

# PROSPECTUS

## \*\*\*SBA SET-ASIDE SALE

GRANTS PASS RESOURCE AREA  
JOSEPHINE MASTER UNIT

Medford Sale # ORM07-TS-13-04  
March 28, 2013 (AF)

#1. EAST WEST JUNCTION,  
Josephine County, O&C and P.D.

BID DEPOSIT REQUIRED: \$39,500.00

All timber designated for cutting in W $\frac{1}{2}$ SW $\frac{1}{4}$  Section 8, NW $\frac{1}{4}$ NW $\frac{1}{4}$  Section 20, W $\frac{1}{2}$ NW $\frac{1}{4}$  Section 21, T. 39S. R. 7W., NW $\frac{1}{4}$ NE $\frac{1}{4}$ , E $\frac{1}{2}$ NW $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$  Section 29, NE $\frac{1}{4}$ SW $\frac{1}{4}$  Section 34, T.39S. R. 8W., N $\frac{1}{2}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ SW $\frac{1}{4}$  Section 3, Lot 8 Section 5, NW $\frac{1}{4}$ NE $\frac{1}{4}$ , NE $\frac{1}{4}$ NW $\frac{1}{4}$  Section 9, T. 40S. R. 8W., Willamette Meridian.

Approx. Number Merch. Trees	Est. Volume MBF 32' Log	Species	Est. Volume MBF 16' Log	Appr. Price Per MBF*	Est. Volume Times Appraised Price
9,940	1,724	Douglas-fir	2,136	\$183.20	\$391,315.20
360	64	Sugar Pine	81	\$31.10	\$2,519.10
127	11	Ponderosa Pine	15	\$28.50	\$427.50
24	1	Incense-cedar	1	\$196.80	\$196.80
10,451	1,800	<b>Totals</b>	2,233		\$394,458.60

\*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.

\*\*\*This is an SBA Set-Aside timber sale. Bidding is limited to small business concerns as defined by the Small Business Act, §3, 72 Stat. 384, 15 U.S. Code 632, and the regulations of the Small Business Administration, Title 13, Code of Federal Regulations, Part 121, as amended.

**TIMBER AUCTION LOCATION** – The timber auction will be held at the Medford Inter-agency Office, located at 3040 Biddle Road, Medford, OR, at 9 a.m. on Thursday, March 28, 2013.

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

**CRUISE INFORMATION** - The Douglas-fir and Sugar Pine has been cruised using the 3-P sampling method to select sample trees. Maps showing the location and description of these sample trees are available at the Grants Pass Interagency Office. The sample trees have been measured, utilizing the VOLT system of measurement, and the volume expanded to a total sale volume. The volume of all other species in this sale has been derived from individual tree measurements taken during a 100% cruise using form class tables for estimating board foot volume of trees in 16-foot logs.

With respect to merchantable trees of all conifer species: the average tree is 15.7 inches DBHOB; the average gross merchantable log contains 66 bd. ft.; the total gross volume is approximately 2,508 M bd. ft; and 89% recovery is expected. (Average DF is 15.7 inches DBHOB; average gross merchantable log DF contains 67 bd. ft.)

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

The BLM has revised the log export restrictions special provision to reduce the log branding and painting requirements. The new requirements include branding of one end of all logs with a scaling diameter of over 10 inches. All loads of 11 logs or more, regardless of the diameter of the logs, will have a minimum of 10 logs branded on one end. All logs will be branded on loads of 10 logs or less. One end of all branded logs will be marked with yellow paint. At the discretion of the Contracting Officer, the Purchaser may be required to brand and paint all logs. The Purchaser shall bear any increased costs for log branding and painting.

CUTTING AREA – Fourteen (14) units containing one hundred fifty four (154) acres must be partial cut.

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

ACCESS -Access to the sale area is available via public roads to the contract area; To access units 29-2A, 29-2B, 29-4A, 29-4B, 29-8 & 29-1 from Kerby, Oregon turn west on Finch road, proceed to Westside Road turn south 2.5 miles to BLM road 39-8-29. Go through a locked BLM gate and proceed about 0.3 miles, this puts you in unit 29-4A of the timber sale. To access units 21-6, 20-1 & 8-2 from Cave Junction, Oregon, go southeast on Caves Highway for approximately 6 miles and turn North on BLM Road 39-7-21.1 Go through a locked BLM gate and proceed about 0.4 miles, this puts you in unit 21-6 of the timber sale. To access unit 34-2 going south from Cave Junction 0.70 miles turn southeast on Rockydale road 1.50 miles to the unit. To access units 5-9, 3-3 & 9-12A and 9-12B going south from Cave Junction approximately 2.25 miles turn east on Ken Rose Lane to Mesa Verde Drive, south on Fernwood to 9-12A and 9-12B. Off Fernwood turn east on Ivy Drive south on Simmons Cut drive east on Logan Cut Drive road 1.50 miles to the unit in BLM section 3, (unit 3-3). See Exhibit A, East West Timber Sale Location Map, and Grants Pass Resource Area transportation maps for more detailed information on roads and unit locations. In the use of road 39-7-8 (C & D) access is via Right-of-Way and Road Use Agreement M-1166. Among other conditions, Agreement M-1166 requires completion of an agreement between Purchaser and Permittee.

ROAD MAINTENANCE – The Purchaser will be required to maintain 9.41 miles of BLM and private roads and pay a rockwear fee of \$1693.67.

ROAD CONSTRUCTION/RENOVATION - The contract will require the Purchaser to renovate 496.83 stations of road and construct 10.56 stations of road. Payment to Indian Hill for 2 MBF of right of way timber is required, Section 42(C)(8)(9). Additional information is available in the timber sale prospectus.

SOIL DAMAGE PREVENTION - Pursuant to Section 26 of Form 5450-3, Timber Sale Contract, no tractor yarding/ground based yarding, road maintenance/renovation, temporary route/swing road, or unit 8-2 right of way construction, landing construction, skid trail, landing, temporary route/swing road, or unit 8-2 right of way decommissioning shall be conducted on the contract area between October 15 of one calendar year and May 15 of the following calendar year, both days inclusive. Purchaser may request, in writing, a conditional waiver of this restriction. If soil moisture conditions are dry, as determined by the inability of soil sample taken at 4"-6" to

maintain form when compressed and by the inability of soil moisture at the surface to be readily displaced, causing ribbons and ruts along equipment tracks, the Contracting Officer may approve a conditional waiver. If impacts to soil resulting from said conditional waiver are not acceptable, as determined by the Authorized Officer, the waiver will be revoked. The Purchaser shall construct waterbars on tractor skid roads and block skid roads where they intersect with haul roads. Ripping of main skid roads required.

EQUIPMENT REQUIREMENTS –

1. Yarding tractor not greater than 9 feet wide, as measured from the outer edges of standard width track shoes and equipped with integral arch and winch capable of lining logs 75 feet.
2. Skyline yarder capable of one end log suspension, minimum lateral yarding capability of seventy-five (75) feet while maintaining a fixed position during inhaul, and yarding logs uphill approximately 1200 feet. Multispan capable, (see Other).
3. A minimum two hundred (200) flywheel horsepower tractor with mounted rippers and capable of ripping to a depth of eighteen (18) inches will be required for decommissioning temporary spurs, natural surface landings, and main tractor skid roads.

SLASH DISPOSAL – Appraised slash disposal consists of one hundred fourteen (114) acres of hand pile and cover, forty-one (41) acres of lop and scatter.

CONTRACT TERMINATION – A revised Special Provision has been added to the contract which enables the Contracting Officer to suspend the contract to facilitate protection of certain plant or animal species, and /or to modify or terminate the contract when necessary to:

1. Comply with the Endangered Species Act, or;
2. Comply with a court order, or;
3. Protect species which were identified for protection through survey and manage and/or protection buffer standards and guidelines established in the ROD and RMP.

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

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

OTHER -





1. No extension of time beyond the normal 30 days will be granted for completing bonding and contract signing requirements.
2. Seasonal operating constraints. (L-18).
3. Slash treatment concurrent with logging.
4. Cleaning of equipment to eliminate noxious weed seeds is required prior to move in of equipment onto federal lands.
5. Whole tree, (limbs, tops attached) yarding will be allowed unless unacceptable damage occurs, (L-6).
6. Mechanical harvesters may be used. Restrictions apply. Section 42(B)(5)L-7.
7. Skyline analysis indicates that approximately six (6) corridors will need to be logged in a multispan configuration in unit 8-2. Intermediate trees confirmed. Appraisal covers tree climbing costs.
8. It estimated that two (2) skyline corridors will need tail (lift) trees between 30 and 40 feet in unit 8-2. Appraisal covers tree climbing costs.
9. This contract contains provisions, (L-25), for the sale and removal of additional timber necessary to facilitate safe and efficient Purchaser operations. These provisions include: The designation and sale of additional timber, such as skid, corridor and guyline trees, at contract price, as necessary to facilitate safe and efficient logging. Such trees may be

felled and removed when they are painted by the Authorized Officer; Sale of additional timber volume at current fair market value where the species of trees are not representative of the forest stands being thinned; Government reservation of trees previously marked for cutting (replacement) when the Authorized Officer determines that it is necessary in order to maintain stand densities consistent with objectives set forth in management prescriptions; The use of unilateral modifications executed by BLM for such additional (replacement) timber; Revocation of the Purchaser's right to cut additional timber if the Authorized Officer determines that trees have been cut and removed that were not previously marked and approved for cutting and removal by the Authorized Officer; and, It is estimated that approximately 30 MBF of such additional timber may be removed under the contract, but is not included in the advertised sale volume nor was it included in the timber sale appraisal. This estimate is a net figure reduced by the estimate of the volume of trees previously marked for cutting, which the Authorized Officer may elect to reserve.

NARRATIVE DESCRIPTION OF HOW TO GET TO THE TIMBER SALE AREA – Access to the sale area is available via public roads to the contract area; To access units 29-2A, 29-2B, 29-4A, 29-4B, 29-8 & 29-1 from Kerby, Oregon turn west on Finch road, proceed to Westside Road turn south 2.5 miles to BLM road 39-8-29. Go through a locked BLM gate and proceed about 0.3 miles, this puts you in unit 29-4A of the timber sale. To access units 21-6, 20-1 & 8-2 from Cave Junction, Oregon, go southeast on Caves Highway for approximately 6 miles and turn North on BLM Road 39-7-21.1 Go through a locked BLM gate and proceed about 0.4 miles, this puts you in unit 21-6 of the timber sale. To access unit 34-2 going south from Cave Junction 0.70 miles turn southeast on Rockydale road 1.50 miles to the unit. To access units 5-9, 3-3 & 9-12A, and 9-12B going south from Cave Junction approximately 2.25 miles turn east on Ken Rose Lane to Mesa Verde Drive, south on Fernwood to 9-12A and 9-12B. Off Fernwood turn east on Ivy Drive south on Simmons Cut drive east on Logan Cut Drive road 1.50 miles to the unit in BLM section 3, (unit 3-3). See Exhibit A, East West Timber Sale Location Map, and Grants Pass Resource Area transportation maps for more detailed information on roads and unit locations.

ENVIRONMENTAL ASSESSMENT - An environmental assessment DOI-BLM-OR-M070-2009-0011-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.

## ORM07-TS 13 13-04

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

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

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

\*\*\* Dry condition for first 250' of road, see Section 42(B)(9)

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

Dry Condition Yarding and Temporary Route/Swing Road/Unit 8-2 Right of Way Construction= Ground-based harvesting, tractor yarding, temporary route/swing road/unit 8-2 right of way construction, and decommissioning/rehabilitation activities would not occur when soil moisture at a depth of 4-6 inches is wet enough to maintain form when compressed, or when soil moisture at the surface would readily displace, causing ribbons and ruts along equipment tracks. These conditions are generally found when soil moisture, at a depth of 4-10 inches, and between 15-25% depending on soil type.

[illegible]



EAST WEST JUNCTION  
SPECIAL PROVISIONS

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

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 the Government.

- (A) AR-1 All timber on the Reserve Areas as shown on Exhibit A and all orange painted/or posted trees which are on or mark the boundaries of the Reserve Areas.
- (B) IR-1 Approximately five thousand one hundred and ninety five (5195) conifer trees marked with orange paint in units 3-3, 5-9, 8-2, 9-12A, 20-1, 21-6, 29-1, 29-2A, 29-2B, 29-4A, 29-4B, 29-8, and 34-2 as shown on Exhibit A.
- (C) IR-1 Approximately eighty seven (87) conifer trees marked with yellow paint in unit 9-12B as shown on Exhibit A.
- (D) IR-3 All conifers which are smaller than nine (9) inches D.B.H.O.B. in units 9-12A, 9-12B, and 20-1 as shown on Exhibit A.
- (E) IR-6 All hardwood trees which are larger than eight (8) inches D.B.H.O.B. in units 3-3, 5-9, 8-2, 9-12A, 9-12B, 20-1, 21-6, 29-1, 29-2A, 29-2B, 29-4A, 29-4B, 29-8, and 34-2 as shown on Exhibit A.
- (F) IR-6 All snags greater than sixteen (16) inches D.B.H.O.B. and all wind thrown trees in all units except hazard snags. Any felled hazard snags must remain where felled or as directed by the Authorized Officer.
- (G) IR-10 All trees marked with a band of orange paint about six feet from the ground and with a yellow, metal, SEED TREE tag in the partial cutting areas shown on Exhibit A. 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

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- (H) IR-11M All trees which were severed from the stump or cut into logs prior to the date this contract was entered into, and all pre-existing dead and down woody debris within all units as shown on Exhibit A.



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Section 42

(A) Log Exports

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

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

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

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

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

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

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

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

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

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

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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 Purchasers 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 he plans to begin operations. This written notification must be received by the Authorized Officer no less than seven (7) days prior to the date the Purchaser plans to begin or resume operations. The Purchaser shall also notify the Authorized Officer in writing if he intends to cease operations for any period of seven (7) or more days.
- (2) L-5 All unmarked conifer trees greater than eight (8) inches D.B.H.O.B. and not reserved shall be felled and yarded concurrently with all other trees designated for cutting in units 3-3, 5-9, 8-2, 21-6, 29-1, 29-2A, 29-2B, 29-4A, 29-4B, 29-8, and 34-2 as shown on Exhibit A.
- (3) L-5 All unmarked conifer trees greater than nine (9) inches D.B.H.O.B. and not reserved shall be felled and yarded concurrently with all other trees designated for cutting in units 9-12A, 9-12B, and 20-1 as shown on Exhibit A.
- (4) L-6 In all units shown on Exhibit A, all trees designated for cutting may be felled and yarded to approved landing locations either tree length, or with tops attached. If excessive stand damage occurs from bark slippage, girdling, broken tops, damage to live crowns, or soil disturbance greater than 15% over harvest area, as determined by the Authorized Officer, all trees shall be bucked into lengths not to exceed forty one (41) feet prior to being yarded.
- (5) L-7 In units 3-3, 5-9, 9-12A, 9-12B, tractor portion of 21-6, 29-1, 29-2A, 29-4A, 29-8, and 34-2 as shown on Exhibit A, harvest trees may be felled mechanically using a harvester, feller-processor or feller-buncher with the approval of the Authorized Officer and in accordance with the following specifications:

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- (a) Mechanized felling operations shall be limited to slopes of thirty-five (35) percent or less.
  - (b) Mechanized felling operations are subject to seasonal operating restrictions as described in Section 42(B)(10) of this contract.
  - (c) The feller-processor or feller-buncher shall be approved by the Authorized Officer prior to the start of mechanized felling operations. Only purpose-built carriers with boom-mounted felling heads may be approved. The boom must have a lateral reach of twenty (20) feet or more, and the machine's lateral reach must be utilized as much as possible. The purpose-built carrier may be of the articulated, rubber-tired design or the zero-clearance tail swing, leveling track-mounted design.
  - (d) The harvest equipment shall walk on existing or created slash as directed by the Authorized Officer.
- (6) L-7MC Yarding on the areas designated herein and shown on Exhibit A shall be done in accordance with the yarding requirements or limitations for the designated area.

Designated Area	Yarding Requirements or Limitations
Entire contract area	All temporary routes and swing roads will not exceed fourteen (14) feet in width.
Cable Unit 8-2, 20-1, 21-6, 29-2B, 29-4B	<p>Yarding will be done with a cable yarding system which will suspend one end of the log clear of the ground during inhaul on the yarding corridor.</p> <p>A carriage is required which will maintain a fixed position on the skyline during lateral yarding and has a minimum lateral yarding capability of seventy-five (75) feet.</p> <p>Yarding corridors will be approximately one hundred fifty (150) feet apart and perpendicular to the contours. Corridors will be limited to one (1) per landing unless otherwise approved by the Authorized Officer. Corridor widths shall not exceed six (6) feet either side of the skyline centerline. Prior to falling any timber in the units, all tail/lift trees and/or intermediate support trees shall be identified by the Purchaser and approved by the Authorized Officer.</p>

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Designated Area	Yarding Requirements or Limitations
	<p>The carriage will be a minimum of fifteen (15) feet above the ground during lateral yarding.</p> <p>Skyline yarding equipment shall be capable of yarding in multi-span configurations in unit 8-2.</p> <p>Yarding corridors are not permitted up or down any draw.</p> <p>Cable corridors that are hydrologically connected to streams via ditchlines shall be water-barred and shall have slash placed over them prior to winter rain events to protect water quality.</p>
<p>Tractor Units 3-3,5-9, 9-12A,9-12B,21-6, 29-1,29-2A,29-4A, 29-8, 34-2</p>	<p>Yarding tractor width will not be greater than nine (9) feet as measured from the outer edges of standard width track shoes. Skid roads shall not exceed a width of twelve (12) feet on average per unit.</p> <p>The location of the tractor skid roads must be clearly designated approximately one hundred fifty (150) feet apart, where topography allows, and approved by the Authorized Officer prior to felling of timber to be yarded over the tractor skid roads.</p> <p>Yarding tractors will be equipped with integral arches capable of one-end suspension during skidding and winch systems capable of lining logs at least seventy-five (75) feet.</p> <p>No yarding will be allowed up or down draw bottoms.</p> <p>Landing size shall not exceed one-quarter (1/4) acre. Design landings with adequate drainage so that they are not hydrologically connected to the ditchline of roads.</p> <p>Ground based equipment shall be limited to slopes less than thirty-five (35) percent, and existing skid trails shall be utilized to the greatest extent possible.</p>

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Designated Area	Yarding Requirements or Limitations
	Use of mechanized equipment off of designated skid roads shall require approval from the Authorized Officer. All operations shall maintain soil compaction of 12% or less across the harvest area.

- (7) L-9 No yarding or loading is permitted in or through the reserve areas as shown on Exhibit A unless approved by the Authorized Officer.
- (8) L-18 No hauling on natural surface roads, temporary routes, or rocked roads shall be conducted on the contract area between October 15 of one calendar year and May 15 of the following calendar year, both days inclusive. Purchaser may request, in writing, a conditional waiver of this restriction. If moisture conditions on the road are deemed acceptable and do not result in continuous mud splash or tire slide, fines being pumped through road surfacing from the subgrade and resulting in a layer of surface sludge, road drainage causing a visible increase in stream turbidities, surface rutting, or any condition that would result in water being chronically routed into tire tracks or away from designed road drainage during precipitation events, Contracting Officer may approve a conditional waiver. If moisture conditions on the road resulting from said conditional waiver are not acceptable as determined by the Authorized Officer, the waiver will be revoked.
- (9) L-18 No road maintenance, road renovation, or hauling for the first two hundred fifty (250) feet on BLM road 39-8-29 shall be conducted between October 15 of one calendar year and June 30 of the following calendar year, both days inclusive. Purchaser may request in writing, a conditional waiver of this restriction. If moisture conditions over rocked ford are deemed acceptable and do not result in sedimentation from hauling, Contracting Officer may approve a conditional waiver. If moisture conditions resulting from said conditional waiver are not acceptable as determined by the Authorized Officer, the waiver will be revoked.
- (10) L-18 No tractor yarding/ground based yarding, road maintenance/renovation, temporary route/swing road, or unit 8-2 right of way construction, landing construction, skid trail, landing, temporary route/swing road, or unit 8-2 right of way decommissioning shall be conducted on the contract area between October 15 of one calendar year and May 15 of the following calendar year, both days inclusive. Purchaser may request, in writing, a conditional waiver of this restriction. If soil moisture conditions are dry, as determined by the inability of soil sample taken at four (4) to six (6) inches to maintain form when compressed and by the inability of

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soil moisture at the surface to be readily displaced, causing ribbons and ruts along equipment tracks, the Contracting Officer may approve a conditional waiver. If impacts to soil resulting from said conditional waiver are not acceptable, as determined by the Authorized Officer, the waiver will be revoked.

- (11) L-19 Prior to attaching any logging equipment to a reserve tree, the Purchaser shall obtain written approval from the Authorized Officer and shall take precautions to protect the tree from damage as directed in writing by the Authorized Officer.
- (12) L-24 Prior to the commencement of operations, the Purchaser shall obtain from the Authorized Officer written approval of a written operations and logging plan commensurate with the terms and conditions of the contract which shall include measures needed to assure protection of the environment and watershed. A prework conference between the Purchasers authorized representative and the Authorized Officers representative must be held at a location designated by the Authorized Officer before the logging plan will be approved.
- (13) L-25 Before cutting and removing any trees necessary to facilitate logging in all units and adjacent reserve areas shown on Exhibit A, the Purchaser shall identify the location of the skid roads, cable yarding roads, and tailhold, tieback, guyline, lift, intermediate support, and danger trees on the ground in a manner approved by the Authorized Officer at the pre-work conference and documented in the Logging Plan. Said Purchaser identification of trees to be cut and removed does not constitute authority to proceed with cutting and removal. In addition, before proceeding with cutting the following conditions must be met:
  - (a) All skid and/or cable yarding roads upon which timber is identified by the Purchaser to be cut and removed in accordance with this special provision must be necessary for the safe and expeditious removal of timber sold under this contract and shall be limited to the minimum width necessary for yarding of logs with a minimum of damage to reserve trees, however, unless otherwise approved in writing by the Authorized Officer, the width of each skid and/or cable yarding road shall be limited to twelve (12) feet.
  - (b) The Purchaser may immediately cut and remove additional timber to clear skid and/or cable yarding roads; and provide tailhold, tieback, guyline, lift, and intermediate support trees; and clear danger trees when the trees have been marked with red 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 will be determined by the Authorized Officer in accordance with Bureau of

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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 Section 3.(b). of the contract or sufficient bonding has been provided in accordance with Section 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 Section 9 of the contract; or, the Authorized Officer determines any tree that exceeds 32 inches diameter at breast height shall be appraised and sold by bilateral modification of the contract at current fair market value in accordance with Section 8 of the contract.

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

(e) If authorization is withdrawn, the Contracting Officer shall issue a written notice to the Purchaser that the sale of additional timber under this special provision is no longer approved. In this case, the Purchaser shall inform the Authorized Officer at least one (1) working day prior to the need for cutting and removing any additional timber, and execute a bilateral modification prior to cutting for such additional approved timber at the unit prices shown in Exhibit B of the contract or in accordance with Section 8 or Section 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 roads and/or cable yarding roads when the Authorized Officer determines such reservation is necessary to maintain stand densities consistent with objectives set forth in the management prescription(s). This may include the replacement of trees damaged by storm events, or insects or disease. The volume of this timber to be



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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.

- (14) L-27 In all units shown on Exhibit A, all trees designated for cutting which are within a tree length of the streams and springs to be protected shall be felled away from those streams and springs.
  - (15) L-27 In units 8-2, 9-12A, 21-6, and 34-2 as shown on Exhibit A, all trees designated for cutting which are within a tree length of the reserve patches inside these units shall be felled away from the reserve patches.
  - (16) L-27 In all units shown on Exhibit A, all trees designated for cutting which are within a tree length of the unit boundaries shall be felled away from the boundaries and into the unit.
  - (17) L-27 In all tractor yarding units as shown on Exhibit A, all trees designated for cutting shall be directionally felled towards pre-approved skid trails.
- (C) Road Construction - Maintenance – Use
- (1) RC-1a The Purchaser shall 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, the Purchaser shall complete all improvement, or renovation of structures and roads as specified in Exhibit C.
  - (3) RC-2a The Purchaser is authorized to use the roads listed below and shown on Exhibit D which are under the jurisdiction of the Bureau of Land Management and/or Josephine County for the removal of Government timber sold under the terms of this contract and/or hauling of rock as required in Exhibit C, provided that the Purchaser comply with the conditions set forth in Section 41(C)(5) and pay the required rockwear obligation described in Sections 41(C)(4). The Purchaser shall pay current Bureau of Land Management rockwear fees for the sale of additional timber under modification to the contract.

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Road No. and Segment	Length Miles Used	Road Control	Road Surface Type
39-7-8B	0.15	BLM	NAT
39-7-8C	0.68	INDIAN HILL	NAT
39-7-8D	0.10	INDIAN HILL	NAT
39-7-8E	0.37	BLM	NAT
39-7-17	0.63	BLM	NAT
39-7-21.1	3.54	BLM	ASC
39-8-29	1.49	BLM	NAT
39-8-29.1	0.13	BLM	NAT
39-8-29.3	0.46	BLM	NAT
39-8-29.4	0.24	BLM	NAT
39-8-31B	0.07	BLM	ASC
40-8-3	0.08	BLM	PRR
40-8-3.1	0.48	BLM	NAT
40-8-4	0.69	BLM	GRR
40-8-5	0.30	BLM	NAT
<b>Total Miles</b>	<b>9.41</b>		

- (4) RC-2g The Purchaser shall also pay to the Government a road maintenance obligation for rockwear in the amount one thousand six hundred ninety three and 67/100 dollars (\$1,693.67) for the transportation of timber included in the contract price and for transportation of any mineral material required under terms of the contract over road or roads listed in Section 41(C)(3). The amount of the rockwear shown above shall be paid prior to removal of timber from the contract area; provided, however, that if the total of such amount exceeds two hundred and no/100 dollars (\$200.00), the Purchaser may elect to make the payment in installments in the same manner as and together with payments required in

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Section 3 of this contract.

- (5) 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.
- (6) RC-3 In the use of road No. 39-7-8 (C&D), the purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement M-1166 between the United States of America and the Indian Hill, LLC. This document is available for inspection at the Bureau of Land Management, Medford Interagency Office, 3040 Biddle Road, Medford, Oregon 97504. Prior to the use of said road(s), the Purchaser shall furnish the Authorized Officer a copy of the executed License Agreement.
- (7) 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.
- (8) RC-5 In the construction of temporary road No. 8.05, (Indian Hill, LLC portion) as shown on Exhibit C, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement M-1166 between the United States and Indian Hills, LLC. These conditions include: (1) The timber sale purchaser shall purchase all merchantable trees located within the marked right-of-way at market prices, (not BLM timber prices), (2) Comply with the road construction plans outlined in both the letter and plat, (3) Owner of the right-of-way timber shall be notified prior to clearing. This document is available for inspection at the Bureau of Land Management, Medford District Office, 3040 Biddle Road, Medford, Oregon 97504.
- (9) RC-6 Prior to cutting or removing any timber from the road right-of-way/temporary road No. 8.05, ( Indian Hills, LLC portion) the purchaser shall talk with Indian Hill, LLC, the owner of the right-of-way timber, about prices for that timber.
- (10) 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.

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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 prior to October 15 of the same operating season, “winterize” all temporary routes, natural surface landings, cable corridors, skid trails, and other areas of exposed soils by properly installing any water bars, berms, sediment basins, gravel pads, hay bales, seed and/or mulch, and small dense woody debris to reduce sediment runoff and divert runoff water away from headwalls, slide areas, high landslide hazard locations or steep erodible fill slopes as directed by the Authorized Officer.
- (2) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall construct water dips and/or water bars on all main tractor skid roads, cable yarding corridors, temporary routes/swing roads, and right of way in unit 8-2. Construction for skid roads will be concurrent with yarding, in accordance with Exhibit W, or as directed by the Authorized Officer. Water bar construction for cable yarding corridors shall be as directed by the Authorized Officer. Skid roads shall be blocked where they intersect with haul roads.

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- (3) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall construct earth/log barricade in accordance with Exhibit F at locations shown on Exhibit A. Barricades shall be constructed upon completion of the road decommissioning, or as directed by the Authorized Officer.
- (4) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall hand seed and straw mulch (native and weed free) all natural surfaced landings, temporary routes/swing roads, and right of way in unit 8-2 with native grass seed at a rate of fifteen (15) pounds per acre and straw mulch applied at no less than two thousand (2000) pounds per acre or as directed by the Authorized Officer. Native grass seed and straw shall be supplied by the government. If the quantity of native grass seed is not available from the government a mixture of annual rye, native grass, and sterile wheatgrass shall be applied at a rate of fifteen (15) pounds per acre. The purchaser shall provide written certification that the seed is free of noxious weeds. (Mixture requirements: seven (7) pounds annual rye, five (5) pounds native grass, three (3) pounds sterile wheatgrass). Seed shall be applied from February 1 to April 1 or September 30 to November 1.
- (5) E-1 In addition to the requirement set forth in Section 26 of this contract, the Purchaser shall as directed by the Authorized Officer decommission/rehabilitate all main tractor skid roads, temporary routes/swing roads, right of way in unit 8-2, and all natural surface landings outside of the road prism by one of the following methods:
  - (a) If the Authorized Officer deems ripping will not cause unacceptable damage to the root systems of residual trees the Purchaser shall discontinuously subsoil with winged ripper teeth, simultaneously water bar, and barricade.
    - (1) Use a minimum 200 flywheel horsepower tractor with mounted rippers having shanks and teeth consistent with drawings and specifications shown on Exhibit R of this contract, which, is attached hereto and made a part hereof.
    - (2) Rip to a depth of eighteen (18) inches, and no further than thirty six (36) inches apart.
    - (3) Ripping will occur before **October 15** of the year of harvest.
    - (4) Any step landings shall be re-contoured following use.

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- (b) If the Authorized Officer deems ripping will cause an unacceptable amount of damage to the root systems of residual trees the Purchaser shall scarify to a depth of up to six (6) inches and simultaneously water bar and barricade.

All rehabilitation shall occur within twenty four (24) months of harvest and during the dry season.

- (6) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall place material removed during excavation in locations where it cannot enter streams or other water bodies.
- (7) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall not locate new landings in areas that contribute eroded fines to dry draws and swales. If landing location cannot be avoided, ensure that properly installed sediment control measures are placed and maintained, as needed, to keep eroded material onsite.
- (8) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall ensure that silt fencing or other sediment control measures are properly placed and maintained during use and periods of non-use when utilizing existing landings that have the potential to release eroded fines into a stream or wet area, directly or via draws or ditchlines.
- (9) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall ensure that silt fencing or other sediment control measures are properly placed and maintained along the first three tenths (3/10) mile of BLM road 39-8-29 to keep eroded material from entering fish stream.
- (10) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall only be allowed to use logging, construction, rock crushing, and/or transportation equipment that is free of noxious weed seeds prior to entering federal lands in the contract area as shown on Exhibit A. If equipment is not considered free of noxious weed seeds by the Government, it shall be cleaned prior to entering federal lands. Cleaning shall be defined as removal of dirt, grease, plant parts, and material that may carry noxious weed seeds on to federal lands. Cleaning prior to entering federal lands may be accomplished by using a pressure hose.

Equipment shall be subject to visual inspection by the Government to certify that the equipment is free of noxious weed seeds. Only equipment inspected by the Government shall be allowed to operate on federal lands within the contract area. The Purchaser shall make equipment available for Government inspection at an

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agreed upon location off federal lands prior to any move-in of equipment.

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

- (11) E-1 In addition to the requirement set forth in Section 26 of this contract, the Purchaser shall not refuel equipment, store, or cause to have stored, any fuel or other petroleum products within one hundred fifty (150) feet of all riparian management or wet areas. All petroleum products shall be stored in durable containers and located so that any accidental releases will be contained and not drain into any stream system. Hydraulic fluid lines on heavy mechanized equipment would be in proper working condition in order to minimize potential for leakage into streams. Absorbent materials shall be onsite to allow for immediate containment of any accidental spills. Spilled fuel and oil shall be cleaned up and disposed of at an approved disposal site.
- (12) 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.
- (13) 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;

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- (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



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outstanding debt owing the United State, 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

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from the contract area. This calculation of liability shall utilize actual Purchaser costs and Government estimates of timber volumes. At the Authorized Officer's request, the Purchaser agrees to provide documentation of the actual costs incurred in the performance of the contract. In addition, the Purchaser shall be released from the obligation to pay the contract price for any timber which is not authorized to be removed from the contract area.

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

(E) Miscellaneous

- (1) M-2 The Government, at its option, may administratively check scale any portion of the timber removed from the contract area, and if necessary, conduct check scaling of independent scalers contracted to BLM for administrative check scaling purposes. The Purchaser hereby agrees to make such contract timber available for such scaling at a location or locations to be approved in writing by the Authorized Officer. At the approved location or locations, the Purchaser shall provide an area for logs to be safely rolled out for scaling, to unload logs from trucks, place logs in a manner so that both ends and three faces of each log are visible for scaling, and to reload or remove logs after scaling has been completed. In the event that BLM elects to administratively check scale and if such check scaling causes a delay in log transportation time, an adjustment will be made to the purchase price as follows: If the entire sale is check scaled, the purchase price of this contract shall be reduced by sixteen hundred seventy four and 75/100 dollars (\$1,674.75). In the event that only a portion of the contract timber is scaled, the purchase price shall be reduced by that portion of sixteen hundred seventy four and 75/100 dollars (\$1,674.75) which is equal to the percentage of timber sold which was actually scaled by the Government. For purposes of computing this price reduction, the percentage of timber sold which has been scaled shall be determined by the Government. Any reduction in purchase price under the terms of this provision shall be full compensation to the Purchaser for any expense or loss incurred as a result of such scaling. Scaling shall be conducted in

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accordance with the Northwest Log Rules Eastside Log Scaling Handbook, as amended, or supplemented by BLM before the first advertisement date of the sale, by BLM scalers, and/or independent scalers contracted to BLM. A copy of the scale report will be made available to the Purchaser upon request.

