 ACRES

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U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 39 S R. 01 W SECS. 17, 20, 21, 28, 29
T. 39 S R. 02 W SECS. 25, 26, 34, 35, 36
T. 39 S R. 03 W SECS. 10, 14, 25, 26, 27, 28, 33, 34, 35, 36
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A

Legend

- Designated Skids
- Available Helicopter Landing
- Alt_4_Proposed_Roads_032615
- Cadastral Pin
- Road
- Stream
- Nedsbar Group Select Cutting Area
- Nedsbar_Contract_Units_Final
- Nedsbar TS Contract Area

- Designated Skids

Land Administration juriscode

- PVT
- GovtLots

HP-1	HANDPILE AND BURN LEVEL 1
HP-2	HANDPILE AND BURN LEVEL 2
HP-3	HANDPILE AND BURN LEVEL 3

ST-RTM-T	SELECTIVE THINNING, RESERVE TREE MARKED (YELLOW PAINT), TRACTOR YARD, UNITS, 26-21, 27-31, 29-10B, 29-11, 36-20
ST-RTM-S	SELECTIVE THINNING, RESERVE TREE MARKED (YELLOW PAINT), SKYLINE YARD, UNITS 17-12, 25-30, 27-33, 27-34B, 35-32,
ST-RTM-H	SELECTIVE THINNING, RESERVE TREE MARKED (YELLOW PAINT), HELICOPTER YARD, UNITS 17-10, 25-22, 27-34C 28-11, 29-10A,
ST-HTM-T	SELECTIVE THINNING, HARVEST TREE MARKED (WHITE PAINT), TRACTOR YARD, UNITS 27-32
ST-HTM-S	SELECTIVE THINNING, HARVEST TREE MARKED (WHITE PAINT), SKYLINE YARD, UNITS , 20-12, 25-20, 27-34A, 35-30, 35-31, 36-22
ST-HTM-H	SELECTIVE THINNING, HARVEST TREE MARKED (WHITE PAINT), HELICOPTER YARD, UNITS 14-30, 15-30, 28-10
GS-HTM-T	GROUP SELECT, HARVEST TREE MARKED (WHITE PAINT), TRACTOR YARD UNITS 20-11
GS-HTM-S	GROUP SELECT, HARVEST TREE MARKED (WHITE PAINT), SKYLINE YARD UNITS 36-30
GS-HTM-H	GROUP SELECT, HARVEST TREE MARKED (WHITE PAINT), HELICOPTER YARD UNITS 20-10, 25-23, 29-12, 34-30
RT-HTM-T	RIPARIAN THIN, HARVEST TREE MARKED (WHITE PAINT), TRACTOR YARD UNITS 27-35
SR-RTM-H	STRUCTURAL RETENTION, RESERVE TREE MARKED (YELLOW PAINT), HELICOPTER YARD UNITS 33-30

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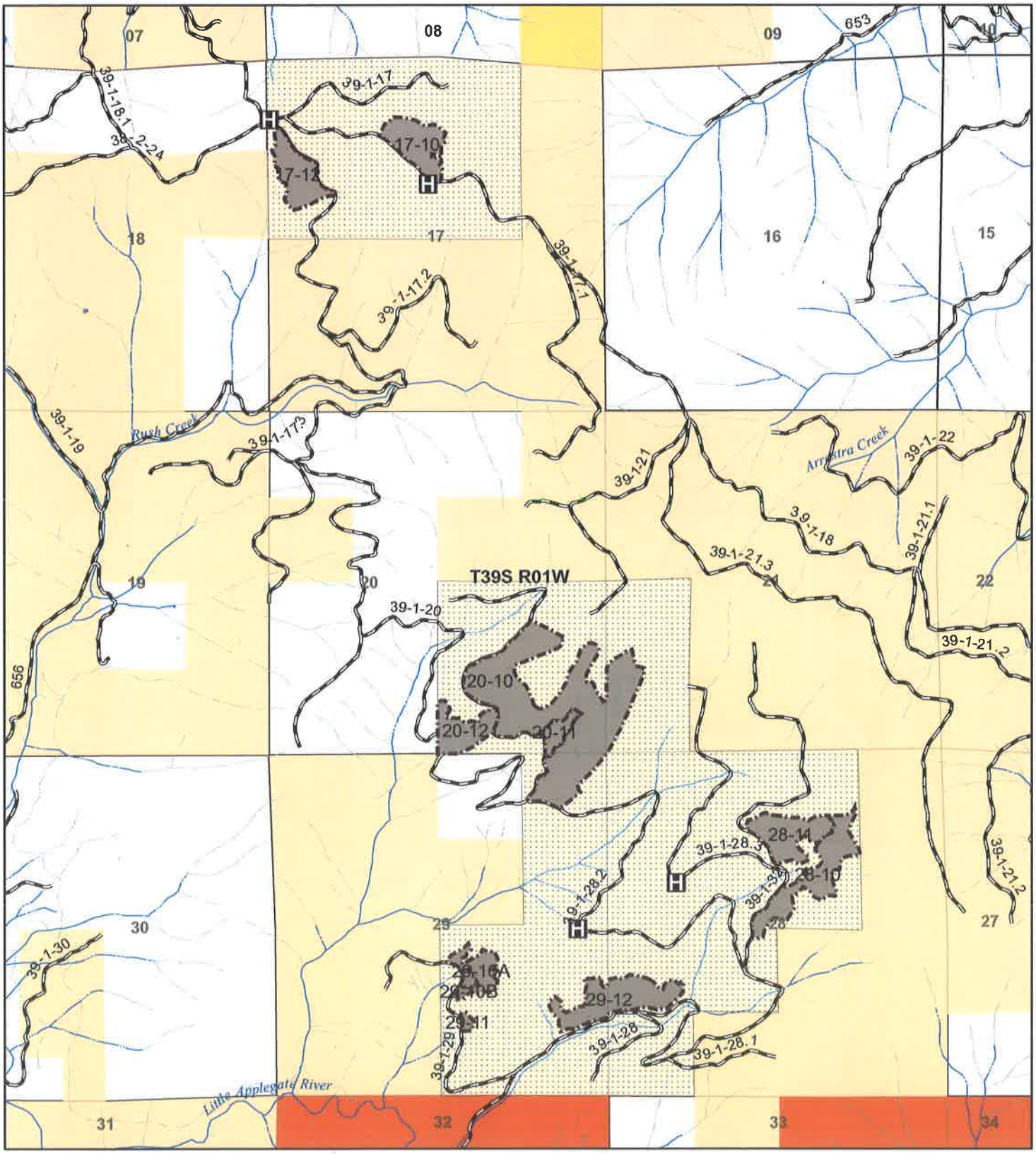
U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 39 S R. 01 W SECS. 17, 20, 21, 28, 29
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A - VICINITY MAP 1 OF 3
PAGE 03 OF 17



40 FOOT CONTOURS

0 0.175 0.35 0.7

Miles

1 inch = 2,000 feet

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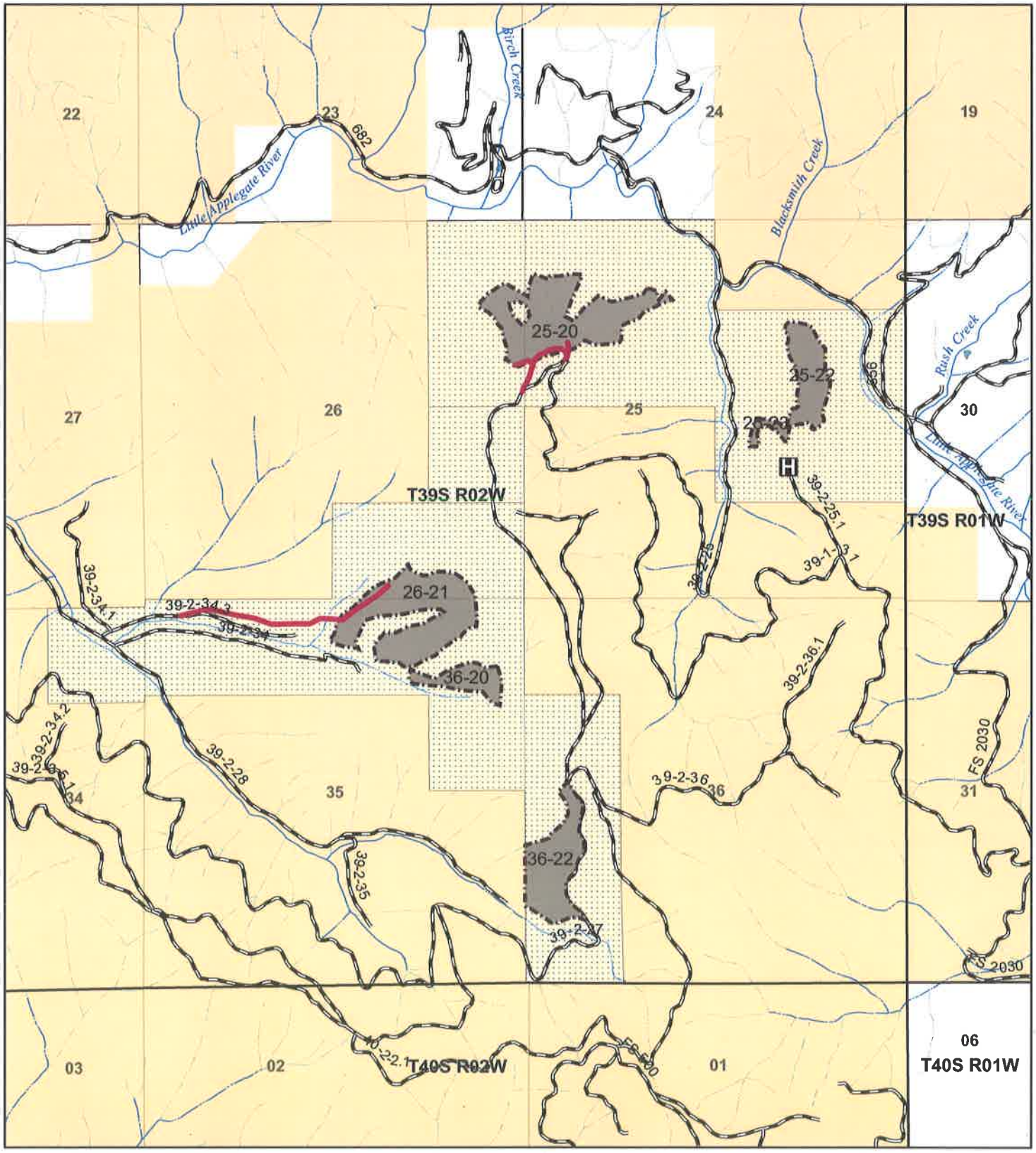
U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 39 S R. 02 W SECS. 25, 26, 34, 35, 36
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A - VICINITY MAP 2 OF 3
PAGE 04 OF 17



40 FOOT CONTOURS

0 0.15 0.3 0.6

Miles

1 inch = 1,801.726556 feet

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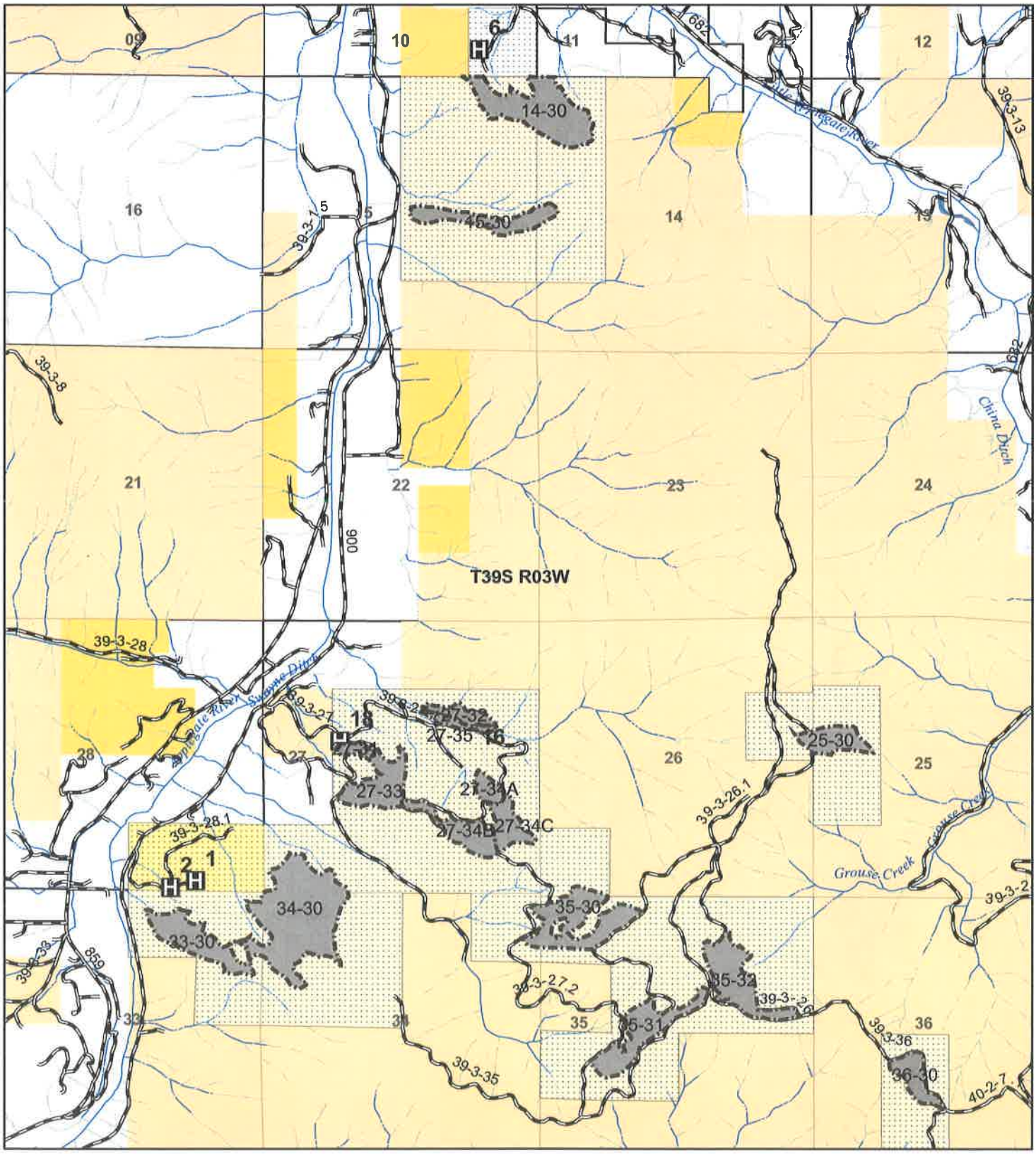
U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 39 S R. 03 W SECS. 10, 14, 25, 26, 27, 28, 33, 34, 35, 36
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A- VICINITY MAP 3 OF 3
PAGE 05 OF 17



40 FOOT CONTOURS

0 0.225 0.45 0.9

Miles

1 inch = 2,544.774305 feet

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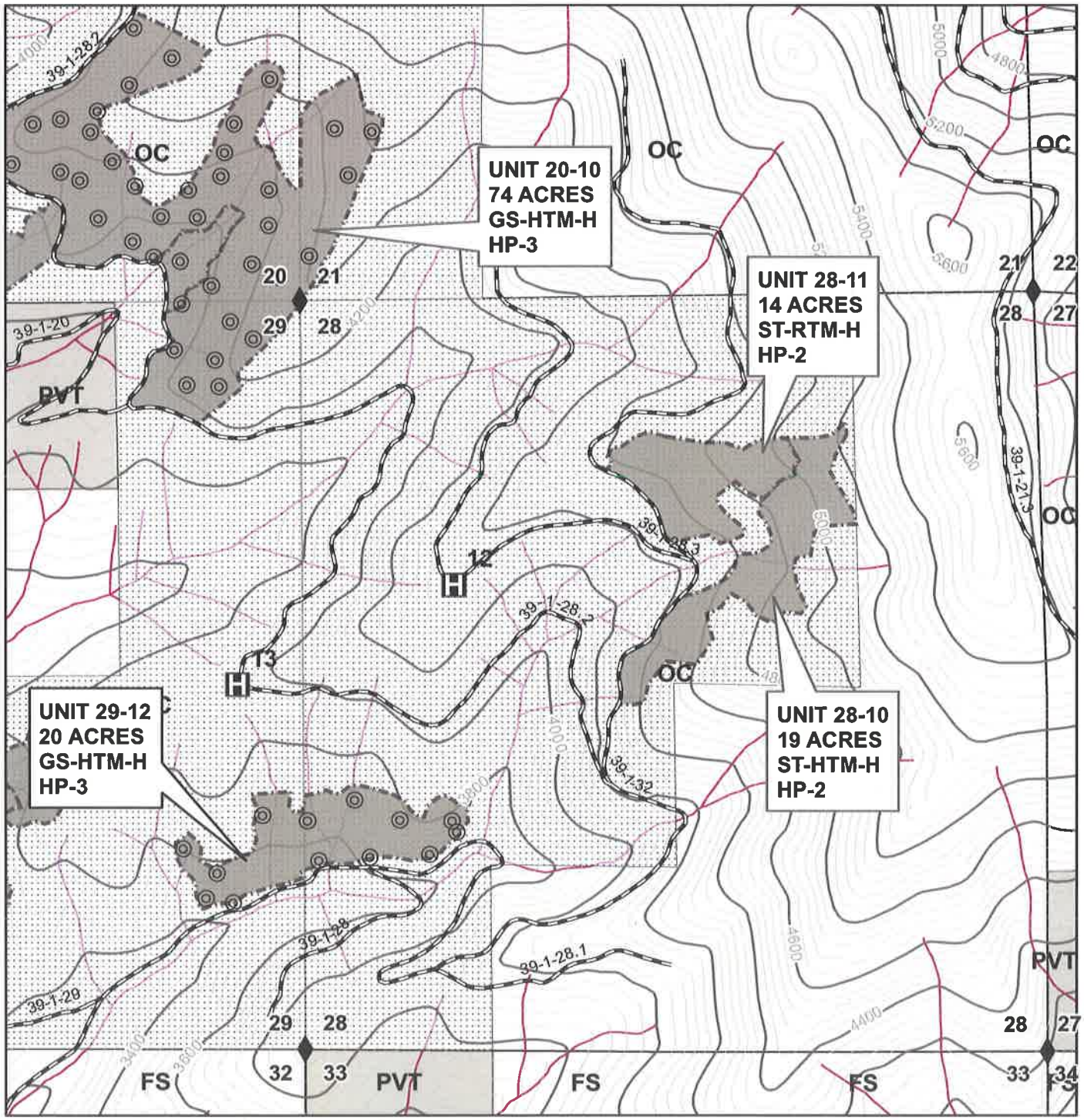
U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 38 S R. 01 W SEC. 28
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A



40 FOOT CONTOURS

0 0.1 0.2 0.4 Miles

1 inch = 1,000 feet

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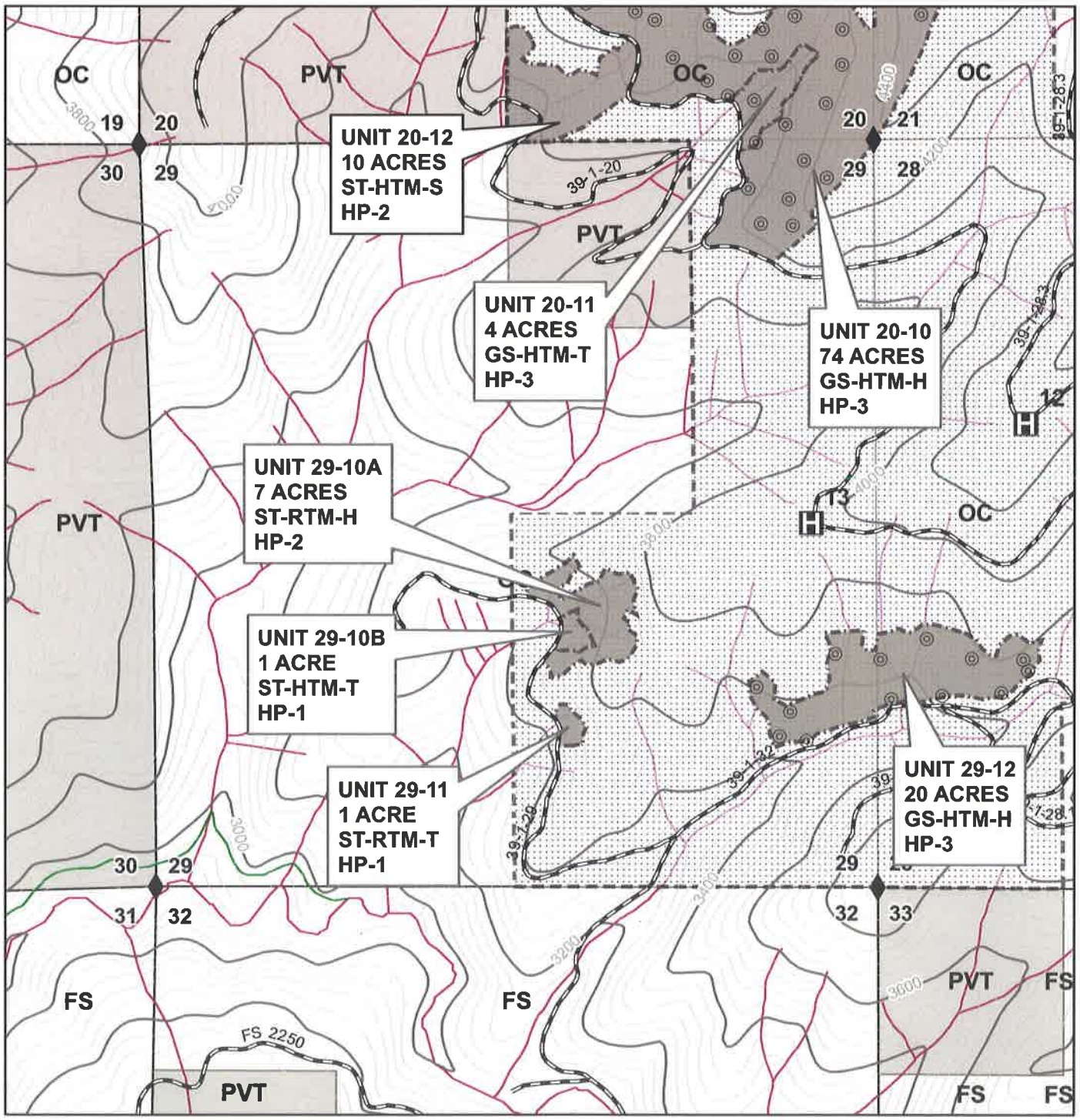
U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 38 S R. 01 W SEC. 29
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A



40 FOOT CONTOURS

0 0.1 0.2 0.4 Miles

1 inch = 1,000 feet

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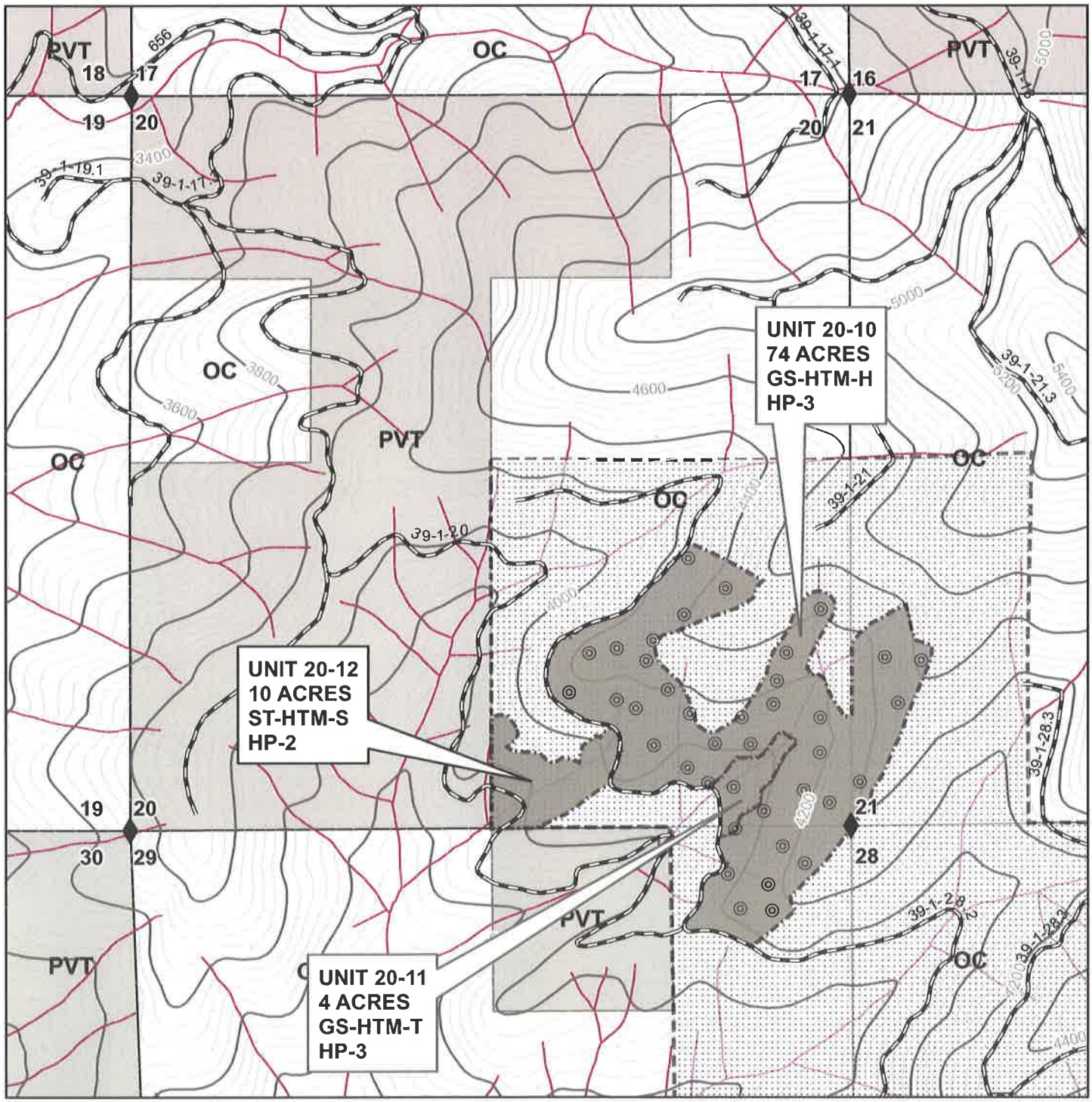
U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 38 S R. 01 W SEC. 20
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A



40 FOOT CONTOURS

0 0.1 0.2 0.4 Miles

1 inch = 1,000 feet

N
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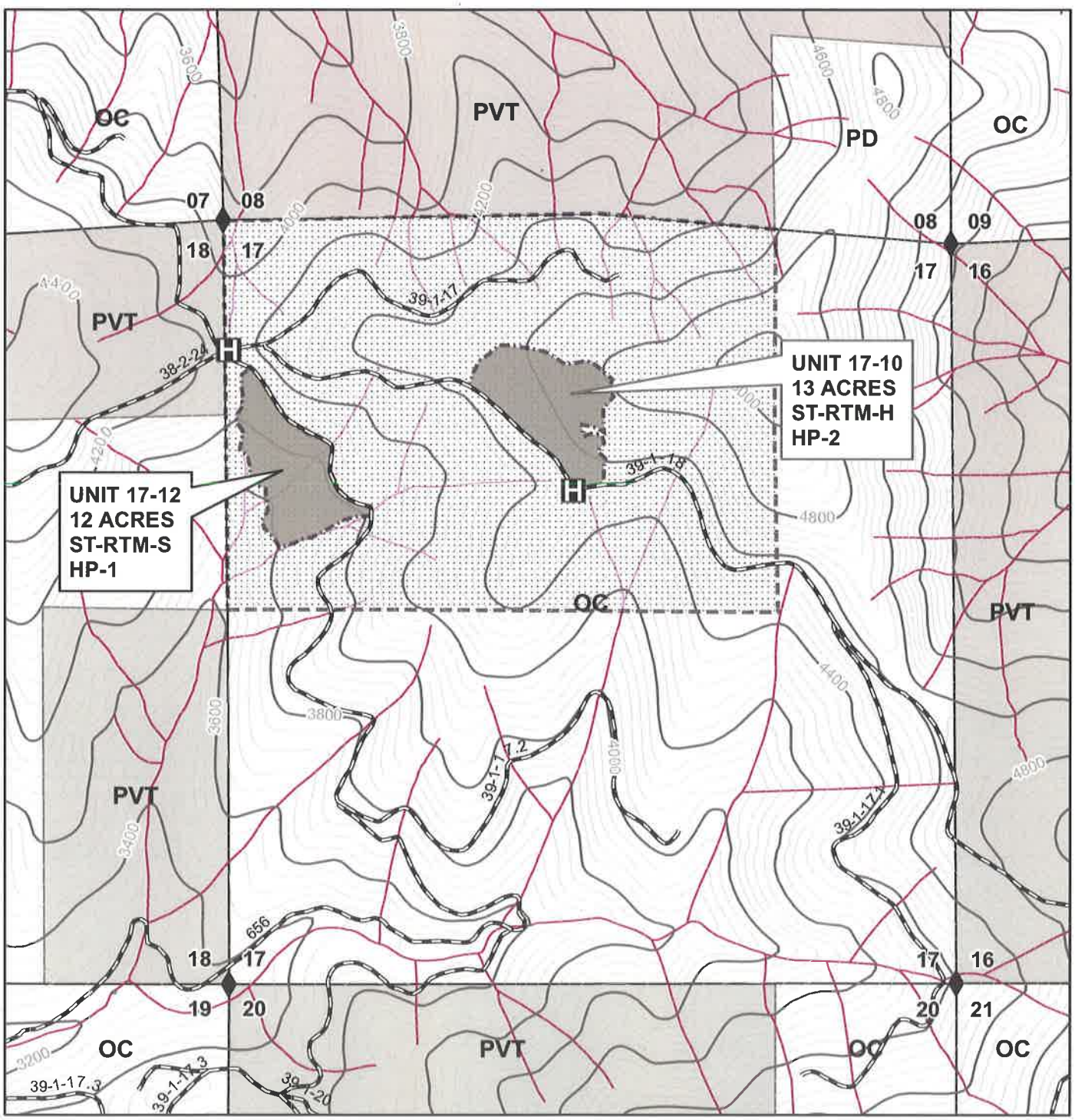
U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 38 S R. 01 W SEC. 17
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A



40 FOOT CONTOURS

0 0.1 0.2 0.4 Miles

1 inch = 1,000 feet

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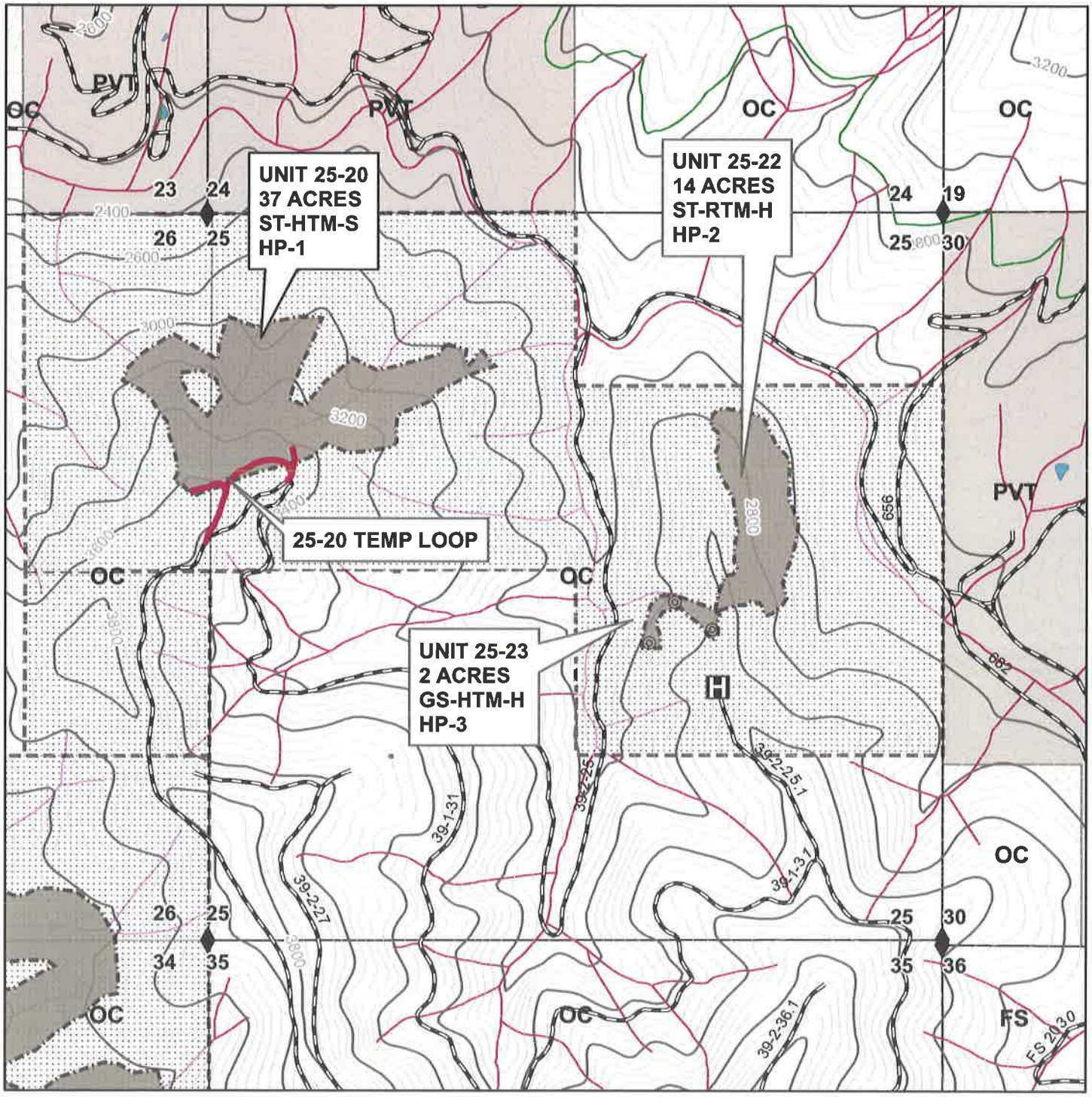
U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 38 S R. 02 W SEC. 25
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A



40 FOOT CONTOURS

0 0.1 0.2 0.4 Miles

1 inch = 1,000 feet

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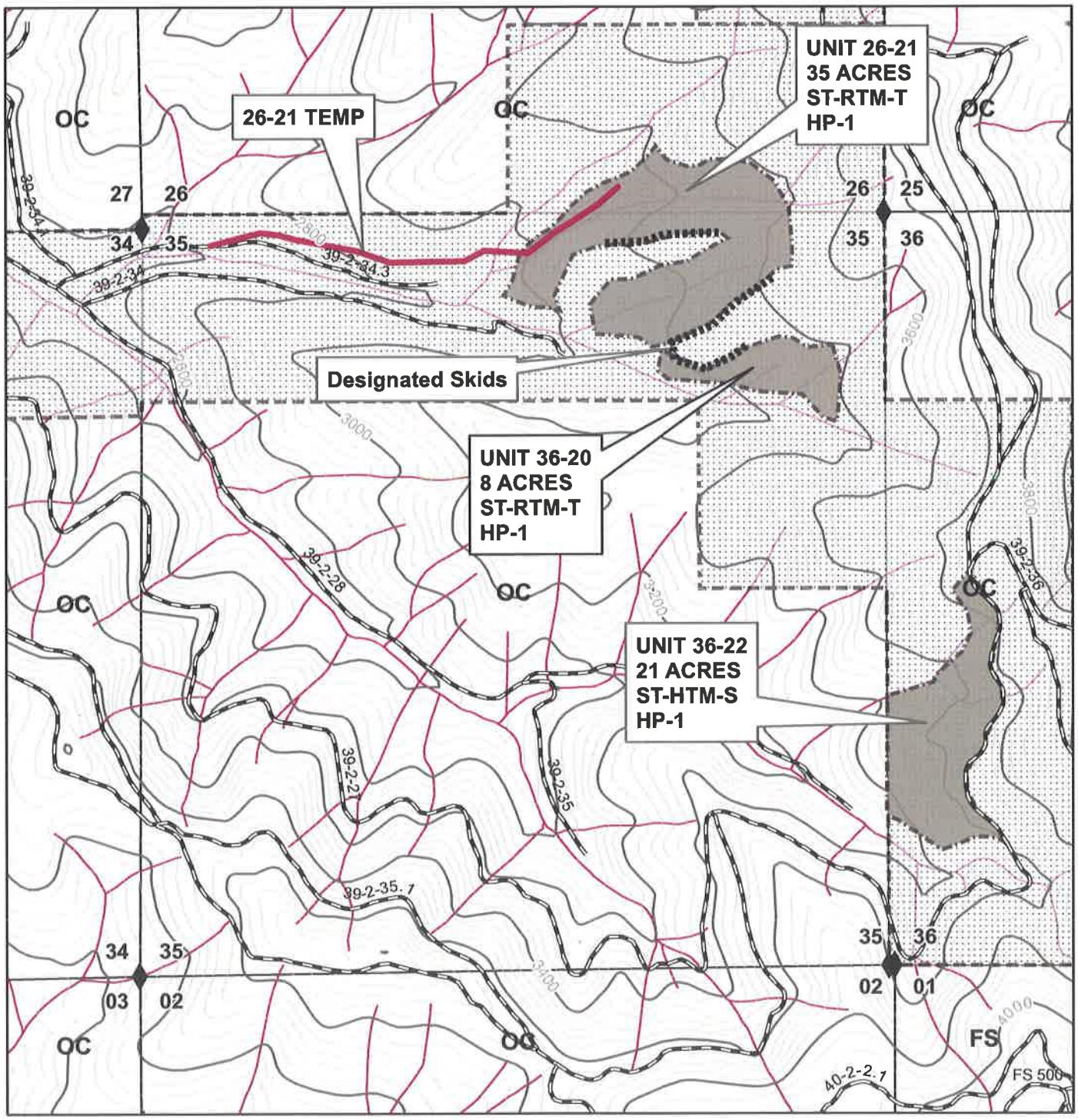
U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 38 S R. 02 W SEC. 35
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A



