PROSPECTUS

SBA SET-ASIDE SALE

Sale Date: January 27, 2015

(1) Roseburg Sale No.: 2015.0002 **Sale Name:** Camas Blooms
Douglas County, Oregon: O&C, CBWR: Oral Auction **Bid Deposit Required:** $71,500.00

All timber designated for cutting on:

NW¼SW¼	Sec. 29,	T. 28 S.,	R. 8 W.,	Willamette Meridian
Lots 1 & 2, NE¼NW¼, SW¼SE¼	Sec. 31,	T. 28 S.,	R. 8 W.,	Willamette Meridian
W½SW¼	Sec. 27,	T. 29 S.,	R. 8 W.,	Willamette Meridian
Lots 5 & 6, E½SW¼, SW¼SE¼	Sec. 31,	T. 29 S.,	R. 8 W.,	Willamette Meridian
W½SW¼	Sec. 13,	T. 29 S.,	R. 9 W.,	Willamette Meridian
NE¼NE¼, S½NW¼, NE¼SW¼, NW¼SE¼	Sec. 23,	T. 29 S.,	R. 9 W.,	Willamette Meridian
S½NW¼, SW¼	Sec. 9,	T. 30 S.,	R. 8 W.,	Willamette Meridian
E½NE¼, SW¼NE¼, E½NW¼, SW¼NW¼, N½SW¼, NE¼SE¼	Sec. 17,	T. 30 S.,	R. 8 W.,	Willamette Meridian

Approx. Number Merch. Trees	Est. Vol. MBF 32' Log	Species	Est. Vol. MBF 16' Log	Appraised Price Per MBF		Est. Volume Times Appraised Price
23,098	2,205	Douglas-fir	2,640	$215.20		$568,128.00
5,424	851	Grand Fir	1,055	$130.40		$137,572.00
937	57	Ponderosa Pine	75	**$32.60**	*	$2,445.00
325	16	Western Hemlock	21	$100.80		$2,116.80
425	15	Incense-cedar	20	$81.40		$1,628.00
185	10	Western Redcedar	12	$249.60		$2,995.20
30,394	**3,154**		**3,823**			**$714,885.00**

*** BLM appraised price per MBF is a minimum stumpage value.**

THIS IS A TIMBER SALE SET-ASIDE FOR PREFERENTIAL BIDDING BY SMALL BUSINESS CONCERNS HAVING 500 OR FEWER EMPLOYEES AS DEFINED BY THE SMALL BUSINESS ADMINISTRATION.

CRUISE INFORMATION:

The Douglas-fir and Grand Fir trees up to the 24" diameter class have been cruised using the 3P system to select sample trees. The sample trees have been cruised and their volume computed on form class tables for estimating volume in 16-foot lengths. This volume is then expanded to a total sale volume. A map showing the location of these sample trees is available at the Roseburg District Office.

The volume of all Douglas-fir and Grand Fir trees in the 26" diameter class and larger and all other species have been determined by individual tree measurements using a 100% cruise.

For all right-of-ways: The timber volumes for all tree species have been determined by individual tree measurements using a 100% cruise.

With respect to merchantable trees of all species: the average tree is 12.6 D.B.H.O.B., the average log contains 41 bd. ft., the total gross volume is approximately 4142 M bd. ft., and 92% recovery is expected.

CUTTING AREA: An area of approximately 269 acres is to be thinned and 2 acres of road right-of-way is to be clearcut. See Exhibit A for details.

TIMBER ACREAGE:			
Area 1: 24 acres	Area 6: 23 acres	Area 11: 38 acres
Area 2: 23 acres	Area 7: 22 acres	Area 12: 17 acres
Area 3: 12 acres	Area 8: 26 acres	Area 13: 49 acres
Area 4: 12 acres	Area 9: 2 acres	RW: 2 acres
Area 5: 9 acres	Area 10: 12 acres	

ACCESS: Access to the sale area is provided by Government, County and privately controlled roads.

DIRECTIONS TO SALE AREA:

From Winston, proceed west on State Highway 42 approximately 17.4 miles to Camas Valley, refer to timber sale Exhibits A and D for further details to timber sale units.

ROAD MAINTENANCE: Rockwear and maintenance fees of $15,573.24 will be required to be paid to the BLM.

ROAD CONSTRUCTION: Estimates include the following: construct 34+95 stations, renovate 98+55 stations, and decommission 110+75 stations of road.

DURATION OF CONTRACT will be 36 months for cutting and removal of timber. The contract contains SPECIAL PROVISIONS regarding: logging, environmental protection, road construction, road renovation, road use, road maintenance, fire protection, slash disposal, and log exporting. Log scaling may be required under the terms of this contract.

NOTES:

1. A revised Special Provision has been added to the contract which enables the Contracting Officer to suspend the contract to facilitate protection of certain plant or animal species, and/or to modify or terminate the contract when necessary to: (1) Comply with the Endangered Species Act, or; (2) Comply with a court order, or; (3) Protect species which were identified for protection through survey and manage and/or protection buffer standards and guidelines established in the ROD and RMP.

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

2. This contract contains provisions for the sale and removal of additional timber necessary to facilitate safe and efficient Purchaser operations. It is estimated that approximately 191 MBF of such additional timber may be removed under the contract, but is not included in the advertised sale volume nor was it included in the timber sale appraisal. This estimate is a net figure reduced by the estimate of the volume of trees previously marked for cutting, which the Authorized Officer may elect to reserve.

3. Seasonal operating restrictions apply to this sale regarding road work, falling, bucking, yarding, loading, hauling, machine piling, sub-soiling and wildlife nesting seasons. Refer to Section 42(A)(3-6), 42(A)(12)(b), 42(C)(3)(c), 42(D)(2), and Exhibit E for details.

4. Spurs 1, 2, 7, 8, Roads No. 28-8-32.0 and 29-9-23.1 are native surface and will be constructed or renovated and used for harvest operations by October 15 of each calendar year, then decommissioned in the same respective operating season. Spurs 3, 4, 5 & 6 are rock surfaced and will be decommissioned upon completion of use. The decommissioning may include water barring, slashing and blocking. Refer to Exhibit D for details. If an unsurfaced spur will overwinter before decommissioning, that spur shall be winterized. See Section 42(C)(3) for details.

5. License agreements with Lone Rock Timber Co. and Moore Mill and Lumber Co. are required.

6. Sub-soiling of approximately 3.5 miles of compacted skid trails and associated equipment/decking areas is required. Sub-soiling is to be completed once harvesting and machine piling operations are complete. Refer to Section 42(C)(4) for details.

7. In Harvest Area No. 9 approximately(180) trees to be cut are marked with blue paint above and below stump height. Notify Douglas Electric for powerline, Douglas County for activities adjacent to County Road 128 and locate any possible underground utilities along county RW before activities occur in this Harvest Area.

8. Optional Operator Spurs 8-1, 8-2 and 10-1, as shown on Exhibit A, may be built and rocked at Purchaser's expense.

9. Access to Harvest Area No.11, Road No, 28-8-32.0, is blocked and a native surface road which will require approximately ½ mile walk to the Harvest Area.

