P R O S P E C T U S

Lump Sum Sale

BUTTE FALLS AREA
JACKSON MASTER UNIT

Medford Sale # 13-05
May 23, 2013 (NM)

1. FRIESE CAMP, (6310) Jackson County, O&C. BID DEPOSIT REQUIRED: $ 96,100.00

All timber designated for cutting in SW¼ SE¼, Section 14, NE ¼, N ½ NW ¼, SE ¼ NW ¼, N ½ SW ¼, SE ¼ SW ¼, SE ¼, Section 23, NW ¼ SW ¼, SE ¼ SW ¼, W ½ SE ¼, SE ¼ SE ¼, Section 24, NW ¼ NE ¼, NW ¼, SW ¼, NE ¼ SE ¼, Section 25, NE ¼, Section 26, T.34 S., R.3E; 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
13883	2116	Douglas-fir	2,518	$273.80	$689,428.40
8740	1260	White fir	1,517	$168.30	$255,311.10
1679	94	Incense-cedar	115	$123.20	$14,168.00
49	20	Ponderosa pine	22	$80.50	$1,771.00
44	5	Sugar pine	7	$28.00	$196.00
24395	3495	**Totals**	4,179		$960,874.50

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

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

TIMBER AUCTION LOCATION – The timber auction will be held at the Medford Inter-agency Office, located at 3040 Biddle Road, Medford, Oregon, at 9:00 a.m. on Thursday, May 23, 2013.

CRUISE INFORMATION - Douglas-fir, White fir, Ponderosa Pine, and Incense Cedar have been cruised using the 3-P sampling methods to select sample trees. Sugar Pine was 100% cruised. Maps showing the location and description of these sample trees are available at the Medford District Office. The sample trees have been measured using the volt system of measurement, and the volume expanded to a total sale volume.

With respect to merchantable trees of all conifer species: the average tree is 13.4 inches DBHOB; the average gross merchantable log contains 53 bd. ft.; the total gross volume is approximately 4805 M bd. ft; and 87% recovery is expected (Average DF is 13.3 inches DBHOB; average gross merchantable log DF contains 51 bd. ft.).

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

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

The 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 five hundred seventy seven (576) acres must be thinned, and 1 half acre (0.5) acre temporary spur road Right of Way must be clear-cut.

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

ACCESS - Access to the sale area is available via public roads and through the contract area using BLM Roads and Right-of-way and Road Use Agreement M-2000F with Plum Creek Timberlands LP, M-2000D with Juniper Properties LLC, and agreement #833 with the Forest Service. Among other conditions, this agreement requires completion of a license agreement between the Purchaser and Plum Creek Timberlands LP and a payment of a surface replacement fee of four hundred twenty seven and 25/100 dollars ($427.25) for the use of road numbers 34-3E-15.03 A5, 34-3E-21.00 B, 34-3E-21.00 D, and 34-3E-26.00 A. Also, among other conditions, this agreement requires completion of a license agreement between the Purchaser and Juniper Properties LLS and a payment of a surface replacement fee of seventy nine and 53/100 dollars ($79.53) for the use of road numbers 34-3E-21.00 F, 34-3E-24.00 A, and 34-3E-24.04 A. Also, among other conditions, this agreement requires completion of a license agreement between the Purchaser and the Forest Service and a payment of a surface replacement fee of five hundred sixty three and 30/100 dollars ($563.30) for the use of FS 32 Road.

ROAD MAINTENANCE – The Purchaser will be required to maintain all the temp routes and existing decommissioned roads he constructs/reconstructs plus 14.53 miles of existing roads. BLM will maintain 4.91 miles of the FS 32 road, the 35-3E-10.00 A road, and the 35-3E-3.00 A1-B2 road. The Purchaser will be required to pay a road maintenance fee of three thousand three hundred nineteen and 64/100 ($3,319.64) for these roads. The Purchaser will be required to pay a rockwear fee of five thousand seven hundred twenty four and 18/100 ($5,724.18) for the use of road numbers 34-3E-15.03 B1, 34-3E-19.03, 34-3E-21.00 A, 34-3E-21.00 C1, 34-3E-21.00 C2, 34-3E-21.00 E, 34-3E-21.00 G, 34-3E-23.00 A, 34-3E-23.02, 34-3E-25.00, 34-3E-25.01, 34-3E-25.02, 34-3E-25.03, 34-3E-25.04, 34-3E-25.05, 34-3E-26.01, 34-3E-26.02, and 34-3E-29.01 B.

SOIL DAMAGE PREVENTION - Pursuant to Section 26 of Form 5450-3, Timber Sale Contract, the Purchaser shall not operate or cause to have operated on the contract area any tractor-type logging equipment when soil moisture content at six (6) inch depth exceeds twenty five (25) percent by weight as determined by the oven dry method.

EQUIPMENT REQUIREMENTS

1. A yarding tractor not greater than nine (9) feet in track width, as measured from the outer edges of standard width shoes, equipped with both an integral arch and winch capable of lining logs at least seventy five (75) feet.
2. A 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.

SLASH DISPOSAL - Slash disposal will consist of 200 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 occupied marbled murrelet sites in accordance with the Standards and Guidelines of the Medford District Record of Decision (ROD) and Resource Management Plan (RMP), or;

4. 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. Mechanized equipment (feller-bunchers) may be used in all tractor units off designated skid trails with certain restrictions see Section 42 L-7MC.
3. There is a 44 foot log length restriction for all trees over twenty one (21) inch D.B.H.O.B.
4. Whole tree harvesting is allowed in all tractor units. If whole tree harvesting is utilized, landing slash will be required to be chipped, burned, or moved off site.
5. Various seasonal restrictions are placed on this sale.
6. Directional falling is required.
7. Cleaning of equipment to eliminate noxious weed seeds is required prior to move-in of equipment onto federal lands.
8. Designated skid roads are required on all tractor units.
9. Ripping of temporary roads is required.
10. Dust abatement is required.
11. Purchaser should be aware that logging residue reduction costs listed under SD-5 are in addition to costs assessed under SD-4. Refer to the appraisal for total assessed costs of logging residue reduction.

NARRATIVE DESCRIPTION OF HOW TO GET TO THE TIMBER SALE AREA – From the town of Butte Falls Oregon, proceed east on the Butte Falls-Fish Lake Highway for approximately 0.5 miles to the Butte Falls-Prospect Highway. Turn left and follow for approximately 1.7 miles to junction with County Road 998 Rancheria Road. Turn right and follow for approximately 4.0 miles. Veer left on Forest Service Road 32 and follow for 0.4 miles to junction with BLM Road 35-3E-10.0 road. Turn left and follow for 0.9 miles to junction with BLM Road 35-3E-3.0. Turn right and follow to access units in section 25.

From the junction of Butte Falls-Prospect Highway and County Road 998 Rancheria Road, proceed north on the Butte Falls-Prospect Highway for approximately 5.6 miles to the Camp Creek Road 34-3E-21.0. Turn right and follow to access units in sections 14, 23, 24, and 26.

ENVIRONMENTAL ASSESSMENT - An environmental assessment (DOI-BLM-OR-M050-2011-0015-EA) was prepared for this sale, and a Finding of No Significant Impact has been documented. This document is available for inspection as background for this sale at the Medford District Office.

Seasonal Restriction Matrix

ORM05-TS13-05
Friese Camp
Sheet 1 of 1

***Possible Waived Times are Hatched**
***Restricted Times are Shaded**

Sale Area	Activity	Jan		Feb		Mar		Apr		May		June		July		Aug		Sept		Oct		Nov		Dec	
		1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15
Units: 14-4, 23-3, 25-1, 25-3	Log yarding or Soil ripping, [1,2,3]																								
	Manual felling or bucking of timber [3]																								
	Mechanized felling or bucking of timber [3]																								
	Construction or reconstruction of Roads or Landings [1,2,3]																								
	Road Renovation or decommissioning [1,2,3]																								
	Landing Operations [1,2,3]																								
	Quarry Activities or Blasting of Rock [3]																								
	Hauling of logs or rock [1,2]																								
	Fuels Treatment [3]																								
Units: 23-1, 23-2, 23-4, 24-2, 24-3, 24-4, 24-5, 25-2, 26-1, 26-2	Log yarding or soil ripping [1,2,]																								
	Manual felling or bucking of timber [1,2,]																								
	Mechanized felling or bucking of timber [1,2]																								
	Construction and/or Reconstruction of Roads and Landings [1,2,]																								
	Road Renovation or Decommissioning [1,2,]																								
	Landing Operations [1,2,]																								
	Hauling of logs or rock [1,2,]																								
	Quarry Activities or Blasting of Rock [1,2,]																								
	Fuels Treatment																								

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

FRIESE CAMP
SPECIAL PROVISIONS

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

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

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

(B) IR-1 Approximately sixteen thousand three hundred eighty six (16,386) trees marked with yellow paint in units 23-1, 23-2, 23-4, 24-2, 24-3, 24-4, 24-5, 25-2, and 25-3 as shown on exhibit A.

(C) IR-2 All timber except approximately nine thousand six hundred one (9,601) trees marked for cutting heretofore by the Government with blue paint above and below stump height in units 14-4, 23-3, 25-1, 26-1, and 26-2 as shown on Exhibit A.

(D) IR-5 All young growth conifers less than eight (8) inches in diameter D.B.H.O.B. not damaged in the normal course of logging in all units as shown on Exhibit A.

(E) IR-6 All hardwood and Yew trees in all units as shown on Exhibit A.

(F) IR-6 All snags in all units except hazard snags as shown on Exhibit A. Any felled hazard snags must remain where felled or as directed by the Authorized Officer.

(G) IR-6 All pre-existing dead and down wood in all units as shown on Exhibit A.

(H) IR-8 All standing timber except trees located within painted and posted road or landing right-of-way clearing limit boundaries as shown on Exhibit A.

Section 42

(A) Log Exports

(1) LE-1 All timber sold to the Purchaser under the terms of the contract, except exempted species, is restricted from export from the United States in the form of unprocessed timber, and is prohibited from being used as a substitute for exported private timber. For the purpose of this contract, unprocessed timber is defined as: (1) any logs except those of utility grade or below, such as sawlogs, peeler logs and pulp logs; (2) cants or squares to be subsequently remanufactured exceeding eight and three-quarters (8¾) inches in thickness; (3) split or round bolts or other roundwood not processed to standards and specifications suitable for end-product uses; or (4) western red cedar lumber which does not meet lumber of American Lumber Standards Grades of Number 3 dimension or better, or Pacific Lumber Inspection Bureau R-List Grades of Number 3 Common or better. Thus, timber manufactured into the following will be considered processed: (1) lumber and construction timber, regardless of size, manufactured to standards and specifications suitable for end-product uses; (2) chips, pulp, and pulp products; (3) green or dry veneer and plywood; (4) poles and piling cut or treated for use as such; (5) cants, squares, and lumber cut for remanufacturing of eight and three-quarters (8¾) inches in thickness or less; (6) shakes and shingles.

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

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

(a) Date of last export sale.

(b) Volume of timber contained in last export sale.

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

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

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

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

In the event the Purchaser elects to sell any or all of the timber sold under this contract in the form of unprocessed timber, the Purchaser shall require each party

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

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

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

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

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

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

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

(B) Logging

(1) L-1 Before beginning operations on the contract area for the first time or after a shutdown of seven (7) days or more, the Purchaser shall notify the Authorized Officer in writing of the date they plan to begin operations. The Purchaser shall also notify the Authorized Officer in writing if they intend to cease operations for any period of seven (7) or more days.

(2) L-6 In all tractor units as shown on Exhibit A, all trees twenty one (21) inches D.B.H.O.B. and smaller designated for cutting shall be felled and yarded to approved landing locations either whole tree, or as log segments. If excessive stand damage occurs from whole tree yarding as determined by the authorized officer, bucking and/or limbing will be required.

(3) L-6 In all tractor units as shown on Exhibit A, all trees over twenty one (21) inch D.B.H.O.B. designated for cutting shall be felled and cut into log lengths not to exceed forty-four (44) feet and be completely limbed prior to being yarded

(4) 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
Tractor Units 14-4, 23-1, 23-2, 23-3, 23-4, 24-2, 24-3, 24-4, 24-5, 25-1, 25-2, 25-3, 26-1, 26-2	Yarding tractor width will not be greater than twelve (12) feet as measured from the outer edges of the standard width dozer blade in the straight position, or nine (9) feet as measured from the outer edges of standard width track shoes. Yarding tractors will be equipped with integral arches and winch systems capable of lining logs at least seventy five (75) feet. Mechanized equipment (feller-bunchers) may be used off designated skid trails during the dry season (soil moisture content less than 25%) for 1 to 2 passes only (one round-trip). These 1 to 2 pass trails must be spaced a minimum of 50 feet apart off of designated skid trails. Equipment must be 6 psi or less. All other use of ground based equipment must be restricted to designated skid trails. Mechanized felling equipment must have an arm capable of reaching at least 20 feet. No front-end loaders are permitted. No yarding up or down draw bottoms is permitted.

	Designate skid trails at an average of one hundred and fifty (150) foot spacing in order to minimize ground disturbance. The location of the tractor skid roads must be clearly designated on the ground, at locations approved by the Authorized Officer. Use existing skid trails To the extent possible. Where new skid trails are necessary, limit the extent to minimize the impact. No tractor yarding is permitted when soil moisture content at six (6) inch depth exceeds twenty five (25) percent by weight as determined by the oven dry method. Yarding will be further limited in accordance with Section 26 if detrimental soil damage is occurring, as determined by the authorized officer. Ground-based equipment operations may be executed in winter conditions when snow depth is at least 18 inches if approved by the Authorized Officer. No logging would be allowed once the snow depth deteriorates below eighteen (18) inches as determined by the authorized officer. Where skid trails encounter course woody debris (CWD) sixteen (16) inches and larger at the small end, a section of the CWD is to be bucked out for equipment access. The bucked out portion shall be as narrow as operationally feasible, (maximum of fourteen (14) feet). The remainder of the CWD shall be left in place and not disturbed. Restrict tractor operations to slopes generally less than 35 percent. In areas where it is necessary to exceed these gradients to access adjacent tractor area, use ridge tops where possible. Log landing size shall not exceed one-half (1/2) acre.

(5) L-9 No yarding or loading is permitted in or through the reserve areas shown on Exhibit A, unless approved by the authorized officer.

(6) L-9 No yarding or loading is permitted in or through plant sites or protected areas shown on Exhibit A.

(7) L-11 No temporary spur roads or new landings shall be located within riparian reserves or wet areas as shown on Exhibit A.

(8) L-18 No tractor yarding and soil ripping operations shall be conducted between October 15 of one calendar year and May 15 of the following calendar year, both days inclusive, or when soil moisture exceeds 25 percent.

(9) L-18 No landing operations, hauling of logs or rock shall be conducted between October 15 of one calendar year and May 15 of the following calendar year, both days inclusive, or when soil moisture exceeds 25 percent. If the Authorized Officer determines that timber hauling and landing operations would not result in road damage or transport of sediment to nearby stream channels based on soil moisture conditions or rain events, the Contracting Officer may approve a conditional waiver. If soil moisture conditions or rain events are anticipated to cause impacts to roads or stream quality resulting from said conditional waiver are not acceptable as determined by the Authorized Officer, the waver will be revoked.

(10) L-18 No temporary spur road or landing construction, road renovation or decommissioning, culvert removal or replacement, road or closure work, quarry operations, or road brushing shall be conducted within the contract area between October 15 of one calendar year and May 15 of the following calendar year, both days inclusive.

(11) L-18a No operations shall be conducted in units 14-4, 23-3, 25-1, 25-3, between March 1 and September 30, both days inclusive. This restriction will not apply if it can be shown from spotted owl surveys conducted in accordance with accepted standards that spotted owl nesting and/or fledgling activities are not occurring during the year of harvest.

(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 pre-work conference between the Purchaser's authorized representative and the Authorized Officer's representative must be held at a location designated by the Authorized Officer before the logging plan will be approved. All logging shall be done in accordance with the plan developed by this provision.

(13) L-27 In the contract area shown on Exhibit A, all trees designated for cutting which are within two hundred ten (210) feet of the unit boundary shall be felled away from the unit boundary. The Purchaser shall notify the Authorized Officer three (3) days before beginning felling operations in the above area(s).

(14) L-27 In the contract area shown on Exhibit A, all trees designated for cutting which are within two hundred ten (210) feet of a private property line shall be felled away from the private property line. The Purchaser shall notify the Authorized Officer three (3) days before beginning felling operations in the above area(s).

(15) L-27 In the contract area shown on Exhibit A, all trees designated for cutting which are within two hundred ten (210) feet of the corner monument shall be felled away from the corner monument. The Purchaser shall notify the

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

(16) L-27 In the contract area shown on Exhibit A, all trees designated for cutting which are within two hundred ten (210) feet of any plant site, reserve area, or protected area boundary as shown on Exhibit A shall be felled away from the painted and posted boundary. The Purchaser shall notify the Authorized Officer three (3) days before beginning felling operations in the above area(s).

(17) L-33 In accordance with the requirements of Sec. 8 of the contract it has been determined that it is in the best interest of the Government and within the provisions of 43 CFR 5402.0-6 to sell additional timber located in or adjacent to all units as shown on Exhibit A, which is obstructing needed cable yarding roads, ground based yarding skid roads, hazardous to workers, needed for guyline, tailhold, and/or tieback trees, or severely damaged from the normal conduct of felling or yarding operations to meet all applicable State safety laws, codes or regulations. This timber must be cut or removed so that the Purchaser can continue active falling and yarding operations. The Purchaser is, therefore, authorized to cut and remove such additional timber in accordance with the provisions of Section 8 of the contract: provided, however, that:

(a) Trees reserved for the tree improvement program and trees reserved for the wildlife habitat objectives under Sec. 42 of the contract are not included in the authorization.

(b) The Purchaser shall identify each tree sold and cut in accordance with the provision by marking the cut surface of the stump immediately after falling with a large "X". The "X" shall be cut with a chain saw. The stump shall be marked by hanging red fluorescent flagging near the stump so that the stump can be visually located from a distance of not less than one hundred (100) feet.

(c) The volume and price for such timber shall be determined by the Authorized Officer in accordance with Bureau of Land Management prescribed procedures and paid for by the Purchaser in accordance with Sec. 3(a) or 3(c) of the contract as required by Sec. 8 of the contract.

(d) No timber may be cut or removed under the terms of this provision if all contract payments required by Sec. 3(a) or 3(c) of the contract have been made.

(e) The permission to cut and remove additional timber contained in this provision may be withdrawn by the Contracting Officer if the Authorized Officer determines that the Purchaser:

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

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

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

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

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

(C) Road Construction - Maintenance – Use

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

(2) RC-1b Prior to removal of any timber, except right-of-way timber, the Purchaser shall complete all construction, improvement, or renovation of structures and roads as specified in Exhibit C.

(3) RC-1f Upon completion of all logging activities, the Purchaser shall scarify the entire roadway of all temporary roads shown on Exhibit C-12 in strips of not less than twenty-four (24) inches or more than twenty-eight (28) inches in width to a minimum depth of eighteen (18) inches, provided that no scarification shall be required where the road traverses rock outcroppings. All natural water courses shall be opened to prevent erosion of the roadways. Barriers shall be constructed so as to prevent further use of the road by vehicles.

(4) RC-2 The Purchaser is authorized to use the roads listed below and shown on Exhibit D-2 which are under the jurisdiction of the Bureau of Land Management, Plum Creek Timberlands LP, and the Forest Service, for the removal of Government timber sold under the terms of this contract provided that the Purchaser pay the required maintenance obligations described in Section 42(C)(7). The Purchaser shall pay current Bureau of Land Management or Forest Service maintenance fees for the sale of additional timber under modification to the contract.

Road No. and Segment	Length Miles Used	Road Control	Road Surface Type
35-3E-3.0 A1	1.10	BLM	ASC
35-3E-3.0 A2	0.70	BLM	ASC
35-3E-3.0 B1	0.54	BLM	ASC
35-3E-3.0 B2	1.00	BLM	ASC
35-3E-10.0 A	0.94	Plum Creek	ASC
FS Road 32	0.63	Forest Service	ASC

(5) RC-2a The Purchaser is authorized to use the roads listed below and shown on Exhibit C-2 which are under the jurisdiction of the Bureau of Land Management, Plum Creek Timberlands LP, or Juniper Properties LLC, for the removal of Government timber sold under the terms of this contract provided that the Purchaser comply with the conditions set forth in Section 42(C)(11) and pay the

required rockwear obligation described in Section 42(C)(10). The Purchaser shall pay current Bureau of Land Management rockwear fees for the sale of additional timber under modification to the contract.

Road No. and Segment	Length Miles Used	Road Control	Road Surface Type
34-3E-15.03 A5	1.22	Plum Creek	ASC
34-3E-15.03 B1	0.27	BLM	ASC
34-3E-19.03	0.19	BLM	ASC
34-3E-21.00 A	0.18	BLM	ASC
34-3E-21.00 B	0.86	Plum Creek	ASC
34-3E-21.00 C1	0.29	BLM	ASC
34-3E-21.00 C2	0.64	BLM	ASC
34-3E-21.00 D	0.34	Plum Creek	ASC
34-3E-21.00 E	0.89	BLM	ASC
34-3E-21.00 F	0.26	Juniper Properties	ASC
34-3E-21.00 G	0.53	BLM	ASC
34-3E-23.00 A	0.32	BLM	ASC
34-3E-23.00 B	0.93	BLM	NAT
34-3E-23.01	0.24	BLM	NAT
34-3E-23.02	0.31	BLM	ASC
34-3E-24.00 A	0.46	Juniper Properties	ASC
34-3E-24.04	0.23	Juniper Properties	PRR
34-3E-25.00	0.31	BLM	ASC
34-3E-25.01	0.35	BLM	ASC
34-3E-25.02	0.62	BLM	ASC
34-3E-25.03	0.51	BLM	ASC
34-3E-25.04	0.19	BLM	ASC
34-3E-25.05	0.34	BLM	ASC
34-3E-26.00 A	0.09	Plum Creek	ASC

34-3E-26.01	1.21	BLM	ASC
34-3E-26.02	0.40	BLM	ASC
34-3E-26.03 B	0.52	BLM	NAT
34-3E-29.01	1.80	BLM	ASC

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

(7) RC-2c The Purchaser shall pay the Government a road maintenance obligation in the amount of **three thousand three hundred nineteen and 64/100 dollars ($3,319.64)** for the transportation of timber included in the contract price and for the transportation of any mineral material required under the terms of the contract over road or roads listed in Section 42(C)(4).

The above road maintenance amount is for use of 4.91 miles of road or less. Unless the total maintenance amount is paid prior to commencement of operations on the contract area, payments shall be made in installments of not less than five hundred and no/100 dollars ($500.00); payable in the same manner as and together with payments required in Sec. 3 of this contract.

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

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

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

Section 42(C)(7) and Section 42(C)(10) of this contract shall be amended to include adjustments of fee obligations.

(9) RC-2f The Authorized Officer may at any time by written notice, terminate the Purchaser's operator road maintenance obligations and require instead payment of current Bureau of Land Management road maintenance fees for the particular surface type of the road(s) involved. These fees will be applied to the remaining contract volume on the sale area to be transported over road or roads listed in Section 42(C)(5). The Purchaser shall pay the total maintenance amount for said road(s) within thirty (30) days following receipt of written notice; provided, however, that if the total amount exceeds five hundred and no/100 dollars ($500.00), the Purchaser may elect to make payment in installments in the same manner as and together with payments required in Section 3 of this contract.

(10) RC-2g The Purchaser shall also pay to the Government a road maintenance obligation for rockwear in the amount of **five thousand seven hundred twenty four and 18/100 dollars ($5,724.18)** 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 42(C)(5). The amount of the rockwear shown above shall be paid prior to removal of timber from the contract area; provided, however, that if the total of such amount exceeds five hundred and no/100 dollars ($500.00), the Purchaser may elect to make the payment in installments in the same manner as and together with payments required in Section 3 of this contract.

(11) RC-2h Except for road maintenance in accordance with Section 42(C)(12), (C)(13), and (C)(14), the Purchaser shall perform any required road repair and maintenance work on roads used by him, under the terms of Exhibit D, "Road Maintenance Specifications," of this contract, which is attached hereto and made a part hereof.

(12) RC-3 In the use of road No.s 34-3E-15.03 A5, 34-3E-21.00 B, 34-3E-21.00 D, 34-3E-26.00 A, and 35-3E-10.00 A, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. M-2000F between the United States of America and Plum Creek Timberlands, LP. These conditions include: Payment to Plum Creek Timberlands, LP, a rockwear obligation of **four hundred twenty seven and 25/100 dollars ($427.25)** payable at the time indicated in the license agreement. 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 roads, the Purchaser shall furnish the Authorized Officer a copy of the executed License Agreement. Default by the Purchaser of said Right-of-Way and Road Use Agreement, or any License Agreement executed pursuant thereto, for failure to pay appropriate road use fees shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision.

(13) RC-3 In the use of road No.s 34-3E-21.00 F, 34-3E-23.01, 34-3E-24.00 A, and 34-3E-24.04, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. M-2000D between the United States of America and Juniper Properties, LLC. These conditions include: Payment to Juniper Properties, LLC, a rockwear obligation of **seventy nine and 53/100 dollars ($79.53)** payable at the time indicated in the license agreement. 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 roads, the Purchaser shall furnish the Authorized Officer a copy of the executed License Agreement. Default by the Purchaser of said Right-of-Way and Road Use Agreement, or any License Agreement executed pursuant thereto, for failure to pay appropriate road use fees shall be considered a violation of this contract. The amount of unpaid fees shall be considered as the amount of damage suffered by the Government as a result of the violation of this provision.

(14) RC-3a In the use of road No. FS3200, the Purchaser shall comply with the conditions of the Bureau of Land Management and Forest Service Interagency Right-of-Way and Road Use Agreement dated May 20, l980, Exhibit A, Agreement No. 833. The conditions include: Payment to Juniper Properties, LLC, a rockwear obligation of **five hundred sixty three and 30/100 dollars ($563.30)** payable at the time indicated in the license agreement.

(15) 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.

(16) RC-4 No logging or hauling operations on the contract area shall be undertaken until the Purchaser has secured from the appropriate official of the Forest Service, permission for the use of the existing road No. FS3200 as shown on Exhibit C-2.

(17) RC-8 The Purchaser shall be required to secure written approval to use vehicles or haul equipment over Government owned or controlled roads and/or structures when that vehicle or equipment exceeds the maximum allowable weights or dimensions established by the State for vehicles operating without a permit.

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

Details shall include:

(a) Axle weights when fully loaded.
(b) Axle spacing.

(c) Transverse wheel spacing.
(d) Tire size.
(e) Outside width of vehicle.
(f) Operating speed.
(g) Frequency of use.
(h) Special features (e.g., running tracks, overhang loads, etc.)

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

(D) Environmental Protection

(1) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall prepare a Spill Prevention, Control, and Countermeasure Plan for all hazardous substances to be used in the contract area. Such plan shall include identification of Purchaser's representatives responsible for supervising initial containment action for releases and subsequent cleanup. In addition, such plan shall follow all applicable State of Oregon Department of Environmental Quality guidelines for spill prevention and containment of petroleum products (Oregon Administrative Rules, Chapter 340, Department of Environmental Quality, Division 142, Oil and Hazardous Materials Emergency Response Requirements).

(2) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall not store, or cause to have stored, any fuel or other petroleum products inside any riparian reserve area. All petroleum products shall be stored in durable containers and located so that any accidental release will be contained and not drain into any stream system. Refueling of equipment shall be done outside of riparian reserve areas.

(3) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall only be allowed to use logging, construction, rock crushing, brushing chipping, shredding or grinding and/or transportation equipment that is free of noxious weed seeds prior to entering federal lands in the contract area as shown on Exhibit A.

If equipment is not considered free of noxious weed seeds by the Government, it shall be cleaned prior to entering federal lands. Cleaning shall be defined as removal from all surfaces including the under carriage any dirt, grease, plant parts, and material that may carry noxious weed seeds onto federal lands. Cleaning prior to entering federal lands may be accomplished by using a pressure hose.

Equipment shall be subject to visual inspection by the Government to certify that the equipment is free of noxious weed seeds. Only equipment inspected by the government shall be allowed to operate on federal lands within the contract area. The purchaser shall make equipment available for government inspection at an agreed upon location off federal lands prior to any move-in of equipment.

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

(4) E-1 In addition to the requirement set forth in Sec. 26 of this contract and as directed by the Authorized Officer, the Purchaser shall construct skid trail barricades in all tractor units as shown on Exhibit A. Barricades shall be located where skid trails take off of system roads, temp spurs or landing areas and continue for the first one hundred (100) feet of skid trail length. Barricades shall be constructed by placing woody debris or other appropriate barriers (e.g. rocks, logs, and slash) on them to effectively inhibit access by all terrain vehicles. Barricades shall be in place by October 15 of each calendar year.

(5) E-1 In addition to the requirement set forth in Sec. 26 of this contract, the Purchaser shall construct road barricades as specified on Exhibit C, at locations shown on Exhibit A, and wherever an existing barricade has been removed to provide for harvest access. Barricades shall be in place by October 15 of each calendar year.

(6) E-1 In addition to the requirements set forth in Sec. 26 of this contract, the Purchaser shall;

(a) Use a minimum 200 flywheel horsepower tractor with mounted rippers having shanks and teeth consistent with drawings and specifications shown on Exhibit R of this contract, which is attached hereto and made a part hereof.

(b) Rip to a depth of eighteen (18) inches.

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

(d) Rip all temporary roads (and associated landings) by October 15 of the year operations are completed as shown on Exhibit A. If hauling on a temporary spur road is not completed in the same year the road is constructed, the road will be storm-proofed and blocked by October 15.

(e) Seed and mulch entire length of all temporary roads (and associated landings) after ripping as shown on Exhibit A. by October 15 of the year logging operations are completed. If hauling on a temporary spur road is not

completed in the same year the road is constructed, the road will be storm-proofed and blocked by October 15. Seed and mulch will be provided by the BLM. The Purchaser shall apply the seed at a rate of fifteen (15) lbs./acre and the straw at a rate of two thousand (2,000) lbs./acre.

(f) Water-bar all skid roads, used for logging activities by October 15 of the year operations are completed in all units shown on Exhibit A.

(7) E-2 The water bars to be constructed as required by Sec. 26(c) shall be constructed in accordance with the specifications shown on Exhibit C-8, which is attached hereto and made a part hereof.

(8) 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, or to protect occupied marbled murrelet sites in accordance with the Standards and Guidelines of the Medford District Record of Decision (ROD) and Resource Management Plan (RMP), the Contracting Officer determines it may be necessary to modify or terminate the contract, or;

(c) federal proposed, federal candidate, Bureau sensitive or State listed species protected under BLM Manual 6840 - Special Status Species Management - have been identified, and a determination is made that continued operations would affect the species or its habitat, or;

(d) other active raptor nests have been discovered, and a determination is made that continued operations under this contract would adversely affect the present use of the discovered nesting area by the raptor, or;

(e) when, in order to comply with a court order which enjoins operations on the sale or otherwise requires the Bureau of Land Management to suspend operations, or;

(f) when, in order to comply with a court order, the Contracting Officer determines it may be necessary to modify or terminate the contract, or;

(g) species have been discovered which were identified for protection through survey and manage and/or protection buffer standards and guidelines

established in the ROD and RMP, and the Contracting Officer determines that continued operations would affect the species or its habitat, or;

(h) when, in order to protect species which were identified for protection through survey and manage and/or protection buffer standards and guidelines established in the ROD and RMP, the Contracting Officer determines it may be necessary to modify or terminate the contract.

Those operations necessary for a safe removal of personnel and equipment from the contract area and those directed by the Contracting Officer which are required in order to leave the contract area in an acceptable condition will be permitted. Discontinued operations may be resumed upon receipt of written instructions and authorization by the Contracting Officer.

During any period of suspension, the Purchaser may withdraw performance and payment bond coverage aside from that deemed necessary by the Authorized Officer to secure cut and/or removed timber for which the Bureau of Land Management has not received payment, and/or unfulfilled contract requirements associated with harvest operations that have already occurred and associated post-harvest requirements.

In the event of a suspension period or a combination of suspension periods that exceed a total of 30 days, the First Installment held on deposit may be temporarily reduced upon the written request of the Purchaser. For the period of suspension extending beyond 30 days, the First Installment on deposit may be reduced to five (5) percent of the First Installment amount listed in Section 3.b. of the contract. Any First Installment amount temporarily reduced may be refunded or transferred to another BLM contract at the request of the Purchaser. However, if the Purchaser has outstanding debt owing the United States, the Contracting Officer must first apply the amount of First Installment that could be refunded to the debt owed in accordance with the Debt Collection Improvement Act, as amended (31 USC 3710, *et seq.*). Upon Purchaser's receipt of a bill for collection and written notice from the Contracting Officer lifting the suspension, the Purchaser shall restore the First Installment to the full amount shown in Section 3.b. of the contract within 15 days after the bill for collection is issued, subject to Section 3.h. of the contract. The Purchaser shall not resume contract operations until the First Installment amount is fully restored.

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

and in amounts approximately equal to the expenses associated with the timber for which payment is due.

The 30 days can be the sum of days accruing during more than one operating season. Reappraisal may result in a decrease to the unit price bid per species. Reappraisal will be based on the loss of net volume due to the deterioration of logs during the period of delay and any associated changes in the amortization of logging costs per unit of volume, as determined by the Authorized Officer. Amortization of road construction cost over a reduced net volume will be considered as well as any additional move-in or logging costs caused by the delay, as determined by the Authorized Officer. Reappraisal will adjust Exhibit B volume and values, and will not consider changes in the market price of timber.

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

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

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

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

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

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

Upon receipt of a notice that the Purchaser expects to perform such operations during this time period, the Government will conduct surveys in units 14-4, 23-3, 25-1, 25-3 to determine whether spotted owls are nesting within 0.25 miles of the harvest units to be logged using ground based logging systems. If it is determined that spotted owls are not nesting or that no young have been produced, the Authorized Officer may lift the seasonal restriction on such operations in writing. Without this written approval, such operations are prohibited from March 1 through September 30 of each year.