40 FOOT CONTOURS

0 0.1 0.2 0.4 Miles

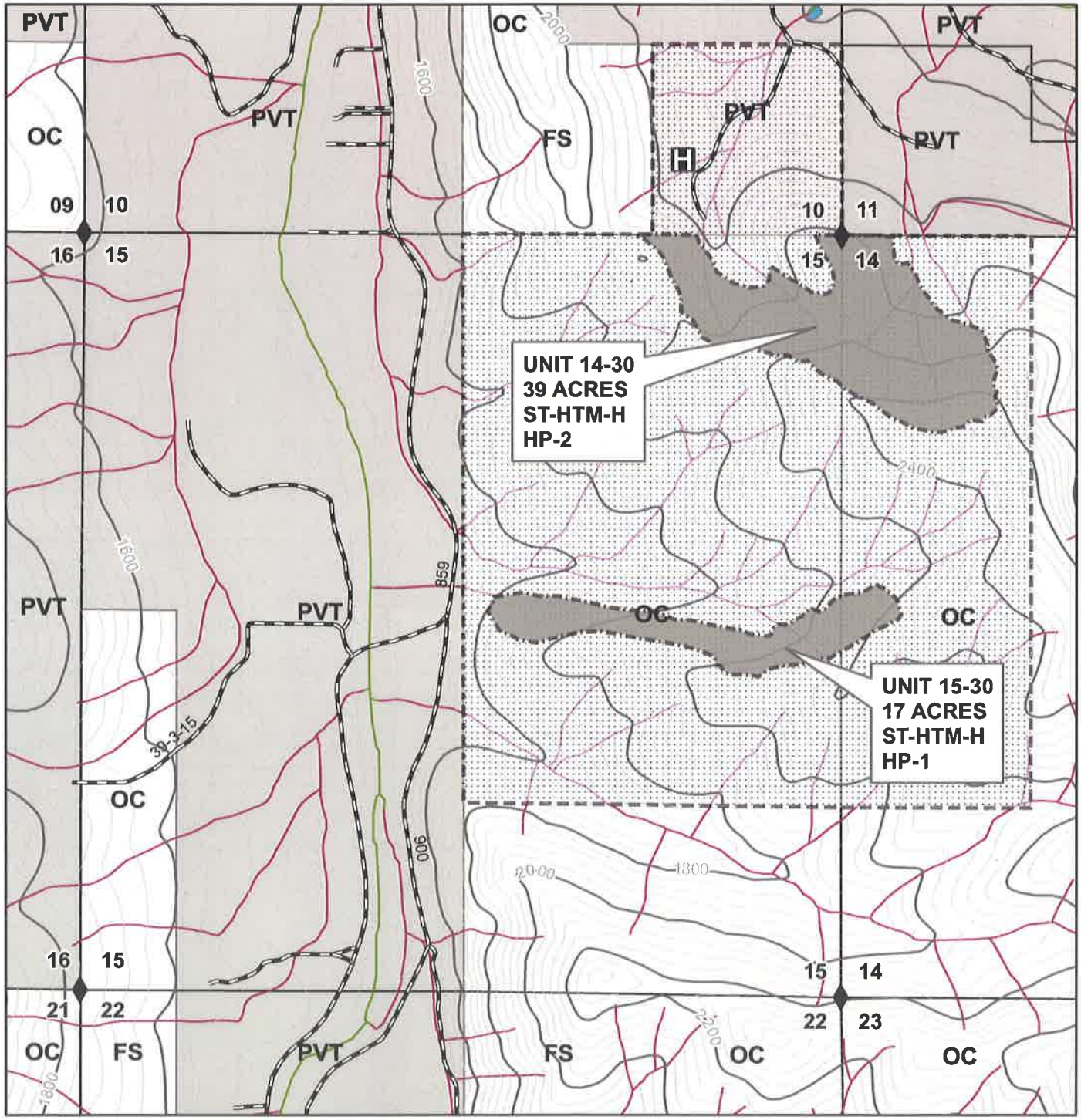
1 inch = 1,000 feet

N
W E
S

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

U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 38 S R. 03 W SEC. 15
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A



40 FOOT CONTOURS

0 0.1 0.2 0.4 Miles

1 inch = 1,000 feet

N
W E
S

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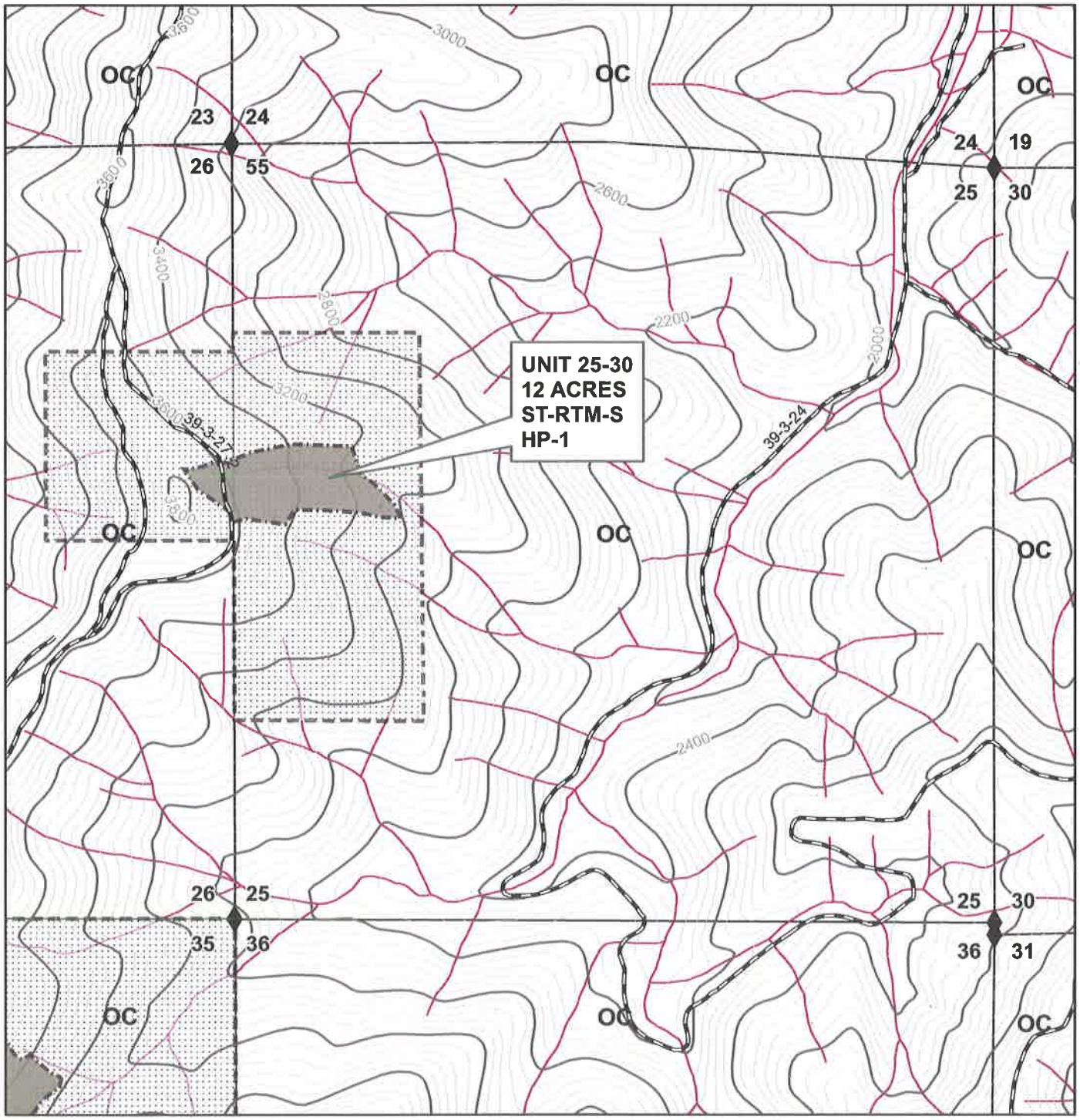
U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 38 S R. 03 W SEC. 25
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A



40 FOOT CONTOURS

0 0.1 0.2 0.4 Miles

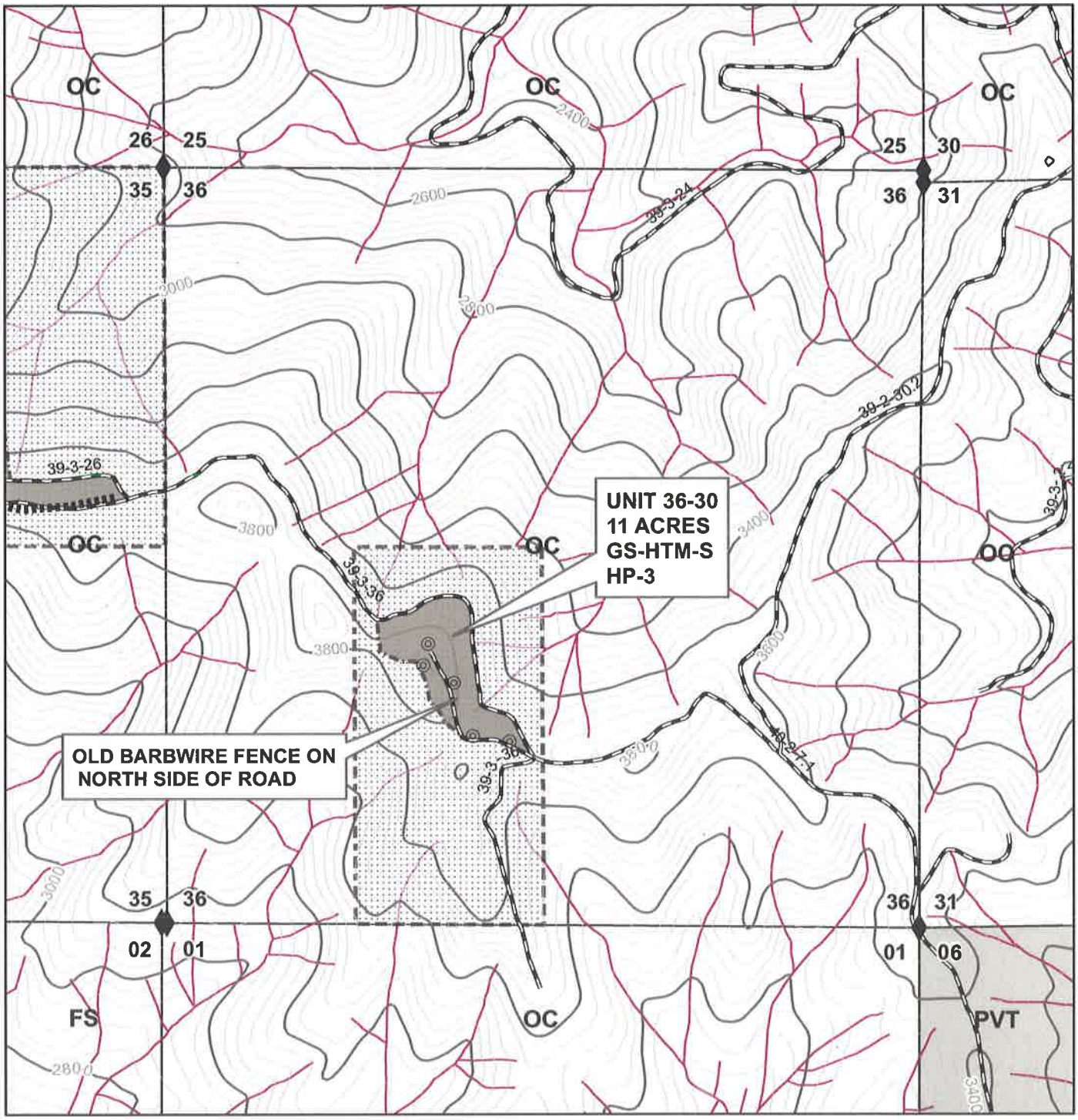
1 inch = 1,000 feet

N
W E
S

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

U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 38 S R. 03 W SEC. 36
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A



40 FOOT CONTOURS

0 0.1 0.2 0.4 Miles

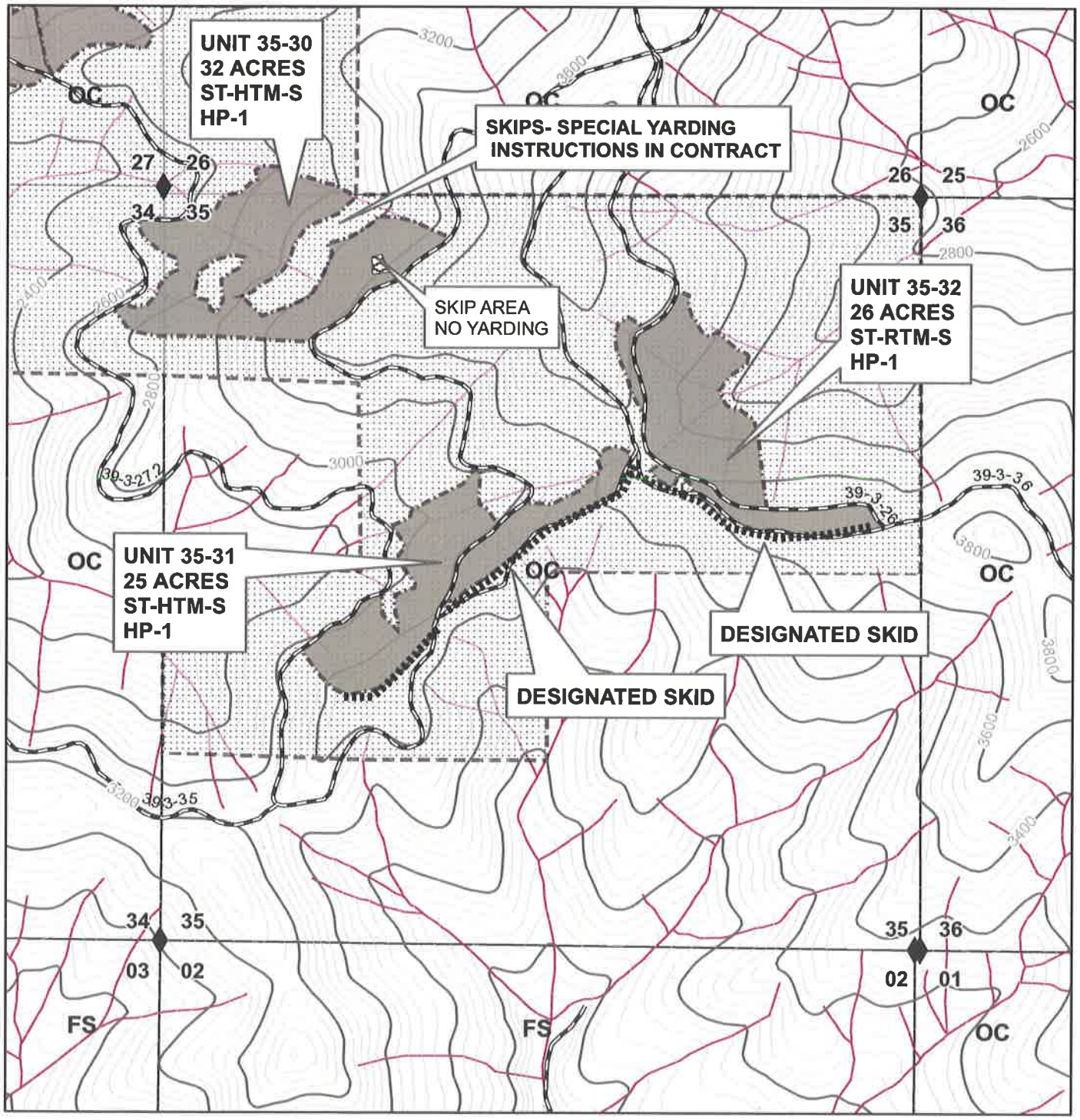
1 inch = 1,000 feet

N
W E
S

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

U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 38 S R. 03 W SEC. 35
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A



40 FOOT CONTOURS

0 0.1 0.2 0.4 Miles

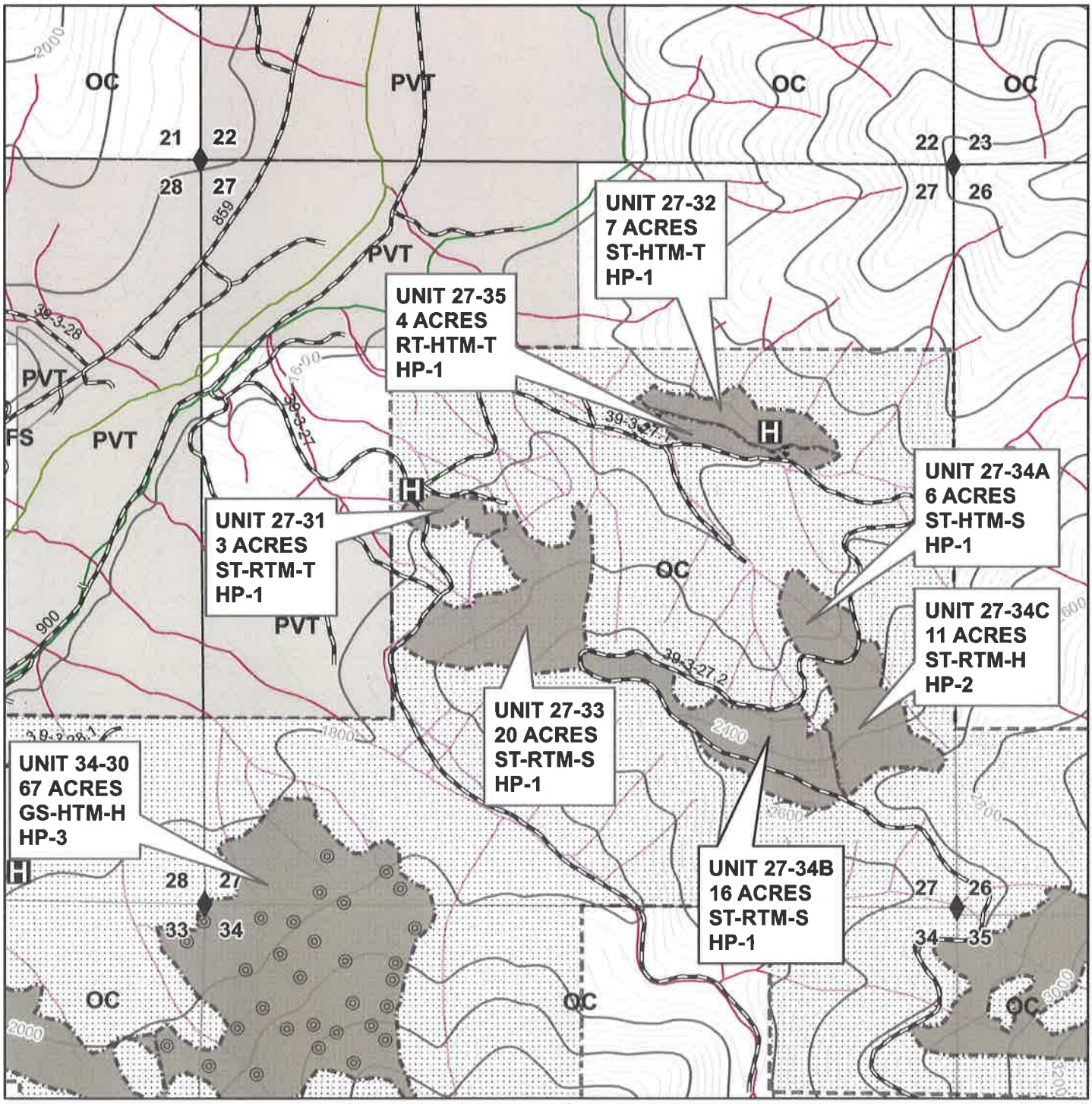
1 inch = 1,000 feet

N
W E
S

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

U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 38 S R. 03 W SEC. 27
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A



40 FOOT CONTOURS

0 0.1 0.2 0.4 Miles

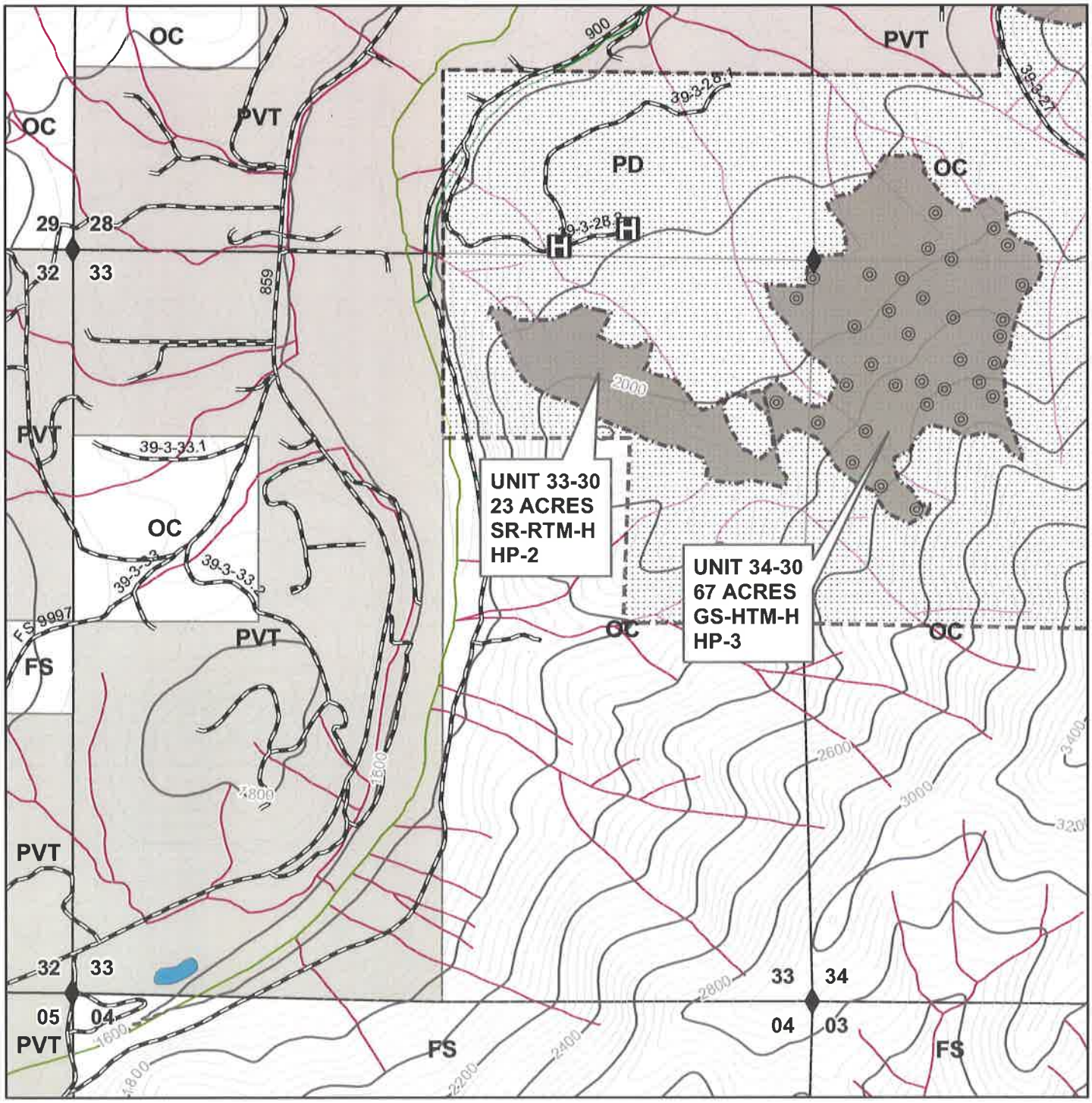
1 inch = 1,000 feet

N
W E
S

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

U.S.D.I. BLM MEDFORD DIST. SALE NO. 16-16
T. 38 S R. 03 W SEC. 33, 34
NEDSBAR TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM06-TS16-16
EXHIBIT A



40 FOOT CONTOURS

0 0.1 0.2 0.4 Miles

1 inch = 1,000 feet

N
W E
S

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

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

Contract No.: ORM06-TS16-16
Sale Name: Nedsbar Timber Sale
Issuing Office: Medford District

EXHIBIT B
SCALE SALE
PURCHASE PRICE SCHEDULE AND MEASUREMENT SPECIFICATIONS

I. **Total Actual Purchase Price** - In accordance with Section 3.(f). 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 – Merchantable logs	Measurement Unit	Price Per Measurement Unit
Douglas Fir	MBF	$
Ponderosa Pine	MBF	$
Utility logs	N/A	N/A

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	12 feet	7 inches	33 1/3% of gross volume of any log segment

If Purchaser elects to remove any logs which do not meet the above minimum log specifications and which have not been reserved to Government in Sec. 41 of the contract, such logs shall be scaled for their merchantable content as provided herein and be paid for in accordance with Sec. 2 and 3 of this contract and the value in Section 1 of this Exhibit.

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

IV. **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 the 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 Instruction Memorandum OR-2003-081, Item 2b (Administrative Check Scaler). 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, as set forth in Instruction Memorandum OR-2003-081, Item 2b (Administrative Check Scaler), 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 five (5) days prior to starting or stopping of hauling operations performed under the contract.

2. **All logs will be painted and branded at the landing and accounted for in accordance with Sec. 42. (A)(1) of the contract. If Sale Area is within a State that maintains a log brand register, brands shall be registered with the State. Purchaser shall use assigned brand(s) exclusively on logs from this sale until the Authorized Officer releases the brand(s).** 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. A designated area shall be identified at the yard scaling location for logs arriving during off hours. Logs arriving during off hours shall be left on the truck or may be off loaded to the designated area.

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 42(B)(12) 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:

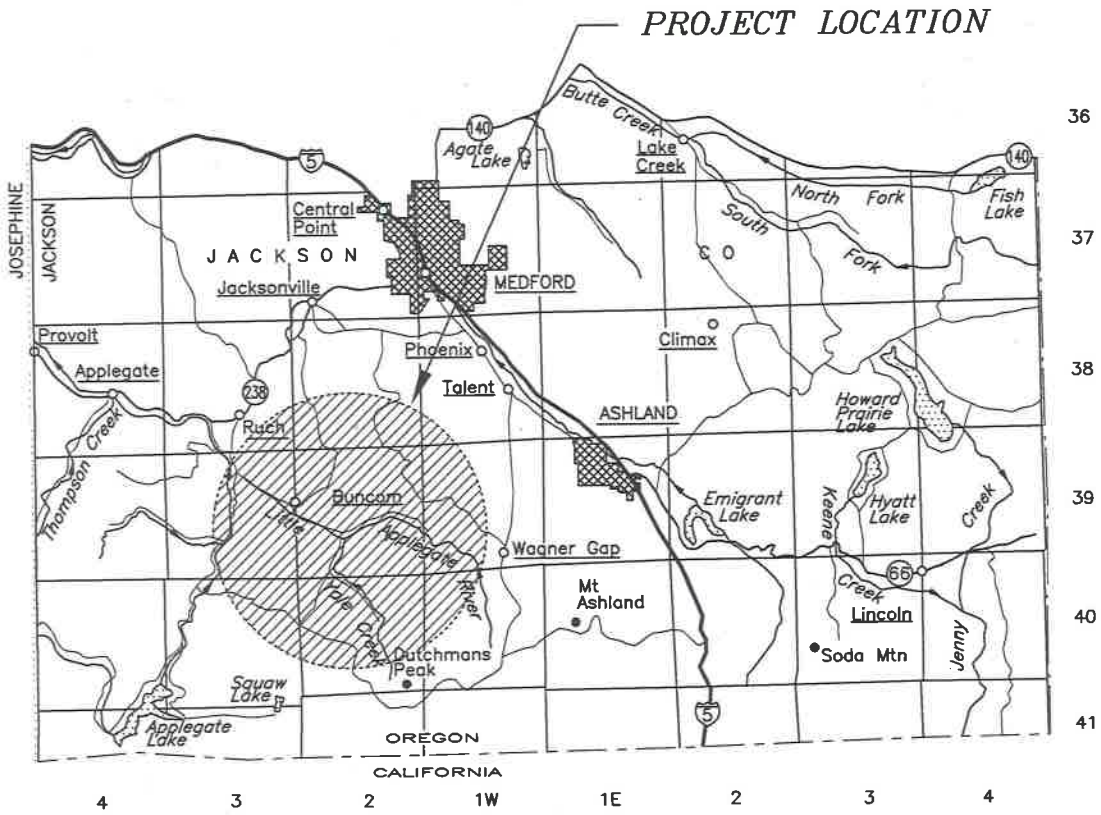
Total Estimated Purchase Price And/Or Schedule of Volumes and Values for Merchantable Timber Not Yet Removed from Contract Area					
Cutting Area		Total Estimated Volume (MBF)		Total Estimated Purchase Price	
Cutting Area Number	Approximate Number of Acres	Volume per Acre	Total Volume	Value per Acre	Total Value
14-30	39	6.8	266	$460.73	$17,968.60
15-30	17	6.8	116	$461.66	$7,848.20
17-10	13	6.8	89	$462.48	$6,012.20
17-12	12	6.8	82	$461.35	$5,536.20
20-10	74	2.8	204	$186.92	$13,832.20
20-11	4	0.8	3	$51.00	$204.00
20-12	10	6.8	68	$458.42	$4,584.20
25-20	37	6.8	253	$461.75	$17,084.60
25-22	14	6.8	95	$458.59	$6,420.20
25-23	2	5.5	11	$374.00	$748.00
25-30	12	6.8	82	$461.35	$5,536.20
26-21	35	6.8	239	$460.93	$16,132.60
27-31	3	6.7	20	$453.33	$1,360.00
27-32	7	6.9	48	$460.60	$3,224.20
27-33	20	6.9	137	$461.82	$9,236.40
27-34A	6	6.8	41	$458.03	$2,748.20
27-34B	16	6.8	109	$460.76	$7,372.20
27-34C	11	6.8	75	$460.02	$5,060.20
27-35	4	6.8	27	$459.00	$1,836.00
28-10	19	6.8	130	$461.07	$8,760.40
28-11	14	6.8	95	$458.59	$6,420.20
29-10A	7	6.9	48	$460.60	$3,224.20
29-10B	1	7.0	7	$476.00	$476.00
29-11	1	7.0	7	$476.00	$476.00
29-12	20	3.7	74	$185.93	$3,718.60
33-30	23	6.8	157	$460.71	$10,596.40
34-30	67	2.7	180	$181.50	$12,160.40
35-30	32	6.8	218	$459.52	$14,704.60
35-31	25	6.8	170	$459.22	$11,480.40
35-32	26	6.8	177	$459.86	$11,956.40
36-20	8	6.9	55	$462.53	$3,700.20
36-22	21	6.8	143	$459.26	$9,644.40
36-30	11	1.3	14	$86.55	$952.00
Sale Total	**611**		**3,440**		**$231,014.60**

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

NEDS BAR TIMBER SALE
TRACT NO. 16–16

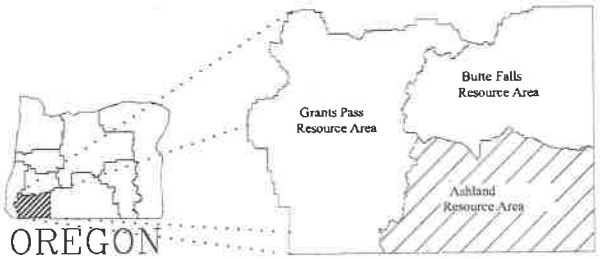
EXHIBIT C–1
SHEET 1 OF 1

Exhibit No.	Description
C 1	TITLE SHEET
C 2	ROAD LOCATION MAP
C 3	ESTIMATE OF QUANTITIES
C 4	SPECIFICATION SHEET
C 5	CULVERT LIST
C 6	CULVERT INSTALLATION DETAILS
C 7	CULVERT BAND DETAIL
C 8	TYPICAL ROAD SURFACING SECTIONS
C 9	ROADSIDE BRUSHING DETAIL
C 10	ROAD RENOVATION WORKLIST
C 11	CONSTRUCTION SPECIFICATIONS
D 1	ROAD MAINTENANCE SPECIFICATIONS
D 2	ROAD MAINTENANCE MAP
D 3	DRAINAGE AND EROSION CONTROL
D 4	TYPICAL ROAD CAMOUFLAGE
D 5	TYPICAL FULL DECOMMISSION



N

0 6 12
SCALE IN MILES



Medford District BLM

REV. NO.	DESCRIPTION	DATE	APPROV.

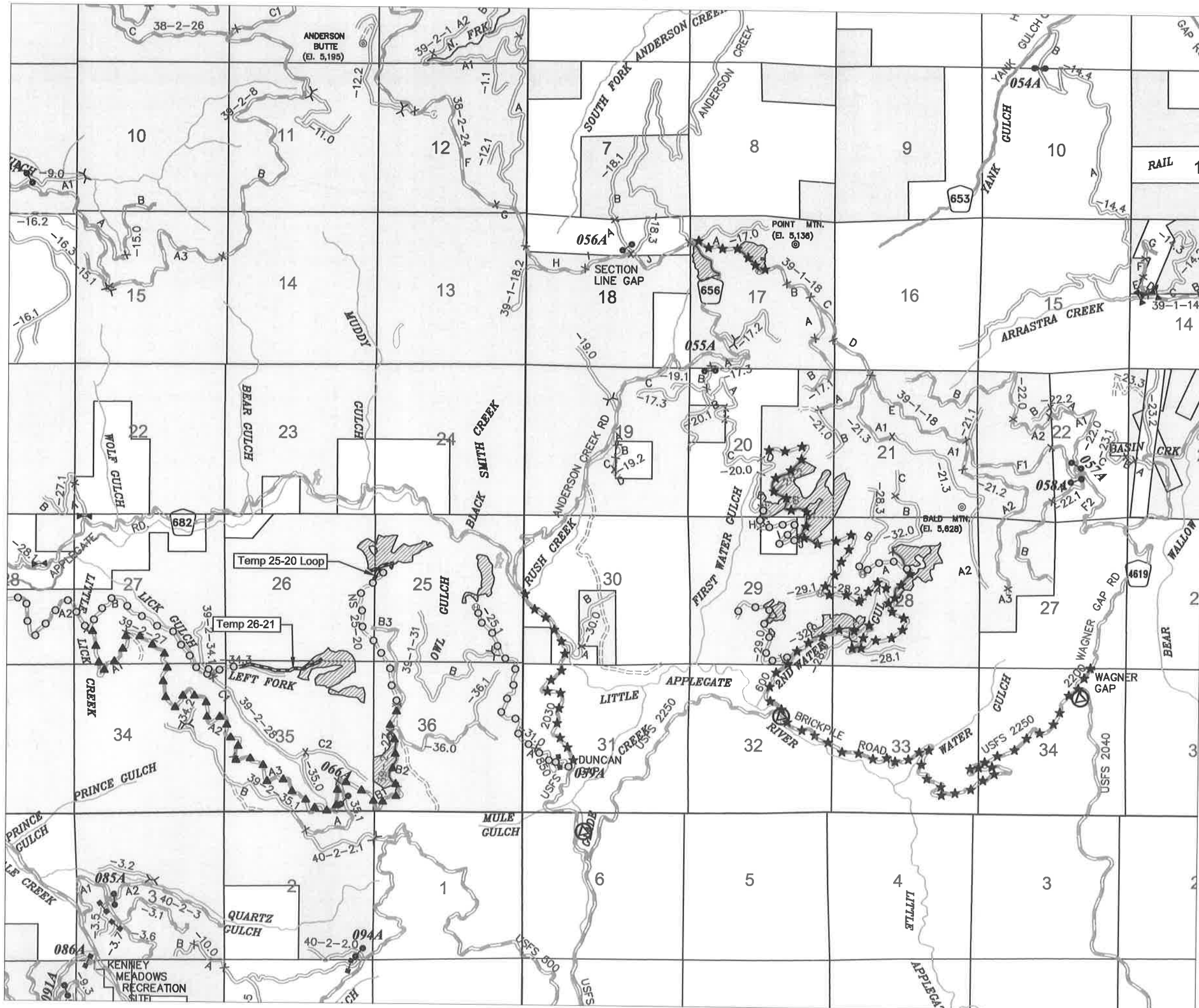
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT – MEDFORD, OREGON

MEDFORD **TITLE SHEET** OREGON

DESIGNED John W. Bloser
REVIEWED Bob McNeel
APPROVED Ernest Mastrangelo

DRAWN: JWR | SCALE: AS SHOWN
DATE: August 2016 | SHEET 1 OF 1
DRAWING NO. OR 117–TS16–16–C1

NEDSBAR TIMBER SALE
ROAD LOCATION MAP
EXHIBIT C-2; PAGE 1 OF 2



U.S.D.I. BLM MEDFORD DISTRICT

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

- EXISTING GATE
- EXISTING BARRICADE
- PUMP CHANCE
- USFS PUMP CHANCE TO BE USED ON USFS ROADS ONLY

ROAD PROJECTS

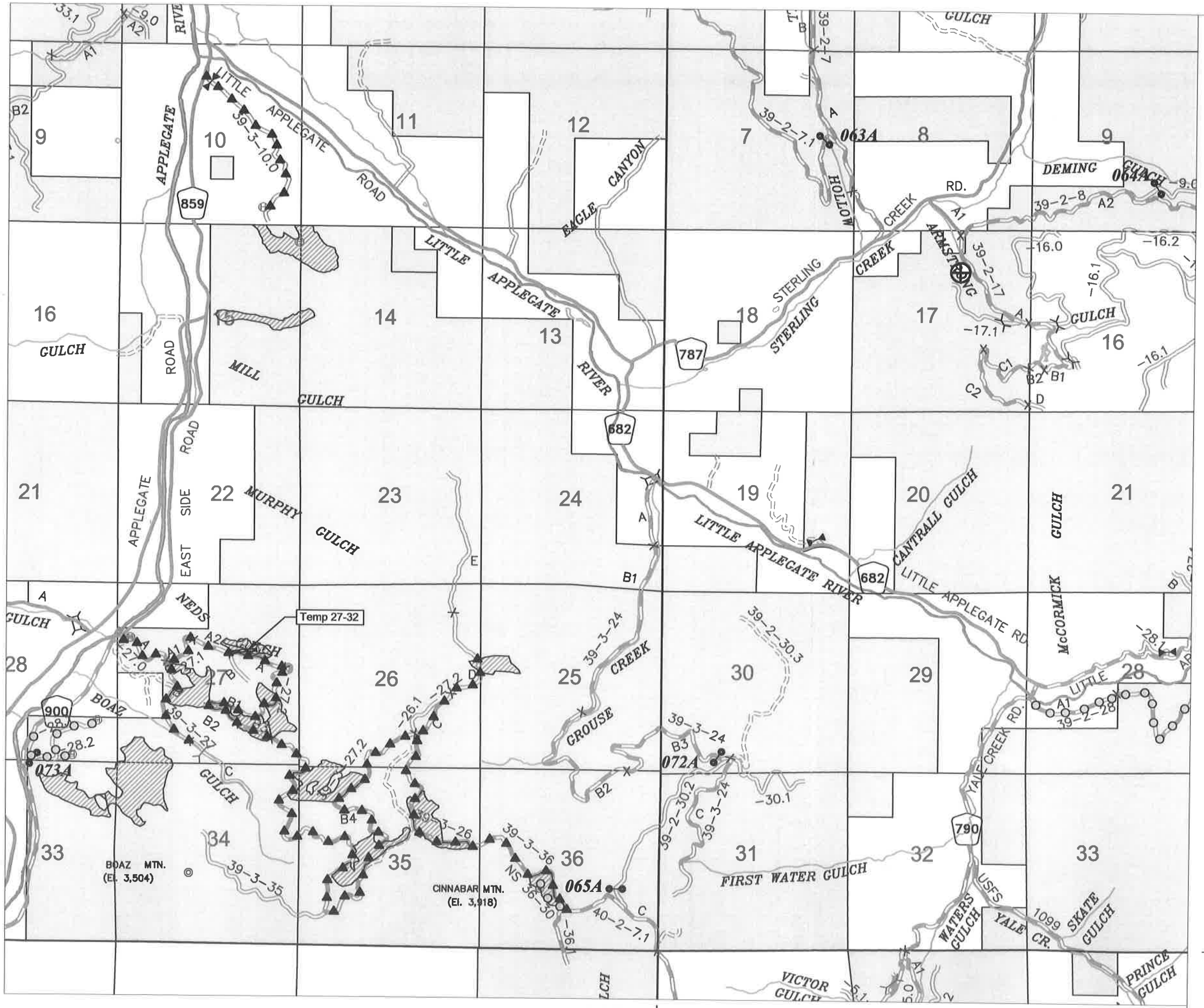
- EXISTING ROAD
- EXISTING PAVED ROAD
- EXISTING PRIMITIVE ROAD
- ROAD TO BE BRUSHED, BLADED, AND DRAINAGE IMPROVED
- ROAD TO BE BRUSHED ONLY
- ROAD TO BE BRUSHED, BLADED, AND SPOT ROCKED
- TEMPORARY SPUR TO BE CONSTRUCTED

- BLM LAND
- TS UNITS

N W E S

0 1/2 1
SCALE IN MILES

NEDSBAR TIMBER SALE
ROAD LOCATION MAP
EXHIBIT C-2; PAGE 2 OF 2



U.S.D.I. BLM MEDFORD DISTRICT

T.39S., R.1W. WILL. MER.
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ROAD TO BE BRUSHED ONLY

ROAD TO BE BRUSHED, BLADED, AND SPOT ROCKED

TEMPORARY SPUR TO BE CONSTRUCTED

BLM LAND

TS UNITS

N
W
E
S

0 1/2 1
SCALE IN MILES

ROAD NUMBER	FROM	TO	LENGTH	CLEARING AND GRUBBING	EXCAVATION		CORRUGATED METAL PIPE SIZE				RENOVATION	CONSTRUCT TURNOUT / WIDENING	AGGREGATE**					GEOTEXTILES	SOIL STABILIZATION	ROADSIDE BRUSHING	SLOPE STAKING	CONSTRUCT ARMORED WATERDIPS	CONSTRUCT TEMPORARY SPUR	APPLY LIGNIN	EARTH / LOG BARRIER	INSTALL WATERBARS	CAMOUFLAGE ROAD ENTRANCE 100 FEET	ROAD DECOMMISSION
					ROCK	COMMON	18"	TEMP. 18"	24"	36"			PIT RUN ROCK	CRUSHED BASE	CRUSHED SURFACE	BLM QUARRY	STOCKPILE											
SPECIFICATION NO.				200	300	300	400	400	400	400	500		700	1000	1200	1200		1300	1800	2100	2300			Exhibit D				
UNIT	MP/STA	MP/STA	MILE/STA	ACRE	C.Y.	C.Y.	L.F.	L.F.	L.F.	L.F.	MILE	EA.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	SQYD	ACRE	MILE	STA	EA	EA	MILE	EA	EA	EA	MILE
39-1-18.00	0.00	0.55	0.55																	0.55								
39-1-20.00	0.00	0.78	0.78								0.78									0.78								
39-1-28.02	0.00	2.89	2.89																	2.89								
39-1-28.03	0.00	0.42	0.42								0.42									0.42								
39-1-29.00	0.00	0.80	0.80								0.80									0.80					1			
39-1-31.00	0.45	1.47	1.02								1.02									1.02								
39-1-32.00	0.51	2.48	1.97																	1.97								
39-2-25.01	0.00	0.29	0.29								0.29									0.29					1	8		
39-2-27.00	0.00	4.93	4.93								0.59				20					4.93								
39-2-28.00	0.00	2.83	2.83								2.83									2.83				0.32				
39-2-34.01	0.00	0.04	0.04								0.04									0.04					1			
39-2-34.03	0.00	0.24	0.24								0.24									0.24								0.14
39-3-10.00	0.00	1.00	1.00				50				1.00	3			120					1.00				0.11				
39-3-26.00	0.00	1.01	1.01								1.01				20					1.01								
39-3-27.00	0.00	0.73	0.73								0.73				20					0.73								
39-3-27.01	0.00	0.49	0.49								0.49				20					0.49								
39-3-27.02	0.00	6.00	6.00								6.00				50					6.00								
39-3-28.01	0.00	0.30	0.30								0.30									0.30								
39-3-28.02	0.00	0.10	0.10								0.10									0.10								
39-3-36.00	0.00	0.81	0.81								0.81				20					0.81								
TOTAL Page 1							50				17.45	3			270					27.20				0.43	3	8		0.14

ALWAYS THINK SAFETY

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

REV. NO.		APPROV.