(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 (3/4) of all fire tools shall be shovels, hazel hoes, or other scraping tools. The fire tools shall be used only for fighting fire.

(2) F-2b A round pointed size "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

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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 Grants Pass, Oregon. Such communication shall be available during periods of operation including the time watch-service is required.
- (5) F-2e A pair of headlights capable of being quickly attached to each bulldozer used on the contract area. The headlights shall be adequate to provide illumination sufficient to allow use of the bulldozers for fire fighting and construction of fire trails at night.
- (6) F-2f A headlight for each person in the woods crew adequate to provide sufficient illumination for night fire fighting. A headlight shall be of the type that can be fastened to the head so as to allow independent use of the hands. It shall be equipped with a battery case so designed that it can be either carried in the hip pocket or fastened to the belt. The head of the light and the battery case shall be connected by insulated wires. At least one extra set of batteries shall be provided for each such headlight.
- (7) F-2g Two (2) back-pack pumps at each landing and one (1) at each tail block, all to be kept full of water and in good operating condition.
- (8) F-2h A chemical fire extinguisher of at least eight (8) ounces minimum capacity of a type approved by the Oregon State Forester shall be carried during the closed fire season or periods of fire danger by each saw operator using a power saw on the contract area. Such fire extinguisher shall be filled and in effective operating condition and shall at all times be immediately available to the operator when the saw is being fueled or the motor of the saw is running. A size "0" or larger shovel shall be available with each gas can when refueling. Any fueling of a power saw shall be done in an area which has first

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been cleared of all flammable material. Power saws shall be moved at least twenty (20) feet from the place of fueling before the engine is started. Each power saw shall be equipped with an exhaust system and a spark arresting device which are of types approved by the Oregon State Forester.

- (9) F-5 Where blocks and cables are used on the contract area during periods of fire danger, the Purchaser shall remove all flammable material at least ten (10) feet from the place where the tail or any other block will hang when the cable is tight. Such clearings shall be inspected periodically by the Purchaser and shall be kept free of flammable material.

(G) **Slash Disposal and Site Preparation**

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

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

- (a) SD-1a LOP AND SCATTER Lop and scatter all slash located in units 8-2, 20-1, and 21-6 as directed by the Authorized Officer. All cut slash (any material less than six inches in diameter) shall be lopped to no more than eight (8) feet in length and all top and side branches must be free of the central stem so that slash is reduced to the extent that it is within eighteen (18) inches of the ground at all points. All slash shall be arranged in a discontinuous pattern across the forest floor.

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- (b) SD-1c HAND PILING Hand pile all slash in units 3-3, 5-9, 9-12A, 9-12B, 29-1, 29-2A, 29-2B, 29-4A, 29-4B, 29-8, 34-2, and one hundred (100) feet adjacent to BLM roads in units 8-2, 20-1, and 21-6 as directed by the Authorized Officer 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 Purchasers operations under the terms of this contract.

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

Pile all slash which is between one (1) and seven (7) inches in diameter on the large end and exceeds two (2) feet in length.

A six (6) foot by six (6) foot sheet of four (4) mil. black plastic shall be placed on each pile in a manner such that approximately one-third (1/3) of the pile lies above it to hold it in place and so that a two (2) foot by two (2) foot dry ignition point is maintained for one (1) year or until burned. The ignition point will consist of fine fuel material such as needles, small limbs, and branches less than one-half (1/2) inch in diameter and free of dirt. Piles shall be constructed by aligning individual pieces in the same direction and placing the heavier slash on top. Piles shall have a stable base to prevent toppling. The long axis of individual pieces shall be oriented up and down the slope. Protruding pieces shall be trimmed to allow covering in a manner that permits the pile to shed water. Height shall be no less than five (5) feet and no greater than eight (8) feet; width shall not exceed six (6) feet; piles shall be circular and not windrowed. No pile shall be located in any stream channel; on down logs, stumps, talus slopes, roadways, drainage ditches, turnouts, shoulders, cut banks, and within ten (10) feet of reserve trees or any other pile or boundary. No portion of the pile will be under the crown of any living conifer tree.

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

- (1) Units shall be piled and covered during the same season that they are logged. Piling shall be completed in each unit or portion thereof, within eight (8) weeks after being notified of BLM site treatment determination.

**EAST WEST JUNCTION**  
**SPECIAL PROVISIONS**

- (c) **SD-1i LANDING PILES** Pile all slash located within fifty (50) feet on each side of log landing. Slash shall be piled by hand or machine. Finished piles shall be tight and free of earth and located at least fifteen (15) feet away from any reserve trees adjacent to landing. A minimum twenty (20) foot on the ground shall be cleared of slash and other vegetation, litter, and debris around each landing pile to prevent escaped fire.
- (1) A ten (10) foot by ten (10) foot cover of four (4) mil. black plastic material shall cap each tractor pile to maintain a dry ignition point. The cover shall be firmly fixed to each pile to hold it in place. Landings shall be piled and covered during the same season that they are logged.
- (2) Landing piles shall be burned, chipped, or otherwise removed from these sites within eighteen (18) months of unit harvest completion.
- (2) **SD-5** Perform logging residue reduction and site preparation work on approximately one hundred fifty five (155) acres of harvest area located in the 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.

Treatment			Cost/Acre
Hand pile and Cover	0-20 piles/ac	L1	\$283.00
Hand pile and Cover	21-40 piles/ac	L2	\$371.00
Hand pile and Cover	41-60 piles/ac	L3	\$500.00
Hand pile and Cover	61-80 piles/ac	L4	\$608.00
Hand pile and Cover	80-100 piles/ac	L5	\$690.00
Lop and Scatter			\$41.00

**EAST WEST JUNCTION  
SPECIAL PROVISIONS**

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

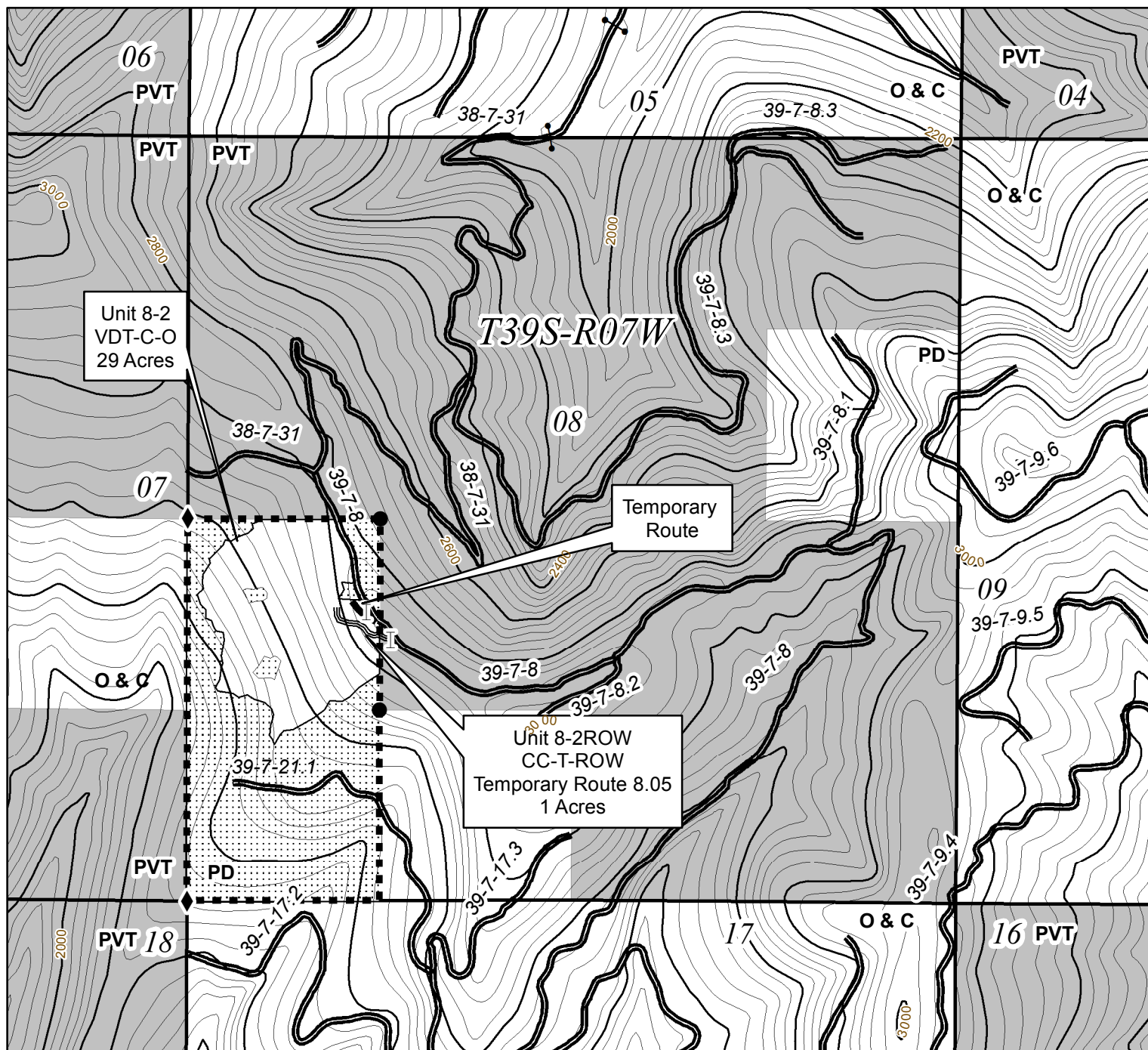
Appraised Treatment	Acres	Cost/Acre	Total Cost per Treatment
Hand Pile and Cover 21-40 piles/ac	114	\$371.00	\$42,294.00
Lop and Scatter	41	\$41.00	\$1,681.00
Total Appraised Cost			\$43,975.00

- (c) The Total Purchase Price set forth in Section 2 shall be adjusted by the amount that the total cost of the site preparation treatment designated pursuant to section 42(G)(2)(a) differs from \$43,975.00 as calculated by using the estimated acres determined by the Authorized Officer and the per acre cost listed in Section 42(G)(2)(a).

- (H) Equal Opportunity in Employment

Certification of Nonsegregated Facilities attached hereto and made a part hereof.





0 500 1,000 2,000  
Feet

1 inch = 1,000 feet



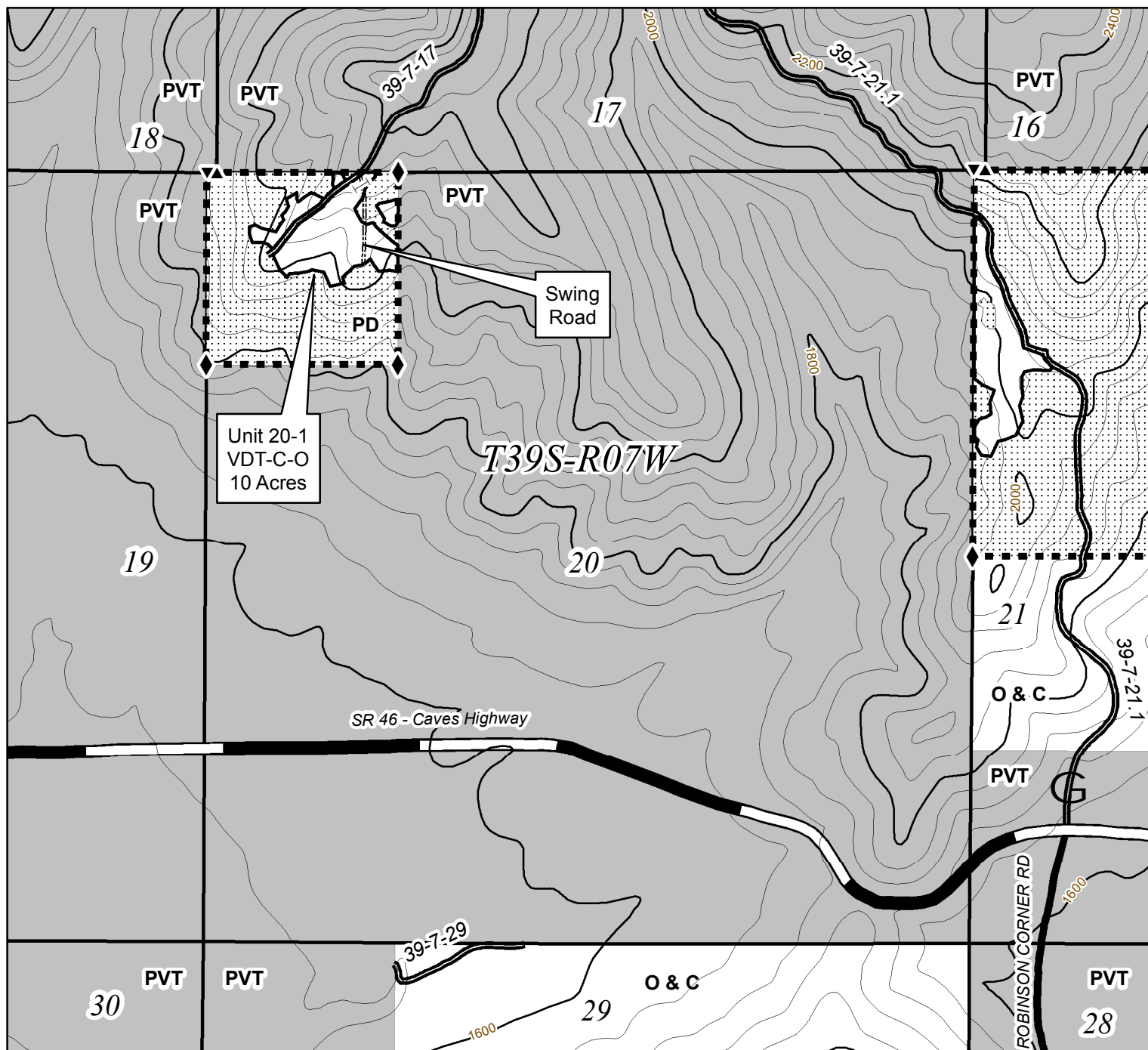
United States Department of the Interior  
Bureau of Land Management  
Medford District Office  
3040 Biddle Road  
Medford, OR 97504  
(541) 618-2200

40 FOOT CONTOUR INTERVAL

January 28, 2013

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





0 500 1,000 2,000 Feet  
1 inch = 1,000 feet



United States Department of the Interior  
Bureau of Land Management  
Medford District Office  
3040 Biddle Road  
Medford, OR 97504  
(541) 618-2200

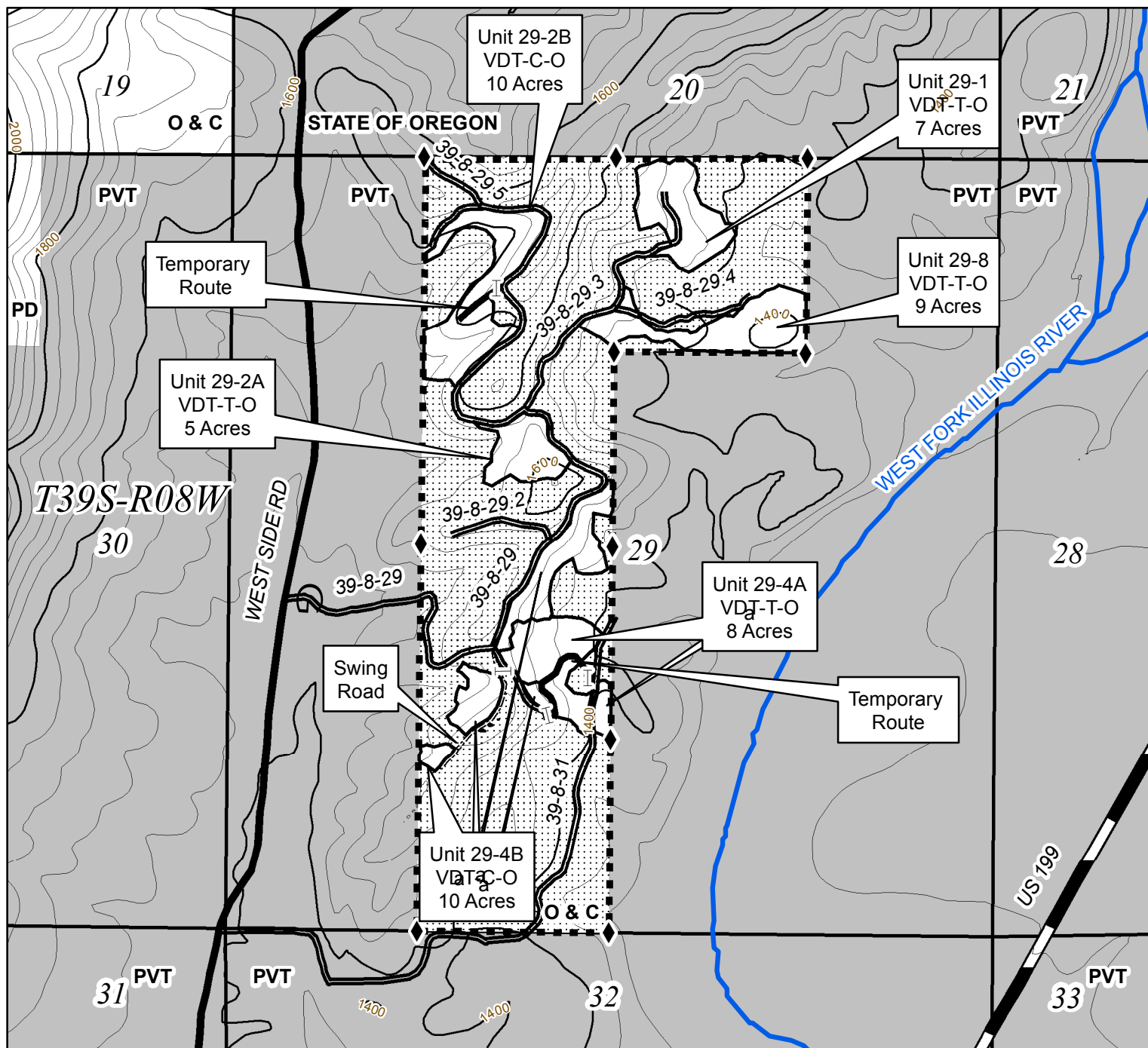
40 FOOT CONTOUR INTERVAL  
January 28, 2013

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1 inch = 1,000 feet



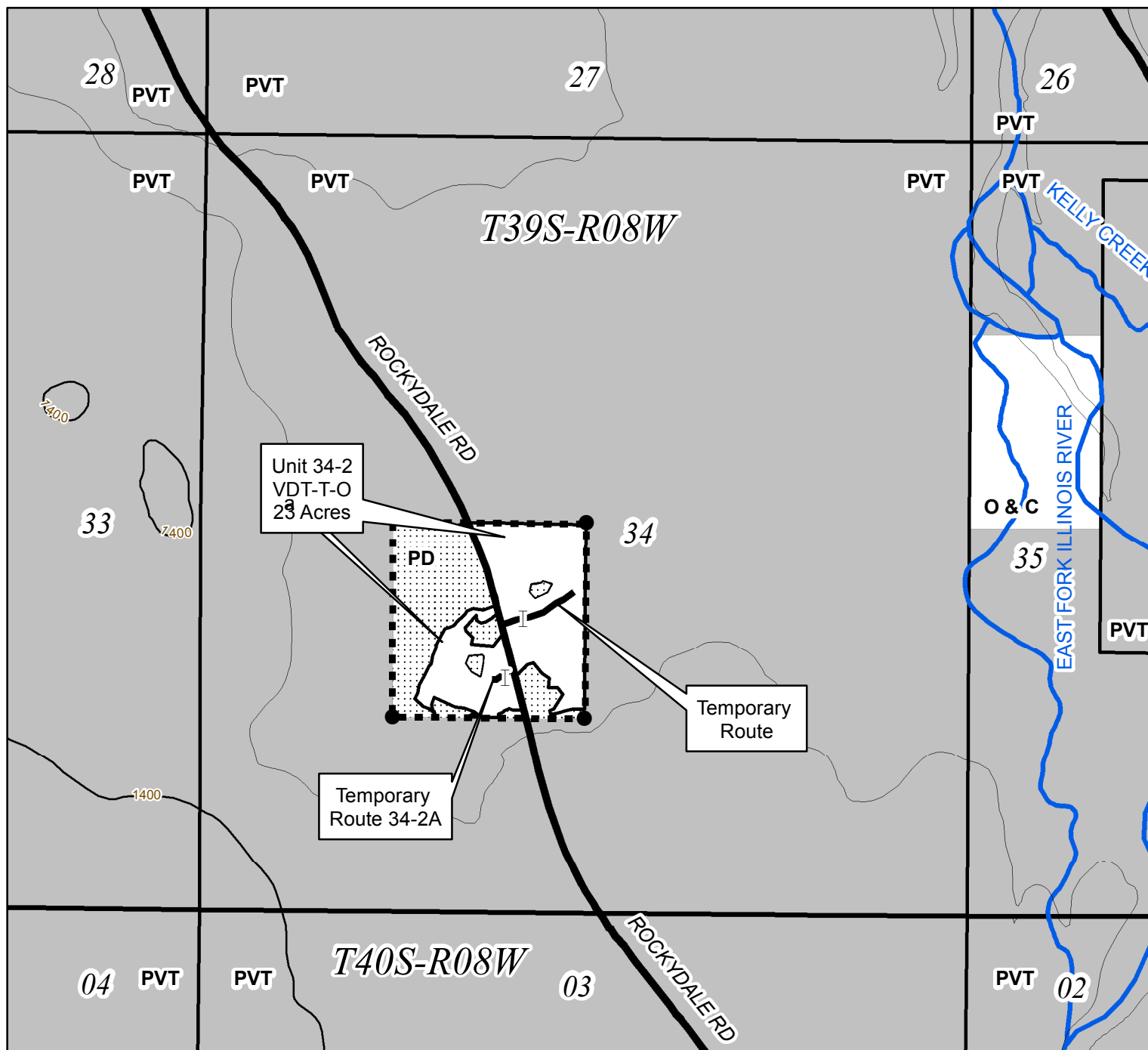
United States Department of the Interior  
Bureau of Land Management  
Medford District Office  
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Medford, OR 97504  
(541) 618-2200

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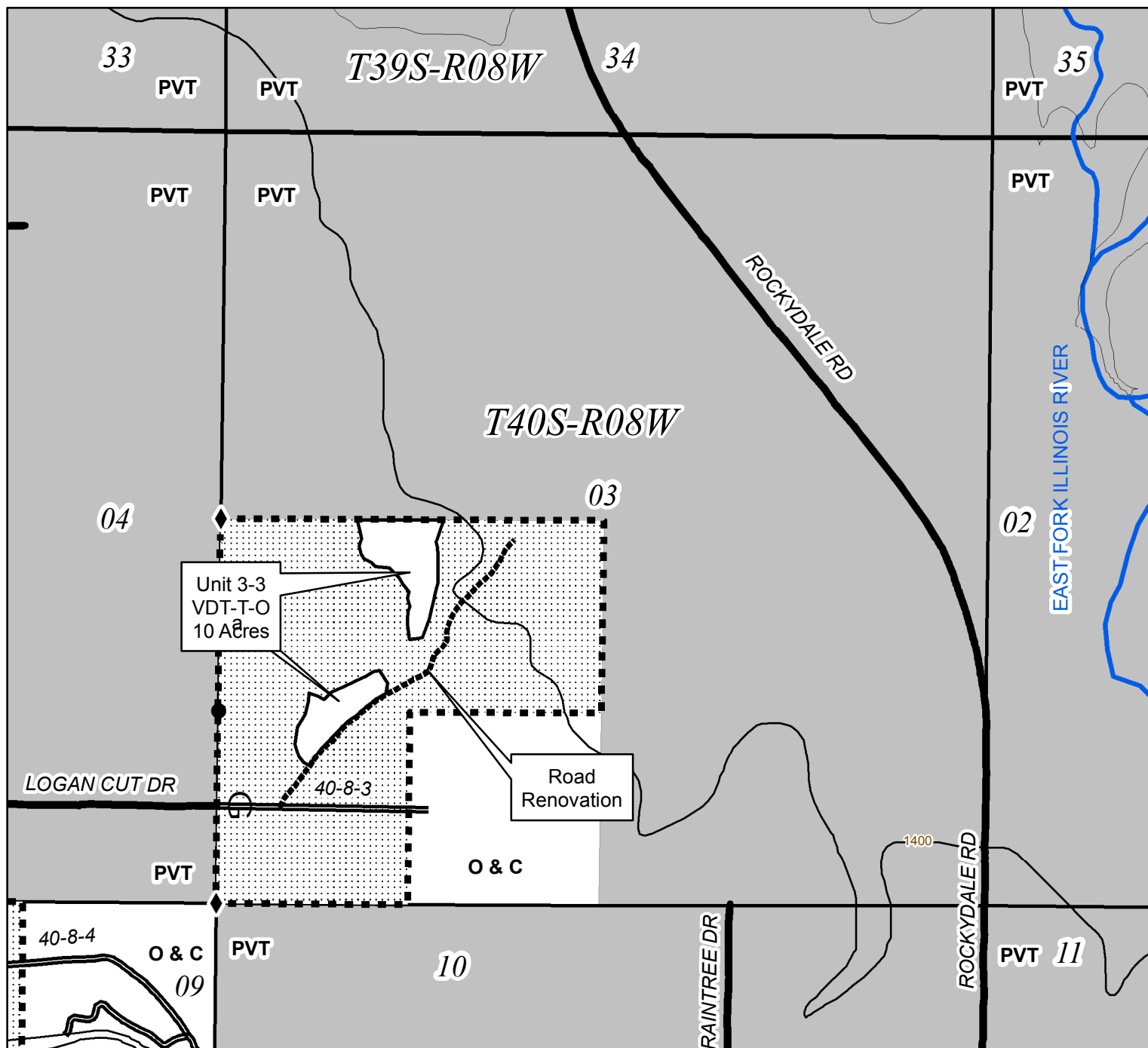
40 FOOT CONTOUR INTERVAL

January 28, 2013

United States Department of the Interior  
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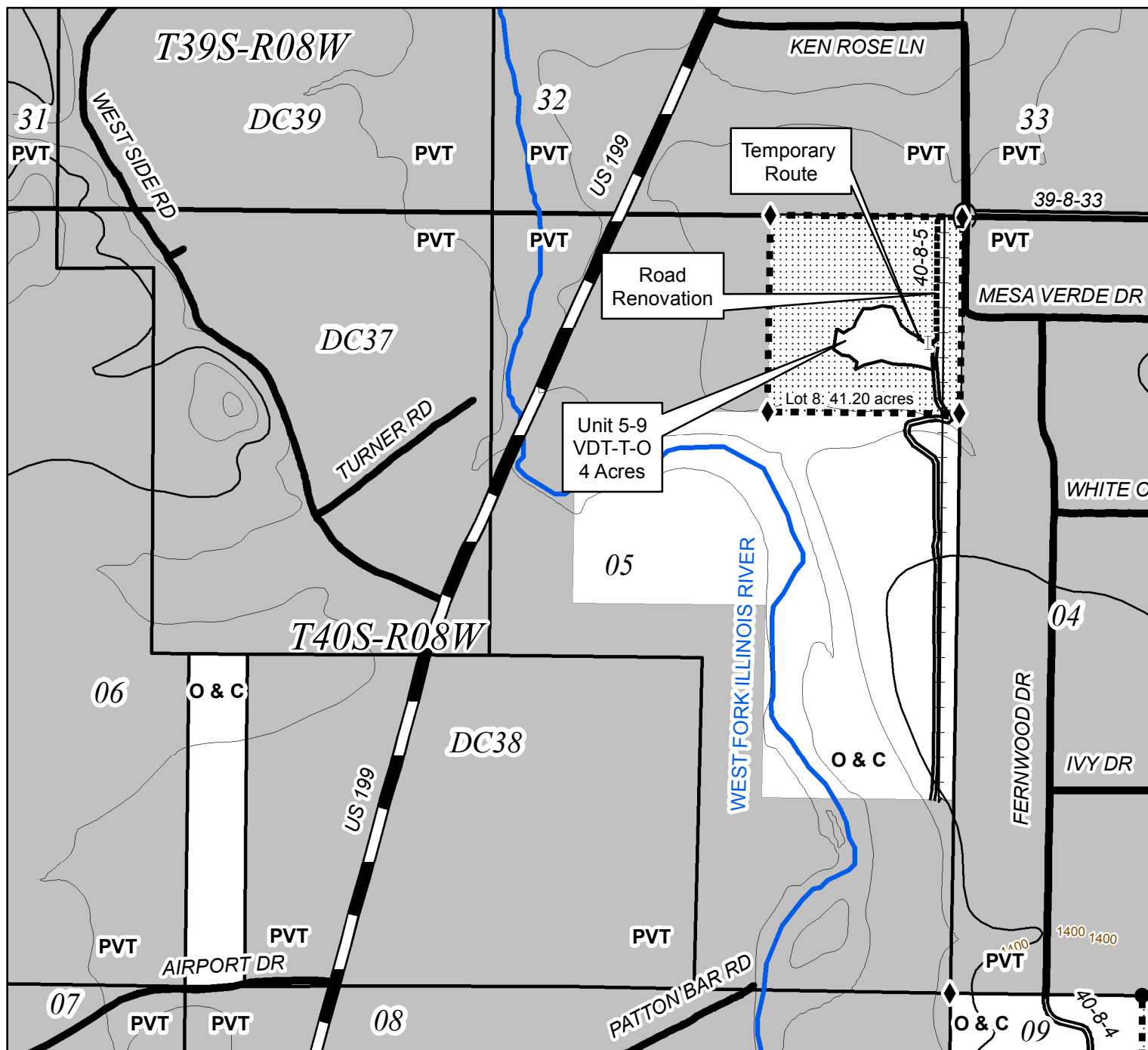
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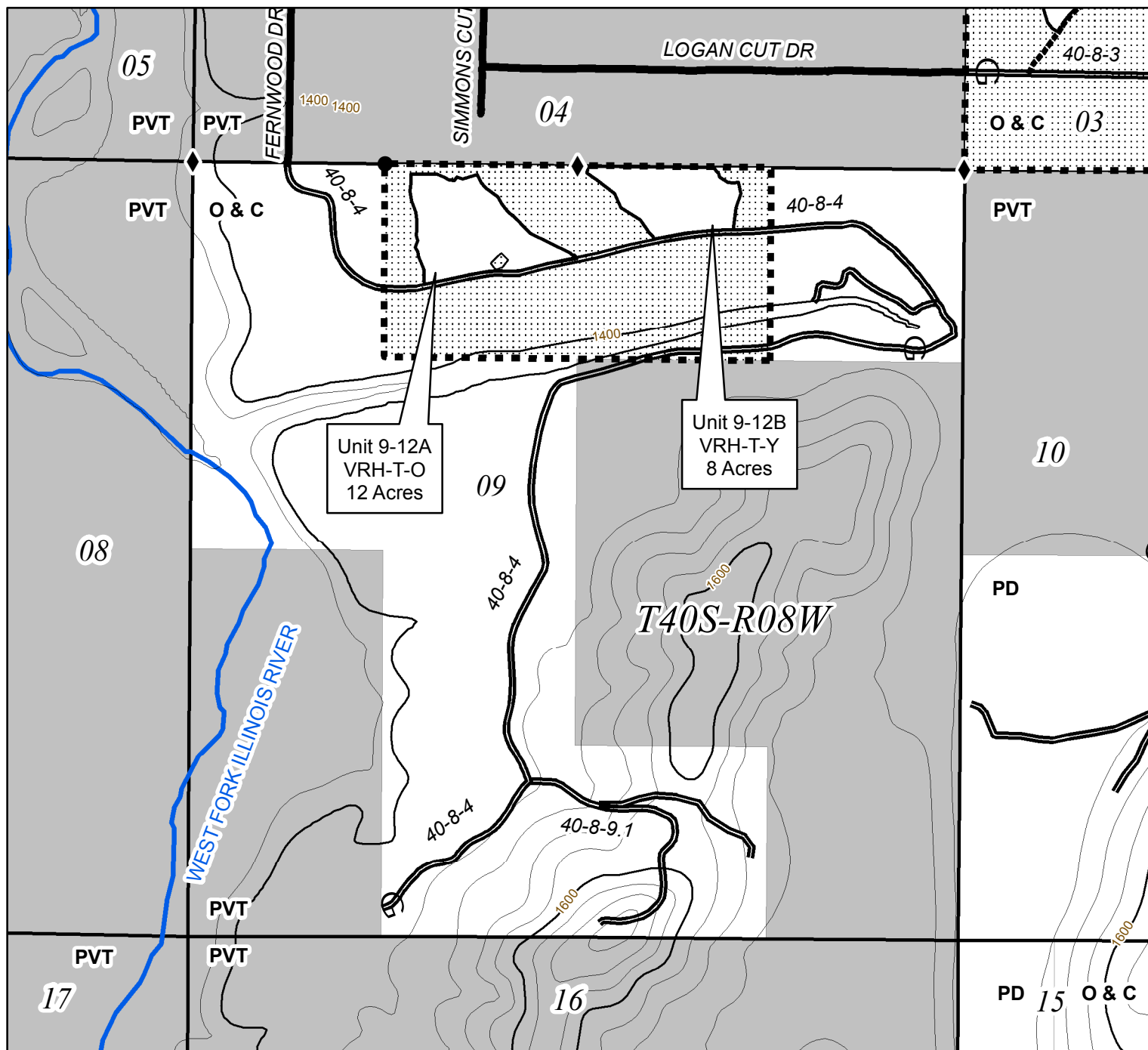
United States Department of the Interior  
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0 500 1,000 2,000  
Feet

1 inch = 1,000 feet



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40 FOOT CONTOUR INTERVAL

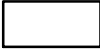
January 28, 2013

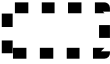
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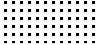