10. Seasonal Restrictions Matrix is attached for informational purposes only.

11. Approximately 153 acres are available for cable yarding during the winter months, approximately 48 acres planned for ground base harvest during the summer months could be cable yarded to rocked roads during the winter season.

THIS IS A SALE PROSPECTUS ONLY. ATTACHMENTS MAY NOT INCLUDE ALL EXHIBITS REFERRED TO IN THE CONTRACT PROVISIONS. THE COMPLETE CONTRACT, INCLUDING ALL EXHIBITS, IS AVAILABLE FOR INSPECTION AT THE ROSEBURG DISTRICT OFFICE.

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

(a) All timber on the Reserve Areas as shown on Exhibit A, all retention trees marked with orange paint above and below stump height within the cutting areas and all orange painted and posted trees which are on or mark the boundaries of the Reserve Areas, except Harvest Area No. 9 where all timber not marked with blue paint above and below stump height, (approximately one hundred and eighty (180) trees), is reserved.

(b) All existing coarse woody debris (logs and snags) classified as decay Classes 3, 4, and 5, (having bark substantially sloughed off and in advanced stages of decay), within the Harvest Areas as shown on Exhibit A. Snags which pose a hazard to operations may be felled with the approval of the Authorized Officer.

(c) All timber except approximately 87 trees marked for cutting with blue paint above and below stump height in the Reserve Areas as shown on Exhibit A.

Section 42. The Purchaser shall comply with the special provisions which are attached hereto and made a part hereof, unless otherwise authorized in writing by the Authorized Officer.

Section 42(A) Logging:

(1) Before beginning operations on the Contract Area for the first time or after a shutdown of ten (10) or more days, the Purchaser shall notify the Authorized Officer in writing of the date they plan to begin operations. The Purchaser shall also notify the Authorized Officer in writing if they intend to cease operations for any period of ten (10) or more days.

(2) 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 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.

(3) No timber falling, bucking or yarding shall be conducted on the Thinning Area from April 15 to July 15 of each calendar year, both days inclusive (bark slip period), unless otherwise approved by the Authorized Officer.

(4) No cable yarding, loading or hauling shall be conducted on native surfaced roads between October 15 of one calendar year and May 15 of the following calendar year, both days inclusive (wet season), unless otherwise approved by the Authorized Officer.

(5) For Harvest Areas No.1, 3, 10 and 13, as shown on the Exhibit A, no operations may be conducted from April 1 to August 5, both days inclusive, of each calendar year due to the potential disruption of nesting marbled murrelets. In addition, for Harvest Areas No.1, 3, 10 and 13, daily operating restrictions will be in effect from August 6 to September 15, both days inclusive, of each calendar year. For Harvest Areas No. 4, 5, 6, 7, 8 and 12 daily operating restrictions will be in effect from April 1 to August 5, both days inclusive, of each calendar year. During this period, all operations shall be scheduled from two hours after sunrise to two hours before sunset. Refer to the Exhibit E, which is attached hereto and made a part hereof.

(6) For a portion of Harvest Area No. 13, as shown on Exhibit E, no operations may be conducted from February 1 to July 15, both days inclusive, of each calendar year due to the potential disruption of spotted owls, if surveys are not completed by the government.

The Purchaser will notify the Authorized Officer in writing by January 1 if operations are planned on Harvest Area No. 13 before July 15 of the same calendar year. Upon receipt of written notification the government will conduct surveys to determine whether spotted owls are present within one quarter (0.25) mile of the Harvest Area. If it is determined that spotted owls are not nesting, the Authorized Officer may lift the seasonal restriction in any given year on such operations in writing.

(7) Trees felled to facilitate yarding through the No Harvest Stream Buffers or Retention Aggregates, as shown on Exhibit A, shall be left in place, unless otherwise approved by the Authorized Officer.

(8) For a distance of fifty (50) feet from the perimeter of each landing designated by the Authorized Officer, all logs more than eight (8) inches in diameter at the large end and longer than eight (8) feet in length shall be decked or windrowed at the location designated by the Authorized Officer except logs sold and removed from the Contract Area.

(9) No yarding or loading is permitted in or through the Reserve Areas or Retention Aggregates, as shown on Exhibit A, unless otherwise approved by the Authorized Officer.

(10) In the Harvest Areas shown on Exhibit A, all trees designated for cutting, which are within one hundred fifty (150) feet of the Reserve Areas, property lines and adjacent plantations shall be felled away from those areas.

(11) In the Harvest Areas shown on Exhibit A, all trees designated for cutting shall be felled, limbed, and cut into log lengths not to exceed forty-two (42) feet before being yarded, unless otherwise approved by the Authorized Officer.

(12) In the portions of Harvest Areas designated for ground-based yarding, as shown on Exhibit A (approximately 83 acres):

(a) Ground-based yarding operations shall generally be limited to slopes of thirty-five (35) percent or less, and existing skid trails shall be utilized to the greatest extent possible.

(b) No ground-based yarding shall be permitted between October 15 of one calendar year and July 15 of the following calendar year, both days inclusive, or other periods of unseasonably wet weather and soil moisture conditions, unless otherwise approved by the Authorized Officer.

(c) A rubber-tired or track-mounted skidder may be used in accordance with the following specifications:

(1) The skidder shall be approved by the Authorized Officer prior to ground-based yarding operations.

(2) Yarding shall be done with one end of the log suspended.

(3) The skidder shall be restricted to designated skid trails. Skid trails shall be clearly identified on the ground, fourteen (14) feet or less in width and spaced at least one hundred fifty (150) feet apart. Designated skid trails, whether existing or newly proposed, shall be approved by the Authorized Officer prior to the felling of timber.

(d) A track-mounted log loader, or shovel yarding system, may be used in accordance with the following specifications:

(1) The track-mounted log loader shall be approved by the Authorized Officer prior to ground-based yarding operations.

(2) The track-mounted log loader shall be restricted to designated skid trails and shall utilize the swing yarding method to the greatest extent practicable. The designated skid trail network shall minimize both the amount of ground covered by the tractor

treads and the number of passes over any single spot on the ground. Designated skid trails, whether existing or newly proposed, shall be approved by the Authorized Officer prior to the felling of timber.

(3) The track-mounted log loader shall be required to place logging slash in front of the machine's tracks prior to traveling designated skid trails in order to reduce soil compaction.

(e) A processor/harvester/forwarder system may be used in accordance with the following specifications:

(1) The processor/harvester shall be required to cut off limbs and tops in front of the machine's tracks in order to reduce soil compaction. The processor/harvester must have a lateral reach of twenty (20) feet or more, and the machine's lateral reach must be utilized as much as possible.

(2) The forwarder shall operate only on designated skid trails approved by the Authorized Officer. Forwarder trails shall be located on existing skid trails and/or the slash-covered areas traversed by the processor/harvester. Forwarder trails shall be perpendicular to hill-slope contour lines as much as possible.