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

ESTIMATE OF QUANTITIES*

DRAWN: JWR	SCALE NONE
DATE: August 2016	SHEET 1 OF 2
DRAWING NO.	OR 117-TS16-16-C3

ROAD NUMBER	FROM	TO	LENGTH	CLEARING AND GRUBBING	EXCAVATION		CORRUGATED METAL PIPE SIZE				RENOVATION	CONSTRUCT TURNOUT / WIDENING	AGGREGATE**					GEOTEXTILES	SOIL STABILIZATION	ROADSIDE BRUSHING	SLOPE STAKING	CONSTRUCT ARMORED WATERDIPS	CONSTRUCT TEMPORARY SPUR	APPLY LIGNIN	EARTH / LOG BARRIER	INSTALL WATERBARS	CAMOUFLAGE ROAD ENTRANCE 100 FEET	ROAD DECOMMISSION
					ROCK	COMMON	18"	TEMP. 18"	24"	36"			PIT RUN ROCK	CRUSHED BASE	CRUSHED SURFACE	BLM QUARRY	STOCKPILE											
SPECIFICATION NO.				200	300	300	400	400	400	400	500		700	1000	1200	1200		1300	1800	2100	2300			Exhibit D				
UNIT	MP/STA	MP/STA	MILE/STA	ACRE	C.Y.	C.Y.	L.F.	L.F.	L.F.	L.F.	MILE	EA.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	SQYD	ACRE	MILE	STA	EA	EA	EA	EA	EA	EA	MILE
NS 25-20	0.00	1.15	1.15								1.15									1.15					1			
NS 36-30	0.00	0.22	0.22								0.22									0.22					1			
USFS 2030	0.00	1.13	1.13																	1.13								
USFS 850	0.00	0.45	0.45								0.45									0.45								
USFS 2200	0.00	0.11	0.11																	0.11								
USFS 2250	0.00	3.75	3.75																	3.75								
USFS 600	0.00	0.51	0.51																	0.51								
27-32 Temp	0.00	0.10	0.10					40											0.10				0.10				1	0.10
26-21 Temp	0.00	0.58	0.58																0.60				0.58					0.58
25-20 Temp Loop	0.00	0.30	0.30																0.30				0.30					0.30
TOTAL Page 2								40			1.82								1.00	7.32			0.98		2		1	0.98
Page 1 Total							50				17.45	3			270					27.20				0.43	3	8		0.14
TOTAL							50	40			19.27	3			270				1.00	34.52			0.98	0.43	5	8	1	1.12

ALWAYS THINK SAFETY

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

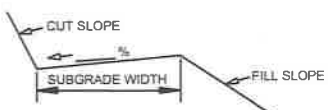
REV. NO.		APPROV.

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

ESTIMATE OF QUANTITIES*

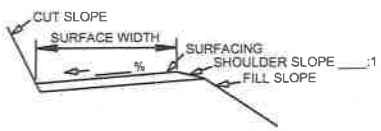
DRAWN: JWR	SCALE NONE
DATE: August 2016	SHEET 2 OF 2
DRAWING NO.	OR 117-TS16-16-C3

ROAD NUMBER	STATION OR MILE POST	TO STATION OR MILE POST	LENGTH MILE OR STATION	TYPICAL SECTION TYPE	ALLIGNMENT	ROAD WIDTH (1-3)		GRADIENT		CLEARING WIDTH				SURFACING (4)								REMARKS
					MAXIMUM DEGREE OF CURVE	SUBGRADE	DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	BEYOND		EXISTING ROAD(S)		BASE COURSE				SURFACE COURSE				
										TOP CUT	TOE FILL	L	R	MINIMUM WIDTH	COMP. DEPTH	TYPE (2)	GRADING	MINIMUM WIDTH	COMP. DEPTH	TYPE (2)	GRADING	
39-1-18.00	0.00	0.55	0.55	6		16	3					4	4									
39-1-20.00	0.00	0.78	0.78	3		14						4	4									
39-1-28.02	0.00	2.89	2.89	3		14						4	4									
39-1-28.03	0.00	0.42	0.42	3		14						4	4									
39-1-29.00	0.00	0.80	0.80	3		16						4	4	Road to be Closed Long Term upon Completion Log Haul								Install Barricade
39-1-31.00	0.45	1.47	1.02	3		16						4	4									
39-1-32.00	0.51	2.48	1.97	4		14						4	4									
39-2-25.01	0.00	0.29	0.29	3		16						4	4	Road to be Closed Long Term upon Completion Log Haul								Install Barricade and Construct Waterbars
39-2-27.00	0.00	4.93	4.93	5		14	3					4	4					12'-0"	0'-6"	D	2"(-)	Spot rock with 20 CY of rock as needed
39-2-28.00	0.00	2.83	2.83	5		14	3					4	4									Apply Lignin at locations in Worklist
39-2-34.01	0.00	0.04	0.04	3		14						4	4	Road to be Closed Long Term upon Completion Log Haul								Install Barricade
39-2-34.03	0.00	0.24	0.24	3		14						4	4	Road to be Fully Decommissioned upon Completion Log Haul								Decompact road surface as Per Exhibit D-5
39-3-10.00	0.00	1.00	1.00	3		14						4	4					12'-0"	0'-6"	D	2"(-)	Spot rock with 120 CY of rock as needed and apply Lignin
39-3-26.00	0.00	1.01	1.01	5		16	3					4	4					12'-0"	0'-6"	D	2"(-)	Spot rock with 20 CY of rock as needed
39-3-27.00	0.00	0.73	0.73	4		14						4	4					12'-0"	0'-6"	D	2"(-)	Spot rock with 20 CY of rock as needed
39-3-27.01	0.00	0.49	0.49	4		14						4	4					12'-0"	0'-6"	D	2"(-)	Spot rock with 20 CY of rock as needed
39-3-27.02	0.00	6.00	6.00	5		14	3					4	4					12'-0"	0'-6"	D	2"(-)	Spot rock with 50 CY of rock as needed
39-3-28.01	0.00	0.30	0.30	3		14						4	4									
39-3-28.02	0.00	0.10	0.10	3		14						4	4									
39-3-36.00	0.00	0.81	0.81	4		14						4	4					12'-0"	0'-6"	D	2"(-)	Spot rock with 20 CY of rock as needed
USFS 2030	0.00	1.13	1.13	5		16	3					4	4									
USFS 850	0.00	0.45	0.45	3		14						4	4									
USFS 2200	0.00	0.11	0.11	5		16	3					4	4									
USFS 2250	0.00	3.75	3.75	5		16	3					4	4									
USFS 600	0.00	0.51	0.51	3		16						4	4									



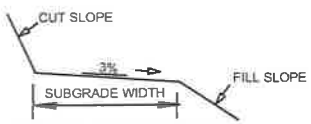
TYPICAL GRADING SECTION

TYPE 1



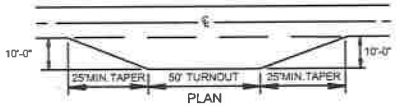
TYPICAL SURFACING SECTION

TYPE 2

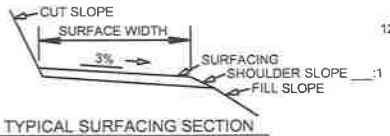


TYPICAL GRADING SECTION

TYPE 3

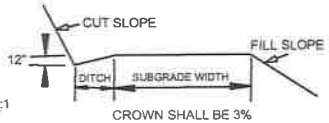


PLAN
TYPICAL TURNOUT



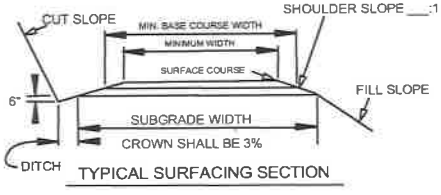
TYPICAL SURFACING SECTION

TYPE 4



TYPICAL GRADING SECTION

TYPE 5



TYPICAL SURFACING SECTION

TYPE 6

NOTES

1. EXTRA SUBGRADE WIDTHS
   ADD TO EACH FILL SHOULDER 1FT.FOR FILLS OF 1-6FT. & 2FT.FOR FILLS OVER 6FT. WIDEN THE INSIDE SHOLDER OF ALL CURVES AS FOLLOWS:
   WHEN THE DEGREE OF CURVE EQUALS
   7-21 ADD 1FT.
   22-35 ADD 2FT.
   36-48 ADD 3FT.
   49-64 ADD 4FT.
   65-96 ADD 5FT.

MATERIALS	CUT SLOPES	FILL SLOPES
COMMON	_____	1 1/2:1
SOFT ROCK & SHALE	1/2:1	_____
SOLID ROCK	1/2:1	ANGLE OF REPOSE

FULL BENCH CONSTRUCTION IS REQUIRED ON SIDE SLOPES EXCEEDING 60%

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

3. TURNOUTS
   A. WIDTH 10FT. IN ADDITION TO SUBGRADE WIDTH,OR AS SHOWN ON THE PLANS.
   B. LOCATED APPROXIMATELY AS SHOWN ON THE ROAD PLANS.
   C. INTERVISIBLE AND NOT MORE THAN _____FT. APART.

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

5. CLEARING WIDTH
   SEE SUBSECTION 2100

ALWAYS THINK SAFETY

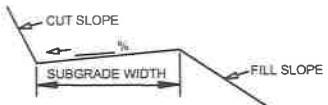
REV. NO.	DESCRIPTION	DATE	APPROV.

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

SPECIFICATION SHEET

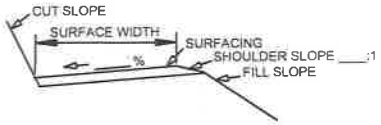
DRAWN: JWR	SCALE NONE
DATE: August 2016	SHEET 1 OF 2
DRAWING NO.	OR 117-TS16-16-C4

ROAD NUMBER	STATION OR MILE POST	TO STATION OR MILE POST	LENGTH MILE OR STATION	TYPICAL SECTION TYPE	ALLIGNMENT	ROAD WIDTH (1-3)		GRADIENT		CLEARING WIDTH				SURFACING (4)								REMARKS
					MAXIMUM DEGREE OF CURVE	SUBGRADE	DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	BEYOND		EXISTING ROAD(S)		BASE COURSE				SURFACE COURSE				
										TOP CUT	TOE FILL	L	R	MINIMUM WIDTH	COMP. DEPTH	TYPE (2)	GRADING	MINIMUM WIDTH	COMP. DEPTH	TYPE (2)	GRADING	
NS 25-20	0.00	1.15	1.15	5		14						4	4	Road to be Closed Long Term upon Completion Log Haul								Install Barricade
NS 36-30	0.00	0.22	0.22	3		14						4	4	Road to be Closed Long Term upon Completion Log Haul								Install Barricade
27-32 Temp	0.00	0.10	0.10	5		14						2	0	Temporary Spur to be constructed. Fully Decommission upon Completion Log Haul								Decompact road surface and camouflage as Per Ex. D-5
26-21 Temp	0.00	0.58	0.58	3		14						2	0	Temporary Spur to be constructed. Fully Decommission upon Completion Log Haul								Decompact road surface as Per Exhibit D-5
25-20 Temp Loop	0.00	0.30	0.30	3		14						2	0	Temporary Spur to be constructed. Fully Decommission upon Completion Log Haul								Decompact road surface as Per Exhibit D-5



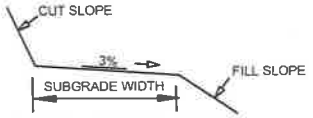
TYPICAL GRADING SECTION

TYPE 1



TYPICAL SURFACING SECTION

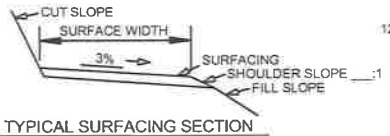
TYPE 2



TYPICAL GRADING SECTION

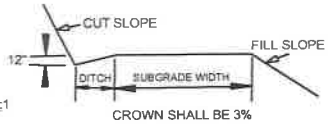
TYPE 3

PLAN
TYPICAL TURNOUT



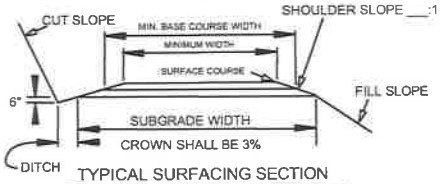
TYPICAL SURFACING SECTION

TYPE 4



TYPICAL GRADING SECTION

TYPE 5



TYPICAL SURFACING SECTION

TYPE 6

NOTES

1. EXTRA SUBGRADE WIDTHS
   ADD TO EACH FILL SHOULDER 1FT.FOR FILLS OF 1-6FT, & 2FT.FOR FILLS OVER 6FT. WIDEN THE INSIDE SHOLDER OF ALL CURVES AS FOLLOWS:
   WHEN THE DEGREE OF CURVE EQUALS
   7-21 ADD 1FT.
   22-35 ADD 2FT.
   36-48 ADD 3FT.
   49-64 ADD 4FT.
   65-96 ADD 5FT.

MATERIALS	CUT SLOPES	FILL SLOPES
COMMON	_____	1 1/2:1
SOFT ROCK & SHALE	1/2:1	_____
SOLID ROCK	1/2:1	ANGLE OF REPOSE

FULL BENCH CONSTRUCTION IS REQUIRED ON SIDE SLOPES EXCEEDING 60%.

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

3. TURNOUTS
   A. WIDTH 10FT. IN ADDITION TO SUBGRADE WIDTH,OR AS SHOWN ON THE PLANS.
   B. LOCATED APPROXIMATELY AS SHOWN ON THE ROAD PLANS.
   C. INTERVISIBLE AND NOT MORE THAN _____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.

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

SPECIFICATION SHEET

DRAWN: JWR	SCALE NONE
DATE: August 2016	SHEET 2 OF 2
DRAWING NO.	OR 117-TS16-16-C4

CULVERT LOCATIONS										DOWNSPOUTS						REMARKS
DESIGNED						AS BUILT				1/2 ROUND		FULL ROUND		RECT. FLUME		
ROAD NO.	STATION OR M.P.	SIZE	GAGE	LENGTH	SKEW ANGLE	STATION OR M.P.	SIZE	GAGE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	
39–3–10.00	0.95	18	16	30	NA											
	1.00	18	16	20	Ditch											
27–32 Temp	0.00	18	16	40	Ditch											Temp. Culvert to be Removed After Haul
	TOTAL 18" CMP: 90'															
	TOTAL 24" CMP:															
	TOTAL 36" CMP:															

NOTES:

A. Designed culvert lengths and locations are approximate. Actual lengths and locations will be staked in the field.

B. Summary of quantities are shown on drawing OR 117–TS15–16–C3

C. All downpipes are 16 guage unless otherwise noted.

ELBOW TYPES:*

1. Conventional or fabricated
2. Turner type
3. Slip joint

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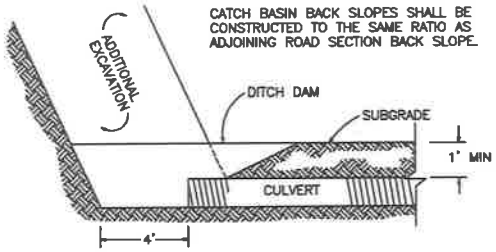
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT – MEDFORD, OREGON

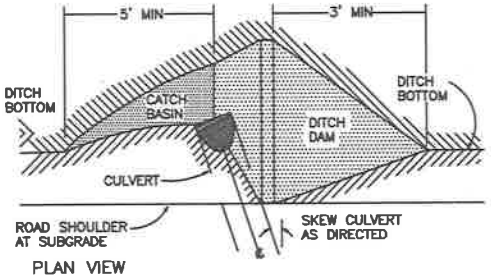
MEDFORD **CULVERT LIST** OREGON

DRAWN: JWR	SCALE: AS SHOWN
DATE: August 2016	SHEET 1 OF 1
DRAWING NO. OR 117–TS16–16–C5	

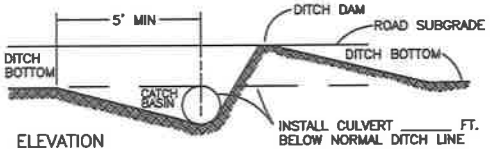
EXHIBIT C 6
SHEET 1 OF 1



CROSS SECTION AT CATCH BASIN

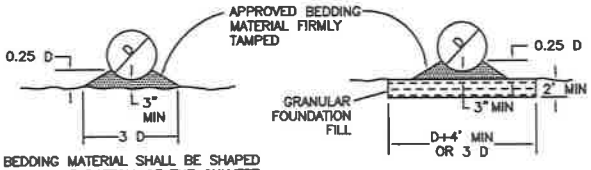


PLAN VIEW



ELEVATION

CATCH BASIN

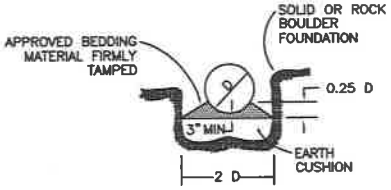


BEDDING MATERIAL SHALL BE SHAPED TO FIT THE BOTTOM OF THE CULVERT.

BEDDING OF CULVERTS ON STABLE NATURAL GROUND FOUNDATION OR COMPACTED EMBANKMENT

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

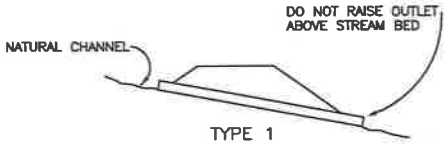
BEDDING OF CULVERTS ON SOFT SPONGY OR UNSTABLE SOIL FOUNDATION



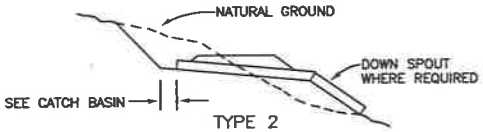
BEDDING MATERIAL SHALL BE SHAPED TO FIT THE BOTTOM OF THE CULVERT. EARTH CUSHIONING OF SILTY CLAY LOAM OR SAND MAY BE USED IF MATERIAL CAN BE PLACED IN THE DRY CONDITION. IF THE EXCAVATION IS WET, USE GRANULAR FOUNDATION FILL MATERIAL. MAINTAIN 8" MIN. DEPTH BETWEEN HIGH POINTS OF ROCKS AND/OR BOULDERS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

BEDDING OF CULVERT IN SOLID ROCK OR BOULDER FOUNDATION

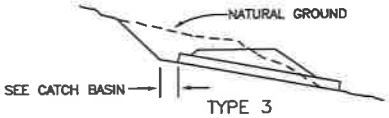
BEDDING OF CULVERTS



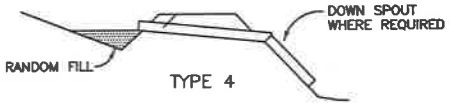
TYPE 1



TYPE 2

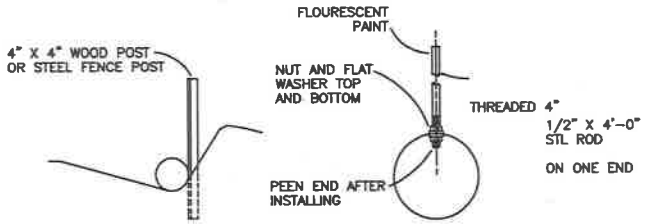


TYPE 3



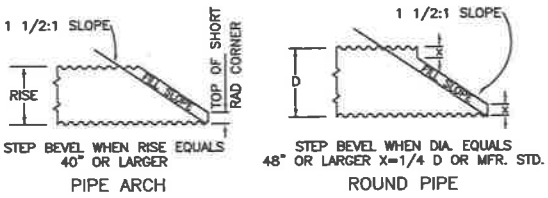
TYPE 4

CULVERT INSTALLATION TYPES

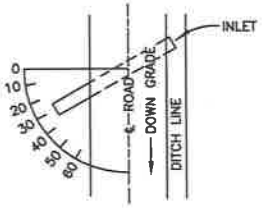


INSTALL MARKERS NOT MORE THAN 6" BACK FROM END OF CULVERT

CULVERT MARKER INSTALLATION



BEVELED END DETAIL



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

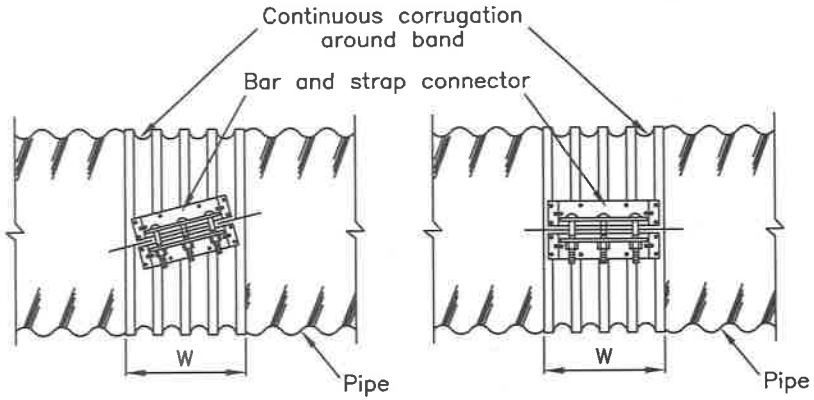
SKEW DIAGRAM

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

CULVERT INSTALLATION DETAILS

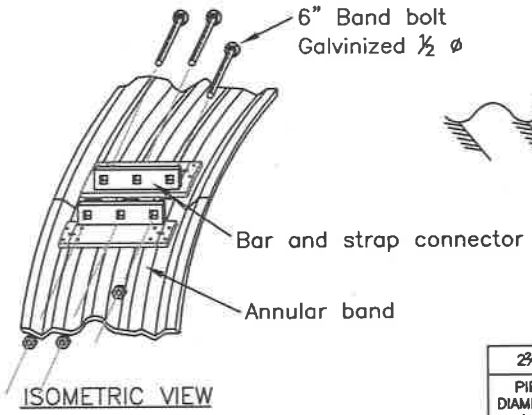
DRAWN JWR	SCALE NONE
DATE August 2016	SHEET 1 OF 1
DRAWING NO. OR 117-TS16-16-C6	

FULL CORRUGATED BAND

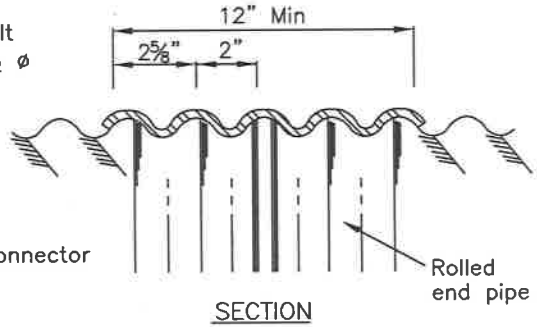


HELICAL COUPLING

ANNULAR COUPLING



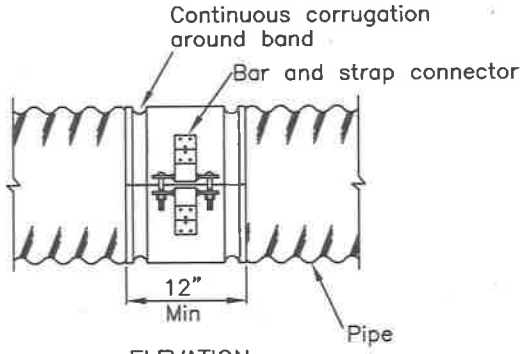
ISOMETRIC VIEW



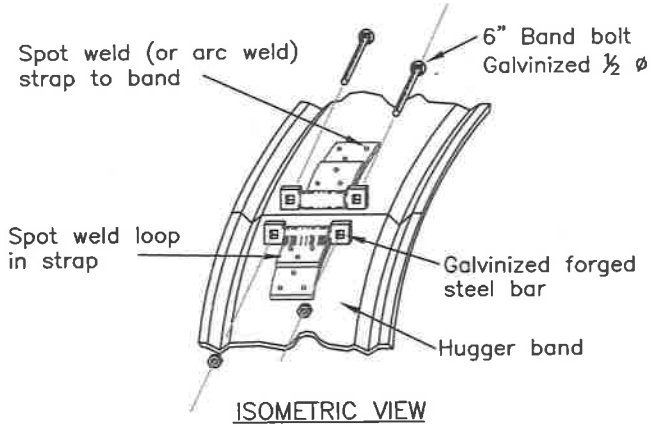
SECTION

2⅔"x½" CORRUGATIONS				3"x1" CORRUGATIONS			
PIPE DIAMETER (in)	W(in)		#of ½" Bolts	PIPE DIAMETER (in)	W(in)		#of ½" Bolts
	ANN.	HEL.			ANN.	HEL.	
6–10	7	7	2	36–84	14	14	3
12–15	7	12	2–3	36–120	26	26	5
18–84	12	12	3				
24–84	24	24	5				

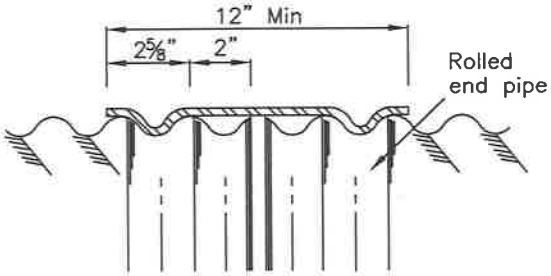
"HUGGER" BAND



ELEVATION



ISOMETRIC VIEW



SECTION

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

The hugger coupler band or an approved equivalent coupler band shall be made of the same material and finish as the pipes joined. The coupler bands shall have a minimum width of 12 inches and may be two numerical thicknesses lighter than the gage or thickness designated for the conduit joined. The band shall be designed to be drawn together with two 1/2 inch bolts through use of a bar and strap suitably welded to the band. The band shall engage and mesh with the second annuler corrugation inward from the end of each of the conduit sections joined.

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

REV. NO.	DESCRIPTION	DATE	APPROV.

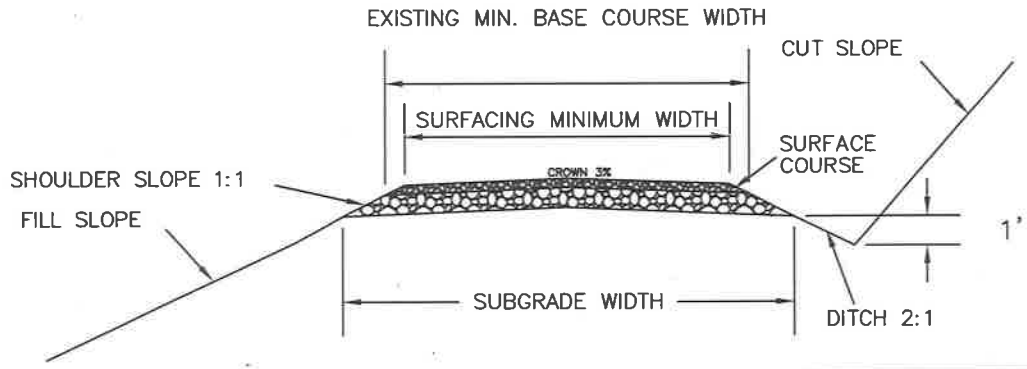
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT – MEDFORD, OREGON

CULVERT BAND DETAIL

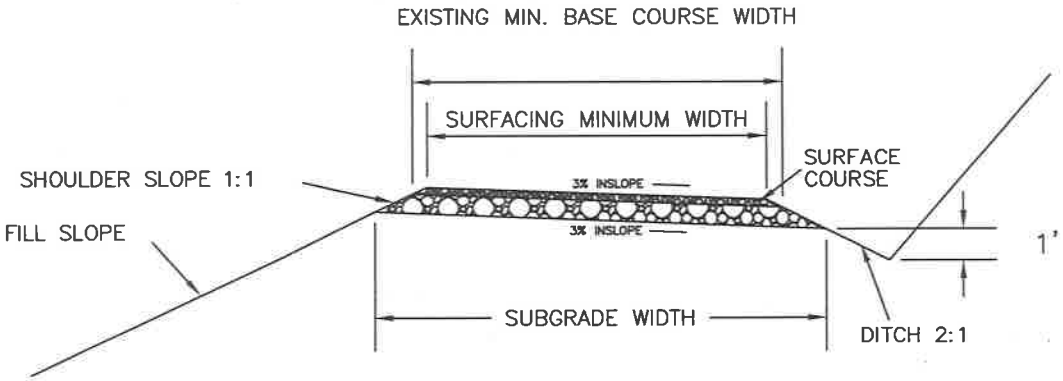
DRAWN JWR	SCALE NONE
DATE August 2016	SHEET 1 OF 1
DRAWING NO. OR 117–TS16–16–C7	

EXHIBIT C-8
SHEET 1 OF 1

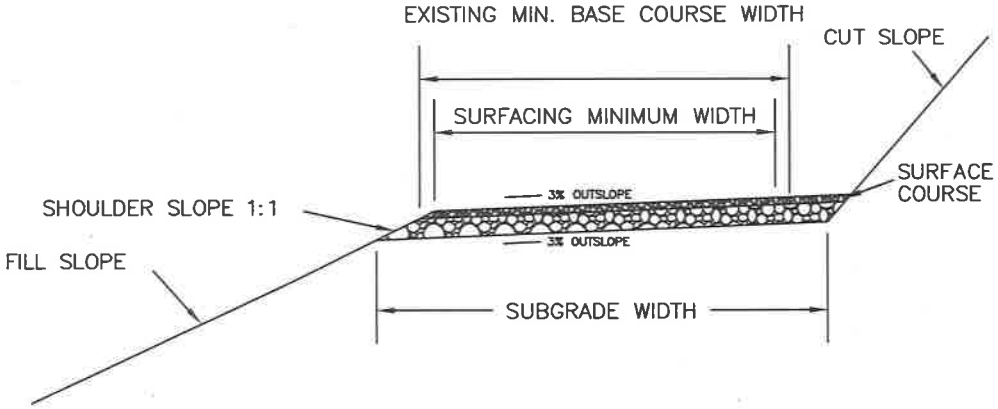
TYPICAL CROWNED SURFACE



TYPICAL INSLOPED SURFACE



TYPICAL OUTSLOPED SURFACE



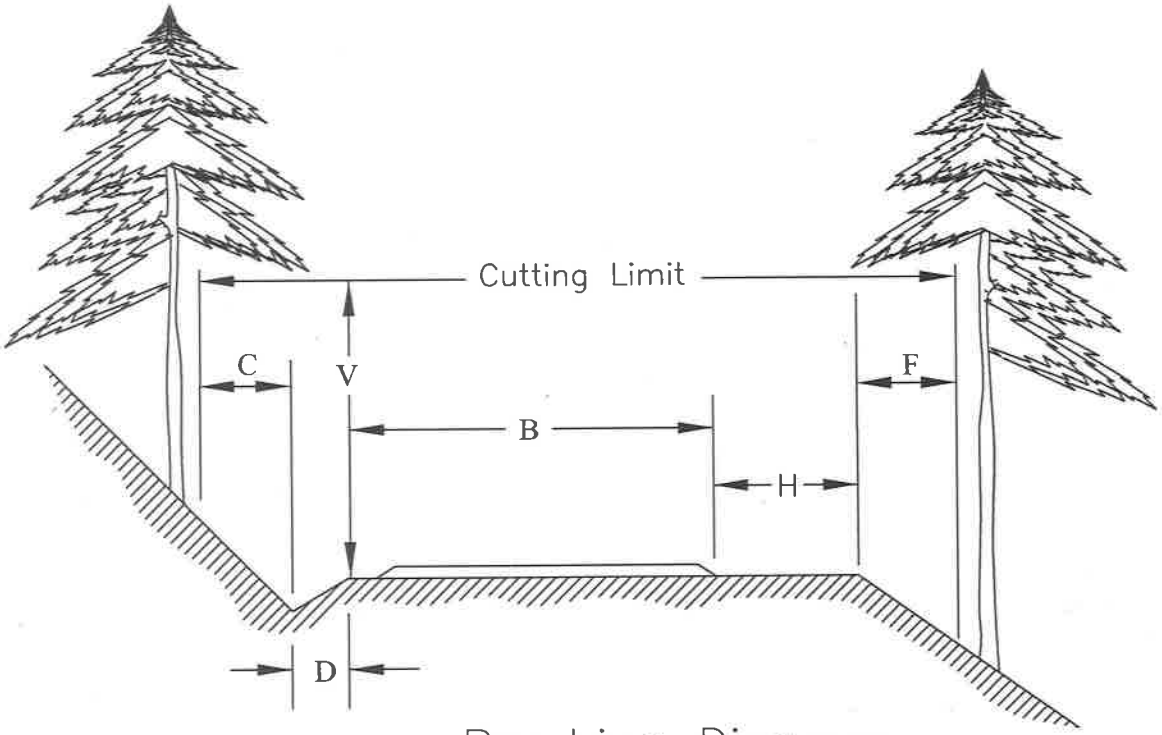
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT – MEDFORD, OREGON

TYPICAL ROAD SURFACING SECTIONS

DRAWN: JWR	SCALE: AS SHOWN
DATE: August 2016	SHEET 1 OF 1
DRAWING NO. OR 117-TS16-16-C8	

Exhibit C 9

SHEET 1 OF 1



Brushing Diagram

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

B = Basic lane width (includes turnouts)
Width shall be determined by the PI

C = 4 ft - Distance to be brushed on cut slope beyond centerline of ditch

D = Centerline of ditch to inside shoulder

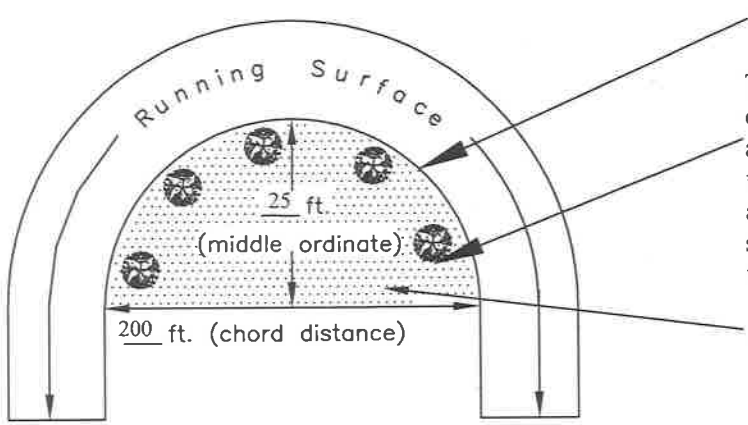
H = Variable distance between edge of basic lane and outside shoulder (does not include turnout widths)

F = Distance to be brushed on fill slope beyond outside shoulder
(F = 4 when H is 4 ft or less)
(F = 0 when H is greater than 4 ft)

V = 14 ft - Height of vertical cutting limit

Typical Basic lane widths

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



Sight Distance Diagram

NOTES:

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

All distances shown are horizontal except for V

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

ROADSIDE BRUSHING DETAIL

DRAWN JWR	SCALE NONE
DATE August 2016	SHEET 1 OF 1
DRAWING NO.	OR 117-TS16-16-C9

NEDS BAR TIMBER SALE
Road Renovation Worklist

Renovation: This consists of road work to be performed on the road prior to its use. The work includes, but not limited to blading the road surface, brushing, cleaning catch basins, cleaning ditches, and placing crushed aggregate on approved road bed..