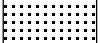



Legend


 East West Junction Timber Sale Unit


 Contract Area Boundry


 Reserve Area


 Reserve Patches


 Brass Cap Monument


 Brass Cap Monument


 Brass Cap Monument


 Iron Rod


 Rivers


 Power Lines

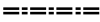
 Roads

 Post Harvest Barricade Gate


 Right of Way

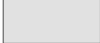
 Road Renovation


 Temporary Route


 Swing Road


Ownership


 BLM

 Non-Federal



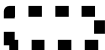
 Section

 Township

 Index - 200 ft contour

 Intermediate - 40 ft contour

SUMMARY

VDT-C-O	VARIABLE DENSITY THINNING - CABLE YARD-ORANGE MARK RESERVE TREE (UNIT 8-2, 20-1, 29-2B, 29-4B)	59 ACRES
VDT-T/C-O	VARIABLE DENSITY THINNING - TRACTOR YARD AND CABLE YARD- ORANGE MARK RESERVE TREE (UNIT 21-6)	9 ACRES
VDT-T-O	VARIABLE DENSITY THINNING - TRACTOR YARD-ORANGE MARK RESERVE TREE (UNIT 3-3, 5-9, 29-1, 29-2A, 29-4A, 29-8, 34-2)	66 ACRES
VRH-T-O	VARIABLE RETENTION HARVEST - TRACTOR YARD-ORANGE MARK RESERVE TREE (UNIT 9-12A)	12 ACRES
VRH-T-Y	VARIABLE RETENTION HARVEST - TRACTOR YARD-YELLOW MARK RESERVE TREE (UNIT 9-12B)	8 ACRES
CC-T-ROW	CLEAR CUT - TRACTOR YARD- RIGHT OF WAY (UNIT - 8-2ROW)	1 ACRE
	TOTAL TIMBER SALE UNIT AREA	155 ACRES
	RESERVE AREA	526.2 ACRES
	TOTAL CONTRACT AREA	681.2 ACRES

### LEGEND

UNIT	ACRES	HARVEST TYPE	PAINT COLOR	LOGGING SYSTEM
8-2	29	VDT	O	C
8-2ROW	1	CC	ROW	T
20-1	10	VDT	O	C
21-6	9	VDT	O	T/C
29-1	7	VDT	O	T
29-2A	5	VDT	O	T
29-2B	10	VDT	O	C
29-4A	8	VDT	O	T
29-4B	10	VDT	O	C
29-8	9	VDT	O	T
34-2	23	VDT	O	T
3-3	10	VDT	O	T
5-9	4	VDT	O	T
9-12A	12	VRH	O	T
9-12B	8	VRH	Y	T

**TOTAL 155**

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

VDT = VARIABLE DENSITY THINNING

CC = CLEAR CUT

VRH = VARIABLE RETENTION HARVEST

ROW = RIGHT OF WAY - CLEARING LIMITS POSTED AND PAINTED IN ORANGE

O = ORANGE PAINT - RETENTION TREE MARK

Y = YELLOW PAINT - RETENTION TREE MARK

C = CABLE YARDING

T = TRACTOR (GROUND-BASED) YARDING

T/C = TRACTOR (GROUND-BASED) AND CABLE YARDING

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

Medford  
East West Junction  
ORM07-TS-13-04

**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	2,136		
Sugar Pine	81		
Ponderosa Pine	15		
Incense-cedar	1		
<b>Sale Totals</b>	<b>2,233</b>		

**Unit Details (16' MB)**

**Unit    20-1                      10 Acres                      Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	111		
Incense-cedar	1		
Ponderosa Pine	2		
Sugar Pine	24		
<b>Unit Totals</b>	<b>138</b>		

**Unit    21-6                      9 Acres                      Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	87		
Ponderosa Pine	5		
Sugar Pine	13		
<b>Unit Totals</b>	<b>105</b>		

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

Medford  
East West Junction  
ORM07-TS-13-04

**Unit 29-1 7 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	93		
Sugar Pine	8		
<b>Unit Totals</b>	<b>101</b>		

**Unit 29-2A 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	63		
Sugar Pine	3		
<b>Unit Totals</b>	<b>66</b>		

**Unit 29-2B 10 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	105		
Sugar Pine	5		
<b>Unit Totals</b>	<b>110</b>		

**Unit 29-4A 8 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	95		
Sugar Pine	6		
<b>Unit Totals</b>	<b>101</b>		

**Unit 29-4B 10 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	114		
Ponderosa Pine			
Sugar Pine	8		
<b>Unit Totals</b>	<b>122</b>		

**Unit 29-8 9 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	108		
Sugar Pine	6		
<b>Unit Totals</b>	<b>114</b>		

**UNITED STATES  
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Medford  
East West Junction  
ORM07-TS-13-04

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

Species	Net Volume	Bid Price	Species Value
Douglas-fir	110		
Sugar Pine			
<b>Unit Totals</b>	<b>110</b>		

**Unit 34-2 23 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	263		
Incense-cedar			
Ponderosa Pine	7		
Sugar Pine	2		
<b>Unit Totals</b>	<b>272</b>		

**Unit 5-9 4 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	68		
Sugar Pine	1		
<b>Unit Totals</b>	<b>69</b>		

**Unit 8-2 29 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	626		
Sugar Pine	1		
<b>Unit Totals</b>	<b>627</b>		

**Unit 8-2ROW 1 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	9		
<b>Unit Totals</b>	<b>9</b>		

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

Species	Net Volume	Bid Price	Species Value
Douglas-fir	139		
Ponderosa Pine			
Sugar Pine	4		
<b>Unit Totals</b>	<b>143</b>		

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

Medford  
East West Junction  
ORM07-TS-13-04

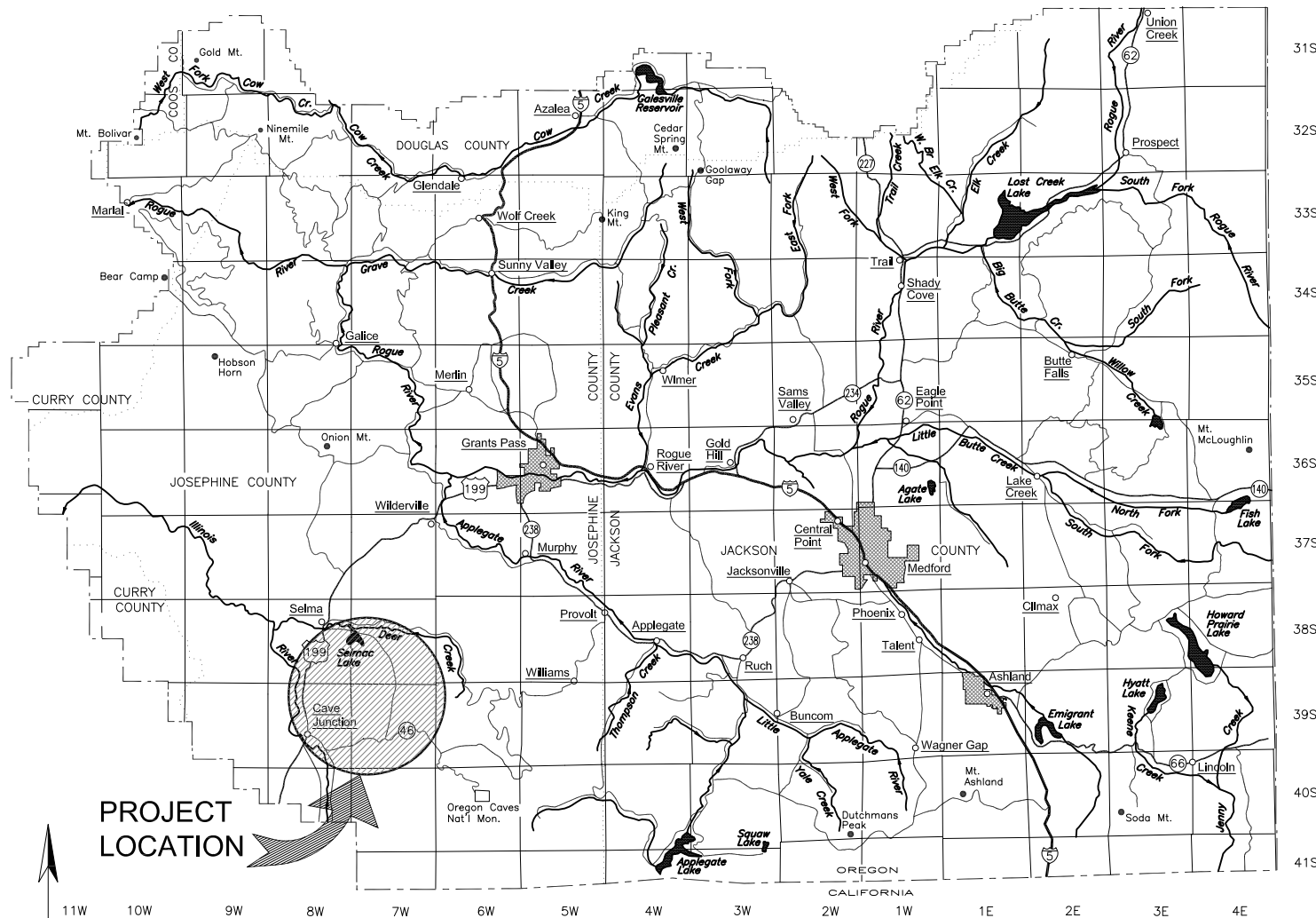
**Unit      9-12B                                  8 Acres                                  Value per Acre : \$0.00**

<b>Species</b>	<b>Net Volume</b>	<b>Bid Price</b>	<b>Species Value</b>
Douglas-fir	145		
Ponderosa Pine	1		
Sugar Pine			
<b>Unit Totals</b>	<b>146</b>		

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

EXHIBIT C1  
SHEET 1 OF 1

EAST WEST JUNCTION  
TIMBER SALE  
TRACT NO. ORM07-TS-13-04



31S  
32S  
33S  
34S  
35S  
36S  
37S  
38S  
39S  
40S  
41S

EXHIBIT NO.	DESCRIPTION
C1	TITLE SHEET
C2	OVERALL SALE AREA MAP
C3	ESTIMATE OF QUANTITIES
C4	SPECIFICATION SHEET
C5	TYPICAL ROAD DATA
C6	ROADSIDE BRUSHING DETAIL
C7	DRAINAGE & EROSION CONTROL INSTALLATION
C8	CULVERT BAND DETAIL
C9	CULVERT ASBUILT DETAILS
C10	SPECIAL PROVISIONS
C11	WORK LIST
D1	ROAD MAINTENANCE SPECIFICATIONS
D2	ROAD MAINTENANCE MAP
	</

PROJECT  
LOCATION

0 6 12  
SCALE IN MILES

ALWAYS  
THINK  
SAFETY

# EXHIBIT C2

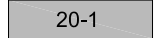
## SHEET 1 OF 3

EAST WEST JUNCTION  
TIMBER SALE  
TRACT NO. ORM07-TS-13-04

BLM OWNERSHIP



T.S. UNITS



BST ROAD



ROCKED ROAD



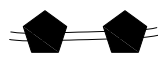
NATURAL SURFACE ROAD



ROADS TO BE RENOVATED



ROADS TO BE  
CONSTRUCTED



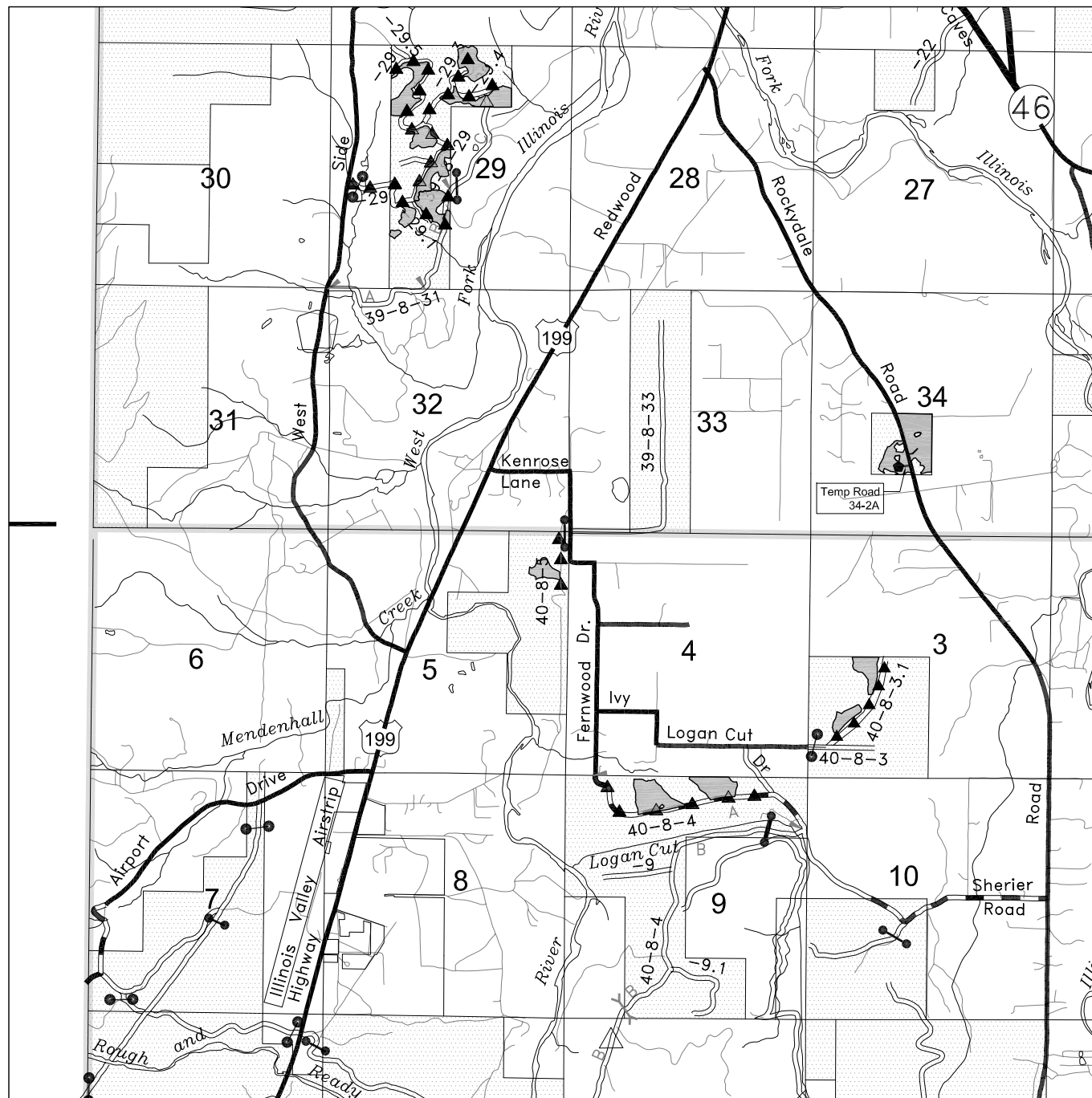
GATE



ALWAYS  
*THINK*  
SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
EAST WEST JUNCTION TIMBER SALE OVERALL SALE AREA MAP			
DESIGNED:	<u>C. Smith</u>		
REVIEWED:	<u>E. Freeman</u>		
APPROVED:	<u>J. Roper, Lead Engineer</u>		
DRAFTED BY:	CLS	SCALE:	1" = 1/2 MI
DATE:	FEB 2013	SHEET:	1 OF 3
DRAWING NO.:	OR-11-9113.4-1		

R8W



0 1/4 1/2  
SCALE IN MILES



# EXHIBIT C2

## SHEET 2 OF 3

EAST WEST JUNCTION  
TIMBER SALE  
TRACT NO. ORM07-TS-13-04

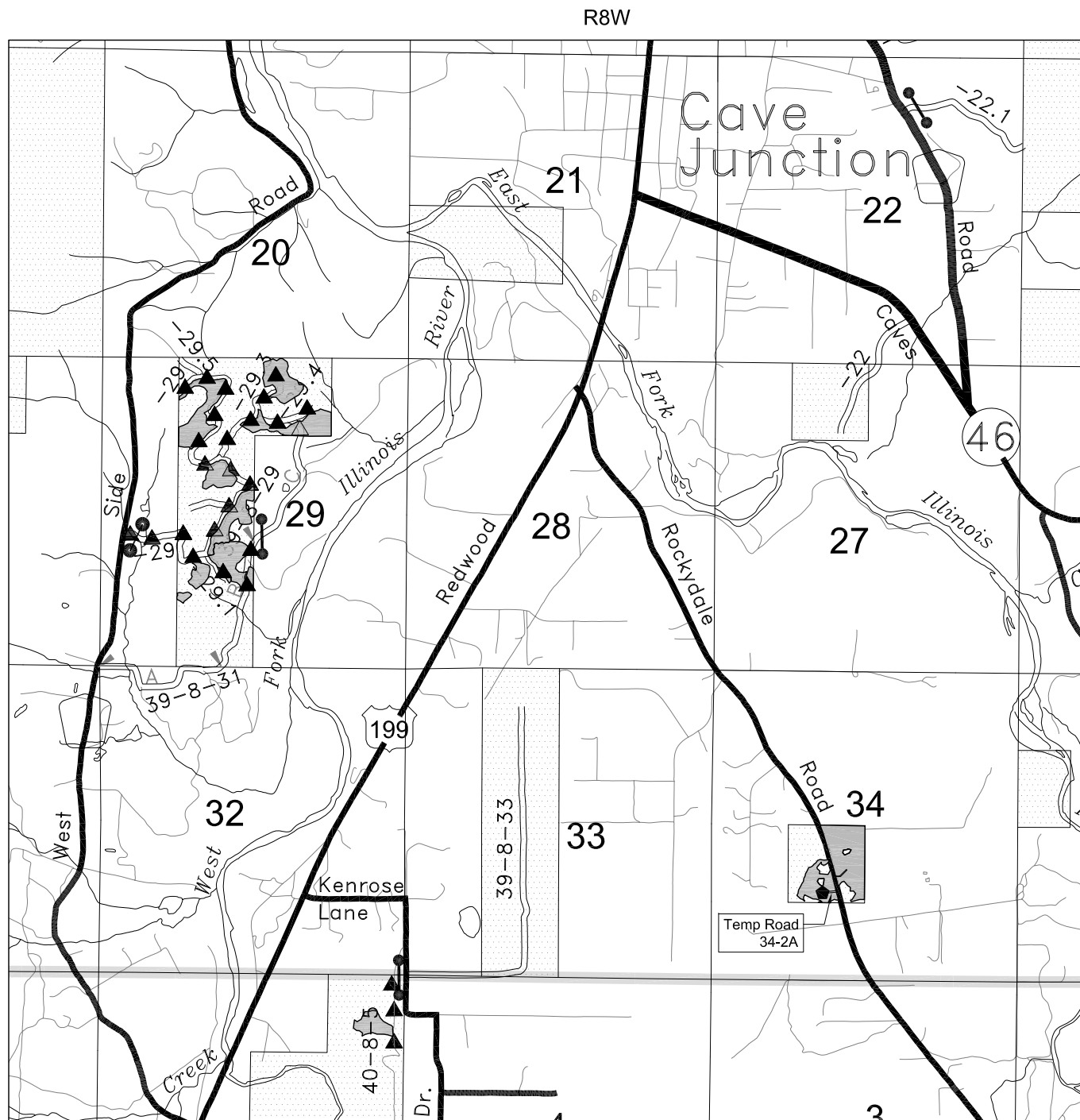
BLM OWNERSHIP	
T.S. UNITS	
BST ROAD	
ROCKED ROAD	
NATURAL SURFACE ROAD	
ROADS TO BE RENOVATED	
ROADS TO BE CONSTRUCTED	
GATE	

T39S



ALWAYS  
*THINK*  
SAFETY

T40S



0 1/4 1/2  
SCALE IN MILES

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
EAST WEST JUNCTION TIMBER SALE OVERALL SALE AREA MAP			
DESIGNED:	<u>C. Smith</u>		
REVIEWED:	<u>E. Freeman</u>		
APPROVED:	<u>J. Roper, Lead Engineer</u>		
DRAFTED BY:	CLS	SCALE:	1" = 1/2 MI
DATE:	FEB 2013	SHEET:	2 OF 3
DRAWING NO.:	OR-11-9113.4-1		

EAST WEST JUNCTION  
TIMBER SALE  
TRACT NO. ORM07-TS-13-04

20-1



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*ALWAYS  
THINK  
SAFETY*

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
EAST WEST JUNCTION TIMBER SALE OVERALL SALE AREA MAP			
DESIGNED: <u>C. Smith</u>			
REVIEWED: <u>E. Freeman</u>			
APPROVED: <u>J. Roper, Lead Engineer</u>			
DRAFTED BY: CLS		SCALE: 1" = 1/2 MI	
DATE: FEB 2013		SHEET: 3 OF 3	
DRAWING NO.: OR-11-9113.4-1			

# EXHIBIT C3

## SHEET 1 OF 2

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	CLEARING AND GRUBBING	EXCAVATION		CORRUGATED METAL PIPE								RENOVATION		RESHAPE EX. WATERDIPS	WATERBARS	AGGREGATE					SOIL STABILIZATION	ROADSIDE BRUSHING	COMMENTS
					ROCK	COMMON	SIZE				ELBOWS	DOWNSPOUT				RESHAPE EX. ROAD SURFACE			DITCH & CULVERT CLEANING	PIT RUN	CRUSHED BASE ROCK	CRUSHED SURFACE ROCK	EXISTING STOCK PILE			
							18"	24"	30"	36"		FULL ROUND		HALF ROUND												
												18"	24"	18"	24"											
SPECIFICATION NO. ➡				200	300	300	400				400	400				500				700	1000	1200		1800	2100	
UNITS ➡	MP	MP	MILE	ACRE	CY	CY	LF	LF	LF	LF	EA	LF	LF	LF	LF	MILE	MILE	EA	EA	CY	CY	CY	CY	ACRE	MILE	
39-7-8B	0.00	0.15	0.15													0.15	0.15								0.15	
39-7-8C	0.15	0.83	0.68													0.68	0.68								0.68	
39-7-8D	0.83	0.93	0.10													0.10	0.10								0.10	
39-7-8E	0.93	1.30	0.37			200										0.37	0.37					125			0.37	
39-7-17	0.00	0.63	0.63													0.63	0.63								0.63	
39-7-21.1	0.00	3.54	3.54													3.54	3.54								3.54	
39-8-29	0.00	1.49	1.49				20									1.49	1.49					464			1.49	
39-8-29.1	0.00	0.13	0.13													0.13	0.13								0.13	
39-8-29.3	0.00	0.46	0.46													0.46	0.46								0.46	
39-8-29.4	0.00	0.24	0.24	0.70												0.24	0.24									
39-8-31B	0.00	0.07	0.07													0.07	0.07								0.07	
40-8-3.0	0.00	0.08	0.08													0.08	0.08								0.08	
40-8-3.1	0.00	0.48	0.48													0.48	0.48								0.48	
40-8-4.0	0.00	0.69	0.69													0.69	0.69					45			0.69	

### RENOVATION NOTES

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

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

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

### AGGREGATE GRADATION REQUIREMENTS

#### ITEM 900

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

#### ITEM 1000

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

#### ITEM 1200

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

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REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
EAST WEST JUNCTION TIMBER SALE ESTIMATE OF QUANTITIES			
DESIGNED:	<i>C. Smith</i>		
REVIEWED:	<i>E. Freeman</i>		
APPROVED:	<i>J. Roper, Lead Engineer</i>		
DRAFTED BY: CLS		SCALE: NONE	
DATE: DEC 2012		SHEET: 1 OF 2	
DRAWING NO.: OR-11-9113.4-1			

# EXHIBIT C3

## SHEET 2 OF 2

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	CLEARING AND GRUBBING	EXCAVATION		CORRUGATED METAL PIPE								RENOVATION			WATERDIPS	WATERBARS	AGGREGATE					SOIL STABILIZATION	ROADSIDE BRUSHING	COMMENTS
					ROCK	COMMON	SIZE				ELBOWS	DOWNSPOUT				RESHAPE EX. ROAD SURFACE	DITCH & CULVERT CLEANING			PIT RUN	CRUSHED BASE ROCK	CRUSHED SURFACE ROCK	EXISTING STOCK PILE				
							18"	24"	30"	36"		FULL ROUND		HALF ROUND													
												18"	24"	18"	24"												
SPECIFICATION NO. ➡				200	300	300	400				400	400				500				700	1000	1200		1800	2100		
UNITS ➡	MP	MP	MILE	ACRE	CY	CY	LF	LF	LF	LF	EA	LF	LF	LF	LF	MILE	MILE	EA	EA	CY	CY	CY	CY	ACRE	MILE		
40-8-5.0	0.00	0.30	0.30													0.30	0.30								0.30		
Temp Rd 8.05	0.00	0.15	0.15	0.80		1,875																	0.80				
Temp Rd 34-2A	0.00	0.05	0.05	0.20		70	30																0.20				
TOTALS			9.61	1.70		2,145						50				9.41	9.41					634		1.00	9.17		

### RENOVATION NOTES

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

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

### AGGREGATE GRADATION REQUIREMENTS

#### ITEM 900

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

#### ITEM 1000

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

#### ITEM 1200

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

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REV. NO.	DESCRIPTION	DATE	APPROV.
	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON		
EAST WEST JUNCTION TIMBER SALE ESTIMATE OF QUANTITIES			
DESIGNED:	C. Smith		
REVIEWED:	E. Freeman		
APPROVED:	J. Roper, Lead Engineer		
DRAFTED BY: CLS	SCALE: NONE		
DATE: DEC 2012	SHEET: 2 OF 2		
DRAWING NO.: OR-11-9113.4-1			

# EXHIBIT C4

## SHEET 1 OF 3

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	TYPICAL STATION TYPE	ALIGNMENT	ROAD WIDTH <sup>1-3</sup>		GRADIENT		BRUSHING WIDTH				SURFACING <sup>3</sup>								REMARKS
					MAXIMUM DEGREE OF CURVE	SUBGRADE	DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	BEYOND		EXISTING ROAD(S)		BASE COURSE				SURFACE COURSE				
										TOP CUT	TOE FILL	L	R	MINIMUM WIDTH	COMPACTION DEPTH	TYPE <sup>2</sup>	GRADING	MINIMUM WIDTH	COMPACTION DEPTH	TYPE <sup>2</sup>	GRADING	
39-7-8B	0.00	0.15	0.15	3		14'	-	-	-			4	4							NAT		
39-7-8C	0.15	0.83	0.68	3		14'	-	-	-			4	4							NAT		
39-7-8D	0.83	0.93	0.10	3		14'	-	-	-			4	4							NAT		
39-7-8E	0.93	1.30	0.37	3		14'	-	-	-			4	4							NAT		
39-7-17	0.00	0.63	0.63	4		14'	-	-	-			4	4							NAT		
39-7-21.1	0.00	3.54	3.54	6		14'	3'	-	-			4	4							ASC		
39-8-29	0.00	1.49	1.49	5		14'	3'	-	-			4	4							NAT		
39-8-29.1	0.00	0.13	0.13	3		14'	-	-	-			4	4							NAT		
39-8-29.3	0.00	0.46	0.46	3		14'	-	-	-			4	4							NAT		
39-8-29.4	0.00	0.24	0.24	3		14'	-	-	-			4	4							NAT		
39-8-31B	0.00	0.07	0.07	3		15'	-	-	-			4	4							NAT		
40-8-3.0	0.00	0.08	0.08	4		14'	-	-	-			4	4							PRR		
40-8-3.1	0.00	0.48	0.48	4		14'	-	-	-			4	4							PRR		
40-8-4.0	0.00	0.69	0.69	4		17'	-	-	-			4	4							GRR		

### NOTES

#### 1. EXTRA SUB-GRADE WIDTHS

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

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

#### MATERIALS CUT SLOPE FILL SLOPE

COMMON	1/2 : 1	1 1/2 : 1
SOFT ROCK & SHALE	1/2 : 1	1 1/2 : 1
SOLID ROCK	1/2 : 1	angle of repose

#### 2. SURFACING TYPES

- PIT RUN ROCK
- GRID ROLLED ROCK MATERIAL
- SCREENED ROCK MATERIAL
- CRUSHED ROCK MATERIAL

#### 3. TURNOUTS

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

#### 4. SURFACING

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

#### 5. CLEARING WIDTH

SEE SUBSECTION 2100

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REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
EAST WEST JUNCTION TIMBER SALE SPECIFICATION SHEET			
DESIGNED:	<i>C. Smith</i>		
REVIEWED:	<i>E. Freeman</i>		
APPROVED:	<i>J. Roper, Lead Engineer</i>		
DRAFTED BY: CLS	SCALE: NONE		
DATE: DEC 2012	SHEET: 1 OF 3		
DRAWING NO.: OR-11-9113.4-1			

# EXHIBIT C4

## SHEET 2 OF 3

ROAD NUMBER	FROM (M.P.)	TO (M.P.)	LENGTH (MILES)	TYPICAL STATION TYPE	ALIGNMENT	ROAD WIDTH <sup>1-3</sup>		GRADIENT		BRUSHING WIDTH				SURFACING <sup>3</sup>								REMARKS	
					MAXIMUM DEGREE OF CURVE	SUBGRADE	DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	BEYOND		EXISTING ROAD(S)		BASE COURSE				SURFACE COURSE					
										TOP CUT	TOE FILL	L	R	MINIMUM WIDTH	COMPACTION DEPTH	TYPE <sup>2</sup>	GRADING	MINIMUM WIDTH	COMPACTION DEPTH	TYPE <sup>2</sup>	GRADING		
40-8-5.0	0.00	0.30	0.30	3		14'	-	-	-			4	4								NAT		
Temp Rd 8.05	0.00	0.15	0.15	3		17'	-	-	-			4	4								NAT		
Temp Rd 34-2A	0.00	0.05	0.05	3		14'	-	-	-			4	4								NAT		

### NOTES

#### 1. EXTRA SUB-GRADE WIDTHS

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

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

MATERIALS      CUT SLOPE      FILL SLOPE

COMMON      1/2 : 1      1 1/2 : 1

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

SOLID ROCK      1/2 : 1      angle of repose

#### 2. SURFACING TYPES

- PIT RUN ROCK
- GRID ROLLED ROCK MATERIAL
- SCREENED ROCK MATERIAL
- CRUSHED ROCK MATERIAL

#### 3. TURNOUTS

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

#### 4. SURFACING

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

#### 5. CLEARING WIDTH

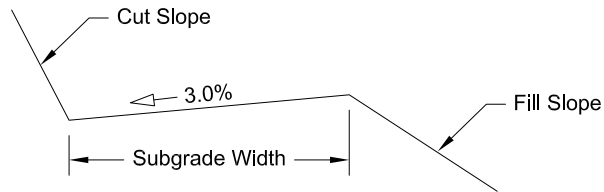
SEE SUBSECTION 2100

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SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
EAST WEST JUNCTION TIMBER SALE SPECIFICATION SHEET			
DESIGNED: <u>C. Smith</u>			
REVIEWED: <u>E. Freeman</u>			
APPROVED: <u>J. Roper, Lead Engineer</u>			
DRAFTED BY: CLS		SCALE: NONE	
DATE: DEC 2012		SHEET: 2 OF 3	
DRAWING NO.: OR-11-9113.4-1			

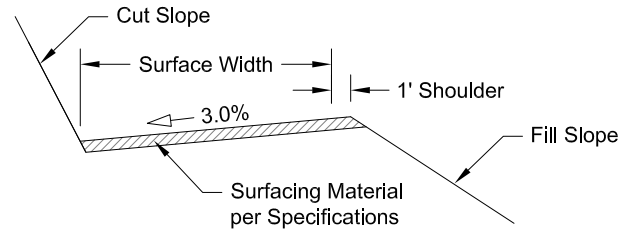
# EXHIBIT C4

## SHEET 3 OF 3



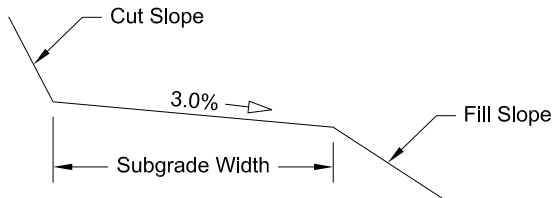
TYPICAL GRADING SECTION

TYPE 1



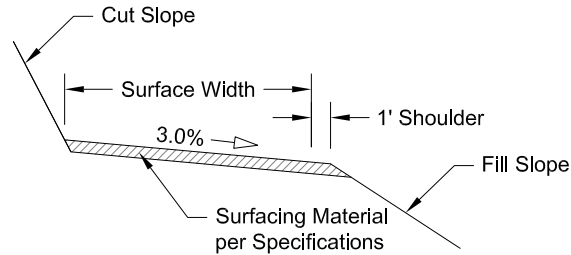
TYPICAL SURFACING SECTION

TYPE 2



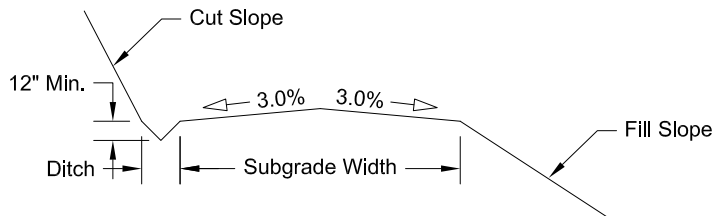
TYPICAL GRADING SECTION

TYPE 3



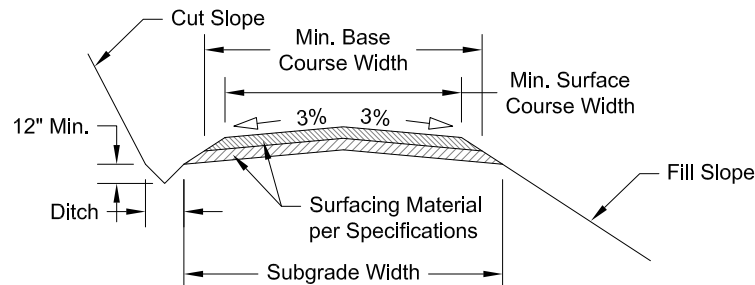
TYPICAL SURFACING SECTION

TYPE 4



TYPICAL GRADING SECTION

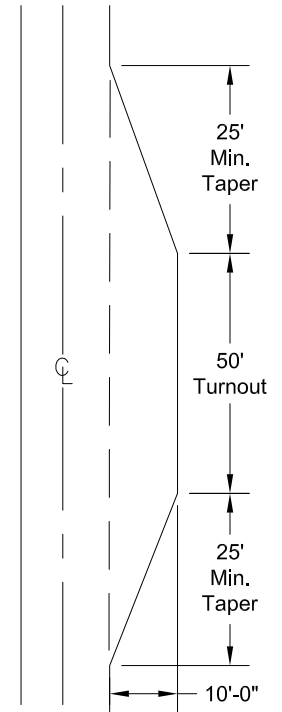
TYPE 5



TYPICAL SURFACING SECTION

TYPE 6

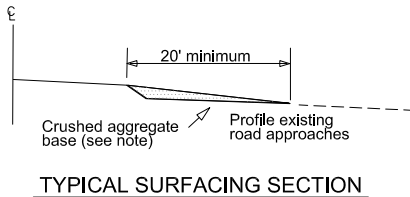
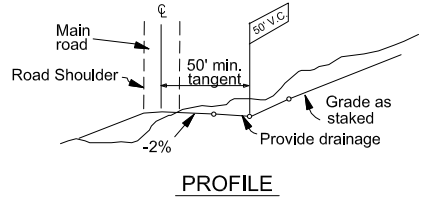
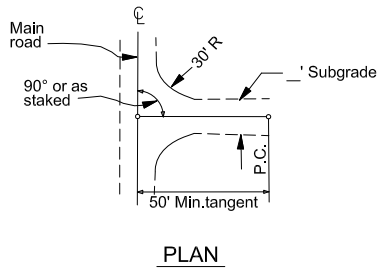
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TYPICAL TURNOUT  
PLAN VIEW

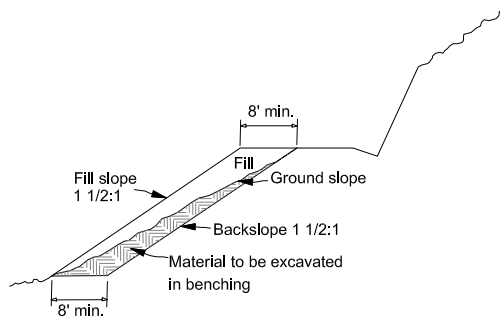
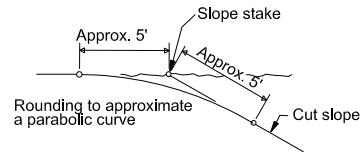
REV. NO.	DESCRIPTION	DATE	APPROV.
	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON		
	EAST WEST JUNCTION TIMBER SALE SPECIFICATION SHEET		
DESIGNED:	C. Smith		
REVIEWED:	E. Freeman		
APPROVED:	J. Roper, Lead Engineer		
DRAFTED BY:	CLS	SCALE:	NONE
DATE:	DEC 2012	SHEET:	3 OF 3
DRAWING NO.:	OR-11-9113.4-1		

## TYPICAL ROAD APPROACHES



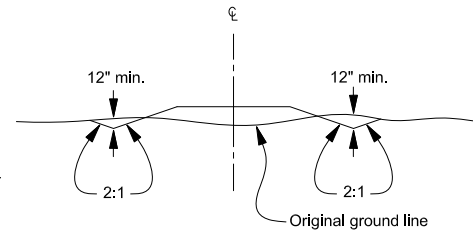
### NOTES:

1. The profile of the existing approach roads shall be tapered to meet the shoulder line of the main roadway and shall receive the same wearing surface.
2. The crushed aggregate base shall be of the same gradation as used in the adjacent roadbed.
3. Approaches shall be finished with the same treatment as shown for the adjacent roadbed.