(E) Miscellaneous

(1) M-2 The Government, at its option, may 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 two thousand eighty nine and 50/100 dollars ($2089.50) In the event that only a portion of the contract timber is scaled, the purchase price shall be reduced by that portion of two thousand eighty nine and 50/100 dollars ($2089.50) 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 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.

(2) M-4 Notwithstanding the provisions of Section 5(c), when the Purchaser elects to furnish and operate under a payment bond as provided in Section 39(d), the value of right-of-way timber included in a billing shall be based on the value of timber removed from the right-of-way.

(3) M-5 The Purchaser shall, without expense to the Government, be responsible for obtaining any necessary licenses and permits and for complying with any and all Federal, State, County, and municipal laws, codes, regulations, and administrative rules applicable to the performance of this contract. The Purchaser shall also be responsible for all damages to persons or property that arise out of any operations under this contract and result from any breach of contract or wrongful or negligent act or omission of the Purchaser, its contractors, subcontractors, or employees of any of them.

(F) Fire Prevention and Control

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

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

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

1. F-2a Fire fighting tools shall be kept at each landing or at such other place as the Authorized Officer shall designate whenever people are working on the contract area. All fire fighting tools shall be kept in

a sturdily constructed box which shall be painted red and lettered on the front or top in large letters, "For Fire Only." The box shall have a hinged lid and a hasp by which the lid can be sealed. One box may serve two landings not over six hundred (600) feet apart. When filled, the box shall not weigh over two hundred (200) pounds. The fire tools shall be in good condition, be tight on strong handles, and have sharp cutting edges. There shall not be less than four (4) tools in each box nor less than one (1) tool for each person working on the contract area. Three-fourths (¾) of all fire tools shall be shovels, hazel hoes, or other scraping tools. The fire tools shall be used only for fighting fire.

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

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

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

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

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

fastened to the belt. The head of the light and the battery case shall be connected by insulated wires. At least one extra set of batteries shall be provided for each such headlight.

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

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

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

(3) F-8 Blasting caps and fuses shall not be used during closed fire season or any period of fire danger on any land administered by the Government. Blasting with electric detonators during the closed fire season or periods of fire danger is permitted only between the hours of 4:00 a.m. and 10:00 a.m.

(G) Slash Disposal and Site Preparation

(1) SD-4 Logging Residue Reduction. In addition to the requirements of Sect.15 of this contract, and notwithstanding the Purchaser's satisfactory compliance with State laws and regulations regarding offsetting or abating the additional fire hazard created by this operation and the State's willingness to release the Purchaser from liability for such hazard, the Purchaser shall remain responsible to the Government for performance of the following logging residue reduction and site preparation measure(s) required by this contract:

Prior to commencement of any operation under this section of the contract, a slash disposal and site preparation pre-work conference between the purchaser's

representative and the Authorized Officer must be held at a location designated by the Authorized Officer. All slash disposal and site preparation shall be done in accordance with the plans developed at this pre-work conference.

Slash, as defined for this section, shall mean all material (brush, limbs, tops, unmerchantable stems, and chunks) severed or knocked over as a result of purchasers operations under the terms of this contract, including material cut during slashing activities for the purposes of fuels reduction.

Refueling of chainsaws and other equipment will be done no closer than one hundred fifty (150) feet of any stream or wet area. Spilled fuel and oil would be cleaned-up and would be disposed of at an approved disposal site.

(2) SD-1f LOP AND SCATTER Lop and scatter all slash as directed by the Authorized Officer , concurrently with normal felling operations. All tops and side branches must be free of the central stem so that such slash is reduced to the point that it is within eighteen (18) inches of the ground at all points.

(3) SD-4a SLASHING DAMAGED RESIDUALS. Slash all sprung or otherwise severely damaged trees greater than one (1) inch and less than six (6) inches D.B.H.O.B. concurrently with logging as designated by the Authorized Officer. All slashing is to be completed prior to any required piling of slash.

(4) SD-1i LANDING PILES In all units as shown in the Exhibit A, pile all slash located within fifty (50) feet on each side of each landing. Slash shall be piled by a grapple loader. Finished piles shall be tight and free of earth.

(a) A ten (10) foot by ten (10) foot cover of four (4) mil black plastic shall cap each pile to maintain a dry ignition point. The cover shall be firmly fixed to each pile to hold it in place. Landings shall be piled and covered during the same season that they are logged.

(5) SD-5 Perform logging residue reduction and site preparation work on approximately two hundred (200) acres of harvest area as directed by the Authorized Officer.

(a) The required work shall consist of any treatment or combination of treatments listed in the table below, as determined by the Authorized Officer and specified in writing by the Contracting Officer. The number of acres of each treatment shall be determined by the Authorized Officer.

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

Treatment/Level	Cost Per Acre	Number of Acres	Total Cost Per Treatment Type
Lop and Scatter L2	$46.00	200	$9,200.00
Total Appraised Cost			$9,200.00

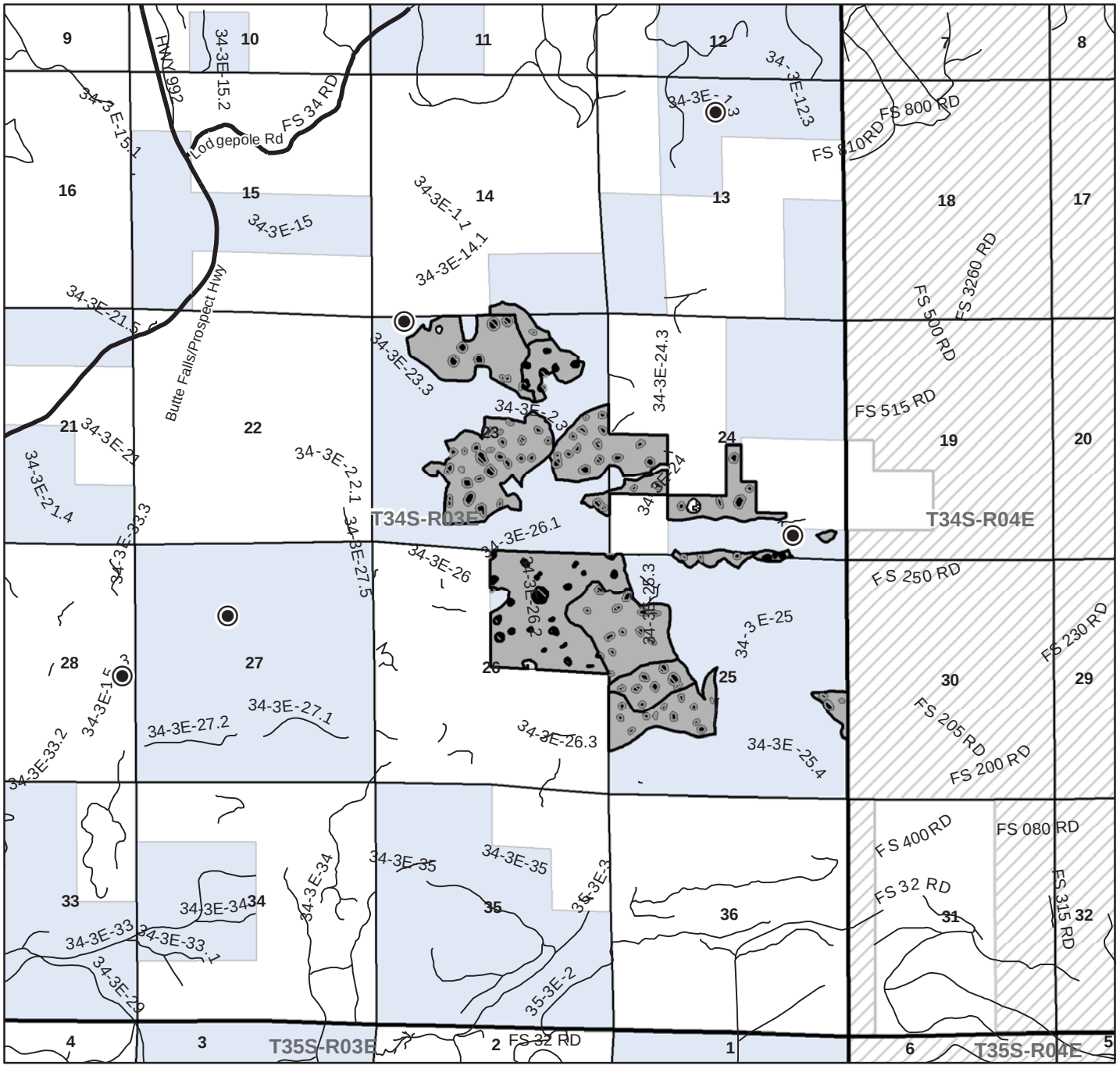
(c) The total Purchase Price set forth in Section 2 shall be adjusted by the amount that the total cost of the site preparation treatments designated pursuant to Section 42(G)(2)(a) differs from Nine thousand two hundred dollars ($9,200.00) as calculated by using the estimated acres determined by the Authorized Officer and the per acre costs listed in Section 42(G)(2)(a).

In case of injury to personnel or damage to equipment furnished by the Purchaser as required by this subsection, liability shall be borne by the Purchaser, unless such injury or damage is caused by Government negligence.

Time is of the essence in complying with this provision. In the event the Purchaser fails to provide the personnel and equipment required herein, the Purchaser shall be responsible for all additional costs incurred by the Government in disposing of slash including but not limited to the wages and other costs of providing federal employees and others as substitute labor force, the cost of providing substitute equipment and appropriate additional overhead expenses. If the Purchaser's failure results in deferral of burning and new conditions necessitate additional site preparation work and/or use of additional personnel and equipment to accomplish planned burning, the Purchaser also shall be responsible for such additional costs.

U.S.D.I. BLM MEDFORD DISTRICT SALE NO. 13-05
T. 34S. R. 3E., SECS 14, 23, 24, 25, 26 WILL. MER.

TIMBER SALE LOCATION MAP
FRIESE CAMP TIMBER SALE
CONTRACT NO. ORM05 -TS13-05
BUTTE FALLS RESOURCE AREA



BLM
Forest Service
Private

Road
Water Source

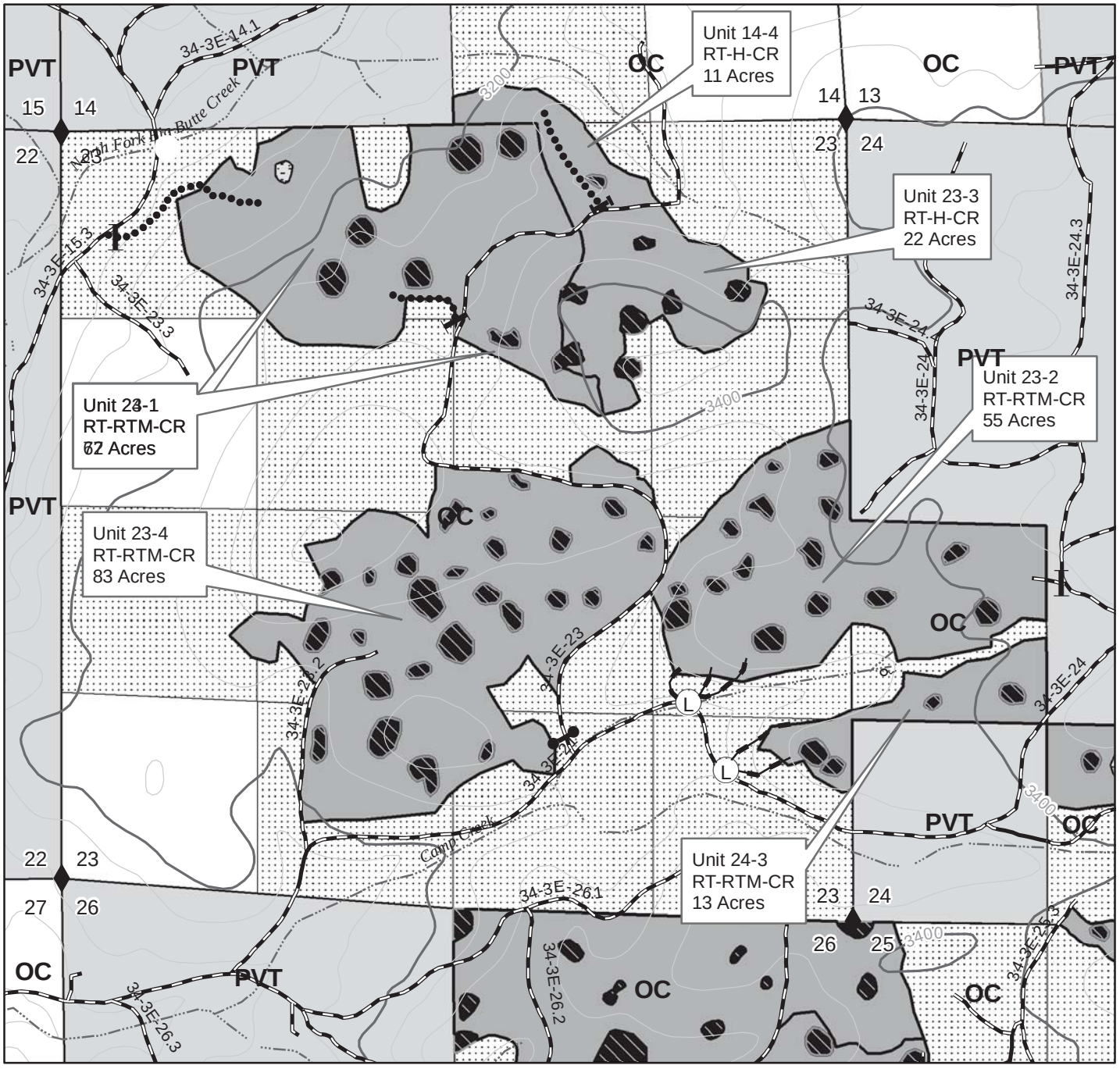
0 0.25 0.5 1 Miles

N
W E
S

Medford District BLM
April 2013

U.S.D.I. BLM MEDFORD DISTRICT SALE NO. 13-05
T. 34S. R. 3E., SEC 14 & 23, WILL. MER.
FRIESE CAMP TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM05 -TS13-05
EXHIBIT A



40 FOOT CONTOURS

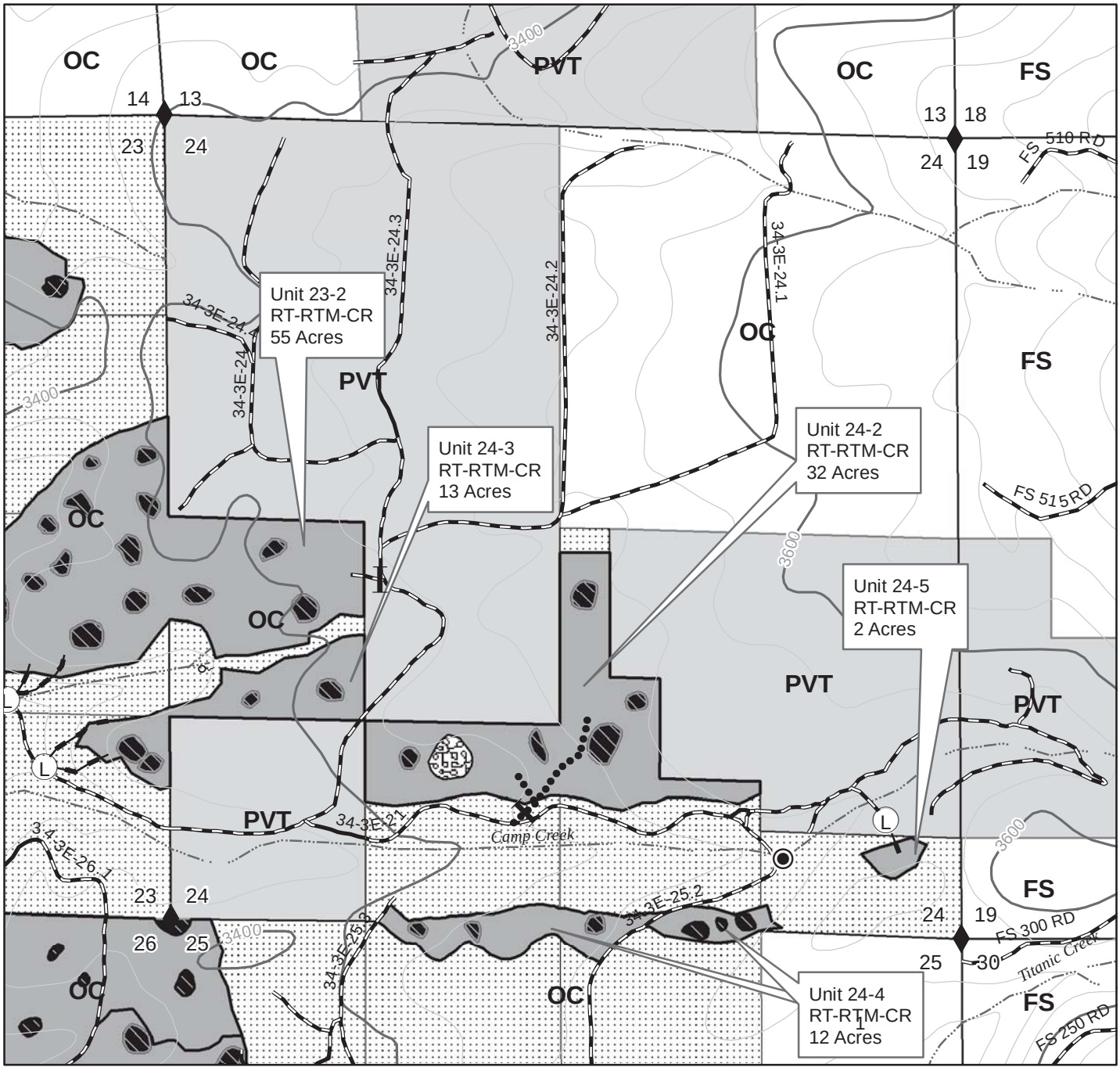
N
W E
S

0 0.25 0.5
Miles
1 inch = 1,000 feet

Medford District BLM
April 2013

U.S.D.I. BLM MEDFORD DISTRICT SALE NO. 13-05
T. 34S. R. 3E., SEC 24, WILL. MER.
FRIESE CAMP TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM05 -TS13-05
EXHIBIT A



40 FOOT CONTOURS

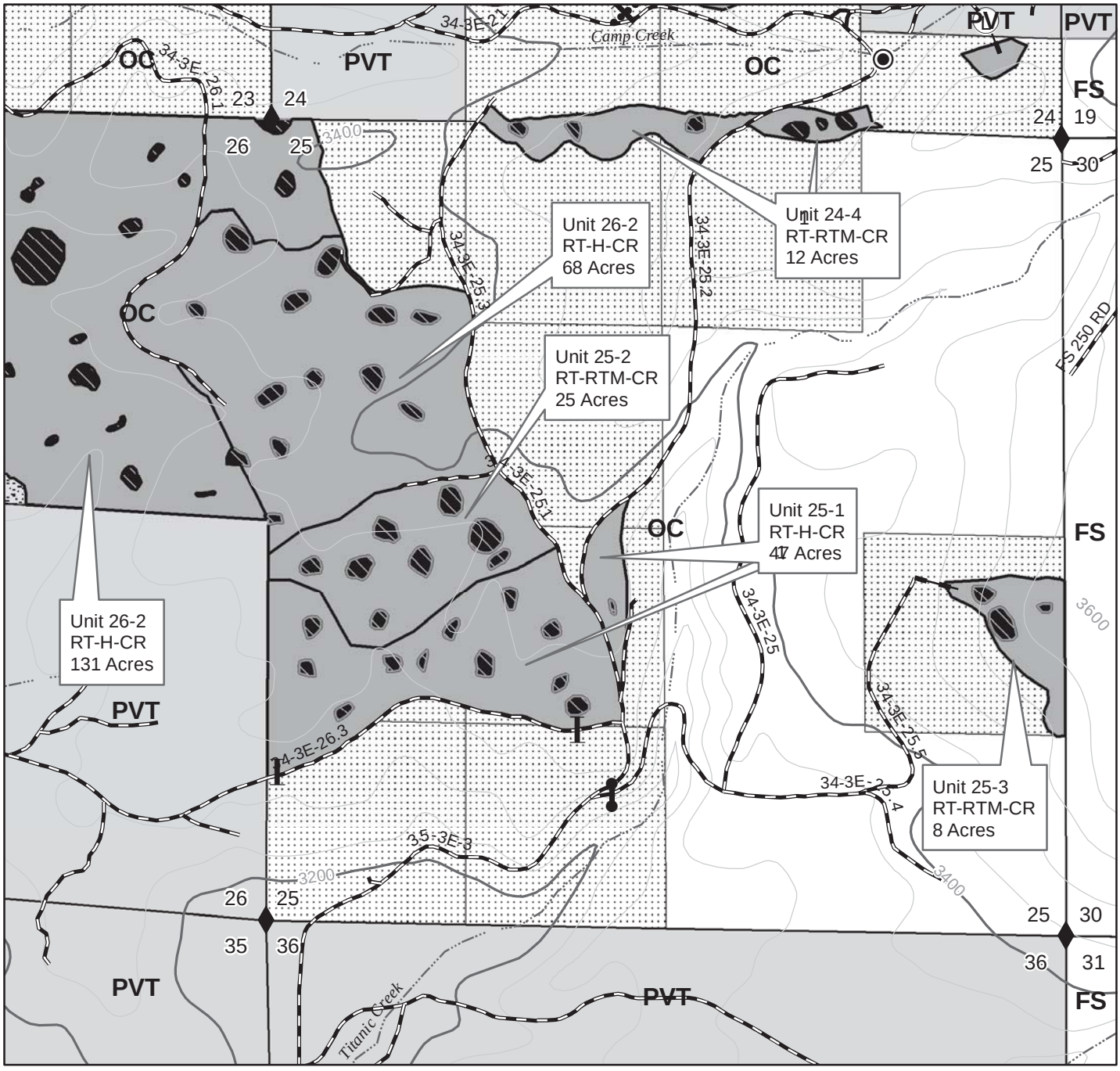
N
W E
S

0 0.25 0.5
Miles
1 inch = 1,000 feet

Medford District BLM
March 2013

U.S.D.I. BLM MEDFORD DISTRICT SALE NO. 13-05
T. 34S. R. 3E., SEC 25, WILL. MER.
FRIESE CAMP TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM05 -TS13-05
EXHIBIT A



40 FOOT CONTOURS

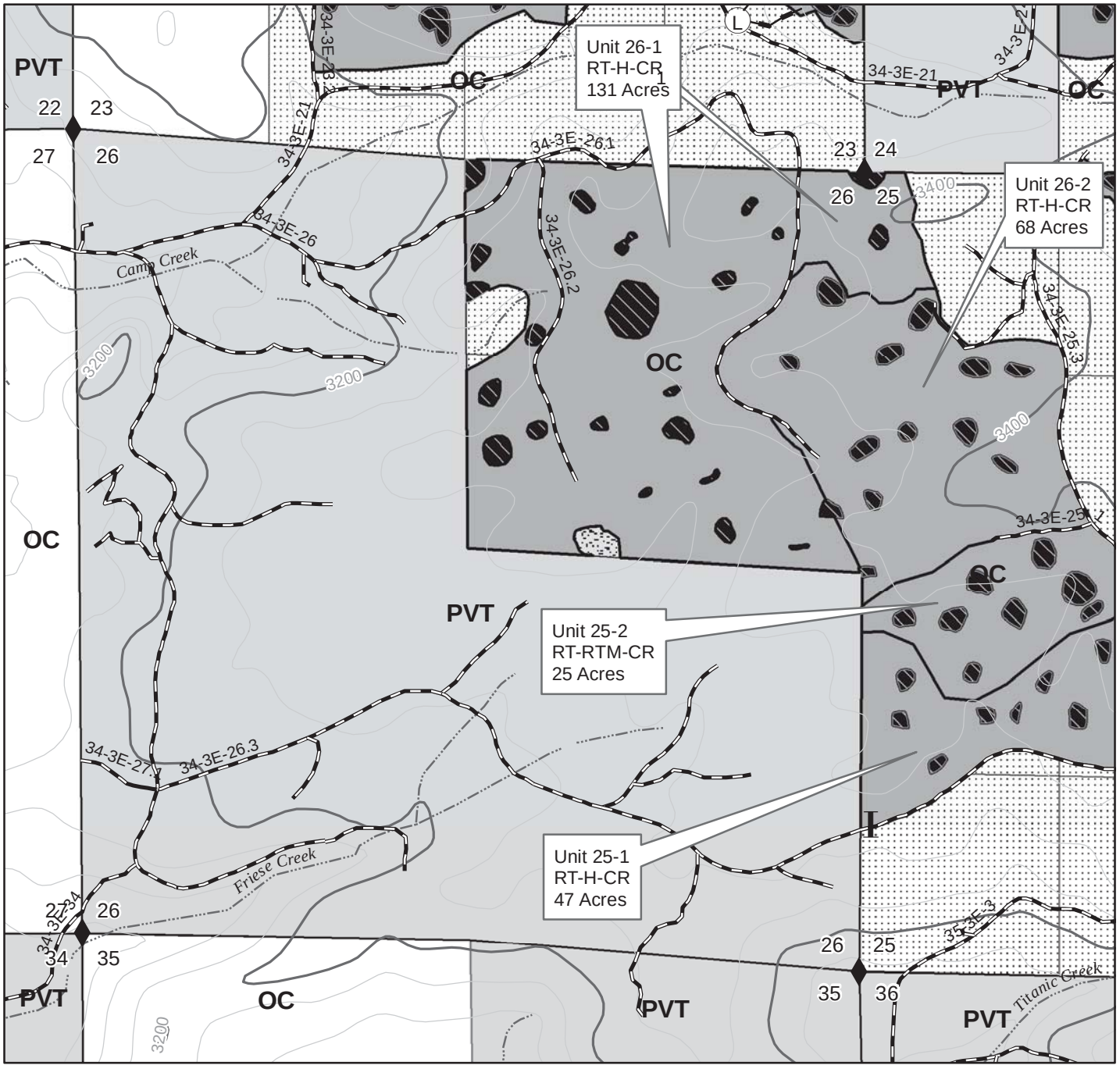
N
W E
S

0 0.25 0.5
Miles
1 inch = 1,000 feet

Medford District BLM
March 2013

U.S.D.I. BLM MEDFORD DISTRICT SALE NO. 13-05
T. 34S. R. 3E., SEC 26, WILL. MER.
FRIESE CAMP TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM05 -TS13-05
EXHIBIT A



40 FOOT CONTOURS

N
W E
S

0 0.25 0.5
Miles
1 inch = 1,000 feet

Medford District BLM
April 2013

U.S.D.I. BLM MEDFORD DISTRICT SALE NO. 13-05
T. 34S. R. 3E., SECS 14, 23, 24, 25, 26 WILL. MER.
FRIESE CAMP TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM05 -TS13 - 05
EXHIBIT A

Legend

- Found Corner
- Water Source
- Quarry
- Log Landing
- Spring
- Gate, Existing
- Barricade, Existing
- Barricade, to be constructed
- Boundary of Cutting Area
- Plant Site
- Protected Site
- Reserve Area
- Temporary Spur Road
- Designated Skid Road
- Road
- Stream
- 100 ft. Index Contour
- 40 ft. Intermediate Contour
- Contract Area
- BLM Administered Land
- Non-BLM Land

RT - RTM - CR	RESTORATION THIN, RESERVE TREE MARK (YELLOW PAINT) TRACTOR LOG: UNITS: 23-1, 23-2, 23-4, 24-2, 24-3, 24-4, 24-5, 25-2, 25-3
RT - H - CR	RESTORATION THIN, HARVEST TREE MARK (BLUE PAINT) TRACTOR LOG: UNIT: 14-4, 23-3, 25-1, 26-1, 26-2

U.S.D.I. BLM MEDFORD DISTRICT SALE NO. 13-05
T. 34S. R. 3E., SECS 14, 23, 24, 25, 26 WILL. MER.
FRIESE CAMP TIMBER SALE

TIMBER SALE CONTRACT MAP
CONTRACT NO. ORM05 -TS13 - 05
EXHIBIT A

Section Number		Unit Number	Unit Acres	Reserve Acres	Contract Acres
14		14-4	4	36	40
23		14-4, 23-1, 23-2, 23-3, 23-4, 24-3	217	335	552
24		23-2, 24-2, 24-3, 24-4, 24-5	69	79	148
25		24-4, 25-1, 25-2, 25-3, 26-1, 26-2	140	264	404
26		26-1, 26-2	146	14	160
		Totals	576	728	1304

Exhibit Bp

The following estimates and calculations of timber sold are made solely as an administrative aid for determining: (1) Adjustments made or u 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 u provisions. The value of timber will be determined by multiplying the value per acre as shown below, times the amount of acreage as u determined by the authorized officer, which has been cut or removed or designated for taking.u

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

Sale Totals (16' MBF)p

Speciesp	Netp Volumep	Bidp Pricep	Salep SubTotalp
Douglas-firu	2,518u		
White Firu	1,517u		
Incense-cedaru	115u		
Ponderosa Pineu	22u		
Sugar Pineu	7u		
Sale Totalsp	**4,179p**		

Unit Details (16' MB)Op

Unitp 14-4p **11 Acresp** **Value per Acre : $0.00Op**

Speciesp	Netp Volumep	Bidp Pricep	Speciesp Valuep
Douglas-firu	53u		
Incense-cedaru	6u		
Ponderosa Pineu	3u		
White Firu	11u		
Unit Totalsp	**73p**		

Unitp 23-1p **67 Acresp** **Value per Acre : $0.00p**

Speciesp	Netp Volumep	Bidp Pricep	Speciesp Valuep
Douglas-firu	411u		
Incense-cedaru	3u		
Ponderosa Pineu			
White Firu	137u		
Unit Totalsp	**551p**		

UNITED STATESp
DEPARTMENTpOF THE INTERIORp
BUREAU OF LAND MANAGEMENTp

Unitp 23-2p **55 Acresp** **Value per Acrep $0.00p**

Speciesp	Netp Volumep	Bidp Pricep	Speciesp Valuep
Douglas-firu	384u		
Incense-cedaru	27u		
Ponderosa Pineu	2u		
Sugar Pineu			
White Firu	240u		
Unit Totalsp	**653p**		

Unitp 23-3p **22 Acresp** **Value per Acre : $0.00p**

Speciesp	Netp Volumep	Bidp Pricep	Speciesp Valuep
Douglas-firu	70u		
Incense-cedaru	2u		
Ponderosa Pineu	5u		
Sugar Pineu	1u		
White Firu	44u		
Unit Totalsp	**122p**		

Unitp 23-4p **83 Acresp** **Value per Acre : $0.00p**

Speciesp	Netp Volumep	Bidp Pricep	Speciesp Valuep
Douglas-firu	444u		
Incense-cedaru	6u		
Ponderosa Pineu	11u		
White Firu	328u		
Unit Totalsp	**789p**		

Unitp 24-2p **32 Acresp** **Value per Acre : $0.00p**

Speciesp	Netp Volumep	Bidp Pricep	Speciesp Valuep
Douglas-firu	185u		
Incense-cedaru	12u		
Ponderosa Pineu			
Sugar Pineu			
White Firu	72u		
Unit Totalsp	**269p**		

UNITED STATESp
DEPARTMENTpOF THE INTERIORp
BUREAU OF LAND MANAGEMENTp

Unitp 24-3p **13 Acresp** **Value per Acrep $0.00p**

Speciesp	Netp Volumep	Bidp Pricep	Speciesp Valuep
Douglas-firu	73u		
Incense-cedaru	14u		
Ponderosa Pineu			
White Firu	20u		
Unit Totalsp	**107p**		

Unitp 24-4p **12 Acresp** **Value per Acre : $0.00p**

Speciesp	Netp Volumep	Bidp Pricep	Speciesp Valuep
Douglas-firu	68u		
Incense-cedaru	1u		
Ponderosa Pineu			
White Firu	13u		
Unit Totalsp	**82p**		

Unitp 24-5p **2 Acresp** **Value per Acre : $0.00p**

Speciesp	Netp Volumep	Bidp Pricep	Speciesp Valuep
Douglas-firu	24u		
White Firu	2u		
Unit Totalsp	**26p**		

Unitp 25-1p **47 Acresp** **Value per Acre : $0.00p**

Speciesp	Netp Volumep	Bidp Pricep	Speciesp Valuep
Douglas-firu	116u		
Incense-cedaru	5u		
Ponderosa Pineu	1u		
White Firu	104u		
Unit Totalsp	**226p**		

Unitp 25-2p **25 Acresp** **Value per Acre : $0.00p**

Speciesp	Netp Volumep	Bidp Pricep	Speciesp Valuep
Douglas-firu	69u		
Incense-cedaru	2u		
Sugar Pineu			
White Firu	71u		
Unit Totalsp	**142p**		

UNITED STATESp
DEPARTMENTpOF THE INTERIORp
BUREAU OF LAND MANAGEMENTp

Unitp 25-3p **8 Acresp** **Value per Acrep $0.00p**

Speciesp	Netp Volumep	Bidp Pricep	Speciesp Valuep
Douglas-firu	57u		
Incense-cedaru	1u		
White Firu	39u		
Unit Totalsp	**97p**		

Unitp 26-1p **131 Acresp** **Value per Acre : $0.00p**

Speciesp	Netp Volumep	Bidp Pricep	Speciesp Valuep
Douglas-firu	391u		
Incense-cedaru	27u		
Ponderosa Pineu			
Sugar Pineu	3u		
White Firu	304u		
Unit Totalsp	**725p**		

Unitp 26-2p **68 Acresp** **Value per Acre : $0.00p**

Speciesp	Netp Volumep	Bidp Pricep	Speciesp Valuep
Douglas-firu	173u		
Incense-cedaru	9u		
Sugar Pineu	3u		
White Firu	132u		
Unit Totalsp	**317p**		

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT
FRIESE CAMP TIMBER SALE
TRACT NO. ORM05-TS-2013-0005