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

CMP – Corrugated Metal Pipe
Jct.– Junction

BST – Bituminous Surface Treatment
EWD – Construct Water Dip

Road 39-1-18.00 (Bald Mtn)
Aggregate

MP	Remarks
0.00	Junction with 38-2-24.0 Begin Roadside Brushing
0.04	Existing stockpile Right
0.05	Junction 39-1-17.0 Existing CMP 18"
0.18	Existing CMP 18"
0.31	Existing CMP 18"
0.55	Junction non-system spur, helicopter landing EOP

Road 39-1-20.00 (Rush Water Connect)
Natural

MP	Remarks
0.00	Junction with 39-1-28.2 Begin blading and shaping. After timber haul if rolling dips aren't functional they shall be replaced. Begin Roadside Brushing
0.04	EWD
0.08	25' leadoff ditch

0.15	EWD
0.22	EWD
0.31	EWD
0.35	EWD
0.42	EWD
0.46	EWD
0.55	EWD
0.78	EOP

Road 39-1-28.02(Brickpile Ranch D)
Natural

MP	Remarks
0.00	Junction with 39-1-32.0 After timber haul if rolling dips aren't functional they shall be replaced. Begin Roadside Brushing
0.08	EWD
0.15	EWD
0.23	CMP 18"
0.39	CMP 18"
0.67	EWD
0.74	EWD
0.83	EWD
0.86	EWD
0.96	EWD
1.13	EWD
1.25	CMP 18"
1.32	EWD

1.37	EWD
1.42	EWD
1.45	EWD
1.59	EWD
1.65	Junction with 39-1-20.0
1.76	EWD
1.87	CMP 18"
1.93	EWD
2.05	EWD
2.09	EWD
2.19	EWD
2.33	EWD
2.38	EWD
2.42	EWD
2.52	EWD
2.61	CMP 18"
2.67	EWD
2.71	EWD
2.76	EWD
2.81	EWD
2.85	EWD
2.89	Existing Double wide turnout End of Project

Road 39-1-28.03(Brickpile Ranch C)
Natural

MP	Remarks
0.00	Junction with 39-1-32.0 Begin blading and shaping. After timber haul if rolling dips aren't functional they shall be replaced. Begin Roadside Brushing
0.08	EWD
0.24	EWD
0.36	Helicopter landing
0.42	End of Project

Road 39-1-29.00(Bull Rush Spur)
Natural

MP	Remarks
0.00	Junction with 39-1-32.0 Remove barricade, after timber haul re-barricade. If water dips are not functional after timber haul replace. Begin blading and shaping Begin Roadside Brushing
0.05	EWD
0.07	EWD
0.14	EWD
0.19	EWD
0.25	EWD
0.31	EWD
0.38	EWD
0.43	EWD
0.48	EWD
0.49	EWD
0.52	EWD

0.58	EWD
0.63	EWD
0.69	EWD
0.74	EWD
0.80	End existing landing End of Project

Road 39-1-31.00(Duncan W)
Natural

MP	Remarks
0.45	Junction with USFS 850. Continue Spot Blading. Continue Roadside Brushing.
0.66	EWD
0.85	18" CMP Crossdrain
0.91	18" CMP Crossdrain
0.92	EWD
0.99	EWD
1.12	EWD
1.17	EWD
1.25	EWD
1.46	Junction with 39-2-25.1 right.
1.47	Road barricaded, washed out beyond.

Road 39-1-32.00A (Brickpile Rnch)
Aggregate

MP	Remarks
0.51	Junction with USFS 600. Continue Roadside Brushing.
0.52	EWD
0.57	Junction with 39-1-29.0

0.58	Existing CMP 18"
0.63	Existing CMP 18"
0.72	Existing CMP 18"
0.83	Existing CMP 18"
0.94	Existing CMP 18"
1.01	Junction with 39-1-28.0
1.03	Existing CMP 18"
1.17	Existing CMP 18"
1.20	Existing CMP 18"
1.37	Existing CMP 18"
1.45	End existing surface. ASC
1.53	Junction with 39-1-28.1
1.55	Existing CMP 18"
1.71	Existing CMP 18"
1.77	EWD
1.87	EWD
1.96	Existing CMP 18"
2.06	Junction with 39-1-28.2
2.24	EWD
2.41	Existing CMP 18"
2.43	Junction with 39-1-28.3
2.48	EOP

Road 39-2-25.01(Lower Ridge Spur)
Natural

MP	Remarks
0.00	Begin Roadside Brushing and blading. Heavy brush, road not drivable at this time. After timber haul construct waterbar every 200 ft. and trench barricade to close.
0.29	End of road, construct helicopter landing.

Road 39-2-27.00(Lick Gulch Ex)
Aggregate

MP	Remarks
0.00	Begin Roadside Brushing
0.15	18" CMP Crossdrain
0.30	18" CMP Crossdrain
0.36	18" CMP Crossdrain
0.53	18" CMP Crossdrain
0.65	18" CMP Crossdrain
0.98	18" CMP Crossdrain
1.12	18" CMP Crossdrain
1.26	18" CMP Crossdrain
1.36	18" CMP Crossdrain
1.50	18" CMP Crossdrain
1.56	18" CMP Crossdrain
1.59	18" CMP Crossdrain
1.74	18" CMP Crossdrain
1.87	18" CMP Crossdrain
1.93	18" CMP Crossdrain
1.97	18" CMP Crossdrain
2.08	18" CMP Crossdrain

2.22	18" CMP Crossdrain
2.35	18" CMP Crossdrain
2.46	18" CMP Crossdrain
2.49	18" CMP Crossdrain
2.57	Rock Quarry Right
2.61	18" CMP Crossdrain
2.72	18" CMP Crossdrain
2.82	18" CMP Crossdrain
2.92	18" CMP Crossdrain
3.07	18" CMP Crossdrain
3.20	18" CMP Crossdrain
3.27	18" CMP Crossdrain
3.49	18" CMP Crossdrain
3.57	18" CMP Crossdrain
3.68	18" CMP Crossdrain
3.72	Junction with 39-2W-35.01
3.72	18" CMP Crossdrain
3.96	18" CMP Crossdrain
4.07	18" CMP Crossdrain
4.19	18" CMP Crossdrain
4.29	18" CMP Crossdrain
4.34	18" CMP Crossdrain. End Aggregate Surface. Begin Grid Rolled Surface. Begin Spot Blading to remove rocks and debris from the road but not break road surface. Spot rock as needed with 20 yds rock.
4.42	18" CMP Crossdrain

4.49	18" CMP Crossdrain
4.54	18" CMP Crossdrain
4.60	18" CMP Crossdrain
4.65	18" CMP Crossdrain
4.70	18" CMP Crossdrain
4.78	Junction with 39-2W-36.01
4.79	18" CMP Crossdrain
4.87	EWD
4.93	Junction with non-system road left, Non_sys 25-20. EOP

Road 39-2-28.00 (Lick Gulch)
Aggregate
If timber haul is not completed in one field season, a second application of lignin will be required before timber haul resumes.

MP	Remarks
0.00	Junction with Yale Creek Road. Begin Roadside Brushing and Blading.
0.01	Existing Cattle Guard, begin applying lignin
0.12	18" CMP Crossdrain
0.17	18" CMP Crossdrain, stop lignin application
0.27	Existing Cattle Guard
0.29	18" CMP Crossdrain
0.41	18" CMP Crossdrain, begin applying lignin
0.52	18" CMP Crossdrain
0.57	Existing Cattle Guard, stop lignin application. End blading and shaping. Begin Spot Blading to remove rocks and debris from the road but not break road surface.
0.62	18" CMP Crossdrain
0.75	18" CMP Crossdrain

0.90	18" CMP Crossdrain
1.00	24" CMP Draw Pipe
1.06	18" CMP Crossdrain
1.19	18" CMP Crossdrain
1.28	18" CMP Crossdrain
1.63	18" CMP Crossdrain
1.63	Junction with 39-2W-27.00 Right.
1.65	18" CMP Crossdrain
1.74	18" CMP Crossdrain
1.96	18" CMP Crossdrain
2.09	18" CMP Crossdrain
2.13	18" CMP Crossdrain
2.29	18" CMP Crossdrain
2.48	18" CMP Crossdrain
2.60	18" CMP Crossdrain
2.73	24" CMP Cross Drain
2.78	18" CMP Crossdrain
2.83	Junction with 39-2W-34.03 Left. EOP

Road 39-2-34.01 (Lick Gulch Spur)
Native

MP	Remarks
0.00	Junction with 39-2W-39-2-28.00. Open road barricade and replace barricade after timber haul. Begin Roadside Brushing and blade to landing area.
0.04	Junction 39-2-34.03

Road 39-2-34.03 (Lick Gulch Spur)
Native

MP	Remarks
0.00	Junction with 39-2W-34.01. Begin brushing and blading
0.10	Ramp through draw. After timber haul is complete remove soil from draw. Excavated draw shall be opened to drain and have slopes of 1 1/2:1. The draw channel shall be restored to match existing grade. Upon completion of log haul Begin Fully Decommission of road beyond draw using mechanical treatment to de-compact road surface to a depth 12 to 18 inches.
0.24	EOP. Begin temporary road 26-21 Temp.

Road 39-3-10.00 (Applegate Tree Farm)
Aggregate

MP	Remarks
0.00	Gate at the bottom of the hill. Keep gate closed or have gate guard during timber haul. Begin Roadside Brushing and blading. Clean culverts as needed. Place 120 yds spot rocking as staked or directed by BLM engineer.
0.06	Ditch out right
0.09	Driveway right
0.10	Spot rock 30 yds
0.11	Construct turnout left
0.21	Spot Rock 20 yds
0.24	CMP
0.25	Road left
0.26	Spot Rock 30 yds
0.44	Construct turnout left
0.53	CMP
0.62	Spot rock 20 yds, begin applying lignin
0.68	Cabin on right, should be center of lignin application
0.73	Stop lignin application

0.76	Construct curve widening, to the outside of the curve
0.82	24" CMP draw pipe
0.82	Road left
0.95	Remove and replace 12" cmp with 18"X30' CMP. Build up road over top of pipe to maintain minimum of 12" of cover. Use 20 yds crushed rock to ramp over pipe.
1.00	Install pipe in ditch, 18"X20' CMP. Construct approach for helicopter landing

Road 39-3-26.00 (Cinnabar Tie)
GRR

MP	Remarks
0.00	Begin Roadside Brushing. Grid rolled, do not want to blade the road surface just remove rocks and branches that are in the roadway. Spot rock as needed with 20 yds rock.
0.30	EWD
0.47	EWD
0.62	Junction non-system road right
0.74	EWD
0.83	EWD
0.93	EWD
1.01	EOP

Road 39-3-27.00 (Boaz Gulch)
Aggregate GRR/PRR

MP	Remarks
0.00	Begin Roadside Brushing. Grid rolled, do not want to blade the road surface just remove rocks and branches that are in the roadway. Spot rock as needed with 20 yds rock.
0.01	36" CMP Draw Pipe
0.02	Junction road to left. 18" CMP Crossdrain
0.10	Existing Cattle Guard
0.22	18" CMP Crossdrain

0.40	Junction 39-3-27.01 to left.
0.44	18" CMP Crossdrain
0.56	18" CMP Crossdrain
0.58	Junction road to right.
0.73	EOP

Road 39-3-27.01 (Neds Gulch)
Aggregate

MP	Remarks
0.00	Junction with 39-3-27.00. Begin Roadside Brushing. Grid rolled, do not want to blade the road surface just remove rocks and branches that are in the roadway. Spot rock as needed with 20 yds rock.
0.02	18" CMP Crossdrain
0.14	18" CMP Crossdrain
0.40	Junction road to left.
0.42	18" CMP Crossdrain
0.49	Junction 39-3-27.02 to left. EOP.

Road 39-3-27.02 (Upper Neds)
Aggregate GRR/PRR Seg. A-C Native Segment D

MP	Remarks
0.00	Junction with 39-3-27.01. Begin Roadside Brushing. Grid rolled, do not want to blade the road surface just remove rocks and branches that are in the roadway. Spot rock as needed with 50 yds rock. Clean culverts as needed.
0.03	Existing Culvert
0.04	Temporary road 26-21 Temp to Left.
0.18	EWD
0.22	Existing Culvert
0.55	Existing Culvert

0.62	Existing Culvert
0.70	Existing Culvert
0.78	Existing Culvert
0.83	Existing Culvert
0.90	Existing Culvert.
1.00	Existing Culvert
1.10	Existing Culvert
1.22	EWD
1.29	Existing Cattle Guard
1.74	Existing Culvert
1.88	Existing Culvert
1.94	Existing Culvert
2.44	EWD
2.55	EWD
2.65	Existing Culvert
2.79	Existing Culvert
2.95	EWD
3.02	Existing Culvert
3.48	Junction to Right 39-3-35
3.64	EWD
3.95	Jeep road on Right.
4.17	EWD
4.38	Existing Culvert
4.57	EWD

5.28	EWD
5.34	Junction to Right 39-3-26
5.62	EWD
5.94	EWD
6.00	EOP

Road 39-3-28.01
Native

MP	Remarks
0.00	Begin Roadside Brushing and blade
0.29	Junction with 39-3-28.02
0.30	EOP

Road 39-3-28.02
Native

MP	Remarks
0.00	Begin Roadside Brushing and blade
0.10	EOP, begin construction of helicopter landing

Road 39-3-36.00(Cinnabar Lookout)
Aggregate

MP	Remarks
0.00	Begin Roadside Brushing. Grid rolled, do not want to blade the road surface just remove rocks and branches that are in the roadway. Spot rock as needed with 20 yds rock.
0.23	EWD
0.27	EWD
0.66	EWD
0.70	EWD
0.81	EOP

Non sys 25-20 (Non system road to access unit 25-20)
Native

MP	Remarks
0.00	Remove barricade, Begin Roadside Brushing and blade. Replace barricade after timber harvest.
1.10	Begin temporary road 25-20 Temp Loop Left
1.15	EOP. Junction other end of temporary road 25-20 Temp Loop.

Non sys 36-30 (Non system road inside unit 36-30)
Native

MP	Remarks
0.00	Remove barricade, Begin Roadside Brushing blade. Replace barricade after timber harvest.
0.22	EOP

USFS Road 2030
Aggregate

MP	Remarks
0.00	Begin Roadside Brushing. Water during timber haul. See map for US Forest Service water sources
1.13	Junction with USFS road 2030 850, EOP

USFS Road 2030 850
Aggregate

MP	Remarks
0.00	Begin Roadside Brushing and blade. Water during timber haul. See map for US Forest Service water sources
0.45	Control of road changes to BLM and the road number changes to 39-1-31.00

USFS Road 2200
Aggregate

MP	Remarks
0.00	Road enters Forest Service on Wagner Gap road. Begin Roadside Brushing. Water during timber haul. See map for US Forest Service water sources
0.11	Junction with USFS road 2250. EOP.

USFS Road 2250
Aggregate

MP	Remarks
0.00	Begin Roadside Brushing. Water during timber haul. See map for US Forest Service water sources
3.75	EOP. Junction with 2250 600

USFS Road 2250 600
Native

MP	Remarks
0.00	Junction with USFS 2250. Begin Roadside Brushing. Water during timber haul. See map for US Forest Service water sources.
0.02	Existing CMP 18"
0.08	Existing CMP 18"
0.10	Junction with USFS 2250-650
0.16	Existing CMP 18"
0.21	EWD
0.23	EWD
0.25	Existing CMP 18"
0.28	EWD
0.34	36" CMP draw pipe
0.38	EWD
0.51	Leave USFS Land control of road changes to BLM and the road number changes to 39-1-32.00.

Temporary Spur 27-32 Temp
Natural 12' Width

MP	Remarks
0.00	Jct. with 39-3-27.02. Begin Construction. Begin Soil Stabilization of fill slope. Upon completion of log haul Fully Decommission entire length of temporary road using mechanical treatment to de-compact road surface to a depth 12 to 18 inches. Camouflage road entrance with debris for 100 feet. Seed and mulch. Install Temp. 18"x40' CMP in ditchline at approach. Remove upon completion of log haul.
0.10	End Construction. End Soil Stabilization.

Temporary Spur 26-21 Temp
Natural 12' Width

MP	Remarks
0.00	Jct. with 39-2-34.03. Begin Construction. Begin Soil Stabilization of fill slope. Upon completion of log haul Fully Decommission entire length of temporary road using mechanical treatment to de-compact road surface to a depth 12 to 18 inches.
0.34	Ramp through draw. After timber haul is complete remove soil from draw. Excavated draw shall be opened to drain and have slopes of 1 1/2:1. The draw channel shall be restored to match existing grade.
0.58	End Construction. End Soil Stabilization.

Temporary Spur 25-20 Temp Loop
Natural 12' Width

MP	Remarks
0.00	Jct. with Non_sys 25-20 at mile post 1.10. Begin Construction. Begin Soil Stabilization of fill slope. Upon completion of log haul Fully Decommission entire length of temporary road using mechanical treatment to de-compact road surface to a depth 12 to 18 inches.
0.07	Construct Temp spur to left for approx. 320 feet. Begin Soil Stabilization of fill slope. Upon completion of log haul Fully Decommission entire length of temporary road using mechanical treatment to de-compact road surface to a depth 12 to 18 inches.
0.19	Construct Temp spur to left for approx. 186 feet. Begin Soil Stabilization of fill slope. Upon completion of log haul Fully Decommission entire length of temporary road using mechanical treatment to de-compact road surface to a depth 12 to 18 inches.
0.20	Jct. with Non_sys 25-20 at mile post 1.15. End Construction. End Soil Stabilization.

TIMBER SALE ROAD SPECIFICATIONS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Jackson County, Oregon

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500	Renovation and Improvement of Existing Roads
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TIMBER SALE ROAD SPECIFICATIONS

GENERAL – 100

*101 - Prework Conference(s):

A prework conference will be held prior to the start of new construction, improvements, renovation, quarry development, surfacing, and soil stabilization 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 representatives, subcontractors and/or his or their representatives and the Authorized Officer and/or his representatives.

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

*102 - Definitions:

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

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

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.

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.

TIMBER SALE ROAD SPECIFICATIONS

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).

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.

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

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.

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.

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

TIMBER SALE ROAD SPECIFICATIONS

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.

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

TIMBER SALE ROAD SPECIFICATIONS

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.

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.

*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

ROAD NUMBER	FROM	TO	LENGTH	CLEARING AND GRUBBING	EXCAVATION		CORRUGATED METAL PIPE SIZE				RENOVATION	CONSTRUCT TURNOUT / WIDENING	AGGREGATE**					GEOTEXTILES	SOIL STABILIZATION	ROADSIDE BRUSHING	SLOPE STAKING	CONSTRUCT ARMORED WATERDIPS	CONSTRUCT TEMPORARY SPUR	APPLY LIGNIN	EARTH / LOG BARRIER	INSTALL WATERBARS	CAMOUFLAGE ROAD ENTRANCE 100 FEET	ROAD DECOMMISSION
					ROCK	COMMON	18"	TEMP. 18"	24"	36"			PIT RUN ROCK	CRUSHED BASE	CRUSHED SURFACE	BLM QUARRY	STOCKPILE											
SPECIFICATION NO.				200	300	300	400	400	400	400	500		700	1000	1200	1200		1300	1800	2100	2300			Exhibit D				
UNIT	MP/STA	MP/STA	MILE/STA	ACRE	C.Y.	C.Y.	L.F.	L.F.	L.F.	L.F.	MILE	EA.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	SQYD	ACRE	MILE	STA	EA	EA	MILE	EA	EA	EA	MILE
39-1-18.00	0.00	0.55	0.55																	0.55								
39-1-20.00	0.00	0.78	0.78								0.78									0.78								
39-1-28.02	0.00	2.89	2.89																	2.89								
39-1-28.03	0.00	0.42	0.42								0.42									0.42								
39-1-29.00	0.00	0.80	0.80								0.80									0.80					1			
39-1-31.00	0.45	1.47	1.02								1.02									1.02								
39-1-32.00	0.51	2.48	1.97																	1.97								
39-2-25.01	0.00	0.29	0.29								0.29									0.29					1	8		
39-2-27.00	0.00	4.93	4.93								0.59				20					4.93								
39-2-28.00	0.00	2.83	2.83								2.83									2.83				0.32				
39-2-34.01	0.00	0.04	0.04								0.04									0.04					1			
39-2-34.03	0.00	0.24	0.24								0.24									0.24								0.14
39-3-10.00	0.00	1.00	1.00				50				1.00	3			120					1.00				0.11				
39-3-26.00	0.00	1.01	1.01								1.01				20					1.01								
39-3-27.00	0.00	0.73	0.73								0.73				20					0.73								
39-3-27.01	0.00	0.49	0.49								0.49				20					0.49								
39-3-27.02	0.00	6.00	6.00								6.00				50					6.00								
39-3-28.01	0.00	0.30	0.30								0.30									0.30								
39-3-28.02	0.00	0.10	0.10								0.10									0.10								
39-3-36.00	0.00	0.81	0.81								0.81				20					0.81								
TOTAL Page 1							50				17.45	3			270					27.20				0.43	3	8		0.14

ALWAYS THINK SAFETY

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

REV. NO.		APPROV.

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

ESTIMATE OF QUANTITIES*

DRAWN: JWR	SCALE NONE
DATE: August 2016	SHEET 1 OF 2
DRAWING NO.	OR 117-TS16-16-C3

ROAD NUMBER	FROM	TO	LENGTH	CLEARING AND GRUBBING	EXCAVATION		CORRUGATED METAL PIPE SIZE				RENOVATION	CONSTRUCT TURNOUT / WIDENING	AGGREGATE**					GEOTEXTILES	SOIL STABILIZATION	ROADSIDE BRUSHING	SLOPE STAKING	CONSTRUCT ARMORED WATERDIPS	CONSTRUCT TEMPORARY SPUR	APPLY LIGNIN	EARTH / LOG BARRIER	INSTALL WATERBARS	CAMOUFLAGE ROAD ENTRANCE 100 FEET	ROAD DECOMMISSION
					ROCK	COMMON	18"	TEMP. 18"	24"	36"			PIT RUN ROCK	CRUSHED BASE	CRUSHED SURFACE	BLM QUARRY	STOCKPILE											
SPECIFICATION NO.				200	300	300	400	400	400	400	500		700	1000	1200	1200		1300	1800	2100	2300			Exhibit D				
UNIT	MP/STA	MP/STA	MILE/STA	ACRE	C.Y.	C.Y.	L.F.	L.F.	L.F.	L.F.	MILE	EA.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	SQYD	ACRE	MILE	STA	EA	EA	EA	EA	EA	EA	MILE
NS 25-20	0.00	1.15	1.15								1.15									1.15					1			
NS 36-30	0.00	0.22	0.22								0.22									0.22					1			
USFS 2030	0.00	1.13	1.13																	1.13								
USFS 850	0.00	0.45	0.45								0.45									0.45								
USFS 2200	0.00	0.11	0.11																	0.11								
USFS 2250	0.00	3.75	3.75																	3.75								
USFS 600	0.00	0.51	0.51																	0.51								
27-32 Temp	0.00	0.10	0.10					40											0.10				0.10				1	0.10
26-21 Temp	0.00	0.58	0.58																0.60				0.58					0.58
25-20 Temp Loop	0.00	0.30	0.30																0.30				0.30					0.30
TOTAL Page 2								40			1.82								1.00	7.32			0.98		2		1	0.98
Page 1 Total							50				17.45	3			270					27.20				0.43	3	8		0.14
TOTAL							50	40			19.27	3			270				1.00	34.52			0.98	0.43	5	8	1	1.12

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

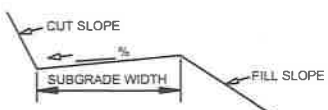
REV. NO.		APPROV.

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

ESTIMATE OF QUANTITIES*

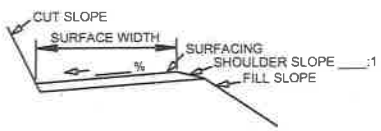
DRAWN: JWR	SCALE NONE
DATE: August 2016	SHEET 2 OF 2
DRAWING NO.	OR 117-TS16-16-C3

ROAD NUMBER	STATION OR MILE POST	TO STATION OR MILE POST	LENGTH MILE OR STATION	TYPICAL SECTION TYPE	ALLIGNMENT	ROAD WIDTH (1-3)		GRADIENT		CLEARING WIDTH				SURFACING (4)								REMARKS
					MAXIMUM DEGREE OF CURVE	SUBGRADE	DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	BEYOND		EXISTING ROAD(S)		BASE COURSE				SURFACE COURSE				
										TOP CUT	TOE FILL	L	R	MINIMUM WIDTH	COMP. DEPTH	TYPE (2)	GRADING	MINIMUM WIDTH	COMP. DEPTH	TYPE (2)	GRADING	
39-1-18.00	0.00	0.55	0.55	6		16	3					4	4									
39-1-20.00	0.00	0.78	0.78	3		14						4	4									
39-1-28.02	0.00	2.89	2.89	3		14						4	4									
39-1-28.03	0.00	0.42	0.42	3		14						4	4									
39-1-29.00	0.00	0.80	0.80	3		16						4	4	Road to be Closed Long Term upon Completion Log Haul								Install Barricade
39-1-31.00	0.45	1.47	1.02	3		16						4	4									
39-1-32.00	0.51	2.48	1.97	4		14						4	4									
39-2-25.01	0.00	0.29	0.29	3		16						4	4	Road to be Closed Long Term upon Completion Log Haul								Install Barricade and Construct Waterbars
39-2-27.00	0.00	4.93	4.93	5		14	3					4	4					12'-0"	0'-6"	D	2"(-)	Spot rock with 20 CY of rock as needed
39-2-28.00	0.00	2.83	2.83	5		14	3					4	4									Apply Lignin at locations in Worklist
39-2-34.01	0.00	0.04	0.04	3		14						4	4	Road to be Closed Long Term upon Completion Log Haul								Install Barricade
39-2-34.03	0.00	0.24	0.24	3		14						4	4	Road to be Fully Decommissioned upon Completion Log Haul								Decompact road surface as Per Exhibit D-5
39-3-10.00	0.00	1.00	1.00	3		14						4	4					12'-0"	0'-6"	D	2"(-)	Spot rock with 120 CY of rock as needed and apply Lignin
39-3-26.00	0.00	1.01	1.01	5		16	3					4	4					12'-0"	0'-6"	D	2"(-)	Spot rock with 20 CY of rock as needed
39-3-27.00	0.00	0.73	0.73	4		14						4	4					12'-0"	0'-6"	D	2"(-)	Spot rock with 20 CY of rock as needed
39-3-27.01	0.00	0.49	0.49	4		14						4	4					12'-0"	0'-6"	D	2"(-)	Spot rock with 20 CY of rock as needed
39-3-27.02	0.00	6.00	6.00	5		14	3					4	4					12'-0"	0'-6"	D	2"(-)	Spot rock with 50 CY of rock as needed
39-3-28.01	0.00	0.30	0.30	3		14						4	4									
39-3-28.02	0.00	0.10	0.10	3		14						4	4									
39-3-36.00	0.00	0.81	0.81	4		14						4	4					12'-0"	0'-6"	D	2"(-)	Spot rock with 20 CY of rock as needed
USFS 2030	0.00	1.13	1.13	5		16	3					4	4									
USFS 850	0.00	0.45	0.45	3		14						4	4									
USFS 2200	0.00	0.11	0.11	5		16	3					4	4									
USFS 2250	0.00	3.75	3.75	5		16	3					4	4									
USFS 600	0.00	0.51	0.51	3		16						4	4									



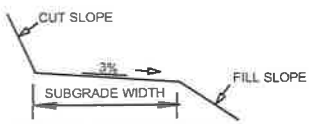
TYPICAL GRADING SECTION

TYPE 1



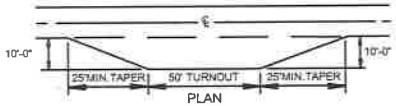
TYPICAL SURFACING SECTION

TYPE 2

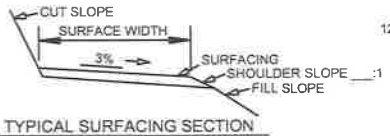


TYPICAL GRADING SECTION

TYPE 3

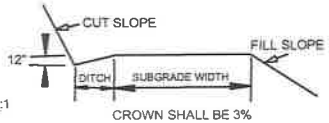


PLAN
TYPICAL TURNOUT



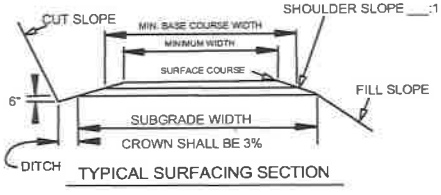
TYPICAL SURFACING SECTION

TYPE 4



TYPICAL GRADING SECTION

TYPE 5



TYPICAL SURFACING SECTION

TYPE 6

NOTES

1. EXTRA SUBGRADE WIDTHS
   ADD TO EACH FILL SHOULDER 1FT.FOR FILLS OF 1-6FT. & 2FT.FOR FILLS OVER 6FT. WIDEN THE INSIDE SHOLDER OF ALL CURVES AS FOLLOWS:
   WHEN THE DEGREE OF CURVE EQUALS
   7-21 ADD 1FT.
   22-35 ADD 2FT.
   36-48 ADD 3FT.
   49-64 ADD 4FT.
   65-96 ADD 5FT.

MATERIALS	CUT SLOPES	FILL SLOPES
COMMON	_____	1 1/2:1
SOFT ROCK & SHALE	1/2:1	_____
SOLID ROCK	1/2:1	ANGLE OF REPOSE

FULL BENCH CONSTRUCTION IS REQUIRED ON SIDE SLOPES EXCEEDING 60%

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

3. TURNOUTS
   A. WIDTH 10FT. IN ADDITION TO SUBGRADE WIDTH,OR AS SHOWN ON THE PLANS.
   B. LOCATED APPROXIMATELY AS SHOWN ON THE ROAD PLANS.
   C. INTERVISIBLE AND NOT MORE THAN _____FT. APART.

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

5. CLEARING WIDTH
   SEE SUBSECTION 2100

ALWAYS THINK SAFETY

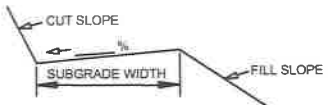
REV. NO.	DESCRIPTION	DATE	APPROV.

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

SPECIFICATION SHEET

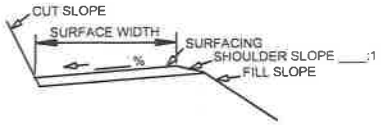
DRAWN: JWR	SCALE NONE
DATE: August 2016	SHEET 1 OF 2
DRAWING NO.	OR 117-TS16-16-C4

ROAD NUMBER	STATION OR MILE POST	TO STATION OR MILE POST	LENGTH MILE OR STATION	TYPICAL SECTION TYPE	ALLIGNMENT	ROAD WIDTH (1-3)		GRADIENT		CLEARING WIDTH				SURFACING (4)								REMARKS
					MAXIMUM DEGREE OF CURVE	SUBGRADE	DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	BEYOND		EXISTING ROAD(S)		BASE COURSE				SURFACE COURSE				
										TOP CUT	TOE FILL	L	R	MINIMUM WIDTH	COMP. DEPTH	TYPE (2)	GRADING	MINIMUM WIDTH	COMP. DEPTH	TYPE (2)	GRADING	
NS 25-20	0.00	1.15	1.15	5		14						4	4	Road to be Closed Long Term upon Completion Log Haul								Install Barricade
NS 36-30	0.00	0.22	0.22	3		14						4	4	Road to be Closed Long Term upon Completion Log Haul								Install Barricade
27-32 Temp	0.00	0.10	0.10	5		14						2	0	Temporary Spur to be constructed. Fully Decommission upon Completion Log Haul								Decompact road surface and camouflage as Per Ex. D-5
26-21 Temp	0.00	0.58	0.58	3		14						2	0	Temporary Spur to be constructed. Fully Decommission upon Completion Log Haul								Decompact road surface as Per Exhibit D-5
25-20 Temp Loop	0.00	0.30	0.30	3		14						2	0	Temporary Spur to be constructed. Fully Decommission upon Completion Log Haul								Decompact road surface as Per Exhibit D-5



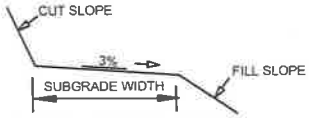
TYPICAL GRADING SECTION

TYPE 1



TYPICAL SURFACING SECTION

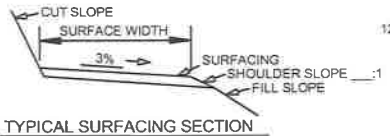
TYPE 2



TYPICAL GRADING SECTION

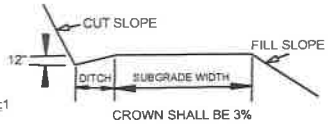
TYPE 3

PLAN
TYPICAL TURNOUT



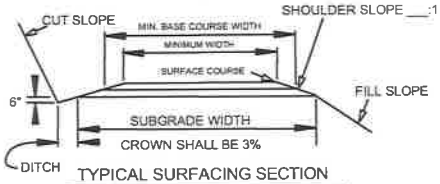
TYPICAL SURFACING SECTION

TYPE 4



TYPICAL GRADING SECTION

TYPE 5



TYPICAL SURFACING SECTION

TYPE 6

NOTES

1. EXTRA SUBGRADE WIDTHS
   ADD TO EACH FILL SHOULDER 1FT.FOR FILLS OF 1-6FT, & 2FT.FOR FILLS OVER 6FT. WIDEN THE INSIDE SHOLDER OF ALL CURVES AS FOLLOWS:
   WHEN THE DEGREE OF CURVE EQUALS
   7-21 ADD 1FT.
   22-35 ADD 2FT.
   36-48 ADD 3FT.
   49-64 ADD 4FT.
   65-96 ADD 5FT.

MATERIALS	CUT SLOPES	FILL SLOPES
COMMON	_____	1 1/2:1
SOFT ROCK & SHALE	1/2:1	_____
SOLID ROCK	1/2:1	ANGLE OF REPOSE

FULL BENCH CONSTRUCTION IS REQUIRED ON SIDE SLOPES EXCEEDING 60%.

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

3. TURNOUTS
   A. WIDTH 10FT. IN ADDITION TO SUBGRADE WIDTH,OR AS SHOWN ON THE PLANS.
   B. LOCATED APPROXIMATELY AS SHOWN ON THE ROAD PLANS.
   C. INTERVISIBLE AND NOT MORE THAN _____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.

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

SPECIFICATION SHEET

DRAWN: JWR	SCALE NONE
DATE: August 2016	SHEET 2 OF 2
DRAWING NO.	OR 117-TS16-16-C4

CULVERT LOCATIONS										DOWNSPOUTS						REMARKS
DESIGNED						AS BUILT				1/2 ROUND		FULL ROUND		RECT. FLUME		
ROAD NO.	STATION OR M.P.	SIZE	GAGE	LENGTH	SKEW ANGLE	STATION OR M.P.	SIZE	GAGE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	
39–3–10.00	0.95	18	16	30	NA											
	1.00	18	16	20	Ditch											
27–32 Temp	0.00	18	16	40	Ditch											Temp. Culvert to be Removed After Haul
	TOTAL 18" CMP: 90'															
	TOTAL 24" CMP:															
	TOTAL 36" CMP:															

NOTES:

A. Designed culvert lengths and locations are approximate. Actual lengths and locations will be staked in the field.

B. Summary of quantities are shown on drawing OR 117–TS15–16–C3

C. All downpipes are 16 guage unless otherwise noted.

ELBOW TYPES:*

1. Conventional or fabricated
2. Turner type
3. Slip joint

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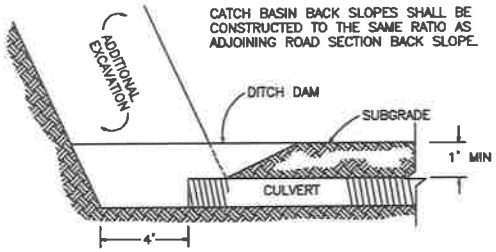
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT – MEDFORD, OREGON

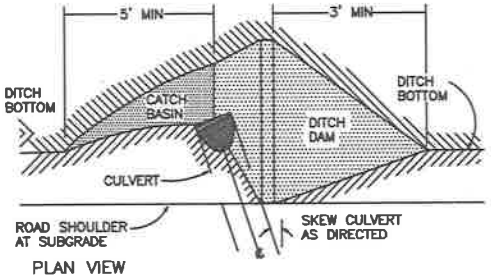
MEDFORD **CULVERT LIST** OREGON

DRAWN: JWR	SCALE: AS SHOWN
DATE: August 2016	SHEET 1 OF 1
DRAWING NO. OR 117–TS16–16–C5	

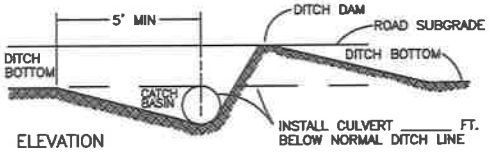
EXHIBIT C 6
SHEET 1 OF 1



CROSS SECTION AT CATCH BASIN

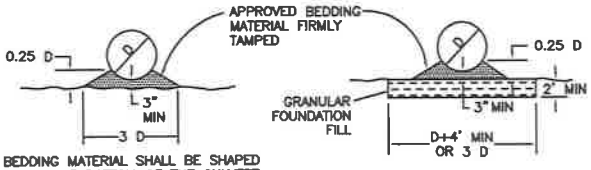


PLAN VIEW



ELEVATION

CATCH BASIN

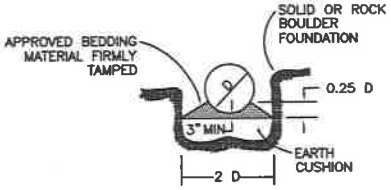


BEDDING MATERIAL SHALL BE SHAPED TO FIT THE BOTTOM OF THE CULVERT.