(3) Logs that are too large for the harvester/forwarder operation may be yarded with a rubber-tired or track-mounted skidder, or a track-mounted log loader approved by the Authorized Officer, and as directed by the Authorized Officer. The skidder shall operate on designated skid trails approved by the Authorized Officer.

(4) All trees yarded with a forwarder shall be felled, topped, limbed and cut into log lengths not to exceed twenty-one (21) feet before being yarded, unless approved by the Authorized Officer.

(13) In the portions of Harvest Areas designated for cable yarding, as shown on Exhibit A:

(a) Yarding shall be done with a cable skyline system utilizing a mechanical slack-pulling carriage capable of maintaining a fixed position on the skyline while lateral yarding and having a lateral yarding capability of seventy-five (75) feet. The cable yarder shall have a maximum tower height of fifty (50) feet and a maximum of two hundred fifty (250) horsepower. The system shall have the capability to yard in multi-span configuration.

(b) Wherever possible, cable yarding corridors shall be perpendicular to hill-slope contour lines, parallel to each other and spaced at least one hundred fifty (150) feet apart to minimize damage to reserve trees.

(c) Cable yarding of logs shall be done under the canopy and with one end suspended. Lift trees and/or intermediate support trees shall be employed where necessary to meet this requirement. All logs shall be yarded away from or parallel to No Harvest Stream Buffers as shown on Exhibit A, unless otherwise approved by the Authorized Officer.

(d) Prior to attaching any logging equipment to a reserve tree, the Purchaser shall obtain written approval from the Authorized Officer and shall take precautions to protect the tree from damage as directed in writing by the Authorized Officer.

(14) During logging operations, the Purchaser shall keep Roads No. 30-8-9.1, No 29-8-31.3, No. 28-9-25.1 and County Road 128 where they pass through the Contract Area, clear of trees, rock, dirt and other debris so far as is practicable. The road shall not be blocked by such operations for more than thirty (30**)** minutes unless otherwise approved by the Authorized Officer.

(15) Any damage occurring to the bituminous surfacing of Road No. 28-9-25.1 and County Road 128 as a result of contract operations will be repaired at the Purchaser's expense.

(16) Before cutting and removing any trees necessary to facilitate logging in the Harvest Areas shown on Exhibit A, the Purchaser shall identify the location of skid trails, cable yarding corridors, tailhold, tieback, guyline, lift, intermediate support, and danger trees on the ground in a manner approved by the Authorized Officer at the pre-work conference and documented in the logging plan. Said Purchaser identification of trees to be cut and removed does not constitute authority to proceed with cutting and removal. In addition, before proceeding with cutting the following conditions must be met:

(a) All skid trails or cable yarding corridors upon which timber is identified by the Purchaser to be cut and removed in accordance with this special provision must be necessary for the safe and expeditious removal of timber sold under this contract and shall be limited to the minimum width necessary for yarding of logs with a minimum of damage to reserve trees, however, unless otherwise approved in writing by the Authorized Officer, the width of each skid trail shall be limited to fourteen (14) feet and each cable yarding corridor shall be limited to twenty (20) feet.

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

(c) The Purchaser agrees that sale of this additional timber shall be accomplished by a unilateral modification of the contract executed by the Contracting Officer and that such timber shall be sold at the unit prices shown in Exhibit B of this contract unless: the value of the timber must be reappraised subject to the terms for contract extension set forth in Section 9 of the contract; or the Authorized Officer determines that trees otherwise reserved in Section 41 of the contract or any tree that exceeds thirty-six (36) inches diameter at breast height shall be appraised and sold by bilateral modification of the contract at current fair market value in accordance with Section 8 of the contract.

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

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

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

(17) In accordance with the requirements of Section 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 the Contract Area, which is obstructing needed skid trails or cable yarding corridors, hazardous to workers, needed for guyline, tailhold, and tieback trees, 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 or 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 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 and the bottom log immediately after falling with high visibility paint. The stump shall be marked by flagging the location of the stump with plastic fluorescent pink ribbon hung within five (5) feet of the stump at eye level 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 Section 3(b) or 3(f) of the contract as required by Section 8 of the contract.

(d) No timber may be cut or removed under the terms of this provision if all contract payments required by Section 3(b) or 3(f) 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 high visibility paint.
(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 tree in or adjacent to skid trails 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 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 twenty-four (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 (2) working days prior to the need for cutting and yarding any guyline tree, tailhold tree, tie-back tree, danger tree, and corridor 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 corridors and/or ground-based equipment skid trails 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 contract 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 Section 13 of the contract for any reserved timber cut or removed in violation of the terms of this special provision.

Section 42(B) Miscellaneous:

(1) 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 eight hundred sixty-seven and 25/100 dollars ($2,867.25). In the event only a portion of the contract timber is scaled, the purchase price shall be reduced by that portion of ($2,867.25) 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 Eastside Scribner Decimal C Rules 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.

Section 42(C) Environmental Protection:

(1) In addition to the requirements set forth in Section 26 of this contract, the Purchaser shall clean road surfaces, cut banks, landings, ditch lines and culverts of all debris created by logging operations.

(2) In addition to the requirements set forth in Section 26 of this contract, the Purchaser shall steam clean or pressure wash all logging and road building equipment, except logging trucks and crew transport, prior to initial move-in, to minimize the likelihood of introducing noxious weeds to the Contract Area. Equipment washing shall occur at a location approved by the Authorized Officer. Equipment will be visually inspected by the Authorized Officer prior to use. Any logging or road building equipment removed from the Contract Area during the duration of the contract must be steam cleaned or pressure washed before it is returned to the Contract Area. Cleaning shall be defined as removal of all dirt, grease, plant parts and material that may carry noxious weed seeds.

(3) In addition to the requirements set forth in Section 26 of this contract, the Purchaser shall winterize all native surfaced roads constructed or renovated under Section 42(D)(1) or any portion thereof, in accordance with the plans and specifications shown on Exhibits C and D, which are attached hereto and made a part hereof, and in accordance with the following stipulations:

   (a) The Purchaser intends to use the native surfaced roads or portions thereof for more than a single operating season; or, circumstances require that the native surfaced roads or portions thereof over-winter before decommissioning.

   (b) Winterizing shall consist of water-barring, blocking and mulching to the satisfaction of the Authorized Officer.

(c) Winterizing shall take place at the end of the operating season as described in Section 42(D)(2) of this contract, or as directed by the Authorized Officer.

(4) In addition to the requirements set forth in Section 26 of this contract, the Purchaser shall, upon completion of logging operations, machine piling and covering operations, perform sub-soiling operations on approximately Three and five tenths (3.5) miles of compacted skid trails and associated equipment/decking areas, located in the ground-based portions of Harvest Areas, as shown on Exhibit A, and in accordance with the following stipulations:

(a) All sub-soiling equipment shall be inspected and approved by the Authorized Officer before sub-soiling operations begin.

(b) Slash and other organic debris, including some topsoil, will cover at least fifty (50) percent of the sub-soiled area, where levels of this material are in enough abundance. Water bars shall be constructed concurrently with sub-soiling operations on grades steeper than ten (10) percent, as directed by the Authorized Officer.