EXHIBIT C-1
SHEET 1 OF 1

PROJECT LOCATION

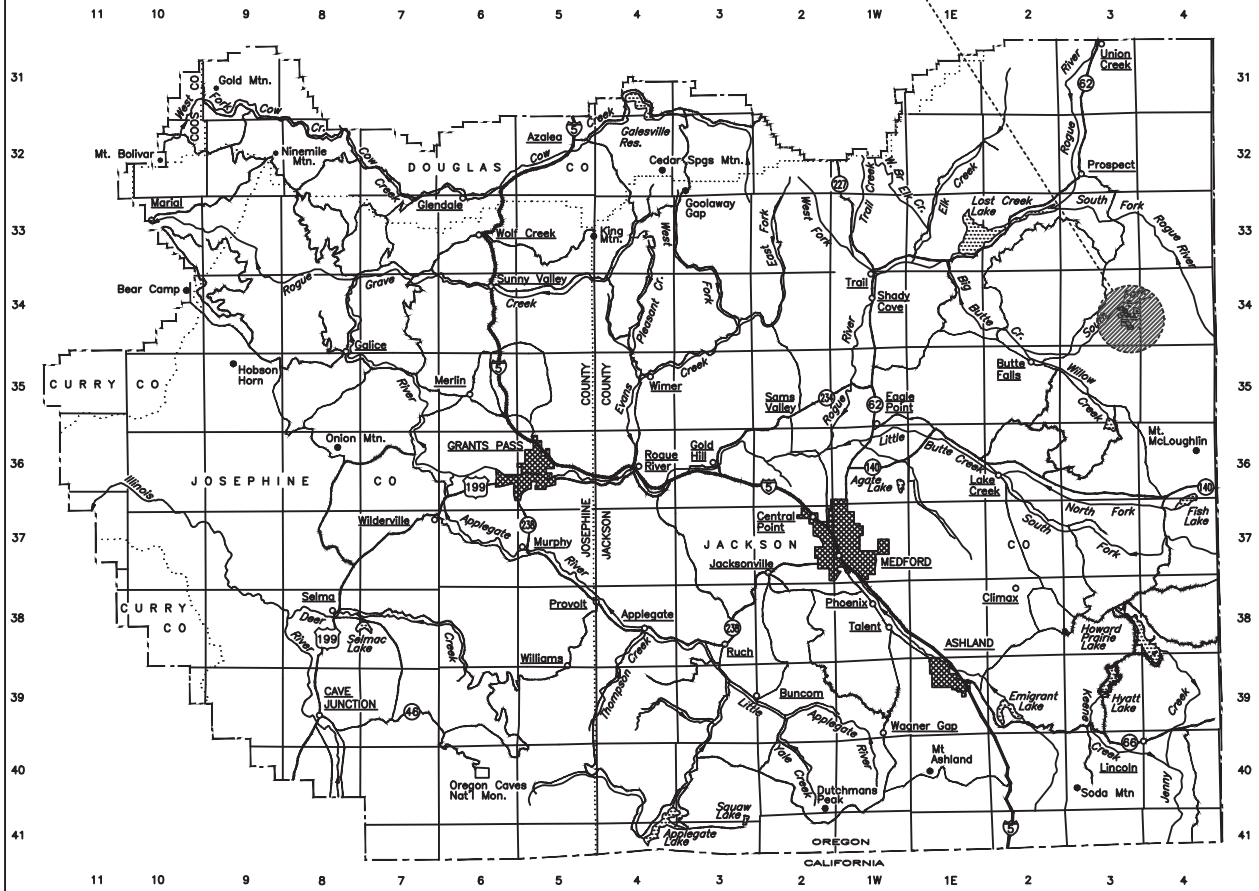


Exhibit No.	Description
C 1	TITLE SHEET
C 2	ROAD LOCATION MAP
C 3	ESTIMATE OF QUANTITIES
C 4	SPECIFICATION SHEET
C 5	TYPICAL ROAD DATA
C 6	CULVERT BAND DETAILS
C 7	CULVERT INSTALLATION DETAILS
C 8	DRAINAGE AND EROSION CONTROL
C9	CULVERT LIST
C10	ROADSIDE BRUSHING DETAILS
C11	TYPICAL ARMORED WATER DIP
C12	ROAD RENOVATION WORKLIST
C13	CONSTRUCTION SPECIFICATIONS
C14	SPECIAL PROVISIONS
D 1	ROAD MAINTENANCE SPECIFICATIONS
D 2	ROAD MAINTENANCE MAP

ALWAYS THINK SAFETY

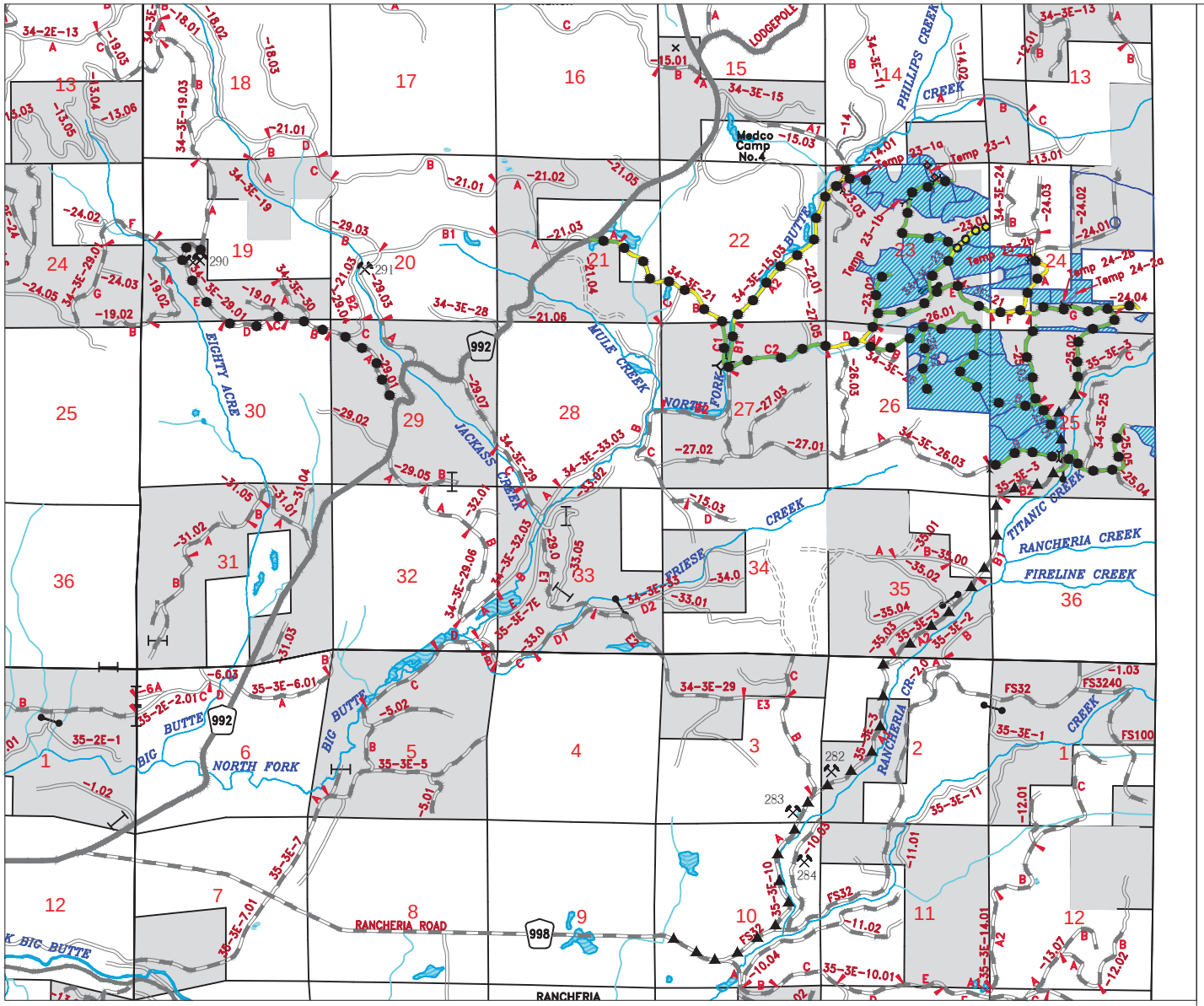
REV. NO.	DESCRIPTION	DATE	APPROV.

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

TITLE SHEET

DESIGNED _____
REVIEWED _____
APPROVED _____

DRAWN BY JAB	SCALE AS SHOWN
DATE MARCH 2013	SHEET 1 OF 1
DRAWING NO. ORM05-TS-2013-0005	



FRIESE CAMP TIMBER SALE
ROAD LOCATION MAP
CONTRACT NO. ORM05-TS-2013-0005
EXHIBIT C-2; PAGE 1 OF 1

U.S.D.I. BLM MEDFORD DISTRICT

T.34S., R.3E. WILL. MER.
T.35S., R.3E. WILL. MER.

- STOCKPILE
- EXISTING GATE
- EXISTING BARRICADE
- CONSTRUCT OR RECONSTRUCT BARRICADE
- ROADS TO BE RENOVATED BY OPERATOR
- REMAINING HAUL ROUTE
- DECOMMISSION ROAD
- BLM LAND
- TS UNITS

T.34S.

T.35S.

N
W E
S

0 1/2 1

SCALE IN MILES

EXHIBIT C 3
SHEET 1 OF 1
FRIESE CAMP TIMBER SALE

ROAD NUMBER	FROM	TO	LENGTH	CLEARING AND GRUBBING	EXCAVATION		CORRUGATED METAL PIPE										RENOVATION	AWD***	AGGREGATE**						SOIL STABILIZATION	ROADSIDE BRUSHING	WATERBARS	ROAD BARRIER	DECOMMISSION
							SIZE						DOWNSPOUT																	
					ROCK	COMMON	18"	24"	57" x 38"			ELBOWS	FULL/HALF ROUND		RECT. FLUME				PIT RUN	GRID ROLLED	CRUSHED BASE	JAW CRUSHED	CRUSHED SURFACE	RIPRAP FOR SPLASH PADS					
SPECIFICATION NO.				200	300	300	400	400	400	400	400	400	400	400	400	400	500		700	800	1000	1100	1200		1800	2100			
UNIT	MP/STA	MP/STA	MILE/STA	ACRE	C.Y.	C.Y.	L.F.	L.F.	L.F.	L.F.	L.F.	EA.	L.F.	L.F.	L.F.	L.F.	MILE	EA.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	ACREE	MILE			
34-3E-15.03	0.00	1.52	1.52														1.52									1.52			
34-3E-19.03	0.00	0.19	0.19														0.19									0.19			
34-3E-21.00	0.00	3.99	3.99				36	26	38								3.99						170	14		3.99			
34-3E-23.00A	0.00	0.32	0.32														0.32	2								0.32		1	
34-3E-23.00B	0.32	1.25	0.93														0.93	1								0.93			
34-3E-23.01	0.00	0.24	0.24	0.24													0.24									0.24	5	2	0.24
34-3E-23.02	0.00	0.31	0.31														0.31									0.31			
34-3E-24.00	0.00	0.46	0.46														0.46									0.46			
34-3E-24.04	0.00	0.23	0.23														0.23									0.23			
34-3E-25.00	0.00	0.31	0.31														0.31						363			0.31			
34-3E-25.01	0.00	0.35	0.35														0.35		263				207			0.35			
34-3E-25.02	0.00	0.62	0.62														0.62						1,033			0.62			
34-3E-25.03	0.00	0.51	0.51														0.51						530			0.51			
34-3E-25.04	0.00	0.19	0.19														0.19									0.19			
34-3E-25.05	0.00	0.34	0.34														0.34									0.34			
34-3E-26.00	0.00	0.09	0.09														0.09									0.09			
34-3E-26.01	0.00	1.21	1.21														1.21									1.21			
34-3E-26.02	0.00	0.40	0.40														0.40						20			0.40			
34-3E-26.03	0.00	0.52	0.52														0.52									0.52		2	
34-3E-29.01	0.00	1.80	1.80														1.80									1.80			
TOTAL			14.53	0.24			36	26	38								14.53	3	263				2,323			14.53	5	5	0.24

ITEM 900

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

ITEM 1000

SIZE	GRADE
3 inch	A,F
2 inch	B,C,G
1 1/2 inch	D
1 inch	E

ITEM 1200

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

ALWAYS THINK SAFETY

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

**Indicate gradation.

***Remove existing culvert and construct armored water dip per contract specifications and drawings.

REV. NO.	DESCRIPTION	DATE	APPROV.

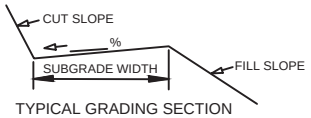
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT MEDFORD, OREGON

ESTIMATE OF QUANTITIES*

DRAWN:JAB	SCALE NONE
DATE: MARCH 2013	SHEET 1 OF 1
DRAWING NO. ORM05-TS-2013-0005-C3	

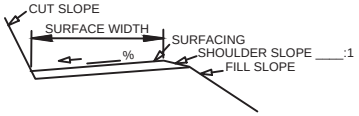
EXHIBIT C 4
SHEET 1 OF 1
FRIESE CAMP TIMBER SALE

ROAD NUMBER	STATION OR MILE POST	TO STATION OR MILE POST	LENGTH MILE OR STATION	TYPICAL SECTION TYPE	ALLIGNMENT	ROAD WIDTH (1-3)		GRADIENT		CLEARING WIDTH				SURFACING (4)								REMARKS
					MAXIMUM DEGREE OF CURVE	SUBGRADE	DITCH	MAXIMUM FAVORABLE	MAXIMUM ADVERSE	BEYOND		EXISTING ROAD(S)		BASE COURSE				SURFACE COURSE				
										TOP CUT	TOE FILL	L	R	MINIMUM WIDTH	COMP. DEPTH	TYPE (2)	GRADING	MINIMUM WIDTH	COMP. WIDTH	TYPE (2)	GRADING	
34-3E-15.03	0.00	1.52	1.52	6		16	3			4	4											
34-3E-19.03	0.00	0.19	0.19	6		15	3			4	4											
34-3E-21.00	0.00	3.99	3.99	6		16	3			4	4											
34-3E-23.00A	0.00	0.32	0.32	6		14	3			4	4											
34-3E-23.00B	0.32	1.25	0.93	3		14	0			4	4											
34-3E-23.01	0.00	0.24	0.24	3		12	0			4	4											
34-3E-23.02	0.00	0.31	0.31	4		12	0			4	4											
34-3E-24.00	0.00	0.46	0.46	6		14	3			4	4											
34-3E-24.04	0.00	0.23	0.23	6		14	0			4	4											
34-3E-25.00	0.00	0.31	0.31	4		14	3			4	4											
34-3E-25.01	0.00	0.35	0.35	4		14	3			4	4											
34-3E-25.02	0.00	0.62	0.62	4		14	3			4	4											
34-3E-25.03	0.00	0.51	0.51	4		14	0			4	4											
34-3E-25.04	0.00	0.19	0.19	4		14	0			4	4											
34-3E-25.05	0.00	0.34	0.34	4		14	0			4	4											
34-3E-26.00	0.00	0.09	0.09	6		14	3			4	4											
34-3E-26.01	0.00	1.21	1.21	6		14	3			4	4											
34-3E-26.02	0.00	0.40	0.40	6		14	3			4	4											
34-3E-26.03	0.00	0.52	0.52	3		14	3			4	4											
34-3E-29.01	0.00	1.80	1.80	6		16	3			4	4											



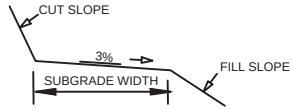
TYPICAL GRADING SECTION

TYPE 1



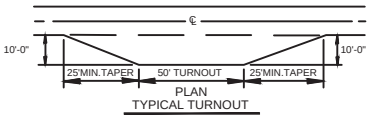
TYPICAL SURFACING SECTION

TYPE 2



TYPICAL GRADING SECTION

TYPE 3



PLAN
TYPICAL TURNOUT

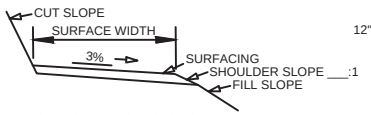
NOTES

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

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

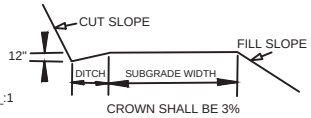
FULL BENCH CONSTRUCTION IS REQUIRED ON SIDE SLOPES EXCEEDING 60%.

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



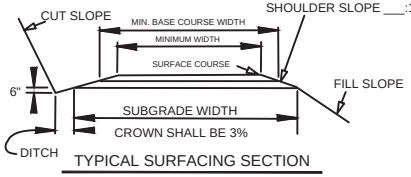
TYPICAL SURFACING SECTION

TYPE 4



TYPICAL GRADING SECTION

TYPE 5



TYPICAL SURFACING SECTION

TYPE 6

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

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

5. CLEARING WIDTH
SEE SUBSECTION 2100

ALWAYS THINK SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.

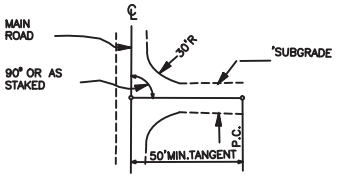
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT MEDFORD DISTRICT
MEDFORD, OREGON

SPECIFICATION SHEET

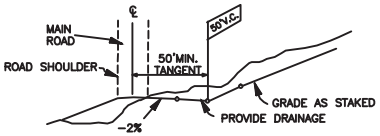
DRAWN: JAB	SCALE: NONE
DATE: MARCH 2013	SHEET: 1 OF 1
DRAWING NO. ORM05-TS-2013-0005-C4	

EXHIBIT C-5
SHEET 1 OF 1

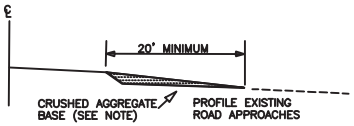
TYPICAL ROAD APPROACHES



PLAN

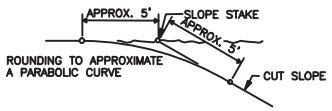


PROFILE

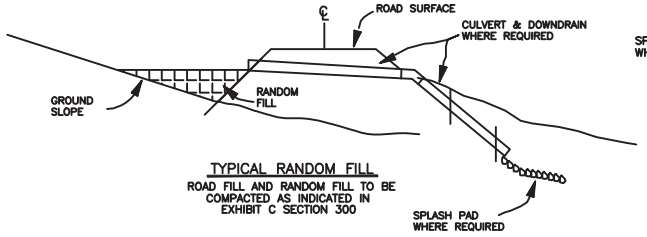


TYPICAL SURFACING SECTION

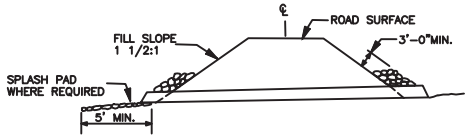
NOTES:
1. THE PROFILE OF EXISTING APPROACH ROADS SHALL BE TAPERED TO MEET THE SHOULDER LINE OF THE MAIN ROADWAY AND SHALL RECEIVE THE SAME WEARING SURFACE.
2. THE CRUSHED AGGREGATE BASE SHALL BE OF THE SAME GRADATION AS USED IN THE ADJACENT ROADBED.
3. APPROACHES SHALL BE FINISHED WITH THE SAME TREATMENT AS SHOWN FOR THE ADJACENT ROADBED.



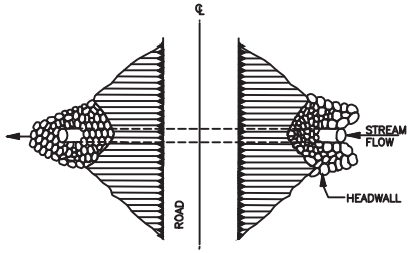
CUT SLOPE ROUNDING



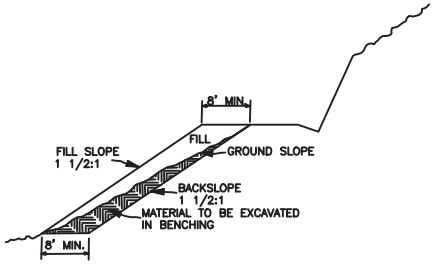
TYPICAL RANDOM FILL
ROAD FILL AND RANDOM FILL TO BE COMPACTED AS INDICATED IN EXHIBIT C SECTION 300



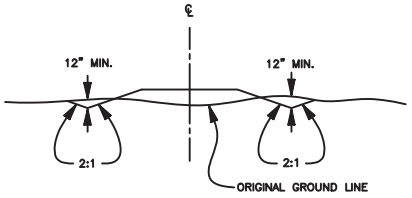
CROSS SECTION



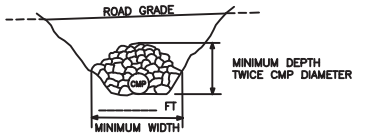
PLAN



SPECIAL COMPACTION
TYPICAL BENCHING SECTION



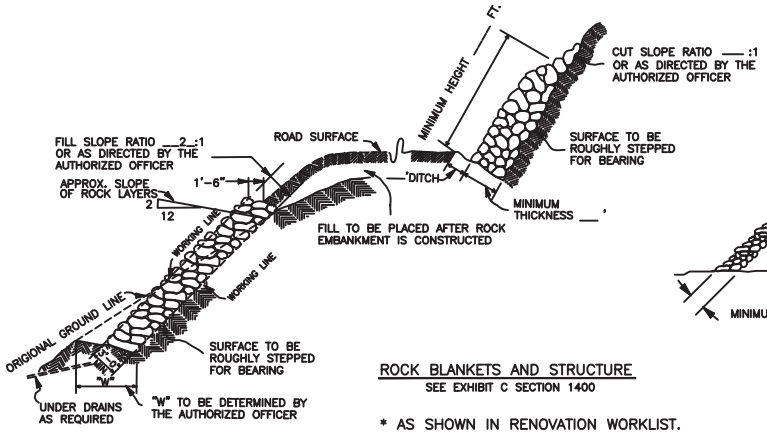
TYPICAL ROAD SECTION
FOR TURNPIKE CONSTRUCTION



ELEVATION

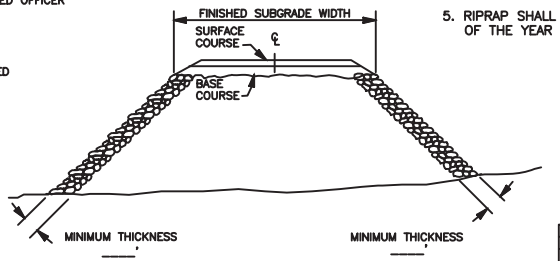
NOTES: RIPRAP AT CULVERTS

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 ___1___ FT
4. MINIMUM QUANTITY IS STATED IN WORKLIST.
5. RIPRAP SHALL BE PLACED BEFORE OCTOBER FIRST OF THE YEAR THE CMP IS INSTALLED.



ROCK BLANKETS AND STRUCTURE
SEE EXHIBIT C SECTION 1400

* AS SHOWN IN RENOVATION WORKLIST.



SLOPE PROTECTION ROCK
SEE EXHIBIT C SECTION 1400

ALWAYS THINK SAFETY

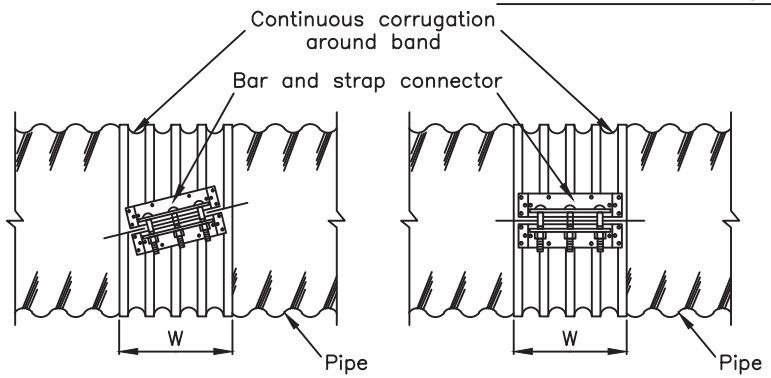
REV.NO.	DESCRIPTION	DATE	APPROVED

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

TYPICAL ROAD DATA

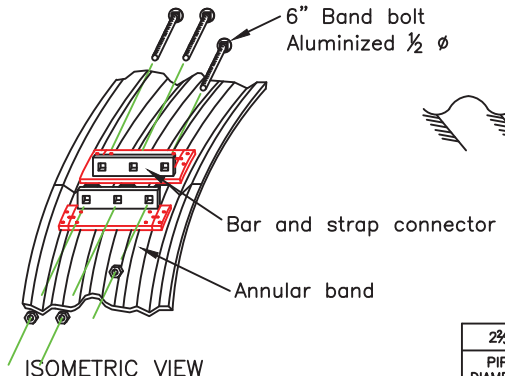
DRAWN BLM	SCALE NONE
DATE MARCH 2013	SHEET 1 OF 1
DRAWING NO. ORM05-TS-2013-0005-C5	

FULL CORRUGATED BAND (ALUMINIZED)

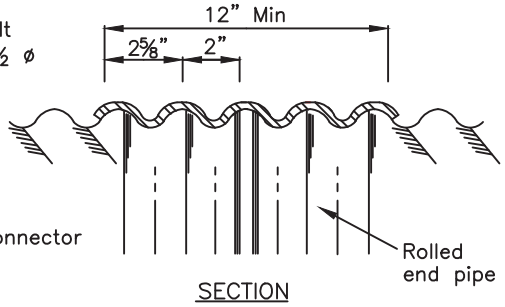


HELICAL COUPLING

ANNULAR COUPLING



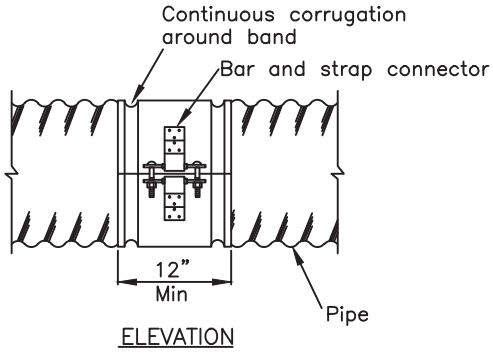
ISOMETRIC VIEW



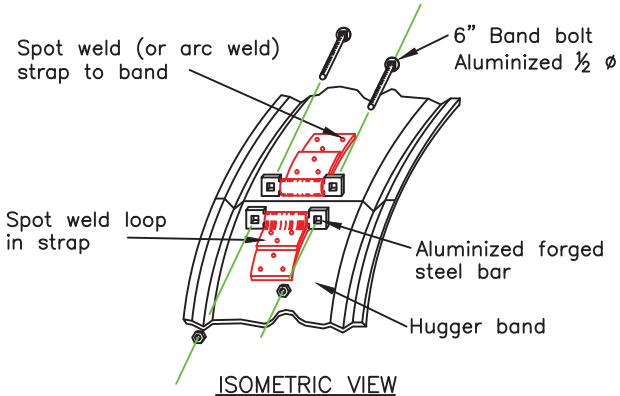
SECTION

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

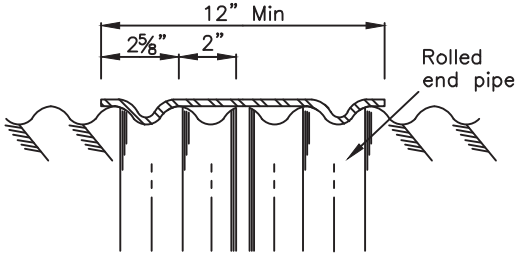
"HUGGER" BAND



ELEVATION



ISOMETRIC VIEW



SECTION

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

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

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

REV. NO.	DESCRIPTION	DATE	APPROV.

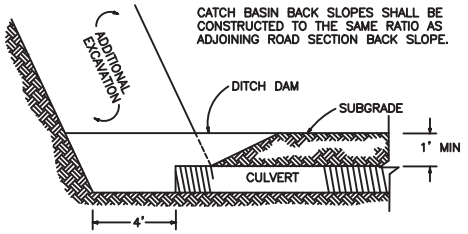
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT – MEDFORD, OREGON

CULVERT BAND DETAIL

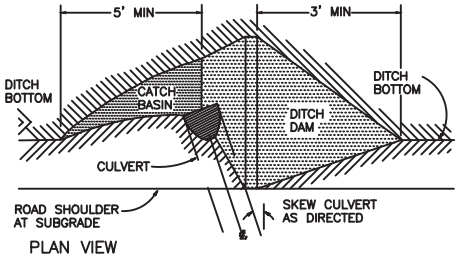
DRAWN JAB	SCALE NONE
DATE MARCH 2013	SHEET 1 OF 1
DRAWING NO.	ORM05–TS–2013–0005–C6

EXHIBIT C _7_

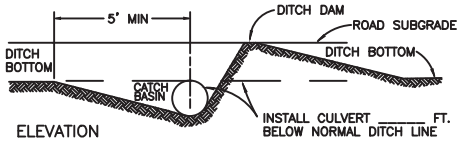
SHEET _1_ OF _1_



CROSS SECTION AT CATCH BASIN

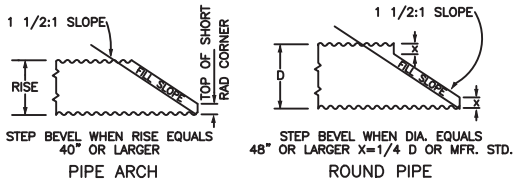


PLAN VIEW

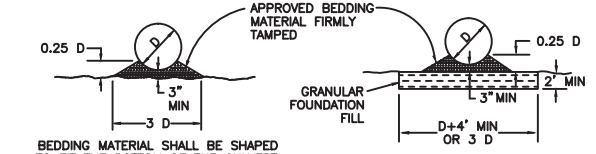


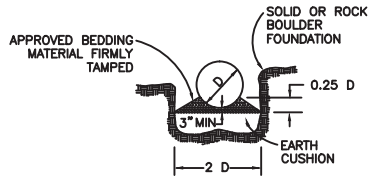
ELEVATION

CATCH BASIN

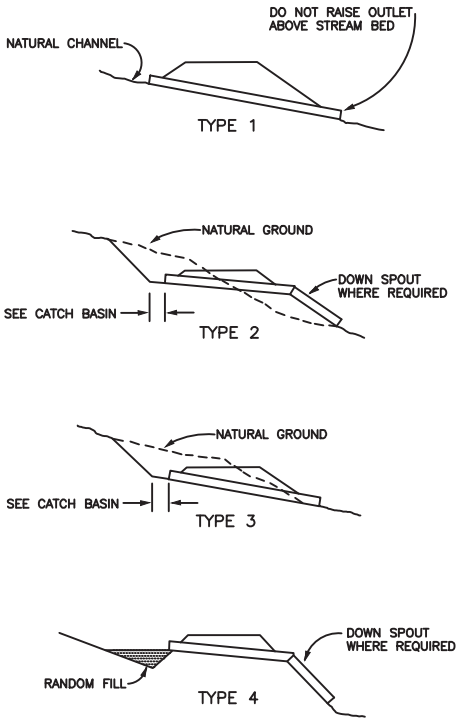


BEVELED END DETAIL

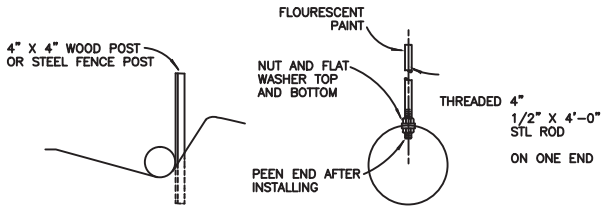




BEDDING OF CULVERTS

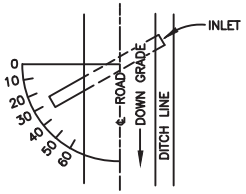


CULVERT INSTALLATION TYPES



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.

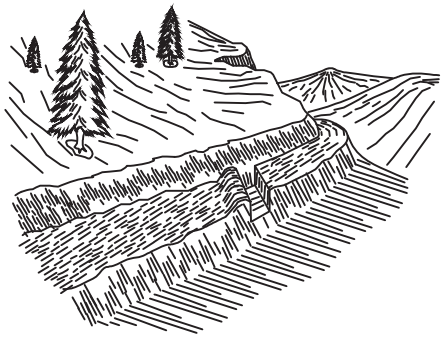
SKEW DIAGRAM

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

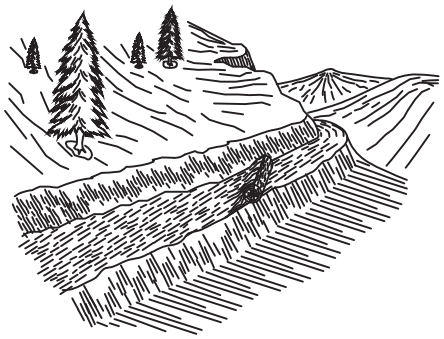
CULVERT INSTALLATION DETAILS

DESIGNED	
REVIEWED	
APPROVED	
DRAWN JAB	SCALE NONE
DATE MARCH 2013	SHEET 1 OF 1
DRAWING NO.	ORM05-TS-2013-0005-C7

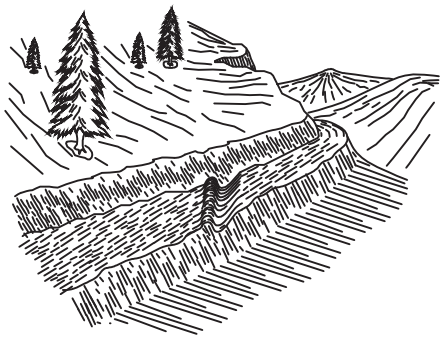
EXHIBIT C-8
SHEET 1 OF 2



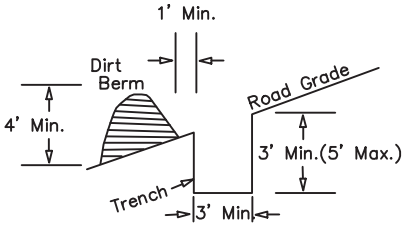
TRENCH BARRICADE



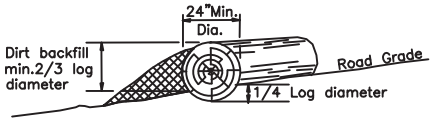
LOG BARRICADE



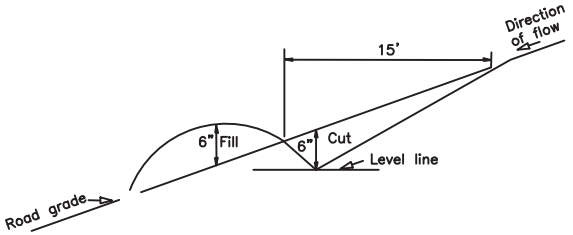
WATER BAR



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

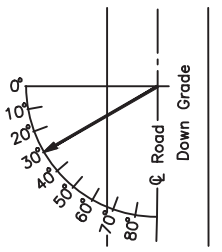


1. LOG BARRICADE SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. ALL BARRICADES SHALL BE SKEWED 30 DEGREES.
4. THE LENGTH SHALL BE SUFFICIENT TO EXTEND FROM THE CUT BANK TO THE FILL SLOPE.
5. THE MINIMUM SMALL END DIAMETER OF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



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

SKEW DIAGRAM

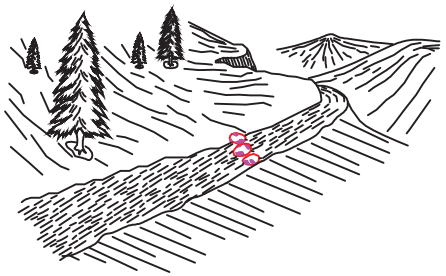


REV. NO.	DESCRIPTION	DATE	APPROV.