### TYPICAL RANDOM FILL

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

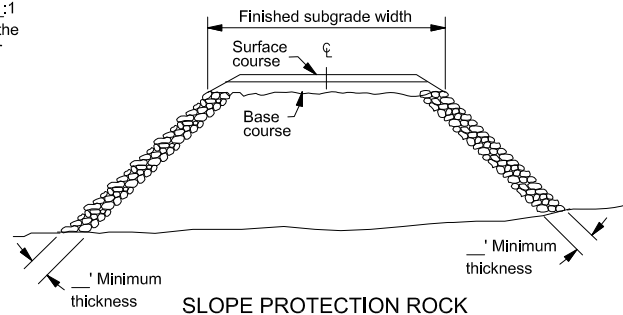
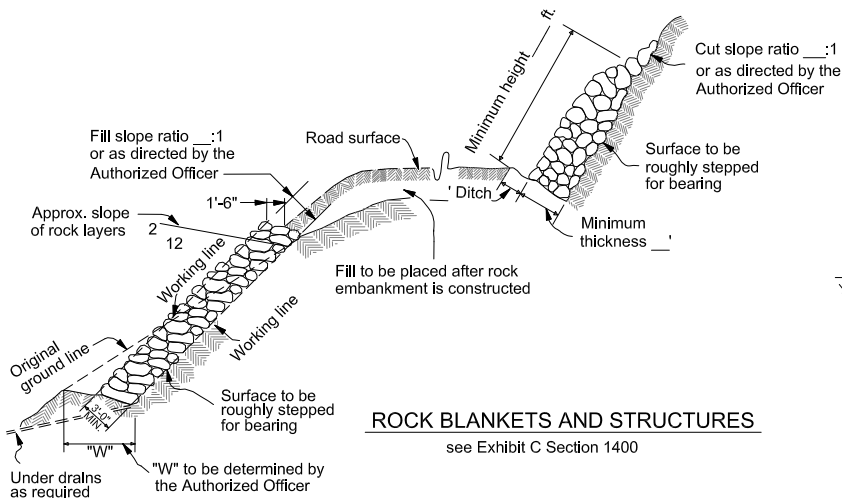
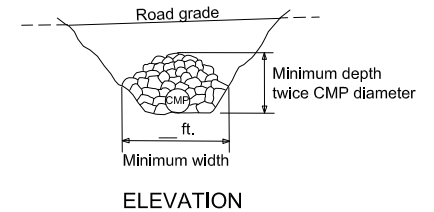
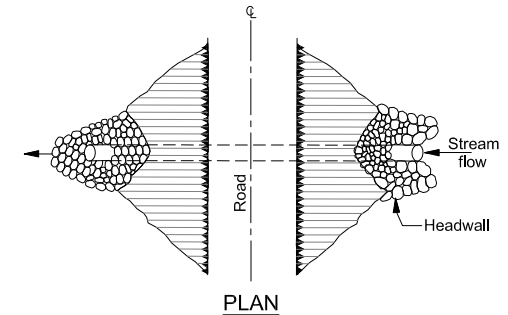
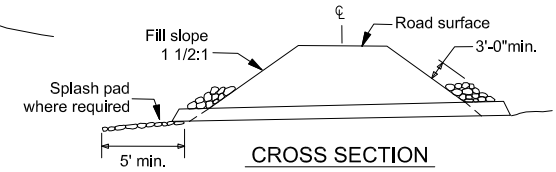


### NOTES: RIPRAP AT CULVERTS

1. Riprap shall be placed in such a manner that it will not damage the culvert.
2. Trenching will be done as required by the Authorized Officer.
3. Minimum depth of splash pads shall be 1FT.
4. Minimum quantity shall be 1CY per culvert.
5. Riprap shall be placed before October 1st of the year the culvert is installed.

# EXHIBIT C5 SHEET 1 OF 1

### RIPRAP AT CULVERTS



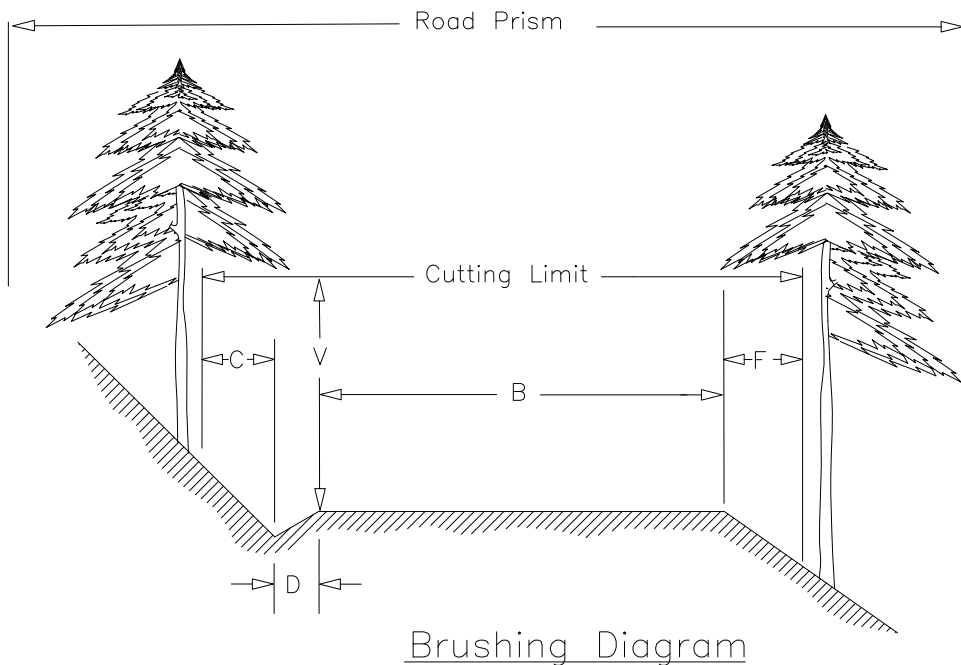
ALWAYS  
THINK  
SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
EAST WEST JUNCTION TIMBER SALE TYPICAL ROAD DATA			
DESIGNED:	C. Smith		
REVIEWED:	E. Freeman		
APPROVED:	J. Roper, Lead Engineer		
DRAFTED BY:	CLS	SCALE:	NONE
DATE:	NOV 2012	SHEET:	1 OF 1
DRAWING NO.:	OR-11-9113.4-4		



# EXHIBIT C6

## SHEET 1 OF 1



$$\text{Cutting Limit} = C + D + B + F$$

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

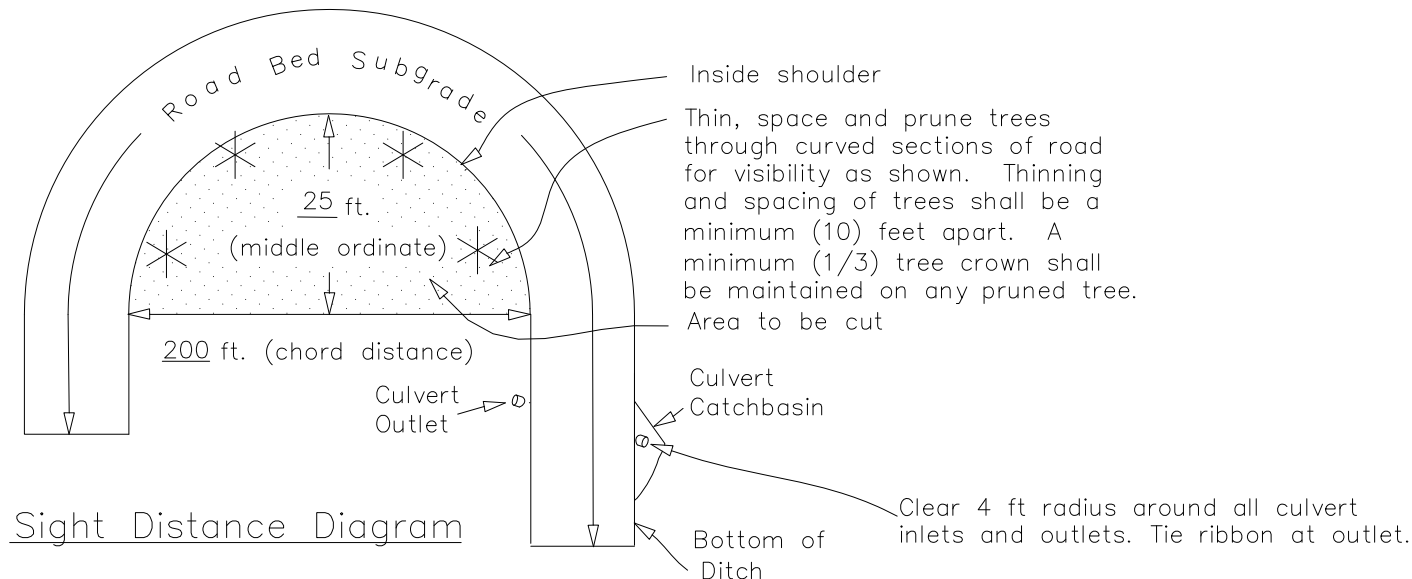
C = 4 ft – Distance to be brushed on cut slope  
beyond centerline of ditch. Cut all vegetation to max height of 6".

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

F = Distance to be brushed on fill slope beyond outside shoulder  
Cut all vegetation to max. height of 6".

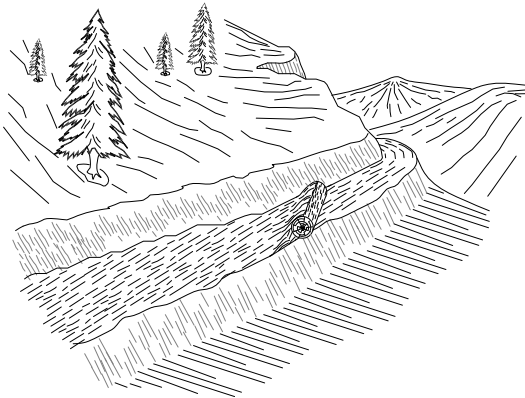
V = 14 ft – Height of vertical cutting limit

Inside Corner

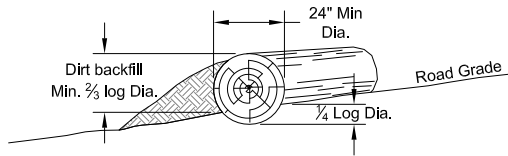


REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
EAST WEST JUNCTION TIMBER SALE ROADSIDE BRUSHING DETAIL			
DESIGNED:	<u>E. Freeman</u>		
REVIEWED:	<u>E. Freeman</u>		
APPROVED:	<u>J. Roper, Lead Engineer</u>		
DRAFTED BY: ELF	SCALE: NONE		
DATE: NOV 2012	SHEET: 1 OF 1		
DRAWING NO.: OR-11-9113.4-4			

EXHIBIT C7  
SHEET 1 OF 1



LOG BARRICADE

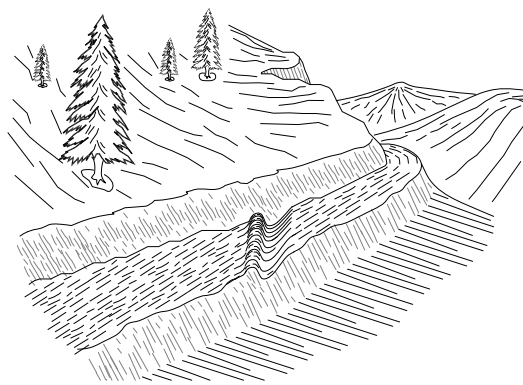
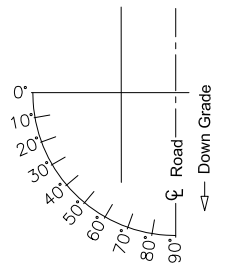


1. Log barricade shall be constructed as shown above.
2. Exact location will be flagged by the authorized officer prior to construction.
3. All barricades shall be skewed 30 degrees.
4. The length shall be sufficient to extend from the cut bank to the fill slope.
5. The minimum small end diameter of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

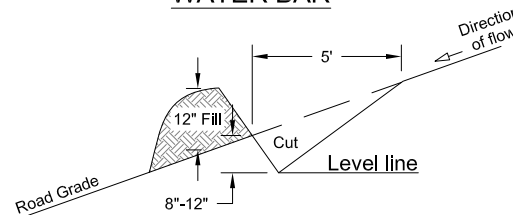
## BARRICADE LOCATION

[illegible]

### SKEW DIAGRAM



## WATER BAR



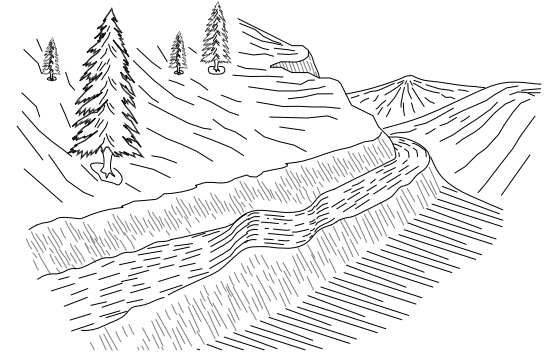
1. Water bars shall be constructed as shown above.
2. Exact location will be flagged by the Authorized Officer prior to construction.
3. All water bars shall be skewed 30 degrees.
4. Upon completion of skidding logs, for the logging season, each skid road will have cross drainage constructed as shown above.

## WATER DIP/BAR SPACING\*

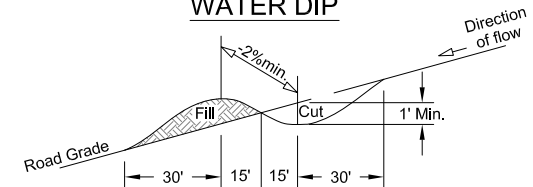
ROAD GRADE	LOAM OR CLAY LOAM	DECOMPOSED GRANITE
%	FEET	FEET
4-6	400	300
7-9	300**	200**
10-14	200	150
15-20	150	90
21-40	90	50
41-60	50	25

\* Distances are maximum.

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



## WATER DIP

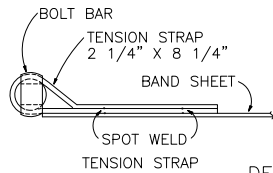


1. Water dips shall be constructed as shown above.
2. Exact location will be flagged by the Authorized Officer prior to construction.
3. All water dips shall be skewed 30 degrees.
4. The length shall be sufficient to extend from the cut bank to the fill slope and be readily crossed by passenger type vehicles.
5. Rock outlet of water dip on fill slope. Rock will be placed from outlet to natural ground a minimum of \_\_\_\_ft. wide by \_\_\_\_ft deep.

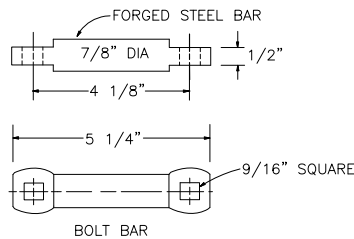
REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
EAST WEST JUNCTION TIMBER SALE DRAINAGE & EROSION CONTROL INSTALLATION			
DESIGNED: <u>C. Smith</u>			
REVIEWED: <u>J. Roper</u>			
APPROVED: <u>J. Roper, Lead Engineer</u>			
DRAFTED BY: CLS		SCALE: NONE	
DATE: NOV 2012		SHEET: 1 OF 1	
DRAWING NO.: OR-11-9113.4-4			

ALWAYS  
THINK  
SAFETY

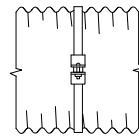
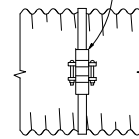
NOTE:  
DESIGN VARIATIONS IN FASTENERS,  
(STRAPS, BARS & WELDS) WHICH  
PROVIDE A TENSILE STRENGTH OF  
7500 LBS. ARE PERMISSIBLE.



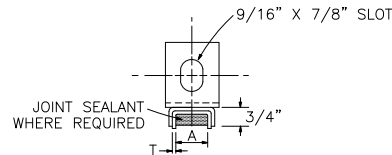
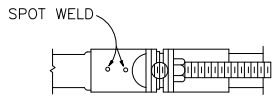
DETAIL A



TENSION STRAP  
AND BOLT BAR.  
SEE DETAIL A

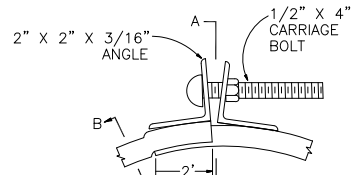


CHANNEL  
BAND  
COUPLER

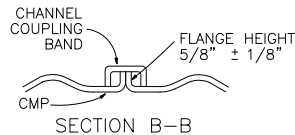


DIMENSIONS IN INCHES		
T	A	PIPE WALL THICKNESS
.079	3/4	.109 OR LIGHTER
.109	1	.138 OR HEAVIER

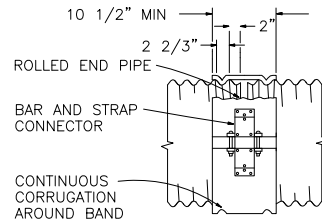
SECTION A-A



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



SECTION B-B



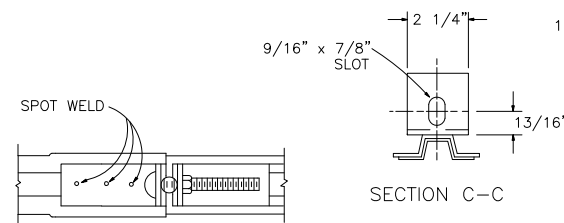
STANDARD CONSTRUCTION IS 1 PIECE 12\"/>

"HUGGER"  
COUPLER BANDS

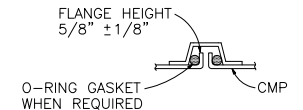
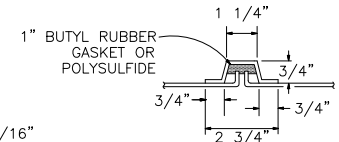
THE HUGGER COUPLER BAND OR AN APPROVED EQUIVALENT COUPLER BAND SHALL BE MADE OF THE SAME MATERIAL AND FINISH AS THE PIPES JOINED. THE COUPLER BANDS SHALL HAVE A MINIMUM WIDTH OF 10 1/2 INCHES AND MAY BE TWO NUMERICAL THICKNESSES LIGHTER THAN THE GAGE OR THICKNESS DESIGNATED FOR THE CONDUIT JOINED. THE BAND SHALL BE DESIGNED TO BE DRAWN TOGETHER WITH TWO 1/2 INCH BOLTS THROUGH USE OF A BAR AND STRAP SUITABLY WELDED TO THE BAND. THE BAND SHALL ENGAGE AND MESH WITH THE SECOND ANNULAR CORRUGATION INWARD FROM THE END OF EACH OF THE CONDUIT SECTIONS JOINED.

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

# EXHIBIT C 8 SHEET 1 OF 1

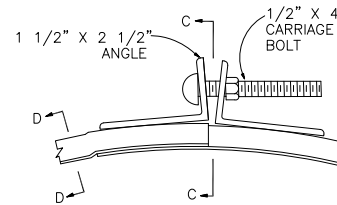


SECTION C-C

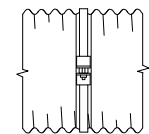


SECTION D-D

SHOWN WITH ALTERNATE TYPES  
OF JOINT SEALERS



FLANGED END COUPLER



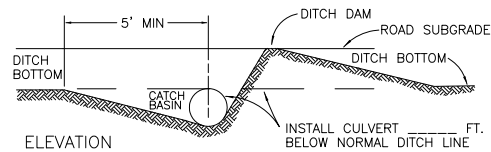
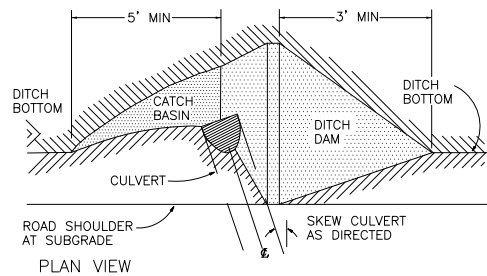
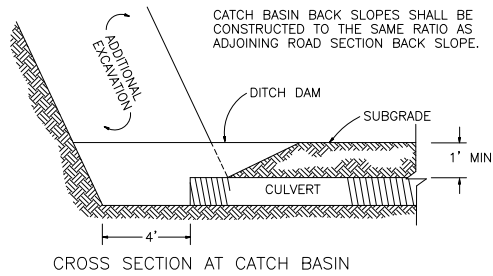
STANDARD COUPLER BANDS												
CORRUGATED									FLAT—DIMPLED			
CULVERT SIZE INCHES	STD. ANNULAR		HELICAL		3" X 1"		6" X 1"		WIDTH	NO. OF ROWS OF DIMPLES	NO. OF BOLTS	
	WIDTH	NO. OF BOLTS	WIDTH	NO. OF BOLTS	WIDTH	NO. OF BOLTS	WIDTH	NO. OF BOLTS			(A)	(B)
UNDER 18	7	2	7	2					10 1/2	2	2	2
18 TO 54	12	3	12	3	14	3	18	3	10 1/2	2	3	2
OVER 54	24	5	24	5	24	5	24	4	16 1/2	4	5	4

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

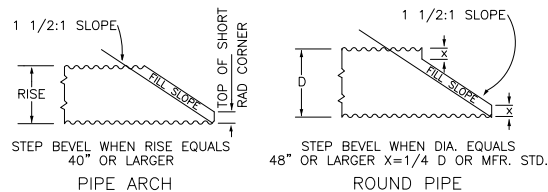
- (A) BANDS WITH ANGLES  
(B) BANDS WITH TENSION TYPE CONNECTIONS

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
EAST WEST JUNCTION TIMBER SALE CULVERT BAND DETAIL			
DESIGNED:	J. Roper		
REVIEWED:	J. Roper		
APPROVED:	J. Roper, Lead Engineer		
DRAFTED BY:	JR	SCALE:	NONE
DATE:	JUNE 2002	SHEET:	1 OF 1
DRAWING NO.: OR-11-9113,4-5			

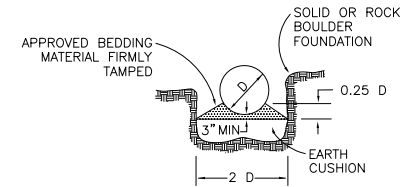
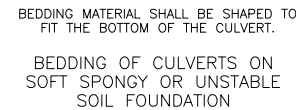
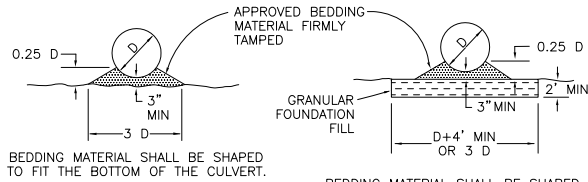
# EXHIBIT C \_9\_ SHEET \_1\_ OF \_1\_



CATCH BASIN



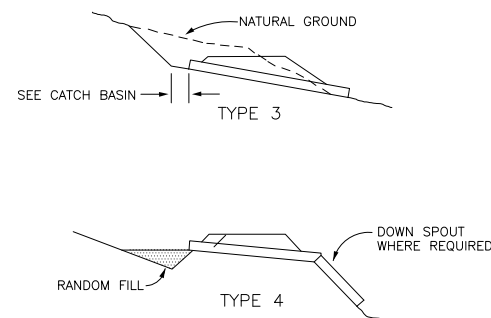
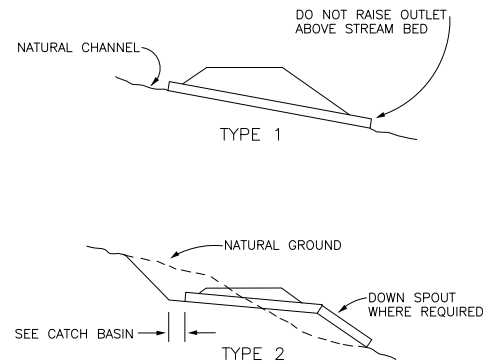
BEVELED END DETAIL



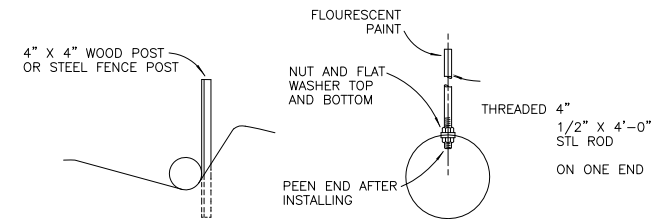
BEDDING MATERIAL SHALL BE SHAPED TO FIT THE BOTTOM OF THE CULVERT. EARTH CUSHIONING OF SILTY CLAY LOAM OR SAND MAY BE USED IF MATERIAL CAN BE PLACED IN THE DRY CONDITION. IF THE EXCAVATION IS WET, USE GRANULAR FOUNDATION FILL MATERIAL. MAINTAIN 8" MIN. DEPTH BETWEEN HIGH POINTS OF ROCKS AND/OR BOULDERS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

BEDDING OF CULVERT IN SOLID ROCK OR BOULDER FOUNDATION

## BEDDING OF CULVERTS

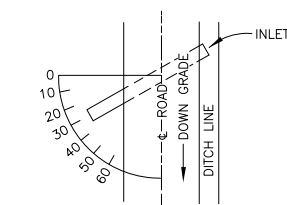


CULVERT INSTALLATION TYPES



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

CULVERT MARKER INSTALLATION



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

SKIEW DIAGRAM

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
EAST WEST JUNCTION TIMBER SALE CULVERT INSTALLATION DETAILS			
DESIGNED BY:	J. Roper		
REVIEWED BY:	J. Roper		
APPROVED BY:	J. Roper, Lead Engineer		
DRAFTED BY:	JR	SCALE:	NONE
DATE:	JUNE 2002	SHEET:	1 OF 1
DRAWING NO.:	OR-11-9113,4-6		

### SPECIAL PROVISIONS

1. All road segments not completed during dry weather periods shall be winterized, by providing a well-drained roadway by water barring, maintaining drainage and any additional measures necessary to minimize erosion and other damage to the roadway, as directed by the Authorized Officer. Any portion of road not having surfacing rock in place will be blocked or barricaded to prevent vehicular traffic.
2. Before beginning road construction operations for the first time or after a shutdown of seven or more days, the Purchaser shall notify the Authorized Officer of the date he plans to begin operations. The Purchaser shall also notify the Authorized Officer if he intends to cease operations for any period of 30 or more days.
3. Prior to entering BLM lands, construction equipment shall be washed and free of all dirt, grease, and plant parts that may carry noxious weed seeds or vegetative parts, at home unit or approved wash stations. Water sources shall be approved by the authorized officer and shall be un-infested water sources or water shall be treated with Clorox Bleach at a rate of 1 gallon of bleach to 1000 gallons of water. Equipment shall be inspected by the Authorized Officer prior to entering BLM lands and after required washings.
5. The P-line and location lines flagged in the field and as shown on Exhibit C, are intended to be used as a control, and should be considered as being in the area of the finished alignment.
6. Proposed rock source: Commercial – Grants Pass/Cave Junction area.
7. All turnouts and landings shall be staked for length and width 24 hours in advance of surfacing operations.
8. Curve widening, as shown on the plans, shall be surfaced per Section 1000.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

ROAD SPECIFICATIONS

Road No(s).

39-7-8B, 39-7-8C, 39-7-8D, 39-7-8E, 39-7-17, 39-7-21.1, 39-8-29, 39-8-29.1,  
39-8-29.3, 39-8-29.4, 39-8-31B, 40-8-3.0, 40-8-3.1, 40-8-4.0, 40-8-5.0, Temp Rd 8.05, and  
Temp Rd 34-2A

Sections 8, 17, 20, 21, T.39 S., R. 7 W.,  
Sections 29, 34, T.39 S., R. 8 W.,  
Sections 3, 5, 9, T.40 S., R. 8 W.,

Willamette Meridian

Josephine County, Oregon

INDEX

100	GENERAL
200	CLEARING AND GRUBBING
300	EXCAVATION AND EMBANKMENT
400	PIPE CULVERTS
500	RENOVATION OF EXISTING ROADS
600	WATERING
900	AGGREGATE BASE COURSE (SCREENED ROCK)
1200	AGGREGATE SURFACE COURSE (CRUSHED ROCK)
1400	SLOPE PROTECTION
2100	ROADSIDE BRUSHING
2300	SLOPE STAKING

GENERAL - 100

101 - Prewrite Conference(s):

A prework conference will be held prior to the start of new construction, reconstruction, and brushing operations. The Purchaser shall request the conference at least 48 hours prior to the time it is to be held. The conference will be attended by the Purchaser and/or his representative(s), subcontractor(s) and/or his or their representative(s) and the Authorized Officer and/or his representative(s).

The purpose will be to review the required work, exhibits and specifications, and to establish a work schedule and a list of the Purchaser's representatives and subcontractor(s). A Prewrite conference shall be scheduled at the work site.

102 - Definitions:

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

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

ACI - American Concrete Institute.

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

ASTM - American Society for Testing and Materials.

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

BLM - Bureau of Land Management

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

Road Centerline - Longitudinal center of roadbed.

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

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

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

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

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

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

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

Spalls - Flakes or chips of stone.

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

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

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

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

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

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

Tackifier - A compound which facilitates the penetration of the compound into the earth and assists in creating a crust through the cohesive bonding of the surface materials to a depth sufficient to stabilize the soil surface.

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

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

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

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

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

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

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

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

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

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

102a - Tests Used in These Specifications:

<u>AASHTO T 11</u>	Quantity of rock finer than No. 200 sieve.
<u>AASHTO T 27</u>	Sieve analysis of fine and coarse aggregate using sieves with square openings; gradation.
<u>AASHTO T 89</u>	Liquid limit of material passing the No. 40 sieve. Water content at which the soil passes from a plastic to a liquid state.
<u>AASHTO T 90</u>	Plastic limits and plasticity index of soil. a. Plastic limit - lowest water content at which the soil remains plastic. b. Plasticity index - range of water content, within which the material is in a plastic state. Numerical difference between the liquid and plastic limits of the soil.
<u>AASHTO T 96</u>	Resistance to abrasion of small size coarse aggregate by use of the Los Angeles machine.
<u>AASHTO T 99</u>	Relationship between soil moisture and maximum density of soil. Method A - 4 inch mold, soil passing a No. 4 Sieve.25 blows/layer & 3 layers. Method D - 6 inch mold, soil passing a 19.00mm (3/4 inches) sieve. 56 blows/layer & 5 layers.
<u>AASHTO T 176</u>	Shows relative portions of fine dust or clay-like materials in soil or graded aggregate.
<u>AASHTO T 180</u>	(OSHD 106-71) moisture density relationship of soil same as AASHTO T 99 proctor but uses a 10-lb rammer and 18-in drop.