(c) Sub-soiling shall occur during the same dry season as ground-based harvesting, as described in Section (42)(A)(12)(b), and be accomplished prior to October 15, unless otherwise approved by the Authorized Officer.

(d) The compacted surfaces of main skid trails and associated equipment/decking areas shall be sub-soiled (broken up, loosened and de-compacted) using excavator attachments, log loader tongs or other approved equipment.

(e) Sub-soiling shall be completed to a minimum depth of eighteen (18) inches below the ground surface, unless otherwise approved by the Authorized Officer.

(f) Treated areas shall span the total width of compaction, as identified by the Authorized Officer. At least eighty (80) percent of the compacted soil profile shall be shattered. No more than fifty (50) percent of the treated compacted soil shall have clods greater than two inches in diameter, unless otherwise approved by the Authorized Officer.

(g) Sub-soiling shall not occur within a five foot radius of the boles of residual trees where major roots can be cut, mangled or pulled, unless otherwise directed by the Authorized Officer.

(h) Equipment shall not be allowed to operate on slopes in excess of thirty-five (35) percent or to cross streams or drainages unless approved by the Authorized Officer. Examples to the thirty-five (35) percent exception include situations such as small inclusions of steeper slopes, connecting trails to isolated ground-based harvest areas, or the use of existing trails that could be used without causing undue effects to the soil.

(5) The Purchaser shall immediately discontinue specified construction or timber harvesting operations upon written notice from the Contracting Officer that:

(a) threatened or endangered plants or animals protected under the Endangered Species Act of 1973, as amended, may be affected by the operation, and a determination is made that consultation or reinitiation of consultation is required concerning the species prior to continuing operation, or;

(b) when, in order to comply with the Endangered Species Act, the Contracting Officer determines it may be necessary to modify or terminate the contract, or;

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

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

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

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

(g) species have been discovered which were identified for protection through survey and manage and/or protection buffer standards and guidelines established in the Record of Decision (ROD) and Resource Management Plan (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 thirty (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 thirty (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 fifteen

(15) days after the bill for collection is issued, subject to Section 3(j) 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 thirty (30) days, the unamortized Out-of-Pocket Expenses for road or other construction required pursuant to Exhibit C of the contract shall be refunded or transferred to another BLM contract at the request of the Purchaser. Upon written notice from the Contracting Officer lifting the suspension, the Purchaser shall reimburse the Government the amounts refunded or transferred. The Purchaser may choose to pay this reimbursement at once or in installments payable at the same time as payments are due for the timber under the contract and in amounts approximately equal to the expenses associated with the timber for which payment is due.

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

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

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

The Purchaser specifically and expressly waives any right to claim damages, other than those described in the preceding paragraph, 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.

Section 42(D) Road Construction - Maintenance – Use:

(1) The Purchaser shall construct and renovate all roads in strict accordance with the plans and specifications shown on Exhibit C. All native surfaced spurs and roads to be constructed or renovated shall be used for harvest operations by October 15 of each calendar year, then decommissioned in the same respective operating season. Decommissioning may include water barring, slashing and blocking. Refer to Exhibit D for details. Any required construction or renovation of structures and roads shall be completed and accepted, in accordance with Section 18, prior to the removal of any timber, except right-of-way timber, over that road.

(2) No road construction or renovation shall be conducted on the Contract Area between October 15 of one calendar year and May 15 of the following calendar year, both days inclusive (wet season), unless otherwise approved by the Authorized Officer.

(3) The Purchaser is authorized to use the roads listed and shown on Exhibit D which are under the jurisdiction of the Bureau of Land Management for the removal of Government timber sold under the terms of this contract, provided that the Purchaser pay the required maintenance and rockwear obligations described in Section 42(D)(4). Any road listed on the Exhibit D and requiring improvement or renovation on the Exhibit C of this contract shall be maintained by the Purchaser until receiving written acceptance of the improvement or renovation from the Authorized Officer. The Purchaser shall pay current Bureau of Land Management maintenance and rockwear fees for the sale of additional timber under modification to the contract.

(4) The Purchaser shall pay the Government a road maintenance and rockwear obligation in the amount of Fifteen thousand five hundred seventy-three and 24/100 dollars ($15,573.24) for the transportation of timber included in the contract price over roads listed and shown on Exhibit D, which are under the jurisdiction of the Bureau of Land Management. The above road maintenance and rockwear amount is for use of Fifteen and seven tenths (15.7) 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 Section 3 of this contract.

(5) The Purchaser shall perform any required road repair and maintenance work on roads used by them, under the terms of Exhibit D of this contract, which is attached hereto and made a part hereof.

(6) The Purchaser also 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.

IF OTHER THAN LONE ROCK TIMBERLAND COMPANY PURCHASES:

(7) In the use of Road No. 29-8-27.0 Segments A2 and B (portion), as shown on Exhibit D, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. R-768, dated September 17, 1964, between the United States of America and Lone Rock Timberland

Company. This document is available for inspection at the Bureau of Land Management, Roseburg District Office, 777 NW Garden Valley Blvd., Roseburg, Oregon 97471.

These conditions include:

(a) Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a copy of the executed license agreement.

(b) 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.

(c) Payment of a rockwear fee in the amount of Fifty five and 37/100 dollars ($55.37)

IF OTHER THAN MOORE MILL and LUMBER COMPANY PURCHASES:

(8) In the use of Road No. 30-8-9.6 Segment A, as shown on Exhibit D, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. C-364, dated July 2, 1962, between the United States of America and Moore Mill and Lumber Company. This document is available for inspection at the Bureau of Land Management, Roseburg District Office, 777 NW Garden Valley Blvd., Roseburg, Oregon 97471.

These conditions include:

(a) Prior to the use of said roads, the Purchaser shall furnish the Authorized Officer a copy of the executed license agreement.

(b) Payment of a road use obligation in the amount of Four hundred twenty and18/100 dollars ($420.18).

(c) Payment of a rockwear fee in the amount of Eight and 75/100 dollars ($8.75).

(d) 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.

IF MOORE MILL and LUMBER COMPANY PURCHASES:

(9) In accordance with 43 CFR 2812.6-2(a)(5), the following allowances have been made for amortization on capital investment of the roads covered by Road Agreement No. C-364 with the Purchaser; Four hundred twenty and18/100 dollars ($420.18) for Road No. 30-8-9.6 Segment A. It is understood that the purchase price stated in Sec. 2 of this contract is the net price and no deductions will be made from the purchase price because of such allowances.

IF OTHER THAN DOUGLAS COUNTY PURCHASES

(10) In the construction of Road No. 29-9-23.8 Segment B, as shown on Exhibit D, the Purchaser shall comply with the conditions of Right-of-Way and Road Use Agreement No. R-1533, dated October 27, 2014, between the United States of America and Douglas County, Oregon. This document is available for inspection at the Bureau of Land Management, Roseburg District Office, 777 NW Garden Valley Blvd., Roseburg, Oregon 97471.