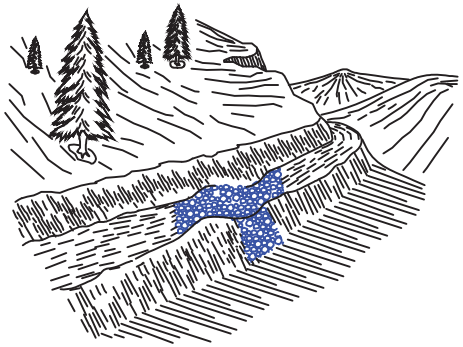
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT – MEDFORD, OREGON

DRAINAGE & EROSION CONTROL INSTALLATION

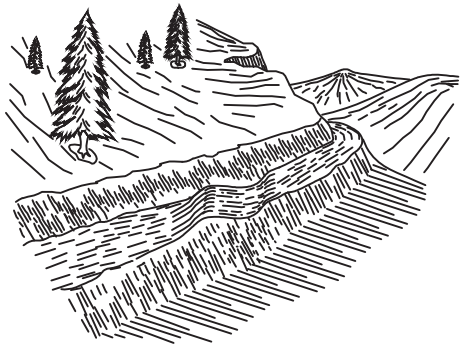
DRAWN JAB	SCALE NONE
DATE MARCH 2013	SHEET 1 OF 2
DRAWING NO. ORM05-TS-2013-0005-C8	



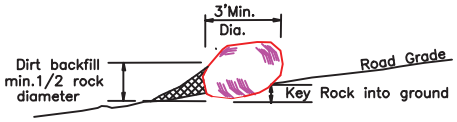
ROCK BARRICADE



ARMORED WATER DIP

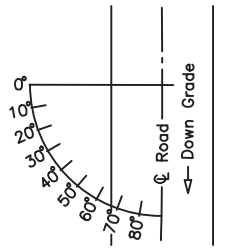


WATER DIP

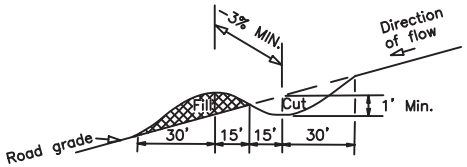


1. ROCK BARRICADE SHALL BE CONSTRUCTED AS SHOWN ABOVE.
2. EXACT LOCATION WILL BE FLAGGED BY THE AUTHORIZED OFFICER PRIOR TO CONSTRUCTION.
3. THE LENGTH SHALL BE SUFFICIENT TO BLOCK ROAD FROM VEHICLE USE.
4. THE MINIMUM DIAMETER OF ROCK SHALL BE 3 FEET.
5. THE MAXIMUM SPACE BETWEEN ROCKS SHALL BE 36"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

SKEW DIAGRAM



1. SEE EXHIBIT C–11 FOR ARMORED WATER DIP DETAILS.



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

REV. NO.	DESCRIPTION	DATE	APPROV.

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

DRAINAGE & EROSION CONTROL INSTALLATION

DRAWN JAB	SCALE NONE
DATE MARCH 2013	SHEET 2 OF 2
DRAWING NO. ORM05–TS–2013–0005–C8	

EXHIBIT C–9
SHEET 1 OF 1

CULVERT LOCATIONS										DOWNSPOUTS							
DESIGNED						AS BUILT				1/2 ROUND		FULL ROUND		RECT. FLUME		TYPE OF ELBOW*	REMARKS
ROAD NO.	STATION OR M.P.	SIZE	GAGE	LENGTH	SKEW ANGLE	STATION OR M.P.	SIZE	GAGE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH		
34–3E–21.00	0.29	18"	16	36'													2 CY Splash Pad
	0.31	24"	16	26'													2 CY Splash Pad
	0.32	**	12	38'													10 CY Splash Pad
	TOTAL 18" CMP: 36 Feet																
	TOTAL 24" CMP: 26 Feet																
	**TOTAL 57" x 38" CMP: 38 Feet																

NOTES:

A. Designed culvert lengths and locations are approximate. Actual lengths and locations will be staked in the field.
B. Summary of quantities are shown on drawing 9113.4–2
C. All culverts and bands shall be aluminized.

ELBOW TYPES:*

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

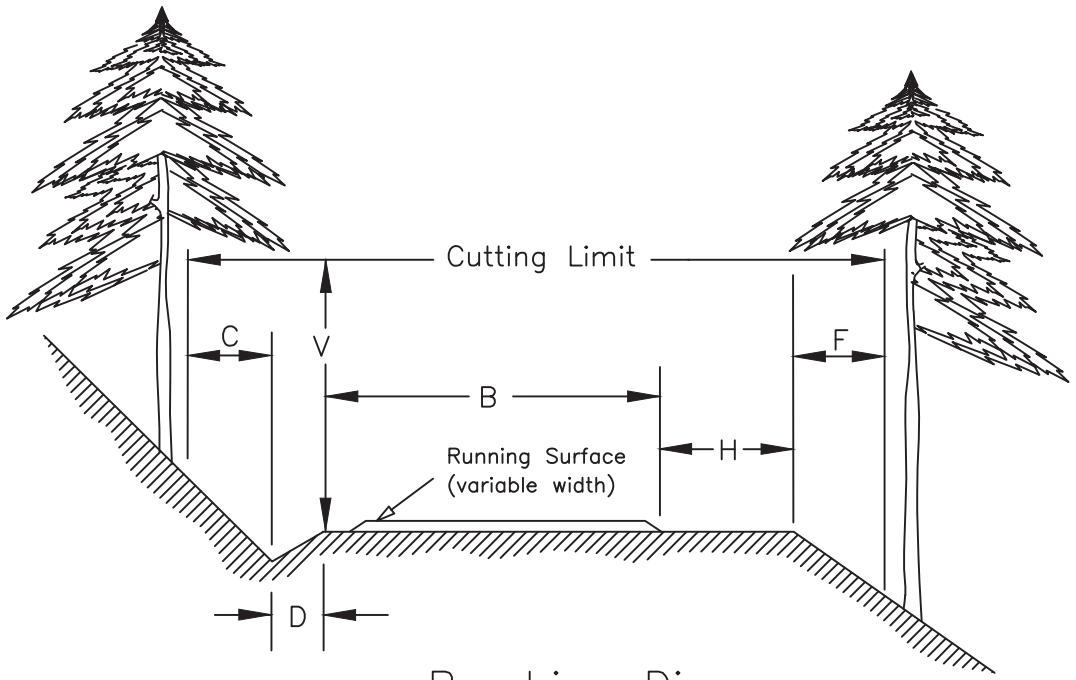
ALWAYS THINK SAFETY

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

CULVERT LIST

DRAWN: JAB	**SCALE:** AS SHOWN
DATE: MARCH 2013	**SHEET** 1 OF 1
DRAWING NO. ORM05–TS–2013–0005–C9	

EXHIBIT C–10
SHEET 1 OF 1



Brushing Diagram

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

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

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

D = Centerline of ditch to inside shoulder

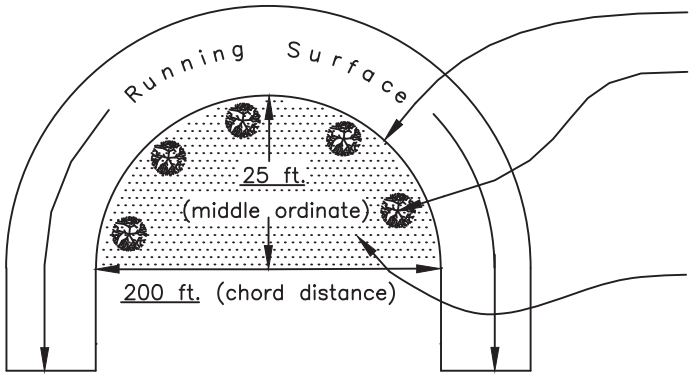
H = Variable distance between edge of basic lane and outside shoulder (does not include turnout widths)

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

V = 14 ft – Height of vertical cutting limit

Typical Basic lane widths

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



Sight Distance Diagram

Inside shoulder

Thin, space and prune trees through curved sections of road for visibility as shown. Thinning and spacing of trees shall be a minimum (10) feet apart. A minimum (1/3) tree crown shall be maintained on any pruned tree.

Area to be cut

NOTES:

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

All distances shown are horizontal except for V

ALWAYS THINK SAFETY

REV. NO.	DESCRIPTION	DATE	APPROV.

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

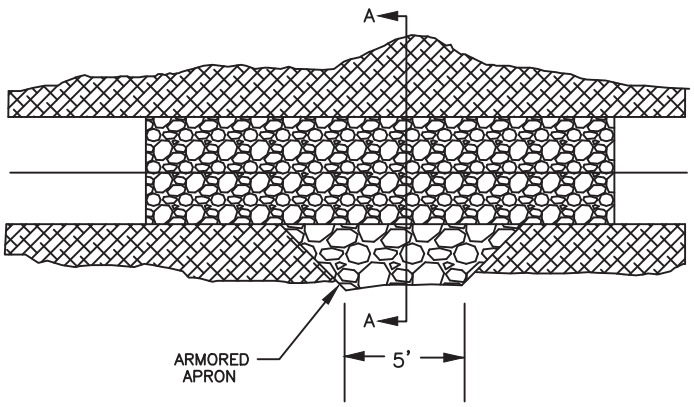
ROADSIDE BRUSHING DETAIL

DRAWN JAB	SCALE NONE
DATE MARCH 2013	SHEET 1 OF 1
DRAWING NO. ORM05–TS–2013–0005–C10	

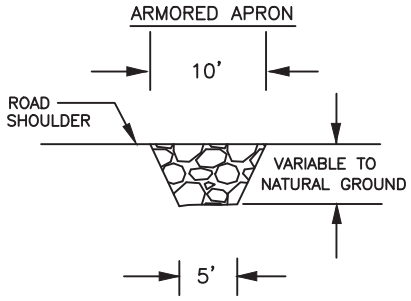
EXHIBIT C–11
SHEET 1 OF 1

TYPICAL ARMORED WATER DIP CONSTRUCTION DETAIL

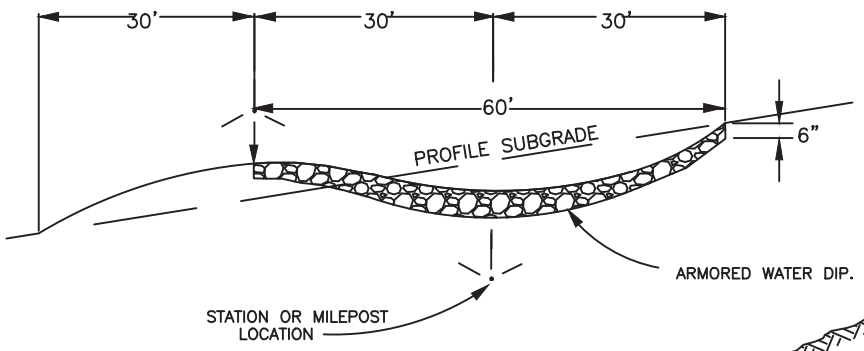
PLAN



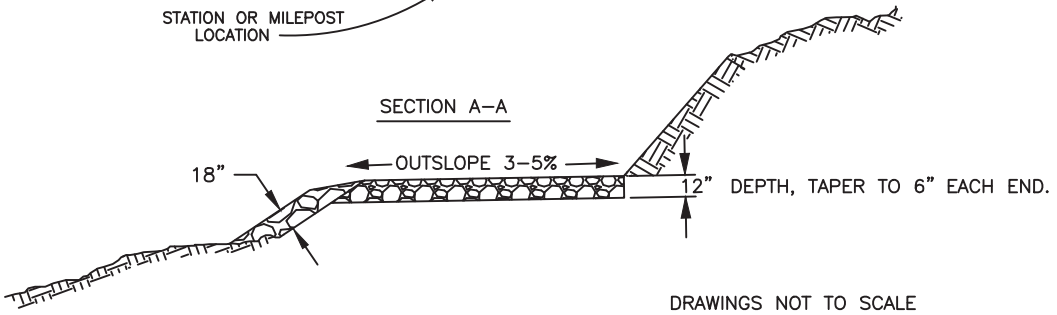
ARMORED APRON



PROFILE



SECTION A–A



DRAWINGS NOT TO SCALE

NOTES

1) THE WATER DIP INVERT SHALL BE SMOOTH AND FREE DRAINING.
2) THE MINIMUM DIFFERENCE IN ELEVATION BETWEEN THE SAG AND THE CREST OF THE WATER DIP ALONG THE CUTSLOPE HINGE POINT IS 1.0 FEET.
3) THE MINIMUM DIFFERENCE IN ELEVATION BETWEEN THE SAG AND THE CREST OF THE WATER DIP ALONG THE FILLSLOPE SHOULDER IS 1.5 FEET.
4) SKEW DIP MINIMUM 15–30 DEGREES FROM PERPENDICULAR TO CENTERLINE.
5) EXCAVATED MATERIAL SHALL BE UTILIZED IN CONSTRUCTION OF WATER DIP. SIDECASTING IS NOT PERMITTED.
6) PIT RUN ROCK MATERIAL SHALL BE PLACED ON FILL SLOPE AND SUBGRADE OF ARMORED WATERDIP.
7) SEE ROAD RENOVATION WORKLIST FOR WATER DIPS TO BE ARMORED.
8) EACH DIP SHALL BE REINFORCED WITH 40 CUBIC YARDS OF 3" MINUS ROCK, ON ROADWAY AND PIT RUN AT OUTFALL.

L E G E N D

CUT/FILL SLOPES

SUBGRADE ARMOR MATERIAL (3" minus)

FILL SLOPE ARMOR MATERIAL 12" MINUS OR OTHER APPROVED MATERIAL.

REV. NO.	DESCRIPTION	DATE	APPROV.

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

ARMORED WATER DIP CONSTRUCTION

DRAWN JAB	SCALE NONE
DATE MARCH 2013	SHEET 1 OF 1
DRAWING NO. ORM05–TS–2013–0005–C11	

Road Renovation Work List

Renovation: This consists of road work to be performed on the road prior to its use. The work includes, but not limited to; brushing, blading the road surface, pulling ditches, cleaning or enlarging catch basins and outlets, cleaning the entire barrel of corrugated metal pipes and/or culverts, furnishing and replacing/installing corrugated metal pipes and/or culverts, furnishing and placing crushed rock surfacing, spot rocking, removing brush near inlet or outlet of CMPs, removing brush, limbs, and trees along the roadway to improve sight distance. All drainage structures including culverts, water dips and ditch relief shall be inspected and brought to the design standard as shown on the plans.

Jct. – Junction
AWD – Armored Water Dip
ASC – Aggregate Surface Course
BST – Bituminous Surface Treatment
OS – Operator Spur
DO – Ditch Out
CU - CY – Cubic Yards
CMP – Corrugated Metal Pipe
PRR – Pit Run Rock
GRR – Grid Rolled Rock
NAT – Natural Surface Roads

Road 34-3E-15.03 ML (Medco RR Grade) ASC

MP	Remarks
0.00	Jct. with Road #34-3E-21.00 left and right. Begin road renovation which includes roadside brushing; blading, watering, and rolling; cleaning ditch lines; cleaning all culvert inlets and outlets; cleaning and/or enlarging culvert catch basins; maintain AWDs; and cleaning entire culvert barrels of debris.
0.01	Existing culvert, cross drain.
0.17	Existing culvert, cross drain.
0.29	Property line.
0.37	Existing culvert, cross drain.
0.44	Existing culvert, cross drain.
0.59	Existing culvert, cross drain.
0.69	Existing culvert, cross drain.
0.73	Jct. with Road #34-3E-22.01 right.
0.74	Existing culvert, cross drain.
0.89	Existing culvert, cross drain.
0.93	Existing culvert, cross drain.
0.97	Existing culvert, cross drain.
1.07	Existing AWD.
1.17	Existing AWD.
1.21	Boundary tag (right).
1.23	Property line. Existing AWD.
1.24	Existing culvert, cross drain, partial buried.
1.30	Jct. with Road #34-3E-23.03 right (barricaded).
1.37	Jct. with unnumbered spur right (barricaded).

1.42 Existing culvert, cross drain.
1.46 Jct. with unnumbered spur right (barricaded).
1.48 Existing culvert, stream (North Fork Butte Creek).
1.49 Existing culvert, cross drain/ overflow.
1.52 Jct. with Road #34-3E-14.01 right (Y intersection). Jct. with unnumbered spur left. End road renovation.

Road 34-3E-19.03 (Seven-up / Eighty Acre Quarry) ASC.

MP	Remarks
0.00	Jct. with Road #34-3E-29.01. Begin road renovation which includes roadside brushing; blading, watering, and rolling; and cleaning ditch lines.
0.19	Eighty Acre Quarry (right). End road renovation.

Road 34-3E-21.00 (Camp Creek) ASC.

MP	Remarks
0.00	Jct. Butte Falls/Prospect Hwy. Begin road renovation which includes roadside brushing; blading, watering, and rolling; cleaning ditch lines; cleaning all culvert inlets and outlets; cleaning and/or enlarging culvert catch basins; and cleaning entire culvert barrels of debris. Replace or install designated corrugated steel culverts. Crushed aggregate rock is stockpiled at M.P. 0.19 on BLM Road #34-3E-19.03 or at M.P 0.15 on BLM Road #34-3E-15.1. Rip rap for splash pads can be found at M.P. 0.19 on BLM Road #34-3E-19.03 or at M.P. 0.06 on BLM Road #34-3E-9.03.
0.05	Existing culvert, cross drain.
0.09	Existing skid road right.
0.25	Begin placing and compacting crushed aggregate rock 16’ wide by 6” thick after culvert work has been completed.
0.29	Install new 18” x 36’ CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-7; Culvert Installation Details Sheet for installation type).
0.31	Replace existing 18” culvert with a 24” x 26’ CSP with a 2 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-7; Culvert Installation Details Sheet for installation type).
0.32	Replace existing 18” culvert with a 57” x 38” x 38’ CSP with a 10 cubic yard splash pad. Culvert installation shall be a Type 1 (refer to Exhibit C-7; Culvert Installation Details Sheet for installation type) with new culvert inlet installed 8” lower than existing culvert inlet. Culvert shall be beveled on inlet and outlet ends. 10 cubic yard splash pad will be used to fill plunge pool in to improve water flow away from culvert outlet.
0.35	End placing and compacting crushed aggregate rock.
0.58	Existing culvert, cross drain.
0.68	Jct. with Road #34-3E-33.03 right. Jct. with unnumbered spur left.
0.70	Existing culvert, cross drain.
1.01	Existing culvert, cross drain.
1.14	Existing culvert, cross drain.
1.19	Existing culvert, cross drain.
1.29	Existing multi-plate culvert (North Fork Butte Creek).
1.32	Jct. with Road #34-3E-15.03 left and right.

1.37 Existing culvert, cross drain.
1.48 Existing culvert, cross drain.
1.53 Existing culvert, cross drain.
1.66 Existing culvert, cross drain.
1.76 Existing culvert, cross drain.
1.90 Existing culvert, draw.
1.96 Property line.
1.97 Jct. with unnumbered spur / landing left.
1.98 Existing culvert, cross drain.
2.02 Jct. with Road #34-3E-26.03 right.
2.06 Existing culvert, draw.
2.18 Jct. with Road #34-3E-26.00 right.
2.22 Existing culvert, cross drain.
2.35 Existing culvert, cross drain.
2.36 Jct. with Road #34-3E-23.02 left.
2.42 Existing culvert, cross drain.
2.50 Existing culvert, cross drain.
2.61 Existing culvert, cross drain.
2.72 Existing culvert, draw.
2.74 Jct. with Road #34-3E-23.00 left. Existing culvert, cross drain.
2.85 Existing culvert, cross drain.
2.91 Existing culvert, draw.
3.01 Place 10 CY of crushed aggregate.
3.02 Existing culvert, cross drain.
3.11 Existing culvert, cross drain.
3.19 Existing culvert, cross drain.
3.23 Jct. with unnumbered spur right.
3.31 Existing culvert, cross drain.
3.36 Jct. with Road #34-3E-24.00 left.
3.42 Existing culvert, cross drain.
3.53 Existing culvert, cross drain.
3.65 Existing culvert, cross drain.
3.74 Existing culvert, cross drain.
3.83 Existing culvert, cross drain.
3.88 Existing culvert, cross drain.
3.97 Jct. with Road #34-3E-24.04 left.
3.99 Jct. with Road #34-3E-25.02. End Road #34-3E-21.00. End road renovation.

Road 34-3E-23.00A (Merle Burn A) ASC.

MP	**Remarks**
0.00	Jct. with Road #34-3E-21.00. Begin road renovation which includes roadside brushing; blading, watering, and rolling; cleaning ditch lines; remove cross drain culverts and construct AWDs; and maintain all AWDs.
0.03	Existing gate. Barricade road around gate, (left).
0.08	Remove existing culvert, cross drain. Construct AWD.

0.17 Remove existing culvert, cross drain. Construct AWD.
0.32 Jct. with Road #34-3E-23.00B. Jct. with Road #34-3E-23.01 right (Decommissioned). Continue brushing. Continue renovation.

Road 34-3E-23.00B (Merle Burn B) NAT.

MP	Remarks
0.32	Jct. with Road #34-3E-23.00A. Begin road renovation which includes roadside brushing; blading; cleaning ditch lines and ditch outs; remove cross drain culvert and construct AWD; and maintain all AWDs.
0.35	Ditch out left.
0.37	Remove existing culvert, cross drain. Construct AWD.
0.50	Existing small landing (left).
0.53	Existing AWD.
0.66	Ditch out left.
0.68	Existing small landing (left).
0.77	Existing AWD.
0.82	Existing AWD.
0.93	Existing small landing (left).
0.98	Existing waterbar.
1.04	Existing small landing.
1.13	Existing AWD.
1.22	Existing AWD.
1.25	End road renovation.

Road 34-3E-23.01 (Merle Burn Spur) NAT / Decommissioned.

MP	Remarks
0.00	Jct. with Road #34-3E-23.00. Begin road reconstruction which includes roadside brushing and blading.
0.02	Existing barricade. Barricade after use.
0.24	Property line. Construct barricade. End re-construction. Decommission after use.

Road 34-3E-23.02 (Goss Ranch) ASC.

MP	Remarks
0.00	Jct. with Road #34-3E-21.00. Begin road renovation which includes roadside brushing and blading, watering, and rolling. Existing culvert, cross drain.
0.10	Existing waterdip.
0.31	End road renovation.

Road 34-3E-24.00 (Mudflap) ASC.

MP	Remarks
0.00	Jct. with Road #34-3E-21.00. Begin road renovation which includes roadside brushing; blading, watering, and rolling; cleaning ditch lines; cleaning all culvert inlets and outlets; cleaning and/or enlarging culvert catch basins; and cleaning entire culvert barrels of debris.

0.19 Existing culvert, cross drain.
0.33 Existing culvert, draw.
0.39 Existing culvert, cross drain.
0.45 Existing culvert, cross drain.
0.46 Jct. with Road #34-3E-24.01 right. End road renovation.

Road 34-3E-24.04 (Spur East) ASC.

MP	Remarks
0.00	Jct. with Road #34-3E-21.01. Begin road renovation which includes roadside brushing; blading, watering, and rolling; and cleaning all culvert inlets and outlets.
0.18	Jct. with unnumbered spur left.
0.20	Existing plastic culvert, stream.
0.23	End road renovation.

Road 34-3E-25.00 (Titanic Creek) ASC.

MP	Remarks
0.00	Jct. with Road #35-3E-3.00. Begin road renovation which includes roadside brushing; blading, watering, and rolling; cleaning ditch lines; cleaning all culvert inlets and outlets; cleaning and/or enlarging culvert catch basins; and cleaning entire culvert barrels of debris. Begin placing a compacted 4" lift of crushed aggregate rock. Crushed aggregate rock is stockpiled at M.P. 0.19 on BLM Road #34-3E-19.03 or at M.P 0.15 on BLM Road #34-3E-15.1.
0.02	Existing gate.
0.15	Existing culvert, cross drain.
0.16	Existing culvert, stream.
0.31	Jct. with Road #34-3E-25.04 right. End road rocking and renovation.

Road 34-3E-25.01 (Titanic Creek Spur 1) ASC.

MP	Remarks
0.00	Jct. with Road #35-3E-3.00. Begin road renovation which includes roadside brushing and blading, watering, and rolling. Begin placing a compacted 4" lift of crushed aggregate rock. Crushed aggregate rock is stockpiled at M.P. 0.19 on BLM Road #34-3E-19.03 or at M.P 0.15 on BLM Road #34-3E-15.1.
0.20	Jct. with Road #34-3E-25.03 right. End watering and rolling and rocking of crushed aggregate rock. Begin placing 8" lift of pit run rock.
0.35	End placing 8" lift of pit run rock. End road renovation.

Road 34-3E-25.02 (Titanic Creek ML) ASC.

MP	Remarks
0.00	Jct. with Road #34-3E-21.00. Begin road renovation which includes roadside brushing; blading, watering, and rolling; cleaning ditch lines; and cleaning all culvert inlets and outlets. Begin placing a compacted 6" lift of crushed aggregate rock. Crushed aggregate rock is stockpiled at M.P. 0.19 on BLM Road #34-3E-19.03 or at M.P 0.15 on BLM Road #34-3E-15.1.
0.04	Existing cattleguard.

0.06 Existing culvert, stream.
0.62 Jct. with Road #35-3E-3.00 left and right. End road rocking and renovation.

Road 34-3E-25.03 (Titanic Creek Spur 3) ASC.

MP	Remarks
0.00	Jct. with Road #34-3E-25.01. Begin road renovation which includes roadside brushing; blading, watering, and rolling; and cleaning ditch lines. Begin placing a compacted 4" lift of crushed aggregate rock. Crushed aggregate rock is stockpiled at M.P. 0.19 on BLM Road #34-3E-19.03 or at M.P 0.15 on BLM Road #34-3E-15.1.
0.51	End road rocking and renovation.

Road 34-3E-25.04 (Titanic Creek 4) ASC.

MP	Remarks
0.00	Jct. with Road #34-3E-25.00. Begin road renovation which includes roadside brushing; and blading, watering, and rolling.
0.19	Jct. with Road #34-3E-25.05 left. End road renovation.

Road 34-3E-25.05 (Titanic Creek 5) ASC.

MP	Remarks
0.00	Jct. with Road #34-3E-25.04. Begin road renovation which includes roadside brushing; reshaping rolling water dips; and blading, watering, and rolling.
0.34	End road renovation.

Road 34-3E-26.00 (Medco Spur) ASC.

MP	Remarks
0.00	Jct. with Road #34-3E-21.00. Begin road renovation which includes roadside brushing; blading, watering, and rolling; cleaning ditch lines; and cleaning all culvert inlets and outlets.
0.02	Existing cattleguard.
0.03	Existing culvert, stream.
0.09	Jct. with Road #34-3E-26.01 left. End road renovation.

Road 34-3E-26.01 (Camp Creek South 1) ASC.

MP	Remarks
0.00	Jct. with Road #34-3E-26.00. Begin road renovation which includes roadside brushing; blading, watering, and rolling; cleaning ditch lines; cleaning all culvert inlets and outlets; cleaning and/or enlarging culvert catch basins; and cleaning entire culvert barrels of debris.
0.12	Existing culvert, cross drain.
0.22	Property line.
0.25	Existing culvert, cross drain.
0.30	Existing culvert, cross drain.
0.33	Jct. with Road #34-3E-26.02 right.
0.45	Existing culvert, cross drain.
0.60	Existing culvert, cross drain.

0.66 Existing culvert, cross drain.
0.93 Existing culvert, cross drain.
0.96 Existing culvert, cross drain.
1.19 Existing culvert, cross drain.
1.21 End road renovation.

Road 34-3E-26.02 (Camp Creek South 2) ASC.

MP	Remarks
0.00	Jct. with Road #34-3E-26.01. Begin road renovation which includes roadside brushing; blading, watering, and rolling; cleaning ditch lines; cleaning all culvert inlets and outlets; cleaning and/or enlarging culvert catch basins; and cleaning entire culvert barrels of debris. Crushed aggregate rock is stockpiled at M.P. 0.19 on BLM Road #34-3E-19.03 or at M.P 0.15 on BLM Road #34-3E-15.1.
0.18	Existing culvert, cross drain. Place 20 CY of crushed aggregate on road.
0.40	End road renovation.

Road 34-3E-26.03 (Medco 25/26) NAT.

MP	Remarks
0.00	Jct. with Road #34-3E-03.00. Begin road renovation which includes roadside brushing; and blading.
0.04	Existing barricade, re-establish after use.
0.15	Existing barricade, do not re-establish.
0.31	Existing barricade, re-establish after use.
0.52	Property line. Construct barricade after use. End road renovation.

Road 34-3E-29.01 (Section 19 ML / Eighty Acre Quarry) ASC.

MP	Remarks
0.00	Jct. Butte Falls / Prospect Road. Begin road renovation which includes roadside brushing; blading, watering, and rolling; cleaning ditch lines; cleaning all culvert inlets and outlets; cleaning and/or enlarging culvert catch basins; and cleaning entire culvert barrels of debris.
0.01	Existing culvert.
0.22	Existing culvert, cross drain.
0.48	Existing culvert, cross drain.
0.54	Jct. with Road #34-3E-29.04 right.
0.55	Existing culvert, cross drain.
0.65	Existing culvert, cross drain.
0.75	Existing culvert, cross drain.
0.80	Jct. with Road #34-3E-30.00 right.
0.81	Existing culvert, cross drain.
0.92	Existing culvert, draw.
0.96	Jct. with Road #34-3E-19.01 right.
0.98	Existing culvert, cross drain.
1.06	Existing culvert, cross drain.
1.18	Existing culvert, cross drain.

1.25 Jct. with unnumbered spur left.
1.33 K tag (left).
1.37 Existing culvert, cross drain.
1.52 Existing culvert, cross drain.
1.71 Existing culvert, cross drain.
1.80 Jct. with Road #34-3E-19.03 right. End road renovation.

Temp Route Renovation Work List

Temp Route 23-1

T34S-R03E-Section 23 NAT/Construct/Decommission

MP	Remarks
0.00	Jct. with Road #34-3E-23.0. Begin temp route construction. Decommission, waterbar, seed, mulch, and barricade temp route after use.
0.01	Construct barricade after use.
0.15	Proposed landing location. End temp route construction.

Temp Route 23-1a

T34S-R03E-Section 23 NAT/Decommissioned

MP	Remarks
0.00	Jct. with Road #34-3E-15.03. Begin temp route reconstruction. Decommission, waterbar, seed, mulch, and barricade temp route after use.
0.02	Temporarily open existing barricade and reconstruct barricade after use.
0.23	End temp route reconstruction.

Temp Route 23-1B

T34S-R03E-Section 23 NAT/Decommissioned

MP	Remarks
0.00	Jct. Road #34-3E-23.0. Begin temp route reconstruction. Decommission, waterbar, seed, mulch, and barricade temp route after use.
0.01	Temporarily open existing barricade and reconstruct barricade after use.
0.10	End temp route reconstruction.

Temp Route 23-2b

T34S-R03E-Section 24 NAT/Decommisioned

MP	Remarks
0.00	Jct. with Road #34-3E-24.00. Begin temp route reconstruction. Decommission, waterbar, seed, mulch, and barricade temp route after use.
0.01	Construct barricade after use.
0.05	End temp route reconstruction.

Temp Route 24-2a

T34S-R03E-Section 24 NAT/Decommissioned

MP	Remarks
0.00	Jct. with Road #34-3E-21.0. Begin temp route reconstruction. Decommission, waterbar, seed, mulch, and barricade temp route after use.
0.01	Construct barricade after use.
0.17	End temp route reconstruction.

Temp Route 24-2B

T34S-R03E-Section 24 NAT/Decommissioned

MP	Remarks
0.00	Jct. with temp route 24-2a. Begin temp route new construction. Decommission, waterbar, seed, mulch, and barricade temp route after use.
0.01	Construct barricade after use.
0.04	End Temp Route reconstruction.

TIMBER SALE ROAD SPECIFICATIONS

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GENERAL – 100

*101 - Prework Conference(s):

A prework conference will be held prior to the start of new construction, improvement, renovation, and surfacing 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 of the prework conference will be to review the required work, exhibits and specifications, and to establish a work schedule and a list of the Purchaser's representatives and subcontractor(s). A prework conference shall be scheduled at the worksite before any operations begin.

*102 - Definitions:

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

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

ACI - American Concrete Institute

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

ASTM - American Society for Testing and Materials.