BEDDING OF CULVERTS ON STABLE NATURAL GROUND FOUNDATION OR COMPACTED EMBANKMENT

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

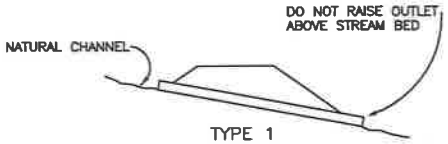
BEDDING OF CULVERTS ON SOFT SPONGY OR UNSTABLE SOIL FOUNDATION



BEDDING 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" MIN. DEPTH BETWEEN HIGH POINTS OF ROCKS AND/OR BOULDERS AND THE BOTTOM OF THE CULVERT.

BEDDING OF CULVERT IN SOLID ROCK OR BOULDER FOUNDATION

BEDDING OF CULVERTS



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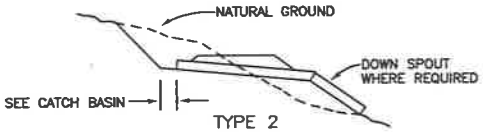

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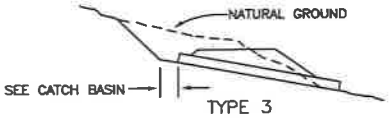

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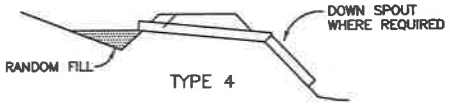
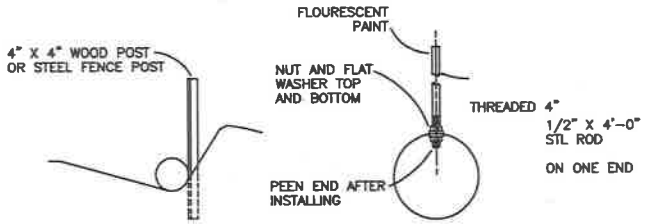


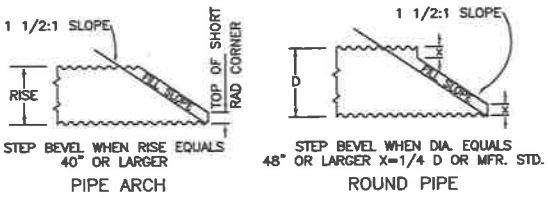
TYPE 4

CULVERT INSTALLATION TYPES

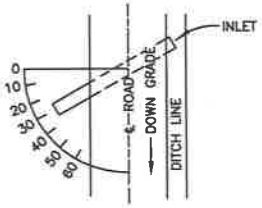


INSTALL MARKERS NOT MORE THAN 6" BACK FROM END OF CULVERT

CULVERT MARKER INSTALLATION



BEVELED END DETAIL



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

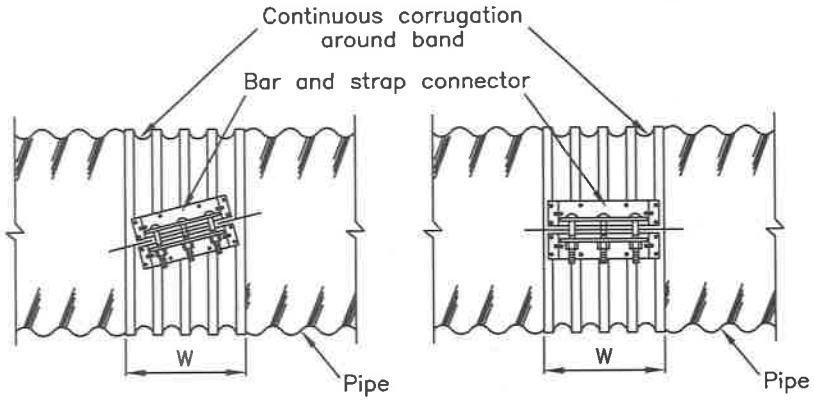
SKEW DIAGRAM

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

CULVERT INSTALLATION DETAILS

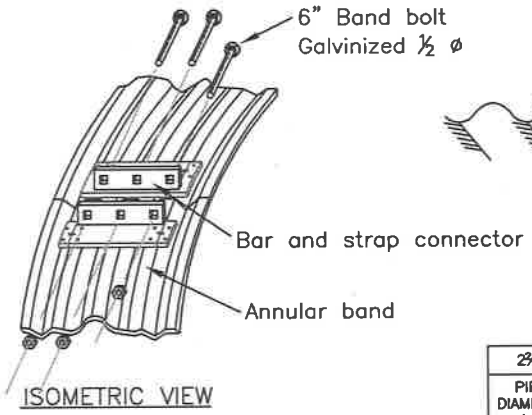
DRAWN JWR	SCALE NONE
DATE August 2016	SHEET 1 OF 1
DRAWING NO. OR 117-TS16-16-C6	

FULL CORRUGATED BAND

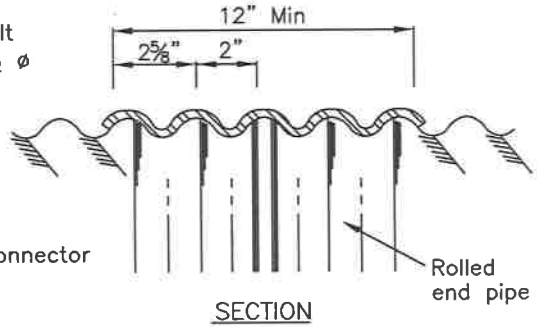


HELICAL COUPLING

ANNULAR COUPLING



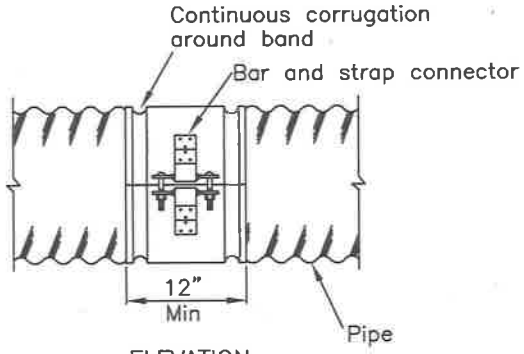
ISOMETRIC VIEW



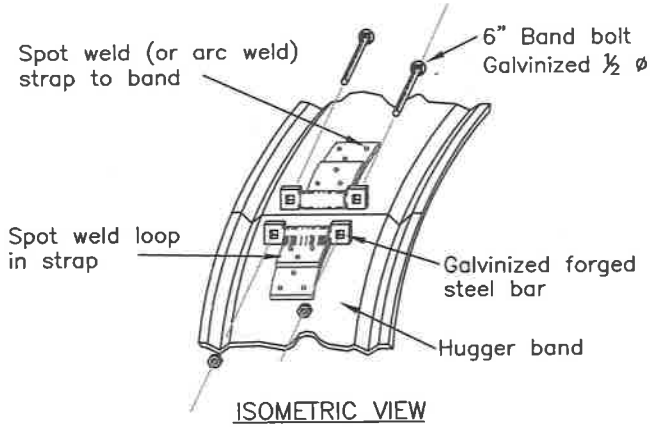
SECTION

2⅔"x½" CORRUGATIONS				3"x1" CORRUGATIONS			
PIPE DIAMETER (in)	W(in)		#of ½" Bolts	PIPE DIAMETER (in)	W(in)		#of ½" Bolts
	ANN.	HEL.			ANN.	HEL.	
6–10	7	7	2	36–84	14	14	3
12–15	7	12	2–3	36–120	26	26	5
18–84	12	12	3				
24–84	24	24	5				

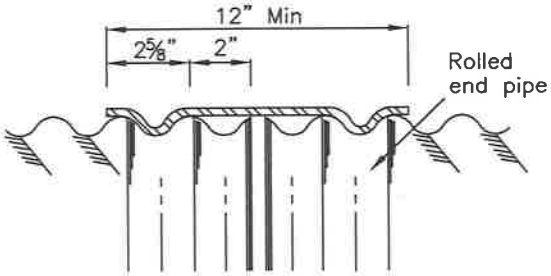
"HUGGER" BAND



ELEVATION



ISOMETRIC VIEW



SECTION

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

The hugger coupler band or an approved equivalent coupler band shall be made of the same material and finish as the pipes joined. The coupler bands shall have a minimum width of 12 inches and may be two numerical thicknesses lighter than the gage or thickness designated for the conduit joined. The band shall be designed to be drawn together with two 1/2 inch bolts through use of a bar and strap suitably welded to the band. The band shall engage and mesh with the second annuler corrugation inward from the end of each of the conduit sections joined.

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

REV. NO.	DESCRIPTION	DATE	APPROV.

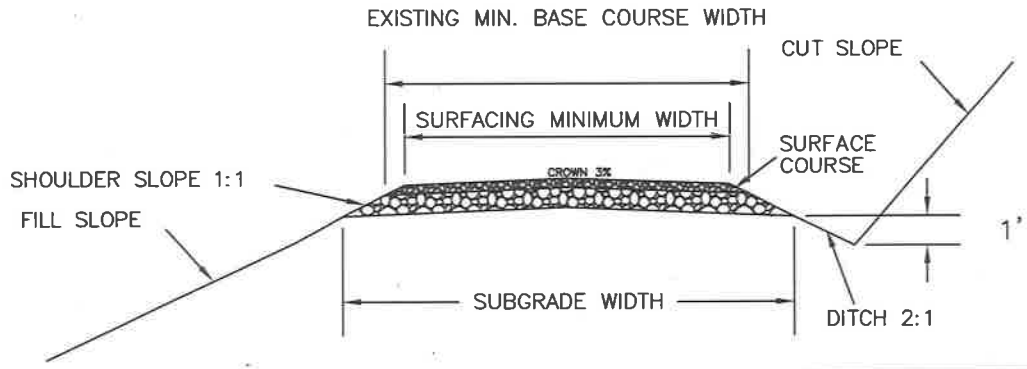
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT – MEDFORD, OREGON

CULVERT BAND DETAIL

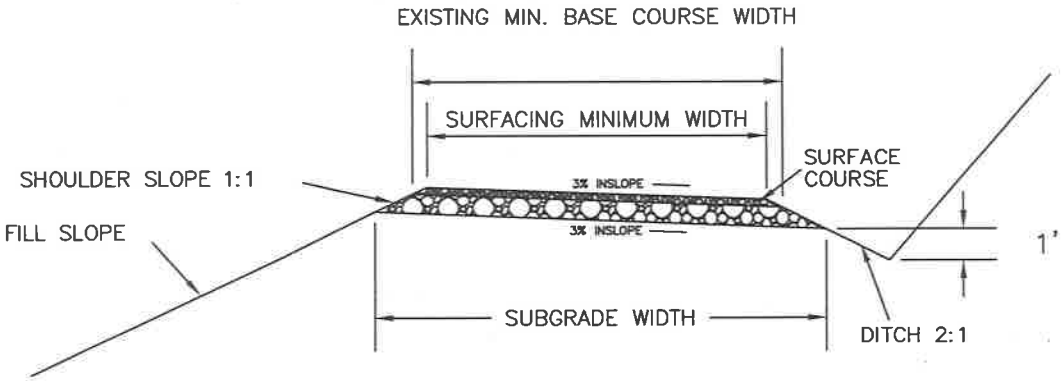
DRAWN JWR	SCALE NONE
DATE August 2016	SHEET 1 OF 1
DRAWING NO. OR 117–TS16–16–C7	

EXHIBIT C-8
SHEET 1 OF 1

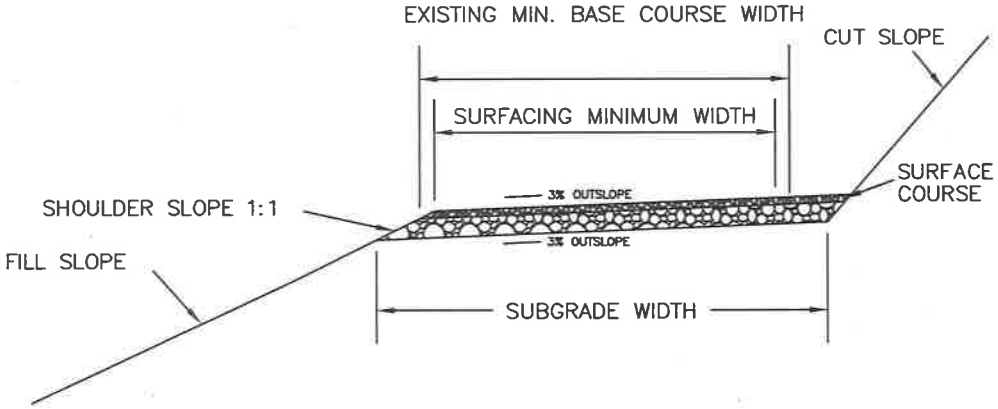
TYPICAL CROWNED SURFACE



TYPICAL INSLOPED SURFACE



TYPICAL OUTSLOPED SURFACE



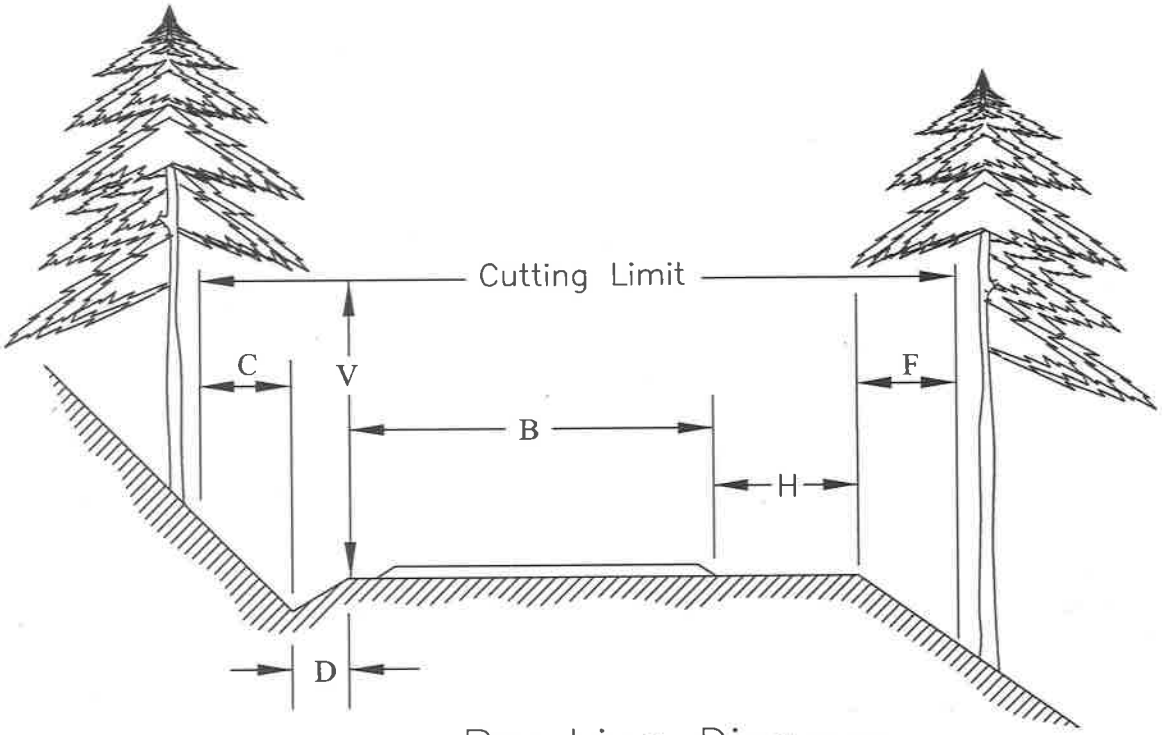
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT – MEDFORD, OREGON

TYPICAL ROAD SURFACING SECTIONS

DRAWN: JWR	SCALE: AS SHOWN
DATE: August 2016	SHEET 1 OF 1
DRAWING NO. OR 117-TS16-16-C8	

Exhibit C 9

SHEET 1 OF 1



Brushing Diagram

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

B = Basic lane width (includes turnouts)
Width shall be determined by the PI

C = 4 ft - Distance to be brushed on cut slope beyond centerline of ditch

D = Centerline of ditch to inside shoulder

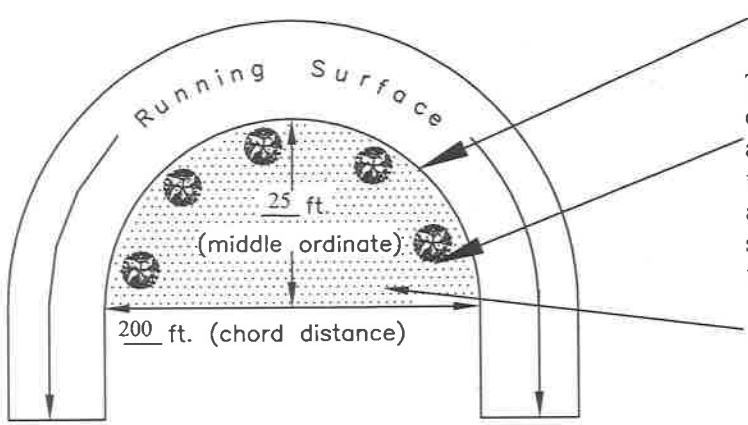
H = Variable distance between edge of basic lane and outside shoulder (does not include turnout widths)

F = Distance to be brushed on fill slope beyond outside shoulder
(F = 4 when H is 4 ft or less)
(F = 0 when H is greater than 4 ft)

V = 14 ft - Height of vertical cutting limit

Typical Basic lane widths

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



Sight Distance Diagram

NOTES:

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

All distances shown are horizontal except for V

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

ROADSIDE BRUSHING DETAIL

DRAWN JWR	SCALE NONE
DATE August 2016	SHEET 1 OF 1
DRAWING NO.	OR 117-TS16-16-C9

NEDS BAR TIMBER SALE
Road Renovation Worklist

Renovation: This consists of road work to be performed on the road prior to its use. The work includes, but not limited to blading the road surface, brushing, cleaning catch basins, cleaning ditches, and placing crushed aggregate on approved road bed..

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

CMP – Corrugated Metal Pipe
Jct.– Junction

BST – Bituminous Surface Treatment
EWD – Construct Water Dip

Road 39-1-18.00 (Bald Mtn)
Aggregate

MP	Remarks
0.00	Junction with 38-2-24.0 Begin Roadside Brushing
0.04	Existing stockpile Right
0.05	Junction 39-1-17.0 Existing CMP 18"
0.18	Existing CMP 18"
0.31	Existing CMP 18"
0.55	Junction non-system spur, helicopter landing EOP

Road 39-1-20.00 (Rush Water Connect)
Natural

MP	Remarks
0.00	Junction with 39-1-28.2 Begin blading and shaping. After timber haul if rolling dips aren't functional they shall be replaced. Begin Roadside Brushing
0.04	EWD
0.08	25' leadoff ditch

0.15	EWD
0.22	EWD
0.31	EWD
0.35	EWD
0.42	EWD
0.46	EWD
0.55	EWD
0.78	EOP

Road 39-1-28.02(Brickpile Ranch D)
Natural

MP	Remarks
0.00	Junction with 39-1-32.0 After timber haul if rolling dips aren't functional they shall be replaced. Begin Roadside Brushing
0.08	EWD
0.15	EWD
0.23	CMP 18"
0.39	CMP 18"
0.67	EWD
0.74	EWD
0.83	EWD
0.86	EWD
0.96	EWD
1.13	EWD
1.25	CMP 18"
1.32	EWD

1.37	EWD
1.42	EWD
1.45	EWD
1.59	EWD
1.65	Junction with 39-1-20.0
1.76	EWD
1.87	CMP 18"
1.93	EWD
2.05	EWD
2.09	EWD
2.19	EWD
2.33	EWD
2.38	EWD
2.42	EWD
2.52	EWD
2.61	CMP 18"
2.67	EWD
2.71	EWD
2.76	EWD
2.81	EWD
2.85	EWD
2.89	Existing Double wide turnout End of Project

Road 39-1-28.03(Brickpile Ranch C)
Natural

MP	Remarks
0.00	Junction with 39-1-32.0 Begin blading and shaping. After timber haul if rolling dips aren't functional they shall be replaced. Begin Roadside Brushing
0.08	EWD
0.24	EWD
0.36	Helicopter landing
0.42	End of Project

Road 39-1-29.00(Bull Rush Spur)
Natural

MP	Remarks
0.00	Junction with 39-1-32.0 Remove barricade, after timber haul re-barricade. If water dips are not functional after timber haul replace. Begin blading and shaping Begin Roadside Brushing
0.05	EWD
0.07	EWD
0.14	EWD
0.19	EWD
0.25	EWD
0.31	EWD
0.38	EWD
0.43	EWD
0.48	EWD
0.49	EWD
0.52	EWD

TIMBER SALE ROAD SPECIFICATIONS

Los Angeles machine.

AASHTO T 99	Relationship between soil moisture and density of soil. Method A - 4" mold, soil passing a No. 4 sieve 25 blows/layer & 3 layers. Method C - 4" mold, soil passing a 3/4 inch sieve 25 blows/layer & 3 layers. Method D - 6" mold, soil passing a 3/4 inch sieve. 56 blows/layer & 3 layers.
AASHTO T 176	Shows relative portions of fine dust or claylike materials in soil or graded aggregate.
AASHTO T 180	(OSHD 106-71) moisture density relationship of soil same as AASHTO T 99 proctor but uses a 10-lb rammer & 18-in drop height.
AASHTO T 191	Sand Cone. Density of soil in place: For subgrade use 6-inch or 12-inch cone. For rock surfacing for 1-1/2-inch minus to 3-inch minus use 12-inch cone.
AASHTO T 205	Rubber balloon. Density of soil in place. Use for compacted or firmly bonded soil.
AASHTO T 210	Durability of aggregates based on resistance to produce fines.
AASHTO T 224	Correction for coarse particles in the soil.
AASHTO T 238	Density of Soil and Soil-Aggregate in place by nuclear methods.
AASHTO T 248	Reducing field samples of aggregate to testing size by mechanical splitter, quartering, or miniature stockpile sampling.
ASTM D 4564	Determination of relative density of cohensionless soils.

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

TIMBER SALE ROAD SPECIFICATIONS

*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.

103h - Drum drive self-propelled vibratory grid roller. The unit shall consist of one cylindrical drum with a drum diameter of not less than 56 inches, nor more than 66 inches and the drum width shall be 84 inches. Vibratory frequency shall be regulated in seeps from 1200 to 1800 vibrations per minute (VPM), and the centrifugal force developed shall be at least 40,000 pounds at 1800 RPM. The vibratory grid roller shall be self-propelled and have a power unit of not less than 112 horsepower. The "grid" design shall be a herringbone or z-bar pattern around the circumference of the drum. The grid bars shall be 1 inch in height and spaced not more than 8-1/2 inches apart.

103i - Other. Compaction equipment approved by the Authorized Officer.

TIMBER SALE ROAD SPECIFICATIONS

PIPE CULVERTS - 400

*401 - This work shall consist of furnishing and installing pipe culverts and other erosion control devices in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans. Individual lengths and locations are approximate; final lengths and locations will be determined by the Authorized Officer upon installation of the appurtenance structures. Additional pipe and erosion control devices may be required at the option of the Authorized Officer, in which case a reduction in the total purchase price shall be made to offset the cost of furnishing and installing such items. Costs will be based upon the unit prices set forth in the current BLM Timber Appraisal Production Cost Schedule.

403 - Grade culverts shall have a gradient of from 2 percent to 4 percent greater than the adjacent road grade. Grade culverts shall be skewed down grade 30 degrees as measured from the perpendicular to the centerline unless otherwise specified on the plans.

404 - Damage to the spelter, or burn back in excess of 3/8 inch, shall be wire brushed and painted with two coats of zinc-rich paint on zinc-coated, steel pipe and aluminum-rich paint on aluminum or aluminum-coated pipe.

405a - Corrugated-(aluminized) steel-welded pipe culverts and pipe-arch culverts and special sections shall conform to the requirements of AASHTO M 36 and AASHTO M 218, AASHTO M 274, or AASHTO M 289 as specified on the plans.

*406 - Coupling bands shall conform to the requirements of AASHTO M 36 and AASHTO M 218 or AASHTO M 274 with the exception of band widths and the "Hugger"-type band which shall conform to the details, dimensions, and typical diagram shown on the plans.

406a - "Hugger"-type coupling bands shall only be used with annular corrugated pipe and pipe-arch culverts, or helically corrugated pipe and pipe-arch culverts having annular reformed ends. Annular reformed ends shall consist of two annular corrugations.

TIMBER SALE ROAD SPECIFICATIONS

407 - Special sections, such as elbows, branch connections, and flared-end sections, shall be of the same gauge as the pipe to which they are joined, and shall conform to the requirements of AASHTO M 36 and AASHTO M 218 or AASHTO M 274.

*408 - Pipe culverts and pipe-arch culverts shall be placed on the bed starting at the downstream end with the inside circumferential laps pointing downstream and with the longitudinal laps at the side or quarter points. Coupling bands of the type required under these specifications shall be installed so as to provide the circumferential and longitudinal strength necessary to preserve the pipe alignment, prevent separation of the pipe sections, and minimize infiltration of fill material.

*410 - Pipe shall be unloaded and handled with reasonable care. If the Authorized Officer determines any structure is damaged to the extent that it is unsuitable for use in the road construction, it shall be replaced at the Purchaser's expense.

*411 - Trenches necessary for the installation of pipe culverts shall conform to the lines, grades, dimensions, and typical diagram included in the plans and the Culvert Installation Detail Sheet.

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

*413 - Pipe culverts shall be bedded on a selected granular, crushed rock material in accordance with Section 1200 gradation (E-1), or fine readily compactable soil material having a depth of not less than 6 inches as shown on plans. Foundation material shall be of uniform density throughout the length of the structure and shall be shaped to fit the pipe.

*416 - Side-fill material for pipe culverts shall be placed within (1) pipe diameter, or a minimum of (2) feet, of the sides of the pipe barrel, and to (1) foot over the pipe with fine, readily compactable soil, crushed rock material from stockpiles shown on the plans, or granular fill material free of excess moisture, muck, frozen material, roots, sod, or other deleterious or caustic material and devoid of rocks or stones of sizes which may impinge upon and damage the pipe or otherwise interfere with proper compaction.

TIMBER SALE ROAD SPECIFICATIONS

*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, is attained as determined by AASHTO T 99, Method C.

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

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

*427 - Record culvert sizes, lengths and location actually installed on a copy of the culvert list. This culvert list shall be furnished to the Authorized Officer.

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

429 - Keep the excavation site dewatered so that the installation of culverts is completed under dry conditions. Dispose of excess water by using pumping or natural drainage ways near the site in a manner that will avoid damage to adjacent property. Provide for downstream waterflow with no more that 10% increase in natural stream turbidity due to transport of excavated material or sediment during construction. Diversion streams shall not be returned to the natural channel until all in-stream work has been completed.

TIMBER SALE ROAD SPECIFICATIONS

Los Angeles machine.

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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 238	Density of Soil and Soil-Aggregate in place by nuclear methods.
AASHTO T 248	Reducing field samples of aggregate to testing size by mechanical splitter, quartering, or miniature stockpile sampling.
ASTM D 4564	Determination of relative density of cohensionless soils.

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103h - Drum drive self-propelled vibratory grid roller. The unit shall consist of one cylindrical drum with a drum diameter of not less than 56 inches, nor more than 66 inches and the drum width shall be 84 inches. Vibratory frequency shall be regulated in seeps from 1200 to 1800 vibrations per minute (VPM), and the centrifugal force developed shall be at least 40,000 pounds at 1800 RPM. The vibratory grid roller shall be self-propelled and have a power unit of not less than 112 horsepower. The "grid" design shall be a herringbone or z-bar pattern around the circumference of the drum. The grid bars shall be 1 inch in height and spaced not more than 8-1/2 inches apart.

103i - Other. Compaction equipment approved by the Authorized Officer.

TIMBER SALE ROAD SPECIFICATIONS

PIPE CULVERTS - 400

*401 - This work shall consist of furnishing and installing pipe culverts and other erosion control devices in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans. Individual lengths and locations are approximate; final lengths and locations will be determined by the Authorized Officer upon installation of the appurtenance structures. Additional pipe and erosion control devices may be required at the option of the Authorized Officer, in which case a reduction in the total purchase price shall be made to offset the cost of furnishing and installing such items. Costs will be based upon the unit prices set forth in the current BLM Timber Appraisal Production Cost Schedule.

403 - Grade culverts shall have a gradient of from 2 percent to 4 percent greater than the adjacent road grade. Grade culverts shall be skewed down grade 30 degrees as measured from the perpendicular to the centerline unless otherwise specified on the plans.

404 - Damage to the spelter, or burn back in excess of 3/8 inch, shall be wire brushed and painted with two coats of zinc-rich paint on zinc-coated, steel pipe and aluminum-rich paint on aluminum or aluminum-coated pipe.

405a - Corrugated-(aluminized) steel-welded pipe culverts and pipe-arch culverts and special sections shall conform to the requirements of AASHTO M 36 and AASHTO M 218, AASHTO M 274, or AASHTO M 289 as specified on the plans.

*406 - Coupling bands shall conform to the requirements of AASHTO M 36 and AASHTO M 218 or AASHTO M 274 with the exception of band widths and the "Hugger"-type band which shall conform to the details, dimensions, and typical diagram shown on the plans.

406a - "Hugger"-type coupling bands shall only be used with annular corrugated pipe and pipe-arch culverts, or helically corrugated pipe and pipe-arch culverts having annular reformed ends. Annular reformed ends shall consist of two annular corrugations.

TIMBER SALE ROAD SPECIFICATIONS

407 - Special sections, such as elbows, branch connections, and flared-end sections, shall be of the same gauge as the pipe to which they are joined, and shall conform to the requirements of AASHTO M 36 and AASHTO M 218 or AASHTO M 274.

*408 - Pipe culverts and pipe-arch culverts shall be placed on the bed starting at the downstream end with the inside circumferential laps pointing downstream and with the longitudinal laps at the side or quarter points. Coupling bands of the type required under these specifications shall be installed so as to provide the circumferential and longitudinal strength necessary to preserve the pipe alignment, prevent separation of the pipe sections, and minimize infiltration of fill material.

*410 - Pipe shall be unloaded and handled with reasonable care. If the Authorized Officer determines any structure is damaged to the extent that it is unsuitable for use in the road construction, it shall be replaced at the Purchaser's expense.

*411 - Trenches necessary for the installation of pipe culverts shall conform to the lines, grades, dimensions, and typical diagram included in the plans and the Culvert Installation Detail Sheet.

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

*413 - Pipe culverts shall be bedded on a selected granular, crushed rock material in accordance with Section 1200 gradation (E-1), or fine readily compactable soil material having a depth of not less than 6 inches as shown on plans. Foundation material shall be of uniform density throughout the length of the structure and shall be shaped to fit the pipe.

*416 - Side-fill material for pipe culverts shall be placed within (1) pipe diameter, or a minimum of (2) feet, of the sides of the pipe barrel, and to (1) foot over the pipe with fine, readily compactable soil, crushed rock material from stockpiles shown on the plans, or granular fill material free of excess moisture, muck, frozen material, roots, sod, or other deleterious or caustic material and devoid of rocks or stones of sizes which may impinge upon and damage the pipe or otherwise interfere with proper compaction.

TIMBER SALE ROAD SPECIFICATIONS

*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, is attained as determined by AASHTO T 99, Method C.

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

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

*427 - Record culvert sizes, lengths and location actually installed on a copy of the culvert list. This culvert list shall be furnished to the Authorized Officer.

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

429 - Keep the excavation site dewatered so that the installation of culverts is completed under dry conditions. Dispose of excess water by using pumping or natural drainage ways near the site in a manner that will avoid damage to adjacent property. Provide for downstream waterflow with no more that 10% increase in natural stream turbidity due to transport of excavated material or sediment during construction. Diversion streams shall not be returned to the natural channel until all in-stream work has been completed.

TIMBER SALE ROAD SPECIFICATIONS

RENOVATION AND IMPROVEMENT OF EXISTING ROADS - 500

*501 - This work shall consist of reconditioning and preparing the roadbed and shoulders, minor excavation and/or embankment, cleaning and shaping drainage ditches, trimming vegetation from cut and embankment slopes, and cleaning and repairing drainage structures of existing roads in accordance with these specifications, as shown on the plans, and as marked on the ground with stakes or metal tags.

501a - This work shall include the removal and disposal of slides in accordance with these specifications and as marked on the ground with stakes or metal tags).

502 - The existing road surface shall be bladed and shaped to the lines, grades, dimensions, and typical cross sections shown on the plans and as marked on the ground with stakes or metal tags at the following locations:

Road Number	From Sta./M.P.	to Sta./M.P.
39-1-20.00	0.00	0.78
39-1-28.03	0.00	0.42
39-1-29.00	0.00	0.80
39-1-31.00	0.45	1.47
39-2-25.01	0.00	0.29
39-2-27.00	0.00	4.93
39-2-28.00	0.00	2.83
39-2-34.01	0.00	0.04
39-2-34.03	0.00	0.24
39-3-10.00	0.00	1.00
39-3-26.00	0.00	1.01
39-3-27.00	0.00	0.73
39-3-27.01	0.00	0.49
39-3-27.02	0.00	6.00
39-3-28.01	0.00	0.30
39-3-28.02	0.00	0.10

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39-3-36.00	0.00	0.81
NS 25-20	0.00	1.15
NS 36-30	0.00	0.22
USFS 850	0.00	0.45

502a - Rocks larger than (4) inches in maximum dimension shall be removed from the scarified layers of the roadbed. Material so removed will not be permitted to remain on road shoulders or in ditches.

502b - Drainage ditches shall be bladed and shaped in accordance with the lines, grades, dimensions, and typical cross sections shown on the plans.

506 - The inlet end of all existing drainage structures shall be cleared of vegetative debris and boulders that are of sufficient size to obstruct normal stream flow. Pipe inverts shall be cleared of sediment and other debris lodged in the barrel of the pipe. The outflow area of all pipe structures shall be cleared of rock and vegetative obstructions which will impede the structure's designed outflow configuration. Catch basins shall conform to the lines, grade, dimensions, and typical diagram shown on the plans.

509 - The finished grading shall be approved in writing by the Authorized Officer. The Purchaser shall give the Authorized Officer 5 days notice prior to final inspection of the grading operations.

WATERING - 600

*601 - This work shall consist of furnishing and applying water required for the compaction of embankments, roadbeds, backfills, base courses, surface courses, finishing and reconditioning of existing roadbeds, laying dust, or for other uses in accordance with these specifications.

602 - Water, when needed for compaction or laying dust, shall be applied at the locations, in the amounts, and during the hours as directed by the Authorized

TIMBER SALE ROAD SPECIFICATIONS

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 the water sources selected by the Purchaser and approved by the Authorized Officer.

AGGREGATE BASE COURSE - 1000
CRUSHED ROCK MATERIAL

*1001 - This work shall consist of furnishing, hauling, and placing one or more lifts of crushed rock material on roadbeds approved for placing crushed rock material, in accordance with these specifications and conforming to the dimensions and typical cross sections shown on the plans. Material not conforming to these specifications will be rejected and shall be removed from the road at the purchaser's expense.

1002a - Crushed rock materials may be obtained from a commercial sourceselected by the Purchaser at his option and expense providing that the rock materials selected comply with the specifications in this section.

*1003 - Crushed rock material produced from gravel shall have (2) manufactured fractured face(s) on 65 percent, by weight, of the material retained on the No. 4 sieve. If necessary to meet the above requirement, or to eliminate an excess of filler, the gravel shall be screened before crushing).

*1004 - Crushed rock materials shall consist of hard durable rock fragments conforming to the following gradation requirements:

TIMBER SALE ROAD SPECIFICATIONS

TABLE 1004

AGGREGATE BASE COURSE
CRUSHED ROCK MATERIAL
Percentage by Weight Passing Square Mesh Sieves
(AASHTO T 11 & T 27)

GRADATION

Sieve Designation	A	B	C	D	F	G	H	I
(6) -inch	-	-	-	-	-	-	-	100
3-inch	100	-	100	-	100	-	-	45-65
2-inch	90-95	**100**	-	100	65-95	100	100	-
1 1/2-inch	-	**90-95**	-	-	-	-	-	-
1-inch	45-75	**50-90**	-	-	-	50-85	60-90	-
3/4-inch	-	-	-	-	28-70	-	-	-
1/2-inch	-	-	-	-	-	27-60	44-70	-
3/8-inch	-	-	-	-	-	-	-	-
No. 4	15-45	**15-50**	-	-	10-35	15-40	28-50	0-10
No. 8	-	-	-	-	-	-	20-41	-
No. 10	-	-	-	-	-	-	-	-
No. 30	-	-	-	-	5-22	8-26	9-26	-
No. 40	5-25	**5-25**	-	-	-	-	-	-
No. 200	2-15	**2-15**	-	-	3-10	3-12	3-12	-

1005 - Crushed rock material retained on the No. 4 sieve shall have a percentage of loss of not more than 35 at 500 revolutions, as determined by AASHTO T 96.

1006 - Crushed rock material shall show durability value of not less than 35, as determined by AASHTO T 210.

TIMBER SALE ROAD SPECIFICATIONS

1007 - That portion of crushed rock material passing the No. 40 sieve, including blending filler, shall have liquid limits of not more than 35, and a plasticity index of not less than (4) and not more than (12) as determined by AASHTO T 89 and AASHTO T 90.