AASHTO T 191     Sand Cone. Density of soil in place: For subgrade use 6-inch or 12-inch cone. For rock surfacing for 1-1/2-inch minus to 3-inch minus use 12-inch cone.

AASHTO T 205     Rubber balloon. Density of soil in place. Use for compacted or firmly bonded soil.

AASHTO T 210     Durability of aggregates based on resistance to produce fines.

AASHTO T 224     Correction for coarse particles in the soil.

AASHTO T 238     Determination of density of soil and soil-aggregates in place by nuclear methods.

AASHTO T 248     Reducing field samples of aggregate to testing size by mechanical splitter, quartering, or miniature stockpile sampling.

DES. E-12                      Determination of relative density of cohesionless soils.

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

103     -     Compaction equipment shall meet the following requirements:

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

The towing vehicle and roller or self-propelled unit meeting the above requirements shall be considered a vibratory roller unit.

103h     -     Drum drive self-propelled vibratory grid roller. The unit shall consist of one cylindrical drum with a drum diameter of not less than 56 inches, nor more than 66 inches and the drum width shall be 84 inches. Vibratory frequency shall be regulated in seeps from 1200 to 1800 vibrations per minute (VPM), and the centrifugal force developed shall be at least 40,000 pounds at 1800 RPM. The vibratory grid roller

shall be self-propelled and have a power unit of not less than 112 horsepower. The "grid" design shall be a herringbone or z-bar pattern around the circumference of the drum. The grid bars shall be 1 inch in height and spaced not more than 8-1/2 inches apart.

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

#### CLEARING AND GRUBBING - 200

- 201 - This work shall consist of clearing, grubbing, removing and disposing of vegetation, debris, surface objects, and protruding obstructions within the clearing limits in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans.
- 202 - Where clearing limits have not been staked, established by these specifications or shown on the plans, the limits shall extend 2 feet back of the top of the cut slope and 2 feet out from the toe of the fill slope.
- 202a - Where clearing limits for structures have not been staked or shown on the plans, the limits shall extend 5 feet out from the outside edge of the structure.
- 203 - Clearing shall consist of the removal and disposal of trees, logs, rotten material, brush, and other vegetative materials and surface objects in accordance with these specifications and within the limits established for clearing as specified under Subsection(s) 202, and 202a and as shown on the plans.
- 203a - Brush under 0.5 feet in height need not be cut within the limits established for clearing.
- 203b - Standing trees and snags to be cleared shall be felled within the limits established for clearing, unless otherwise authorized.
- 203c - Disposal of logs from private timber cleared within the limits established, as shown on the plans shall consist of decking at a location designated by the Authorized Officer as staked on the ground.
- 204 - Grubbing shall consist of the removal and disposal of stumps, roots, and other wood material embedded in the ground, and protruding obstacles remaining as a result of the clearing operation in accordance with Subsection(s) 204a, 204b, 204c, 204d, and 204e between the top of the cut slope and the toe of the fill slope. Undisturbed stumps, roots and other solid objects which will be a minimum of 2 feet below subgrades or slope surfaces of embankments are excepted.
- 204a - Stumps shall be removed within the required excavation limits.

- 204b - Stumps and other protruding objects shall be completely removed within the limits of required embankments having heights of less than 4 feet.
- 204c - On excavated areas, roots and embedded wood shall be removed to a depth not less than 6 inches below the subgrade.
- 204d - On areas to be occupied by embankments having heights greater than 4 feet, no stump or portion thereof shall remain within 3 feet of embankment subgrades or slope surfaces after grubbing is completed.
- 204e - Roots and embedded wood material shall be removed to a depth not less than 1 foot below embankment subgrades or slope surfaces.
- 205 - Clearing and grubbing debris shall not be placed or permitted to remain in or under road embankment sections.
- 206 - Disposal of clearing and grubbing debris shall be by scattering over government owned lands outside of established clearing limits in a manner acceptable to the Authorized Officer. The areas for such scattering shall have the prior approval of the Authorized Officer.
- 207 - No grading will be permitted prior to completion and approval by the Authorized Officer of the required clearing and grubbing work, except that stump grubbing may proceed with the excavation of the road prism.
- 208 - No clearing or grubbing debris shall be left lodged against standing trees.

#### EXCAVATION AND EMBANKMENT - 300

- 301 - This work shall consist of excavating, overhaul, placement of embankments, backfilling, borrowing, leveling, ditching, grading, insloping, outsloping, crowning and scarification of the subgrade, compaction, disposal of excess and unsuitable materials, and other earth-moving work in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans.
- 302 - Excavation shall also consist of the excavation of road and landing cut sections, borrow sites, backfilling, leveling, ditching, grading, compaction and other earth moving work necessary for the construction of the roadway in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans,(and as marked on the ground with stakes or metal tags).
- 303 - Suitable material removed from the excavation shall be used in the formation of embankment subgrade, shoulders, slopes, bedding, backfill for structures, and for other purposes as shown on the plans.

- 305 - Embankment construction shall consist of the placement of excavated and borrowed materials, backfilling, leveling, grading, compaction, and other earth-moving work necessary for the construction of the roadway and landings in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans, and as marked on the ground with stakes or metal tags.
- 305a - Material used in the construction of embankment sections shall be free of stumps, cull logs, brush, muck, sod, roots, frozen material and other deleterious materials and shall be placed and compacted as specified.
- 305b - Embankment materials shall be placed in successive parallel layers on areas cleared of stumps, cull logs, brush, sod, and other vegetative and deleterious materials, except as provided under Subsection 204.
- 305c - Embankments formed of material containing less than 25 percent rock not larger than 8 inches in the greatest dimension shall be placed in 12-inch layers. Material containing more than 25 percent rock not larger than 12 inches in the greatest dimension shall be placed in successive layers not exceeding 2 feet in thickness. Individual rocks and boulders greater than 12 inches in diameter may be used to construct 2 foot embankment layers, provided they are carefully distributed, with interstices filled with fine material to form a dense and compact mass.
- 305d - Where embankments are constructed predominantly of blasted rock material, depth of layers shall not exceed 4 feet. Rock fragments having dimensions greater than 4 feet will be permitted provided that they have no dimensions greater than 6 feet and that clearance between adjacent fragments is adequate for the placing and compacting of material in horizontal layers as specified, and that no part of the larger fragments comes within 4 feet of subgrade.
- 306 - Layers of embankment final subgrade material as specified under Subsections 305a, 305b, and 305c, shall be moistened or dried to a uniform optimum moisture content suitable for maximum density and compacted to full width with compacting equipment conforming to requirements of Subsections 103f, 103h, and 103i.
- 306a - Minimum compaction for each layer of embankment and selected roadway excavation material placed shall be 1 hour of continuous compacting for each 150 cubic yards in place or fraction thereof.
- 306e - The final subgrade including landings shall be compacted to full width with compacting equipment conforming to the requirements of Subsections 103b, 103e, 103f, 103h, and 103i. Minimum compaction shall be 1 hour of continuous compacting for each 6 stations of road or a fraction of as measured along the center line of the constructed road. Landings and turnouts shall be compacted by routing construction equipment over full width.
- 308 - In the case of rock fills, placement of material in layers is not required and such material may be placed by end-dumping or other methods approved by the Authorized

Officer provided that the rock be reasonably prevented from escaping beyond the embankment toe.

- 311 - In solid rock cuts where pockets that will not drain are formed by blasting below the subgrade elevation, drainage shall be provided by ditching to the edge of the subgrade and backfilling to grade and compacting both the pockets and the ditch with rock fragments, gravel, or other suitable porous material.
- 312 - When material, except solid rock, encountered in cuts at subgrade, is suitable for use in forming the finished roadbed, the top 6-inch layer of the subgrade shall be thoroughly scarified for the full width of the roadbed. Roots, sod, and other deleterious material or stones that will not pass a 6-inch square opening shall be removed. The scarified material shall be processed to the optimum moisture content suitable for maximum density and compacted in accordance with these specifications.
- 313 - In cut areas where solid rock is encountered at, or near subgrade, the rock shall be excavated to a minimum depth of 6 inches below subgrade elevation and the excavated area backfilled with suitable material. The backfill material shall be processed to the optimum moisture content suitable for maximum density and compacted to full width in accordance with the requirements of Subsection 306.
- 314 - When heavy clays, muck, clay shale, or other deleterious material for forming the roadbed is encountered in cuts at subgrade, it shall be excavated to a minimum depth of 2 feet below the subgrade elevation and the excavated area backfilled with a selected borrow material approved by the Authorized Officer. The backfill material shall be uniformly moistened or dried to the optimum moisture content suitable for maximum density in accordance with the requirements of Subsection 306. Unsuitable material shall be disposed of as directed by the Authorized Officer.
- 320 - Ditches shall conform to the slope, grade, dimensions, and shape of the required cross section shown on the plans. Roots, stumps, rocks, and other projections shall be removed to form smooth, even slopes.
- 321 - Excess excavated, unsuitable, or slide materials shall not be disposed of on areas where the material will encroach on a stream course or other body of water. Such materials shall be disposed of in a location as approved by the Authorized Officer.
- 321c - End-dumping will be permitted for the placement of excess materials under Subsection 321 in designated disposal areas or within areas approved by the Authorized Officer. Watering, rolling, and placement in layers is not required. Materials placed shall be sloped, shaped, and otherwise brought to a neat and sightly condition acceptable to the Authorized Officer.
- 322 - When so indicated on the plans, selected coarse rock encountered in the excavation shall be conserved for slope protection or special rock embankment purposes and placed in accordance with the requirements and details of Section 1400 of these specifications and as shown on the plans.



- 323 - In the construction of channel changes and stream crossing embankment sections, natural stream flow shall be maintained unless otherwise provided.
- 324 - Excavated material shall not be allowed to cover boles of standing trees to a depth in excess of 2 feet on the uphill side.
- 327 - The finished grading shall be approved in writing by the Authorized Officer in segments. The Purchaser shall give the Authorized Officer 3 days notice prior to final inspection of the grading operations.
- 328 - The Purchaser shall adopt methods and procedures in using explosives, which will prevent damage to adjacent landscape features, and which will minimize scattering rocks and other debris outside the road prism.
- 328a - The Purchaser shall establish and be responsible for blasting techniques and shall furnish the Authorized Officer, prior to starting drilling operations, a blasting plan specifying drill-hole diameter, drill-hole spacing, depth of drilling, type of explosive to be used, loading pattern, sequence of firing, the location where the plan is to be used, and other relevant data. Acceptance of the drilling and blasting plan does not relieve the Purchaser of responsibility or liability for the results of the blasting.

#### PIPE CULVERTS - 400

- 401 - This work shall consist of furnishing and installing pipe culverts, half rounds, downspouts, elbows and other erosion control devices in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans. Individual lengths and locations are approximate; final lengths and locations will be determined by the Authorized Officer from established construction stakes. Additional pipe and erosion control devices may be required at the option of the Authorized Officer, in which case a reduction in the total purchase price shall be made to offset the cost of furnishing and installing such items. Costs will be based upon the unit prices set forth in the current BLM Timber Appraisal Production Cost Schedule.
- 402 - The pipe culverts will be located at the road locations as shown on the Exhibit C drawings.
- 403 - Grade culverts shall have a gradient of from 2 percent to 4 percent greater than the adjacent road grade and 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 and aluminum-rich paint on aluminum or aluminum-coated pipe.

- 405 - Corrugated steel riveted and helical pipe culverts and pipe-arch culverts and special sections shall conform to the requirements of AASHTO M 36 and AASHTO M 218 or AASHTO M 274 as specified on the plans.
  
- 405a - Corrugated-steel-welded pipe culverts and pipe-arch culverts and special sections shall conform to the requirements of AASHTO M 36 and AASHTO M 218 or AASHTO M 274 as specified on the plans.
  
- 405b - Corrugated-aluminum-alloy pipe culverts and pipe-arch culverts shall conform to the requirements of AASHTO M 196.
  
- 405c - Corrugated-steel-structural plate pipe culverts and pipe-arch culverts shall conform to the requirements of AASHTO M 167, except that single plates may exceed 75 pounds in weight.
  
- 405d - Corrugated-aluminum-structural plate pipe culverts and pipe-arch culverts and special sections shall conform to the requirements of AASHTO M 219.
  
- 405f - Ring gaskets for rigid pipe shall meet the requirements of AASHTO M 198. Continuous flat gaskets for flexible metal pipe shall meet the requirements of ASTM D 1056, with grade RE 41 used for bands with projections or flat bands, and grade RE 43 used for corrugated bands. When used with metal pipe with annular reformed ends, the ring gasket shall be one-fourth greater in diameter than the depth of the corrugation. Gasket thickness for bands with projections or flat bands shall be 1/2 inch greater than the nominal depth of the corrugation and shall be 3/8 inch for corrugated bands. For pipe with flanged ends, a butyl-rubber-strip gasket shall be placed inside the channel band.
  
- 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 2 annular corrugations.
  
- 406b - Coupling bands produced from flat galvanized steel sheets with impressed dimples will be permitted only for connecting annular corrugated steel pipe to helically corrugated steel pipe. Such coupling bands shall conform to the width requirements shown on the plans.
  
- 406c - Elbow sections used in conjunction with full-round pipe culvert downspouts shall be connected at both ends by "Hugger"-type bands, and "O" ring neoprene gaskets shall be inserted between the band and pipe as shown on the plans to ensure a watertight joint.

- 406f - Channel-type coupling bands may be used on helical pipe with reformed rolled ends and flanged specifically to receive these bands. Such coupling bands shall conform to the requirements shown on the plans.
- 407a - Flumes and half rounds conforming to the material and construction requirements shown on the plans shall be constructed for culverts at the locations as specified in the plans.
- 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 types 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 compactible soil material.
- 413 - Pipe culverts and pipe-arch culverts shall be bedded on a selected granular or fine readily compactible soil material having a depth of not less than 10 percent of the diameter or height of the drainage structure concerned or a minimum depth of:

<u>Pipe Corrugation Depth</u>	<u>Minimum Bedding Depth</u>
2 inch	1 inch
1 inch	2 inches
2 inches	3 inches

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

- 414 - The invert grade of the bedding shall be cambered in accordance with the requirements and details shown on the plans and as directed by the Authorized Officer.

- 414a - The invert grade of the bedding shall be cambered at the middle ordinate a minimum of 1 percent of the total length of the drainage structure. Camber shall be developed on a parabolic curve.
- 421 - Trenches and bedding rock necessary for the installation of perforated pipe shall conform to the lines, grades, dimensions, and typical diagram shown on the plans.
- 423 - Construction of catch basins and ditch dams conforming to lines, grades, dimensions and typical diagrams shown on the plans, shall be required for culverts.
- 424 - Construction of splash pads conforming to lines, grades, dimensions, and typical diagram shall be required for grade culverts and culverts at the locations as shown in the plans.
- 427 - The Purchaser shall 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.

#### RENOVATION OF EXISTING ROADS - 500

- 501 - This work shall consist of reconditioning and preparing the roadbed and shoulders, cleaning and shaping drainage ditches, trimming vegetation from cut and embankment slopes, and cleaning and repairing drainage structures of existing roads in accordance with these specifications, as shown on the plans, 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.
- 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.
- 503 - Debris from slides shall be disposed of as directed by the Authorized Officer.
- 504a - Minimum compaction required shall be one (1) hour of continuous (rolling) for each (4) stations of road, or fraction thereof, as measured along the centerline, per layer of material.
- 506 - The inlet end of existing drainage structures shall be cleared of vegetative debris and boulders that are of sufficient size to obstruct normal stream flow. Pipe inverts shall be cleared of sediment and other debris lodged in the barrel of the pipe. The outflow area of pipe structures shall be cleared of rock and vegetative obstructions which will

impede the structures designed outflow configuration. Catch basins shall conform to the lines, grade, dimensions, and typical diagram shown on the plans.

- 507 - The finished grading shall be approved in writing by the Authorized Officer. The Purchaser shall give the Authorized Officer 3 days notice prior to final inspection of the grading operations.

#### WATERING - 600

- 601 - This work shall consist of furnishing and applying water required for the compaction of embankments, roadbeds, backfills, base courses, surface courses, finishing and reconditioning of existing roadbeds laying dust, or for other uses in accordance with these specifications.
- 602 - Water, when needed for compaction or laying dust, shall be applied at the locations in the amounts and during the hours as directed by the Authorized Officer. Amounts of water to be provided will be the minimum needed to properly execute the compaction requirements in conformance with these specifications, and for laying dust during work periods where the road crosses private property.
- 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 roadbed.
- 605 - The Purchaser shall secure the necessary water permits and pay all required water fees.

#### AGGREGATE SURFACE COURSE - 1200 CRUSHED ROCK MATERIAL

- 1201 - This work shall consist of furnishing, hauling, and placing one or more layers of crushed rock material on roadbeds and base courses approved for placing crushed rock material in accordance with these specifications and conforming to the dimensions and typical cross sections shown on the plans. Material not conforming to these specifications will be rejected, and shall be removed from the road.
- 1202 - Crushed rock materials used in this work may be obtained from commercial source(s) selected by the Purchaser at his option and expense, providing the rock materials furnished comply with the specifications in this section.
- 1203 - When crushed rock material is produced from gravel, not less than 75 percent by weight of the particles retained on the No. 4 sieve will have 4 fractured faces. If necessary to meet the above requirements or to eliminate an excess of filler, the gravel shall be screened before crushing.

1204 - Crushed rock material shall consist of hard durable rock fragments conforming to the following gradation requirement.

TABLE 1204  
AGGREGATE SURFACE COURSE  
CRUSHED ROCK MATERIAL  
Percentage by weight passing square mesh sieves  
AASHTO T 11 & T 27

<u>Sieve</u> <u>Designation</u>	<u>GRADATION</u>					
	<u>C</u>	<u>C-1</u>	<u>D</u>	<u>D-1</u>	<u>E</u>	<u>S</u>
1-1/2 inch	100	100	-	-	-	-
1 inch	-	-	100	100	-	-
3/4 inch	50-90	60-90	-	70-98	100	100
1/2 inch	-	-	-	-	-	90-100
No. 4	25-50	30-55	30-60	36-60	40-75	0-10
No. 8	-	22-43	-	25-47	-	-
No. 30	-	11-27	-	12-31	-	-
No. 40	5-25	-	5-30	-	5-35	-
No. 200	2-15	3-15	3-15	3-15	2-15	0-1

1205 - Crushed rock material retained on the No. 4 sieve shall have a percentage of loss of not more than 35 at 500 revolutions, as determined by AASHTO T 96.

1206 - Crushed rock material shall show a durability value of not less than 35 as determined by AASHTO T 210.

1206a- The crushed rock material shall show a loss of not more than 10 percent by weight, when submerged in DMSO, dimethyl sulfoxide, for five days, according to Federal Highway Administration Region 10 Accelerated Weathering Test Procedure.

1207 - 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.

1207a- That portion of crushed rock material passing No. 4 sieve, including blending filler, shall have a sand equivalent of not less than 35, as determined by AASHTO T 176, except where that portion exhibits a sand equivalence of less than 35, the aggregate will be accepted if it complies with the additional requirement as follows:

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

- 1208 - If additional binder or filler material is necessary to meet the grading or plasticity requirements or for satisfactory bonding of the material, it shall be uniformly blended with the crushed rock material at the crushing and screening plant prior to placing on the road, unless otherwise agreed. The material for such purposes shall be obtained from sources approved by the Authorized Officer and shall be free from stones, vegetative matter, and other deleterious materials.
- \*1208a- Each layer of crushed rock material shall be thoroughly mixed on the roadbed by alternately blading, to full depth, until a uniform mixture has been obtained. The mixture shall then be spread to full width. When completed, the spreading shall produce a surface which is smooth, presents uniform shoulder lines, and conforms to the specified cross section.
- 1209 - Shaping and compacting of roadbed and base course shall be completed and approved, prior to placing crushed rock material, in accordance to the requirements of Subsection 300 for placing on the roadbed and. Notification for subgrade inspection, prior to rocking, shall be 3 days prior to that inspection and shall be 10 days prior to start of rocking operations.
- 1210 - Crushed rock material conforming to the requirements of these specifications shall be placed on the approved roadbed and base course in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and staked on the ground. Compacted layers shall not exceed 4 inches in depth. When more than one layer is required, each shall be shaped, processed, compacted, and approved by the Authorized Officer before the succeeding layer is placed. Irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and then adding or removing crushed rock material until the surface is smooth and uniform.
- 1210a- Crushed rock material used to repair or reinforce soft, muddy, frozen, yielding, or rutted roadbed shall not be construed as surfacing required by this specification.
- 1211 - Each layer of crushed rock material placed, processed, and shaped as specified shall be moistened or dried to a uniform moisture content suitable for maximum compaction and compacted to full width by compacting equipment conforming to the requirements of Subsection 103f and 103h. Roller shall be operated over the full width of each layer until visual displacement ceases, but not fewer than three complete passes.

#### SLOPE PROTECTION - 1400

- 1401 - This work shall consist of furnishing, hauling, and placing stone materials for slope protection in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans.

- 1402 - Stone material shall consist of hard angular quarry rock of such quality that it will not disintegrate on exposure to water or weathering, and shall be graded in accordance with these specifications.
- 1403 - Individual machine-placed stones shall vary in weight from 11 to 330 pounds each. Not less than 25 percent of the individual stones shall weigh from 220 to 330 pounds each.
- 1404 - The material shall be well graded from the smallest to the maximum size specified. Stones smaller than the specified 10 percent size shall consist of spalls and fine rock fragments so distributed as to provide a stable compact mass.
- 1405 - The size of machine-placed by volume shall be as follows:

<u>Size of Stone</u>	<u>Class 3 Riprap</u> <u>% of rock by mass</u>
16" – 14"	25
14" – 10"	30
10" – 5"	35
5" - 0	10

- 1406a- The embankment shall be placed in successive horizontal layers of sufficient depth to contain the maximum size rock present in the material. Spalls and finer fragments of stone other than specified in Subsection 1405 shall be used to chock the larger stones solidly in position and to fill voids between the major stones as laid in the embankment. The exposed face of the embankment shall be reasonably smooth and uniform; material shall be prevented from escaping beyond the toe of the structure.
- 1407 - Determination of the acceptability of the slope protection material gradation will be through visual inspection by the Authorized Officer.
- 1408 - Locations of embankment slope protection are shown in the Exhibit C Renovation Work List.

#### SOIL STABILIZATION – 1800

- 1801 - This work shall consist of seeding, fertilizing and mulching on designated cut, fill, borrow, disposal, and special areas in accordance with these specifications and as shown on the plans. This work is not required for road acceptance under Section 18 of this contract.
- 1802 - Soil stabilization work consisting of seeding, fertilizing and mulching shall be performed on existing roads in accordance with these specifications, and as shown on



the plans at the following locations:

<u>Road No.</u>	<u>From Sta./M.P.</u>	<u>to Sta./M.P.</u>
<u>Temp Rd 8.05</u>	<u>0.00</u>	<u>0.15</u>
<u>Temp Rd 34-2A</u>	<u>0.00</u>	<u>0.05</u>
<u>                    </u>	<u>                    </u>	<u>                    </u>

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

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

**From: April 15 to: October 15**

If soil stabilization of disturbed areas is not completed by the specified fall date, the Purchaser shall treat disturbed areas and then complete the requirements of Soil Stabilization 1800 the next construction season.

The Authorized Officer may modify the above seasonal dates to conform to existing weather conditions and changes in the construction schedule.

1803a- The Purchaser shall begin soil stabilization work within 10 days of the starting work date when notified by the Authorized Officer.

1804 - Seed will be furnished by the government.

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 1811.

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

1809 - Mulch material shall be delivered to the work area in a dry state. Material found to be wet will not be accepted. Material to be used in the mulching operation may be

stockpiled along the road designated for treatment provided that it is maintained in a dry state and has the approval of the Authorized Officer.

- 1811 - The Purchaser shall furnish and apply to approximately 1.0 acres designated for treatment as specified under Subsections 1802a and 1806a, a two stage process of native grass seed and mulch material at the following rate of application:

a. Two Stage Dry Application:

Native Grass Seed	10 lbs./acre
Mulch	2000 lbs./acre

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

- 1814 - The Purchaser may reduce the application rate on partially covered slopes and refrain from application on areas already well stocked with grass or on rock surfaces as determined by the Authorized Officer.
- 1815 - The seed and mulch materials shall be placed by the dry method in accordance with the requirements set forth in Subsection 1815b.
- 1815b - Dry Method - Blowers, mechanical seeders, seed drills, landscape seeders, 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 3 days in advance of date he intends to commence the specified soil stabilization work.
- 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 cutting and the removal of vegetation from the road prism - variable distance and inside curves in accordance with these specifications. This work shall conform to the lines, grades, dimensions, and typical cross sections shown on the Roadside Brushing Detail Sheet, at designated locations as shown in the plans.
- 2102 - Roadside brushing may be performed mechanically approved Rotary Brushing machine or manually with hand tools, including chain saws.
- 2103 - Vegetation cut manually and/or mechanically less than 6 inches in diameter when measured at DBH shall be cut to a maximum height of 1 inch above the ground

surface or above obstructions such as rocks or stumps on cut and fill sloped and all limbs will be severed from the trunk.

- 2103a - Vegetation shall be cut and removed from the road bed between the outside shoulders and the ditch centerline and such vegetation shall be cut to a maximum height of 1 inch above the ground and running surface. All limbs will be severed from the trunk. Sharp pointed ends will not be permitted. Cuts shall be parallel to the ground line or running surface.
- 2104 - Trees in excess of 6 inches in diameter at DBH shall be limbed, so that no limbs extend into the treated area or over the roadbed to a height of 14 feet above the subgrade 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 subgrade shall be cut, to within 1 inch of the trunk to produce a smooth vertical face.
- 2107 - Inside curves shall be brushed out for a sight distance of 200 feet chord distance 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 roadside brushing shall be scattered downslope from the roadway. Debris shall not be allowed to accumulate in concentrations. Debris in excess of 1 foot in length and 2 inches in diameter shall not be allowed to remain on cut slopes, ditches, roadways or water courses, or as directed by the Authorized Officer.
- 2113 - Roadside brushing shall be accomplished on all roads as specified on the plans.
- 2117 - Traffic warning signs shall be required at each end of the work area. Signs shall meet the requirements of the Manual on Uniform Traffic Devices.

#### SLOPE STAKING - 2300

- 2301 - This work shall consist of slope staking road locations from notes furnished by the BLM in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans.
- 2302 - Slope stakes shall consist of 1-3/4 inch x 1/4 inch smooth-finished wood slats of good quality, approximately 24 inches in length and tipped with red luminous paint.

2303 - Slope stakes shall be set as follows:

A slope stake shall be set at the top of the cut slope for cut and fill and full bench sections as shown on the typical road sections sheet included in the plans.

For through cut sections exceeding 2 feet in depth at the centerline, both sides of the road shall be staked. There shall be a ditch on the uphill side of the road.

For through fill sections exceeding 2 feet in depth at the centerline, both sides of the road shall be staked.

The slope stake shall be moved back to the reference stake at time of staking. The Purchaser shall reset the slope stakes after completion of clearing and grubbing operations, where needed.

2305 - Slope stakes and reference stakes shall be marked as shown on the plans.

2307 - Culvert locations shall be identified with a stake meeting the requirements of Subsection 2302 placed alongside the reference stake or slope stake.

2308 - Culvert locations shall have extra widening added to the catch basin side of the roadway based on 1-1/2 times the culvert diameter.

2309 - Stationing used is "L" or final location stationing.

2310 - Stakes shall be marked with black-lumber crayon or with a permanent waterproof felt-tip marker.

2311 - Slope and reference stakes shall be set to the following standards of accuracy:

Maximum allowable horizontal error    +/-   0.5 feet

Maximum allowable vertical error       +/-   0.5 feet

2312 - The Purchaser shall complete the required slope staking a minimum of 5 days in advance of construction unless otherwise agreed. Staking and slope staking notes shall be approved in writing by the Authorized Officer prior to right-of-way clearing, timber falling, and construction.

2313 - The Purchaser will slope stake and reference and furnish the BLM the resulting notes in advance of construction on the roads.

## ROAD RENOVATION WORK LIST

**Definitions:**

ABC – Aggregate Base Course  
ASC – Aggregate Surface Course  
AWD – Armored Water Dip  
BST – Bituminous Surface Treatment  
CMP – Corrugated Metal Pipe

CY – Cubic Yards  
Jct. – Junction  
PRR – Pit Run Rock  
GRR – Grid Rolled Rock  
NAT – Natural Surface Roads

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

### Road 39-7-17

Milepost

0.00	Begin Project. Existing 14' natural surfaced road with ditch. Begin Roadside Brushing, Clean Culverts & Blade, repair pot holes.
0.63	End Project.

### Road 39-7-21.1

Milepost

0.00	Begin Project. Existing 14' ASC surfaced road with ditch. Begin Roadside Brushing, pull ditches, clean culverts Blade & Compact.
3.54	End Project.

### Road 39-7-8B

Milepost

0.00	Begin Project. Existing 14' natural surface out-sloped road. Begin Roadside Brushing & Blade.
0.15	End Project.

### Road 39-7-8C

Milepost

0.15	Begin Project. Existing 14' natural surface out-sloped road. Begin Roadside Brushing & Blade.
0.83	End Project.

### Road 39-7-8D

Milepost

0.83	Begin Project. Existing 14' natural surface out-sloped road. Begin Roadside Brushing & Blade.
0.93	End of Project.

**Road 39-7-8E**

Milepost

0.93	Begin Project. Existing 14' natural surface out-sloped road. Begin Roadside Brushing & Blade. Multiple locations of cut- bank slope failures within road segment. Remove approximately 200 CY of earthen material and debris from cut-bank failures and end haul material/debris. Furnish, place, and compact approximately 125 CY of 1-1/2" minus crushed rock material (spot rock) where needed within segment.
1.30	End Project

**Road 39-8-29**

Milepost

0.00	Begin Project. Existing gate with private padlock. Existing 14' natural surface out-sloped road. Begin Roadside Brushing & Blade. Begin surfacing upon completion of culvert installation at MP 0.05. Furnish, place, water, and roll a compacted 6" lift of 1-1/2" minus crushed rock material, approximately 464 CY.
0.05	Install 18'x20' culvert. Properly backfill and compact.
0.20	End crushed rock surface placement.
1.49	End Project.

**Road 39-8-29.1**

Milepost

0.00	Begin Project. Existing 14' natural surface out-sloped road. Begin Roadside Brushing & Blade.
0.13	End Project.

**Road 39-8-29.3**

Milepost

0.00	Begin Project. Existing 14' natural surface in-sloped road. Begin Roadside Brushing & Blade.
0.46	End Project.

**Road 39-8-29.4**

Milepost

0.00	Begin Project. Existing 14' natural surface out-sloped road. Begin Roadside Brushing & Blade.
0.24	End Project.

**Road 39-8-31B**

Milepost

0.00	Begin Project. Existing 15' natural surface out-sloped road. Begin Roadside Brushing & Blade.
0.07	End Project.

**Road 40-8-3**

Milepost

0.00	Begin Project. Existing 14' natural surface out-sloped road. Begin Roadside Brushing & Blade.
0.08	End Project.

**Road 40-8-3.1**

Milepost

0.00	Begin Project. Existing 14' natural surface out-sloped road. Begin Roadside Brushing & Blade.
0.48	End Project.

**Road 40-8-4**

Milepost

0.00	Begin Project. Existing 14' natural surface out-sloped road. Begin Roadside Brushing & Blade. Furnish, place, and compact approximately 45 CY of 1-1/2" minus crushed rock material (spot rock) where needed within segment.
0.69	End Project.

**Road 40-8-5**

Milepost

0.00	Begin Project. Existing 14' natural surface out-sloped road. Begin Roadside Brushing & Blade.
0.30	End Project.

**Temp Road 8.05**

Milepost

0.00	Begin Project. Construct Temp Road.
0.15	End Project. Decommission Temp Road after Timber Sale haul.

**Temp Road 34-2A**

Milepost

0.00	Begin Project. Construct Temp Road and install a temporary 18"x30' culvert.
0.05	End Project. Pull temporary culvert and decommission Temp Road after Timber Sale haul.





UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

ROAD MAINTENANCE SPECIFICATIONS

INDEX

COVER SHEET

3000 - GENERAL MAINTENANCE

3100 - OPERATIONAL MAINTENANCE

3200 - SEASONAL MAINTENANCE

3300 - FINAL MAINTENANCE

3400 - OTHER MAINTENANCE

EXHIBIT D-2 MAP

**GENERAL - 3000**

- 3001 The Purchaser shall be required to maintain all road and/or referenced in Section 42(C)(3) listed as shown on the Exhibit D-2 maps of this contract in accordance with Sections 3000, 3100, 3200, 3300 and 3400 of this exhibit.
- 3001a The Purchaser shall be required to provide maintenance on roads in accordance with Subsections 3403, 3403a, 3404, and 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.

**OPERATIONAL MAINTENANCE - 3100**

- 3101 The Purchaser shall blade and shape the road surface and shoulders with a motor grader. Banks shall not be undercut. Back blading with tractors or similar equipment will be allowed only around landings and other areas when approved by the Authorized Officer.
- 3103 The purchaser shall maintain established berms and place additional berms using adjacent material where needed to protect fills as directed by the Authorized Officer.
- 3104 The purchaser shall perform other road cleanup including removal of debris, fallen timber, bank slough, and slides which can practicably be accomplished by a motor grader, rubber tired front end bucket loader, rubber tired backhoe or comparable equipment, and by the use of hand tools.
- 3104a Removal of bank slough and slide material includes placement of material at the nearest designated, suitable disposal site where material cannot erode into streams, lakes, or reservoirs or cause undue damage to road fill slopes which have been planted or mulched to control soil erosion as directed by the Authorized Officer.
- 3104b The Purchaser shall be responsible for removal of all slides or slough, up to fifteen (15) station yards in quantity, at any one site. This work includes unlimited multiple sites on all roads required to be maintained by the purchaser.