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

BLM - Bureau of Land Management

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Road Centerline - The longitudinal center of a roadbed.

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

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

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

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

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

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

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

Spalls - Flakes or chips of stone.

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

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

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

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

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

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

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

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

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

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

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

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

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

passing purposes.

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

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

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

*102a - Tests Used in These Specifications:

AASHTO T 11	Quantity of rock finer than No. 200 sieve.
AASHTO T 27	Sieve analysis of fine and coarse aggregate using sieves with square openings; gradation.
AASHTO T 89	Liquid limit of material passing the No. 40 sieve. Water content at which the soil passes from a plastic to a liquid state.
AASHTO T 90	Plastic limits and plasticity index of soil. a. Plastic limit - lowest water content at which the soil remains plastic. b. Plasticity index - range of water content, within which the material is in a plastic state. Numerical difference between the liquid and plastic limits of the soil.
AASHTO T 96	Resistance to abrasion of small size coarse aggregate by use of the Los Angeles machine.
AASHTO T 99	Relationship between soil moisture and density of soil. Method A - 4" mold, soil passing a No. 4 sieve 25 blows/layer & 3 layers. Method C - 4" mold, soil passing a 3/4 inch sieve 25 blows/layer & 3 layers. Method D - 6" mold, soil passing a 3/4 inch sieve. 56 blows/layer & 3 layers.
AASHTO T 119	Slump of hydraulic cement concrete.
AASHTO T 152	Air content of freshly mixed concrete.
AASHTO T 166	Specific Gravity of compacted Bituminous Mixtures.

AASHTO T 176 Shows relative portions of fine dust or claylike materials in soil or graded aggregate.

AASHTO T 180 (OSHD 106-71) moisture density relationship of soil same as AASHTO T 99 proctor but uses a 10-lb rammer & 18-in drop height.

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

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

AASHTO T 209 Maximum Specific Gravity of Bituminous Paving Mixtures.

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

AASHTO T 224 Correction for coarse particles in the soil.

AASHTO T 238 Density of Soil and Soil-Aggregate in place by nuclear methods.

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

ASTM D 4564 Determination of relative density of cohensionless soils.

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

*103 - Compaction equipment shall meet the following requirements:

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

103g - Vibratory compactor. Vibratory compactors shall consist of multiple or gang-type

compacting units or pads with a minimum variable width of 2 feet. It shall be self-contained and capable of compacting material as required.

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

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

CLEARING AND GRUBBING - 200

*201 - This work shall consist of clearing, grubbing, removing and disposing of vegetation, debris, surface objects, and protruding obstructions within the clearing limits in accordance with these specifications and conforming to the lines, grades, dimensions and typical cross sections shown on the plans and as staked on the ground.

*202 - Where clearing limits have not been staked, established by these specifications or shown on the plans, the limits shall extend (10) feet back of the top of the cut slope and (5) feet out from the toe of the fill slope.

*203 - Clearing shall consist of the removal and disposal of trees, logs, rotten material, brush, and other vegetative materials and surface objects in accordance with these specifications and within the limits established for clearing as specified under Subsection 202 and as shown on the plans and as staked on the ground.

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 staked on the ground shall consist of decking at a location designated by the Authorized Officer.

*204 - Grubbing shall consist of the removal and disposal of stumps, roots, and other wood material embedded in the ground and protruding obstacles remaining as a result of the clearing operation between the top of the cut slope and the toe of the fill slope.

205 - Clearing and grubbing debris shall not be placed or permitted to remain in or under road embankment sections.

206 - Clearing and grubbing debris shall be disposed of by burning in accordance with Subsection 208c and as shown on the plans.

206a - Notwithstanding Subsections 204 and 205, clearing and grubbing debris resulting from landing construction shall be placed at disposal sites and shall not be covered with excavated material. Location of disposal sites will be determined by the Authorized Officer.

208c - Clearing debris shall be placed outside the roadway in a neat, compacted windrow laid approximately parallel and along the toe-line of embankment slopes. The top of the windrow shall not extend above the subgrade. Material in the windrow shall be matted down with construction equipment to form a compact and uniform pile. Windrows shall have 16-foot minimum breaks at least every 100 feet. Windrows shall not be placed against trees. A pioneer road may be constructed to provide an area for placement of windrows provided the excavated material is kept within the clearing limits and does not adversely affect the road construction.

210 - Disposal of stumps and cull logs 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.

210b - Clearing and grubbing debris, stumps, and cull logs resulting from road construction on non-Government property shall be loaded and hauled to designated areas, as shown on the plan. Disposal shall be by scattering in accordance with Subsection 210.

212 - No grading will be permitted prior to completion and approval by the Authorized Officer of the required clearing and grubbing work, except that stump grubbing may proceed with the excavation of the road prism.

213 - No clearing or grubbing debris shall be left lodged against standing trees.

EXCAVATION AND EMBANKMENT - 300

*301 - This work shall consist of excavating, overhaul, placement of embankments, backfilling, borrowing, leveling, ditching, grading, insloping, outsloping, crowning and scarification of the subgrade, compaction, disposal of excess and unsuitable materials, and other earth-moving work in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans.

*302 - Excavation shall also consist of the excavation of road and landing cut sections, borrow sites, backfilling, leveling, ditching, grading, compaction, and other earth moving work necessary for the construction of the roadway in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and as marked on the ground with stakes.

303 - Suitable material removed from the excavation shall be used in the formation of embankment subgrade, shoulders, slopes, bedding, backfill for structures, and for other purposes as shown on the plans.

304 - Borrow shall consist of suitable material required for the construction of embankments or for other portions of the work; such material shall be obtained from sources selected by the Purchaser at his option and approved by the Authorized Officer.

*305 - Embankment construction shall consist of the placement of excavated and borrowed materials, backfilling, leveling, grading, compaction, and other earth-moving work necessary for the construction of the roadway and landings in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and as marked on the ground with stakes.

305a - Material used in the construction of embankment sections shall be free of stumps, cull logs, brush, muck, sod, roots, frozen material, and other deleterious materials and shall be placed and compacted as specified.

305b - Embankment materials shall be placed in successive parallel layers on areas cleared of stumps, cull logs, brush, sod, and other vegetative and deleterious materials, except as provided under Subsection 204. Roadway embankments of earth material shall be placed in horizontal layers not exceeding (8) inches in depth.

306e - The final subgrade shall be compacted to full width with compacting equipment conforming to the requirements of Subsections 103f, 103g , 103h, and 103i. Minimum compaction shall be 1 hour of continuous compacting for each (3) stations of road or a fraction of as measured along the center line of the constructed road. Landings 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.

309 - The top of cut slopes shall be rounded by blending into the adjacent terrain for a

distance not less than (1) foot and not more than (3) feet beyond the top of the cut. Rounding shall be performed in soils that can be shaped without ripping or blasting.

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.

314 - When heavy clays, muck, clay shale, or other deleterious material for forming the roadbed is encountered in cuts at subgrade, it shall be excavated to a minimum depth of (2) feet below the subgrade elevation and the excavated area backfilled with a selected borrow material approved by the Authorized Officer. The backfill material shall be uniformly moistened or dried to the optimum moisture content suitable for maximum density in accordance with the requirements of Subsection 306. Unsuitable material shall be disposed of as directed by the Authorized Officer.

316 - Borrow material from sources selected at the Purchaser's option shall be inspected and approved in writing by the Authorized Officer prior to placement.

317 - Selected borrow shall consist of talus material, finely broken rock, gravel, or other material of granular or favorable characteristics from sources shown on the plans.

318 - Selected borrow or selected roadway excavation material shall be uniformly spread on the roadbed in lifts not to exceed (6) inches in depth until the required thickness shown on the plans is attained.

Each layer shall be uniformly moistened or dried to the optimum moisture content suitable for maximum density and compacted to full width in accordance with the requirements of Subsection 306.

320 - Ditches shall conform to the slope, grade, dimensions, and shape of the required cross section shown on the plans. Roots, stumps, rocks, and other projections shall be removed to form smooth, even slopes.

321 - Excess excavated, unsuitable, or slide materials shall not be disposed of on areas where the material will encroach on a stream course or other body of water. Such materials shall be disposed of in accordance with Subsection 321c. Materials not disposed of in this manner shall be retrieved and disposed of at the Purchaser’s expense and at the direction of the Authorized Officer.

321c - End-dumping will be permitted for the placement of excess materials under Subsection 321 in designated disposal areas or within areas approved by the Authorized Officer. Watering, rolling, and placement in layers are required. Materials placed shall be sloped, shaped, and otherwise brought to a visible condition acceptable to the Authorized Officer.

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 start of surfacing operations.

PIPE CULVERTS - 400

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

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

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

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

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

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

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

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

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

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

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

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

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

*416 - Side-fill material for pipe culverts and pipe-arch culverts at the following

locations:

Road No.	M.P.
34-3E-21.00	0.29
34-3E-21.00	0.31
34-3E-21.00	0.32

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

*417 - For pipe culverts and pipe-arch culverts at the following locations:

Road No.	M.P.
34-3E-21.00	0.29
34-3E-21.00	0.31
34-3E-21.00	0.32

Side-fill material conforming to the requirements of Subsection 416 shall be placed and compacted under the haunches of the pipe, and shall be brought up evenly and simultaneously on both sides of the pipe to (1) foot above the pipe, in layers not exceeding (6) inches in depth and (1) pipe diameter/span, or a minimum of (2) feet in width each side of, and adjacent to, the full length of the pipe barrel. Each layer shall be moistened or dried to a uniform moisture content suitable for maximum compaction.

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

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

Road No.	M.P.
34-3E-21.00	0.29

34-3E-21.00	0.31
34-3E-21.00	0.32

424 - Construction of splash pads conforming to lines, grades, dimensions and typical diagram shown on the plans, shall be required for culverts at the following locations:

Road No.	M.P.
34-3E-21.00	0.29
34-3E-21.00	0.31
34-3E-21.00	0.32

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

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

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

RENOVATION AND IMPROVEMENT OF EXISTING ROADS - 500

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

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

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

Road No.	From M.P.	to M.P.	Total Miles
34-3E-15.03	0.00	1.52	1.52

34-3E-19.03	0.00	0.19	0.19
34-3E-21.00	0.00	3.99	3.99
34-3E-23.00A	0.00	0.32	0.32
34-3E-23.00B	0.32	1.25	0.93
34-3E-23.01	0.00	0.24	0.24
34-3E-23.02	0.00	0.31	0.31
34-3E-24.00	0.00	0.46	0.46
34-3E-24.04	0.00	0.23	0.23
34-3E-25.00	0.00	0.31	0.31
34-3E-25.01	0.00	0.35	0.35
34-3E-25.02	0.00	0.62	0.62
34-3E-25.03	0.00	0.51	0.51
34-3E-25.04	0.00	0.19	0.19
34-3E-25.05	0.00	0.34	0.34
34-3E-26.00	0.00	0.09	0.09
34-3E-26.01	0.00	1.21	1.21
34-3E-26.02	0.00	0.40	0.40
34-3E-26.03	0.00	0.52	0.52
34-3E-29.01	0.00	1.80	1.80

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.

504 - Existing road surface shall be uniformly moistened or dried to the optimum moisture content suitable for maximum density and compacted to full width with equipment conforming to requirements of Subsections 103f, 103g, 103h, and 103i and in accordance with the following table:

Road No.	From M.P.	to M.P.	Total Miles	Subsection 504
34-3E-15.03	0.00	1.52	1.52	504a
34-3E-19.03	0.00	0.19	0.19	504a
34-3E-21.00	0.00	3.99	3.99	504a
34-3E-23.00A	0.00	0.32	0.32	504a
34-3E-23.02	0.00	0.31	0.31	504a
34-3E-24.00	0.00	0.46	0.46	504a
34-3E-24.04	0.00	0.23	0.23	504a
34-3E-25.00	0.00	0.31	0.31	504a
34-3E-25.01	0.00	0.35	0.35	504a
34-3E-25.02	0.00	0.62	0.62	504a
34-3E-25.03	0.00	0.51	0.51	504a
34-3E-25.04	0.00	0.19	0.19	504a

34-3E-25.05	0.00	0.34	0.34	504a
34-3E-26.00	0.00	0.09	0.09	504a
34-3E-26.01	0.00	1.21	1.21	504a
34-3E-26.02	0.00	0.40	0.40	504a
34-3E-29.01	0.00	1.80	1.80	504a

504a - Minimum compaction required shall be (1) hour of continuous vibratory rolling for each (3) stations of road, or fraction thereof, as measured along the centerline per layer of material.

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

507 - Existing and new drainage structures at the following locations:

Road No.	M.P.
34-3E-21.00	0.29
34-3E-21.00	0.31
34-3E-21.00	0.32

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

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

Road No.	From M.P.	to M.P.	Total Miles
34-3E-15.03	0.00	1.52	1.52
34-3E-19.03	0.00	0.19	0.19
34-3E-21.00	0.00	3.99	3.99
34-3E-23.00A	0.00	0.32	0.32
34-3E-23.00B	0.32	1.25	0.93
34-3E-23.01	0.00	0.24	0.24
34-3E-23.02	0.00	0.31	0.31
34-3E-24.00	0.00	0.46	0.46
34-3E-24.04	0.00	0.23	0.23
34-3E-25.00	0.00	0.31	0.31
34-3E-25.01	0.00	0.35	0.35

34-3E-25.02	0.00	0.62	0.62
34-3E-25.03	0.00	0.51	0.51
34-3E-25.04	0.00	0.19	0.19
34-3E-25.05	0.00	0.34	0.34
34-3E-26.00	0.00	0.09	0.09
34-3E-26.01	0.00	1.21	1.21
34-3E-26.02	0.00	0.40	0.40
34-3E-26.03	0.00	0.52	0.52
34-3E-29.01	0.00	1.80	1.80

shall be removed by cutting and disposed of in accordance with Subsection 2100 of these specifications.

509 - The finished grading shall be approved in writing by the Authorized Officer (1) day prior to surfacing operations. The Purchaser shall give the Authorized Officer (3) days notice prior to final inspection of the grading operations.

WATERING - 600

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

602 - Water, when needed for compaction or laying dust, shall be applied at the locations, in the amounts, and during the hours as directed by the Authorized Officer. Amounts of water to be provided will be the minimum needed to properly execute the compaction requirements in conformance with these specifications, and for laying dust during work periods.

603 - Water trucks used in this work shall be equipped with a distributing device of ample capacity and of such design as to ensure uniform application of water on the road bed.

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

AGGREGATE BASE COURSE - 700
PITRUN ROCK MATERIAL

*701 - This work shall consist of furnishing, hauling, and placing one or more layers of pitrun rock material on roadbeds approved for placing pitrun materials in

accordance with these specifications and conforming to the dimensions and typical cross sections shown on the plans.

702a - Pitrun rock materials used in this work may be obtained from source(s) selected by the Purchaser at his option, providing the materials furnished comply with these specifications and the source is or sources are approved in writing by the Authorized Officer prior to use.

*703 - Pitrun rock materials shall consist of talus rock, bank run or river run gravels, partly decomposed granite or basalt, cinders, or other approved materials. The materials shall be reasonably free from vegetative matter or other deleterious material.

*704 - Pitrun rock material shall consist of native materials of such a size and grading that it can be taken directly from the source and placed on the road without crushing or screening. The material shall contain only occasional oversize particles to be removed. The term "oversize" shall be construed to mean material greater than (6) inches.

705 - Pitrun rock material shall be placed in layers of sufficient thickness to accommodate the material, except that the maximum thickness of any layer shall not exceed (6) inches. Where the total specified thickness is greater than (6) inches the material shall be placed in two or more layers of equal thickness.

706 - Oversize material that cannot be accommodated in the layer shall be removed at the source or on the road, and shall be disposed of as directed by the Authorized Officer.

707 - When so indicated by the plans, filler or binder obtained from the source(s) shown on the plans shall be uniformly blended with pitrun rock material on the road.

*708 - The roadbed as shaped and compacted under section 500 of these specifications shall be approved in writing by the Authorized Officer prior to placement of pitrun rock material.

*709 - Pitrun rock material shall be placed on roadbed, blade processed and spread to required dimensions.

711 - Layers of pitrun rock material placed and shaped as specified shall be uniformly moistened or dried to the optimum moisture content for maximum density and compacted to full width by compacting equipment conforming to the requirements of Subsections 103f, 103g, 103h, or 103i. Minimum compaction shall be (6) passes over each full-width layer, or fraction thereof.

712 - Pitrun rock material shall be surface bladed during the compaction operation to

remove irregularities and to produce a smooth running surface.

713 - Pitrun rock material used to repair or reinforce soft, muddy, frozen, yielding, or rutted subgrades shall not be construed as surfacing required under this specification.

AGGREGATE SURFACE COURSE - 1200
CRUSHED ROCK MATERIAL

*1201 - This work shall consist of furnishing, hauling, and placing one or more layers of crushed rock material on roadbeds approved for placing crushed rock material in accordance with these specifications and conforming to the dimensions and typical cross sections shown on the plans. Material not conforming to these specifications will be rejected, and shall be removed from the road at the purchaser's expense.

1202 - Crushed rock materials used in this work shall consist of quarry rock, stone, gravel, or other approved materials obtained from stockpiles shown on the plans.

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 or base course shall be completed and approved, prior to placing crushed rock material, in accordance to the requirements of Subsection 500 for placing on the roadbed. Notification for final inspection prior to rocking shall be (3) days prior to the inspection and shall be (10) days prior to start of surfacing operations.

*1210 - Crushed rock material conforming to the requirements of these specifications shall be placed on the approved roadbed in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans 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.

1212 - Each layer of crushed rock material placed, processed, and shaped as specified shall be moistened or dried to a uniform moisture content suitable for maximum compaction and compacted to full width by compacting equipment conforming to the requirements of Subsections 103f, 103f, 103h, or 103i . Minimum compaction shall be (6) passes over each full-width layer, or fraction thereof.

1215 - The Purchaser is authorized to remove crushed rock material from BLM stockpiles for placement on the roads in accordance with the requirements and details shown on the plans and as follows:

Stockpile Name	Willamette Meridian			Subdivision
	Sec.	T.	R.	
80 Acre	19	34S	03E	NE1/4SW1/4
Lodgepole	15	34S	03E	SW1/4NW1/4

Approximately 1,426 cubic yards of additional crushed rock material required to complete the surfacing shall be furnished by the Purchaser in accordance with these specifications and as shown on the plans. The Purchaser shall maintain records of material removed from each of the stockpile sites designated above. These records shall be submitted to the Authorized Officer upon completion of the surfacing operation.

EROSION CONTROL - 1700

*1701 - This work shall consist of measures to control soil erosion or water pollution during the construction operation through the use of berms, dikes, dams, sediment basins, fiber mats, netting, gravel, mulches, grasses, slope drains, and other erosion control devices or methods in accordance with these specifications and conforming to the lines, grades, dimensions and typical cross sections shown on the plans.

1703 - This work shall consist of furnishing and installing sediment fence(s) in accordance with these specifications and in reasonably close conformity with the lines and grades shown on the plans and as directed by the Authorized Officer.

1704 - The erosion control provisions specified under this Subsection shall be coordinated with the Soil Stabilization requirements of Section 1800.

1705 - The surface area of erodible earth material exposed at any one time by clearing and grubbing shall not exceed 4356 square feet (0.10 acres) after October 1 without prior approval by the Authorized Officer.

1706 - The surface area of erodible earth material exposed at one time by excavation, borrow, or fill within the right-of-way shall not exceed 4356 square feet (0.10 acres) after October 1 without prior approval by the Authorized Officer.

1707 - Completed and partially completed segments of roads at the following locations:

Road No.	Miles
34-3E-23.1	0.24
All Temp Routes	0.80

carried over the winter and early spring periods shall be stabilized by seeding and mulching in accordance with Section 1800.

1708 - Newly constructed temporary roads to be carried over the winter period, shall be blocked to vehicular traffic.

1708a - Road segments not completed during dry weather periods shall be winterized, by providing a well-drained roadway using water bars, maintaining drainage, and performing additional measures necessary to minimize erosion and other damage to the roadway, as directed by the Authorized Officer. Portions of roads not having surface rock in place will be blocked or barricaded to prevent vehicular traffic.

1711 - The Purchaser shall construct energy dissipators (splash pads) for pipe culverts conforming to the requirements and details shown on the respective exhibits.

SOIL STABILIZATION – 1800

*1801 - This work shall consist of seeding and mulching on designated cut, fill, borrow, disposal, and special areas in accordance with these specifications. This work is required for road acceptance under Section 18 of this contract.

*1802 - Soil stabilization work consisting of seeding and mulching shall be performed on existing road in accordance with these specifications at the following locations:

Road No.	Miles
34-3E-23.1 (After decom)	0.24
All Temp Routes (After decom)	0.80

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

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

From: September 15	To: October 31 (of the same year)

If soil stabilization of disturbed areas is not completed by the specified fall date, the Purchaser shall treat disturbed areas in accordance with Subsection 1707 and then complete the requirements of Section 1800 the next construction season. The Authorized Officer may modify the above seasonal dates to conform to existing weather conditions and changes in the construction schedule.

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

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

1808 - Mulch materials conforming to the requirements of Subsections 1808a shall be furnished by the Purchaser in the amounts specified under Subsection 1811 and applied in accordance with Subsection 1815.

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

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

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

1811 - The Purchaser shall furnish and apply to approximately 2.00 acres designated for treatment as shown on the plans and as specified under Subsections 1802 and 1806a, a mixture of grass seed and mulch material at the following rate of application:

a. Two Stage Dry Application:

Grass Seed	20 lbs./acre
Mulch	3,000 lbs./acre

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

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, fertilizer spreaders, or other approved mechanical seeding equipment may be used when seed and fertilizer are to be applied in dry form.

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

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

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

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

ROADSIDE BRUSHING - 2100

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

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

*2103 - Vegetation cut manually or mechanically less than **(**6**)** inches in diameter at D.B.H. shall be cut to a maximum height of (2) inches above the ground surface or above obstructions such as rocks or stumps on cut and fill slopes and all limbs

below the (2) inch area will be severed from the trunk.

2103a - Vegetation shall be cut and removed from the road bed between the outside shoulder(s) and the ditch centerline and such vegetation shall be cut to a maximum height of (1) inch above the ground and running surface. Limbs below the (1) inch area will be severed from the trunk. Sharp pointed ends will not be permitted. Cuts shall be parallel to the ground line or running surface.

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

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

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

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

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

2109 - Debris resulting from this operation shall be scattered downslope from the roadway. Debris shall not be allowed to accumulate in concentrations. Debris in excess of (1) foot in length and (2) inches in diameter shall not be allowed to remain on cut slopes, ditches, roadways or water courses, or as directed by the Authorized Officer.

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

Road No.	From M.P.	to M.P.	Total Miles
34-3E-15.03	0.00	1.52	1.52
34-3E-19.03	0.00	0.19	0.19
34-3E-21.00	0.00	3.99	3.99
34-3E-23.00A	0.00	0.32	0.32
34-3E-23.00B	0.32	1.25	0.93

34-3E-23.01	0.00	0.24	0.24
34-3E-23.02	0.00	0.31	0.31
34-3E-24.00	0.00	0.46	0.46
34-3E-24.04	0.00	0.23	0.23
34-3E-25.00	0.00	0.31	0.31
34-3E-25.01	0.00	0.35	0.35
34-3E-25.02	0.00	0.62	0.62
34-3E-25.03	0.00	0.51	0.51
34-3E-25.04	0.00	0.19	0.19
34-3E-25.05	0.00	0.34	0.34
34-3E-26.00	0.00	0.09	0.09
34-3E-26.01	0.00	1.21	1.21
34-3E-26.02	0.00	0.40	0.40
34-3E-26.03	0.00	0.52	0.52
34-3E-29.01	0.00	1.80	1.80

2114 - Sections of roadway to have vegetation removed will be marked at start and stop points with red-topped painted stakes.

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

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

SPECIAL PROVISIONS

1. SEASONAL RESTRICTION . - . Waivers may be granted if conditions are favorable.

ACTIVITY	START DATE	END DATE
Road renovation	May 15	Oct. 1
In stream	June 15	Sept. 15

2. STREAMS:
   - All instream work shall be done from June 15 thru September 15 both days included.
   - Construct silt fences 25 and 50 feet below culvert replacement sites (on live streams) to trap sediment and prevent it from entering nearby stream channels.
   - Live streams shall be diverted around or through the work area in a manner that will minimize sedimentation downstream. Keep excavation site dewatered so that installation of culverts can be carried out only under dry conditions. Dispose of excess water by using natural drainage ways or devices near the site to the extent of their natural capacity and in a manner that will avoid damage to adjacent property. Utilize dewatering methods such as temporary sediment traps and/or silt fences for areas to be excavated. Provide for downstream water flow without significant transport of excavated material or sediment during construction. At no time shall turbidity limits exceed DEQ's water quality standards.
   - Ensure that all large wood is retained in the stream channel during culvert cleaning activities by moving logs which had accumulated on the stream side of a culvert to the downstream side of the culvert.

3. CULVERTS / CMPs:
   - Backfill material over new culverts shall be compacted with a mechanical tamper to 95% of max. compaction. Existing surfacing materials shall be conserved and re-compacted over installation area.
   - When removing culverts, pull slopes back to the natural slope, or at least 1:1, to minimize sloughing, erosion, and the potential for the stream to undercut stream banks during periods of high stream flows. Remove excess sediment from stream channels during culvert removal, replacement, and installation activities. Apply seed and mulch to all disturbed or exposed soils at each stream culvert removal site.

4. DUST ABATEMENT:
   - The application of dust abatement materials such as Lignin, Mag-chloride, or approved petroleum based dust abatement products shall be restricted from application just after wet weather or at stream crossings or other locations that could result in direct delivery to a water body.

5. START-UP and SHUTDOWN:
   - Before the initial start of road renovation, construction, reconstruction, or surfacing operations, or after a shutdown of 7 or more days, the Purchaser shall notify the Authorized Officer 48 hours in advance of the date they plan to begin operations.

The Purchaser shall also notify the Authorized Officer if they intend to cease operations for any period of 30 or more days.

6. PERMITS:
   - All permits required are the responsibility of the Purchaser.

7. WATER SOURCE:
   - The Purchaser is responsible for obtaining water and associated rights and permits. BLM water sources are shown on Exhibit C-2

8. DAMAGE:
   - The contractor shall protect and is responsible for any damage to existing telephone lines, transmission lines, fiber optic lines, fences, ditches, and other existing improvements as required in Section 14. Damage to utilities and existing improvements shall be promptly paid for or repaired to a condition which is, in the opinion of the Authorized Officer and the governing utility company, at least as good as the condition just prior to such damage.

9. SOIL STABILIZATION:
   - All disturbed soil shall be seeded and mulched. Purchaser shall apply native grass seed and Certified Weed Free straw mulch for soil stabilization operations. BLM will furnish native grass seed, if available. Certified weed free straw mulch will be the responsibility of the contractor.

10. ROADSIDE BRUSHING
   - Roadside brushing cutting limits beneath or adjacent to bridges shall extend 8 feet horizontally from each side of the outermost projected line of the bridge including abutments, curbs, rails or decks. Cut brush and trees shall be removed from beneath the bridge and from the stream channel.
   - While roadside brushing, there shall be no scarring or any other damage of the tree trunk or bole allowed. All debris resulting from roadside brushing activities shall be mechanically chipped. Use of Excavators for brush removal will be at the discretion of the Authorized Officer. All culvert inlets and outlets shall be brushed for a radius of 4 feet.
   - While roadside brushing through private industry lands, conifer trees at the edges of the cleared area (see cutting limit, Exhibit C-10) shall have the branches pruned rather than being felled.

11. TEMPORARY ROUTES
   - All temp routes and native surfaced roads (that were previously closed before timber sale activities began) shall be winterized if access is needed over two dry seasons by October 31st. Winterization includes water barring, seeding, mulching, and barricading. All temp routes shall be ripped, water barred, barricaded, seeded, and mulched after use.
   - Water bars for winterization and road decommissioning shall be spaced at the following intervals:

Water bar spacing (ft) Erosion Potential			
Gradient(%)	**High**	**Moderate**	**Low**
2-5	200	300	400
6-10	150	200	300
11-15	100	150	200
16-20	75	100	150
21-35	50	75	100
36+	50	50	50

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ROAD MAINTENANCE SPECIFICATIONS

INDEX

GENERAL MAINTENANCE- 3000

3001 The Purchaser shall be required to maintain all roads listed and/or referenced in section 41, as shown on the Exhibit D-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, and 3404.

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

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

3004 The Purchaser shall be responsible for providing timely maintenance and cleanup on any roads with logging units substantially completed prior to moving operations to other roads. The maximum length of non-maintained or non-cleanup of the road prism shall not exceed the sum of one (1) mile at any time. Release of maintenance requirements may be granted, upon written request, when the conditions specified in Sections 3300 and 3400 are met satisfactorily.

OPERATIONAL MAINTENANCE - 3100

3101 The Purchaser shall blade and shape the road surface and shoulders with a motor grader. Banks shall not be undercut. Back blading with tractors or similar equipment will be allowed only around landings and other areas when approved by the Authorized Officer.

3102 The Purchaser shall place 250 cu. yds. of stockpiled aggregate conforming to the requirements in Section 1200 of Exhibit C of this contract on the roadway at locations and in the amounts designated by the Authorized Officer.

Stockpiled aggregate shall be obtained from the following BLM stockpiles:

Stockpile Name	Section	T.	R.	Approx. Cubic Yards	Road Number
Lodgepole	15	34S	03E	250	

This aggregate shall be used to repair surface failures and areas of depleted surface depth

excluding damages covered by Section 12 of this contract. The aggregate shall be hauled, placed, spread, and compacted by use of dump trucks, water trucks, and motor grader or similar equipment.

3103 The purchaser shall maintain established berms and place additional berms using adjacent material where needed to protect fills as directed by the Authorized Officer.

3104 The purchaser shall perform other road cleanup including removal of debris, fallen timber, bank slough, and slides which can practicably be accomplished by a motor grader, rubber tired front end bucket loader, rubber tired backhoe or comparable equipment, and by the use of hand tools.

3104a Removal of bank slough and slide material includes placement of material at the nearest designated, suitable disposal site where material cannot erode into streams, lakes, or reservoirs or cause undue damage to road fill slopes which have been planted or mulched to control soil erosion as directed by the Authorized Officer.

3104b The Purchaser shall be responsible for removal of all slides or slough, up to fifteen station yards in quantity, at any one site. This work includes unlimited multiple sites on all roads required to be maintained by the purchaser.

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

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

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

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

Upon completion of agreed upon work, a reduction in timber sale purchase price will be made to

offset the cost of the work based upon current BLM Road Cost Guide. Adjustments in purchase price for completed work shall be made as necessary and no less than once per year when actual work is ongoing.

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

The Purchaser shall also cut trees or brush encroaching on the road prism that are a result of his activities or winter damage during the contract period. Disposal of such vegetative material shall be in accordance with Section 2100 of Exhibit C-13.

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

3108a The Purchaser shall perform logging operations on gravel roadways only where the locations have been marked on the ground and/or approved by the Authorized Officer. The Purchaser shall furnish gravel for necessary repairs at designated locations. Repair of the roads is not considered maintenance and shall be repaired at the Purchaser's expense.

SEASONAL MAINTENANCE - 3200

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

3202 The purchaser shall perform and complete maintenance specified in Sections 3000, 3100, and 3200 on all roads maintained by him, prior to October 15 each year, except as specified in Subsection 3203, after initial commencement of construction or logging operations. Thereafter, all roads shall have continuous preventive maintenance and road cleanup until suspension of seasonal operations. This includes all roads used and not used during the proceeding operating seasons.

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

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

FINAL MAINTENANCE - 3300

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

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

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

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

OTHER MAINTENANCE - 3400

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

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

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

3403 The Purchaser shall be required to furnish and apply non-saline water during dry hauling periods,

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

The following roads shall be watered:

Road Number	From M.P.	to M.P.
34-3E-21.00	0.00	3.99
34-3E-15.03	0.00	1.52
35-3E-3.0	0.00	3.24
35-3E-10.0	0.00	1.00
FS 32 Road	0.00	0.63

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.
34-3E-21.00	0.00	3.99
34-3E-15.03	0.00	1.52
35-3E-3.0	0.00	3.24
35-3E-10.0	0.00	1.00
FS 32 Road	0.00	0.63

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

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

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.

DECOMMISSIONING – 3500

3501 Decommissioning work includes subsoiling and installing water bars and placement of soil stabilization material and blocking road from access by vehicles. This work is not required for road acceptance under Section 18 of this contract.

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

Road No or Site	From MP	To MP	(D)ecommission or (O)bliterate
34-3E-23.1	0.00	0.24	D

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

From: September 15th	To: October 31st (of the same year)

3506 Stockpiled slash shall be used to protect exposed areas created by the Purchaser's decommissioning operations described in these sections. Slash shall be uniformly spread and placed without bunching. The operation shall produce a dense, uniform mat. Where slash no longer available or remaining, exposed soil areas shall be stabilized in accordance with Section 1800.