These conditions include:

(a) Prior to cutting or removing any Right of Way timber from Road No. 29-9-23.8 Segment B the Purchaser shall pay Douglas County, the owner of the Right-of-Way timber, the total value of that timber as shown below based upon the indicated estimated volume and species per unit used in the Government's contract as set forth on Exhibit B.

Species	Estimated Volume M. bd. ft.	Price Per M. bd. ft.	Estimated Volume times Unit Price
Douglas-fir	5	*	*
Grand Fir	3.5	*	*
Incense Cedar	0.5	*	*
Western Hemlock	0.3	*	*

*** These figures will not be available until after the timber sale.**

(b) 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.

Section 42(E) Fire Prevention and Control:

(1) Primarily for purposes of fire prevention and control, the Purchaser shall, prior to the operation of power driven equipment in construction or logging operations under this contract during the closed fire season or periods of fire danger, prepare a fire prevention and control plan to the satisfaction of the Authorized Officer.

Section 42(F) Slash Disposal and Site Preparation:

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

(a) Prior to commencement of any operation under Section (42)(F) (Slash Disposal and Site Preparation) of this contract, a slash disposal prework 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 the prework conference.

(b) Slash, as defined for this section, shall mean all material (brush, limbs, tops, unmerchantable stems, and chunks) severed or knocked over as a result of Purchaser's operations under the terms of this contract.

(c) Machine pile all slash yarded to the landings and within fifty (50) feet of all landings. Piling is to be completed within thirty (30) days of the completion of yarding for each landing. Piles are to be tight and free of dirt.

(d) Cover each landing pile with a minimum ten (10) foot by ten (10) foot sheet of four (4) mil. black plastic, unless otherwise directed by the Authorized Officer, to meet ignition and combustion needs. The cover shall be firmly fixed or weighed down to hold in place. Covering shall be done concurrently with piling.

Section 42(G) Log Exports:

(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 Authorized 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.

Camas Blooms Seasonal Restrictions Matrix

ORR05-TS-2015.0002 (Page 1 of 3)

Restricted Times Are Darkly Shaded

Daily Operating Restricted Times Are Slashed (operations must begin two hours after sunrise and must conclude two hours before sunset)

Sale Area	Activity	Jan		Feb		Mar		Apr		May		June		July		Aug			Sept		Oct		Nov		Dec	
		1	15	1	15	1	15	1	15	1	16	1	15	1	16	1	6	15	1	16	1	15	1	15	1	15
Harvest Area 1	Falling and bucking[3,4,5]																/	/	/							
	Ground-based yarding and sub-soiling[1,3,4,5]																/	/	/							
	Cable yarding on rock roads[3,4,5]																/	/	/							
	Loading or hauling rock roads[4,5]																/	/	/							
Harvest Area 2	Falling and bucking[3]																									
	Ground-based yarding and sub-soiling[1,3]																									
	Loading or hauling on native surface roads[3]																									
	Loading or hauling on rock roads																									
	Road construction or renovation[2]																									
Harvest Area 3	Falling and bucking[3,4,5]																/	/	/							
	Cable yarding on rock roads[3,4,5]																/	/	/							
	Loading or hauling on rock roads[4,5]																/	/	/							
Harvest Area 4	Falling and bucking[3,5]							/	/	/	/	/	/	/	/	/										
	Cable yarding on rock roads[3,5]							/	/	/	/	/	/	/	/	/										
	Loading or hauling on rock roads[5]							/	/	/	/	/	/	/	/	/										
Harvest Area 5	Falling and bucking[3,5]							/	/	/	/	/	/	/	/	/										
	Ground-based yarding and sub-soiling[1,3,5]							/	/	/	/	/	/	/	/	/										
	Loading or hauling rock roads[5]							/	/	/	/	/	/	/	/	/										
Harvest Area 6	Falling and bucking[3,5]							/	/	/	/	/	/	/	/	/										
	Ground-based yarding and sub-soiling[1,3,5]							/	/	/	/	/	/	/	/	/										
	Cable yarding on rock roads[3,5]							/	/	/	/	/	/	/	/	/										
	Loading or hauling native surface roads[2,5]							/	/	/	/	/	/	/	/	/										
	Road construction or renovation[2,5]							/	/	/	/	/	/	/	/	/										

[1]Wet season restriction: ground-based yarding (October 15 –July 15) may be shortened or extended depending on weather conditions.

[2]Wet season restriction: native surface roads and road construction (October 15-May 15) may be shortened or extended depending on weather conditions

[3]Bark slip seasonal restriction (April 15 – July 15) may be conditionally waived.

[4]Marbled murrelet seasonal restriction (April 1 – August 5), see Exhibit E

[5]Marbled murrelet DOR (operations scheduled from two hours after sunrise to two hours before sunset), see Exhibit E .

Camas Blooms Seasonal Restrictions Matrix

ORR05-TS-2015.0002 (Page 2 of 3)

Restricted Times Are Darkly Shaded

/ Daily Operating Restricted Times Are Slashed (operations must begin two hours after sunrise and must conclude two hours before sunset)

Sale Area	Activity	Jan		Feb		Mar		Apr		May		June		July		Aug			Sept		Oct		Nov		Dec	
		1	15	1	15	1	15	1	15	1	16	1	15	1	16	1	6	15	1	16	1	15	1	15	1	15
Harvest Area 7	Falling and bucking[3,5]							/	/	/	/	/	/	/	/	/										
	Ground-based yarding and sub-soiling[1,3,5]							/	/	/	/	/	/	/	/	/										
	Cable yarding on rock roads[3,5]							/	/	/	/	/	/	/	/	/										
	Loading or hauling on rock roads[5]							/	/	/	/	/	/	/	/	/										
	Road construction or renovation[2,5]							/	/	/	/	/	/	/	/	/										
Harvest Area 8	Falling and bucking[3,5]							/	/	/	/	/	/	/	/	/										
	Cable yarding on rock roads[3,5]							/	/	/	/	/	/	/	/	/										
	Loading or hauling on rock roads[5]							/	/	/	/	/	/	/	/	/										
	Road construction or renovation[2,5]							/	/	/	/	/	/	/	/	/										
Harvest Area 9	Falling and bucking[3]																									
	Ground-based yarding and sub-soiling[1,3]																									
	Loading or hauling on native surface roads[2]																									
	Loading or hauling on rock/paved roads																									
	Road construction or renovation[2]																									
Harvest Area10	Falling and bucking[3,4,5]																/	/	/							
	Ground-based yarding and sub-soiling[1,3,4,5]																/	/	/							
	Cable yarding on rock/paved roads[3,4,5]																/	/	/							
	Loading or hauling rock/paved roads[4,5]																/	/	/							
	Road construction or renovation[2,4,5]																/	/	/							

[1]Wet season restriction: ground-based yarding (October 15 –July 15) may be shortened or extended depending on weather conditions.

[2]Wet season restriction: native surface roads and road construction (October 15-May 15) may be shortened or extended depending on weather conditions

[3]Bark slip seasonal restriction (April 15 – July 15) may be conditionally waived.

[4]Marbled murrelet seasonal restriction (April 1 – August 5), see Exhibit E map for restricted portions of harvest areas.