1007a - That portion of crushed rock material passing No. 4 sieve, including blending filler shall have a sand equivalent of not less than 35, as determined by AASHTO T 176, except where that portion exhibits a sand equivalent of less than 35, the aggregate will be accepted if it complies with the additional requirement as follows:

TABLE 1007a

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

1008 - If additional binder or filler is necessary in order to meet the grading or plasticity requirements, or for satisfactory bonding of the material, it shall be uniformly blended with the crushed rock material at the crushing and screening plant prior to placing on the road, unless otherwise agreed. The material for such purposes shall be obtained from sources approved by the Authorized Officer and shall be free from stones, vegetative matter, and other deleterious materials.

1008a - Each layer of crushed rock material shall be thoroughly mixed on the roadbed by alternately blading, to full depth, until a uniform mixture has been obtained. The mixture shall then be spread to full width. When completed, the spreading shall produce a surface which is smooth, presents uniform shoulder lines, and conforms to the specified cross section.

TIMBER SALE ROAD SPECIFICATIONS

*1010 - Crushed rock materials shall be placed and processed on the approved roadbed in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans. When more than one layer is required, each shall be shaped, processed, compacted, and approved in writing by the Authorized officer before the succeeding layer is placed. Irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and adding or removing crushed rock material until the surface is smooth and uniform.

1010a - Crushed rock material used to repair or reinforce a soft, muddy, frozen, yielding, or rutted roadbed shall not be construed as surfacing under this specification.

1011 - Crushed rock material shall be compacted by routing construction and hauling equipment over the full width of each layer placed.

1012 - Each layer of crushed rock material shall be placed, processed, shaped, moistened or dried to a uniform moisture content suitable for maximum compaction, and compacted to full width by compaction equipment conforming to the requirements of Subsection 103f and 103h. Minimum compaction shall be (one (1) hour of continuous compacting for each (150) cubic yards, or fraction thereof, of crushed rock material placed per layer deemed adequate when the surface can withstand five passes of a truck with H-20 loading without appreciable deformation (6) passes over each full-width layer.

SOIL STABILIZATION – 1800

*1801 - This work shall consist of seeding and mulching on designated cut, fill, borrow, disposal, and special areas in accordance with these specifications and as shown on the plans.

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

TIMBER SALE ROAD SPECIFICATIONS

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

From: August 1 to October 15

1804 - The BLM shall provide native grass/forb seed or other plant materials for this project. If BLM is unable to provide native seed or other plant materials, the Purchaser shall furnish the following species of grass/forb seed or other plant materials.

All seed provided must meet corresponding germination, purity, and weed-content requirements:

Species	Germination Min. %	Purity Min. %	Weed Content Max. %
California Brome	85	95	0.2
Blue Wild Rye	85	95	0.2

The grass seed furnished shall meet the minimum requirement for Blue Tag Seed as set forth in the latest edition of Oregon Certification Standards published by Oregon State University. Seed source shall be approved by the Authorized Officer and shall be from general region where the project occurs.

The Purchaser shall furnish the Authorized Officer a Seed Test Result from a certified seed testing lab (Oregon State University), which shall include: date of test; lot number of each kind of seed; seed source; and results of tests as to name, percentages of purity and of germination, weed species and percentage of weed content, for each kind of seed furnished and, in case of mixture, the proportions of each kind of seed. The seed must have been tested within the last year to be accepted for use on this contract.

Genetically appropriate native plant species (seed or other native plant materials) shall be selected as a first choice for project work. If native grass/forb seed or (other plant materials) is not available, non-native species to be used shall be approved by the appropriate resources specialist (botanist, native plant coordinator, etc.) and authorized officer prior to application on the ground.

TIMBER SALE ROAD SPECIFICATIONS

1805 - The Purchaser shall mix and sack grass seed specified under Subsection 1804 in the following proportions:

Seed Mixture "A":

Species	% of Total by Weight	Lbs. per Acre
California Brome	50	10
Blue Wild Rye	50	10
Totals	100	20

1805a - The Purchaser shall provide in writing compliance with seed mixture requirements specified under Subsection 1805. Seed weight and seed mixture type shall be shown on the tag attached to each sack.

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

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

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

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

TIMBER SALE ROAD SPECIFICATIONS

1810 - Bulk mulching material required under these specifications shall be delivered to the work area bound either by twine, string or hemp rope. Wire binding will not be permitted.

1811 - The Purchaser shall furnish and apply to approximately (2.0) acres designated for treatment as shown on the plans and as specified under Subsections 1802a and 1806a, a mixture of grass seed and mulch, material at the following rate of application:

a. Single Stage:

Grass Seed	(20) lbs./acre
Mulch	(1000) lbs./acre

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

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

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

1814 - The Purchaser may reduce the application rate on partially covered slopes and refrain from application on areas already well stocked with grass or on rock surfaces as determined by the Authorized Officer.

1815 - The seed and mulch materials shall be placed by the dry method in accordance with the requirements set forth in Subsection 1815b.

TIMBER SALE ROAD SPECIFICATIONS

1815b - Dry Method - Blowers, mechanical seeders, seed drills, landscape seeders, cultipaker 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 (5) days in advance of date he intends to commence the specified soil stabilization work.

1821 - Mulch that collects at the end of culverts or accumulates to excessive depths on the slopes shall be evenly spread by hand methods, as directed by the Authorized Officer.

1822 - No materials shall be applied when wind velocities would prevent a uniform application of the mix or slurry or when winds would drift the mix or slurry spray outside of the designated treatment area.

1824 - Twine, rope, sacks, and other debris resulting from the soil-stabilization operation shall be picked up and disposed of to the satisfaction of the Authorized Officer.

ROADSIDE BRUSHING - 2100

*2101 - This work shall consist of the removal of vegetation from the road prism - variable distance, and inside curves in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the Roadside Brushing Detail 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 at D.B.H.O.B. shall be cut to a maximum height of (2) inches above the ground surface or above obstructions such as rocks or stumps on cut and fill slopes and all limbs below the (2) inch area will be severed from the trunk.

2103a - Vegetation shall be cut and removed from the road bed between the outside shoulders and the ditch centerline and such vegetation shall be cut to a maximum

TIMBER SALE ROAD SPECIFICATIONS

height of (1) inch above the ground and running surface. Limbs below the (1) inch area will be severed from the trunk. Sharp pointed ends will not be permitted. Cuts shall be parallel to the ground line or running surface.

2104 - Trees in excess of (6) inches in diameter at D.B.H.O.B. shall be limbed, so that no limbs extend into the treated area or over the roadbed to a height of (14) feet above the running surface of the roadway on cut and fill slopes, within the road prism-variable distance. Limbs shall be cut to within (1) inch of the trunk to produce a smooth vertical face. Removal of trees larger than (6) inches in diameter for sight distance or safety may be directed by the Authorized Officer.

2105 - Vegetation that is outside of the road prism-variable distance that protrudes into the road prism and within (14) feet in elevation above the running surface shall be cut, to within (1) inch of the trunk to produce a smooth vertical face.

2106 - Vegetative growth capable of growing (1) foot in height or higher shall be cut, within the road prism-variable distance or as directed by the Authorized Officer.

2107 - Inside curves shall be brushed out for a sight distance of (200) feet chord distance and a middle ordinate distance of (25) feet. 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.

2115 - Mechanical brush cutters shall not be operated when there are people and occupied vehicles within (400) feet of the immediate operating area.

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

ROAD MAINTENANCE SPECIFICATIONS

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

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

ROAD MAINTENANCE SPECIFICATIONS

GENERAL - 3000

3001 The Purchaser shall be required to maintain all roads listed and/or referenced in section 42(C)(5)., Special Provisions of this contract in accordance with Sections 3000, 3100, 3200, 3300, and 3400 of this exhibit.

3001a The Purchaser shall be required to provide maintenance on roads in accordance with Subsection(s) (3403), (3403a), (3403b), (3404), (3405), (3406).

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.

ROAD MAINTENANCE SPECIFICATIONS

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 and/or bituminous roadways only where the locations have been marked on the ground and/or approved by the Authorized Officer. Repair of the road(s) is not considered maintenance and shall be repaired at the Purchaser's expense.

SEASONAL MAINTENANCE - 3200

3201 The Purchaser shall perform preventative maintenance at the end of Purchaser's hauling each season and during non-hauling periods which occur between other operations on the contract area. This includes requirements specified in Section 3100.

3202 The purchaser shall perform and complete maintenance specified in Sections 3000, 3100, and 3200 on all roads maintained by him, prior to October 1 each year, except as specified in Subsection 3203, after initial commencement of construction or logging operations. Thereafter, all roads shall have continuous preventive maintenance and road cleanup until suspension of seasonal operations. This includes all roads used and not used during the proceeding operating seasons.

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

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

FINAL MAINTENANCE - 3300

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

The Authorized Officer may grant acceptance of Purchaser's maintenance responsibility in part where certain individual roads or road segments are no longer of any use to the Purchaser's remaining removal operations, providing that all contract requirements as specified under Sec. 16(b), Special Provisions Sections 3000, 3100, 3200 and 3300 of the maintenance specifications

have been completed and a relinquishment of cutting and removal rights on cutting units tributary to these roads is signed by the Purchaser. Request for partial acceptance must be submitted in writing by the Purchaser.

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

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

OTHER MAINTENANCE - 3400

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

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

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

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

ROAD MAINTENANCE SPECIFICATIONS

The following roads shall be watered:

Road Number	From Sta./M.P.	to Sta./M.P.
39-1-18.00	0.00	0.55
39-1-20.00	0.00	0.78
39-1-28.02	0.00	2.89
39-1-28.03	0.00	0.42
39-1-29.00	0.00	0.80
39-1-31.00	0.45	1.47
39-1-32.00	0.51	2.48
39-2-25.01	0.00	0.29
39-2-27.00	0.00	4.93
39-2-28.00	0.00	2.83
39-2-34.01	0.00	0.04
39-2-34.03	0.00	0.24
39-3-10.00	0.00	1.00
39-3-26.00	0.00	1.01
39-3-27.00	0.00	0.73
39-3-27.01	0.00	0.49
39-3-27.02	0.00	6.00
39-3-28.01	0.00	0.30
39-3-28.02	0.00	0.10
39-3-36.00	0.00	0.81
Non_sys 25-20	0.00	1.15
Non_sys 36-30	0.00	0.22
25-20 Temp Loop	0.00	0.30
26-21 Temp	0.00	0.58
27-32 Temp	0.00	0.10

ROAD MAINTENANCE SPECIFICATIONS

During drought periods when the transportation of water from the source to the roads noted above exceeds 10 miles, a reduction shall be made in the total purchase price to reflect the additional haul or the substitution of other acceptable dust palliatives in lieu of watering based on equipment rental rates from the current BLM Road Cost Guide.

3403a During dry hauling conditions when watering is not required, the Purchaser shall reduce hauling speeds to 5 MPH and/or restrict the number of loads hauled to 2 per day on the following roads:

Road Number	From Sta./M.P.	to Sta./M.P.
39-1-18.00	0.00	0.55
39-1-20.00	0.00	0.78
39-1-28.02	0.00	2.89
39-1-28.03	0.00	0.42
39-1-29.00	0.00	0.80
39-1-31.00	0.45	1.47
39-1-32.00	0.51	2.48
39-2-25.01	0.00	0.29
39-2-27.00	0.00	4.93
39-2-28.00	0.00	2.83
39-2-34.01	0.00	0.04
39-2-34.03	0.00	0.24
39-3-10.00	0.00	1.00
39-3-26.00	0.00	1.01
39-3-27.00	0.00	0.73
39-3-27.01	0.00	0.49
39-3-27.02A-B	0.00	5.34
39-3-27.02C-D	5.34	6.00
39-3-28.01	0.00	0.30
39-3-28.02	0.00	0.10
39-3-36.00	0.00	0.81
Non sys 25-20	0.00	1.15
Non sys 36-30	0.00	0.22
25-20 Temp Loop	0.00	0.30

26-21 Temp	0.00	0.58
27-32 Temp	0.00	0.10

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

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

The following USFS roads shall be watered:

Road Number	From Sta./M.P.	to Sta./M.P.
USFS 2030	0.00	1.13
USFS 2030 600	0.00	0.51
USFS 2200	0.00	0.11
USFS 2250	0.00	3.75
USFS 2250 850	0.00	0.45

Water required under these specifications shall be obtained at the locations shown on Exhibit D-2 of this contract.

3404 The Purchaser may at his option and expense substitute lignin sulfonate for water on any or all road segments listed in Subsection 3403 or 3403a provided that written approval is received from the Authorized Officer. Such authorization shall include the approval of product specifications for the application of the product to be used. Multiple applications may be required to maintain the conditions specified in Subsection 3403.

3405 The Purchaser shall be required to furnish and apply lignin sulfonate dust palliatives in accordance with these specifications.

This work shall be performed upon acceptance of the required road construction, renovation, or improvement work and be placed prior to any timber hauling other than right-of-way timber.

When timber hauling has commenced during the wet weather season, the Purchaser shall apply

the required dust palliative during the subsequent summer hauling season as directed by the Authorized Officer.

Other means of dust abatement needed prior to the application of the required dust palliative shall be applied as approved by Authorized Officer.

The specified dust palliative shall be applied evenly over the specified road surface width of the following roads:

Road No.	From Sta./M.P.	to Sta./M.P.	Spread Width
39-2-28.00	0.01	0.17	12'
39-2-28.00	0.41	0.57	12'
39-3-10.00	0.62	0.73	12'

Turnouts and extra widening shall not be included in addition to the spread width.

3405a Additional lignin sulfonate dust palliative may be required at the option of the Authorized Officer when the functional qualities of the dust palliative have been reduced or become ineffective due to third party damage, rain, or other events not under the control of the purchaser.

All materials and labor shall be furnished by the Purchaser and placed in amounts and locations designated by the Authorized Officer, in which case a reduction in the total purchase price shall be made to offset the cost. Costs will be based upon the unit prices set forth in the current BLM Road Cost Guide.

If additional dust palliative is required due to events controlled by the Purchaser, such as split hauling season, the Purchaser shall furnish and place such material at his own expense.

3405b The Purchaser shall notify affected residents along the roads to be treated of the planned application of lignin sulfonate dust palliatives at least 3 days prior to the work. Warning signs shall be posted at key intersections to alert users that the road is being treated. All signs shall be removed by the Purchaser within thirty days of treatment.

3406 Prior to the application of lignin sulfonate dust palliatives, the roadbed shall be bladed and shaped to remove surface irregularities and excess loose material. The prepared surface must have 1 inch of relatively loose material and be visibly moist and drying.

3406b A light application of water to promote penetration shall be made in advance of the application of the specified dust palliative to allow the drying process to begin and to eliminate any saturated surface conditions.

3406c The prepared roadbed shall be approved by the Authorized Officer prior to application of the

specified dust palliative.

3407 The Purchaser shall furnish in duplicate, commercial certification signed by vendor of compliance with the lignin sulfonate dust palliatives material requirements specified under Subsection 3412b. Commercial certification includes the date, identification number of truck or trailer, net mass, and brand name with each shipment. Also provide the net volume and specific gravity at 60 degrees F, percent solids by mass, and PH.

3408 Dust palliatives shall be applied with standard commercial distribution equipment operated in a manner that the material is uniformly applied on variable widths of surface at controlled rates.

3409 The Purchaser shall notify the Authorized Officer a minimum of 3 days in advance of application of required dust palliative.

3410 The Purchaser shall submit an application schedule for all dust palliative work to the Authorized Officer for approval. All work shall be in accordance with the approved plan.

3411 Required lignin sulfonate dust palliatives shall only be applied when the atmospheric temperature is 45° F and steady or rising and when the weather is not foggy or rainy. Do not apply dust palliative if rain is anticipated within 24 hours of application or when the ground is frozen.

3412 The Purchaser shall apply to the prepared roadbed specified under Subsection 3405, a lignin sulfonate dust palliative conforming to the material requirements of Subsection 3412b. The rate of application shall be 0.35 gallons per yd^2 surface.

Applied materials not penetrating the road surface shall be blade mixed with additional water into the top 1 to 1½ inches of the surfacing at the Contractor's expense.

3412a If required, the lignin sulfonate shall be field diluted within the application vehicle and be circulated at least 5 minutes to assure mixing. An air gap shall be provided between any water source and the materials being diluted. Accidental spills shall be contained to prevent entry in water courses or ponded water. The surface of adjacent structures and trees shall be protected from spattering or marring.

A wetting agent may be used in addition to the certified compound or mixed with the road surface preparation watering. A mix of less than 1:6000 is recommended.

Water used to dilute lignin sulfonate concentrate shall be clean and free of oil, salt, acid, alkali, vegetable matter, or any other substance that contaminates the finished product.

3412b Specifications for Lignin Sulfonate:

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

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

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

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

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

DECOMMISSIONING – 3500

3501 Fully Decommission road work shall consist of all or part of the following treatments:

a. Fully Decommissioned roads shall consist of loosening compacted layers of road surface along the entire road width and length at a depth of 12-18 inches. Compacted layers of road surface shall be loosened mechanically with a machine equipped with a bucket with teeth and thumb suitable for breaking up soil and scattering debris. The purchaser shall use soil, boulders, brush, dead material, stumps, and other debris to disguise the entire length of the road prism to the extent possible.

b. All culverts shall be removed from the entire road length. Excavate to remove culvert and construct slopes to 1½:1. Excavation shall be left open to drain. Excavation spoils shall be placed on roadway in a manner to minimize erosion and sedimentation. Where draw culverts are removed, the grade of the channel shall be restored to match existing stream. Culverts not designated as salvage for the Government shall become the property of the Purchaser. The Purchaser shall be responsible for legally disposing of material.

c. The Purchaser shall Camouflaged the road entrance for a minimum of 100 feet or to the first curve or hillcrest. Camouflaged roads shall consist of using boulders, brush, dead material, stumps, and other debris to disguise the entire length of the road prism to the extent possible. No live trees should be used without approval by the Authorized Officer.

d. An earth berm or equivalent barricade shall be constructed near the beginning of road. The final locations will be staked by the Authorized Officer's Rep.

e. The entire length of road shall be seeded and mulched in accordance with the Section 1800 of Exhibit C-11 specifications.

3503 Decommissioning shall be performed on roads in accordance with these specifications, and as shown on the plans and in Exhibit C-10 Roads Worklist at the following locations:

Road No or Site	From Sta/MP	To Sta/MP
39-2-34.03	0.14	0.24
27-32 Temp	0.00	0.10
26-21 Temp	0.00	0.58
25-20 Temp Loop	0.00	0.30

3504 Decommissioning work shall be completed after logging activities.

3505 Where draw crossing fill material is to be excavated and removed, the finished bottom of draw profile shall be re-established to its original channel grade and resulting adjacent banks shall be re-established to their original backslope ratios or constructed to a 1 1/2:1 backslope ratio.

3506 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 and camouflage operations.

Where slash is not available exposed soil areas shall be stabilized in accordance with Section 1800.

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

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

3509 Access shall be blocked with an earth berm or equivalent barricade as shown on Exhibit D-3 and at locations as shown on Exhibit D-2 and in Exhibit C-10 Roads Worklist. Barricades shall be constructed near the beginning of road. The final locations will be staked by the Authorized Officer's Rep.

3513 Water bars shall be installed across full width of roadway at spacings shown in Exhibit C-10 Roads Worklist. Water bars shall be constructed as shown on Exhibit D-3.

3514 Protection of exposed surfaces shall be accomplished by placement of soil stabilization material in accordance with Section 1800 and placement of slash described in Subsection 3506 on designated roadways, disturbed areas, landings, cut banks, fill slopes and special areas and other areas disturbed by the purchaser's decommissioning operations in accordance with these specifications and as shown in the plans.

3519 Long Term Closure of roads shall consist of all or part of the following treatments:

a. Construct cross-drains along entire length of road at 200' spacing, or as staked or directed by the Authorized Officer's Representative.

b. The Purchaser shall Camouflaged the road entrance for a minimum of 100 feet or to the first curve or hillcrest. Camouflaged roads shall consist of using boulders, brush, dead material, stumps, and other debris to disguise the entire length of the road prism to the extent possible. No live trees should be used without approval by the Authorized Officer.

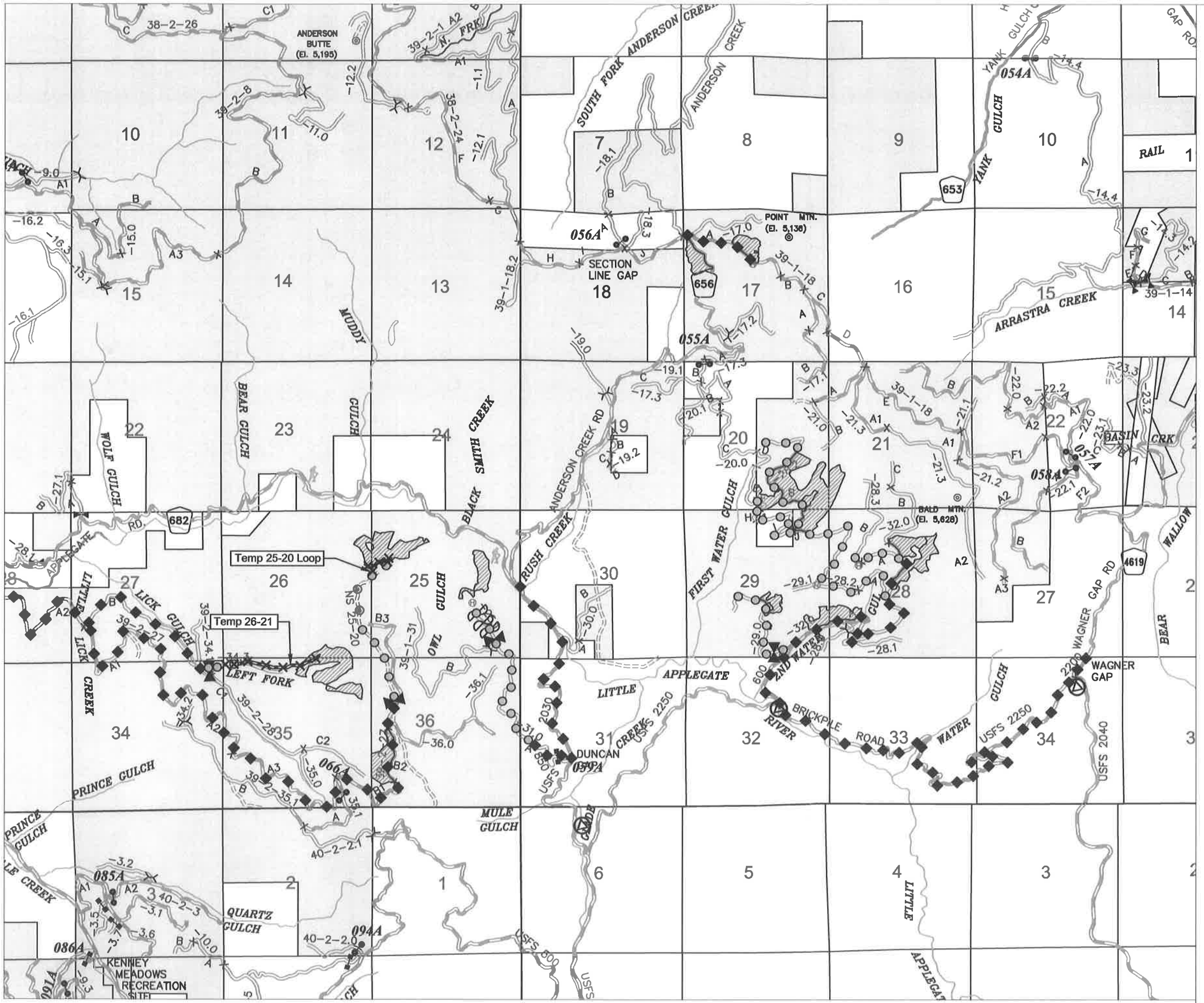
c. An earth berm or equivalent barricade shall be constructed near the beginning of road. The final locations will be staked by the Authorized Officer's Rep.

3520 Long Term Closure shall be performed on roads in accordance with these specifications, and as shown on the plans and in Exhibit C-10 Roads Worklist at the following locations:

Road No or Site	Water bars	Camouflage	Barricade
39-1-29.00			Earthberm
39-2-25.01	200' Spacing		Earthberm
39-2-34.01			Earthberm
NS 25-20			Earthberm
NS-36-30			Earthberm

3521 Long Term Closure work shall be completed after logging activities.

NEDSBAR TIMBER SALE
ROAD LOCATION MAP
EXHIBIT D-2 PAGE 1 OF 2



U.S.D.I. BLM MEDFORD DISTRICT

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

- EXISTING GATE
- EXISTING BARRICADE
- PUMP CHANCE
- USFS PUMP CHANCE TO BE USED ON USFS ROADS ONLY

ROAD PROJECTS

- EXISTING ROAD
- EXISTING PAVED ROAD
- EXISTING PRIMITIVE ROAD
- OPERATOR MAINTENANCE
- BLM MAINTENANCE
- ROAD TO HAVE LIGNIN APPLIED
- BARRICADED TO BE CONSTRUCTED
- ROAD TO BE WATER BARED
- ROAD TO BE DECOMMISSIONED

- BLM LAND
- TS UNITS

N W E S

0 1/2 1
SCALE IN MILES

NEDSBAR TIMBER SALE
ROAD LOCATION MAP
EXHIBIT D-2 PAGE 2 OF 2

U.S.D.I. BLM MEDFORD DISTRICT

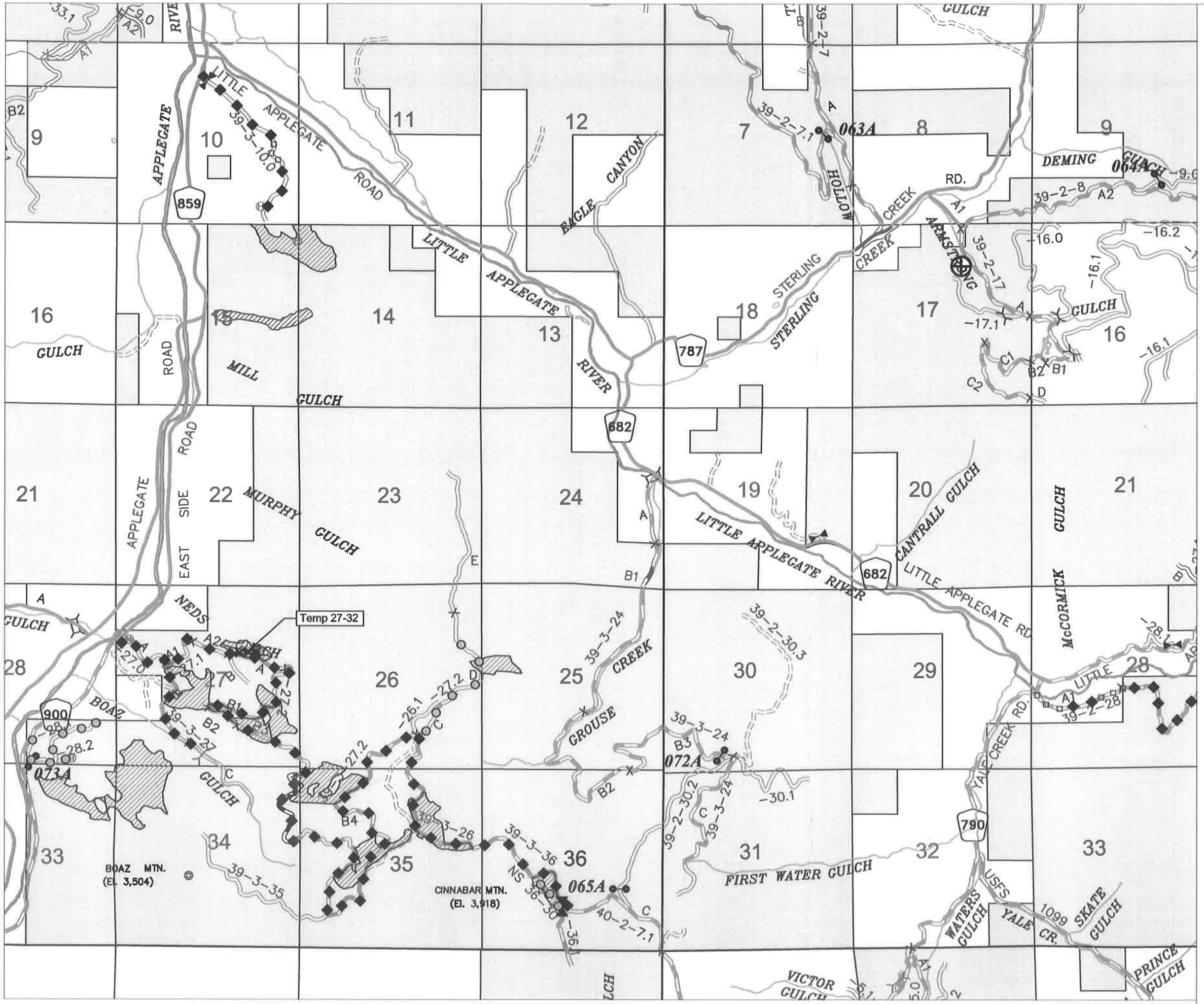
T.39S., R.1W. WILL. MER.
T.39S., R.2W. WILL. MER.
T.39S., R.3W. WILL. MER.

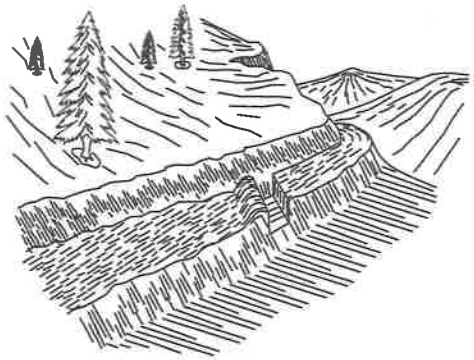
EXISTING GATE
EXISTING BARRICADE
PUMP CHANCE
USFS PUMP CHANCE TO BE USED ON USFS ROADS ONLY

ROAD PROJECTS

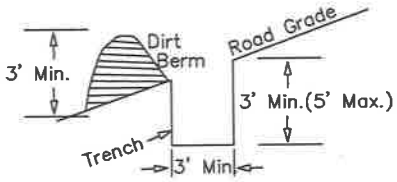
EXISTING ROAD
EXISTING PAVED ROAD
EXISTING PRIMITIVE ROAD
OPERATOR MAINTENANCE
BLM MAINTENANCE
ROAD TO HAVE LIGNIN APPLIED
BARRICADED TO BE CONSTRUCTED
ROAD TO BE WATER BARED
ROAD TO BE DECOMMISSIONED

BLM LAND
TS UNITS

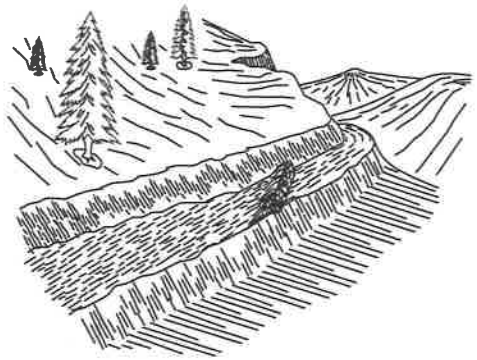




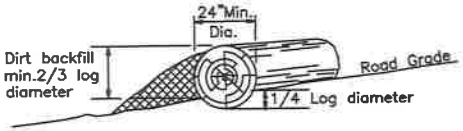
TRENCH BARRICADE



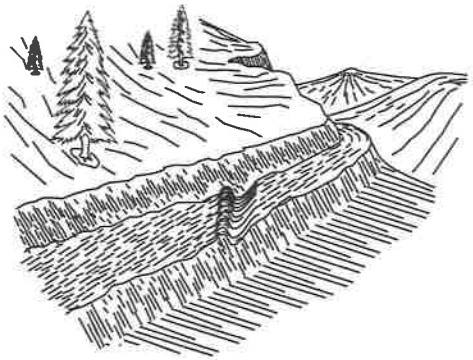
1. BARRICADE LENGTH SHALL EXTEND ACROSS THE ENTIRE ROAD SURFACE TO A POINT SUFFICIENT TO PROHIBIT MOTOR VEHICLE TRAFFIC.
2. THE EXACT LOCATION SHALL BE AS STAKED IN THE FIELD.
3. THE BARRICADE SHALL BE SKEWED AS NEEDED TO DRAIN OR AS DIRECTED BY THE AUTHORIZED OFFICERS REPRESENTATIVE.



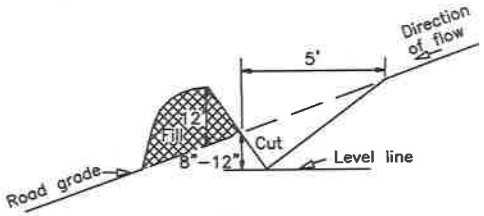
LOG BARRICADE



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

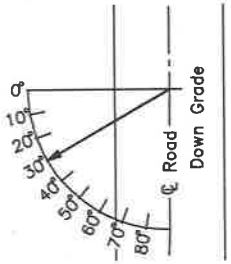


WATER BAR



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

SKEW DIAGRAM



WATER BAR SPACING *

ROAD GRADE	LOAM OR CLAY 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

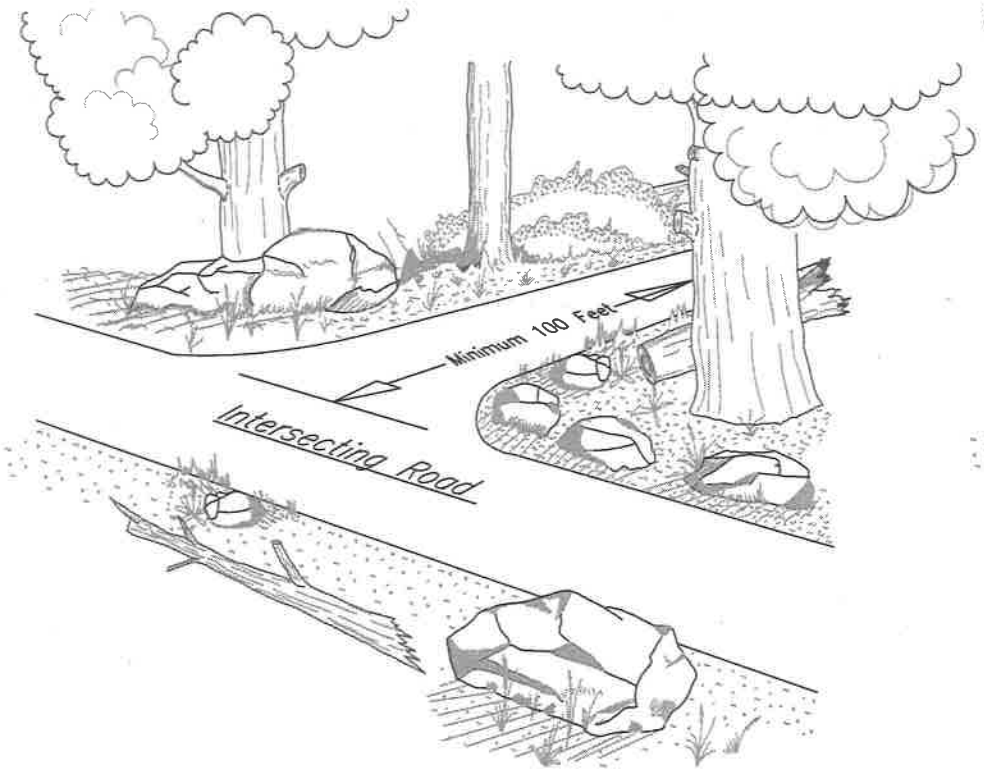
* DISTANCES ARE MAXIMUM.
** ON GRADES IN EXCESS OF 10% CONSTRUCT WATER BARS.

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

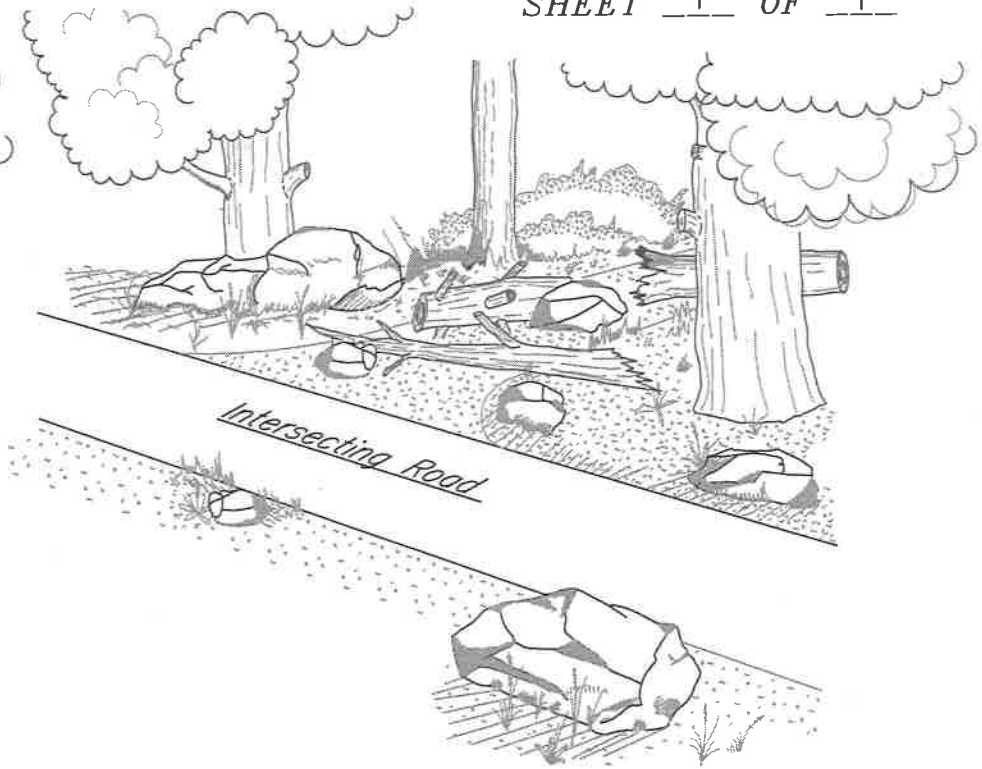
DRAINAGE & EROSION CONTROL INSTALLATION

DRAWN JWR	SCALE NONE
DATE August 2016	SHEET 1 OF 1
DRAWING NO.	OR117–TS16–16–D3

EXHIBIT D 4
SHEET 1 OF 1



Typical Entrance – Before



Typical Entrance – After

Notes:

1. The Purchaser shall barricade and Camouflage the road prism and disguise the roadbed so that the road entrance and roadway are indiscernible from the intersecting road. Camouflaged entrances shall consist of logs, slash, boulders and others debris placed along road entrances for a minimum of 100 feet or to the first curve or hillcrest to discourage vehicle use. An Earth Berm or equivalent barricade shall be constructed at road entrance as approved by the Authorized Officer..