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

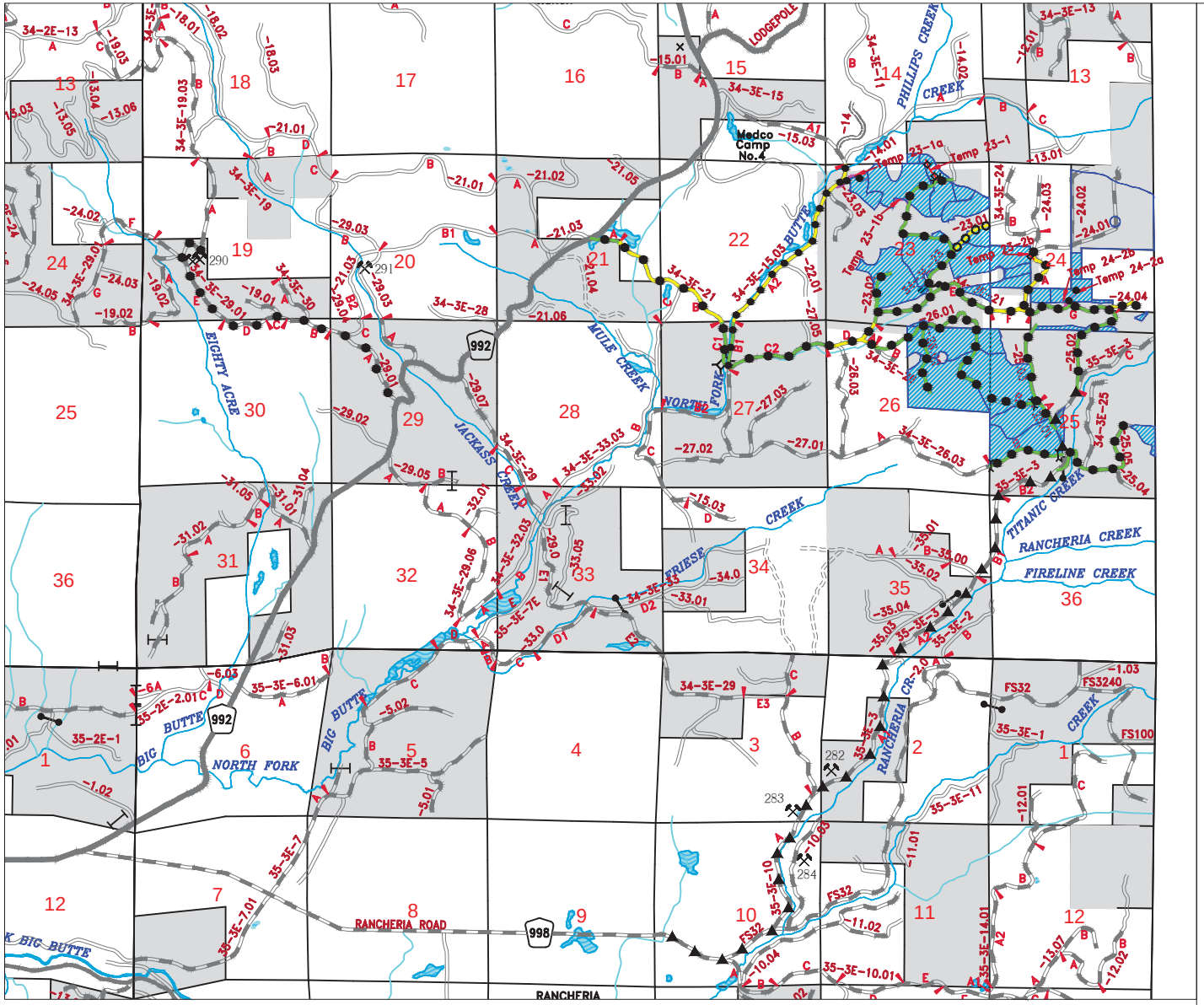
3508 Protect areas mulched and treated with slash placement from damage by Purchaser traffic or construction equipment. Damaged areas shall be repaired by the Purchaser.

3509 Access shall be blocked with barricades as shown on the typical detail sheet C-8 and at locations as shown on Exhibit C-3.

3511 Subsoiling and water barring shall be done on designated roadways, temporary roads, disturbed areas, and landings. Subsoiling shall be performed with wing-toothed rippers or excavator modified for tillage.

3513 Water bars shall be installed across full width of roadway at spacing shown in the specifications. Water bars shall be constructed as shown on Exhibit C-14.

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



FRIESE CAMP TIMBER SALE
ROAD MAINTENANCE MAP
CONTRACT NO. ORM05-TS-2013-0005
EXHIBIT D-2; PAGE 1 OF 1

U.S.D.I. BLM MEDFORD DISTRICT

T.34S., R.3E. WILL. MER.
T.35S., R.3E. WILL. MER.

- STOCKPILE
- EXISTING GATE
- EXISTING BARRICADE
- BLM MAINTENANCE
- OPERATOR MAINTENANCE
- DECOMMISSION ROAD
- BLM LAND
- TS UNITS

T.34S.

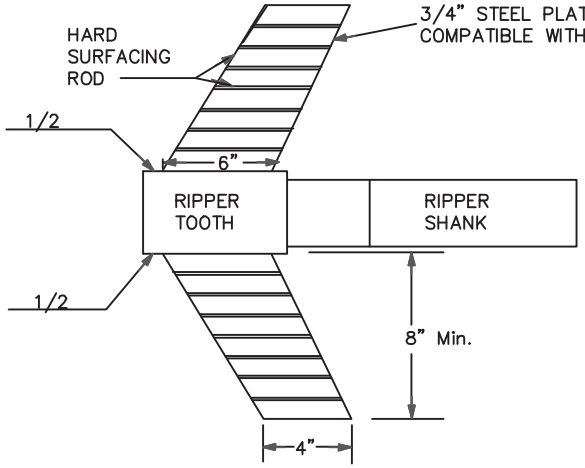
T.35S.

N
W E
S

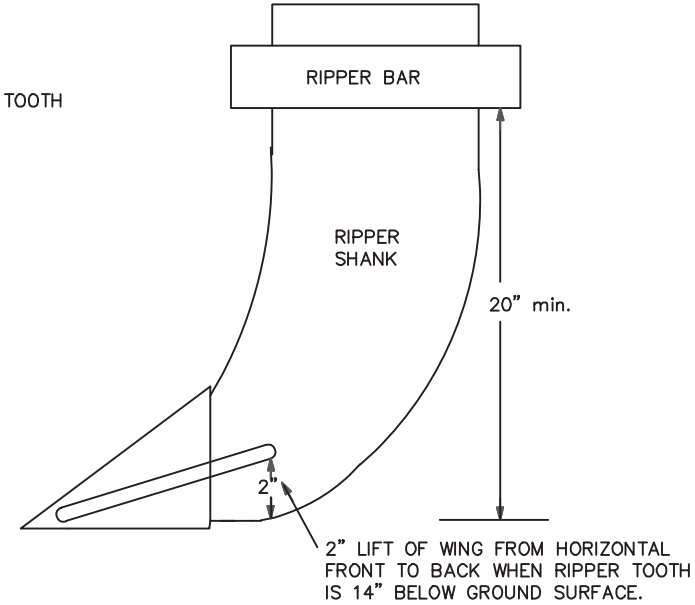
0 1/2 1

SCALE IN MILES

EXHIBIT R
*SHEET _1_ OF _1_*

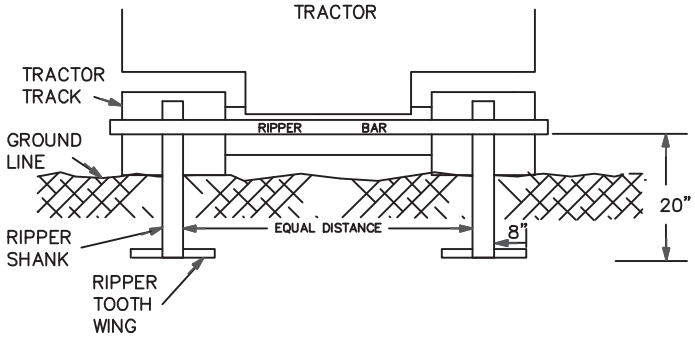


TOP VIEW



SIDE VIEW

TYPICAL RIPPER POSITION



NOTES: TYPICAL RIPPER TOOTH CONSTRUCTION

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

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

WING RIPPER DETAIL

DESIGNED _____
REVIEWED _____
APPROVED _____
CHIEF, BRANCH OF ENGINEERING OR DISTRICT ENGINEER

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

Legal Descriptionc

Forestc Typec	Townshipc	Rangec	Sectionc	Subdivisionc
O&C,	34S,	3E,	14,	SW1/4 SE1/4.,
O&C,	34S,	3E,	23,	NE1/4, N1/2 NW1/4, SE1/4 NW1/4, N1/2 SW1/4, SE1/4 SW1/4, SE1/4.,
O&C,	34S,	3E,	24,	NW1/4 SW1/4, SE1/4 SW1/4, W1/2 SE1/4, SE1/4 SE1/4.,
O&C,	34S,	3E,	25,	NW1/4 NE1/4, NW1/4, SW1/4, NE1/4 SE1/4.,
O&C,	34S,	3E,	26,	NE1/4.,

Cutting Volume (16' MBF)c

Unit,	DF,	WF,	IC,	PP,	SP,				Total,	Regen,	Partial,	ROW,
14-4,	53,	11,	6,	3,					73,	0,	11,	0,
23-1,	411,	137,	3,	0,					551,	0,	67,	0,
23-2,	384,	240,	27,	2,	0,				653,	0,	55,	0,
23-3,	70,	44,	2,	5,	1,				122,	0,	22,	0,
23-4,	444,	328,	6,	11,					789,	0,	83,	0,
24-2,	185,	72,	12,	0,	0,				269,	0,	32,	0,
24-3,	73,	20,	14,	0,					107,	0,	13,	0,
24-4,	68,	13,	1,	0,					82,	0,	12,	0,
24-5,	24,	2,							26,	0,	2,	0,
25-1,	116,	104,	5,	1,					226,	0,	47,	0,
25-2,	69,	71,	2,		0,				142,	0,	25,	0,
25-3,	57,	39,	1,						97,	0,	8,	0,
26-1,	391,	304,	27,	0,	3,				725,	0,	131,	0,
26-2,	173,	132,	9,		3,				317,	0,	68,	0,
Totals,	**2,518c**	**1,517c**	**115c**	**22c**	**7c**				**4,179c**	**0c**	**576c**	**0c**

Logging Costs perc16' MBFc

Stum, to Truck,	$,	138.85,
Trans, ortation,	$,	47.90,
Road Construction,	$,	31.48,
Road Amortization,	$,	0.00,
Road Maintenance,	$,	6.52,

Other Allowances :

Fuels Treatment,	$ 2.20 ,
Other Costs,	$ 10.00 ,
Total Other Allowances :c	**$ 12.20 c**

Total Logging Costs , er 16' MBF, $, **236.95c**

Utilization Centers

Center #1 : White City, OR, 40, Miles,
Center #2, 0, Miles,
Weighted distance to Utilization Centers, 40,

Length of Contractc

Cutting and Removal Time, 36, Months,
Personal Pro, erty Removal Time, 1, Months,

Profit & Riskc

Total Profit & Risk, 11, %
Basic Profit & Risk, 11,% + Additional Risk 0, %,
Back Off, 5, %,

Tract Featuresc

Avg Log,	Douglas-fir : 51 bf	All : 53 bf,
Recovery,	Douglas-fir : 89 %	All : 87 %,
Salvage,	Douglas-fir : 0 %	All : 0 %,

Avg Volume (, 16' MBF per Acre), 7,
Avg Yarding Slo, e, 10, %,
Avg Yarding Distance (feet), 540,
Avg Age, 100,
Volume Cable, 0, %,
Volume Ground, 100, %,
Volume Aerial, 0, %,
Road Construction Stations, 0.00,
Road Im, rovement Stations, 0.00,
Road Renovation Stations, 0.00,
Road Decomission Stations, 0.00,

Cruisec

Cruised By, Parks, Worman, Rentz,
Date, 03/25/2013,
Type of Cruise, 3P, 100%,
County, State, Jackson, OR,

Net Volumec

Green (16' MBF), 4,179,
Salvage (16' MBF), 0,

Douglas-fir Peeler, 75,
Ex, ort Volume, 0,
Scaling Allowance ($0.50 per 16' MBF), $2,089.50,

Medford,
Friese Camp,
ORM05-TS-2013-05,

Stumpage Summaryc

Stumpage Computation c (16' MBF),

Speciesc	Treesc	Netc Volumec	Pondc Valuec	(-)c Profitc & Riskc	(-)c Loggingc Costc	(+)c Marginalc Log Valuec	(-)c Backc ffc	Appraisedc Pricec	Appraisedc Valuec
DF,	13,883,	2,518,	$ 588.78 ,	$ 64.77 ,	$ 236.95 ,	$ 1.15 ,	$ 14.41 ,	$ 273.80 ,	$ 689,428.40 ,
WF,	8,740,	1,517,	$ 463.37 ,	$ 50.97 ,	$ 236.95 ,	$ 1.71 ,	$ 8.86 ,	$ 168.30 ,	$ 255,311.10 ,
IC,	1,679,	115,	$ 411.97 ,	$ 45.32 ,	$ 236.95 ,		$ 6.49 ,	$ 123.20 ,	$ 14,168.00 ,
PP,	49,	22,	$ 361.46 ,	$ 39.76 ,	$ 236.95 ,		$ 4.24 ,	$ 80.50 ,	$ 1,771.00 ,
SP,	44,	7,	$ 279.83 ,	$ 30.78 ,	$ 236.95 ,		$ 0.60 ,	$ 28.00 ,	$ 196.00 ,
Totalsc	**24,395c**	**4,179c**							**$ 960,874.50 c**

Log Code by Percent c

Speciesc	Code #1c	Code #2c	Code #3c	Code #4c	Code #5c	Code #6c
Douglas-fir,			4.0,	43.0,	44.0,	9.0,
White Fir,			1.0,	51.0,	41.0,	7.0,
Incense-cedar,				37.0,	49.0,	14.0,
Ponderosa Pine,				84.0,	16.0,	
Sugar Pine,				47.0,	47.0,	6.0,

Marginal Log Volume c

Species,	Grade #7 ,	Grade #8,
Douglas-fir,	29,	
White Fir,	26,	
Incense-cedar,		
Ponderosa Pine,		
Sugar Pine,		

Appraised By : c Parks, Corey, **Date : c** 03/26/2013,

Area Approval By : c Rentz, George, **Date : c** 04/10/2013,

District Approval By : c **Date : c**

Prospectusc

Appraisal Method : c(16' MBF),

Speciesc	Treesc	Net %olumec 16' MBFc	Net %olumec 32' MBFc	Net %olumec CCFc
Douglas-fir,	13,883,	2,518,	2,116,	4,435,
White Fir,	8,740,	1,517,	1,260,	2,615,
Incense-cedar,	1,679,	115,	94,	230,
Ponderosa Pine,	49,	22,	20,	37,
Sugar Pine,	44,	7,	5,	12,
Totalc	**24,395c**	**4,179c**	**3,495c**	**7,329c**

All Species c

Grossc Volumec	Numberc Treesc	Avg bf %olumec PercTreec	DBHc	Gross Merchc Volumec	Merchc Logsc	Avg bf Gross c Merch Logc
4,805,	24,395,	196,	13.4,	4,633,	87,167,	53,

Merchc Logsc	Cullc Logsc	Totalc Logsc	Logs perc Treec	Netc Volumec	Grossc Volumec	Recoveryc
87,167,	4,809,	91,976,	3.8,	4,179,	4,805,	87, %,

Douglas-firc

Grossc Volumec	Numberc Treesc	Avg bf %olumec PercTreec	DBHc	Gross Merchc Volumec	Merchc Logsc	Avg bf Gross c Merch Logc
2,845,	13,883,	204,	13.3,	2,773,	54,222,	51,

Merchc Logsc	Cullc Logsc	Totalc Logsc	Logs perc Treec	Netc Volumec	Grossc Volumec	Recoveryc
54,222,	2,540,	56,762,	4.1,	2,518,	2,845,	89,%,

Cutting Areas c

Unitc	Regenc Acresc	Partial Cutc Acresc	Right Of Wayc Acresc	Totalc Acresc
14-4,		11,		11,
23-1,		67,		67,
23-2,		55,		55,
23-3,		22,		22,
23-4,		83,		83,
24-2,		32,		32,
24-3,		13,		13,
24-4,		12,		12,
24-5,		2,		2,
25-1,		47,		47,
25-2,		25,		25,
25-3,		8,		8,
26-1,		131,		131,
26-2,		68,		68,
Totals :c		**576c**		**576c**

Exhibit Bc

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)c

Speciesc	Netc Volumec	Bidc Pricec	Salec SubTotalc
Douglas-fir,	2,518,		
White Fir,	1,517,		
Incense-cedar,	115,		
Ponderosa Pine,	22,		
Sugar Pine,	7,		
Sale Totalsc	**4,179c**		

Unit Details (16' MB)Oc

Unitc 14-4c **11 Acresc** **Value per Acre : $0.00Oc**

Speciesc	Netc Volumec	Bidc Pricec	Speciesc Valuec
Douglas-fir,	53,		
Incense-cedar,	6,		
Ponderosa Pine,	3,		
White Fir,	11,		
Unit Totalsc	**73c**		

Unitc 23-1c **67 Acresc** **Value per Acre : $0.00c**

Speciesc	Netc Volumec	Bidc Pricec	Speciesc Valuec
Douglas-fir,	411,		
Incense-cedar,	3,		
Ponderosa Pine,			
White Fir,	137,		
Unit Totalsc	**551c**		

Unitc 23-2c **55 Acresc** **Value per Acrec $0.00c**

Speciesc	Netc Volumec	Bidc Pricec	Speciesc Valuec
Douglas-fir,	384,		
Incense-cedar,	27,		
Ponderosa Pine,	2,		
Sugar Pine,			
White Fir,	240,		
Unit Totalsc	**653c**		

Unitc 23-3c **22 Acresc** **Value per Acre : $0.00c**

Speciesc	Netc Volumec	Bidc Pricec	Speciesc Valuec
Douglas-fir,	70,		
Incense-cedar,	2,		
Ponderosa Pine,	5,		
Sugar Pine,	1,		
White Fir,	44,		
Unit Totalsc	**122c**		

Unitc 23-4c **83 Acresc** **Value per Acre : $0.00c**

Speciesc	Netc Volumec	Bidc Pricec	Speciesc Valuec
Douglas-fir,	444,		
Incense-cedar,	6,		
Ponderosa Pine,	11,		
White Fir,	328,		
Unit Totalsc	**789c**		

Unitc 24-2c **32 Acresc** **Value per Acre : $0.00c**

Speciesc	Netc Volumec	Bidc Pricec	Speciesc Valuec
Douglas-fir,	185,		
Incense-cedar,	12,		
Ponderosa Pine,			
Sugar Pine,			
White Fir,	72,		
Unit Totalsc	**269c**		

Unitc 24-3c **13 Acresc** **Value per Acrec: $0.00c**

Speciesc	Netc Volumec	Bidc Pricec	Speciesc Valuec
Douglas-fir,	73,		
Incense-cedar,	14,		
Ponderosa Pine,			
White Fir,	20,		
Unit Totalsc	**107c**		

Unitc 24-4c **12 Acresc** **Value per Acre : $0.00c**

Speciesc	Netc Volumec	Bidc Pricec	Speciesc Valuec
Douglas-fir,	68,		
Incense-cedar,	1,		
Ponderosa Pine,			
White Fir,	13,		
Unit Totalsc	**82c**		

Unitc 24-5c **2 Acresc** **Value per Acre : $0.00c**

Speciesc	Netc Volumec	Bidc Pricec	Speciesc Valuec
Douglas-fir,	24,		
White Fir,	2,		
Unit Totalsc	**26c**		

Unitc 25-1c **47 Acresc** **Value per Acre : $0.00c**

Speciesc	Netc Volumec	Bidc Pricec	Speciesc Valuec
Douglas-fir,	116,		
Incense-cedar,	5,		
Ponderosa Pine,	1,		
White Fir,	104,		
Unit Totalsc	**226c**		

Unitc 25-2c **25 Acresc** **Value per Acre : $0.00c**

Speciesc	Netc Volumec	Bidc Pricec	Speciesc Valuec
Douglas-fir,	69,		
Incense-cedar,	2,		
Sugar Pine,			
White Fir,	71,		
Unit Totalsc	**142c**		

UNITED STATESc
DEPARTMENTcOF THE INTERIORc
BUREAU OFcLAND MANAGEMENTc

Unitc 25-3c **8 Acresc** **Value per Acrec: $0.00c**

Speciesc	Netc Volumec	Bidc Pricec	Speciesc Valuec
Douglas-fir,	57,		
Incense-cedar,	1,		
White Fir,	39,		
Unit Totalsc	**97c**		

Unitc 26-1c **131 Acresc** **Value per Acre : $0.00c**

Speciesc	Netc Volumec	Bidc Pricec	Speciesc Valuec
Douglas-fir,	391,		
Incense-cedar,	27,		
Ponderosa Pine,			
Sugar Pine,	3,		
White Fir,	304,		
Unit Totalsc	**725c**		

Unitc 26-2c **68 Acresc** **Value per Acre : $0.00c**

Speciesc	Netc Volumec	Bidc Pricec	Speciesc Valuec
Douglas-fir,	173,		
Incense-cedar,	9,		
Sugar Pine,	3,		
White Fir,	132,		
Unit Totalsc	**317c**		

Sale Volume Totalsc

576, Acresc 0, Regen 576, Partialc 0, R/Wc 14, Unitsc

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Netc	16' MBFc GMc	16' MBFc Grossc	32' MBFc Netc	32' MBFc GMc	32' MBFc Grossc	CCFc Netc	CCFc GMc	CCFc Grossc
Douglas-fir,	13,883,	54,222,	2,540,	2,518,	2,773,	2,845,	2,116,	2,327	2,387,	4,435,	4,893,	5,033,
White Fir,	8,740,	29,669,	1,899,	1,517,	1,703,	1,787,	1,260,	1,417	1,480,	2,615,	2,937,	3,087,
Incense-cedar,	1,679,	2,960,	328,	115,	125,	137,	94,	102	111,	230,	252,	275,
Ponderosa Pine,	49,	196,	14,	22,	25,	28,	20,	22	24,	37,	40,	44,
Sugar Pine,	44,	120,	28,	7,	7,	8,	5,	5	6,	12,	12,	15,
Totalsc	**24,395c**	**87,167c**	**4,809c**	**4,179c**	**4,633c**	**4,805c**	**3,495c**	**3,873c**	**4,008c**	**7,329c**	**8,134c**	**8,454c**

Unit Totalsc

Unit :c 14-4c 11c Acresc 0c Regenc 11c Partialc 0c R/Wc

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Grossc	16' MBFc GMc	16' MBFc Netc
Douglas-fir,	315,	1,131,	53,	59,	58,	53,
White Fir,	57,	219,	14,	13,	13,	11,
Incense-cedar,	59,	163,	18,	7,	7,	6,
Ponderosa Pine,	11,	27,	2,	4,	4,	3,
Unit Totalsc	**442c**	**1,540c**	**87c**	**83c**	**82c**	**73c**

Unit :c 23-1c 67c Acresc 0c Regenc 67c Partialc 0c R/Wc

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Grossc	16' MBFc GMc	16' MBFc Netc
Douglas-fir,	2,027,	8,853,	415,	464,	452,	411,
White Fir,	636,	2,676,	171,	161,	154,	137,
Incense-cedar,	56,	81,	9,	4,	3,	3,
Ponderosa Pine,	2,	3,				
Unit Totalsc	**2,721c**	**11,613c**	**595c**	**629c**	**609c**	**551c**

Unit :c 23-2c 55c Acresc 0c Regenc 55c Partialc 0c R/Wc

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Grossc	16' MBFc GMc	16' MBFc Netc
Douglas-fir,	2,026,	8,266,	387,	433,	422,	384,
White Fir,	1,325,	4,692,	300,	283,	269,	240,
Incense-cedar,	395,	696,	77,	32,	29,	27,
Ponderosa Pine,	7,	19,	1,	3,	2,	2,
Sugar Pine,	2,	6,	2,	1,		

Unit Totalsc	**3,755c**	**13,679c**	**767c**	**752c**	**722c**	**653c**

Unit :c 23-3 **22cAcresc** **0cRegenc** **22cPartialc** **0cR/Wc**

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Grossc	16' MBFc GMc	16' MBFc Netc
Douglas-fir,	343,	1,498,	70,	79,	77,	70,
White Fir,	151,	857,	55,	52,	49,	44,
Ponderosa Pine,	7,	38,	3,	6,	5,	5,
Incense-cedar,	22,	46,	5,	2,	2,	2,
Sugar Pine,	2,	8,	1,	1,	1,	1,
Unit Totalsc	**525c**	**2,447c**	**134c**	**140c**	**134c**	**122c**

Unit :c 23-4c **83cAcresc** **0cRegenc** **83cPartialc** **0cR/Wc**

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Grossc	16' MBFc GMc	16' MBFc Netc
Douglas-fir,	2,007,	9,568,	448,	500,	489,	444,
White Fir,	1,871,	6,418,	411,	387,	369,	328,
Ponderosa Pine,	12,	90,	7,	13,	12,	11,
Incense-cedar,	84,	165,	18,	8,	7,	6,
Unit Totalsc	**3,974c**	**16,241c**	**884c**	**908c**	**877c**	**789c**

Unit :c 24-2c **32cAcresc** **0cRegenc** **32cPartialc** **0cR/Wc**

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Grossc	16' MBFc GMc	16' MBFc Netc
Douglas-fir,	849,	3,980,	186,	209,	203,	185,
White Fir,	333,	1,400,	90,	84,	80,	72,
Incense-cedar,	201,	300,	33,	14,	13,	12,
Ponderosa Pine,	1,	2,				
Sugar Pine,	1,	3,	2,			
Unit Totalsc	**1,385c**	**5,685c**	**311c**	**307c**	**296c**	**269c**

Unit :c 24-3c **13cAcresc** **0cRegenc** **13cPartialc** **0cR/Wc**

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Grossc	16' MBFc GMc	16' MBFc Netc
Douglas-fir,	427,	1,574,	71,	83,	80,	73,
White Fir,	102,	398,	25,	24,	23,	20,
Incense-cedar,	241,	369,	41,	17,	16,	14,
Ponderosa Pine,	1,	1,				
Unit Totalsc	**771c**	**2,342c**	**137c**	**124c**	**119c**	**107c**

Unit :c 24-4c **12cAcresc** **0cRegenc** **12cPartialc** **0cR/Wc**

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Grossc	16' MBFc GMc	16' MBFc Netc

Douglas-fir,	369,	1,462,	68,	77,	75,	68,
White Fir,	91,	261,	17,	16,	15,	13,
Incense-cedar,	23,	24,	3,	1,	1,	1,
Ponderosa Pine,	1,	2,				
Unit Totalsc	**484c**	**1,749c**	**88c**	**94c**	**91c**	**82c**

Unit :c 24-5c **2cAcresc** **0cRegenc** **2dPartialc** **0dR/Wc**

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Grossc	16' MBFc GMc	16' MBFc Netc
Douglas-fir,	131,	516,	24,	27,	26,	24,
White Fir,	8,	35,	2,	2,	2,	2,
Unit Totalsc	**139c**	**551c**	**26c**	**29c**	**28c**	**26c**

Unit :c 25-1c **47cAcresc** **0cRegenc** **47dPartialc** **0dR/Wc**

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Grossc	16' MBFc GMc	16' MBFc Netc
Douglas-fir,	826,	2,505,	117,	131,	128,	116,
White Fir,	654,	2,029,	130,	122,	116,	104,
Incense-cedar,	86,	123,	14,	6,	5,	5,
Ponderosa Pine,	6,	12,	1,	2,	2,	1,
Unit Totalsc	**1,572c**	**4,669c**	**262c**	**261c**	**251c**	**226c**

Unit :c 25-2c **25cAcresc** **0cRegenc** **25dPartialc** **0dR/Wc**

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Grossc	16' MBFc GMc	16' MBFc Netc
White Fir,	479,	1,399,	90,	84,	80,	71,
Douglas-fir,	492,	1,480,	69,	78,	76,	69,
Incense-cedar,	52,	59,	7,	3,	2,	2,
Sugar Pine,	1,	1,				
Unit Totalsc	**1,024c**	**2,939c**	**166c**	**165c**	**158c**	**142c**

Unit :c 25-3c **8cAcresc** **0cRegenc** **8dPartialc** **0dR/Wc**

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Grossc	16' MBFc GMc	16' MBFc Netc
Douglas-fir,	313,	1,228,	57,	64,	63,	57,
White Fir,	220,	767,	49,	46,	44,	39,
Incense-cedar,	8,	13,	1,	1,	1,	1,
Unit Totalsc	**541c**	**2,008c**	**107c**	**111c**	**108c**	**97c**

Unit :c 26-1c **131cAcresc** **0cRegenc** **131dPartialc** **0dR/Wc**

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Grossc	16' MBFc GMc	16' MBFc Netc
Douglas-fir,	2,439,	8,440,	401,	446,	434,	391,

White Fir,	1,953,	5,943,	380,	358,	341,	304,
Incense-cedar,	295,	701,	78,	32,	30,	27,
Sugar Pine,	24,	59,	12,	3,	3,	3,
Ponderosa Pine,	1,	2,				
Unit Totalsc	**4,712c**	**15,145c**	**871c**	**839c**	**808c**	**725c**

Unit :c 26-2c **68cAcresc** **0cRegenc** **68cPartialc** **0cR/Wc**

SpeciesNamec	# ofc Treesc	Merchc Logsc	Cullc Logsc	16' MBFc Grossc	16' MBFc GMc	16' MBFc Netc
Douglas-fir,	1,319,	3,721,	174,	195,	190,	173,
White Fir,	860,	2,575,	165,	155,	148,	132,
Incense-cedar,	157,	220,	24,	10,	9,	9,
Sugar Pine,	14,	43,	11,	3,	3,	3,
Unit Totalsc	**2,350c**	**6,559c**	**374c**	**363c**	**350c**	**317c**

Total (16' MBF)c

Total Stump toc Truck Costsc	Netc Volumec	Cost / Netc Volumec
$ 580,235.28 ,	4,179,	$ 138.85 ,

Detailc

Yarding & Loadingc

Yarding Systemc	Unit Ofc Measurec	Unitsc	Cost /c Unitc	Totalc Costc
Track Skidder,	GM MBF,	4,626,	$ 124.53 ,	$ 576,075.78 ,
Subtotalc				**$ 576,075.78 c**

OthercCostsc

Explanationc	Unit Ofc Measurec	Unitsc	Cost /c Unitc	Totalc Costc
Directional Falling,	MBF,	75,	$ 11.46 ,	$ 859.50 ,
Subtotalc				**$ 859.50 c**

Additional Move-Insc

Equipmentc	# Move-Inc	Cost /c Move Inc	Totalc Costc
Dozer,	5,	$ 660.00 ,	$ 3,300.00 ,
Subtotalc			**$ 3,300.00 c**

Other Allowances Costsc

Total (16' MBF)c

Total Otherc Allowances Costsc	Netc Volumec	Cost / Netc Volumec*c	Total Buy Outc Costc
$50,983.40,	4,179,	$12.20,	$0.00,

Fuels Treatment,

Detail (16' MBF)c

Cost Itemc	Totalc Costc	Cost /c Net Vol *c	Buyc utc	Buy Outc Costc
Lop and Scatter-Lvl 4,	$ 9,200.00 ,	$ 2.20 ,	N,	$ 0.00 ,
Subtotalc	**$ 9,200.00 c**	**$ 2.20 c**		**$ 0.00 c**

Other Costs,

Detail (16' MBF)c

Cost Itemc	Totalc Costc	Cost /c Net Vol *c	Buyc utc	Buy Outc Costc
Equipment Washing,	$ 2,500.00 ,	$ 0.60 ,	N,	$ 0.00 ,
Skid Location,	$ 1,458.40 ,	$ 0.35 ,	N,	$ 0.00 ,
Skid Construction,	$ 600.00 ,	$ 0.14 ,	N,	$ 0.00 ,
Landing Construction,	$ 2,025.00 ,	$ 0.48 ,	N,	$ 0.00 ,
Landing Clean up,	$ 4,000.00 ,	$ 0.96 ,	N,	$ 0.00 ,
Waterbar Skids,	$ 18,000.00 ,	$ 4.31 ,	N,	$ 0.00 ,
Barricades,	$ 12,000.00 ,	$ 2.87 ,	N,	$ 0.00 ,
Temporary Spur Construction,	$ 1,200.00 ,	$ 0.29 ,	N,	$ 0.00 ,
Subtotalc	**$ 41,783.40 c**	**$ 10.00 c**		**$ 0.00 c**

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

Generalc

Lump Sum T/S. 3p & 100% cruised.,

Yarding & Loadingc

Track Skidder = Feller buncher (20">), wheel skidder, loader, stroke delimber & manually falling and lining trees 20" and larger.,
Directional Falling = falling trees away from skips,
Gas price used for equipment = $3.00/gal off rd diesel.,
Additional move-ins = estimated 2 seasons to log(6HRS lowboy @ $110/hr).,

Road Costsc

Road Costs from Lead Engineer. Construction costs include all temp. road costs.,

(see Engineering Appraisal for details).,

Transportationc

ave cost between haulcost & BLM transport worksheet.,

(see Transportation appendix for details).,

Other Allowancesc

Equipment washing =$250 per piece x 2 seasons,
Estimated 2 seasons to log = equipment washing each machine x2.,
SD5 Fuels (lop & scatter) costs from fuels shop.,
Temp Spur Construction = Designated skid construction,

Prospectusc

DF, WF, PP, IC = 3P cruised SE=7.58%,
SP = 100%,
Form Class = DF-79, WF-81, PP & SP-80, IC-66,
Back off applied due to seasonal "softening" of WF pond values. Used 5% to capture @$32/mbf drop in WF(Based on appraisal , weight value from LogLines March report and Lindberg April report) @ 1517mbf = $48544 drop in total appraised price,

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: Friese Camp Sale Date: 5-2013
Prepared by: Brown Ph: 2322 Print Date: 4/3/2013 2:42:40 PM
Construction: 39.07 sta (Surfaced 0.00 sta Natural 39.07 sta)
Improve: 0.00 sta Renov: 767.26 sta Decom: 0.00 sta Temp: 0.00 sta

200 Clearing and Grubbing: 1.2 acres	$2,161.99
Clearing: 20.6 sta Grubbing: 1.2 acres	
Slash Treatment: 1.2 acres	
300 Excavation:	$1,423.53
Haul: 0 sta-yds	
400 Drainage:	$6,872.77
Culvert: 62 lf wt = 956 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$30,686.13
Blading 14.53 mi	
Surfacing:	$63,394.55
1200 Quarry Name: stockpile 2,323 cy	
700 Quarry Name: Commercial 263 cy	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$449.60
Gradation Class 3: 10 cy	
1800 Soil Stabilization: 2.0 acres	$1,073.65
Includes Small Quantity Factor of 1.48	
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 15.1 acres	$8,309.23
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:	$11,595.55
Mobilization: Const. $2,474.00 Surf. $3,097.85	$5,571.85
Quarry Development:	$0.00
Total: 4,179 mbf @ $31.48/mbf =	$131,538.84