Prior to 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.

*DEFINITION: ONE STATION YARD IS ONE YD<sup>3</sup> MOVED ONE HUNDRED FEET.*

*EXAMPLE: 15 STATION YARDS IS 15 YDS<sup>3</sup> MOVED 100 FEET OR 30 YDS<sup>3</sup> MOVED 50 FEET.*

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 (15) station yards in quantity, at any one site. This work includes unlimited multiple sites on all roads required to be maintained by the Purchaser. Prior to repair and replacement of eroded material exceeding fifteen (15) station yards at any one site, the Purchaser and the Authorized Officer or their Authorized Representatives shall agree in writing, in the field, to the quantity of material, borrow source and method of repair. Work may commence immediately after agreement.

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

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

The Purchaser shall also 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 and in accordance with Section 2100 of Exhibit C.

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

**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 expiration of Purchaser's right to cut and remove timber (Sec. 4) and in accordance with Sec. 16(b) of this contract. This work shall include any maintenance and/or damage repairs specified in Sections 3000, 3100, and 3200 necessary to meet the conditions specified in Subsection 3002 and shall be executed in accordance with Subsection 3302 of this section.
- The Authorized Officer may grant acceptance of Purchaser's maintenance responsibility in part where certain individual roads or road segments are no longer of any use to the Purchaser's remaining removal operations, providing that all contract requirements as specified under Sec. 16(b), Special Provisions Sections 3000, 3100, 3200 and 3300 of the maintenance specifications have been completed and a relinquishment of cutting and removal rights on cutting units tributary to these roads is signed by the Purchaser. Request for partial acceptance must be submitted in writing by the Purchaser.
- 3302 The Purchaser shall perform final road maintenance only when weather or soil moisture conditions are suitable for normal maintenance equipment operations as determined by the Authorized Officer.

If final maintenance is delayed after the date required in Subsection 3301 of this

contract by adverse soil moisture or unsuitable equipment operating conditions, the Purchaser will be notified by the Authorized Officer when soil moisture and equipment operating conditions are suitable. The Purchaser shall then be required to complete final maintenance within 30 days.

### **OTHER MAINTENANCE - 3400**

- 3401 The Purchaser shall repair any damage to road surfaces that was specified under Subsection 3108. This repair includes restoring the roadway to the designed standard and replacement of surfacing with approved surface material. This repair is not limited to use of equipment specified in Subsection 3104.
- 3402 The Purchaser shall be permitted to remove ice and snow from roads authorized for use under this contract only when prior written approval has been secured from the Authorized Officer. The Purchaser shall submit a written request for permission to remove ice and snow in advance of the date operations are to begin.
- Upon receiving written authorization for ice or snow removal, the Purchaser will perform the work according to the conditions and equipment requirements set forth in the authorization.
- 3403 The Purchaser shall be required to furnish and apply non-saline water during dry hauling periods, when directed by the Authorized Officer, for the purpose of laying dust and to prevent loss of surface material. The first application of water shall be made at the rate of one-half gallon per yd<sup>2</sup> of road surface traveled. Subsequent applications shall be made for each 40 MBF of timber or 120 yds<sup>3</sup> of rock hauled. Subsequent watering may be done at a rate less than one-half gallon per yd<sup>2</sup> when a specified lesser rate is approved by the Authorized Officer.

The following roads shall be watered:

Road Number	From M.P.	to M.P.
39-8-29	0.00	1.49
40-8-4	0.00	0.69

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

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

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

Road Number	From M.P.	to M.P.
39-8-29	0.00	1.49
40-8-4	0.00	0.69

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

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

truck or trailer, net mass, and brand name with each shipment. Also provide the net volume and specific gravity at 60 degrees F, percent solids by mass, and PH.

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

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

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

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

3412 The Purchaser shall apply to the prepared roadbed specified under Subsection 3405, a lignin sulfonate, magnesium chloride, or calcium chloride dust palliative conforming to the material requirements of Subsection (3412b) (3412c). The rate of application shall be (0.5) gallons per yd<sup>2</sup> surface.

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

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

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

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

3412b Specifications for Lignin Sulfonate:

Lignin sulfonate shall be the chemical residue produced as a byproduct of the acid sulfite pulping process and supplied as a water solution. The base cation shall be

ammonia, calcium, or sodium. The product shall be water soluble to allow field dilution. Dilute with water until the mixture contains a minimum 48 percent concentration.

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

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

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

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

3412c

Specifications for magnesium chloride or calcium chloride:

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

phosphorous	25.00 ppm
cyanide	0.20 ppm
arsenic	5.00 ppm
copper	0.20 ppm
lead	1.00 ppm
mercury	0.05 ppm
chromium	0.50 ppm
cadmium	0.20 ppm
barium	10.00 ppm
selenium	5.00 ppm
zinc	10.00 ppm
sulfate	4.3 percent maximum
nitrate	5.0 percent maximum.

Concentration specifications for Calcium Chloride



Calcium chloride shall conform to AASHTO M 144, type L for the specified concentration.

Concentration specifications for Magnesium chloride

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

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

3413

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

# EXHIBIT D2

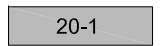
## SHEET 1 OF 3

EAST WEST JUNCTION  
TIMBER SALE  
TRACT NO. ORM07-TS-13-04

BLM OWNERSHIP



T.S. UNITS



BST ROAD



ROCKED ROAD



NATURAL SURFACE ROAD



PURCHASER MAINTENANCE



GATE



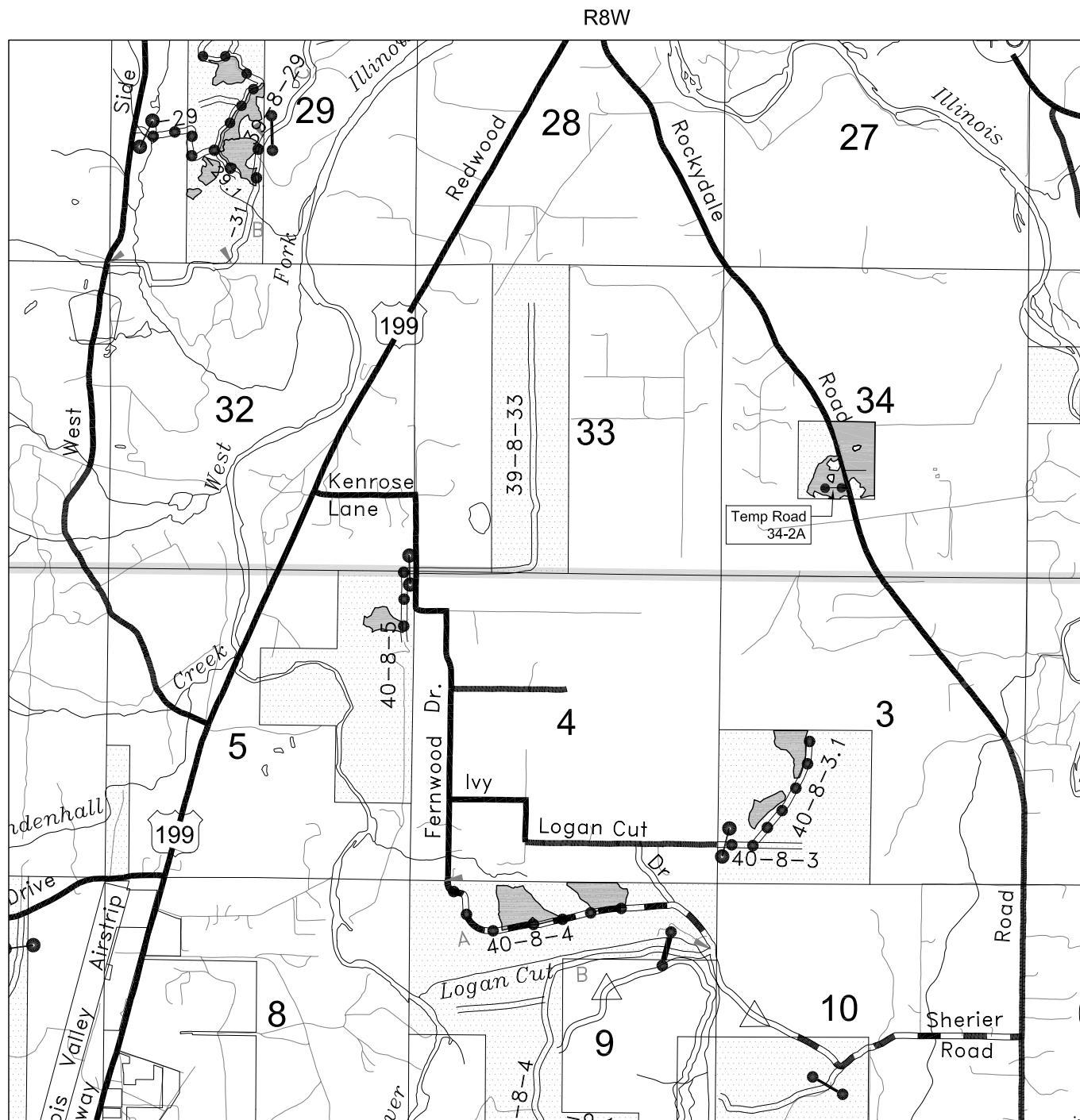
T39S

T40S



ALWAYS  
*THINK*  
SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
EAST WEST JUNCTION TIMBER SALE MAINTENANCE MAP			
DESIGNED:	<u>C. Smith</u>		
REVIEWED:	<u>E. Freeman</u>		
APPROVED:	<u>J. Roper, Lead Engineer</u>		
DRAFTED BY:	CLS	SCALE:	1" = 1/2 MI
DATE:	FEB 2013	SHEET:	1 OF 3
DRAWING NO.:	OR-11-9113.4-1		


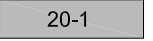







0 1/4 1/2  
SCALE IN MILES

# EXHIBIT D2

## SHEET 2 OF 3

EAST WEST JUNCTION  
TIMBER SALE  
TRACT NO. ORM07-TS-13-04

- BLM OWNERSHIP 
- T.S. UNITS 
- BST ROAD 
- ROCKED ROAD 
- NATURAL SURFACE ROAD 
- PURCHASER MAINTENANCE 
- GATE 

T39S



ALWAYS  
*THINK*  
SAFETY

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

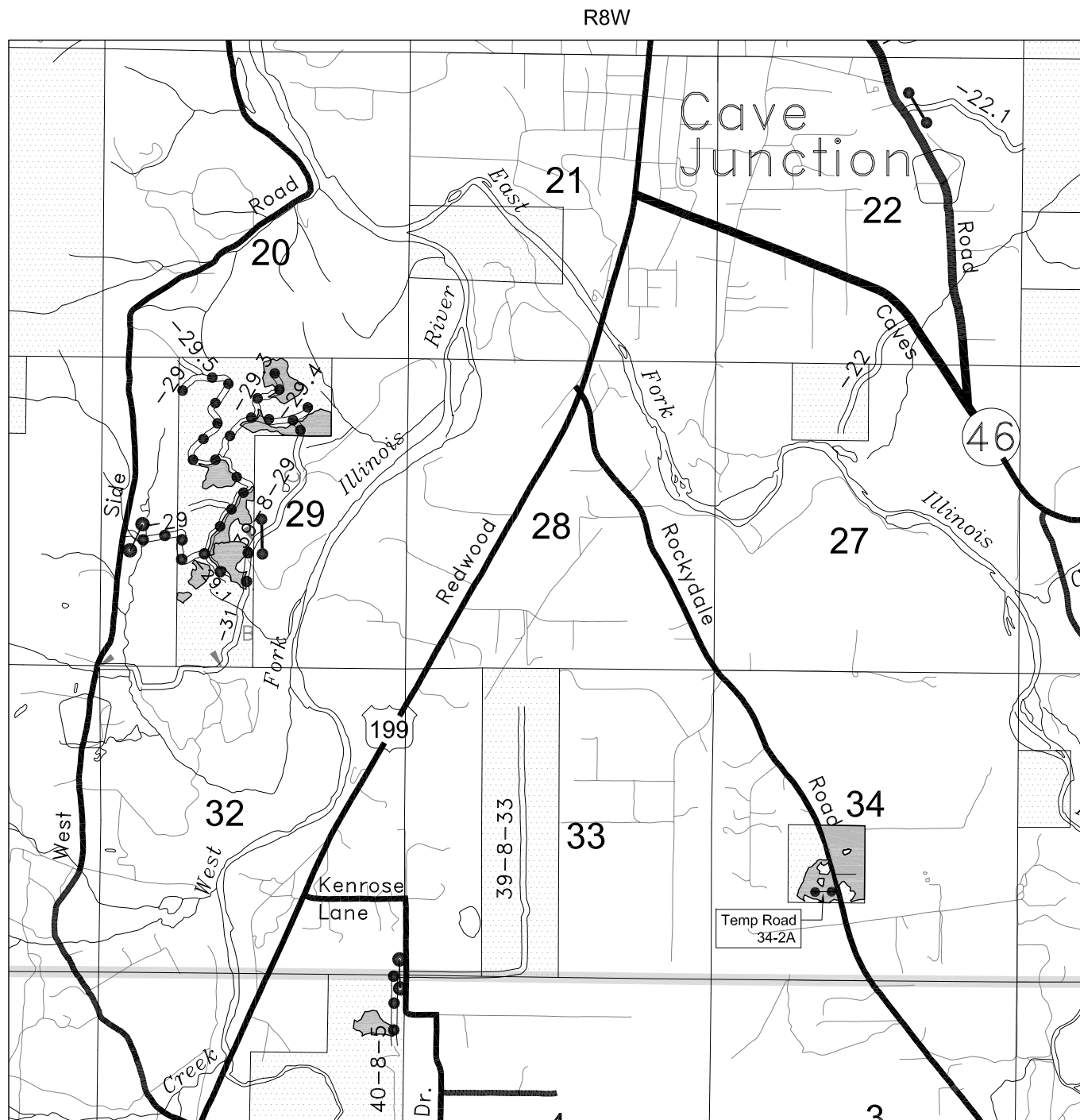
### EAST WEST JUNCTION TIMBER SALE MAINTENANCE MAP

DESIGNED: C. Smith  
REVIEWED: E. Freeman  
APPROVED: J. Roper, Lead Engineer

DRAFTED BY: CLS SCALE: 1" = 1/2 MI

DATE: FEB 2013 SHEET: 2 OF 3

DRAWING NO.: OR-11-9113.4-1



EAST WEST JUNCTION  
TIMBER SALE  
TRACT NO. ORM07-TS-13-04

BLM OWNERSHIP

T.S. UNITS

BST ROAD

ROCKED ROAD

NATURAL SURFACE ROAD

PURCHASER MAINTENANCE

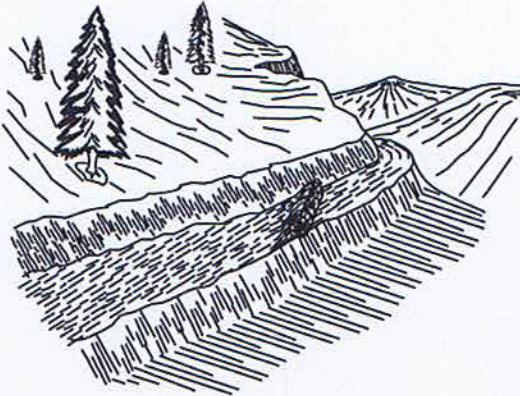
GATE

T39S

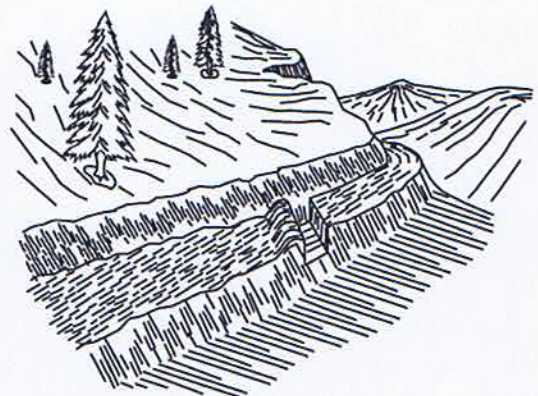


*ALWAYS  
THINK  
SAFETY*

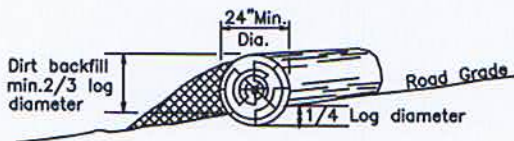
REV. NO.	DESCRIPTION	DATE	APPROV.
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT - MEDFORD, OREGON			
EAST WEST JUNCTION TIMBER SALE MAINTENANCE MAP			
DESIGNED:	<u>C. Smith</u>		
REVIEWED:	<u>E. Freeman</u>		
APPROVED:	<u>J. Roper, Lead Engineer</u>		
DRAFTED BY: CLS		SCALE: 1" = 1/2 MI	
DATE: FEB 2013		SHEET: 3 OF 3	
DRAWING NO.: OR-11-9113.4-1			



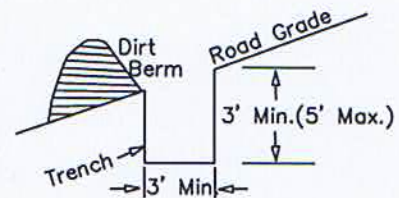
LOG BARRICADE



TRENCH BARRICADE (Optional)



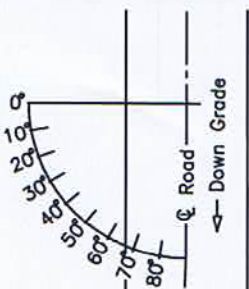
1. LOG BARRICADE SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. ALL BARRICADES SHALL BE SKEWED 30 DEGREES.
4. THE LENGTH SHALL BE SUFFICIENT TO EXTEND FROM THE CUT BANK TO THE FILL SLOPE.
5. THE MINIMUM SMALL END DIAMETER OF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



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.

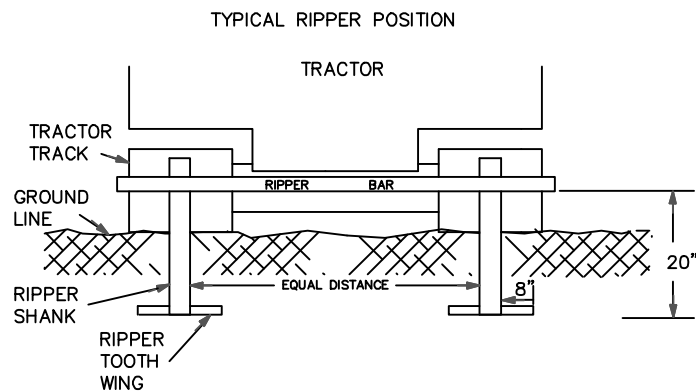
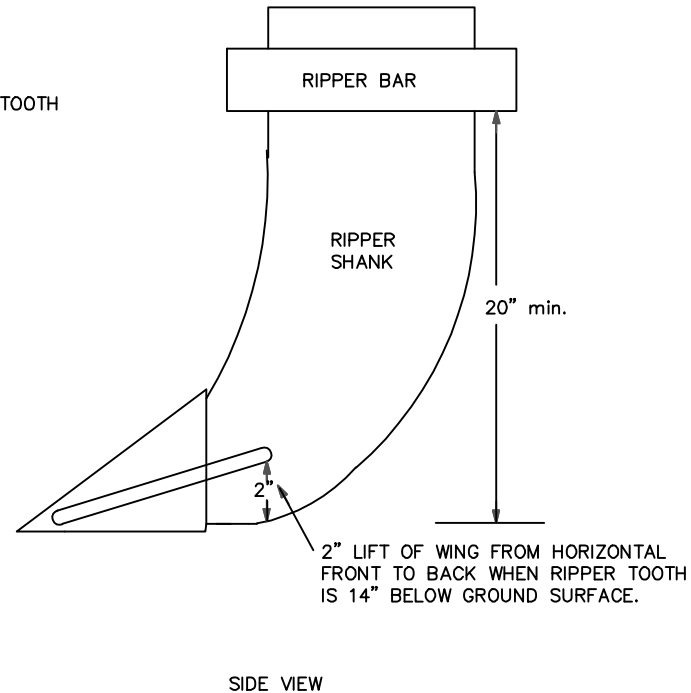
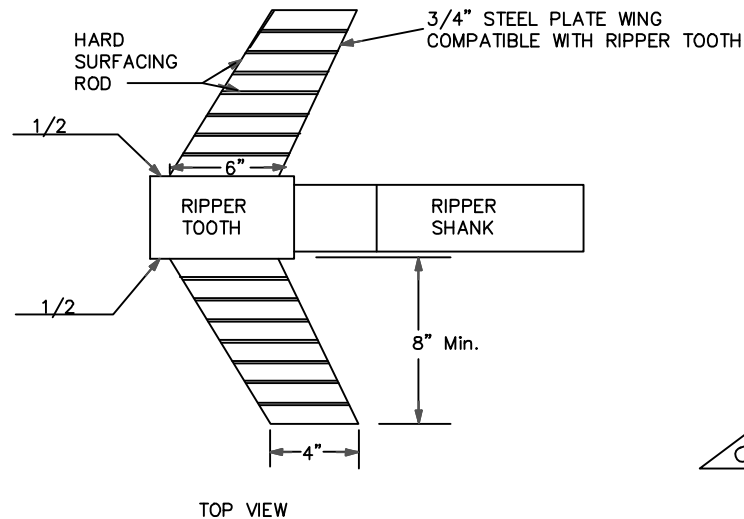
Note: Trench barricade may be installed if log minimum dimensions are not readily available.

SKEW DIAGRAM





*EXHIBIT R*  
*SHEET 1 OF 1*



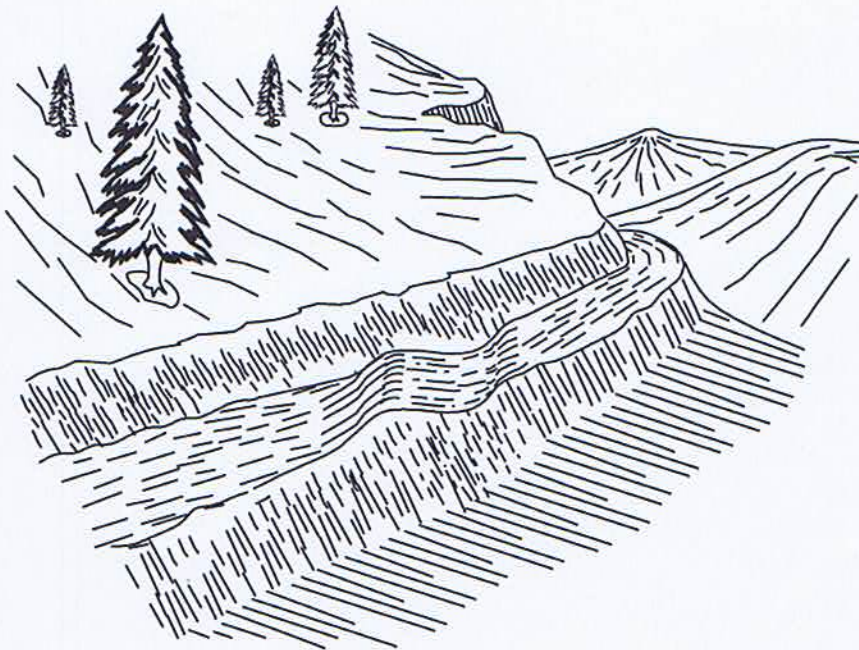
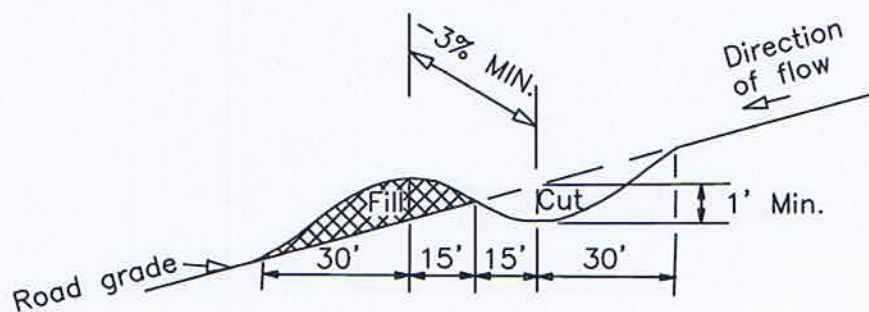
NOTES: TYPICAL RIPPER TOOTH CONSTRUCTION

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

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT ASHLAND RESOURCE AREA MEDFORD DISTRICT	
<b>WING RIPPER DETAIL</b>	
DESIGNED	_____
REVIEWED	_____
APPROVED	_____
<small>CHIEF, BRANCH OF ENGINEERING OR DISTRICT ENGINEER</small>	
DRAWN: JWR	SCALE: NONE
DATE: October 2009	SHEET 1 OF 1
DRAWING NO.	





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. THE LENGTH SHALL BE SUFFICIENT TO EXTEND FROM THE CUT BANK TO THE FILL SLOPE.



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

Medford  
East West Junction  
ORM07-TS-13-04

**Legal Description**

Forest Type	Township	Range	Section	Subdivision
PD	39S	7W	8	W1/2SW1/4
PD	39S	7W	20	NW1/4NW1/4
O&C	39S	7W	21	W1/2NW1/4
O&C	39S	8W	29	NW1/4NE1/4, E1/2NW1/4, E1/2SW1/4
PD	39S	8W	34	NE1/4SW1/4
O&C	40S	8W	3	N1/2SW1/4, SW1/4SW1/4
O&C	40S	8W	5	Lot 8
O&C	40S	8W	9	NW1/4NE1/4, NE1/4NW1/4

**Cutting Volume (16' MBF)**

Unit	DF	SP	PP	IC					Total	Regen	Partial	ROW
20-1	111	24	2	1					138	0	10	0
21-6	87	13	5						105	0	9	0
29-1	93	8							101	0	7	0
29-2A	63	3							66	0	5	0
29-2B	105	5							110	0	10	0
29-4A	95	6							101	0	8	0
29-4B	114	8	0						122	0	10	0
29-8	108	6							114	0	9	0
3-3	110	0							110	0	10	0
34-2	263	2	7	0					272	0	23	0
5-9	68	1							69	0	4	0
8-2	626	1							627	0	29	0
8-2ROW	9								9	0	0	1
9-12A	139	4	0						143	0	12	0
9-12B	145	0	1						146	0	8	0

Totals	2,136	81	15	1					2,233	0	154	1
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**Logging Costs per 16' MBF**

Stump to Truck	\$	164.76
Transportation	\$	26.46
Road Construction	\$	29.33
Road Amortization	\$	0.00
Road Maintenance	\$	6.91

Other Allowances :

Fuels Treatment	\$ 19.69
Misc	\$ 0.39
Other Costs	\$ 5.15
<b>Total Other Allowances :</b>	<b>\$ 25.23</b>

Total Logging Costs per 16' MBF

**\$ 252.70**

**Utilization Centers**

Center #1 : Cave Junction, OR 9 Miles  
Center #2 0 Miles  
Weighted distance to Utilization Centers 9

**Length of Contract**

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

**Profit & Risk**

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

**Tract Features**

Avg Log	Douglas-fir : 67 bf	All : 67 bf
Recovery	Douglas-fir : 89 %	All : 89 %
Salvage	Douglas-fir : 0 %	All : 0 %
Avg Volume ( 16' MBF per Acre)		14
Avg Yarding Slope		30 %
Avg Yarding Distance (feet)		300
Avg Age		0
Volume Cable		46 %
Volume Ground		54 %
Volume Aerial		0 %
Road Construction Stations		10.56
Road Improvement Stations		0.00
Road Renovation Stations		496.83
Road Decommission Stations		0.00

**Cruise**

Cruised By J.Caulfield, A.Franks, K.Dowding  
Date 11/15/2012  
Type of Cruise 3-P and 100%  
County, State Josephine, OR

**Net Volume**

Green (16' MBF)	2,233
Salvage (16' MBF)	0
Douglas-fir Peeler	85
Export Volume	0
Scaling Allowance (\$0.75 per 16' MBF)	\$1,674.75



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

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**District :** Medford  
**Sale Name :** East West Junction  
**Sale Date :** 03/28/2013  
**Appraisal Method :** 16' MBF

**Contract # :** ORM07-TS-13-04  
**Job File # :** M11284  
**Master Unit :** Josephine  
**Planning Unit :** Grants Pass

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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	9,940	2,136	\$ 488.46	\$ 53.73	\$ 252.70	\$ 1.17		\$ 183.20	\$ 391,315.20
SP	360	81	\$ 311.26	\$ 34.24	\$ 252.70			<b>\$ 31.10</b>	\$ 2,519.10
PP	127	15	\$ 285.40	\$ 31.39	\$ 252.70			<b>\$ 28.50</b>	\$ 427.50
IC	24	1	\$ 505.00	\$ 55.55	\$ 252.70			\$ 196.80	\$ 196.80
<b>Totals</b>	<b>10,451</b>	<b>2,233</b>							<b>\$ 394,458.60</b>

**Log Code by Percent**

Species	Code #1	Code #2	Code #3	Code #4	Code #5	Code #6
Incense-cedar					69.0	31.0
Sugar Pine				61.0	35.0	4.0
Ponderosa Pine				32.0	56.0	12.0
Douglas-fir			4.0	60.0	32.0	4.0

**Marginal Log Volume**

Species	Grade #7	Grade #8
Incense-cedar		
Sugar Pine		
Ponderosa Pine		
Douglas-fir		25

**Appraised By :** Franks, Annie

**Date :** 01/31/2013

**Area Approval By :** Caulfield, Dave

**Date :** 01/31/2013

**District Approval By :**

**Date :**

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**Prospectus**

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

Species	Trees	Net Volume 16' MBF	Net Volume 32' MBF	Net Volume CCF
Douglas-fir	9,940	2,136	1,724	3,725
Sugar Pine	360	81	64	141
Ponderosa Pine	127	15	11	27
Incense-cedar	24	1	1	3
<b>Total</b>	<b>10,451</b>	<b>2,233</b>	<b>1,800</b>	<b>3,896</b>

**All Species**

Gross Volume	Number Trees	Avg bf Volume Per Tree	DBH	Gross Merch Volume	Merch Logs	Avg bf Gross Merch Log
2,508	10,451	239	15.7	2,473	37,057	67

Merch Logs	Cull Logs	Total Logs	Logs per Tree	Net Volume	Gross Volume	Recovery
37,057	539	37,596	3.6	2,233	2,508	89 %

**Douglas-fir**

Gross Volume	Number Trees	Avg bf Volume Per Tree	DBH	Gross Merch Volume	Merch Logs	Avg bf Gross Merch Log
2,403	9,940	241	15.7	2,369	35,426	67

Merch Logs	Cull Logs	Total Logs	Logs per Tree	Net Volume	Gross Volume	Recovery
35,426	498	35,924	3.6	2,136	2,403	89 %

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**Cutting Areas**

<b>Unit</b>	<b>Regen Acres</b>	<b>Partial Cut Acres</b>	<b>Right Of Way Acres</b>	<b>Total Acres</b>
20-1		10		10
21-6		9		9
29-1		7		7
29-2A		5		5
29-2B		10		10
29-4A		8		8
29-4B		10		10
29-8		9		9
3-3		10		10
34-2		23		23
5-9		4		4
8-2		29		29
8-2ROW			1	1
9-12A		12		12
9-12B		8		8
<b>Totals :</b>		<b>154</b>	<b>1</b>	<b>155</b>



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**Exhibit B**

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

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

**Sale Totals (16' MBF)**

Species	Net Volume	Bid Price	Sale SubTotal
Douglas-fir	2,136		
Sugar Pine	81		
Ponderosa Pine	15		
Incense-cedar	1		
<b>Sale Totals</b>	<b>2,233</b>		

**Unit Details (16' MB)**

**Unit    20-1                      10 Acres                      Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	111		
Incense-cedar	1		
Ponderosa Pine	2		
Sugar Pine	24		
<b>Unit Totals</b>	<b>138</b>		

**Unit    21-6                      9 Acres                      Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	87		
Ponderosa Pine	5		
Sugar Pine	13		
<b>Unit Totals</b>	<b>105</b>		

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**Unit 29-1 7 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	93		
Sugar Pine	8		
<b>Unit Totals</b>	<b>101</b>		

**Unit 29-2A 5 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	63		
Sugar Pine	3		
<b>Unit Totals</b>	<b>66</b>		

**Unit 29-2B 10 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	105		
Sugar Pine	5		
<b>Unit Totals</b>	<b>110</b>		

**Unit 29-4A 8 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	95		
Sugar Pine	6		
<b>Unit Totals</b>	<b>101</b>		

**Unit 29-4B 10 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	114		
Ponderosa Pine			
Sugar Pine	8		
<b>Unit Totals</b>	<b>122</b>		

**Unit 29-8 9 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	108		
Sugar Pine	6		
<b>Unit Totals</b>	<b>114</b>		

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

Species	Net Volume	Bid Price	Species Value
Douglas-fir	110		
Sugar Pine			
<b>Unit Totals</b>	<b>110</b>		

**Unit 34-2 23 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	263		
Incense-cedar			
Ponderosa Pine	7		
Sugar Pine	2		
<b>Unit Totals</b>	<b>272</b>		

**Unit 5-9 4 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	68		
Sugar Pine	1		
<b>Unit Totals</b>	<b>69</b>		

**Unit 8-2 29 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	626		
Sugar Pine	1		
<b>Unit Totals</b>	<b>627</b>		

**Unit 8-2ROW 1 Acres Value per Acre : \$0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	9		
<b>Unit Totals</b>	<b>9</b>		

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

Species	Net Volume	Bid Price	Species Value
Douglas-fir	139		
Ponderosa Pine			
Sugar Pine	4		
<b>Unit Totals</b>	<b>143</b>		

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**Unit      9-12B                                  8 Acres                                  Value per Acre : \$0.00**

<b>Species</b>	<b>Net Volume</b>	<b>Bid Price</b>	<b>Species Value</b>
Douglas-fir	145		
Ponderosa Pine	1		
Sugar Pine			
<b>Unit Totals</b>	<b>146</b>		