2. Where multiple entrances exist, the work shall include obscuring all road entrances. Ditchlines at intersecting roads will be restored as indicated on plan view. The Purchaser shall use soil, boulders, brush, dead material, stumps, and other debris to disguise the road prism to the extent possible. No live trees should be used without approval of the Authorized Officer.

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

Typical Road Camouflage

DRAWN JWR	SCALE NONE
DATE August 2016	SHEET 1 OF 1
DRAWING NO. OR 117–TS16–16–D4	

EXHIBIT D–5
SHEET 1 OF 1

Typical Entrance – Before

Typical Entrance – After

Typical Road Camouflaged Entrance
(See Exhibit D–4)

Notes:

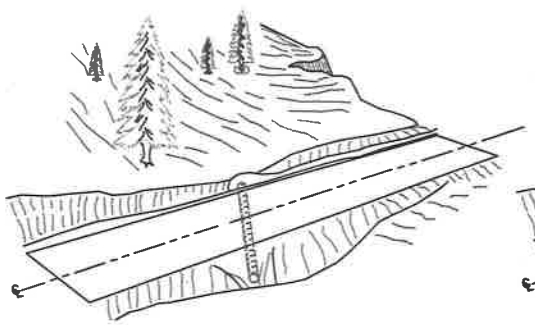
1. The Purchaser shall barricade, decompact the road prism and camouflage the roadbed so that the road entrance and roadway are indiscernible from the intersecting road. Camouflaged entrances shall consist of logs, slash, boulders and others debris placed along road entrances for a minimum of 100 feet or to the first curve or hillcrest to discourage vehicle use. Barricades shall be constructed as shown for each road.

   Where multiple entrances exist, the work shall include obscuring all road entrances. Ditchlines at intersecting roads will be restored as indicated on plan view. The Purchaser shall use soil, boulders, brush, dead material, stumps, and other debris to disguise the road prism to the extent possible. No live trees shall be used without approval of the Authorized Officer.

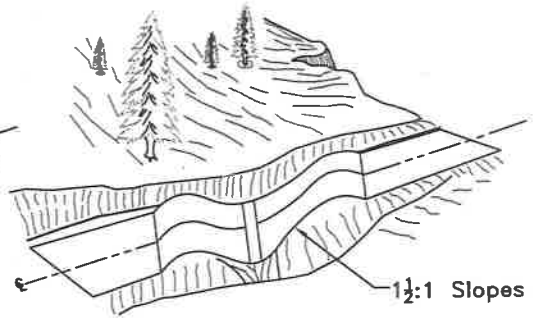
3. Road surface shall be decompacted for its entire length using mechanical equipment. Decompact road surface to a depth of 12 to 18 inches or to a point where 10 inch diameter stones are the dominant substrate (whichever is shallower). Where it is determined by the Authorized Officer that decompaction may cause unacceptable damage to the root systems of residual trees along a majority of the road, decompaction may be intermittent, or scarification may be used instead. Woody debris, brush, stumps, boulders, and other debris shall be placed along the roads entire length as determined by availability of materials to provide ground cover and discourage use. No live trees shall be cut or used without approval of the Authorized Officer.

4. All culverts shall be removed from road for its entire length. Excavated culverts shall be left open to drain and have slopes of 1½:1. Where draw culverts are removed the grade of the channel shall be restored to match existing stream. Culverts not designated as salvage for the Government shall become the property of the Contractor. The Contractor shall be responsible for legally disposing of material.

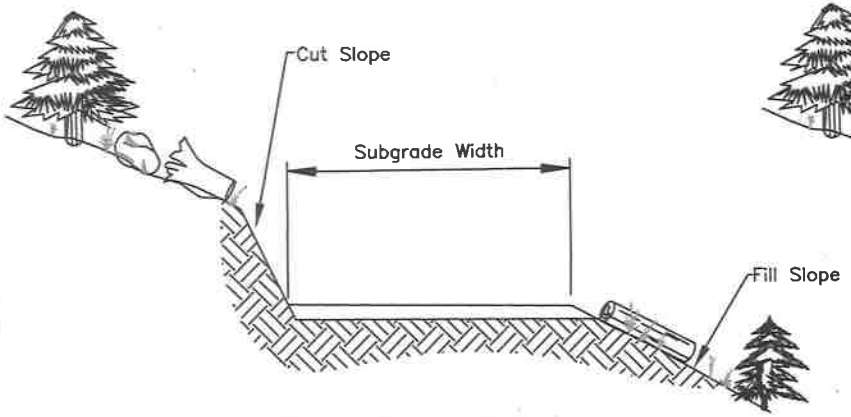
5. See Section 1800 for Seeding Specifications.



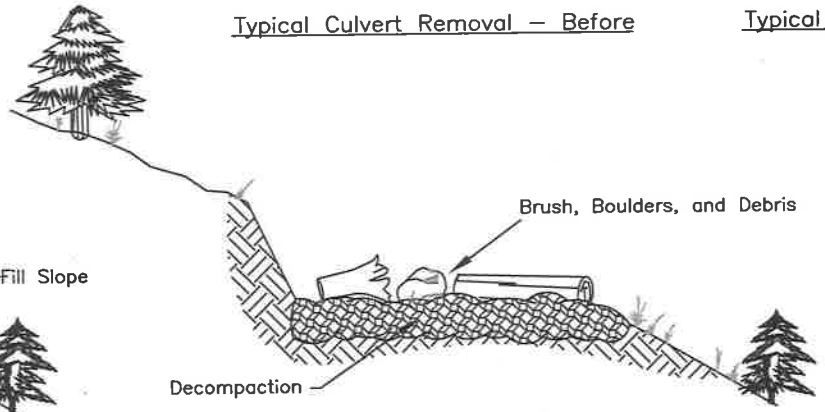
Typical Culvert Removal – Before



Typical Culvert Removal – After



Before Decommissioning



After Decommissioning

Typical Full Decommission

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT – MEDFORD, OREGON	
Typical Full Decommission	
DRAWN JWR	SCALE NONE
August 2016	SHEET 1 OF 1
DRAWING NO. OR 117–TS16–16–D5	

United States of America

Department of the Interior

Bureau Of Land Management

Timber Sale Appraisal

District :	Medford	**Contract # :**	TS-16-16
Sale Name :	Nedsbar	**Job File # :**	ADP-323
Sale Date :	09/22/2016	**Master Unit :**	Jackson
Appraisal Method :	16' MBF	**Planning Unit :**	Ashland

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Legal Description

Forest Type	Township	Range	Section	Subdivision
O&C	39S	1W	17	W1/2NE1/4, NW1/4.
O&C	39S	1W	20	SE1/4.
O&C	39S	1W	21	W1/2SW1/4.
O&C	39S	1W	28	W1/2NE1/4, NW1/4, N1/2SW1/4, SW1/4SW1/4.
O&C	39S	1W	29	E1/2NE1/4, SW1/4NE1/4, SE1/4.
O&C	39S	2W	25	Lot 3, Lot 4, S1/2NE1/4, S1/2NW1/4, N1/2SE1/4.
O&C	39S	2W	26	Lot 1, SE1/4NE1/4, S1/2SE1/4.
O&C	39S	2W	34	NE1/4NE1/4.
O&C	39S	2W	35	Lot 1, N1/2NE1/4, SE1/4NE1/4, NE1/4NW1/4.
O&C	39S	2W	36	SW1/4NW1/4, W1/2SW1/4.
O&C	39S	3W	10	SE1/4SE1/4.
O&C	39S	3W	14	W1/2NW1/4, NW1/4SW1/4.
O&C	39S	3W	15	NE1/4, N1/2SE1/4.
O&C	39S	3W	25	Lot 3 and 8.
O&C	39S	3W	26	Lot 7, SE1/4NE1/4.
O&C	39S	3W	27	S1/2NE1/4, SE1/4NW, NE1/4SW1/4, S1/2SW1/4, SE1/4.
PD	39S	3W	28	S1/2SE1/4.
O&C	39S	3W	33	N1/2NE1/4, SE1/4NE1/4.
O&C	39S	3W	34	NE1/4NE1/4, NW1/4.
O&C	39S	3W	35	Lot 1 and 3, NE1/4, E1/2NW1/4, NE1/4SW1/4.
O&C	39S	3W	36	E1/2SW1/4.

Cutting Volume (16' MBF)

Unit	DF	PP							Total	Regen	Partial	ROW
14-30	263	3							266	0	39	0
15-30	115	1							116	0	17	0
17-10	88	1							89	0	13	0
17-12	81	1							82	0	12	0
20-10	203	1							204	0	74	0
20-11	3								3	0	4	0
20-12	67	1							68	0	10	0
25-20	250	3							253	0	37	0
25-22	94	1							95	0	14	0
25-23	11								11	0	2	0
25-30	81	1							82	0	12	0
26-21	236	3							239	0	35	0
27-31	20	0							20	0	3	0
27-32	47	1							48	0	7	0
27-33	135	2							137	0	20	0
27-34A	40	1							41	0	6	0
27-34B	108	1							109	0	16	0
27-34C	74	1							75	0	11	0
27-35	27	0							27	0	4	0
28-10	128	2							130	0	19	0
28-11	94	1							95	0	14	0
29-10A	47	1							48	0	7	0
29-10B	7								7	0	1	0
29-11	7	0							7	0	1	0
29-12	41	33							74	0	20	0
33-30	155	2							157	0	23	0
34-30	178	2							180	0	67	0
35-30	215	3							218	0	32	0
35-31	168	2							170	0	25	0
35-32	175	2							177	0	26	0
36-20	54	1							55	0	8	0
36-22	141	2							143	0	21	0
36-30	14								14	0	11	0
Totals	**3,367**	**73**							**3,440**	**0**	**611**	**0**

Logging Costs per 16' MBF

Stump to Truck	$	314.80
Transportation	$	48.97
Road Construction	$	13.11
Road Amortization	$	0.00
Road Maintenance	$	11.36

Other Allowances :

Fuels Treatment	$ 50.71
Misc	$ 3.34
Other Costs	$ 1.87
Total Other Allowances :	**$ 55.92**

Total Logging Costs per 16' MBF $ **444.15**

Utilization Centers

Center #1 : White City, OR	36	Miles
Center #2	0	Miles
Weighted distance to Utilization Centers	36	

Length of Contract

Cutting and Removal Time	36	Months
Personal Property Removal Time	3	Months

Profit & Risk

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

Tract Features

Avg Log	Douglas-fir : 39 bf	All : 39 bf
Recovery	Douglas-fir : 81 %	All : 81 %
Salvage	Douglas-fir : 0 %	All : 0 %

Avg Volume (16' MBF per Acre)	6
Avg Yarding Slope	40 %
Avg Yarding Distance (feet)	500
Avg Age	100
Volume Cable	39 %
Volume Ground	16 %
Volume Aerial	44 %
Road Construction Stations	0.00
Road Improvement Stations	0.00
Road Renovation Stations	0.00
Road Decomission Stations	0.00

Cruise

Cruised By	Siemer, Worman
Date	06/01/2016
Type of Cruise	Plot, 100%
County, State	Jackson, OR

Net Volume

Green (16' MBF)	3,440
Salvage (16' MBF)	0
Douglas-fir Peeler	0
Export Volume	0
Scaling Allowance ($0.00 per 16' MBF)	$0.00

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Stumpage Summary

Stumpage Computation (16' MBF)

Species	Trees	Net Volume	Pond Value	(-) Profit & Risk	(-) Logging Cost	(+) Marginal Log Value	(-) Back Off	Appraised Price	Appraised Value
DF	31,772	3,367	$ 556.45	$ 44.52	$ 444.15	$ 0.26		$ 68.00	$ 228,956.00
PP	477	73	$ 282.02	$ 22.56	$ 444.15			**$ 28.20**	$ 2,058.60
Totals	**32,249**	**3,440**							**$ 231,014.60**

Log Code by Percent

Species	Code #1	Code #2	Code #3	Code #4	Code #5	Code #6
Douglas-fir				28.0	59.0	13.0
Ponderosa Pine				28.0	68.0	4.0

Marginal Log Volume

Species	Grade #7	Grade #8
Douglas-fir	5	
Ponderosa Pine		

Appraised By : Siemer, Eric **Date :** 08/02/2016

Area Approval By : Worman, Aaron **Date :** 08/02/2016

District Approval By : **Date :**

Prospectus

Appraisal Method : (16' MBF)

Species	Trees	Net Volume 16' MBF	Net Volume 32' MBF	Net Volume CCF
Douglas-fir	31,772	3,367	2,864	
Ponderosa Pine	477	73	57	
Total	**32,249**	**3,440**	**2,921**	

All Species

Gross Volume	Number Trees	Avg bf Volume Per Tree	DBH	Gross Merch Volume	Merch Logs	Avg bf Gross Merch Log
4,246	32,249	131	12.8	4,052	103,971	39

Merch Logs	Cull Logs	Total Logs	Logs per Tree	Net Volume	Gross Volume	Recovery
103,971	4,531	108,502	3.4	3,440	4,246	81 %

Douglas-fir

Gross Volume	Number Trees	Avg bf Volume Per Tree	DBH	Gross Merch Volume	Merch Logs	Avg bf Gross Merch Log
4,138	31,772	130	12.7	3,961	102,410	39

Merch Logs	Cull Logs	Total Logs	Logs per Tree	Net Volume	Gross Volume	Recovery
102,410	4,251	106,661	3.4	3,367	4,138	81 %

Cutting Areas

Unit	Regen Acres	Partial Cut Acres	Right Of Way Acres	Total Acres
14-30		39		39
15-30		17		17
17-10		13		13
17-12		12		12
20-10		74		74
20-11		4		4
20-12		10		10
25-20		37		37
25-22		14		14
25-23		2		2
25-30		12		12
26-21		35		35
27-31		3		3
27-32		7		7
27-33		20		20
27-34A		6		6
27-34B		16		16
27-34C		11		11
27-35		4		4
28-10		19		19
28-11		14		14
29-10A		7		7
29-10B		1		1
29-11		1		1
29-12		20		20
33-30		23		23
34-30		67		67
35-30		32		32
35-31		25		25
35-32		26		26
36-20		8		8
36-22		21		21
36-30		11		11
Totals :		**611**		**611**

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Exhibit B

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

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

Sale Totals (16' MBF)

Species	Net Volume	Bid Price	Sale SubTotal
Douglas-fir	3,367		
Ponderosa Pine	73		
Sale Totals	**3,440**		

Unit Details (16' MB)

Unit 14-30 **39 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	263		
Ponderosa Pine	3		
Unit Totals	**266**		

Unit 15-30 **17 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	115		
Ponderosa Pine	1		
Unit Totals	**116**		

Unit 17-10 **13 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	88		
Ponderosa Pine	1		
Unit Totals	**89**		

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Unit 17-12 **12 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	81		
Ponderosa Pine	1		
Unit Totals	**82**		

Unit 20-10 **74 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	203		
Ponderosa Pine	1		
Unit Totals	**204**		

Unit 20-11 **4 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	3		
Unit Totals	**3**		

Unit 20-12 **10 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	67		
Ponderosa Pine	1		
Unit Totals	**68**		

Unit 25-20 **37 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	250		
Ponderosa Pine	3		
Unit Totals	**253**		

Unit 25-22 **14 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	94		
Ponderosa Pine	1		
Unit Totals	**95**		

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Unit 25-23 **2 Acres** **Value per Acre : $0.00**

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

Unit 25-30 **12 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	81		
Ponderosa Pine	1		
Unit Totals	**82**		

Unit 26-21 **35 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	236		
Ponderosa Pine	3		
Unit Totals	**239**		

Unit 27-31 **3 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	20		
Ponderosa Pine			
Unit Totals	**20**		

Unit 27-32 **7 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	47		
Ponderosa Pine	1		
Unit Totals	**48**		

Unit 27-33 **20 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	135		
Ponderosa Pine	2		
Unit Totals	**137**		

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Unit 27-34A **6 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	40		
Ponderosa Pine	1		
Unit Totals	**41**		

Unit 27-34B **16 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	108		
Ponderosa Pine	1		
Unit Totals	**109**		

Unit 27-34C **11 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	74		
Ponderosa Pine	1		
Unit Totals	**75**		

Unit 27-35 **4 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	27		
Ponderosa Pine			
Unit Totals	**27**		

Unit 28-10 **19 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	128		
Ponderosa Pine	2		
Unit Totals	**130**		

Unit 28-11 **14 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	94		
Ponderosa Pine	1		
Unit Totals	**95**		

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Unit 29-10A **7 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	47		
Ponderosa Pine	1		
Unit Totals	**48**		

Unit 29-10B **1 Acres** **Value per Acre : $0.00**

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

Unit 29-11 **1 Acres** **Value per Acre : $0.00**

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

Unit 29-12 **20 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	41		
Ponderosa Pine	33		
Unit Totals	**74**		

Unit 33-30 **23 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	155		
Ponderosa Pine	2		
Unit Totals	**157**		

Unit 34-30 **67 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	178		
Ponderosa Pine	2		
Unit Totals	**180**		

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Unit 35-30 **32 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	215		
Ponderosa Pine	3		
Unit Totals	**218**		

Unit 35-31 **25 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	168		
Ponderosa Pine	2		
Unit Totals	**170**		

Unit 35-32 **26 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	175		
Ponderosa Pine	2		
Unit Totals	**177**		

Unit 36-20 **8 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	54		
Ponderosa Pine	1		
Unit Totals	**55**		

Unit 36-22 **21 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	141		
Ponderosa Pine	2		
Unit Totals	**143**		

Unit 36-30 **11 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	14		
Unit Totals	**14**		

UNITED STATES
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Volume Summary

Sale Volume Totals

611 **Acres** 0 **Regen** 611 **Partial** 0 **R/W** 35 **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	31,772	102,410	4,251	3,367	3,961	4,138	2,864	3,364	3,502	0	0	0
Ponderosa Pine	477	1,561	280	73	91	108	57	70	82	0	0	0
Totals	**32,249**	**103,971**	**4,531**	**3,440**	**4,052**	**4,246**	**2,921**	**3,434**	**3,584**	**0**	**0**	**0**

Unit Totals

Unit : 14-30 **39 Acres** **0 Regen** **39 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	2,608	8,392	337	325	312	263
Ponderosa Pine	28	83	22	6	5	3
Unit Totals	**2,636**	**8,475**	**359**	**331**	**317**	**266**

Unit : 15-30 **17 Acres** **0 Regen** **17 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,137	3,658	147	142	136	115
Ponderosa Pine	12	36	10	3	2	1
Unit Totals	**1,149**	**3,694**	**157**	**145**	**138**	**116**

Unit : 17-10 **13 Acres** **0 Regen** **13 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	869	2,797	112	108	104	88
Ponderosa Pine	9	28	7	2	2	1
Unit Totals	**878**	**2,825**	**119**	**110**	**106**	**89**

Unit : 17-12 **12 Acres** **0 Regen** **12 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	802	2,582	104	100	96	81
Ponderosa Pine	8	26	7	2	1	1
Unit Totals	**810**	**2,608**	**111**	**102**	**97**	**82**

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Unit : 20-10 **74 Acres** **0 Regen** **74 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,153	3,844	216	235	226	203
Ponderosa Pine	17	32	1	1	1	1
Unit Totals	**1,170**	**3,876**	**217**	**236**	**227**	**204**

Unit : 20-11 **4 Acres** **0 Regen** **4 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	25	72	4	3	3	3
Unit Totals	**25**	**72**	**4**	**3**	**3**	**3**

Unit : 20-12 **10 Acres** **0 Regen** **10 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	669	2,152	87	83	80	67
Ponderosa Pine	7	21	6	2	1	1
Unit Totals	**676**	**2,173**	**93**	**85**	**81**	**68**

Unit : 25-20 **37 Acres** **0 Regen** **37 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	2,477	7,965	317	306	292	250
Ponderosa Pine	26	79	21	6	4	3
Unit Totals	**2,503**	**8,044**	**338**	**312**	**296**	**253**

Unit : 25-22 **14 Acres** **0 Regen** **14 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	936	3,012	121	117	112	94
Ponderosa Pine	10	30	8	2	2	1
Unit Totals	**946**	**3,042**	**129**	**119**	**114**	**95**

Unit : 25-23 **2 Acres** **0 Regen** **2 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	63	202	23	15	13	11
Unit Totals	**63**	**202**	**23**	**15**	**13**	**11**

Unit : 25-30 **12 Acres** **0 Regen** **12 Partial** **0 R/W**

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

Douglas-fir	802	2,582	104	100	96	81
Ponderosa Pine	8	26	7	2	1	1
Unit Totals	**810**	**2,608**	**111**	**102**	**97**	**82**

Unit : 26-21 **35 Acres** **0 Regen** **35 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	2,340	7,531	303	292	280	236
Ponderosa Pine	25	75	20	5	4	3
Unit Totals	**2,365**	**7,606**	**323**	**297**	**284**	**239**

Unit : 27-31 **3 Acres** **0 Regen** **3 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	201	646	26	25	24	20
Ponderosa Pine	2	6	2			
Unit Totals	**203**	**652**	**28**	**25**	**24**	**20**

Unit : 27-32 **7 Acres** **0 Regen** **7 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	468	1,506	61	58	56	47
Ponderosa Pine	5	15	4	1	1	1
Unit Totals	**473**	**1,521**	**65**	**59**	**57**	**48**

Unit : 27-33 **20 Acres** **0 Regen** **20 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,337	4,304	173	169	160	135
Ponderosa Pine	14	43	11	3	2	2
Unit Totals	**1,351**	**4,347**	**184**	**172**	**162**	**137**

Unit : 27-34A **6 Acres** **0 Regen** **6 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	401	1,291	52	50	48	40
Ponderosa Pine	4	13	3	1	1	1
Unit Totals	**405**	**1,304**	**55**	**51**	**49**	**41**

Unit : 27-34B **16 Acres** **0 Regen** **16 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,070	3,443	138	133	128	108

Ponderosa Pine	11	34	9	2	2	1
Unit Totals	**1,081**	**3,477**	**147**	**135**	**130**	**109**

Unit : 27-34C **11 Acres** **0 Regen** **11 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	735	2,367	95	92	88	74
Ponderosa Pine	8	23	6	2	1	1
Unit Totals	**743**	**2,390**	**101**	**94**	**89**	**75**

Unit : 27-35 **4 Acres** **0 Regen** **4 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	267	861	35	33	32	27
Ponderosa Pine	3	9	2	1		
Unit Totals	**270**	**870**	**37**	**34**	**32**	**27**

Unit : 28-10 **19 Acres** **0 Regen** **19 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,270	4,088	164	159	152	128
Ponderosa Pine	13	41	11	3	2	2
Unit Totals	**1,283**	**4,129**	**175**	**162**	**154**	**130**

Unit : 28-11 **14 Acres** **0 Regen** **14 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	936	3,012	121	117	112	94
Ponderosa Pine	10	30	8	2	2	1
Unit Totals	**946**	**3,042**	**129**	**119**	**114**	**95**

Unit : 29-10A **7 Acres** **0 Regen** **7 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	468	1,506	61	58	56	47
Ponderosa Pine	5	15	4	1	1	1
Unit Totals	**473**	**1,521**	**65**	**59**	**57**	**48**

Unit : 29-10B **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	67	215	9	8	8	7

Unit Totals	**67**	**215**	**9**	**8**	**8**	**7**

Unit : 29-11 **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	67	215	9	8	8	7
Ponderosa Pine	1	2	1			
Unit Totals	**68**	**217**	**10**	**8**	**8**	**7**

Unit : 29-12 **20 Acres** **0 Regen** **20 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	272	897	33	47	46	41
Ponderosa Pine	144	563	29	38	37	33
Unit Totals	**416**	**1,460**	**62**	**85**	**83**	**74**

Unit : 33-30 **23 Acres** **0 Regen** **23 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,538	4,949	199	192	184	155
Ponderosa Pine	16	49	13	3	3	2
Unit Totals	**1,554**	**4,998**	**212**	**195**	**187**	**157**

Unit : 34-30 **67 Acres** **0 Regen** **67 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,192	3,897	216	210	198	178
Ponderosa Pine	11	44	5	3	3	2
Unit Totals	**1,203**	**3,941**	**221**	**213**	**201**	**180**

Unit : 35-30 **32 Acres** **0 Regen** **32 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	2,139	6,886	277	268	256	215
Ponderosa Pine	23	68	18	5	4	3
Unit Totals	**2,162**	**6,954**	**295**	**273**	**260**	**218**

Unit : 35-31 **25 Acres** **0 Regen** **25 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,671	5,379	216	209	200	168
Ponderosa Pine	18	53	14	4	3	2

Unit Totals	**1,689**	**5,432**	**230**	**213**	**203**	**170**

Unit : 35-32 **26 Acres** **0 Regen** **26 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,738	5,595	225	217	208	175
Ponderosa Pine	18	55	15	4	3	2
Unit Totals	**1,756**	**5,650**	**240**	**221**	**211**	**177**

Unit : 36-20 **8 Acres** **0 Regen** **8 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	535	1,721	69	68	64	54
Ponderosa Pine	6	17	4	1	1	1
Unit Totals	**541**	**1,738**	**73**	**69**	**65**	**55**

Unit : 36-22 **21 Acres** **0 Regen** **21 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,404	4,519	182	175	168	141
Ponderosa Pine	15	45	12	3	2	2
Unit Totals	**1,419**	**4,564**	**194**	**178**	**170**	**143**

Unit : 36-30 **11 Acres** **0 Regen** **11 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	115	324	15	16	15	14
Unit Totals	**115**	**324**	**15**	**16**	**15**	**14**

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
$ 1,082,902.88	3,440	$ 314.80

Detail

Yarding & Loading

Yarding System	Unit Of Measure	Units	Cost / Unit	Total Cost
Short Twr<40	GM	469	$ 186.85	$ 87,632.65
Med Twr=40-70	GM	1,302	$ 224.88	$ 292,793.76
Track Skidder	GM	481	$ 96.87	$ 46,594.47
Helicopter	GM	1,800	$ 360.89	$ 649,602.00
Subtotal				**$ 1,076,622.88**

Other Costs

Explanation	Unit Of Measure	Units	Cost / Unit	Total Cost
Tractor Assist	hour	22	$ 90.00	$ 1,980.00
Subtotal				**$ 1,980.00**

Additional Move-Ins

Equipment	# Move-In	Cost / Move In	Total Cost
Yarder / Loader	2	$ 800.00	$ 1,600.00
Skidder	2	$ 550.00	$ 1,100.00
Yarder / Loader	2	$ 800.00	$ 1,600.00
Subtotal			**$ 4,300.00**

Other Allowances Costs

Total (16' MBF)

Total Other Allowances Costs	Net Volume	Cost / Net Volume *	Total Buy Out Cost
$192,372.80	3,440	$55.92	$0.00

Fuels Treatment

Detail (16' MBF)

Cost Item	Total Cost	Cost / Net Vol *	Buy Out	Buy Out Cost
Hand Pile, Cvr - Level 1	$ 92,714.00	$ 26.95	N	$ 0.00
Hand Pile, Cvr - Level 2	$ 58,823.80	$ 17.10	N	$ 0.00
Hand Pile, Cvr - Level 3	$ 22,920.00	$ 6.66	N	$ 0.00
Subtotal	**$ 174,457.80**	**$ 50.71**		**$ 0.00**

Misc

Detail (16' MBF)

Cost Item	Total Cost	Cost / Net Vol *	Buy Out	Buy Out Cost
Hand seeding	$ 3,080.00	$ 0.90		$ 0.00
Hand mulching	$ 8,400.00	$ 2.44	N	$ 0.00
Subtotal	**$ 11,480.00**	**$ 3.34**		**$ 0.00**

Other Costs

Detail (16' MBF)

Cost Item	Total Cost	Cost / Net Vol *	Buy Out	Buy Out Cost
Barricades	$ 600.00	$ 0.17	N	$ 0.00
Ripping	$ 2,475.00	$ 0.72	N	$ 0.00
Waterbar Skids	$ 300.00	$ 0.09	N	$ 0.00
Landing Construction	$ 900.00	$ 0.26	N	$ 0.00
Landing Clean up	$ 800.00	$ 0.23	N	$ 0.00
Equipment Washing	$ 1,110.00	$ 0.32	N	$ 0.00
Equipment Washing	$ 250.00	$ 0.07	N	$ 0.00
Subtotal	**$ 6,435.00**	**$ 1.87**		**$ 0.00**

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

Consolidated Comments

General

Nedsbar timber sale spans a large geographic area across three townships in the Little Applgate watershed. The sale consists of predominately Douglas-fir. Sale includes Tractor, Cable and Helicopter yarding systems. Sale can be access from Little Applegate Road or Wagner Creek Road.

Yarding & Loading

Unit 25-20A was appraised for short tractor assist. Separate additional move-ins for Yoader.

Additional Move ins were allowed due to the long distance between cutting areas in the sale.

Two different cable logging systems appraised for. About 25% of the cable acres can be logged with a small tower or Yoader, the material is smaller in size and the yarding distance is short to medium. The remainder of the cable acres were appraised for a medium tower however, some might be accessible for a small tower or yoader.

Helicopter acres were appraised for a light lift helicopter. Because the material is smaller diameter and the turns are relatively short, a light helicopter will maximize efficiency and load availability.

Road Costs

(see Engineering Appraisal for details).

Transportation

Three locations within the sale area with calculated distances to White City, OR. We weighted the haul routes based on unit volumes from each area and have an average haul length of 36 miles.

(see Transportation appendix for details).

Other Allowances

Fuels treatments are heavy in Group Select units in the designated cutting areas. however, only 20% of total group select acres need treatment. Level 3 in those areas. Level 1 and 2 elsewhere depending on logging system.

Handpile Burning will be handled by BLM and not included in appraisal.

Prospectus

Sale: Neds Bar
Sale Date: 10/15
Prep. By : jmcneel
Tract No: 16-16

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ROAD MAINTENANCE AND ROAD USE APPRAISAL WORK SHEET

Summary of Costs

1.1) Road Use - Amortization: $0.00/3449 MBF = $0.00/MBF

Road Maintenance Obligation:

(2.1) BLM Maintenance		$8,195.94
(2.2) BLM Rockwear	$4,696.38	
(5.1) Purchaser Maintenance Rockwear	$0.00	
Total Rockwear Payable to BLM		$4,696.38
(3.1) 3rd Party Maintenance		$0.00
(3.2) 3rd Party Rockwear		$0.00
(4.1) Other Maintenance Payments		$1,617.41
Total Maintenance Fee Obligation (2.1-5.1)		$12,892.31

Purchaser Maintenance Allowances:

(5.2A) Move In	$0.00
(5.2B) Culverts, Catch Basins, Downspouts	$0.00
(5.2C) Grading, Ditching	$3,806.14
(5.2D) Slide Removal and Slump Repair	$0.00
(5.2E) Dust Palliative (Water)	$8,777.86
(5.2F) Surface Repair (Aggregate)	$0.00
(5.2G) Other	$5,685.50
Total Purchaser Maintenance Allowances (5.2A-5.2G)	$18,269.50
(2.1-5.2G) Cost/MBF ($12,892.31 + $18,269.50) /3449 MBF =	$9.04/MBF
(5.2H) Decommissioning	$7,894.15
(5.2H) Cost/MBF $7,894.15/3449 MBF =	$2.29/MBF
Total Cost/MBF (Excluding Road Use) $39,055.96/3449 MBF =	$11.32/MBF

1) Road Use Fees - Amortization

Details

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

Subtotal by agreement number

(1.1) Subtotal $0.00

2) BLM Maintenance - Timber Haul

		MAINTENANCE (2.1)					ROCKWEAR (2.2)		
Road Number and Segment	A N	Surf Type	Mi	Maint x Fee x	Vol MBF	= Maint	Fee x	MBF =	Rkwear
39-1-18.00	A	ASC	0.44	0.76	82	$27.42	0.49	82	$17.68
39-1-32.00	A	ASC	1.89	0.76	225	$323.19	0.49	225	$208.37
39-2-27.00	A	ASC	4.77	0.76	143	$518.40	0.49	143	$334.23
39-2-28.00	A	ASC	1.60	0.76	143	$173.89	0.49	143	$112.11
39-2-28.00	A	ASC	2.78	0.76	293	$619.05	0.49	293	$399.12
39-2-34.01	A	ASC	0.04	0.76	293	$8.91	0.49	293	$5.74
39-3-10.00	A	ASC	1.00	0.76	382	$290.32	0.49	382	$187.18
39-3-26.00	A	ASC	0.70	0.76	191	$101.61	0.49	191	$65.51
39-3-27.00	A	ASC	0.73	0.76	1119	$620.82	0.49	1119	$400.27
39-3-27.01	A	ASC	0.49	0.76	962	$358.25	0.49	962	$230.98
39-3-27.02	A	ASC	0.05	0.76	150	$5.70	0.49	150	$3.68
39-3-27.02	A	ASC	0.70	0.76	41	$21.81	0.49	41	$14.06
39-3-27.02	A	ASC	1.44	0.76	105	$114.91	0.49	105	$74.09
39-3-27.02	A	ASC	3.82	0.76	171	$496.45	0.49	171	$320.08
39-3-27.02	A	ASC	4.61	0.76	219	$767.29	0.49	219	$494.70
39-3-27.02	A	ASC	5.18	0.76	191	$751.93	0.49	191	$484.80
39-3-36.00	A	ASC	0.81	0.76	14	$8.62	0.49	14	$5.56
39-1-32.00	A	ASC	1.54	0.76	397	$464.65	0.49	397	$299.58
39-1-32.00	A	ASC	0.07	0.76	14	$0.74	0.49	14	$0.48
39-3-27.02	A	ASC	5.77	0.76	82	$359.59	0.49	82	$231.84
USFS 2250	A	ASC	3.68	0.76	225	$629.28	0.00	225	$0.00
USFS 2200	A	ASC	0.11	0.76	225	$18.81	0.00	225	$0.00
USFS 2030	A	ASC	1.58	0.76	107	$128.49	0.00	107	$0.00
USFS 2030 850	A	ASC	0.59	0.76	107	$47.98	0.00	107	$0.00
USFS 2250 600	A	NAT	0.51	0.76	225	$87.21	0.00	225	$0.00
39-2-27.00	A	ASC	4.93	0.76	252	$944.19	0.49	252	$608.76
39-2-28.00	A	ASC	1.60	0.76	252	$306.43	0.49	252	$197.57

(2.1) Subtotal $8,195.94 (2.2) Subtotal $4,696.38

3) Third Party Maintenance and Rockwear

		MAINTENANCE (3.1)					ROCKWEAR (3.2)		
Agrmnt Number	Road Number	Mi	x	Fee x	MBF =	Maint	Fee x	MBF =	Rkwear

Subtotal of maintenance fees by agreement number:
Subtotal of rockwear fees by agreement number:

(3.1) Subtotal $0.00
(3.2) Subtotal $0.00

4) Other Maintenance Payments - USFS or Others Perform Maintenance

Agency	Road Number	Miles (Log) x	Vol (mbf) x	Fee MBF/MI =	Cost
USFS	2030 850	0.00			$50.29
USFS	2030	0.00			$177.62
USFS	2200	0.00			$55.58
USFS	2250	0.00			$1,333.92

(4.1) Subtotal $1,617.41

5) Purchaser Maintenance - Rock Wear

TIMBER HAUL (5.1)

Road No and Segment	A N	Mi	RkWear x Fee x	Vol MBF =	Total RkWear
39-1-20.00	A	0.71	0.00	16	$0.00
39-1-28.02	A	0.77	0.00	324	$0.00
39-1-28.02	A	1.85	0.00	3	$0.00
39-1-28.02	A	2.07	0.00	66	$0.00
39-1-28.03	A	0.42	0.00	216	$0.00
39-1-29.00	A	0.80	0.00	13	$0.00
39-1-31.00	A	0.85	0.00	124	$0.00
39-2-25.01	A	0.29	0.00	124	$0.00
39-2-34.01	A	0.04	0.00	282	$0.00
39-2-34.03	A	0.24	0.00	282	$0.00
39-3-28.01	A	0.28	0.00	331	$0.00
39-3-28.02	A	0.10	0.00	331	$0.00

(5.1) Subtotal $0.00

Purchaser Operational Maintenance

Move In

Equipment	Units	No x	Move in x	Cost/ 50 Mi x	Dist Factor =	Sub-total
Motor Grader:		1		$483.00	0.78	$0.00
Back Hoe:		1		$149.00	0.78	$0.00
Loader:				$483.00	0.63	$0.00
Water Truck:		1		$107.00	0.78	$0.00
Dump Truck:		1		$113.00	0.78	$0.00
Excavator:				$483.00	0.63	$0.00
Roller:				$483.00	0.63	$0.00

(5.2A) Total $0.00

Culvert Maintenance - Including Catch basins and Downpipes

Miles x	Cost/Mi =	Subtotal
	$334.17	$0.00

(5.2B) Total $0.00

Grading (Includes Ditches and Shoulders)

Miles x	Cost/Mi x	Freq =	Subtotal
Blade w/ Ditch:	0.00	$720.50	0	$0.00
Blade w/o Ditch:	8.52	$446.73	1	$3,806.14

(5.2C) Total $3,806.14

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

Type Equipment	No Slides /Slumps	Hours x	Each x	Equip Cost	= Subtotal
Grader:	0		0	$147.33	$0.00
Loader:	0		0	$107.45	$0.00
Backhoe:	0		0	$76.21	$0.00

(5.2D) Total $0.00

Dust Palliative (Water)

Spreading Hours

	No Miles	/	Freq MPH	=	Truck Hours	x	Days	x	/Day	=	Hours
	4.00		5		0.8		35		1		28
Load & Haul =					1.0		35		1		35
Return trip =					1.0		35		1		35
Total Hours =					98						

Truck Cost: $89.57/Hr. x 98.0 Hours = $8,777.86

(5.2E) Total $8,777.86

Surface Repair (Aggregate)

Production Cost:	0.0 CY x $0.00/CY	=	$0.00
Haul to Stockpile:	0.0 CY x (($2.21/CY x 0.00 Mi) + $0.74)	=	$0.00
Stockpile:	0.0 CY x $1.01/CY	=	$0.00
Load from Stockpile:	0.0 CY x $1.11/CY	=	$0.00
Haul from Stockpile:	0.0 CY x (($2.21/CY x 0.00 Mi) + $0.74)	=	$0.00
Process with Grader:	0.0 CY x $0.90/CY	=	$0.00
Compaction:	0.0 CY x $1.34/CY	=	$0.00