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

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ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-15.03 Road Name: Medco RR Grade
Road Renovation: 1.52 mi 16 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$2,886.11
Blading 1.52 mi	
Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 1.5 acres	$825.42
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. $72.89 Surf. $0.00	$72.89
Quarry Development:	$0.00
Total:	$3,784.43

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

Road Construction Worksheet

Road Number: 34-3E-15.03 Road Name: Medco RR Grade

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 1.52 mi = $779.49
  Pull Ditches: $139.08/mi x 1.52 mi = $211.40
  Compaction: $1307.22/mi x 0.76 mi = $993.49
  Clean Culverts: $264.30/mi x 1.52 mi = $401.74
  Culvert Cleaning
   Cleaning Culvert Barrels 5 EA x $100.00/EA = $500.00

Subtotal: $2,886.11

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 1.50 acres = $825.42

Subtotal: $825.42

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 - 2.95% of total Costs = $72.89
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $72.89

Road Number: 34-3E-15.03 Medco RR Grade Continued

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal:	$0.00
Total:	$3,784.43

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-19.03 Road Name: 80 acre pit
Road Renovation: 0.19 mi 16 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$228.16
Blading 0.19 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	$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. $6.64 Surf. $0.00	$6.64
Quarry Development:	$0.00
Total:	$344.86

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

Road Construction Worksheet

Road Number: 34-3E-19.03 Road Name: 80 acre pit

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 0.19 mi = $97.44
  Compaction: $1307.22/mi x 0.10 mi = $130.72

Subtotal: $228.16

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 0.20 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 - 0.27% of total Costs = $6.64
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $6.64

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Road Number: 34-3E-19.03 80 acre pit Continued

Total: $344.86

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-21.00 Road Name: Camp Creek
Road Renovation: 3.99 mi 16 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:	$0.00
400 Drainage:	$6,872.77
Culvert: 62 lf wt = 956 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$7,770.08
Blading 3.99 mi	
Surfacing:	$3,370.00
1200 Quarry Name: stockpile 170 cy	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$449.60
Gradation Class 3: 10 cy	
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 3.9 acres	$2,146.09
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. $404.75 Surf. $203.65	$608.40
Quarry Development:	$0.00
Total:	$21,216.94

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

Road Construction Worksheet

Road Number: 34-3E-21.00 Road Name: Camp Creek

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:
  Aluminized 18 inch 16 ga 36 lf x $25.87/lf x 1.2 = $1,117.58
  Aluminized 24 inch 16 ga 26 lf x $32.09/lf x 1.2 = $1,001.21
  Splash Pads 18 inch 1 ea x $112.88/ea = $112.88
  Splash Pads 24 inch 1 ea x $141.10/ea = $141.10
  57" x 38" x 38 culvert replacement
   Culvert Replacement 1 EA x $4,500.00/EA = $4,500.00

Subtotal: $6,872.77

Section 500 Renovation:
  Blading: $512.82/mi x 3.99 mi = $2,046.15
  Pull Ditches: $139.08/mi x 3.99 mi = $554.93
  Compaction: $1307.22/mi x 2.00 mi = $2,614.44
  Clean Culverts: $264.30/mi x 3.99 mi = $1,054.56
  Cleaning Culvert Barrels
   Cleaning Culvert Barrels 15 Each x $100.00/Each = $1,500.00

Subtotal: $7,770.08

Section 1200 Crushed under 1 1/2 Quarry Name: stockpile
 Comment: Place From M.P. 0.25 to M.P. 0.35

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									160cy

  Rock Volume = 160cy
  Production: $9.04/cy x 160cy = $1,446.40
  Processing: $1.38/cy x 160cy = $220.80
  Compaction: $0.77/cy x 160cy = $123.20
  T11 Testing: $0.06/cy x 160cy = $9.60
  T27 Testing: $0.06/cy x 160cy = $9.60
  Basic Rock Haul cost: $0.93/cy x 160cy = $148.80
  Rock Haul -15% grades: $1.39/cy-mi x 160cy x 4.00 mi= $889.60
  Rock Haul St& Co Roads: $0.62/cy-mi x 160cy x 3.00 mi= $297.60

Section 1200 Crushed under 1 1/2 Quarry Name: stockpile
 Comment: Place at M.P. 3.01

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									10cy

  Rock Volume = 10cy
  Production: $9.04/cy x 10cy = $90.40
  Processing: $1.38/cy x 10cy = $13.80
  Compaction: $0.77/cy x 10cy = $7.70
  T11 Testing: $0.06/cy x 10cy = $0.60
  T27 Testing: $0.06/cy x 10cy = $0.60
  Basic Rock Haul cost: $0.93/cy x 10cy = $9.30
  Rock Haul -15% grades: $1.39/cy-mi x 10cy x 6.00 mi= $83.40
  Rock Haul St& Co Roads: $0.62/cy-mi x 10cy x 3.00 mi= $18.60

Subtotal: $3,370.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Road Number: 34-3E-21.00 Camp Creek Continued

Comment: Splash Pad for Pipe Arch
Rock Source: Commercial
Royalty fee: $30.00/cy x 10cy = $300.00
Sort & Load Class 3 type rock: $3.16/cy x 10cy = $31.60
Basic Rock Haul cost: $1.30/cy x 10cy = $13.00
Rock Haul -15% grades: $1.30/cy-mi x 10cy x 1.00 mi= $13.00
Rock Haul St& Co Roads: $0.58/cy-mi x 10cy x 10.00 mi= $58.00
Placement on Fill slopes: 10cy x $3.40/cy = $34.00

Subtotal: $449.60

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
Brushing width Left: 4ft. Right: 4ft.
RoadSide Brushing Medium: $550.28/acre x 3.90 acres = $2,146.09

Subtotal: $2,146.09

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 - 16.36% of total Costs = $404.75
Surfacing - 6.57% by rock volume = $203.65

Subtotal: $608.40

Quarry Development:
Based on 6.57% of total rock volume

Subtotal: $0.00

Total: $21,216.94

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-23.00A Road Name: Merle Burn
Road Renovation: 0.32 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$2,217.76
Blading 0.32 mi	
Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.3 acres	$165.08
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:	$500.00
Mobilization: Const. $56.62 Surf. $0.00	$56.62
Quarry Development:	$0.00
Total:	$2,939.47

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

Road Construction Worksheet

Road Number: 34-3E-23.00A Road Name: Merle Burn

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 0.32 mi = $164.10
  Pull Ditches: $139.08/mi x 0.32 mi = $44.51
  Compaction: $1307.22/mi x 0.16 mi = $209.16
  Culvert Removal
   Remove Culvert 2 EA x $500.00/EA = $1,000.00
   Armored Waterdip 2 EA x $400.00/EA = $800.00

Subtotal: $2,217.76

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 0.30 acres = $165.08

Subtotal: $165.08

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:
  Barricade next to Gate
   New Barricade 1 Each x $500.00/Each = $500.00

Subtotal: $500.00

Mobilization:
  Construction - 2.29% of total Costs = $56.62
  Surfacing - 0.00% by rock volume = $0.00

Subtotal:	$56.62

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal:	$0.00
Total:	$2,939.47

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-23.00B Road Name: Merle Burn B
Road Renovation: 0.93 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:	$1,411.69
Blading 0.93 mi	
Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.9 acres	$495.25
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. $37.45 Surf. $0.00	$37.45
Quarry Development:	$0.00
Total:	$1,944.40

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

Road Construction Worksheet

Road Number: 34-3E-23.00B Road Name: Merle Burn B

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading: $512.82/mi x 0.93 mi = $476.92
  Pull Ditches: $139.08/mi x 0.25 mi = $34.77
  Culvert Removal
   Remove Culvert 1 EA x $500.00/EA = $500.00
   Armored Waterdip 1 EA x $400.00/EA = $400.00

Subtotal: $1,411.69

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 0.90 acres = $495.25

Subtotal: $495.25

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 - 1.51% of total Costs = $37.45
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $37.45

Quarry Development:

Based on 0.00% of total rock volume

Subtotal:	$0.00
Total:	$1,944.40

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-23.01 Road Name: Merle Burn Spur
Road Renovation: 0.24 mi 14 ft Subgrade 0 ft ditch T.S. Update 05/15/12

200 Clearing and Grubbing: 0.6 acres	$853.54
Clearing:12.7 sta Grubbing:0.6 acres	
Slash Treatment:0.6 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:	$123.08
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: 0.2 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:	$2,200.00
Mobilization: Const. $64.55 Surf. $0.00	$64.55
Quarry Development:	$0.00
Total:	$3,351.22

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

Road Construction Worksheet

Road Number: 34-3E-23.01 Road Name: Merle Burn Spur

Section 200 Clearing and Grubbing:
  Clearing - Light: $15.08/sta x 12.67 sta = $191.06
  Grubbing - Light: $389.65/acre x 0.60 acres = $233.79
  Scatter: $714.48/acre x 0.60 acres = $428.69

Subtotal: $853.54

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading: $512.82/mi x 0.24 mi = $123.08

Subtotal: $123.08

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 0.20 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:
  DECOMISSION
   full decom 0.24 mi. x $5,000.00/mi. = $1,200.00
   barricade 2 ea. x $500.00/ea. = $1,000.00

Subtotal: $2,200.00

Mobilization:
  Construction - 2.61% of total Costs = $64.55
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $64.55

Road Number: 34-3E-23.01 Merle Burn Spur Continued

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal:	$0.00
Total:	$3,351.22

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-23.02 Road Name: Goss Ranch
Road Renovation: 0.31 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$411.24
Blading 0.31 mi	
Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.3 acres	$165.08
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. $11.32 Surf. $0.00	$11.32
Quarry Development:	$0.00
Total:	$587.65

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

Road Construction Worksheet

Road Number: 34-3E-23.02 Road Name: Goss Ranch

Section 200 Clearing and Grubbing:

Subtotal: $0.00

Section 300 Excavation:

Subtotal: $0.00

Section 400 Drainage:

Subtotal: $0.00

Section 500 Renovation:
  Blading: $512.82/mi x 0.31 mi = $158.97
  Pull Ditches: $139.08/mi x 0.31 mi = $43.11
  Compaction: $1307.22/mi x 0.16 mi = $209.16

Subtotal: $411.24

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 0.30 acres = $165.08

Subtotal: $165.08

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 - 0.46% of total Costs = $11.32
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $11.32

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total:	$587.65

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-24.00 Road Name: Mudflap
Road Renovation: 0.46 mi 16 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$922.11
Blading 0.46 mi	
Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.4 acres	$220.11
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. $22.43 Surf. $0.00	$22.43
Quarry Development:	$0.00
Total:	$1,164.66

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

Road Construction Worksheet

Road Number: 34-3E-24.00 Road Name: Mudflap

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
  Pull Ditches: $139.08/mi x 0.46 mi = $63.98
  Compaction: $1307.22/mi x 0.23 mi = $300.66
  Clean Culverts: $264.30/mi x 0.46 mi = $121.58
  Clean Culvert Barrels
   Clean Culvert Barrels 2 Each x $100.00/Each = $200.00

Subtotal: $922.11

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 0.40 acres = $220.11

Subtotal: $220.11

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 - 0.91% of total Costs = $22.43
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $22.43

Road Number: 34-3E-24.00 Mudflap Continued

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal:	$0.00
Total:	$1,164.66

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-24.04 Road Name: Spur East
Road Renovation: 0.23 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:	$314.03
Blading 0.23 mi	
Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.2 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. $8.33 Surf. $0.00	$8.33
Quarry Development:	$0.00
Total:	$432.42

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

Road Construction Worksheet

Road Number: 34-3E-24.04 Road Name: Spur East

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 0.23 mi = $117.95
  Compaction: $1307.22/mi x 0.15 mi = $196.08

Subtotal: $314.03

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: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 0.20 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 = $8.33
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $8.33

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Road Number: 34-3E-24.04 Spur East Continued

Total: $432.42

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-25.00 Road Name: Titanic
Road Renovation: 0.31 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$593.18
Blading 0.31 mi	
Surfacing:	$8,650.29
1200 Quarry Name: stockpile 363 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: 0.3 acres	$165.08
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. $184.78 Surf. $434.85	$619.63
Quarry Development:	$0.00
Total:	$10,028.18

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

Road Construction Worksheet

Road Number: 34-3E-25.00 Road Name: Titanic

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 0.31 mi = $158.97
Pull Ditches: $139.08/mi x 0.31 mi = $43.11
Compaction: $1307.22/mi x 0.16 mi = $209.16
Clean Culverts: $264.30/mi x 0.31 mi = $81.93
Cleaning Culvert Barrels
Cleaning Culvert Barrels 1 Each x $100.00/Each = $100.00

Subtotal: $593.18

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

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
0.31mi	15ft	16ft	4in	10%	2	10ft	50ft	25ft	

Rock Volume = 363cy
Production: $9.04/cy x 363cy = $3,281.52
Processing: $1.38/cy x 363cy = $500.94
Compaction: $0.77/cy x 363cy = $279.51
T11 Testing: $0.06/cy x 363cy = $21.78
T27 Testing: $0.06/cy x 363cy = $21.78
Basic Rock Haul cost: $0.93/cy x 363cy = $337.59
Rock Haul -15% grades: $1.39/cy-mi x 363cy x 7.00 mi= $3,531.99
Rock Haul St& Co Roads: $0.62/cy-mi x 363cy x 3.00 mi= $675.18

Subtotal: $8,650.29

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
Brushing width Left: 4ft. Right: 4ft.
RoadSide Brushing Medium: $550.28/acre x 0.30 acres = $165.08

Subtotal: $165.08

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 - 7.47% of total Costs = $184.78
  Surfacing - 14.04% by rock volume = $434.85

Subtotal: $619.63

Quarry Development:
  Based on 14.04% of total rock volume

Subtotal: $0.00

Total: $10,028.18

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-25.01 Road Name: Titanic Creek Spur 1
Road Renovation: 0.35 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$582.11
Blading 0.35 mi	
Surfacing:	$11,663.07
1200 Quarry Name: stockpile 207 cy	
700 Quarry Name: Commercial 263 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: 0.3 acres	$165.08
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. $243.74 Surf. $563.03	$806.77
Quarry Development:	$0.00
Total:	$13,217.03

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

Road Construction Worksheet

Road Number: 34-3E-25.01 Road Name: Titanic Creek Spur 1

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 0.35 mi = $179.49
  Pull Ditches: $139.08/mi x 0.35 mi = $48.68
  Compaction: $1307.22/mi x 0.20 mi = $261.44
  Clean Culverts: $264.30/mi x 0.35 mi = $92.51

Subtotal: $582.11

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

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
0.20mi	14ft	15ft	4in	10%					

  Rock Volume = 207cy
  Production: $9.04/cy x 207cy = $1,871.28
  Processing: $1.38/cy x 207cy = $285.66
  Compaction: $0.77/cy x 207cy = $159.39
  T11 Testing: $0.06/cy x 207cy = $12.42
  T27 Testing: $0.06/cy x 207cy = $12.42
  Basic Rock Haul cost: $0.93/cy x 207cy = $192.51
  Rock Haul -15% grades: $1.39/cy-mi x 207cy x 6.50 mi= $1,870.25
  Rock Haul St& Co Roads: $0.62/cy-mi x 207cy x 8.00 mi= $1,026.72
  Basic Water Haul cost: $0.61/cy x 207cy = $126.27
  Water Haul -15% grades: $0.13/cy-mi x 207cy x 1.00 mi= $26.91

Section 700 Pitrun Quarry Name: Commercial

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
0.15mi	13ft	14ft	8in						

  Rock Volume = 263cy
  Production: $2.58/cy x 263cy = $678.54
  Royalty: $5.00/cy x 263cy = $1,315.00
  Processing: $1.38/cy x 263cy = $362.94
  Compaction: $0.77/cy x 263cy = $202.51
  Basic Rock Haul cost: $0.93/cy x 263cy = $244.59
  Rock Haul -15% grades: $1.39/cy-mi x 263cy x 4.50 mi= $1,645.07
  Rock Haul St& Co Roads: $0.62/cy-mi x 263cy x 10.00 mi= $1,630.60

Subtotal: $11,663.07

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:

Road Number: 34-3E-25.01 Titanic Creek Spur 1 Continued

Brushing width Left: 4ft. Right: 4ft.
RoadSide Brushing Medium: $550.28/acre x 0.30 acres = $165.08

Subtotal: $165.08

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 - 9.85% of total Costs = $243.74
Surfacing - 18.17% by rock volume = $563.03

Subtotal: $806.77

Quarry Development:
Based on 18.17% of total rock volume

Subtotal: $0.00

Total: $13,217.03

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-25.02 Road Name: Titanic Creek
Road Renovation: 0.62 mi 16 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$973.28
Blading 0.62 mi	
Surfacing:	$24,993.44
1200 Quarry Name: stockpile 1,033 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: 0.6 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. $516.47 Surf. $1,237.46	$1,753.94
Quarry Development:	$0.00
Total:	$28,050.82

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

Road Construction Worksheet

Road Number: 34-3E-25.02 Road Name: Titanic Creek

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 0.62 mi = $317.95
- Pull Ditches: $139.08/mi x 0.62 mi = $86.23
- Compaction: $1307.22/mi x 0.31 mi = $405.24
- Clean Culverts: $264.30/mi x 0.62 mi = $163.87

Subtotal: $973.28

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

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
0.62mi	15ft	16ft	6in	10%					

- Rock Volume = 1,033cy
- Production: $9.04/cy x 1,033cy = $9,338.32
- Processing: $1.38/cy x 1,033cy = $1,425.54
- Compaction: $0.77/cy x 1,033cy = $795.41
- T11 Testing: $0.06/cy x 1,033cy = $61.98
- T27 Testing: $0.06/cy x 1,033cy = $61.98
- Basic Rock Haul cost: $0.93/cy x 1,033cy = $960.69
- Rock Haul -15% grades: $1.39/cy-mi x 1,033cy x 4.50 mi= $6,461.42
- Rock Haul St& Co Roads: $0.62/cy-mi x 1,033cy x 8.00 mi= $5,123.68
- Basic Water Haul cost: $0.61/cy x 1,033cy = $630.13
- Water Haul -15% grades: $0.13/cy-mi x 1,033cy x 1.00 mi= $134.29

Subtotal: $24,993.44

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
- Brushing width Left: 4ft. Right: 4ft.
- RoadSide Brushing 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 - 20.88% of total Costs = $516.47
  Surfacing - 39.95% by rock volume = $1,237.46

Subtotal: $1,753.94

Quarry Development:
  Based on 39.95% of total rock volume

Subtotal: $0.00

Total: $28,050.82

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-25.03 Road Name: Titanic Creek Spur 3
Road Renovation: 0.51 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$907.14
Blading 0.51 mi	
Surfacing:	$14,296.75
1200 Quarry Name: stockpile 530 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: 0.5 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. $304.01 Surf. $634.90	$938.91
Quarry Development:	$0.00
Total:	$16,417.94

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

Road Construction Worksheet

Road Number: 34-3E-25.03 Road Name: Titanic Creek Spur 3

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 0.51 mi = $261.54
  Pull Ditches: $139.08/mi x 0.51 mi = $70.93
  Compaction: $1307.22/mi x 0.26 mi = $339.88
  Clean Culverts: $264.30/mi x 0.51 mi = $134.79
  Cleaning Culvert Barrels
   Cleaning Culvert Barrels 1 Each x $100.00/Each = $100.00

Subtotal: $907.14

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

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
0.51mi	14ft	15ft	4in	10%					

  Rock Volume = 530cy
  Production: $9.04/cy x 530cy = $4,791.20
  Processing: $1.38/cy x 530cy = $731.40
  Compaction: $0.77/cy x 530cy = $408.10
  T11 Testing: $0.06/cy x 530cy = $31.80
  T27 Testing: $0.06/cy x 530cy = $31.80
  Basic Rock Haul cost: $0.93/cy x 530cy = $492.90
  Rock Haul -15% grades: $1.39/cy-mi x 530cy x 6.50 mi= $4,788.55
  Rock Haul St& Co Roads: $0.62/cy-mi x 530cy x 8.00 mi= $2,628.80
  Basic Water Haul cost: $0.61/cy x 530cy = $323.30
  Water Haul -15% grades: $0.13/cy-mi x 530cy x 1.00 mi= $68.90

Subtotal: $14,296.75

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 0.50 acres = $275.14

Subtotal: $275.14

Section 2200 Surface Treatment:

Subtotal: $0.00

Section 2300 Engineering:

Subtotal: $0.00

Road Number: 34-3E-25.03 Titanic Creek Spur 3 Continued

Section 2400 Minor Concrete:

Subtotal: $0.00

Section 2500 Gabions:

Subtotal: $0.00

Section 8000 Miscellaneous:

Subtotal: $0.00

Mobilization:
  Construction - 12.29% of total Costs = $304.01
  Surfacing - 20.49% by rock volume = $634.90

Subtotal: $938.91

Quarry Development:
  Based on 20.49% of total rock volume

Subtotal: $0.00

Total: $16,417.94

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-25.04 Road Name: titanic Creek Spur4
Road Renovation: 0.19 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$228.16
Blading 0.19 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	$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. $6.64 Surf. $0.00	$6.64
Quarry Development:	$0.00
Total:	$344.86

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

Road Construction Worksheet

Road Number: 34-3E-25.04 Road Name: titanic Creek Spur4

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 0.19 mi = $97.44
  Compaction: $1307.22/mi x 0.10 mi = $130.72

Subtotal: $228.16

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 0.20 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 - 0.27% of total Costs = $6.64
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $6.64

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $344.86

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-25.05 Road Name: Titanic Creek 5
Road Renovation: 0.34 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$396.59
Blading 0.34 mi	
Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.3 acres	$165.08
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. $11.03 Surf. $0.00	$11.03
Quarry Development:	$0.00
Total:	$572.70

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

Road Construction Worksheet

Road Number: 34-3E-25.05 Road Name: Titanic Creek 5

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 0.34 mi = $174.36
  Compaction: $1307.22/mi x 0.17 mi = $222.23

Subtotal: $396.59

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: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 0.30 acres = $165.08

Subtotal: $165.08

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 - 0.45% of total Costs = $11.03
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $11.03

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $572.70

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-26.00 Road Name: Medco Spur
Road Renovation: 0.09 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$147.82
Blading 0.09 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. $3.98 Surf. $0.00	$3.98
Quarry Development:	$0.00
Total:	$206.83

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

Road Construction Worksheet

Road Number: 34-3E-26.00 Road Name: Medco 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 0.09 mi = $46.15
  Pull Ditches: $139.08/mi x 0.09 mi = $12.52
  Compaction: $1307.22/mi x 0.05 mi = $65.36
  Clean Culverts: $264.30/mi x 0.09 mi = $23.79

Subtotal: $147.82

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 0.10 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 - 0.16% of total Costs = $3.98
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $3.98

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal:	$0.00
Total:	$206.83

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-26.01 Road Name: Camp Creek South
Road Renovation: 1.21 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$2,392.93
Blading 1.21 mi	
Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 1.2 acres	$660.34
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. $59.97 Surf. $0.00	$59.97
Quarry Development:	$0.00
Total:	$3,113.24

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

Road Construction Worksheet

Road Number: 34-3E-26.01 Road Name: Camp Creek South

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 1.21 mi = $620.51
  Pull Ditches: $139.08/mi x 1.21 mi = $168.29
  Compaction: $1307.22/mi x 0.60 mi = $784.33
  Clean Culverts: $264.30/mi x 1.21 mi = $319.80
  Cleaning Culvert Barrels
   Cleaning Culvert Barrels 5 Each x $100.00/Each = $500.00

Subtotal: $2,392.93

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 1.20 acres = $660.34

Subtotal: $660.34

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 - 2.42% of total Costs = $59.97
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $59.97

Road Number: 34-3E-26.01 Camp Creek South Continued

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal:	$0.00
Total:	$3,113.24

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-26.02 Road Name: Camp Creek South 2
Road Renovation: 0.40 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$727.92
Blading 0.40 mi	
Surfacing:	$421.00
1200 Quarry Name: stockpile 20 cy	
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.4 acres	$220.11
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. $26.89 Surf. $23.96	$50.85
Quarry Development:	$0.00
Total:	$1,419.88

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

Road Construction Worksheet

Road Number: 34-3E-26.02 Road Name: Camp Creek South 2

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 0.40 mi = $205.13
Pull Ditches: $139.08/mi x 0.40 mi = $55.63
Compaction: $1307.22/mi x 0.20 mi = $261.44
Clean Culverts: $264.30/mi x 0.40 mi = $105.72
Cleaning Culvert Barrels
Cleaning Culvert Barrels 1 Each x $100.00/Each = $100.00

Subtotal: $727.92

Section 1200 Crushed under 1 1/2 Quarry Name: stockpile
Comment: Place at M.P. 0.18

Length	TopW	BotW	Depth	CWid	#TOs	Width	F.W.L	Taper	Other
									20cy

Rock Volume = 20cy
Production: $9.04/cy x 20cy = $180.80
Processing: $1.38/cy x 20cy = $27.60
Compaction: $0.77/cy x 20cy = $15.40
T11 Testing: $0.06/cy x 20cy = $1.20
T27 Testing: $0.06/cy x 20cy = $1.20
Basic Rock Haul cost: $0.93/cy x 20cy = $18.60
Rock Haul -15% grades: $1.39/cy-mi x 20cy x 5.00 mi= $139.00
Rock Haul St& Co Roads: $0.62/cy-mi x 20cy x 3.00 mi= $37.20

Subtotal: $421.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
Brushing width Left: 4ft. Right: 4ft.
RoadSide Brushing Medium: $550.28/acre x 0.40 acres = $220.11

Subtotal: $220.11

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 - 1.09% of total Costs = $26.89
  Surfacing - 0.77% by rock volume = $23.96

Subtotal:	$50.85

Quarry Development:
  Based on 0.77% of total rock volume

Subtotal:	$0.00
Total:	$1,419.88

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-26.03 Road Name: Medco 25/26
Road Renovation: 0.52 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$266.67
Blading 0.52 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:	$1,000.00
Mobilization: Const. $30.28 Surf. $0.00	$30.28
Quarry Development:	$0.00
Total:	$1,572.09

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

Road Construction Worksheet

Road Number: 34-3E-26.03 Road Name: Medco 25/26

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 0.52 mi = $266.67

Subtotal: $266.67

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 0.50 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:
  Replace Barricades
   Barricades 2 Each x $500.00/Each = $1,000.00

Subtotal: $1,000.00

Mobilization:
  Construction - 1.22% of total Costs = $30.28
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $30.28

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $1,572.09

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: 34-3E-29.01 Road Name: Sec.19 ML (80 ac.)
Road Renovation: 1.80 mi 16 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:	$0.00
400 Drainage:	$0.00
Culvert: 0 lf wt = 0 lbs factor = 1.2	
DownSpout: 0 lf	
PolyPipe: 0 lf	
500 Renovation:	$3,625.66
Blading 1.80 mi	
Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.0 acres	$0.00
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 1.7 acres	$935.48
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. $89.58 Surf. $0.00	$89.58
Quarry Development:	$0.00
Total:	$4,650.72

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

Road Construction Worksheet

Road Number: 34-3E-29.01 Road Name: Sec.19 ML (80 ac.)

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 1.80 mi = $923.08
  Pull Ditches: $139.08/mi x 1.80 mi = $250.34
  Compaction: $1307.22/mi x 0.90 mi = $1,176.50
  Clean Culverts: $264.30/mi x 1.80 mi = $475.74
  Cleaning Culvert Barrels
   Cleaning Culvert Barrels 8 Each x $100.00/Each = $800.00

Subtotal: $3,625.66

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:

Subtotal: $0.00

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 1.70 acres = $935.48

Subtotal: $935.48

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 - 3.62% of total Costs = $89.58
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $89.58

Road Number: 34-3E-29.01 Sec.19 ML (80 ac.) Continued

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal:	$0.00
Total:	$4,650.72

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: Temp Road 23-1 Road Name:
Road Construction: 0.15 mi 14 ft Subgrade 0 ft ditch T.S. Update 05/15/12

200 Clearing and Grubbing: 0.6 acres	$1,308.45
Clearing:7.9 sta Grubbing:0.6 acres	
Slash Treatment:0.6 acres	
300 Excavation:	$1,423.53
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: 0.6 acres	$295.25
Includes Small Quantity Factor of 1.48	
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:	$1,390.10
Mobilization: Const. $86.76 Surf. $0.00	$86.76
Quarry Development:	$0.00
Total:	$4,504.09

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 Road 23-1 Road Name:

Section 200 Clearing and Grubbing:
  Clearing - Medium: $30.16/sta x 7.92 sta = $238.87
  Grubbing - Medium: $810.46/acre x 0.55 acres = $445.75
  Pile and Burn: $1134.24/acre x 0.55 acres = $623.83
Subtotal: $1,308.45

Section 300 Excavation:
  Subgrade Compaction: 4 Sta/hr $18.57/sta. x 7.9 sta = $147.07
  Blading: $11.32/station x 7.92 stations = $89.65
  Build Road
   Tractor: D7 with rippers 8 hr x $148.35/hr = $1,186.80
Subtotal: $1,423.53

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:
  Dry Method with Mulch: $536.83/acre x 0.55 acres = $295.25
        Includes Small Quantity Factor of 1.48
Subtotal: $295.25

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:
  Decommissioning
   Barricade 1 Each x $500.00/Each = $500.00
   Tractor: D7 with rippers   6 hr x $148.35/hr = $890.10
Subtotal: $1,390.10

Mobilization:

Construction - 3.51% of total Costs = $86.76
Surfacing - 0.00% by rock volume = $0.00

Subtotal: $86.76

Quarry Development:
Based on 0.00% of total rock volume

Subtotal: $0.00

Total: $4,504.09

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: Temp Road 23-1a Road Name:
Road Construction: 0.23 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:	$1,186.80
Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.6 acres	$295.25
Includes Small Quantity Factor of 1.48	
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.2 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:	$1,686.80
Mobilization: Const. $64.40 Surf. $0.00	$64.40
Quarry Development:	$0.00
Total:	$3,343.31

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

Road Construction Worksheet

Road Number: Temp Road 23-1a 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:
  Open Road Back Up
   Tractor: D7 with rippers 8 hr x $148.35/hr = $1,186.80

Subtotal: $1,186.80

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:
  Dry Method with Mulch: $536.83/acre x 0.55 acres = $295.25
        Includes Small Quantity Factor of 1.48

Subtotal: $295.25

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  Brushing width Left: 4ft. Right: 4ft.
  RoadSide Brushing Medium: $550.28/acre x 0.20 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:
  Decommissioning
   Tractor: D7 with rippers 8 hr x $148.35/hr = $1,186.80
   Barricade 1 Each x $500.00/Each = $500.00

Subtotal: $1,686.80

Mobilization:
  Construction - 2.60% of total Costs = $64.40
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $64.40

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal:	$0.00
Total:	$3,343.31

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: Temp Road 23-1B Road Name:
Road Construction: 0.10 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:	$593.40
Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.3 acres	$134.21
Includes Small Quantity Factor of 1.48	
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.3 acres	$137.57
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:	$1,241.75
Mobilization: Const. $41.38 Surf. $0.00	$41.38
Quarry Development:	$0.00
Total:	$2,148.31

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

Road Construction Worksheet

Road Number: Temp Road 23-1B 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:
  Opening Road Up
   Tractor: D7 with rippers 4 hr x $148.35/hr = $593.40

Subtotal: $593.40

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:
  Dry Method with Mulch: $536.83/acre x 0.25 acres = $134.21
        Includes Small Quantity Factor of 1.48

Subtotal: $134.21

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  RoadSide Brushing Medium: $550.28/acre x 0.25 acres = $137.57

Subtotal: $137.57

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:
  Decommissioning
   Tractor: D7 with rippers 5 hr x $148.35/hr = $741.75
   Barricade 1 Each x $500.00/Each = $500.00

Subtotal: $1,241.75

Mobilization:
  Construction - 1.67% of total Costs = $41.38
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $41.38

Road Number: Temp Road 23-1B Continued

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal:	$0.00
Total:	$2,148.31

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: Temp Road 23-2B Road Name:
Road Construction: 0.05 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:	$445.05
Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.2 acres	$80.52
Includes Small Quantity Factor of 1.48	
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.2 acres	$82.54
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:	$945.05
Mobilization: Const. $30.50 Surf. $0.00	$30.50
Quarry Development:	$0.00
Total:	$1,583.67

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 Road 23-2B 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:
  Openning Road Up
   Tractor: D7 with rippers 3 hr x $148.35/hr = $445.05

Subtotal: $445.05

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:
  Dry Method with Mulch: $536.83/acre x 0.15 acres = $80.52
        Includes Small Quantity Factor of 1.48

Subtotal: $80.52

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  RoadSide Brushing Medium: $550.28/acre x 0.15 acres = $82.54

Subtotal: $82.54

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:
  Decommissioning
   Tractor: D7 with rippers 3 hr x $148.35/hr = $445.05
   Barricade 1 Each x $500.00/Each = $500.00

Subtotal: $945.05

Mobilization:
  Construction - 1.23% of total Costs = $30.50
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $30.50

Road Number: Temp Road 23-2B Continued

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal:	$0.00
Total:	$1,583.67

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: Temp Road 24-2a Road Name:
Road Construction: 0.17 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:	$890.10
Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.4 acres	$214.73
Includes Small Quantity Factor of 1.48	
1900 Cattleguards:	$0.00
2100 RoadSide Brushing: 0.4 acres	$220.11
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:	$1,538.45
Mobilization: Const. $56.24 Surf. $0.00	$56.24
Quarry Development:	$0.00
Total:	$2,919.63

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

Road Construction Worksheet

Road Number: Temp Road 24-2a 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:
  Opening Road Up
   Tractor: D7 with rippers 6 hr x $148.35/hr = $890.10