[5]Marbled murrelet DOR (operations scheduled from two hours after sunrise to two hours before sunset), see Exhibit E

Camas Blooms Seasonal Restrictions Matrix

ORR05-TS-2015.0004 (Page 3 of 3)

Restricted Times Are Darkly Shaded

Daily Operating Restricted Times Are Slashed (operations must begin two hours after sunrise and must conclude two hours before sunset)

Sale Area	Activity	Jan		Feb		Mar		Apr		May		June		July		Aug			Sept		Oct		Nov		Dec	
		1	15	1	15	1	15	1	15	1	16	1	15	1	16	1	6	15	1	16	1	15	1	15	1	15
Harvest Area 11	Falling and bucking[3]																									
	Ground-based yarding and sub-soiling[1,3]																									
	Cable yarding on native surface roads[2,3]																									
	Loading or hauling on native surface roads[2]																									
	Road construction or renovation[2]																									
Harvest Area 12	Falling and bucking[3,5]							/	/	/	/	/	/	/	/	/										
	Ground-based yarding and sub-soiling[1,3,5]							/	/	/	/	/	/	/	/	/										
	Cable yarding on native surface roads[2,3,5]							/	/	/	/	/	/	/	/	/										
	Loading or hauling on native surface roads[2,5]							/	/	/	/	/	/	/	/	/										
	Loading or hauling on rock surface roads[5]							/	/	/	/	/	/	/	/	/										
	Road construction or renovation[2,5]							/	/	/	/	/	/	/	/	/										
Harvest Area 13	Falling and bucking[3,4,5,6]																/	/	/							
	Cable yarding on rocked roads[3,4,5,6]																/	/	/							
	Loading or hauling on rock surface roads[4,5]																/	/	/							
	Road construction or renovation[2,4,5]																/	/	/							

[1]Wet season restriction: ground-based yarding (October 15 –July 15) may be shortened or extended depending on weather conditions.

[2]Wet season restriction: native surface roads and road construction (October 15-May 15) may be shortened or extended depending on weather conditions

[3]Bark slip seasonal restriction (April 15 – July 15) may be conditionally waived.

[4]Marbled murrelet seasonal restriction (April 1 – August 5), see Exhibit E

[5]Marbled murrelet DOR (operations scheduled from two hours after sunrise to two hurs before sunset), see Exhibit E

[6] NSO seasonal restriction (February 1-July15) see Exhibit E for portion of unit restricted

Note: This matrix is intended to serve prospective purchasers as a guide only.
Refer to the contract Special Provisions for a full statement of the seasonal operating restrictions.

Form 5440-9
(July 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0113
Expires: July 31, 1992

DEPOSIT AND BID FOR ☒ **TIMBER*** ☐ **VEGETATIVE RESOURCE (Other Than Timber)**

LUMP SUM SALE

Tract Number **(1) 2015.0002**
Sale Name **Camas Blooms**
Sale Notice *(dated)* **Dec. 30, 2014 (sale date 01/27/2015)**
BLM District **Roseburg**

☐ Sealed Bid for Sealed Bid Sale ☒ 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 $ **71,500.00** and is enclosed in 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 (Est. Volume MBF 16' Log)			ORAL BID MADE	
PRODUCT SPECIES	UNIT	ESTIMATED VOLUME OR QUANTITY	UNIT PRICE	TOTAL VALUE	UNIT PRICE	TOTAL VALUE
Douglas-fir	MBF	2,640	x ____ =		x ____ =	
Grand Fir	MBF	1,055	x ____ =		x ____ =	
Ponderosa Pine	MBF	75	x ____ =		x ____ =	
Western Hemlock	MBF	21	x ____ =		x ____ =	
Incense-cedar	MBF	20	x ____ =		x ____ =	
Western Redcedar	MBF	12	x ____ =		x ____ =	
	MBF		x ____ =		x ____ =	
	MBF		x ____ =		x ____ =	
	MBF		x ____ =		x ____ =	
	MBF		x ____ =		x ____ =	
	MBF		x ____ =		x ____ =	
	MBF		x ____ =		x ____ =	
	MBF		x ____ =		x ____ =	
	MBF		x ____ =		x ____ =	
Total	**MBF**	**3,823**	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	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

The Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et. seq.) requires us to inform you that:

This information is being collected to obtain data relevant to the operation of this timber sale contract.
This information will be used to administer our timber sale program.
Response to this request is required to obtain a benefit.

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 timer or vegetative resources.

BURDEN HOURS STATEMENT

Public reporting burden for this form is estimated to average 1 hr. 15 min. per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S Department of the Interior, Bureau of Land Management, (Alternate) Bureau Clearance Officer, (WO-771), 18 and C Streets, N.W. Washington, D.C. 20240, and the Office of Management and Budget, Paperwork Reduction Project (1004-0113), Washington, D.C. 20503.

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 desposit 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.*

**Applies to Timber Only*

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.

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: 1990—832-998

Department of Interior
Bureau of Land Management

Exhibit A

Camas Blooms

Contract # ORR05-TS-2015.0002

Township 28 South, Range 8 West, Willamette Meridian
Township 29 South, Range 8 and 9 West, Willamette Meridian
Township 30 South, Range 8 West, Willamette Meridian

AREA	THINNING ACRES	HARVEST METHOD
1	24	CABLE / GROUND-BASED
2	23	GROUND-BASED
3	12	CABLE
4	12	CABLE
5	9	GROUND-BASED
6	23	CABLE / GROUND-BASED
7	22	CABLE / GROUND-BASED
8	26	CABLE
9	2	GROUND-BASED
10	12	CABLE / GROUND-BASED
11	38	CABLE / GROUND-BASED
12	17	CABLE / GROUND-BASED
13	49	CABLE

THINNING AREA ---------- 269 Ac.
R/W AREA ---------- 2 Ac.
TOTAL HARVEST AREA ---------- 271 Ac.
RESERVE AREA ---------- 1110.53 Ac.
TOTAL CONTRACT AREA ---------- 1381.53 Ac.

NOTE:

1. HARVEST AREA BOUNDARIES ARE PAINTED ORANGE AND POSTED WITH WHITE "BOUNDARY OF TIMBER RESERVE" TAGS, EXCEPT ON PROPERTY LINES WHICH ARE PAINTED ORANGE OR FLAGGED, AND POSTED WITH ORANGE AND WHITE "TIMBER CUTTING BOUNDARY" TAGS.
2. BOUNDARIES OF RIGHTS-OF-WAY WITHIN OR TO HARVEST AREAS #7, #8, #10, #12 AND #13 ARE POSTED WITH "RIGHT-OF-WAY" TAGS AND PAINTED ORANGE.
3. RETENTION TREES ARE MARKED WITH ORANGE PAINT ABOVE AND BELOW STUMP HEIGHT.
4. APPROXIMATELY 83 ACRES ARE AVAILABLE FOR GROUND-BASED HARVEST.
5. TREES MARKED FOR CUTTING IN THE RESERVE AREA ARE PAINTED BLUE (APPROXIMATELY 87 TREES).
6. TREES TO BE CUT IN HARVEST AREA #9 ARE MARKED WITH BLUE PAINT ABOVE AND BELOW STUMP HEIGHT (APPROXIMATELY 180 TREES).