(5.2F) Total $0.00

Other

Fallen Timber Cutting:	0.0 Hours x $0.00/Hour	=$0.00
Brush Cutting/Tree Trimming:	0.0 Hours x $0.00/Hour	=$0.00
Oil/Asphalt Materials:	Lump Sum	=$0.00
Signing for Dust Palliatives:	Lump Sum	=$0.00
Lignin Application	Lump Sum	=$2,530.00
USFS Water	Lump Sum	=$3,155.50
	Lump Sum	=$0.00
	Lump Sum	=$0.00
	Lump Sum	=$0.00

(5.2G) Total $5,685.50

Decommissioning

Temp 35-1 Decompact Road Surface: 14 Hr @ $163.53/Hr	=$2,289.42
Temp 35-1 Camouflage Entrance: 3 Ea @ $75.00/Ea	=$225.00
Temp 25-1 Decompact Road Surface: 4 Hr @ $163.53/Hr	=$654.12
Temp 25-1 Camouflage Entrance: 1 Ea @ $75.00/Ea	=$75.00
Temp 27-1 Decompact Road Surface: 2 Hr @ $163.53/Hr	=$327.06
Temp 27-1 Camouflage Entrance: 1 Ea @ $75.00/Ea	=$75.00
Non_sys 27 Install Earth Berm Barricade : 1 Ea @ $250.00/Ea	=$250.00
39-1-29.00 Install Earth Berm Barricade : 1 Ea @ $250.00/Ea	=$250.00
39-2-25.01 Install Earth Berm Barricade : 1 Ea @ $250.00/Ea	=$250.00
39-2-25.01 Construct Water Bar: 8 Ea @ $50.00/Ea	=$400.00
39-2-34.01 Install Earth Berm Barricade : 1 Ea @ $250.00/Ea	=$250.00
39-2-34.03 Decompact Road Surface: 0.75 Hr @ $163.53/Hr	=$122.65
Non_sys 25-20 Install Earth Berm Barricade : 1 Ea @ $250.00/Ea	=$250.00
Non_sys 36-30 Install Earth Berm Barricade : 1 Ea @ $250.00/Ea	=$250.00
27-32 Temp Camouflage Entrance: 1 Ea @ $75.00/Ea	=$75.00
27-32 Temp Decompact Road Surface: 1 Hr @ $163.53/Hr	=$163.53
26-21 Temp Decompact Road Surface: 6 Hr @ $163.53/Hr	=$981.18
26-21 Temp Excavator - Large (2 CY): 3 hr @ $128.90/hr	=$386.70
39-2-34.03 Excavator - Large (2 CY): 1 hr @ $128.90/hr	=$128.90
25-20 Temp Loop Decompact Road Surface: 3 Hr @ $163.53/Hr	=$490.59

(5.2H) Total $7,894.15

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Version: 5.2.0.61
Updated: 4/13/2016

Summary of All Roads and Projects

T.S. Contract Name: Neds Bar Tract No: 16-16 Sale Date: 10/15
Prepared by: jmcneel Ph: xt 2370 Print Date: 8/2/2016 9:42:44 AM
Construction: 0.00 sta
Improve: 0.00 sta Renov: 1822.67 sta Decom: 0.00 sta Temp: 51.74 sta

200 Clearing and Grubbing: 0.0 acres $0.00

300 Excavation: $0.00
Haul < 500 ft: 0 sta-yds
Haul > 500 ft: 0 yd-mi

400 Drainage: $4,411.80
Culvert: 90 lf DownSpout: 0 lf
PolyPipe: 0 lf

500 Renovation: $8,764.57
Blading 8.19 mi

700-1200 Surfacing: $5,522.40
Commercial Quarry Name: Commercial 270 LCY

1300 Geotextiles: $0.00

1400 Slope Protection: $0.00

1800 Soil Stabilization: 1.0 acres $586.34
Includes Small Quantity Factor of 1.54

1900 Cattleguards: $0.00

2100 RoadSide Brushing: 33.2 acres $10,070.32

2300 Engineering: 0.00 sta. $0.00

2400 Minor Concrete: $0.00

2500 Gabions: $0.00

8000 Miscellaneous: $14,275.34

Mobilization: Const. $1,469.10 Surf. $0.00..... $1,469.10

Quarry Development: $0.00

Total: 3,449 mbf @ $13.076/mbf = $45,099.87

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

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 25-20 Temp Loop Road Name:
Temporary Road: 0.30 mi 14 ft Subgrade ft ditch 4/13/2016

200 Clearing and Grubbing: acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.3 acres	$175.90
Includes Small Quantity Factor of 1.54	
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.0 acres	$0.00
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$3,769.42
Mobilization: Const. $132.84 Surf. $0.00.....	$132.84
Quarry Development:	$0.00
Total:	$4,078.17

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

Road Construction Worksheet

Road Number: 25-20 Temp Loop Road Name:

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Subtotal: $0.00

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:
  Dry Method with Mulch: $586.34/acre x 0.30 acres = $175.90
        Includes Small Quantity Factor of 1.54

Subtotal: $175.90

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:

Subtotal: $0.00

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:
  Temporary Spur Construction
   Temporary Spur Construction 0.3 Mi x $12,564.74/Mi = $3,769.42

Subtotal: $3,769.42

Mobilization:
  Construction - 9.04% of total Costs = $132.84
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $132.84

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $4,078.17

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 26-21 Temp Road Name:
Temporary Road: 0.58 mi 12 ft Subgrade 0 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.6 acres	$351.80
Includes Small Quantity Factor of 1.54	
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.0 acres	$0.00
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$7,339.75
Mobilization: Const. $258.98 Surf. $0.00.....	$258.98
Quarry Development:	$0.00
Total:	$7,950.54

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

Road Construction Worksheet

Road Number: 26-21 Temp Road Name:

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Subtotal: $0.00

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:
  Dry Method with Mulch: $586.34/acre x 0.60 acres = $351.80
        Includes Small Quantity Factor of 1.54

Subtotal: $351.80

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:

Subtotal: $0.00

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:
  Temp Spur
   Temporary Spur Constrution 0.58 Mi x $12,654.74/Mi = $7,339.75

Subtotal: $7,339.75

Mobilization:
  Construction - 17.63% of total Costs = $258.98
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $258.98

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $7,950.54

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 27-32 Temp Road Name: Temp 27-1
Temporary Road: 0.10 mi 12 ft Subgrade 0 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$1,960.80
Culvert: 40 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.1 acres	$58.63
Includes Small Quantity Factor of 1.54	
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.0 acres	$0.00
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$2,842.59
Mobilization: Const. $163.71 Surf. $0.00.....	$163.71
Quarry Development:	$0.00
Total:	$5,025.73

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

Road Construction Worksheet

Road Number: 27-32 Temp Road Name: Temp 27-1

Section 200 Clearing and Grubbing:
Subtotal: $0.00

Section 300 Excavation:
Subtotal: $0.00

Section 400 Drainage:
Galvanized Place in ditch 18 inch 16 ga 40 lf x $49.02/lf = $1,960.80
Subtotal: $1,960.80

Section 500 Renovation:
Subtotal: $0.00

Section 700-1200 Surfacing:
Surfacing:
Subtotal: $0.00

Section 1300 Geotextiles:
Subtotal: $0.00

Section 1400 Slope Protection:
Subtotal: $0.00

Section 1800 Soil Stabilization:
Dry Method with Mulch: $586.34/acre x 0.10 acres = $58.63
Includes Small Quantity Factor of 1.54
Subtotal: $58.63

Section 1900 Cattleguards:
Subtotal: $0.00

Section 2100 Roadside Brushing:
Subtotal: $0.00

Section 2300 Engineering:
Subtotal: $0.00

Section 2400 Minor Concrete:
Subtotal: $0.00

Section 2500 Gabions:
Subtotal: $0.00

Section 8000 Miscellaneous:
Temporary Spur Construction
Temporary Spur Constrution 0.10 Mi x $28,425.89/Mi = $2,842.59
Subtotal: $2,842.59

Mobilization:
Construction - 11.14% of total Costs = $163.71
Surfacing - 0.00% by rock volume = $0.00
Subtotal: $163.71

Quarry Development:
Based on 0.00% of total rock volume
Subtotal: $0.00

Road Number: 27-32 Temp Temp 27-1 Continued

Total: $5,025.73

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-1-18.00 Road Name: Bald Mt
Road Renovation: 0.55 mi 16 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.5 acres	$144.15
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $4.85 Surf. $0.00.....	$4.85
Quarry Development:	$0.00
Total:	$149.00

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

Road Construction Worksheet

Road Number: 39-1-18.00 Road Name: Bald Mt

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Subtotal: $0.00

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.50 acres = $144.15

Subtotal: $144.15

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.33% of total Costs = $4.85
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $4.85

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $149.00

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-1-20.00F Road Name: Rush Water Connect
Road Renovation: 0.10 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$44.67
Blading 0.10 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.1 acres	$28.83
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $2.47 Surf. $0.00.....	$2.47
Quarry Development:	$0.00
Total:	$75.98

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

Road Construction Worksheet

Road Number: 39-1-20.00F Road Name: Rush Water Connect

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.10 mi = $44.67

Subtotal: $44.67

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.10 acres = $28.83

Subtotal: $28.83

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.17% of total Costs = $2.47
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $2.47

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $75.98

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-1-20.00G Road Name: Rush Water Connect
Road Renovation: 0.03 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$13.40
Blading 0.03 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.0 acres	$2.88
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $0.55 Surf. $0.00.....	$0.55
Quarry Development:	$0.00
Total:	$16.83

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

Road Construction Worksheet

Road Number: 39-1-20.00G Road Name: Rush Water Connect

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.03 mi = $13.40

Subtotal: $13.40

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.01 acres = $2.88

Subtotal: $2.88

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.04% of total Costs = $0.55
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $0.55

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $16.83

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-1-20.00H Road Name: Rush Water Connect
Road Renovation: 0.06 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$26.80
Blading 0.06 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.1 acres	$28.83
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $1.87 Surf. $0.00.....	$1.87
Quarry Development:	$0.00
Total:	$57.51

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

Road Construction Worksheet

Road Number: 39-1-20.00H Road Name: Rush Water Connect

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.06 mi = $26.80

Subtotal: $26.80

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.10 acres = $28.83

Subtotal: $28.83

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.13% of total Costs = $1.87
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $1.87

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $57.51

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-1-20.00I Road Name: Rush Water Connect
Road Renovation: 0.57 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$254.64
Blading 0.57 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.6 acres	$172.98
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $14.40 Surf. $0.00.....	$14.40
Quarry Development:	$0.00
Total:	$442.01

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

Road Construction Worksheet

Road Number: 39-1-20.00I Road Name: Rush Water Connect

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.57 mi = $254.64

Subtotal: $254.64

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.60 acres = $172.98

Subtotal: $172.98

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.98% of total Costs = $14.40
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $14.40

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $442.01

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-1-20.00J Road Name: Rush Water Connect
Road Renovation: 0.02 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$8.93
Blading 0.02 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.0 acres	$2.88
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $0.40 Surf. $0.00.....	$0.40
Quarry Development:	$0.00
Total:	$12.22

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

Road Construction Worksheet

Road Number: 39-1-20.00J Road Name: Rush Water Connect

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.02 mi = $8.93

Subtotal: $8.93

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.01 acres = $2.88

Subtotal: $2.88

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.03% of total Costs = $0.40
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $0.40

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $12.22

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-1-28.02 Road Name: Brickpile Ranch D
Road Renovation: 2.89 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 2.8 acres	$807.24
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $27.18 Surf. $0.00.....	$27.18
Quarry Development:	$0.00
Total:	$834.42

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

Road Construction Worksheet

Road Number: 39-1-28.02 Road Name: Brickpile Ranch D

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Subtotal: $0.00

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 2.80 acres = $807.24

Subtotal: $807.24

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 1.85% of total Costs = $27.18
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $27.18

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $834.42

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-1-28.03 Road Name: Brickpile Ranch C
Road Renovation: 0.42 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$187.63
Blading 0.42 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.4 acres	$115.32
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $10.20 Surf. $0.00.....	$10.20
Quarry Development:	$0.00
Total:	$313.15

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

Road Construction Worksheet

Road Number: 39-1-28.03 Road Name: Brickpile Ranch C

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.42 mi = $187.63

Subtotal: $187.63

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.40 acres = $115.32

Subtotal: $115.32

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.69% of total Costs = $10.20
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $10.20

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $313.15

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-1-29.00 Road Name: Bull Rush Spur
Road Renovation: 0.80 mi 14 ft Subgrade ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$357.38
Blading 0.80 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.8 acres	$461.28
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $27.57 Surf. $0.00.....	$27.57
Quarry Development:	$0.00
Total:	$846.23

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

Road Construction Worksheet

Road Number: 39-1-29.00 Road Name: Bull Rush Spur

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.80 mi = $357.38

Subtotal: $357.38

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  RoadSide Brushing Medium: $576.60/acre x 0.80 acres = $461.28

Subtotal: $461.28

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 1.88% of total Costs = $27.57
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $27.57

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $846.23

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-1-31.00 Road Name: Duncan W
Road Renovation: 1.02 mi 14 ft Subgrade ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$522.50
Blading 1.02 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 1.0 acres	$288.30
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $27.30 Surf. $0.00.....	$27.30
Quarry Development:	$0.00
Total:	$838.10

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

Road Construction Worksheet

Road Number: 39-1-31.00 Road Name: Duncan W

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 1.02 mi = $455.66
  Clean Culverts: $334.17/mi x 0.20 mi = $66.83

Subtotal: $522.50

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 1.00 acres = $288.30

Subtotal: $288.30

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 1.86% of total Costs = $27.30
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $27.30

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $838.10

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-1-32.00 Road Name: Brickpile Rnch
Road Renovation: 1.97 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 1.9 acres	$547.77
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $18.44 Surf. $0.00	$18.44
Quarry Development:	$0.00
Total:	$566.21

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

Road Construction Worksheet

Road Number: 39-1-32.00 Road Name: Brickpile Rnch

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Subtotal: $0.00

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 1.90 acres = $547.77

Subtotal: $547.77

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 1.26% of total Costs = $18.44
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $18.44

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $566.21

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-2-25.01 Road Name: Lower Ridge Spur
Road Renovation: 0.29 mi 16 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$129.55
Blading 0.29 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.3 acres	$345.96
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $16.01 Surf. $0.00.....	$16.01
Quarry Development:	$0.00
Total:	$491.52

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

Road Construction Worksheet

Road Number: 39-2-25.01 Road Name: Lower Ridge Spur

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.29 mi = $129.55

Subtotal: $129.55

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  RoadSide Brushing Heavy: $1153.20/acre x 0.30 acres = $345.96

Subtotal: $345.96

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 1.09% of total Costs = $16.01
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $16.01

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $491.52

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-2-27.00A-B1 Road Name: Lick Gulch Ex
Road Renovation: 4.34 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 4.2 acres	$1,210.86
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $40.77 Surf. $0.00	$40.77
Quarry Development:	$0.00
Total:	$1,251.63

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

Road Construction Worksheet

Road Number: 39-2-27.00A-B1 Road Name: Lick Gulch Ex

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Subtotal: $0.00

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 4.20 acres = $1,210.86

Subtotal: $1,210.86

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 2.78% of total Costs = $40.77
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $40.77

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $1,251.63

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-2-27.00B2-B3 Road Name: Lick Gulch Ex
Road Renovation: 0.59 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$344.66
700-1200 Surfacing:	$534.80
Quarry Name: Commercial 20 LCY	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.6 acres	$172.98
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $35.44 Surf. $0.00.....	$35.44
Quarry Development:	$0.00
Total:	$1,087.88

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

Road Construction Worksheet

Road Number: 39-2-27.00B2-B3 Road Name: Lick Gulch Ex

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Clean Culverts: $334.17/mi x 0.59 mi = $197.16

Renovation

Bumping Rocks and Debris from Roadway

0.59 Mi x $250.00/Mi = $147.50

Subtotal: $344.66

Section 700-1200 Surfacing:

Commercial Quarry Name: Commercial

Comment: Spot Rocking

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									20 LCY

Rock Volume = 20 LCY

Purchase Price / Royalty: $10.00/LCY x 20 LCY = $200.00

Processing: $0.90/LCY x 20 LCY = $18.00

Compaction: $1.34/LCY x 20 LCY = $26.80

T11 Testing: $0.07/LCY x 20 LCY = $1.40

T27 Testing: $0.11/LCY x 20 LCY = $2.20

Basic Rock Haul cost: $0.74/LCY x 20 LCY = $14.80

Rock Haul -15% grades: $1.10/LCY-mi x 20 LCY x 7.00 mi= $154.00

Rock Haul St& Co Roads: $0.49/LCY-mi x 20 LCY x 12.00 mi= $117.60

Subtotal: $534.80

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: $288.30/acre x 0.60 acres = $172.98

Subtotal: $172.98

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Road Number: 39-2-27.00B2-B3 Lick Gulch Ex Continued

Section 8000 Miscellaneous:

Subtotal:	$0.00

Mobilization:
  Construction - 2.41% of total Costs = $35.44
  Surfacing - 7.41% by rock volume = $0.00

Subtotal:	$35.44

Quarry Development:
  Based on 7.41% of total rock volume

Subtotal:	$0.00
Total:	$1,087.88

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-2-28.00A1 Road Name: Lick Gulch
Road Renovation: 0.57 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$445.11
Blading 0.57 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.3 acres	$86.49
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $17.90 Surf. $0.00	$17.90
Quarry Development:	$0.00
Total:	$549.50

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

Road Construction Worksheet

Road Number: 39-2-28.00A1 Road Name: Lick Gulch

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.57 mi = $254.64
  Clean Culverts: $334.17/mi x 0.57 mi = $190.48

Subtotal: $445.11

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.30 acres = $86.49

Subtotal: $86.49

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 1.22% of total Costs = $17.90
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $17.90

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $549.50

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-2-28.00A2 Road Name: Lick Gulch
Road Renovation: 1.05 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$262.50
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 1.0 acres	$288.30
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $18.55 Surf. $0.00.....	$18.55
Quarry Development:	$0.00
Total:	$569.35

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

Road Construction Worksheet

Road Number: 39-2-28.00A2 Road Name: Lick Gulch

Section 200 Clearing and Grubbing:
Subtotal: $0.00

Section 300 Excavation:
Subtotal: $0.00

Section 400 Drainage:
Subtotal: $0.00

Section 500 Renovation:
Renovation
Bumping Rocks and Debris from Roadway
1.05 Mi x $250.00/Mi = $262.50
Subtotal: $262.50

Section 700-1200 Surfacing:
Surfacing:
Subtotal: $0.00

Section 1300 Geotextiles:
Subtotal: $0.00

Section 1400 Slope Protection:
Subtotal: $0.00

Section 1800 Soil Stabilization:
Subtotal: $0.00

Section 1900 Cattleguards:
Subtotal: $0.00

Section 2100 Roadside Brushing:
Brushing width Left: 4ft. Right: 4ft.
RoadSide Brushing Light: $288.30/acre x 1.00 acres = $288.30
Subtotal: $288.30

Section 2300 Engineering:
Subtotal: $0.00

Section 2400 Minor Concrete:
Subtotal: $0.00

Section 2500 Gabions:
Subtotal: $0.00

Section 8000 Miscellaneous:
Subtotal: $0.00

Mobilization:
Construction - 1.26% of total Costs = $18.55
Surfacing - 0.00% by rock volume = $0.00
Subtotal: $18.55

Quarry Development:
Based on 0.00% of total rock volume
Subtotal: $0.00

Road Number: 39-2-28.00A2 Lick Gulch Continued

Total: $569.35

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-2-28.00B Road Name: Lick Gulch
Road Renovation: 1.21 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$706.85
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 1.2 acres	$345.96
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $35.45 Surf. $0.00	$35.45
Quarry Development:	$0.00
Total:	$1,088.25

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

Road Construction Worksheet

Road Number: 39-2-28.00B Road Name: Lick Gulch

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Clean Culverts: $334.17/mi x 1.21 mi = $404.35
  Renovation
   Bumping Rocks and Debris from Roadway
1.21 Mi x $250.00/Mi = $302.50

Subtotal: $706.85

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 1.20 acres = $345.96

Subtotal: $345.96

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 2.41% of total Costs = $35.45
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $35.45

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Road Number: 39-2-28.00B Lick Gulch Continued

Total: $1,088.25

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-2-34.01 Road Name: Lick Gulch Spur
Road Renovation: 0.04 mi 14 ft Subgrade ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$17.87
Blading 0.04 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.0 acres	$2.88
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $0.70 Surf. $0.00.....	$0.70
Quarry Development:	$0.00
Total:	$21.45

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

Road Construction Worksheet

Road Number: 39-2-34.01 Road Name: Lick Gulch Spur

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.04 mi = $17.87

Subtotal: $17.87

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.01 acres = $2.88

Subtotal: $2.88

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.05% of total Costs = $0.70
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $0.70

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $21.45

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-2-34.03 Road Name: Lick Gulch Spr
Road Renovation: 0.24 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$107.22
Blading 0.24 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.2 acres	$57.66
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $5.55 Surf. $0.00	$5.55
Quarry Development:	$0.00
Total:	$170.43

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

Road Construction Worksheet

Road Number: 39-2-34.03 Road Name: Lick Gulch Spr

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.24 mi = $107.22

Subtotal: $107.22

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.20 acres = $57.66

Subtotal: $57.66

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.38% of total Costs = $5.55
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $5.55

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $170.43

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-3-10.00 Road Name: Applegate TF
Road Renovation: 1.00 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$2,451.00
Culvert: 50 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$513.56
Blading 1.00 mi	
700-1200 Surfacing:	$1,990.80
Quarry Name: Commercial 120 LCY	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 1.0 acres	$288.30
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$323.58
Mobilization: Const. $187.46 Surf. $0.00.....	$187.46
Quarry Development:	$0.00
Total:	$5,754.70

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

Road Construction Worksheet

Road Number: 39-3-10.00 Road Name: Applegate TF

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Galvanized 18 inch 16 ga 30 lf x $49.02/lf = $1,470.60
Galvanized Pipe to cross ditch 18 inch 16 ga 20 lf x $49.02/lf = $980.40

Subtotal: $2,451.00

Section 500 Renovation:

Blading w/o Ditches: $446.73/mi x 1.00 mi = $446.73
Clean Culverts: $334.17/mi x 0.20 mi = $66.83

Subtotal: $513.56

Section 700-1200 Surfacing:

Commercial Quarry Name: Commercial
Comment: Spot Rock

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									120 LCY

Rock Volume = 120 LCY
Purchase Price / Royalty: $10.00/LCY x 120 LCY = $1,200.00
Processing: $0.90/LCY x 120 LCY = $108.00
Compaction: $1.34/LCY x 120 LCY = $160.80
T11 Testing: $0.07/LCY x 120 LCY = $8.40
T27 Testing: $0.11/LCY x 120 LCY = $13.20
Basic Rock Haul cost: $0.74/LCY x 120 LCY = $88.80
Rock Haul St& Co Roads: $0.49/LCY-mi x 120 LCY x 7.00 mi= $411.60

Subtotal: $1,990.80

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.
RoadSide Brushing Light: $288.30/acre x 1.00 acres = $288.30

Subtotal: $288.30

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Road Number: 39-3-10.00 Applegate TF Continued

Section 8000 Miscellaneous:
  Construct Turnouts & Widening
   Motor Grader 12M 3 hr x $107.86/hr = $323.58

Subtotal: $323.58

Mobilization:
  Construction - 12.76% of total Costs = $187.46
  Surfacing - 44.44% by rock volume = $0.00

Subtotal: $187.46

Quarry Development:
  Based on 44.44% of total rock volume

Subtotal: $0.00

Total: $5,754.70

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-3-26.00 Road Name: Cinnabar Tie
Road Renovation: 1.01 mi 16 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$252.50
700-1200 Surfacing:	$515.20
Quarry Name: Commercial 20 LCY	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 1.0 acres	$288.30
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $35.56 Surf. $0.00	$35.56
Quarry Development:	$0.00
Total:	$1,091.56

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

Road Construction Worksheet

Road Number: 39-3-26.00 Road Name: Cinnabar Tie

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Renovation

Bumping Rocks and Debris from Roadway

1.01 Mi x $250.00/Mi = $252.50

Subtotal: $252.50

Section 700-1200 Surfacing:

Commercial Quarry Name: Commercial

Comment: Spot Rock

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									20 LCY

Rock Volume = 20 LCY

Purchase Price / Royalty: $10.00/LCY x 20 LCY = $200.00

Processing: $0.90/LCY x 20 LCY = $18.00

Compaction: $1.34/LCY x 20 LCY = $26.80

T11 Testing: $0.07/LCY x 20 LCY = $1.40

T27 Testing: $0.11/LCY x 20 LCY = $2.20

Basic Rock Haul cost: $0.74/LCY x 20 LCY = $14.80

Rock Haul -15% grades: $1.10/LCY-mi x 20 LCY x 7.00 mi= $154.00

Rock Haul St& Co Roads: $0.49/LCY-mi x 20 LCY x 10.00 mi= $98.00

Subtotal: $515.20

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: $288.30/acre x 1.00 acres = $288.30

Subtotal: $288.30

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Road Number: 39-3-26.00 Cinnabar Tie Continued

Section 8000 Miscellaneous:

Subtotal:	$0.00

Mobilization:
  Construction - 2.42% of total Costs = $35.56
  Surfacing - 7.41% by rock volume = $0.00

Subtotal:	$35.56

Quarry Development:
  Based on 7.41% of total rock volume

Subtotal:	$0.00
Total:	$1,091.56

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-3-27.00 Road Name: Boaz Gulch
Road Renovation: 0.73 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$426.44
700-1200 Surfacing:	$361.20
Quarry Name: Commercial 20 LCY	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.7 acres	$201.81
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $33.32 Surf. $0.00.....	$33.32
Quarry Development:	$0.00
Total:	$1,022.77

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

Road Construction Worksheet

Road Number: 39-3-27.00 Road Name: Boaz Gulch

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Clean Culverts: $334.17/mi x 0.73 mi = $243.94

Renovation

Bumping Rocks and Debris from Roadway

0.73 Mi x $250.00/Mi = $182.50

Subtotal: $426.44

Section 700-1200 Surfacing:

Commercial Quarry Name: Commercial

Comment: Spot Rocking

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
0.00mi									20 LCY

Rock Volume = 20 LCY

Purchase Price / Royalty: $10.00/LCY x 20 LCY = $200.00

Processing: $0.90/LCY x 20 LCY = $18.00

Compaction: $1.34/LCY x 20 LCY = $26.80

T11 Testing: $0.07/LCY x 20 LCY = $1.40

T27 Testing: $0.11/LCY x 20 LCY = $2.20

Basic Rock Haul cost: $0.74/LCY x 20 LCY = $14.80

Rock Haul St& Co Roads: $0.49/LCY-mi x 20 LCY x 10.00 mi= $98.00

Subtotal: $361.20

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: $288.30/acre x 0.70 acres = $201.81

Subtotal: $201.81

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Road Number: 39-3-27.00 Boaz Gulch Continued

Section 8000 Miscellaneous:

Subtotal:	$0.00

Mobilization:
  Construction - 2.27% of total Costs = $33.32
  Surfacing - 7.41% by rock volume = $0.00

Subtotal:	$33.32

Quarry Development:
  Based on 7.41% of total rock volume

Subtotal:	$0.00
Total:	$1,022.77

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-3-27.01 Road Name: Neds Gulch
Road Renovation: 0.49 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$286.24
700-1200 Surfacing:	$383.20
Quarry Name: Commercial 20 LCY	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.5 acres	$144.15
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $27.39 Surf. $0.00.....	$27.39
Quarry Development:	$0.00
Total:	$840.99

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

Road Construction Worksheet

Road Number: 39-3-27.01 Road Name: Neds Gulch

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
Clean Culverts: $334.17/mi x 0.49 mi = $163.74
Renovation
Bumping Rocks and Debris from Roadway
0.49 Mi x $250.00/Mi = $122.50

Subtotal: $286.24

Section 700-1200 Surfacing:

Commercial Quarry Name: Commercial
Comment: Spot Rocking

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
0.00mi									20 LCY

Rock Volume = 20 LCY
Purchase Price / Royalty: $10.00/LCY x 20 LCY = $200.00
Processing: $0.90/LCY x 20 LCY = $18.00
Compaction: $1.34/LCY x 20 LCY = $26.80
T11 Testing: $0.07/LCY x 20 LCY = $1.40
T27 Testing: $0.11/LCY x 20 LCY = $2.20
Basic Rock Haul cost: $0.74/LCY x 20 LCY = $14.80
Rock Haul -15% grades: $1.10/LCY-mi x 20 LCY x 1.00 mi= $22.00
Rock Haul St& Co Roads: $0.49/LCY-mi x 20 LCY x 10.00 mi= $98.00

Subtotal: $383.20

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
Brushing width Left: 4ft. Right: 4ft.
RoadSide Brushing Light: $288.30/acre x 0.50 acres = $144.15

Subtotal: $144.15

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Road Number: 39-3-27.01 Neds Gulch Continued

Section 8000 Miscellaneous:

Subtotal:	$0.00

Mobilization:
  Construction - 1.86% of total Costs = $27.39
  Surfacing - 7.41% by rock volume = $0.00

Subtotal:	$27.39

Quarry Development:
  Based on 7.41% of total rock volume

Subtotal:	$0.00
Total:	$840.99

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-3-27.02 Road Name: Upper Neds
Road Renovation: 6.00 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$2,502.51
700-1200 Surfacing:	$1,178.00
Quarry Name: Commercial 50 LCY	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 5.8 acres	$1,672.14
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $180.23 Surf. $0.00.....	$180.23
Quarry Development:	$0.00
Total:	$5,532.88

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

Road Construction Worksheet

Road Number: 39-3-27.02 Road Name: Upper Neds

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Clean Culverts: $334.17/mi x 3.00 mi = $1,002.51

Renovation

Bumping Rocks and Debris from Roadway

6.0 Mi x $250.00/Mi = $1,500.00

Subtotal: $2,502.51

Section 700-1200 Surfacing:

Commercial Quarry Name: Commercial

Comment: Spot Rocking

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									50 LCY

Rock Volume = 50 LCY

Purchase Price / Royalty: $10.00/LCY x 50 LCY = $500.00

Processing: $0.90/LCY x 50 LCY = $45.00

Compaction: $1.34/LCY x 50 LCY = $67.00

T11 Testing: $0.07/LCY x 50 LCY = $3.50

T27 Testing: $0.11/LCY x 50 LCY = $5.50

Basic Rock Haul cost: $0.74/LCY x 50 LCY = $37.00

Rock Haul -15% grades: $1.10/LCY-mi x 50 LCY x 5.00 mi= $275.00

Rock Haul St& Co Roads: $0.49/LCY-mi x 50 LCY x 10.00 mi= $245.00

Subtotal: $1,178.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: $288.30/acre x 5.80 acres = $1,672.14

Subtotal: $1,672.14

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Road Number: 39-3-27.02 Upper Neds Continued

Section 8000 Miscellaneous:

Subtotal:	$0.00

Mobilization:
  Construction - 12.27% of total Costs = $180.23
  Surfacing - 18.52% by rock volume = $0.00

Subtotal:	$180.23

Quarry Development:
  Based on 18.52% of total rock volume

Subtotal:	$0.00
Total:	$5,532.88

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-3-28.01 Road Name:
Road Renovation: 0.30 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$134.02
Blading 0.30 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.3 acres	$86.49
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $7.42 Surf. $0.00.....	$7.42
Quarry Development:	$0.00
Total:	$227.93

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

Road Construction Worksheet

Road Number: 39-3-28.01 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.30 mi = $134.02

Subtotal: $134.02

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.30 acres = $86.49

Subtotal: $86.49

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.51% of total Costs = $7.42
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $7.42

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $227.93

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-3-28.02 Road Name:
Road Renovation: 0.10 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$44.67
Blading 0.10 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.1 acres	$28.83
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $2.47 Surf. $0.00.....	$2.47
Quarry Development:	$0.00
Total:	$75.98

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

Road Construction Worksheet

Road Number: 39-3-28.02 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.10 mi = $44.67

Subtotal: $44.67

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.10 acres = $28.83

Subtotal: $28.83

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.17% of total Costs = $2.47
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $2.47

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $75.98

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: 39-3-36.00 Road Name: Cinnabar Lookout
Road Renovation: 0.81 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: 0.0 acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$361.85
Blading 0.81 mi	
700-1200 Surfacing:	$559.20
Quarry Name: Commercial 20 LCY	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.8 acres	$230.64
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $38.78 Surf. $0.00.....	$38.78
Quarry Development:	$0.00
Total:	$1,190.47

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

Road Construction Worksheet

Road Number: 39-3-36.00 Road Name: Cinnabar Lookout

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Blading w/o Ditches: $446.73/mi x 0.81 mi = $361.85

Subtotal: $361.85

Section 700-1200 Surfacing:

Commercial Quarry Name: Commercial

Comment: Spot Rocking

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									20 LCY

Rock Volume = 20 LCY

Purchase Price / Royalty: $10.00/LCY x 20 LCY = $200.00

Processing: $0.90/LCY x 20 LCY = $18.00

Compaction: $1.34/LCY x 20 LCY = $26.80

T11 Testing: $0.07/LCY x 20 LCY = $1.40

T27 Testing: $0.11/LCY x 20 LCY = $2.20

Basic Rock Haul cost: $0.74/LCY x 20 LCY = $14.80

Rock Haul -15% grades: $1.10/LCY-mi x 20 LCY x 9.00 mi= $198.00

Rock Haul St& Co Roads: $0.49/LCY-mi x 20 LCY x 10.00 mi= $98.00

Subtotal: $559.20

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:

Brushing width Left: 4ft. Right: 4ft.

RoadSide Brushing Light: $288.30/acre x 0.80 acres = $230.64

Subtotal: $230.64

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Road Number: 39-3-36.00 Cinnabar Lookout Continued

Mobilization:
  Construction - 2.64% of total Costs = $38.78
  Surfacing - 7.41% by rock volume = $0.00

Subtotal: $38.78

Quarry Development:
  Based on 7.41% of total rock volume

Subtotal: $0.00

Total: $1,190.47

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: Non_sys 25-20 Road Name: To Loop Rd
Road Renovation: 1.15 mi 14 ft Subgrade 0 ft ditch 4/13/2016

200 Clearing and Grubbing: acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$513.74
Blading 1.15 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 1.1 acres	$317.13
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $27.98 Surf. $0.00.....	$27.98
Quarry Development:	$0.00
Total:	$858.85

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

Road Construction Worksheet

Road Number: Non_sys 25-20 Road Name: To Loop Rd

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 1.15 mi = $513.74

Subtotal: $513.74

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 1.10 acres = $317.13

Subtotal: $317.13

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 1.90% of total Costs = $27.98
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $27.98

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $858.85

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: Non_sys 36-30 Road Name:
Road Renovation: 0.22 mi 12 ft Subgrade ft ditch 4/13/2016

200 Clearing and Grubbing: acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$98.28
Blading 0.22 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.2 acres	$57.66
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $5.25 Surf. $0.00.....	$5.25
Quarry Development:	$0.00
Total:	$161.19

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

Road Construction Worksheet

Road Number: Non_sys 36-30 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.22 mi = $98.28

Subtotal: $98.28

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.20 acres = $57.66

Subtotal: $57.66

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.36% of total Costs = $5.25
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $5.25

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $161.19

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: USFS 2030 Road Name:
Road Renovation: 1.13 mi 16 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 1.1 acres	$317.13
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $10.68 Surf. $0.00.....	$10.68
Quarry Development:	$0.00
Total:	$327.81

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

Road Construction Worksheet

Road Number: USFS 2030 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Subtotal: $0.00

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 1.10 acres = $317.13

Subtotal: $317.13

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.73% of total Costs = $10.68
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $10.68

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $327.81

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: USFS 2200 Road Name:
Road Renovation: 0.11 mi 16 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.1 acres	$28.83
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $0.97 Surf. $0.00.....	$0.97
Quarry Development:	$0.00
Total:	$29.80

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

Road Construction Worksheet

Road Number: USFS 2200 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Subtotal: $0.00

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.10 acres = $28.83

Subtotal: $28.83

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.07% of total Costs = $0.97
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $0.97

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $29.80

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: USFS 2250 Road Name:
Road Renovation: 3.75 mi 16 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 3.6 acres	$1,037.88
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $34.95 Surf. $0.00.....	$34.95
Quarry Development:	$0.00
Total:	$1,072.83

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

Road Construction Worksheet

Road Number: USFS 2250 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Subtotal: $0.00

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 3.60 acres = $1,037.88

Subtotal: $1,037.88

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 2.38% of total Costs = $34.95
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $34.95

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $1,072.83

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: USFS 600 Spur Road Name:
Road Renovation: 0.51 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$0.00
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.5 acres	$144.15
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $4.85 Surf. $0.00.....	$4.85
Quarry Development:	$0.00
Total:	$149.00

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

Road Construction Worksheet

Road Number: USFS 600 Spur Road Name:

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:

Subtotal: $0.00

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.50 acres = $144.15

Subtotal: $144.15

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.33% of total Costs = $4.85
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $4.85

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $149.00

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Neds Bar Sale Date: 10/15
Road Number: USFS 850 Spur Road Name:
Road Renovation: 0.45 mi 14 ft Subgrade 3 ft ditch 4/13/2016

200 Clearing and Grubbing: acres	$0.00
300 Excavation:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$201.03
Blading 0.45 mi	
700-1200 Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.4 acres	$115.32
2300 Engineering: 0.00 sta.	$0.00
2400 Minor Concrete:	$0.00
2500 Gabions:	$0.00
8000 Miscellaneous:	$0.00
Mobilization: Const. $10.65 Surf. $0.00.....	$10.65
Quarry Development:	$0.00
Total:	$327.00

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

Road Construction Worksheet

Road Number: USFS 850 Spur Road Name:

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading w/o Ditches: $446.73/mi x 0.45 mi = $201.03

Subtotal: $201.03

Section 700-1200 Surfacing:
Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Light: $288.30/acre x 0.40 acres = $115.32

Subtotal: $115.32

Section 2300 Engineering:

Subtotal: $0.00

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 0.73% of total Costs = $10.65
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $10.65

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $327.00

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	ORM06-TS-16-16
Sale Name	Nedsbar Timber Sale
Sale Notice *(dated)*	9/22/2016
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 **$ 46,300.00** 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	3,366	X $68.00	= $228,956.00	X	=
Ponderosa Pine	MBF	74	X $28.20	= $2,058.60	X	=
Total		**3,440**	X	**= $231,014.60**	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