Subtotal: $890.10

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:
  Dry Method with Mulch: $536.83/acre x 0.40 acres = $214.73
        Includes Small Quantity Factor of 1.48

Subtotal: $214.73

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  RoadSide Brushing Medium: $550.28/acre x 0.40 acres = $220.11

Subtotal: $220.11

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:
  Decommissioning
   Tractor: D7 with rippers 7 hr x $148.35/hr = $1,038.45
   Barricade 1 Each x $500.00/Each = $500.00

Subtotal: $1,538.45

Mobilization:
  Construction - 2.27% of total Costs = $56.24
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $56.24

Road Number: Temp Road 24-2a Continued

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal:	$0.00
Total:	$2,919.63

ROAD CONSTRUCTION SUMMARY

T.S. Contract Name: Friese Camp Sale Date: 5-2013
Road Number: Temp Road 24-2B Road Name:
Road Construction: 0.04 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:	$445.05
Surfacing:	$0.00
1300 Geotextiles:	$0.00
1400 Slope Protection:	$0.00
1800 Soil Stabilization: 0.1 acres	$53.68
Includes Small Quantity Factor of 1.48	
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:	$1,093.40
Mobilization: Const. $32.35 Surf. $0.00	$32.35
Quarry Development:	$0.00
Total:	$1,679.51

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 Road 24-2B 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:
  Opening Road Up
   Tractor: D7 with rippers 3 hr x $148.35/hr = $445.05

Subtotal: $445.05

Surfacing:

Subtotal: $0.00

Section 1300 Geotextiles:

Subtotal: $0.00

Section 1400 Slope Protection:

Subtotal: $0.00

Section 1800 Soil Stabilization:
  Dry Method with Mulch: $536.83/acre x 0.10 acres = $53.68
        Includes Small Quantity Factor of 1.48

Subtotal: $53.68

Section 1900 Cattleguards:

Subtotal: $0.00

Section 2100 Roadside Brushing:
  RoadSide Brushing Medium: $550.28/acre x 0.10 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:
  Decommissioning
   Tractor: D7 with rippers 4 hr x $148.35/hr = $593.40
   Barricade 1 Each x $500.00/Each = $500.00

Subtotal: $1,093.40

Mobilization:
  Construction - 1.31% of total Costs = $32.35
  Surfacing - 0.00% by rock volume = $0.00

Subtotal: $32.35

Road Number: Temp Road 24-2B Continued

Quarry Development:
  Based on 0.00% of total rock volume

Subtotal:	$0.00
Total:	$1,679.51

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Mobilization Costs - Construction and Surfacing

T.S. Contract Name: Friese Camp Sale Date: 5-2013

Average Mobilization distance = 50 miles Factor = 1.00

Mobilization: Construction

Fire Equipment:	1 ea	x (1.00	x $131.00/ea	+ 0 mi	x $3.50/mi)	=	$131.00
Graders-all:	1 ea	x (1.00	x $356.00/ea	+ 0 mi	x $13.78/mi)	=	$356.00
Loaders < 3cy:	1 ea	x (1.00	x $356.00/ea	+ 0 mi	x $7.45/mi)	=	$356.00
Rollers & Comp:	1 ea	x (1.00	x $356.00/ea	+ 0 mi	x $14.85/mi)	=	$356.00
RTBackhoes 24/30:	1 ea	x (1.00	x $356.00/ea	+ 0 mi	x $4.84/mi)	=	$356.00
Tractors <= D7:	1 ea	x (1.00	x $518.00/ea	+ 0 mi	x $29.49/mi)	=	$518.00
Dump Truck<=10cy:	1 ea	x (1.00	x $185.00/ea	+ 0 mi	x $3.70/mi)	=	$185.00
Water Truck:	1 ea	x (1.00	x $216.00/ea	+ 0 mi	x $4.33/mi)	=	$216.00

Subtotal: $2,474.00

Mobilization: Surfacing

Fire Equipment:	1ea	x (1.00	x $131.00/ea	+ 5 mi	x $3.50/mi)	=	$148.50
Graders-all:	1ea	x (1.00	x $356.00/ea	+ 10 mi	x $13.78/mi)	=	$493.80
Loaders > 3cy:	1ea	x (1.00	x $518.00/ea	+ 1 mi	x $12.11/mi)	=	$530.11
Rollers & Comp:	1ea	x (1.00	x $356.00/ea	+ 10 mi	x $14.85/mi)	=	$356.00
Tractors <= D7:	1ea	x (1.00	x $518.00/ea	+ 1 mi	x $29.49/mi)	=	$547.49
Dump Truck >10cy:	2ea	x (1.00	x $228.00/ea	+ 15 mi	x $4.55/mi)	=	$592.50
Water Truck:	1ea	x (1.00	x $216.00/ea	+ 15 mi	x $4.33/mi)	=	$280.95

Subtotal: $3,097.85

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Summary of Construction Quantities

T.S. Contract Name: Friese Camp Sale Date: 5-2013

Road Number	Const	Improv	Renov	Decomm	Temp
34-3E-15.03			80.26		
34-3E-19.03			10.03		
34-3E-21.00			210.67		
34-3E-23.00A			16.90		
34-3E-23.00B			49.10		
34-3E-23.01			12.67		
34-3E-23.02			16.37		
34-3E-24.00			24.29		
34-3E-24.04			12.14		
34-3E-25.00			16.37		
34-3E-25.01			18.55		
34-3E-25.02			32.74		
34-3E-25.03			26.93		
34-3E-25.04			10.03		
34-3E-25.05			17.95		
34-3E-26.00			4.75		
34-3E-26.01			63.89		
34-3E-26.02			21.12		
34-3E-26.03			27.46		
34-3E-29.01			95.04		
Temp Road 23-1	7.92				
Temp Road 23-1a	12.14				
Temp Road 23-1B	5.28				
Temp Road 23-2B	2.64				
Temp Road 24-2a	8.98				
Temp Road 24-2B	2.11				
Total Sta:	39.07		767.26		

200 Clearing and Grubbing		Clearing stations	Grubbing acres	Slash acres
34-3E-23.01		12.67	0.6	0.6
Temp Road 23-1		7.92	0.6	0.6
	Totals:	20.59	1.2	1.2

300 Excavation		Excav C.Y.s	Haul sta-yds
	Totals:	0	0

Build Road
Temp Road 23-1
Tractor: D7 with rippers . . . . . 8 hr

400 Drainage

34-3E-21.00	Aluminized	18 inch 16 ga	36 lf
34-3E-21.00	Aluminized	24 inch 16 ga	26 lf
34-3E-21.00	Splash Pads	18 inch	1 ea
34-3E-21.00	Splash Pads	24 inch	1 ea

57" x 38" x 38 culvert replacement
34-3E-21.00 Culvert Replacement . . . . . 1 EA

500 Renovation Miles Slide cy

Continuation of Construction Quantities

34-3E-15.03	1.52	0
34-3E-19.03	0.19	0
34-3E-21.00	3.99	0
34-3E-23.00A	0.32	0
34-3E-23.00B	0.93	0
34-3E-23.01	0.24	0
34-3E-23.02	0.31	0
34-3E-24.00	0.46	0
34-3E-24.04	0.23	0
34-3E-25.00	0.31	0
34-3E-25.01	0.35	0
34-3E-25.02	0.62	0
34-3E-25.03	0.51	0
34-3E-25.04	0.19	0
34-3E-25.05	0.34	0
34-3E-26.00	0.09	0
34-3E-26.01	1.21	0
34-3E-26.02	0.40	0
34-3E-26.03	0.52	0
34-3E-29.01	1.80	0
Totals:	14.53	0

Culvert Cleaning
34-3E-15.03 Cleaning Culvert Barrels . . . . . 5 EA
Cleaning Culvert Barrels
34-3E-21.00 Cleaning Culvert Barrels . . . . . 15 Each
Culvert Removal
34-3E-23.00A Remove Culvert . . . . . 2 EA
34-3E-23.00A Armored Waterdip . . . . . 2 EA
Culvert Removal
34-3E-23.00B Remove Culvert . . . . . 1 EA
34-3E-23.00B Armored Waterdip . . . . . 1 EA
Clean Culvert Barrels
34-3E-24.00 Clean Culvert Barrels . . . . . 2 Each
Cleaning Culvert Barrels
34-3E-25.00 Cleaning Culvert Barrels . . . . . 1 Each
Cleaning Culvert Barrels
34-3E-25.03 Cleaning Culvert Barrels . . . . . 1 Each
Cleaning Culvert Barrels
34-3E-26.01 Cleaning Culvert Barrels . . . . . 5 Each
Cleaning Culvert Barrels
34-3E-26.02 Cleaning Culvert Barrels . . . . . 1 Each
Cleaning Culvert Barrels
34-3E-29.01 Cleaning Culvert Barrels . . . . . 8 Each
Open Road Back Up
Temp Road 23-1a
Tractor: D7 with rippers . . . . . 8 hr
Opening Road Up
Temp Road 23-1B
Tractor: D7 with rippers . . . . . 4 hr
Openning Road Up
Temp Road 23-2B
Tractor: D7 with rippers . . . . . 3 hr
Opening Road Up
Temp Road 24-2a
Tractor: D7 with rippers . . . . . 6 hr
Opening Road Up
Temp Road 24-2B
Tractor: D7 with rippers . . . . . 3 hr

Surfacing (Cubic Yards)

Quarry Name: stockpile

1200 Crushed under 1 1/2	Roadway	Turnouts	Other	
34-3E-25.01	207	0	0	207

34-3E-25.03	530	0	0	530
34-3E-25.02	1,033	0	0	1,033

34-3E-21.00		0	0	160	160
34-3E-21.00		0	0	10	10
34-3E-25.00		344	18	0	362
34-3E-26.02		0	0	20	20
	Totals:	2,114	18	190	2,322

Quarry Name: Commercial

700 Pitrun		Roadway	Turnouts	Other	
34-3E-25.01		263	0	0	263
	Totals:	263	0	0	263

1300 Geotextiles

Totals: No Quantities

1400 Slope Protection

Slope Protection Class 3	C.Y.s
34-3E-21.00	10
Totals:	10

1800 Soil stabilization - acres	Dry W/O Mulch	Dry/with Mulch	Hydro Mulch
Temp Road 23-1	0.0	0.6	
Temp Road 23-1a	0.0	0.6	
Temp Road 23-1B	0.0	0.3	
Temp Road 23-2B	0.0	0.2	
Temp Road 24-2a	0.0	0.4	
Temp Road 24-2B	0.0	0.1	
Totals:	0.0	2.0	0.0

Small Quantity Factor of 1.59 used

1900 Cattleguards

Totals: No Quantities

2100 RoadSide Brushing	acres
34-3E-15.03	1.5
34-3E-19.03	0.2
34-3E-21.00	3.9
34-3E-23.00A	0.3
34-3E-23.00B	0.9
34-3E-23.01	0.2
34-3E-23.02	0.3
34-3E-24.00	0.4
34-3E-24.04	0.2
34-3E-25.00	0.3
34-3E-25.01	0.3
34-3E-25.02	0.6
34-3E-25.03	0.5
34-3E-25.04	0.2
34-3E-25.05	0.3
34-3E-26.00	0.1
34-3E-26.01	1.2
34-3E-26.02	0.4

Continuation of Construction Quantities

34-3E-26.03	0.5
34-3E-29.01	1.7
Temp Road 23-1a	0.2
Temp Road 23-1B	0.3
Temp Road 23-2B	0.2
Temp Road 24-2a	0.4
Temp Road 24-2B	0.1
Totals:	15.1

2200 Surface Treatment tons L.F.

Totals: No Quantities

2300 Engineering stations

Totals: 0.00

2400 Minor Concrete

Totals: No Quantities

2500 Gabions

Totals: No Quantities

8000 Miscellaneous

Barricade next to Gate
- 34-3E-23.00A New Barricade . . . . . 1 Each

DECOMISSION
- 34-3E-23.01 full decom . . . . . 0.24 mi.
- 34-3E-23.01 barricade . . . . . 2 ea.

Replace Barricades
- 34-3E-26.03 Barricades . . . . . 2 Each

Decommissioning
- Temp Road 23-1
  - Barricade . . . . . 1 Each
- Temp Road 23-1
  - Tractor: D7 with rippers . . . . . 6 hr

Decommissioning
- Temp Road 23-1a
  - Tractor: D7 with rippers . . . . . 8 hr
- Temp Road 23-1a
  - Barricade . . . . . 1 Each

Decommissioning
- Temp Road 23-1B
  - Tractor: D7 with rippers . . . . . 5 hr
- Temp Road 23-1B
  - Barricade . . . . . 1 Each

Decommissioning
- Temp Road 23-2B
  - Tractor: D7 with rippers . . . . . 3 hr
- Temp Road 23-2B
  - Barricade . . . . . 1 Each

Decommissioning
- Temp Road 24-2a
  - Tractor: D7 with rippers . . . . . 7 hr
- Temp Road 24-2a
  - Barricade . . . . . 1 Each

Decommissioning
- Temp Road 24-2B
  - Tractor: D7 with rippers . . . . . 4 hr
- Temp Road 24-2B

Barricade . . . . . 1 Each

Tract No : ORM05-TS-2013-05
Sale Name: Friese Camp
Prep. By : Brown
Sale Date: 05/23/2013

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ROAD MAINTENANCE AND ROAD USE APPRAISAL WORK SHEET

Summary of Costs

1. Road Use - Amortization: (1) $0.00/4179 MBF = $0.00/MBF 1/
(RC-3 & RC-3a) (Tot Sale Vol)

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2. Road Maintenance Obligation:

$3319.64 (2.1)	+	$0.00 (3.1)	+	$0.00 (4.1)	+	$0.00 (5.1)	=	$3319.64 (RC-2c)

3. Rockwear Obligation:

$314.01 (4.2)	+	$0.00 (5.2)	+	$5916.95 (7.1)	+	$0.00 (7.2)	=	$6230.96 (RC-2g)

4. Other Maintenance Payments:

Total (6) = $563.30 (RC-3a)

5. Purchaser Maintenance Allowances:

(7.3A) Move In	$1364.08
(7.3B) Culverts, Catch Basins, Downspouts	$2643.00
(7.3C) Grading, Ditching	$4519.80
(7.3D) Slide Removal and Slump Repair	$0.00
(7.3E) Dust Palliative (Water)	$6925.60
(7.3F) Surface Repair (Aggregate)	$1697.50
(7.3G) Dust Palliative (Bituminous, Lignin, MgCl)	$0.00
(7.3H) Other	$0.00

Total (7.3) = $17149.98 (RC-2a & Ex D)

(2+3+4+5) Total = $27,263.88/4179 MBF = $6.52/MBF 1/
(Total Sale Vol)

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

1. Road Use Fees - Amortization

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

(1) Subtotal

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

Changed Surface on FS32&-10.0 rd to deduct rockwear out

Road Number and Segment	A N	Surf Type	Maint Mi	x	Fee	x	Vol MBF	=	Total Maint
35-3E-3.0 B2A	N	ASC	0.28		1.30		23		$8.37
35-3E-3.0 B2B	N	ASC	0.29		1.30		558		$210.37
35-3E-3.0 B2C	N	ASC	0.43		1.30		655		$366.15
35-3E-3.0 B1	N	ASC	0.54		1.30		655		$459.81
35-3E-3.0 A2	N	ASC	0.70		1.30		655		$596.05
35-3E-3.0 A1	N	ASC	1.10		1.30		655		$936.65
35-3E-10.0	N	NAT	0.94		0.79		655		$486.40
FS 32 Road	A	NAT	0.63		0.62		655		$255.84

(2.1) Subtotal $3319.64

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 and Segment	A N	Surf Type	Maint Mi	x	Fee	x	Vol C.Y.	=	Total 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 and Segment	A N	Mi	x	Maint Fee	x	Vol MBF	= Total Maint	Mi	x	Rkwear Fee	x	Vol MBF	= Total Rkwear
35-3E-10.0 A	N							0.00		0.51		655	$314.01

(4.1) Subtotal $0.00 (4.2) Subtotal $314.01

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 and Segment	A N	Mi	x	Maint Fee	x	Vol C.Y.	= Total Maint	Mi	x	Rkwear Fee	x	Vol C.Y.	= Total 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
Rockwear using FS formula from Otis Blankenship

Agreement Number	Road Number	Fee MBF/Mi	x Mi =	Fee /MBF	x Hauled =	Vol Maint Cost
FS	FS32	1.37	0.63	0.860	655	$563.30

(6) Subtotal $563.30

7. Purchaser Maintenance - Rock Wear

Road No 1/ and Segment	A N	TIMBER HAUL (7.1) Mi	RkWear x Fee	x Vol MBF	= Total RkWear	ROCK HAUL (7.2) 2/ 3/ Mi	Rkwear x Fee	x Vol C.Y.	= Total Rkwear
34-3E-15.3 A5	N	1.22	0.51	182	$113.24				
34-3E-15.3B1	N	0.27	0.51	182	$25.06				
34-3E-21.0 G2	N	0.34	0.51	66	$11.44				
34-3E-21.0 G1	N	0.19	0.51	275	$26.65				
34-3E-21.0 E5	N	0.18	0.51	661	$60.68				
34-3E-21.0 E4	N	0.11	0.51	697	$39.10				
34-3E-21.0 E3	N	0.15	0.51	867	$66.33				
34-3E-21.0 E2	N	0.38	0.51	2006	$388.76				
34-3E-21.0 E1	N	0.07	0.51	2448	$87.39				
34-3E-21.0 C2	N	0.64	0.51	3342	$1090.83				
34-3E-21.0 C1	N	0.29	0.51	3524	$521.20				
35-3E-21.0 A	A	0.18	0.51	3524	$323.50				
34-3E-23.0 C	N	0.66	0.00	564	$0.00	0.00	0.00	0	$0.00
34-3E-23.0 B	N	0.27	0.00	722	$0.00	0.00	0.00	0	$0.00
34-3E-23.0 A	N	0.32	0.51	1139	$185.88				
34-3E-23.1	N	0.24	0.00	196	$0.00	0.00	0.00	0	$0.00
34-3E-23.2	N	0.31	0.51	410	$64.82				
34-3E-25.0	N	0.31	0.51	97	$15.34				
34-3E-25.1 B	N	0.15	0.00	104	$0.00	0.00	0.00	0	$0.00
34-3E-25.1 A	N	0.20	0.51	277	$28.25				
34-3E-25.2	N	0.62	0.51	40	$12.65				
34-3E-25.3	N	0.51	0.51	138	$35.89				
34-3E-25.4	N	0.19	0.51	97	$9.40				
34-3E-25.5	N	0.34	0.51	97	$16.82				
34-3E-26.1 B	N	0.88	0.51	518	$232.48				
34-3E-26.1 A	N	0.33	0.51	894	$150.46				
34-3E-26.2	N	0.40	0.51	344	$70.18				
34-3E-26.3	N	0.52	0.00	223	$0.00	0.00	0.00	0	$0.00
34-3E-15.3 A5	N	0.86	0.51	182	$79.83				
34-3E-21.0 F2	N	0.08	0.51	335	$13.67				
34-3E-21.0 F1	N	0.18	0.51	661	$60.68				
34-3E-21.0 D2	N	0.13	0.51	2448	$162.30				
34-3E-21.0 D1	N	0.21	0.51	3342	$357.93				
34-3E-21.0 B	N	0.86	0.51	3524	$1545.63				
34-3E-23.1	N	0.24	0.00	196	$0.00	0.00	0.00	0	$0.00
34-3E-24.0	N	0.46	0.51	326	$76.48				
34-3E-24.4	N	0.23	0.51	26	$3.05				
34-3E-26.0	N	0.09	0.51	894	$41.03				

(7.1) Subtotal $5916.95 (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 stips. Note in prospectus.

7.3A Move In

Equipment 1/	No Units	x	Move in	x	Cost/ 50 Mi	x	Dist Factor	=	Sub-total
Motor Grader:	1	x	2	x	$356.00	x	0.59	=	$420.08
Back Hoe:	1	x	2	x	$356.00	x	0.59	=	$420.08
Loader:		x		x	$356.00	x	0.59	=	$0.00
Water Truck:	1	x	2	x	$216.00	x	0.59	=	$254.88
Dump Truck 2/:	1	x	2	x	$228.00	x	0.59	=	$269.04

(7.3A) Total $1364.08

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
10.00	x	264.30	=	$2643.00

(7.3B) Total $2643.00

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:	8.00	x	512.82	x	1	=	$4102.56
Blade Ditch:	3.00	x	139.08	x	1	=	$417.24

(7.3C) Total $4519.80

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 Equipment	No Slides /Slumps	x	Hours Each	x	Equip Cost	=	Subtotal
Grader:	0	x	0	x	137.80	=	$0.00
Loader:	0	x	0	x	89.31	=	$0.00
Backhoe:	0	x	0	x	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
	10.00	/	5	=	2.0	x	40	x	1	=	80.0
Load & Haul-Roundtrip =					0.0	x	0	x	0	=	0.0
Fixed Hours (3000 Gal. tanker)											

Total Hours = 80.0

Truck Cost: $86.57/Hr. x 80.0 Hours = $6925.60

(7.3E) Total $6925.60

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:	250	C.Y. x	$1.38/C.Y.		=	$345.00
Haul from Stockpile:	250	C.Y. x	$2.32/C.Y. x	2.00 Mi	=	$1160.00
Process with Grader:	250	C.Y. x	$0.77/C.Y.		=	$192.50

(7.3F) Total $1697.50

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.

Form 5440-9
(December 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

DEPOSIT AND BID FOR [X] **TIMBER*** [ ] **VEGETATIVE RESOURCE (Other Than Timber)**

SCALE SALE

Name of Bidder	
Tract Number	ORM05-TS-13-05
Sale Name	Friese Camp
Sale Notice *(dated)*	4/24/2013
BLM District	Medford

		Sealed Bid for Sealed Bid Sale	X	Written Bid for Oral Auction Sale	

In response to the above dated Sale Notice, the required deposit and bid are hereby submitted for the purchase of designated timber/vegetative resource on the tract specified above.

Required bid deposited is **$96,100.00** 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	2,518	X	=	X	=
White fir	MBF	1,517	X			
Incense Cedar	MBF	115				
Ponderosa Pine	MBF	22	X			
Sugar Pine	MBF	7	X			
Total		**4,179**	X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
			X	=	X	=
TOTAL PURCHASE PRICE						

(Continued on reverse)

If sale contract is executed, undersigned is liable for total purchase price even though the quantity cut, removed, or designated for taking is more or less than the total estimated volume or quantity shown above. Undersigned certifies bid was arrived at by bidder or offeror independently, and was tendered without collusion with any other bidder or offeror. In submitting or confirming this bid, undersigned agrees to the foregoing provisions, applicable regulations, and certifies that he is authorized to act as, or on behalf of, the bidder.

Bid submitted on *(date)*

(Check appropriate box, sign in ink, and complete the following)

☐ Signature, if firm is individually owned	Name of firm *(type or print)*
☐ ☐ Signatures, if firm is a partnership or L.L.C.	Business address, include zip code *(type or print)*
☐ Corporation organized under the state laws of	*(To be completed following oral bidding)*
Signature of Authorized Corporate Signing Officer	I HEREBY confirm the above oral bid By *(signature)*
Title	Date

Submit bid, in *duplicate*, to qualify for either an oral auction or sealed bid sale together with the required bid deposit made payable to the Department of the Interior – BLM. Oral Auction – Submit to Sales Supervisor prior to closing of qualifying period for tract.	Sealed Bid – Send to District Manager, who issued the sale notice, in a sealed envelope marked on the outside: (1) "Bid for Timber" (2) Vegetative Resource Other Than Timber (3) Time bids are to be opened (4) Legal description

NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 38 FR 6280 and 43 CFR 5442.1

PURPOSE: To qualify an oral auction bidder, and then if successful, to bind bidder to certain contract conditions.

ROUTINE USE: To determine that an individual is qualified to participate in oral auction bidding, and, as surety that bidder will fulfill contract requirements.

EFFECT OF NOT PROVIDING INFORMATION: Filing this deposit and bid information is necessary only when an individual wishes to participate in a sealed or auction bid sale for timber or vegetative resources.

INSTRUCTIONS TO BIDDERS

1. *AUTHORITY* – Timber located on the revested Oregon and California Railroad Grant Lands and on the reconveyed Coos Bay Wagon Road Grant Lands is administered and sold pursuant to authority of the Act of August 28, 1937 (50 Stat. 874; 43 U.S.C. 1181a); timber located on other lands and other vegetative resources on all public lands of the United States under jurisdiction of the Bureau of Land Management are administered and sold pursuant to authority of the Act of July 31, 1947 (61 Stat. 681), as amended, by the Act of July 23, 1955 (69 Stat. 367; 30 U.S.C. 601 et. seq.). Regulations of the Secretary of the Interior governing sale of timber are codified in 43 CFR Group 5400.

2. *QUALIFICATIONS OF BIDDERS* – A bidder for sale of timber/vegetative resources must be either (a) a citizen of the United States, (b) a partnership composed wholly of such citizens, (c) an unincorporated association composed wholly of such citizens, or (d) a corporation authorized to transact business in the State in which the timber/vegetative resource is located.

3. *INSPECTION OF TIMBER/VEGETATIVE RESOURCES* – Bidder is invited, urged, and cautioned to inspect the timber/vegetative resource prior to submitting a bid. By executing the timber/vegetative resource sale contract, bidder warrants that the contract is accepted on the basis of his examination and inspection of the timber/vegetative resource and his opinion of its value.

4. *DISCLAIMER OF WARRANTY* – Government expressly disclaims any warranty of the fitness of the designated timber/vegetative resource for any purpose of the bidder; all timber/vegetative resources are to be sold "As Is" without any warranty of merchantability by Government. Any warranty as to the quantity or quality of timber/vegetative resource to be sold is expressly disclaimed by Government.

5. *BIDS* – Sealed or written bids for not less than the advertised appraised price, per timber/vegetative resource must be submitted in duplicate to the District Manager who issued *Timber/Vegetative Resource Sale Notice*.

(a) *Sealed Bid Sales* – Bids will be received until time for opening which is set out in the Notice. Enclose both copies of bid with required bid deposit in a sealed envelope marked on the outside *Bid for Timber/Vegetative Resource*, time bid is to be opened, tract number, and legal description of land on which timber/vegetative resource is located. In event of a tie, the high bidder shall be determined by lot from among those who submitted the tie bids.

(b) *Auction Sales* – Submission of the required bid deposit and a written bid is required to qualify for oral bidding. Oral bidding shall begin from the highest written bid. No oral bid will be considered which is not higher than the preceding bid. In the event there is a tie in high written bids, and no oral bidding occurs, the bidder who was the first to submit his bid deposit and written bid shall be declared the high bidder. If the officer conducting the sale cannot determine who made the first submission of high tie written bids, the high bidder shall be determined by lot. High bidder must confirm his bid, in writing, immediately upon being declared high bidder.

(c) Except as otherwise provided in 43 CFR 5442.2, bids will not be considered in resale of timber/vegetative resource remaining from an uncompleted contract from any person or affiliate of such person who failed to complete the original contract because of (1) cancellation for the purchaser's breach or (2) through failure to complete payment by expiration date.

(d) When it is in the interest of the Government to do so, it may reject any and all bids and may waive minor deficiencies in bids or in sale advertisement.

6. *BID FORMS* – All sealed, written bids, and confirmation of oral bids shall be submitted on forms provided by Government.

(a) *Lump Sum Sales* – Bids shall specify (1) Bureau of Land Management estimated volume, (2) price per unit, and (3) total purchase price. Estimated volume and price per unit are to be used for administrative and appraisal purposes only. Upon award of contract, high bidder shall be liable for total purchase price, including any adjustment which may be made as a result of reappraisal if an extension of time is granted, even though quantity of timber/vegetative resource actually cut, removed, or designated for taking is more or less than the estimated volume or quantity listed.

(b) *Timber Scale Sales* – Bids must state price per thousand board feet that will be paid for each species. High bidder will be determined by multiplying bid price per thousand board feet per species by Bureau of Land Management estimate of volume of each species. Purchaser shall be liable for purchase price of all merchantable timber sold under contract even though all such timber is not actually cut and removed prior to expiration of time for cutting and removal as specified in contract.*

7. *BID DEPOSIT* – All bidders must make a deposit of not less than the amount specified in the *Timber/Vegetative Resource Notice*. Deposit may be in the form of cash, money orders, bank drafts, cashiers or certified checks made payable to the Department of the Interior – BLM, bid bonds of a corporate surety shown on the approved list of the United States Treasury Department*, or any approved guaranteed remittance approved by the Authorized Officer. Upon conclusion of bidding, the bid deposit of all bidders, except high bidder, will be returned. The cash deposit of the successful bidder may be applied toward the required sale deposit and/or the purchase price. Cash not applied to the sale deposit or the purchase price, or a corporate surety bid bond, will be returned at the time the contract is signed by the Government.

8. *AWARD OF CONTRACT* – Government may require high bidder to furnish such information as is necessary to determine the ability of bidder to perform the obligation of contract. Contract will be awarded to high bidder, unless he is not qualified or responsible or unless all bids are rejected. If high bidder is not qualified or responsible or fails to sign and return the contract together with required performance bond and any required payment, contract may be offered and awarded to the highest bidders qualified, responsible, and willing to accept the contract.

9. *TIMBER/VEGETATIVE RESOURCE SALE CONTRACT* – To be executed by purchaser, has been prepared by Government, and may be examined in the District Manager's office.

10. *PERFORMANCE BOND* -

(a) A performance bond in an amount of not less than 20 percent of total purchase price is required, but the amount of the bond shall not be in excess of $500,000, except when the purchaser opts to increase the minimum bond to permit cutting prior to payment as provided in 43 CFR 5451.2, or in the event the purchaser is a holder of an unresolved default the bond may be increased as provided in 43 CFR 5450.1(b). Performance bond may be (1) bond of a corporate surety shown on approval list issued by the United States Treasury Department and executed on an approved standard form, (2) personal surety bond executed on an approved standard form if Government determines principals and bondsman are capable of carrying out the terms of the contract, (3) cash bonds, (4) negotiable securities of the United States, or (5) any guaranteed remittance approved by the Authorized Officer.

(b) If purchaser elects to cut timber without skidding or yarding it to a loading point or removing it prior to the payment of the second or subsequent installments, Government shall require an increase in amount of performance bond initially required by an amount equal to the value of timber to be cut. Such increase must be on a bond rider form supplied by Government and be approved, in writing, by Government prior to cutting timber covered by the bond increase. This increased amount of bond shall be used to assure payment for timber cut in advance of payment.*

11. *PAYMENT BOND* – If purchaser elects to (a) cut and remove timber, or (b) remove timber already cut which has been secured by an increased performance bond as provided in paragraph 10(b) above, before payment of the second or subsequent installments, Government shall require a payment bond on a form supplied by Government. Purchaser shall obtain written approval from Government of payment bond prior to cutting and/or removal of timber covered by the bond. Payment bond shall be used to assure payment for timber cut and/or removed in advance of payment.*

12. *PAYMENT OF PURCHASE PRICE* – For sales of $500 or more, Government may allow payment by installments. Except as discussed in paragraphs 10 and 11 above, no part of any timber/vegetative resource sold may be severed, cut, or removed unless advance payment has been made as provided in contract.

13. *LIQUIDATED DAMAGES* – Within thirty (30) days from receipt of *Timber/Vegetative Resource Sale Contract*, the successful bidder shall sign contract and return it to Government, together with required bond and any required payment. If successful bidder fails to comply within the stipulated time, his bid deposit shall be retained by Government as liquidated damages.

14. *NINETY-DAY SALES* – If no bid is received within time specified in the advertisement of sale and if Government determines that there has been no significant rise in the market value of timber/vegetative resource, it may, in its discretion, keep the sale open, not to exceed ninety (90) days.

**Applies to Timber Only*

15. *UNAUTHORIZED USE OF GOVERNMENT PROPERTY* – A sale may be refused to high bidder who has been notified that he has failed to make satisfactory arrangements for payment of damages resulting from unauthorized use of, or injury to, property of the United States.

16. *EQUAL OPPORTUNITY CLAUSE* – This contract is subject to the provisions of Executive Order No. 11246 of September 24, 1965, as amended, which sets forth the nondiscrimination clauses. Copies of this order may be obtained from the District Manager. 43 CFR 60-1.7(b) requires that the Equal Opportunity *Compliance Report Certification* will be completed by prospective contractors. Certification may be obtained from District Manager.

17. *LOG EXPORT* – All timber offered for sale except as noted in the *Timber Sale Notice* is restricted from export from the United States in the form of unprocessed timber and cannot be used as a substitute for exported private timber. For the purpose of this contract, unprocessed timber is defined as: (1) any logs except those of utility grade or below, such as sawlogs, peeler logs, and pulp logs; (2) cants or squares to be subsequently remanufactured exceeding eight and three quarters (8-3/4) inches in thickness; (3) split or round bolts or other roundwood not processed to standards and specifications suitable for end product use; or (4) western red cedar lumber which does not meet lumber of American Lumber Standards Grades of Number 3 dimension or better, or Pacific Lumber Inspection Bureau R-List Grades of Number 3 common or better. Timber manufactured into the following will be considered processed: (1) lumber and construction timbers, regardless of size, manufactured to standards and specifications suitable for end product uses; (2) chips, pulp and pulp products; (3) green or dry veneer and plywood; (4) poles and piling cut or treated for use as such; (5) cants, squares, and lumber cut for remanufacture of eight and three quarters (8-3/4) inches in thickness or less; or (6) shakes and shingles. In event purchaser wishes to sell any or all of timber restricted from export in the form of unprocessed timber, the buyer, exchanges, or recipient shall be required to comply with contractual provisions relating to *"unprocessed timber"*. Special reporting, branding and painting of logs may be included in contract provisions.*

18. *DETAILED INFORMATION* – Detailed information concerning contract provisions, bid, performance bond forms, tract location maps, and access conditions may be obtained from the District Manager. All persons interested in bidding on the products listed are encouraged to familiarize themselves with all such detailed information.

*U.S. GOVERNMENT PRINTING OFFICE: 1993-839-310