11-10-2014

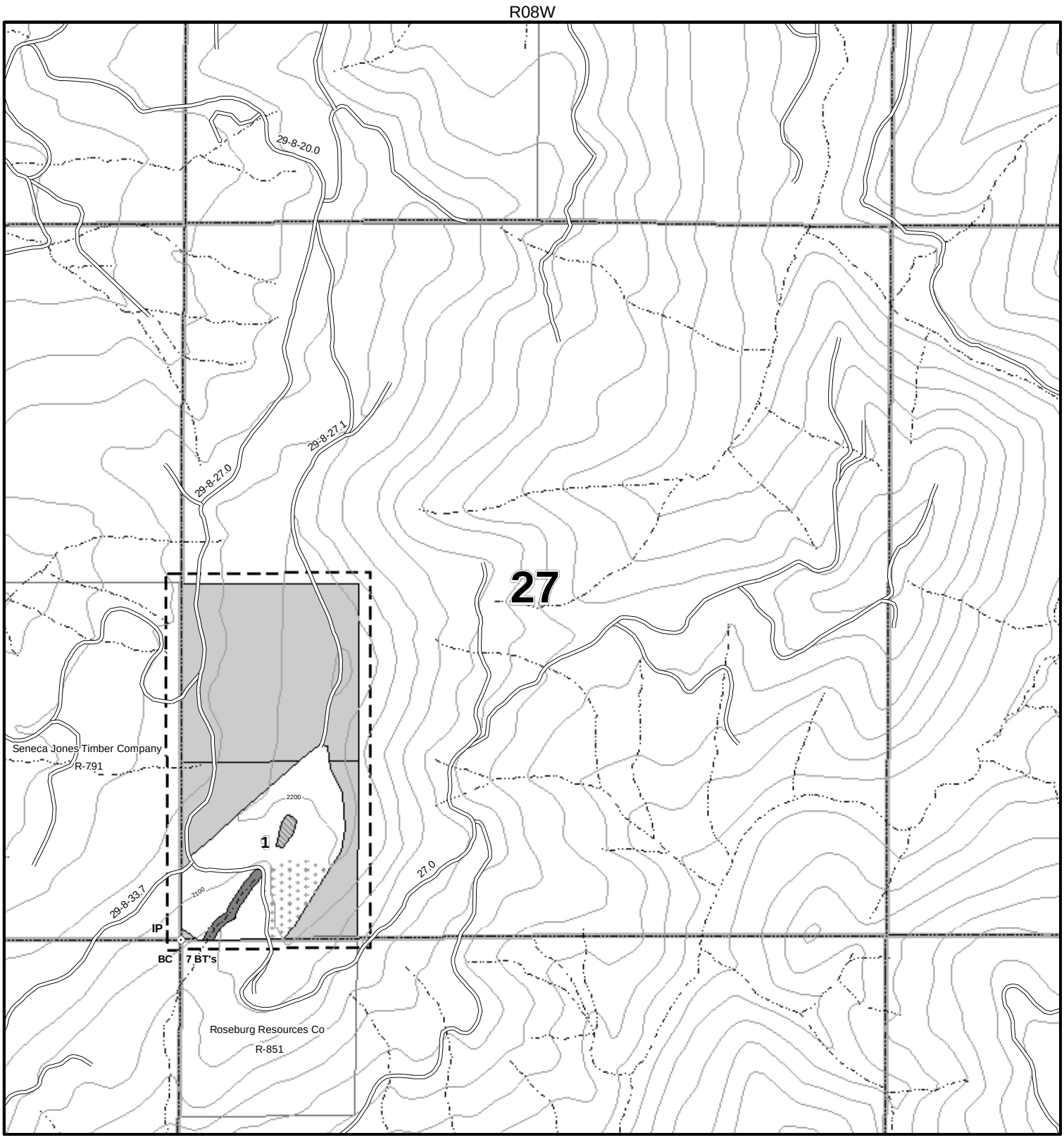
Bureau of Land Management

EXHIBIT A

Sheet 2 of 8

CAMAS BLOOMS

Contract # ORR05-TS-2015.0002



Legend

- Existing Road
- Streams
- Boundary of Contract Area
- 100ft Contour
- No Harvest Stream Buffer
- Reserve Area
- Retention Aggregate
- Harvest Area - Cable Yarding
- Harvest Area - Ground-Based
- Survey Corner Found

IP=Iron Pipe
BC=Brass Cap
BT=Bearing Tree

0 500 1,000 1,500 2,000

Feet

Date: 11/10/2014

Roseburg District
Bureau of Land Management
777 NW Garden Valley Blvd.
Roseburg, Oregon 97471