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Volume Summary**

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**Sale Volume Totals**

155 Acres      0 Regen      154 Partial      1 R/W      15 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	9,940	35,426	498	2,136	2,369	2,403	1,724	1,913	1,945	3,725	4,130	4,186
Sugar Pine	360	1,266	12	81	87	87	64	69	69	141	152	153
Ponderosa Pine	127	319	27	15	16	17	11	12	13	27	29	30
Incense-cedar	24	46	2	1	1	1	1	1	1	3	3	3
<b>Totals</b>	<b>10,451</b>	<b>37,057</b>	<b>539</b>	<b>2,233</b>	<b>2,473</b>	<b>2,508</b>	<b>1,800</b>	<b>1,995</b>	<b>2,028</b>	<b>3,896</b>	<b>4,314</b>	<b>4,372</b>

**Unit Totals**

**Unit : 20-1      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	430	1,842	26	125	123	111
Sugar Pine	86	389	4	27	27	24
Ponderosa Pine	13	40	5	2	2	2
Incense-cedar	22	43	1	1	1	1
<b>Unit Totals</b>	<b>551</b>	<b>2,314</b>	<b>36</b>	<b>155</b>	<b>153</b>	<b>138</b>

**Unit : 21-6      9 Acres      0 Regen      9 Partial      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	368	1,440	20	98	96	87
Sugar Pine	66	200	2	14	14	13
Ponderosa Pine	52	122	5	5	5	5
<b>Unit Totals</b>	<b>486</b>	<b>1,762</b>	<b>27</b>	<b>117</b>	<b>115</b>	<b>105</b>

**Unit : 29-1      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	567	1,550	22	105	104	93
Sugar Pine	31	127	1	9	9	8
<b>Unit Totals</b>	<b>598</b>	<b>1,677</b>	<b>23</b>	<b>114</b>	<b>113</b>	<b>101</b>

**Unit : 29-2A      5 Acres      0 Regen      5 Partial      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	306	1,044	15	71	70	63

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Sugar Pine	11	46		3	3	3
<b>Unit Totals</b>	<b>317</b>	<b>1,090</b>	<b>15</b>	<b>74</b>	<b>73</b>	<b>66</b>

**Unit : 29-2B                      10 Acres                      0 Regen                      10 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	561	1,747	25	119	117	105
Sugar Pine	34	76	1	5	5	5
<b>Unit Totals</b>	<b>595</b>	<b>1,823</b>	<b>26</b>	<b>124</b>	<b>122</b>	<b>110</b>

**Unit : 29-4A                      8 Acres                      0 Regen                      8 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	402	1,578	22	107	106	95
Sugar Pine	25	88	1	6	6	6
<b>Unit Totals</b>	<b>427</b>	<b>1,666</b>	<b>23</b>	<b>113</b>	<b>112</b>	<b>101</b>

**Unit : 29-4B                      10 Acres                      0 Regen                      10 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	575	1,884	26	128	126	114
Sugar Pine	46	120	1	8	8	8
Ponderosa Pine	3	5				
<b>Unit Totals</b>	<b>624</b>	<b>2,009</b>	<b>27</b>	<b>136</b>	<b>134</b>	<b>122</b>

**Unit : 29-8                      9 Acres                      0 Regen                      9 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	588	1,794	25	122	120	108
Sugar Pine	28	96	1	7	7	6
<b>Unit Totals</b>	<b>616</b>	<b>1,890</b>	<b>26</b>	<b>129</b>	<b>127</b>	<b>114</b>

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

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	526	1,825	26	124	122	110
Sugar Pine	3	7				
<b>Unit Totals</b>	<b>529</b>	<b>1,832</b>	<b>26</b>	<b>124</b>	<b>122</b>	<b>110</b>

**Unit : 34-2                      23 Acres                      0 Regen                      23 Partial                      0 R/W**

<b>SpeciesName</b>	<b># of Trees</b>	<b>Merch Logs</b>	<b>Cull Logs</b>	<b>16' MBF Gross</b>	<b>16' MBF GM</b>	<b>16' MBF Net</b>
Douglas-fir	1,562	4,354	61	295	291	263

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Ponderosa Pine	53	127	16	8	7	7
Sugar Pine	18	33		2	2	2
Incense-cedar	2	3	1			
<b>Unit Totals</b>	<b>1,635</b>	<b>4,517</b>	<b>78</b>	<b>305</b>	<b>300</b>	<b>272</b>

**Unit : 5-9                      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	246	1,125	16	76	75	68
Sugar Pine	3	8		1	1	1
<b>Unit Totals</b>	<b>249</b>	<b>1,133</b>	<b>16</b>	<b>77</b>	<b>76</b>	<b>69</b>

**Unit : 8-2                      29 Acres                      0 Regen                      29 Partial                      0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	2,976	10,394	146	704	694	626
Sugar Pine	3	12		1	1	1
<b>Unit Totals</b>	<b>2,979</b>	<b>10,406</b>	<b>146</b>	<b>705</b>	<b>695</b>	<b>627</b>

**Unit : 8-2ROW                      1 Acres                      0 Regen                      0 Partial                      1 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	32	149	2	10	10	9
<b>Unit Totals</b>	<b>32</b>	<b>149</b>	<b>2</b>	<b>10</b>	<b>10</b>	<b>9</b>

**Unit : 9-12A                      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	315	2,299	32	156	154	139
Sugar Pine	4	57	1	4	4	4
Ponderosa Pine	1	5	1	1	1	
<b>Unit Totals</b>	<b>320</b>	<b>2,361</b>	<b>34</b>	<b>161</b>	<b>159</b>	<b>143</b>

**Unit : 9-12B                      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	486	2,401	34	163	161	145
Ponderosa Pine	5	20		1	1	1
Sugar Pine	2	7				
<b>Unit Totals</b>	<b>493</b>	<b>2,428</b>	<b>34</b>	<b>164</b>	<b>162</b>	<b>146</b>

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**Stump to Truck Costs**

**Total (16' MBF)**

<b>Total Stump to Truck Costs</b>	<b>Net Volume</b>	<b>Cost / Net Volume</b>
\$ 367,918.68	2,233	\$ 164.76

**Detail**

**Yarding & Loading**

<b>Yarding System</b>	<b>Unit Of Measure</b>	<b>Units</b>	<b>Cost / Unit</b>	<b>Total Cost</b>
Med Twr=40-70	GM MBF	983	\$ 159.42	\$ 156,709.86
Track Skidder	GM MBF	1,343	\$ 126.89	\$ 170,413.27
Med Twr=40-70	GM MBF	147	\$ 199.88	\$ 29,382.36
<b>Subtotal</b>				<b>\$ 356,505.49</b>

**Other Costs**

<b>Explanation</b>	<b>Unit Of Measure</b>	<b>Units</b>	<b>Cost / Unit</b>	<b>Total Cost</b>
Directional falling	GM MBF	247	\$ 9.77	\$ 2,413.19
<b>Subtotal</b>				<b>\$ 2,413.19</b>

**Additional Move-Ins**

<b>Equipment</b>	<b># Move-In</b>	<b>Cost / Move In</b>	<b>Total Cost</b>
Skidder	10	\$ 500.00	\$ 5,000.00
Yarder / Loader	7	\$ 500.00	\$ 3,500.00
Dozer	1	\$ 500.00	\$ 500.00
<b>Subtotal</b>			<b>\$ 9,000.00</b>



**UNITED STATES  
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Medford  
East West Junction  
ORM07-TS-13-04

**Other Allowances Costs**

**Total (16' MBF)**

<b>Total Other Allowances Costs</b>	<b>Net Volume</b>	<b>Cost / Net Volume *</b>	<b>Total Buy Out Cost</b>
\$56,333.50	2,233	\$25.23	\$0.00

**Fuels Treatment**

**Detail (16' MBF)**

<b>Cost Item</b>	<b>Total Cost</b>	<b>Cost / Net Vol *</b>	<b>Buy Out</b>	<b>Buy Out Cost</b>
Hand Pile, Cvr - Level 1	\$ 42,294.00	\$ 18.94	N	\$ 0.00
Lop and Scatter-Lvl 4	\$ 1,681.00	\$ 0.75	N	\$ 0.00
<b>Subtotal</b>	<b>\$ 43,975.00</b>	<b>\$ 19.69</b>		<b>\$ 0.00</b>

**Misc**

**Detail (16' MBF)**

<b>Cost Item</b>	<b>Total Cost</b>	<b>Cost / Net Vol *</b>	<b>Buy Out</b>	<b>Buy Out Cost</b>
Waterbar cable corridors	\$ 162.00	\$ 0.07	N	\$ 0.00
Landing Pile, Cvr	\$ 700.00	\$ 0.31	N	\$ 0.00
<b>Subtotal</b>	<b>\$ 862.00</b>	<b>\$ 0.39</b>		<b>\$ 0.00</b>

**Other Costs**

**Detail (16' MBF)**

<b>Cost Item</b>	<b>Total Cost</b>	<b>Cost / Net Vol *</b>	<b>Buy Out</b>	<b>Buy Out Cost</b>
Skid Location	\$ 288.00	\$ 0.13	N	\$ 0.00
Temporary Spur Construction	\$ 2,025.00	\$ 0.91	N	\$ 0.00
Skid Construction	\$ 1,650.00	\$ 0.74	N	\$ 0.00
Ripping	\$ 1,800.00	\$ 0.81	N	\$ 0.00
Hand Seeding @ 17 lb seed per hour	\$ 373.50	\$ 0.17	N	\$ 0.00
Mulching (2 hours/5 bales)	\$ 416.00	\$ 0.19	N	\$ 0.00
Waterbar Skids	\$ 2,025.00	\$ 0.91	N	\$ 0.00
Additional Tractor Time	\$ 375.00	\$ 0.17	N	\$ 0.00
Barricades	\$ 600.00	\$ 0.27	N	\$ 0.00
Lift Tree	\$ 300.00	\$ 0.13	N	\$ 0.00
Intermediate Support	\$ 1,500.00	\$ 0.67	N	\$ 0.00
Equipment Washing	\$ 144.00	\$ 0.06	N	\$ 0.00
<b>Subtotal</b>	<b>\$ 11,496.50</b>	<b>\$ 5.15</b>		<b>\$ 0.00</b>

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

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

Medford  
East West Junction  
ORM07-TS-13-04

**General**

**Yarding & Loading**

**STUMP TO TRUCK:**

Med Twr=40-70: \$4/gallon fuel for loader and tower, manual delimbing, \$360/saw/day, 3.5 saws total

Track Skidder: \$4/gallon fuel for loader and skidder, manual falling/delimbing, \$360/saw/day, 3.5 saws total, 2 track skidders

Med Twr=40-70: Swing portions of units 20-1 and 29-4B. \$4/gallon fuel for loader, tower and extra track skidder, manual delimbing, \$360/saw/day, 3.5 saws total.

**OTHER YARD & LOADING COSTS**

Directional falling: Estimate no more than 247 GM MBF to be directionally felled

**ADDITIONAL MOVE-INS:**

Short distances between units, moving multiple pieces of equipment in a day

**Road Costs**

(see Engineering Appraisal for details).

**Transportation**

**TRANSPORTATION:** Average 9 miles one-way to utilization center

(see Transportation appendix for details).

**Other Allowances**

**OTHER COSTS:**

Skid Location: Estimate no more than 2 days (9 hrs/day) for skid location for 93 acres of tractor

Temporary Spur Construction: Estimate no more than 3 days (9 hrs/day) to construct/improve temporary spur roads in units 5-9, 8-2, 20-1, 29-2B, 29-4A, and 34-2

Skid Construction: 155 total sale acres (7 +/- 10% of sale acres x \$150 per 10 acres)

Ripping: Estimate no more than 12 acres of ripping (skid roads, temporary spur roads, landings)

Hand Seeding: Estimate no more than 1 day (9 hrs/day) to hand seed ripped landings and ripped temporary spur roads

Mulching: Estimate no more than 8 acres of mulching ripped landings and ripped temporary spur roads

Waterbar Skids: Estimate no more than 3 days (9 hrs/day) to waterbar skid roads and temporary spur roads

Additional Tractor Time: Estimate no more than 5 hours to block skid roads

Barricade: Estimate no more than 8 hours for barricades of temporary spur roads in units 8-2, 20-1, 29-4A, and 34-2

**MISC:**

Waterbar cable corridors: Estimate no more than one day (9 hrs) to waterbar cable corridors

**OTHER COSTS:**

Lift Tree: Estimate no more than 2 needed

Intermediate Support: Estimate no more than 6 needed

Equipment Washing: Estimate no more than one day (9 hrs) for equipment washing

**FUELS TREATMENT:**

Hand Pile, Cvr: Estimate no more than 114 acres

Lop and Scatter: Estimate no more than 41 acres

**MISC:**

Landing Pile, Cvr: Cover landing piles in all units, estimate no more than 20 acres of landing piles

**Prospectus**

All Douglas Fir and Sugar Pine 3-P cruised. All Ponderosa Pine and Incense Cedar 100% cruised.

Tract No : TS-13-04  
Sale Name: EAST WEST

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Prep. By : C SMITH  
Sale Date: 2/2013

## ROAD MAINTENANCE AND ROAD USE APPRAISAL WORK SHEET

### Summary of Costs

1. Road Use - Amortization: (1) \$0.00/2233 MBF = \$0.00/MBF 1/  
(RC-3 & RC-3a) (Tot Sale Vol)

## 2. Road Maintenance Obligation:

$$\frac{\$0.00}{(2.1)} + \frac{\$0.00}{(3.1)} + \frac{\$0.00}{(4.1)} + \frac{\$0.00}{(5.1)} = \frac{\$0.00}{(\text{RC}-2\text{c})}$$

### 3. Rockwear Obligation:

$$\frac{\$0.00}{(4.2)} + \frac{\$0.00}{(5.2)} + \frac{\$1693.67}{(7.1)} + \frac{\$0.00}{(7.2)} = \frac{\$1693.67}{(\text{RC-2g})}$$

#### 4. Other Maintenance Payments:

Total (6) = \$0.00  
(RC-3a)

#### 5. Purchaser Maintenance Allowances:

(7.3A) Move In . . . . .	\$2903.04
(7.3B) Culverts, Catch Basins, Downspouts . . . . .	\$2566.35
(7.3C) Grading, Ditching . . . . .	\$4979.48
(7.3D) Slide Removal and Slump Repair . . . . .	\$0.00
(7.3E) Dust Palliative (Water) . . . . .	\$3289.66
(7.3F) Surface Repair (Aggregate) . . . . .	\$0.00
(7.3G) Dust Palliative (Bituminous, Lignin, MgCl) . . .	\$0.00
(7.3H) Other . . . . .	\$0.00

Total (7.3) =  $\frac{\$13738.53}{(\text{RC-2a \& Ex D})}$

$$(2+3+4+5) \quad \text{Total} = \$15,432.20 / 2233 \text{ MBF} = \underline{\$6.91/\text{MBF}} \quad 1/$$

(Total Sale Vol)

Costs are estimates only and do not include Profit and Risk.  
1/ Enter on Timber Sale Summary Form OSO 5420-1.

1. Road Use Fees - Amortization

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

(1) Subtotal

2. BLM Maintenance - Timber Haul 1/ 2/ 3/ 4/ 5/

Road Number	A Surf	Maint	Vol	Total
and Segment	N Type	Mi x	Fee x	MBF =
				Maint

(2.1) Subtotal

- 1/ Enter list of roads in Sec. 41(RC-2).  
 2/ Rockwear is included in fee as a maintenance cost for BLM maintained roads.  
 3/ Include lump sum logging damage repair (see Ex. D, Subsection 3108a Option F & 3401a).

3. BLM Maintenance - Rock Haul 1/ 2/ 3/

Road Number	A Surf	Maint	Vol	Total
and Segment	N Type	Mi x	Fee x	C.Y. =
				Maint

(3.1) Subtotal

- 1/ Enter list of roads in Section 41(RC-2).  
 2/ Rockwear is included in fee as a maintenance cost for BLM maintained roads.  
 3/ Include lump sum logging damage repair (See Ex. D, Subsection 3108a Option F & 3401a).

4. Third Party Maintenance and Rockwear - Timber Haul 1/

MAINTENANCE (4.1)						ROCKWEAR (4.2) 2/ 3/		
Road Number	A	Maint	Vol	Total		Rkwear	Vol	Total
and Segment	N	Mi x	Fee x	MBF =	Maint	Mi x	Fee x	MBF =
								Rkwear

(4.1) Subtotal

(4.2) Subtotal

- 1/ Enter list of roads in Sec. 41(RC-2).  
 2/ Rockwear is included in fee as a maintenance cost for BLM maintained roads.  
 3/ Include lump sum logging damage repair (see Ex. D, Subsection 3108a Option F & 3401a).

5. Third Party Maintenance and Rockwear - Rock Haul 1/

MAINTENANCE (5.1)						ROCKWEAR (5.2) 2/ 3/		
Road Number	A	Maint	Vol	Total		Rkwear	Vol	Total
and Segment	N	Mi x	Fee x	C.Y. =	Maint	Mi x	Fee x	C.Y. =
								Rkwear

(5.1) Subtotal

(5.2) Subtotal

- 1/ Enter list of roads in Sec. 41(RC-2).  
 2/ Rockwear is included in fee as a maintenance cost for BLM maintained roads.  
 3/ Include lump sum logging damage repair (see Ex. D, Subsection 3108a Option F & 3401a).

6. Other Maintenance Payments - USFS or Others Perform Maintenance

Agreement	Fee	Fee	Vol	Maint
Number	Road Number	MBF/Mi x	Mi =	/MBF x Hauled =
				Cost

(6) Subtotal

## 7. Purchaser Maintenance - Rock Wear

### TIMBER HAUL (7.1)

### ROCK HAUL (7.2) 2/ 3/

Road No 1/ and Segment	A N	Mi	x	RkWear Fee	x	Vol MBF	=	Total RkWear	Mi	x	RkWear Fee	x	Vol C.Y.	=	Total RkWear
39-7-8B	A	0.15	0.00			636		\$0.00	0.00	0.00			0		\$0.00
39-7-8C	A	0.68	0.00			636		\$0.00	0.00	0.00			0		\$0.00
39-7-8D	A	0.10	0.00			636		\$0.00	0.00	0.00			0		\$0.00
39-7-8E	A	0.37	0.00			636		\$0.00	0.00	0.00			0		\$0.00
39-7-17	A	0.63	0.00			138		\$0.00	0.00	0.00			0		\$0.00
39-7-21.1	A	3.54	0.51			879		\$1586.95							
39-8-29	A	1.49	0.00			614		\$0.00	633.00	0.00			0		\$0.00
39-8-29.1	A	0.13	0.00			90		\$0.00	0.00	0.00			0		\$0.00
39-8-29.3	A	0.46	0.00			101		\$0.00	0.00	0.00			0		\$0.00
39-8-29.4	A	0.24	0.00			114		\$0.00	0.00	0.00			0		\$0.00
39-8-31B	A	0.07	0.51			15		\$0.54							
40-8-3.0	A	0.08	0.51			110		\$4.49							
40-8-4.0	A	0.69	0.51			289		\$101.70							
40-8-5	A	0.30	0.00			68		\$0.00	0.00	0.00			0		\$0.00
40-8-3.1	A	0.48	0.00			110		\$0.00	0.00	0.00			0		\$0.00

(7.1) Subtotal \$1693.67

(7.2) Subtotal \$0.00

1/ List all purchaser maintained roads and enter list in Section 41(RC-2a). Don't repeat any BLM maintained roads listed on appraisal. List may include new const. roads without fees.

2/ All surfaced roads have a rockwear fee, except no rockwear fee is charged for rock haul on roads surfaced or resurfaced under this timber sale.

3/ Include lump sum logging damage repair (See Ex. D, Subsection 3108a Option F & 3401a).

## 7. Purchaser Operational Maintenance

Cost allowances must be limited to work required under timber sale Exhibit D.

If purchaser maint. such as dust control/damage repair is performed on BLM maint. roads, add appropriate mandatory Ex. D provisions, RC-2a and RC-2h stip. Note in prospectus.

### 7.3A Move In

Equipment 1/	No Units	Move x in	Cost/ 50 Mi	Dist x Factor	Sub- total
Motor Grader:	1	2	\$356.00	0.84	\$598.08
Back Hoe:	1	2	\$356.00	0.84	\$598.08
Loader:	1	2	\$356.00	0.84	\$598.08
Water Truck:	2	2	\$216.00	0.84	\$725.76
Dump Truck 2/:	1	2	\$228.00	0.84	\$383.04

(7.3A) Total \$2903.04

1/ Equipment limited to that allowed in Exhibit D. Refer to Sch. 20 Table 2.

2/ Dump truck is allowable for surface repair only.

### 7.3B Culvert Maintenance - Including Catchbasins and Downpipes 1/

Miles	x	Cost/Mi	=	Subtotal
9.71		264.30		\$2566.35

(7.3B) Total \$2566.35

1/ Does not include purchase or installation of culvert pipe. Refer to Sch. 20 Table 32.

7.3C Grading (Includes Ditches and Shoulders) 1/

	Miles	x	Cost/Mi	x	Freq	=	Subtotal
Blade Road:	9.71		512.82		1		\$4979.48
Blade Ditch:	0.00		139.08		0		\$0.00

(7.3C) Total \$4979.48

1/ Watch for double allowance on roadway preparation for dust palliative application.

7.3D Slide and Slough removal, Slump Repair (15 sta-yds. ea.) 1/

Type	No Slides	Hours	Equip		
Equipment	/Slumps	x Each	x Cost	=	Subtotal
Grader:	0	0	137.80		\$0.00
Loader:	0	0	89.31		\$0.00
Backhoe:	0	0	64.75		\$0.00

(7.3D) Total \$0.00

1/ Maximum haul is 15 sta. yds. Use grader or front end loader only. Dump truck not allowed in specifications. Refer to Sch. 20 Table 28.

7.3E Dust Palliative (Water) 1/

Spreading Hours

Miles	/	MPH	=	Hours	x	No Days	x	Freq /Day	=	Truck Hours
9.71		5		1.9		10		2		38.0
Load & Haul-Roundtrip =				0.0		0		0		0.0
Fixed Hours (3000 Gal. tanker)										
Total Hours =										38.0

Truck Cost: \$86.57/Hr. x 38.0 Hours = \$3289.66

(7.3E) Total \$3289.66

1/ Allow water for all BLM maint. non-oiled roads. Subsection 3403 requires 0.50 gal/syd.

7.3F Surface Repair (Aggregate)

Production Cost: 1/	0 C.Y. x \$0.00/C.Y.	=	\$0.00
Haul to Stockpile:	0 C.Y. x \$2.32/C.Y. x 0.00 Mi	=	\$0.00
Stockpile:	0 C.Y. x \$1.25/C.Y.	=	\$0.00
Load from Stockpile:	0 C.Y. x \$1.38/C.Y.	=	\$0.00
Haul from Stockpile:	0 C.Y. x \$2.32/C.Y. x 0.00 Mi	=	\$0.00
Process with Grader:	0 C.Y. x \$0.77/C.Y.	=	\$0.00

(7.3F) Total \$0.00

1/ Use unit cost from Road Construction Cost Guide.

7.3G Dust Palliative (Bituminous, Lignin, Magnesium Chloride)

(7.3G) Total

7.3H Other

Fallen Timber Cutting: 1/ 0.0 Hours x \$0.00/Hour = \$0.00  
Brush Cutting/Tree Trimming: 2/ 0.0 Hours x \$0.00/Hour = \$0.00  
Oil/Asphalt Materials: 3/ Lump Sum = \$0.00  
Signing for Dust Palliatives: 4/ Lump Sum = \$0.00  
Misc. L.S. = \$0.00

(7.3H) Total \$0.00

- 1/ Exhibit D Subsection 3104.
- 2/ Exhibit D Subsection 3107.
- 3/ Exhibit D Subsection 3401a.
- 4/ Exhibit D Subsection 3405b.





UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**Summary of All Roads and Projects**

T.S. Update 05/15/12

T.S. Contract Name: East West Junction Sale Date: 2/2013

Prepared by: C. SMITH Ph: 6533 Print Date: 2/11/2013 11:43:06 AM

Construction: 0.00 sta (Surfaced 0.00 sta Natural 0.00 sta)

Improve: 0.00 sta Renov: 496.83 sta Decom: 0.00 sta Temp: 10.56 sta

200 Clearing and Grubbing: 1.7 acres .....	\$3,909.98
Clearing: 23.3 sta     Grubbing: 1.7 acres	
Slash Treatment: 1.7 acres	
300 Excavation: 2,145 cy .....	\$4,200.08
Haul: 100 sta-yds	
400 Drainage: .....	\$1,544.52
Culvert: 50 lf     wt = 870 lbs     factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$13,618.65
Blading 9.41 mi	
Surfacing: .....	\$21,338.85
1200 Quarry Name: Commercial   634 cy	
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 11.3 acres .....	\$7,844.23
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 23.76 sta. ....	\$1,089.71
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$1,500.00
Mobilization: Const. \$7,644.20   Surf. \$2,814.20.....	\$10,458.40
Quarry Development: .....	\$0.00

Total: 2,233 mbf @ \$29.33/mbf = \$65,504.42

Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities are COMPACTED in place cubic yards.

File T:\GP-GL\ENGINEERING\Timber Sales\2012 TS\East West Junction\Road Cost Files\EAST WEST  
T.S..mdb

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 39-7-17 Road Name: KELLY CR. SP.

Road Renovation: 0.63 mi 14 ft Subgrade ft ditch

T.S. Update 05/15/12

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
Clearing:0.0 sta    Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation: .....	\$0.00
400 Drainage: .....	\$0.00
Culvert: 0 lf    wt = 0 lbs    factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$489.59
Blading 0.63 mi	
Surfacing: .....	\$0.00
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.8 acres .....	\$880.45
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$190.26 Surf. \$0.00.....	\$190.26
Quarry Development: .....	\$0.00
Total:	\$1,560.29

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 39-7-17 Road Name: KELLY CR. SP.

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$512.82/mi x 0.63 mi = \$323.08

Clean Culverts: \$264.30/mi x 0.63 mi = \$166.51

Subtotal: \$489.59

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: 5ft. Right: 5ft.

RoadSide Brushing Heavy: \$1100.56/acre x 0.80 acres = \$880.45

Subtotal: \$880.45

Section 2200 Surface Treatment:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 2.49% of total Costs = \$190.26

Surfacing - 0.00% by rock volume = \$0.00

Subtotal: \$190.26

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: \$0.00

Road Number: 39-7-17 KELLY CR. SP. Continued

Total: \$1,560.29

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 39-7-21.1 Road Name: KELLY CR.

Road Renovation: 3.54 mi 14 ft Subgrade 5 ft ditch

T.S. Update 05/15/12

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
Clearing:0.0 sta    Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation: .....	\$0.00
400 Drainage: .....	\$0.00
Culvert: 0 lf    wt = 0 lbs    factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$3,243.35
Blading 3.54 mi	
Surfacing: .....	\$0.00
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 4.3 acres .....	\$4,732.41
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$1,107.59 Surf. \$0.00.....	\$1,107.59
Quarry Development: .....	\$0.00
Total:	\$9,083.34

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 39-7-21.1 Road Name: KELLY CR.

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$512.82/mi x 3.54 mi = \$1,815.38

Pull Ditches: \$139.08/mi x 3.54 mi = \$492.34

Clean Culverts: \$264.30/mi x 3.54 mi = \$935.62

Subtotal: \$3,243.35

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: 5ft. Right: 5ft.

RoadSide Brushing Heavy: \$1100.56/acre x 4.30 acres = \$4,732.41

Subtotal: \$4,732.41

Section 2200 Surface Treatment:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 14.49% of total Costs = \$1,107.59

Surfacing - 0.00% by rock volume = \$0.00

Subtotal: \$1,107.59

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: \$0.00

Road Number: 39-7-21.1 KELLY CR. Continued

Total: \$9,083.34

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 39-7-8B Road Name: PERDIN RIDGE

Road Renovation: 0.15 mi 14 ft Subgrade ft ditch

T.S. Update 05/15/12

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
Clearing:0.0 sta    Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation: .....	\$0.00
400 Drainage: .....	\$0.00
Culvert: 0 lf    wt = 0 lbs    factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$116.57
Blading 0.15 mi	
Surfacing: .....	\$0.00
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.2 acres .....	\$45.86
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$22.56 Surf. \$0.00.....	\$22.56
Quarry Development: .....	\$0.00
Total:	\$184.98

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.



Road Construction Worksheet

Road Number: 39-7-8B Road Name: PERDIN RIDGE

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$512.82/mi x 0.15 mi = \$76.92

Clean Culverts: \$264.30/mi x 0.15 mi = \$39.65

Subtotal: \$116.57

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: 5ft. Right: 5ft.

RoadSide Brushing Light: \$229.28/acre x 0.20 acres = \$45.86

Subtotal: \$45.86

Section 2200 Surface Treatment:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.30% of total Costs = \$22.56

Surfacing - 0.00% by rock volume = \$0.00

Subtotal: \$22.56

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: \$0.00

Road Number: 39-7-8B PERDIN RIDGE Continued

Total: \$184.98

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 39-7-8C Road Name: PERDIN RIDGE

Road Renovation: 0.68 mi 14 ft Subgrade ft ditch

T.S. Update 05/15/12

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
Clearing:0.0 sta    Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation: .....	\$0.00
400 Drainage: .....	\$0.00
Culvert: 0 lf    wt = 0 lbs    factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$528.44
Blading 0.68 mi	
Surfacing: .....	\$0.00
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.8 acres .....	\$183.42
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$98.86 Surf. \$0.00.....	\$98.86
Quarry Development: .....	\$0.00
Total:	\$810.72

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 39-7-8C Road Name: PERDIN RIDGE

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$512.82/mi x 0.68 mi = \$348.72

Clean Culverts: \$264.30/mi x 0.68 mi = \$179.72

Subtotal: \$528.44

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: 5ft. Right: 5ft.

RoadSide Brushing Light: \$229.28/acre x 0.80 acres = \$183.42

Subtotal: \$183.42

Section 2200 Surface Treatment:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 1.29% of total Costs = \$98.86

Surfacing - 0.00% by rock volume = \$0.00

Subtotal: \$98.86

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: \$0.00

Road Number: 39-7-8C PERDIN RIDGE Continued

Total: \$810.72

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 39-7-8D Road Name: PERDIN RIDGE

Road Renovation: 0.10 mi 14 ft Subgrade ft ditch

T.S. Update 05/15/12

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
Clearing:0.0 sta    Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation: .....	\$0.00
400 Drainage: .....	\$0.00
Culvert: 0 lf    wt = 0 lbs    factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$77.71
Blading 0.10 mi	
Surfacing: .....	\$0.00
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.1 acres .....	\$110.06
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$26.08 Surf. \$0.00.....	\$26.08
Quarry Development: .....	\$0.00
Total:	\$213.84

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 39-7-8D Road Name: PERDIN RIDGE

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$512.82/mi x 0.10 mi = \$51.28

Clean Culverts: \$264.30/mi x 0.10 mi = \$26.43

Subtotal: \$77.71

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Brushing width Left: 5ft. Right: 5ft.

RoadSide Brushing Heavy: \$1100.56/acre x 0.10 acres = \$110.06

Subtotal: \$110.06

Section 2200 Surface Treatment:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.34% of total Costs = \$26.08

Surfacing - 0.00% by rock volume = \$0.00

Subtotal: \$26.08

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: \$0.00

Road Number: 39-7-8D PERDIN RIDGE Continued

Total: \$213.84



# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 39-7-8E Road Name: PERDIN RIDGE

Road Renovation: 0.37 mi 14 ft Subgrade ft ditch

T.S. Update 05/15/12

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
Clearing:0.0 sta      Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation: 200 cy .....	\$456.00
Haul: 100 sta-yds	
400 Drainage: .....	\$0.00
Culvert: 0 lf      wt = 0 lbs      factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$287.53
Blading 0.37 mi	
Surfacing: .....	\$1,733.78
1200 Quarry Name: Commercial 125 cy	
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.4 acres .....	\$440.22
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$405.16 Surf. \$554.85.....	\$960.01
Quarry Development: .....	\$0.00
Total:	\$3,877.54

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 39-7-8E Road Name: PERDIN RIDGE

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Excavation - Common: \$1.71/cy x 200 cy = \$342.00

Layer Embankment - Common: \$0.24/cy x 100 cy = \$24.00

Compaction - Common: \$0.76/cy x 100 cy = \$76.00

End Hauling - 100 to 500 ft: \$0.14/sta-yd x 100 sta-yd = \$14.00

Subtotal: \$456.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$512.82/mi x 0.37 mi = \$189.74

Clean Culverts: \$264.30/mi x 0.37 mi = \$97.79

Subtotal: \$287.53

Section 1200 Crushed under 1 1/2 Quarry Name: Commercial

<u>Length</u>	<u>TopW</u>	<u>BotW</u>	<u>Depth</u>	<u>CWid</u>	<u>#TOs</u>	<u>Width</u>	<u>F.W.L</u>	<u>Taper</u>	<u>Other</u>
.16mi	12ft	12ft	4in						

Rock Volume = 125cy

Production: \$9.04/cy x 125cy = \$1,130.00

Processing: \$1.38/cy x 125cy = \$172.50

Compaction: \$0.77/cy x 125cy = \$96.25

T11 Testing: \$0.06/cy x 125cy = \$7.50

T27 Testing: \$0.06/cy x 125cy = \$7.50

Stockpiling: \$1.38/cy x 125cy = \$172.50

Basic Rock Haul cost: \$0.93/cy x 125cy = \$116.25

Rock Haul +15% grades: \$2.78/cy-mi x 125cy x 0.05 mi= \$17.38

Rock Haul -15% grades: \$1.39/cy-mi x 125cy x 0.08 mi= \$13.90

Subtotal: \$1,733.78

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: 5ft. Right: 5ft.

RoadSide Brushing Heavy: \$1100.56/acre x 0.40 acres = \$440.22

Subtotal: \$440.22

Section 2200 Surface Treatment:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Road Number: 39-7-8E PERDIN RIDGE Continued

	Subtotal:	\$0.00
Section 2500 Gabions:		
	Subtotal:	\$0.00
Section 8000 Miscellaneous:		
	Subtotal:	\$0.00
Mobilization:		
Construction - 5.30% of total Costs = \$405.16		
Surfacing - 19.72% by rock volume = \$554.85		
	Subtotal:	\$960.01
Quarry Development:		
Based on 19.72% of total rock volume		
	Subtotal:	\$0.00
	Total:	\$3,877.54

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 39-8-29 Road Name: COMBO MAINLINE

Road Renovation: 1.49 mi 14 ft Subgrade 3 ft ditch

T.S. Update 05/15/12

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
Clearing:0.0 sta      Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation: .....	\$129.99
400 Drainage: .....	\$676.56
Culvert: 20 lf      wt = 420 lbs      factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$4,253.95
Blading 1.49 mi	
Surfacing: .....	\$15,374.18
1200 Quarry Name: Commercial 464 cy	
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 1.8 acres .....	\$412.70
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$2,895.06 Surf. \$2,059.60.....	\$4,954.66
Quarry Development: .....	\$0.00
Total:	\$25,802.04

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 39-8-29 Road Name: COMBO MAINLINE

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Excavation - Solid: \$6.03/cy x 0 cy = \$0.00

Layer Embankment - Rock: \$0.23/cy x 0 cy = \$0.00

Subgrade Compaction: 4 Sta/hr \$18.57/sta. x 7.0 sta = \$129.99

Compaction - Rock: \$0.54/cy x 0 cy = \$0.00

End Hauling > 500 ft and 20 mph: \$1.72/yd-mi x 0 yd-mi = \$0.00

Blading: \$11.32/station x 0.00 stations = \$0.00

Subtotal: \$129.99

Section 400 Drainage:

Galvanized 18 inch 14 ga 20 lf x \$28.19/lf x 1.2 = \$676.56

Subtotal: \$676.56

Section 500 Renovation:

Slide Removal 0 cy

Blading: \$512.82/mi x 1.49 mi = \$764.10

Scarification: \$854.70/mi x 1.49 mi = \$1,273.50

Pull Ditches: \$139.08/mi x 1.00 mi = \$139.08

Compaction: \$1307.22/mi x 1.49 mi = \$1,947.76

Clean Culverts: \$264.30/mi x 0.49 mi = \$129.51

Subtotal: \$4,253.95

Section 1200 Crushed under 1 1/2 Quarry Name: Commercial

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
0.2mi	14ft	15ft	6in						181cy

Rock Volume = 464cy

Production: \$9.04/cy x 464cy = \$4,194.56

Processing: \$1.38/cy x 464cy = \$640.32

Compaction: \$0.77/cy x 464cy = \$357.28

T11 Testing: \$0.06/cy x 464cy = \$27.84

T27 Testing: \$0.06/cy x 464cy = \$27.84

Stockpiling: \$1.38/cy x 464cy = \$640.32

Basic Rock Haul cost: \$0.93/cy x 464cy = \$431.52

Rock Haul -15% grades: \$1.39/cy-mi x 464cy x 0.20 mi= \$128.99

Rock Haul St& Co Roads: \$0.62/cy-mi x 464cy x 30.00 mi= \$8,630.40

Basic Water Haul cost: \$0.61/cy x 464cy = \$283.04

Water Haul -15% grades: \$0.13/cy-mi x 464cy x 0.20 mi= \$12.06

Subtotal: \$15,374.18

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: 5ft. Right: 5ft.

RoadSide Brushing Light: \$229.28/acre x 1.80 acres = \$412.70

	Subtotal:	\$412.70
Section 2200 Surface Treatment:		
	Subtotal:	\$0.00
Section 2300 Engineering:		
	Subtotal:	\$0.00
Section 2400 Minor Concrete:		
	Subtotal:	\$0.00
Section 2500 Gabions:		
	Subtotal:	\$0.00
Section 8000 Miscellaneous:		
	Subtotal:	\$0.00
Mobilization:		
Construction - 37.87% of total Costs = \$2,895.06		
Surfacing - 73.19% by rock volume = \$2,059.60		
	Subtotal:	\$4,954.66
Quarry Development:		
Based on 73.19% of total rock volume		
	Subtotal:	\$0.00
	Total:	\$25,802.04

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 39-8-29.1 Road Name: COMBO A SP.

Road Renovation: 0.13 mi 14 ft Subgrade ft ditch T.S. Update 05/15/12

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
Clearing:0.0 sta    Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation: .....	\$0.00
400 Drainage: .....	\$0.00
Culvert: 0 lf    wt = 0 lbs    factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$101.03
Blading 0.13 mi	
Surfacing: .....	\$0.00
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.2 acres .....	\$45.86
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$20.40 Surf. \$0.00.....	\$20.40
Quarry Development: .....	\$0.00
Total:	\$167.28

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 39-8-29.1 Road Name: COMBO A SP.

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$512.82/mi x 0.13 mi = \$66.67

Clean Culverts: \$264.30/mi x 0.13 mi = \$34.36

Subtotal: \$101.03

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: 5ft. Right: 5ft.

RoadSide Brushing Light: \$229.28/acre x 0.20 acres = \$45.86

Subtotal: \$45.86

Section 2200 Surface Treatment:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.27% of total Costs = \$20.40

Surfacing - 0.00% by rock volume = \$0.00

Subtotal: \$20.40

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: \$0.00



Road Number: 39-8-29.1 COMBO A SP. Continued

Total: \$167.28

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 39-8-29.3 Road Name: COMBO C SPUR

Road Renovation: 0.46 mi 14 ft Subgrade 0 ft ditch

T.S. Update 05/15/12

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
Clearing:0.0 sta    Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation: .....	\$0.00
400 Drainage: .....	\$0.00
Culvert: 0 lf    wt = 0 lbs    factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$357.48
Blading 0.46 mi	
Surfacing: .....	\$0.00
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.6 acres .....	\$126.56
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$67.22 Surf. \$0.00.....	\$67.22
Quarry Development: .....	\$0.00
Total:	\$551.26

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 39-8-29.3 Road Name: COMBO C 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: \$512.82/mi x 0.46 mi = \$235.90

Clean Culverts: \$264.30/mi x 0.46 mi = \$121.58

Subtotal: \$357.48

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: 5ft. Right: 5ft.

RoadSide Brushing Light: \$229.28/acre x 0.55 acres = \$126.56

Subtotal: \$126.56

Section 2200 Surface Treatment:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.88% of total Costs = \$67.22

Surfacing - 0.00% by rock volume = \$0.00

Subtotal: \$67.22

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: \$0.00

Road Number: 39-8-29.3 COMBO C SPUR Continued

Total: \$551.26

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 39-8-29.4 Road Name: COMBO D SP.

Road Renovation: 0.24 mi 14 ft Subgrade ft ditch T.S. Update 05/15/12

200 Clearing and Grubbing: 0.7 acres .....	\$1,744.32
Clearing:12.7 sta    Grubbing:0.7 acres	
Slash Treatment:0.7 acres	
300 Excavation: .....	\$0.00
400 Drainage: .....	\$0.00
Culvert: 0 lf    wt = 0 lbs    factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$738.75
Blading 0.24 mi	
Surfacing: .....	\$0.00
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.0 acres .....	\$0.00
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$344.82 Surf. \$0.00.....	\$344.82
Quarry Development: .....	\$0.00
Total:	\$2,827.89

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

## Road Construction Worksheet

Road Number: 39-8-29.4 Road Name: COMBO D SP.

### Section 200 Clearing and Grubbing:

Clearing - Medium:  $\$30.16/\text{sta} \times 12.70 \text{ sta} = \$383.03$

Grubbing - Medium:  $\$810.46/\text{acre} \times 0.70 \text{ acres} = \$567.32$

Pile and Burn:  $\$1134.24/\text{acre} \times 0.70 \text{ acres} = \$793.97$

Subtotal: \$1,744.32

### Section 300 Excavation:

Subtotal: \$0.00

### Section 400 Drainage:

Subtotal: \$0.00

### Section 500 Renovation:

Blading:  $\$512.82/\text{mi} \times 0.24 \text{ mi} = \$123.08$

Scarification:  $\$854.70/\text{mi} \times 0.24 \text{ mi} = \$205.13$

Pull Ditches:  $\$139.08/\text{mi} \times 0.24 \text{ mi} = \$33.38$

Compaction:  $\$1307.22/\text{mi} \times 0.24 \text{ mi} = \$313.73$

Clean Culverts:  $\$264.30/\text{mi} \times 0.24 \text{ mi} = \$63.43$

Subtotal: \$738.75

### Surfacing:

Subtotal: \$0.00

### Section 1300 Geotextiles:

Subtotal: \$0.00

### Section 1400 Slope Protection:

Subtotal: \$0.00

### Section 1800 Soil Stabilization:

Subtotal: \$0.00

### Section 1900 Cattleguards:

Subtotal: \$0.00

### Section 2100 Roadside Brushing:

Subtotal: \$0.00

### Section 2200 Surface Treatment:

Subtotal: \$0.00

### Section 2300 Engineering:

Subtotal: \$0.00

### Section 2400 Minor Concrete:

Subtotal: \$0.00

### Section 2500 Gabions:

Subtotal: \$0.00

### Section 8000 Miscellaneous:

Subtotal: \$0.00

### Mobilization:

Construction - 4.51% of total Costs = \$344.82

Surfacing - 0.00% by rock volume = \$0.00

Subtotal: \$344.82

Road Number: 39-8-29.4 COMBO D SP. Continued

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: \$0.00

Total: \$2,827.89

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 39-8-31B Road Name: WESTSIDE SP

Road Renovation: 0.07 mi 15 ft Subgrade ft ditch

T.S. Update 05/15/12

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
Clearing:0.0 sta    Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation: .....	\$0.00
400 Drainage: .....	\$0.00
Culvert: 0 lf    wt = 0 lbs    factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$54.40
Blading 0.07 mi	
Surfacing: .....	\$0.00
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.1 acres .....	\$22.93
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$10.74 Surf. \$0.00.....	\$10.74
Quarry Development: .....	\$0.00
Total:	\$88.06

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.



Road Construction Worksheet

Road Number: 39-8-31B Road Name: WESTSIDE SP

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$512.82/mi x 0.07 mi = \$35.90

Clean Culverts: \$264.30/mi x 0.07 mi = \$18.50

Subtotal: \$54.40

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: 5ft. Right: 5ft.

RoadSide Brushing Light: \$229.28/acre x 0.10 acres = \$22.93

Subtotal: \$22.93

Section 2200 Surface Treatment:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.14% of total Costs = \$10.74

Surfacing - 0.00% by rock volume = \$0.00

Subtotal: \$10.74

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: \$0.00

Road Number: 39-8-31B WESTSIDE SP Continued

Total: \$88.06

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 40-8-3.0 Road Name:

Road Renovation: 0.08 mi 14 ft Subgrade ft ditch

T.S. Update 05/15/12

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
Clearing:0.0 sta    Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation: .....	\$0.00
400 Drainage: .....	\$0.00
Culvert: 0 lf    wt = 0 lbs    factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$235.12
Blading 0.08 mi	
Surfacing: .....	\$0.00
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.1 acres .....	\$55.03
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$40.29 Surf. \$0.00.....	\$40.29
Quarry Development: .....	\$0.00
Total:	\$330.44

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 40-8-3.0 Road Name:

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading:  $\$512.82/\text{mi} \times 0.08 \text{ mi} = \$41.03$

Scarification:  $\$854.70/\text{mi} \times 0.08 \text{ mi} = \$68.38$

Compaction:  $\$1307.22/\text{mi} \times 0.08 \text{ mi} = \$104.58$

Clean Culverts:  $\$264.30/\text{mi} \times 0.08 \text{ mi} = \$21.14$

Subtotal: \$235.12

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: 5ft. Right: 5ft.

RoadSide Brushing Medium:  $\$550.28/\text{acre} \times 0.10 \text{ acres} = \$55.03$

Subtotal: \$55.03

Section 2200 Surface Treatment:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 0.53% of total Costs = \$40.29

Surfacing - 0.00% by rock volume = \$0.00

Subtotal: \$40.29

Quarry Development:

Based on 0.00% of total rock volume

Road Number: 40-8-3.0 Continued

Subtotal: \$0.00

Total: \$330.44

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 40-8-3.1 Road Name: Spur

Road Renovation: 0.48 mi 14 ft Subgrade ft ditch T.S. Update 05/15/12

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
Clearing:0.0 sta    Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation: .....	\$0.00
400 Drainage: .....	\$0.00
Culvert: 0 lf    wt = 0 lbs    factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$439.78
Blading 0.48 mi	
Surfacing: .....	\$0.00
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.6 acres .....	\$330.17
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$106.92 Surf. \$0.00.....	\$106.92
Quarry Development: .....	\$0.00
Total:	\$876.87

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 40-8-3.1 Road Name: 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: \$512.82/mi x 0.48 mi = \$246.15

Pull Ditches: \$139.08/mi x 0.48 mi = \$66.76

Clean Culverts: \$264.30/mi x 0.48 mi = \$126.86

Subtotal: \$439.78

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: 5ft. Right: 5ft.

RoadSide Brushing Medium: \$550.28/acre x 0.60 acres = \$330.17

Subtotal: \$330.17

Section 2200 Surface Treatment:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 1.40% of total Costs = \$106.92

Surfacing - 0.00% by rock volume = \$0.00

Subtotal: \$106.92

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: \$0.00

Road Number: 40-8-3.1 Spur Continued

Total: \$876.87



# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 40-8-4.0 Road Name: LOGAN CUT ML

Road Renovation: 0.69 mi 17 ft Subgrade ft ditch

T.S. Update 05/15/12

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
Clearing:0.0 sta    Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation: .....	\$0.00
400 Drainage: .....	\$0.00
Culvert: 0 lf    wt = 0 lbs    factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$2,027.94
Blading 0.69 mi	
Surfacing: .....	\$4,230.90
1200 Quarry Name: Commercial 45 cy	
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.8 acres .....	\$183.42
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$894.63 Surf. \$199.75.....	\$1,094.38
Quarry Development: .....	\$0.00
Total:	\$7,536.64

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 40-8-4.0 Road Name: LOGAN CUT ML

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading: \$512.82/mi x 0.69 mi = \$353.85

Scarification: \$854.70/mi x 0.69 mi = \$589.74

Compaction: \$1307.22/mi x 0.69 mi = \$901.98

Clean Culverts: \$264.30/mi x 0.69 mi = \$182.37

Subtotal: \$2,027.94

Section 1200 Crushed under 1 1/2 Quarry Name: Commercial

<u>Length</u>	<u>TopW</u>	<u>BotW</u>	<u>Depth</u>	<u>CWid</u>	<u>#TOs</u>	<u>Width</u>	<u>F.W.L</u>	<u>Taper</u>	<u>Other</u>
.05mi	14ft	14ft	4in						

Rock Volume = 45cy

Production: \$9.04/cy x 45cy = \$406.80

Processing: \$1.38/cy x 45cy = \$62.10

Compaction: \$0.77/cy x 45cy = \$34.65

T11 Testing: \$0.06/cy x 45cy = \$2.70

T27 Testing: \$0.06/cy x 45cy = \$2.70

Stockpiling: \$1.38/cy x 45cy = \$62.10

Basic Rock Haul cost: \$0.93/cy x 45cy = \$41.85

Rock Haul -15% grades: \$1.39/cy-mi x 45cy x 40.00 mi= \$2,502.00

Rock Haul St& Co Roads: \$0.62/cy-mi x 45cy x 40.00 mi= \$1,116.00

Subtotal: \$4,230.90

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: 5ft. Right: 5ft.

RoadSide Brushing Light: \$229.28/acre x 0.80 acres = \$183.42

Subtotal: \$183.42

Section 2200 Surface Treatment:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Road Number: 40-8-4.0 LOGAN CUT ML Continued

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 11.70% of total Costs = \$894.63

Surfacing - 7.10% by rock volume = \$199.75

Subtotal: \$1,094.38

Quarry Development:

Based on 7.10% of total rock volume

Subtotal: \$0.00

Total: \$7,536.64

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: 40-8-5 Road Name: Ken Rose

Road Renovation: 0.30 mi 14 ft Subgrade ft ditch T.S. Update 05/15/12

200 Clearing and Grubbing: 0.0 acres .....	\$0.00
Clearing:0.0 sta    Grubbing:0.0 acres	
Slash Treatment:0.0 acres	
300 Excavation: .....	\$0.00
400 Drainage: .....	\$0.00
Culvert: 0 lf    wt = 0 lbs    factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$667.03
Blading 0.30 mi	
Surfacing: .....	\$0.00
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.5 acres .....	\$275.14
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 0.00 sta. ....	\$0.00
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$0.00
Mobilization: Const. \$130.84 Surf. \$0.00.....	\$130.84
Quarry Development: .....	\$0.00
Total:	\$1,073.00

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: 40-8-5 Road Name: Ken Rose

Section 200 Clearing and Grubbing:

Subtotal: \$0.00

Section 300 Excavation:

Subtotal: \$0.00

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Blading:  $\$512.82/\text{mi} \times 0.30 \text{ mi} = \$153.85$

Pull Ditches:  $\$139.08/\text{mi} \times 0.30 \text{ mi} = \$41.72$

Compaction:  $\$1307.22/\text{mi} \times 0.30 \text{ mi} = \$392.17$

Clean Culverts:  $\$264.30/\text{mi} \times 0.30 \text{ mi} = \$79.29$

Subtotal: \$667.03

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: 5ft. Right: 5ft.

RoadSide Brushing Medium:  $\$550.28/\text{acre} \times 0.50 \text{ acres} = \$275.14$

Subtotal: \$275.14

Section 2200 Surface Treatment:

Subtotal: \$0.00

Section 2300 Engineering:

Subtotal: \$0.00

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Subtotal: \$0.00

Mobilization:

Construction - 1.71% of total Costs = \$130.84

Surfacing - 0.00% by rock volume = \$0.00

Subtotal: \$130.84

Quarry Development:

Based on 0.00% of total rock volume

Road Number: 40-8-5 Ken Rose Continued

Subtotal: \$0.00

Total: \$1,073.00

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: Temp Rd 34-2A Road Name: Temp Rd to Unit 34-2

Temporary Road: 0.05 mi 14 ft Subgrade ft ditch T.S. Update 05/15/12

200 Clearing and Grubbing: 0.2 acres .....	\$371.03
Clearing:2.6 sta    Grubbing:0.2 acres	
Slash Treatment:0.2 acres	
300 Excavation: 70 cy .....	\$198.61
400 Drainage: .....	\$867.96
Culvert: 30 lf    wt = 450 lbs    factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$0.00
Surfacing: .....	\$0.00
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.0 acres .....	\$0.00
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 7.92 sta. ....	\$321.63
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$500.00
Mobilization: Const. \$313.74 Surf. \$0.00.....	\$313.74
Quarry Development: .....	\$0.00

Total: \$2,572.96

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

## Road Construction Worksheet

Road Number: Temp Rd 34-2A Road Name: Temp Rd to Unit 34-2

### Section 200 Clearing and Grubbing:

Clearing - Medium:  $\$30.16/\text{sta} \times 2.63 \text{ sta} = \$79.32$

Grubbing - Medium:  $\$810.46/\text{acre} \times 0.15 \text{ acres} = \$121.57$

Pile and Burn:  $\$1134.24/\text{acre} \times 0.15 \text{ acres} = \$170.14$

Subtotal: \$371.03

### Section 300 Excavation:

Excavation - Common:  $\$1.71/\text{cy} \times 70 \text{ cy} = \$119.70$

Subgrade Compaction: 4 Sta/hr  $\$18.57/\text{sta.} \times 2.6 \text{ sta} = \$49.02$

Blading:  $\$11.32/\text{station} \times 2.64 \text{ stations} = \$29.88$

Subtotal: \$198.61

### Section 400 Drainage:

Comment: Pull culvert after logging operation

Galvanized 18 inch 16 ga 30 lf x  $\$24.11/\text{lf} \times 1.2 = \$867.96$

Subtotal: \$867.96

### Section 500 Renovation:

Subtotal: \$0.00

### Surfacing:

Subtotal: \$0.00

### Section 1300 Geotextiles:

Subtotal: \$0.00

### Section 1400 Slope Protection:

Subtotal: \$0.00

### Section 1800 Soil Stabilization:

Subtotal: \$0.00

### Section 1900 Cattleguards:

Subtotal: \$0.00

### Section 2100 Roadside Brushing:

Subtotal: \$0.00

### Section 2200 Surface Treatment:

Subtotal: \$0.00

### Section 2300 Engineering:

Comment: 18"x30' culvert installed @ intersection of Co. Rd.

One Side Normal:  $\$24.85/\text{sta} \times 2.64 \text{ sta} = \$65.60$

Both Sides Normal:  $\$31.06/\text{sta} \times 2.64 \text{ sta} = \$82.00$

Design and Survey Normal:  $\$65.92/\text{sta} \times 2.64 \text{ sta} = \$174.03$

Subtotal: \$321.63

### Section 2400 Minor Concrete:

Subtotal: \$0.00

### Section 2500 Gabions:

Subtotal: \$0.00

### Section 8000 Miscellaneous:

Remove culvert

Remove culvert after logging 1 1 x  $\$500.00/1 = \$500.00$

Subtotal: \$500.00



Road Number: Temp Rd 34-2A Temp Rd to Unit 34-2 Continued

Mobilization:

Construction - 4.10% of total Costs = \$313.74

Surfacing - 0.00% by rock volume = \$0.00

Subtotal: \$313.74

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: \$0.00

Total: \$2,572.96

# ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number: Temp Rd 8.05 Road Name: Spur

Temporary Road: 0.15 mi 17 ft Subgrade ft ditch

T.S. Update 05/15/12

200 Clearing and Grubbing: 0.8 acres .....	\$1,794.63
Clearing:7.9 sta Grubbing:0.8 acres	
Slash Treatment:0.8 acres	
300 Excavation: 1,875 cy .....	\$3,415.48
400 Drainage: .....	\$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation: .....	\$0.00
Surfacing: .....	\$0.00
1300 Geotextiles: .....	\$0.00
1400 Slope Protection: .....	\$0.00
1800 Soil Stabilization: 0.0 acres .....	\$0.00
1900 Cattleguards: .....	\$0.00
2100 RoadSide Brushing: 0.0 acres .....	\$0.00
2200 Surface Treatment: 0.0 tons .....	\$0.00
2300 Engineering: 15.84 sta. ....	\$768.08
2400 Minor Concrete: .....	\$0.00
2500 Gabions: .....	\$0.00
8000 Miscellaneous: .....	\$1,000.00
Mobilization: Const. \$969.06 Surf. \$0.00.....	\$969.06
Quarry Development: .....	\$0.00

Total: \$7,947.24

## Notes:

Quantities shown are estimates only and not pay items.

Surfacing Quantities shown are COMPACTED in place cubic yards.

Road Construction Worksheet

Road Number: Temp Rd 8.05 Road Name: Spur

Section 200 Clearing and Grubbing:

Clearing - Medium:  $\$30.16/\text{sta} \times 7.92 \text{ sta} = \$238.87$

Grubbing - Medium:  $\$810.46/\text{acre} \times 0.80 \text{ acres} = \$648.37$

Pile and Burn:  $\$1134.24/\text{acre} \times 0.80 \text{ acres} = \$907.39$

Subtotal: \$1,794.63

Section 300 Excavation:

Comment: Rip after logging

Excavation - Common:  $\$1.71/\text{cy} \times 1,875 \text{ cy} = \$3,206.25$

Subgrade Compaction: 4 Sta/hr  $\$18.57/\text{sta.} \times 7.0 \text{ sta} = \$129.99$

Blading:  $\$11.32/\text{station} \times 7.00 \text{ stations} = \$79.24$

Subtotal: \$3,415.48

Section 400 Drainage:

Subtotal: \$0.00

Section 500 Renovation:

Subtotal: \$0.00

Surfacing:

Subtotal: \$0.00

Section 1300 Geotextiles:

Subtotal: \$0.00

Section 1400 Slope Protection:

Subtotal: \$0.00

Section 1800 Soil Stabilization:

Subtotal: \$0.00

Section 1900 Cattleguards:

Subtotal: \$0.00

Section 2100 Roadside Brushing:

Subtotal: \$0.00

Section 2200 Surface Treatment:

Subtotal: \$0.00

Section 2300 Engineering:

Both Sides Normal:  $\$31.06/\text{sta} \times 7.92 \text{ sta} = \$246.00$

Design and Survey Normal:  $\$65.92/\text{sta} \times 7.92 \text{ sta} = \$522.09$

Subtotal: \$768.08

Section 2400 Minor Concrete:

Subtotal: \$0.00

Section 2500 Gabions:

Subtotal: \$0.00

Section 8000 Miscellaneous:

Decommission after logging

Decomm ission road after logging 1 1 x  $\$1,000.00/1 = \$1,000.00$

Subtotal: \$1,000.00

Mobilization:

Construction - 12.68% of total Costs = \$969.06

Road Number: Temp Rd 8.05 Spur Continued

Surfacing - 0.00% by rock volume = \$0.00

Subtotal: \$969.06

Quarry Development:

Based on 0.00% of total rock volume

Subtotal: \$0.00

Total: \$7,947.24

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**Summary of Construction Quantities**

T.S. Contract Name: East West Junction Sale Date: 2/2013

Road Number	Const	Improv	Renov	Decomm	Temp
39-7-17			33.26		
39-7-21.1			186.91		
39-7-8B			7.92		
39-7-8C			35.90		
39-7-8D			5.28		
39-7-8E			19.54		
39-8-29			78.67		
39-8-29.1			6.86		
39-8-29.3			24.29		
39-8-29.4			12.67		
39-8-31B			3.70		
40-8-3.0			4.22		
40-8-3.1			25.34		
40-8-4.0			36.43		
40-8-5			15.84		
Temp Rd 34-2A					2.64
Temp Rd 8.05					7.92
Total Sta:			496.83		10.56

200 Clearing and Grubbing	Clearing stations	Grubbing acres	Slash acres
39-8-29.4	12.70	0.7	0.7
Temp Rd 34-2A	2.63	0.2	0.2
Temp Rd 8.05	7.92	0.8	0.8
Totals:	23.25	1.7	1.7

300 Excavation	Excav C.Y.s	Haul sta-yds
39-7-8E	200	100
Temp Rd 34-2A	70	0
Temp Rd 8.05	1,875	0
Totals:	2,145	100

400 Drainage			
39-8-29	Galvanized	18 inch 14 ga	20 lf
Temp Rd 34-2A	Galvanized	18 inch 16 ga	30 lf

500 Renovation	Miles	Slide cy
39-7-17	0.63	0
39-7-21.1	3.54	0
39-7-8B	0.15	0
39-7-8C	0.68	0
39-7-8D	0.10	0
39-7-8E	0.37	0
39-8-29	1.49	0
39-8-29.1	0.13	0
39-8-29.3	0.46	0
39-8-29.4	0.24	0
39-8-31B	0.07	0

# Continuation of Construction Quantities

40-8-3.0	0.08	0
40-8-3.1	0.48	0
40-8-4.0	0.69	0
40-8-5	0.30	0
Totals:	<u>9.41</u>	<u>0</u>

## Surfacing (Cubic Yards)

Quarry Name: Commercial

1200 Crushed under 1 1/2	Roadway	Turnouts	Other	
39-8-29	283	0	181	464
39-7-8E	125	0	0	125
40-8-4.0	45	0	0	45
Totals:	<u>453</u>	<u>0</u>	<u>181</u>	<u>634</u>

## 1300 Geotextiles

Totals: No Quantities

## 1400 Slope Protection

Totals: 0

1800 Soil stabilization - acres	Dry W/O Mulch	Dry/with Mulch	Hydro Mulch
Totals:	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>

## 1900 Cattleguards

Totals: No Quantities

2100 RoadSide Brushing	acres
39-7-17	0.8
39-7-21.1	4.3
39-7-8B	0.2
39-7-8C	0.8
39-7-8D	0.1
39-7-8E	0.4
39-8-29	1.8
39-8-29.1	0.2
39-8-29.3	0.6
39-8-31B	0.1
40-8-3.0	0.1
40-8-3.1	0.6
40-8-4.0	0.8
40-8-5	0.5
Totals:	<u>11.3</u>

## 2200 Surface Treatment tons L.F.

Totals: No Quantities

# Continuation of Construction Quantities

2300 Engineering	stations
Temp Rd 34-2A	7.92
Temp Rd 8.05	15.84
Totals:	<u>23.76</u>

2400 Minor Concrete	Totals:	No Quantities
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2500 Gabions	Totals:	No Quantities
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8000 Miscellaneous	
Remove culvert	
Temp Rd 34-2A Remove culvert after logging . . . . .	1 1
Decomission after logging	
Temp Rd 8.05 Decommission road after logging . . . . .	1 1

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
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**Mobilization Costs - Construction and Surfacing**

T.S. Contract Name: East West Junction Sale Date: 2/2013

Average Mobilization distance = 50 miles Factor = 1.00

Mobilization: Construction

Comment: Lump Sum will be for decommission

Fire Equipment: 1 ea x (1.00 x \$131.00/ea + 40 mi x \$3.50/mi)= \$271.00  
Graders-all: 1 ea x (1.00 x \$356.00/ea + 40 mi x \$13.78/mi)= \$907.20  
Brush Cutter: 1 ea x (1.00 x \$356.00/ea) = \$356.00  
Rollers & Comp: 1 ea x (1.00 x \$356.00/ea + 40 mi x \$14.85/mi)= \$950.00  
Excavators: 1 ea x (1.00 x \$680.00/ea + 40 mi x \$22.33/mi)= \$1,573.20  
Tractors <= D7: 1 ea x (1.00 x \$518.00/ea + 40 mi x \$29.49/mi)= \$1,697.60  
Water Truck: 1 ea x (1.00 x \$216.00/ea + 40 mi x \$4.33/mi)= \$389.20  
Lump Sum: \$1,500.00

Subtotal: \$7,644.20

Mobilization: Surfacing

Graders-all: 1ea x (1.00 x \$356.00/ea + 40 mi x \$13.78/mi)= \$907.20  
Tractors <= D7: 1ea x (1.00 x \$518.00/ea + 20 mi x \$29.49/mi)= \$1,107.80  
Dump Truck >10cy: 1ea x (1.00 x \$228.00/ea + 40 mi x \$4.55/mi)= \$410.00  
Water Truck: 1ea x (1.00 x \$216.00/ea + 40 mi x \$4.33/mi)= \$389.20

Subtotal: \$2,814.20



UNITED STATES  
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DEPOSIT AND BID FOR ☒ **TIMBER\***  
☐ **VEGETATIVE RESOURCE**  
(Other Than Timber)

SCALE SALE

Name of Bidder
Tract Number ORM07-TS-13-04
Sale Name East West Junction
Sale Notice (dated) 2/27/2013
BLM District Medford

<input type="checkbox"/> Sealed Bid for Sealed Bid Sale	<input checked="" type="checkbox"/> Written Bid for Oral Auction Sale
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In response to the above dated Sale Notice, the required deposit and bid are hereby submitted for the purchase of designated timber/vegetative resource on the tract specified above.

Required bid deposited is **\$39,500.00** and is enclosed in the form of ☐ cash ☐ money order ☐ bank draft ☐ cashier's check ☐ certified check ☐ bid bond of corporate surety on approved list of the United States Treasury ☐ guaranteed remittance approved by the authorized officer.

IT IS AGREED That the bid deposit shall be retained by the United States as liquidated damages if the bid is accepted and the undersigned fails to execute and return the contract, together with any required performance bond and any required payment within 30 days after the contract is received by the successful bidder. It is understood that no bid for less than the appraised price on a unit basis per species will be considered. If the bid is rejected the deposit will be returned.

**BID SCHEDULE – LUMP SUM SALE**

*NOTE: Bidders should carefully check computations in completing the Bid Schedule*

BID SUBMITTED					ORAL BID MADE	
PRODUCT SPECIES	UNIT	ESTIMATED VOLUME OR QUANTITY	UNIT PRICE	TOTAL VALUE	UNIT PRICE	TOTAL VALUE
Douglas-fir	MBF	2136	X	=	X	=
Sugar Pine	MBF	81	X			
Ponderosa Pine	MBF	15	X			
Incense Cedar	MBF	1	X			
<b>Total</b>		<b>2,233</b>	X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
TOTAL PURCHASE PRICE						

(Continued on reverse)

If sale contract is executed, undersigned is liable for total purchase price even though the quantity cut, removed, or designated

for taking is more or less than the total estimated volume or quantity shown above. Undersigned certifies bid was arrived at by bidder or offeror independently, and was tendered without collusion with any other bidder or offeror. In submitting or confirming this bid, undersigned agrees to the foregoing provisions, applicable regulations, and certifies that he is authorized to act as, or on behalf of, the bidder.

Bid submitted on *(date)*

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

<input type="checkbox"/>	Signature, if firm is individually owned	Name of firm <i>(type or print)</i>
<input type="checkbox"/>	Signatures, if firm is a partnership or L.L.C.	Business address, include zip code <i>(type or print)</i>
<input type="checkbox"/>	Corporation organized under the state laws of	<i>(To be completed following oral bidding)</i>
Signature of Authorized Corporate Signing Officer		I HEREBY confirm the above oral bid By <i>(signature)</i>
Title		Date
Submit bid, in <i>duplicate</i> , to qualify for either an oral auction or sealed bid sale together with the required bid deposit made payable to the Department of the Interior – BLM.		<b>Sealed Bid</b> – Send to District Manager, who issued the sale notice, in a sealed envelope marked on the outside: (1) “Bid for Timber” (2) Vegetative Resource Other Than Timber (3) Time bids are to be opened (4) Legal description
Oral Auction – Submit to Sales Supervisor prior to closing of qualifying period for tract.		

#### NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 38 FR 6280 and 43 CFR 5442.1

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

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

**EFFECT OF NOT PROVIDING INFORMATION:** Filing this deposit and bid information is necessary only when an individual wishes to participate in a sealed or auction bid sale for timber or vegetative resources.

## 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.