N W E S

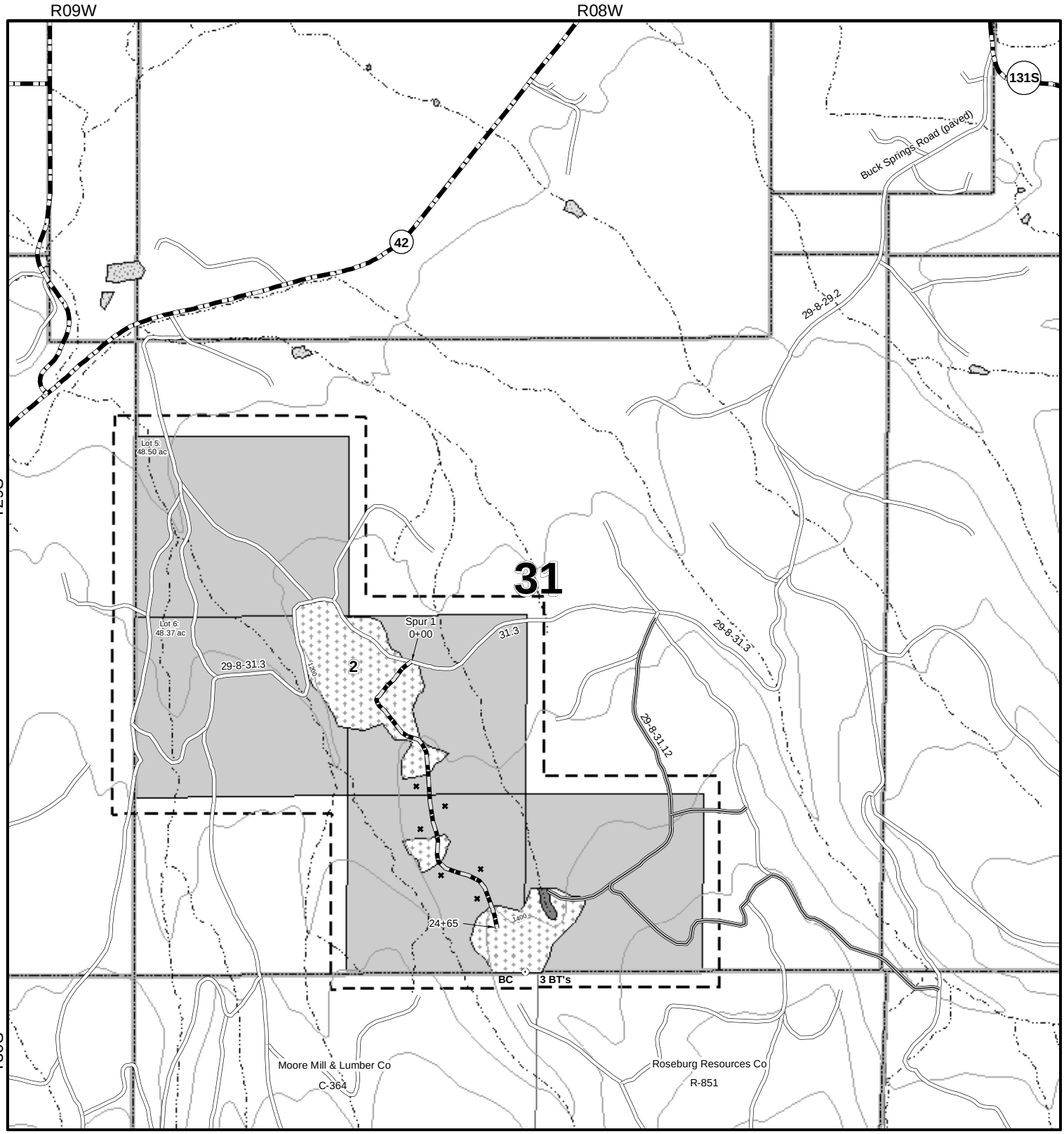
Bureau of Land Management

EXHIBIT A

Sheet 3 of 8

CAMAS BLOOMS

Contract # ORR05-TS-2015.0002



Legend

- Existing Road
- County Road / Highways
- Road to Renovate, Native
- Closed Road-Do Not Use
- Streams
- Boundary of Contract Area
- 100ft Contour
- No Harvest Stream Buffer
- Water Body
- Reserve Area
- Harvest Area - Cable Yarding
- Harvest Area - Ground-Based
- Trees Marked for Cutting in Reserve
- Survey Corners Found (BC=Brass Cap, BT=Bearing Tree)

0 500 1,000 1,500 2,000

Feet

Date: 11/10/2014

Roseburg District
Bureau of Land Management
777 NW Garden Valley Blvd.
Roseburg, Oregon 97471

N W E S

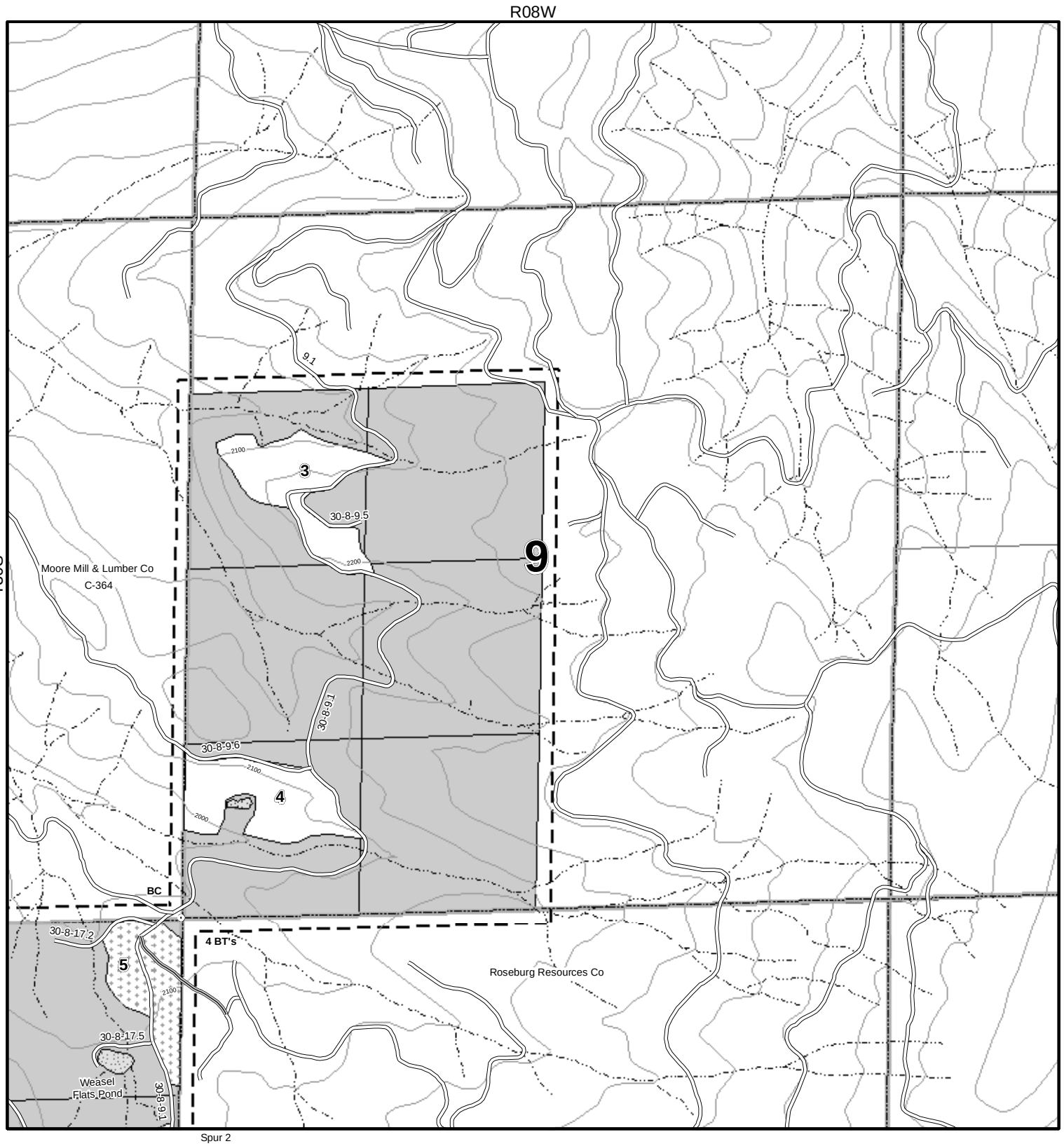
Bureau of Land Management

EXHIBIT A

Sheet 4 of 8

CAMAS BLOOMS

Contract # ORR05-TS-2015.0002



Legend

- Existing Road
- Closed Road-Do Not Use
- Streams
- Boundary of Contract Area
- 100ft Contour
- Water Body
- Reserve Area
- Harvest Area - Cable Yarding
- Harvest Area - Ground-Based
- Survey Corners Found — BC=Brass Cap, BT=Bearing Tree

0 500 1,000 1,500 2,000

Feet

Date: 11/12/2014

Roseburg District
Bureau of Land Management
777 NW Garden Valley Blvd.
Roseburg, Oregon 97471

N W E S

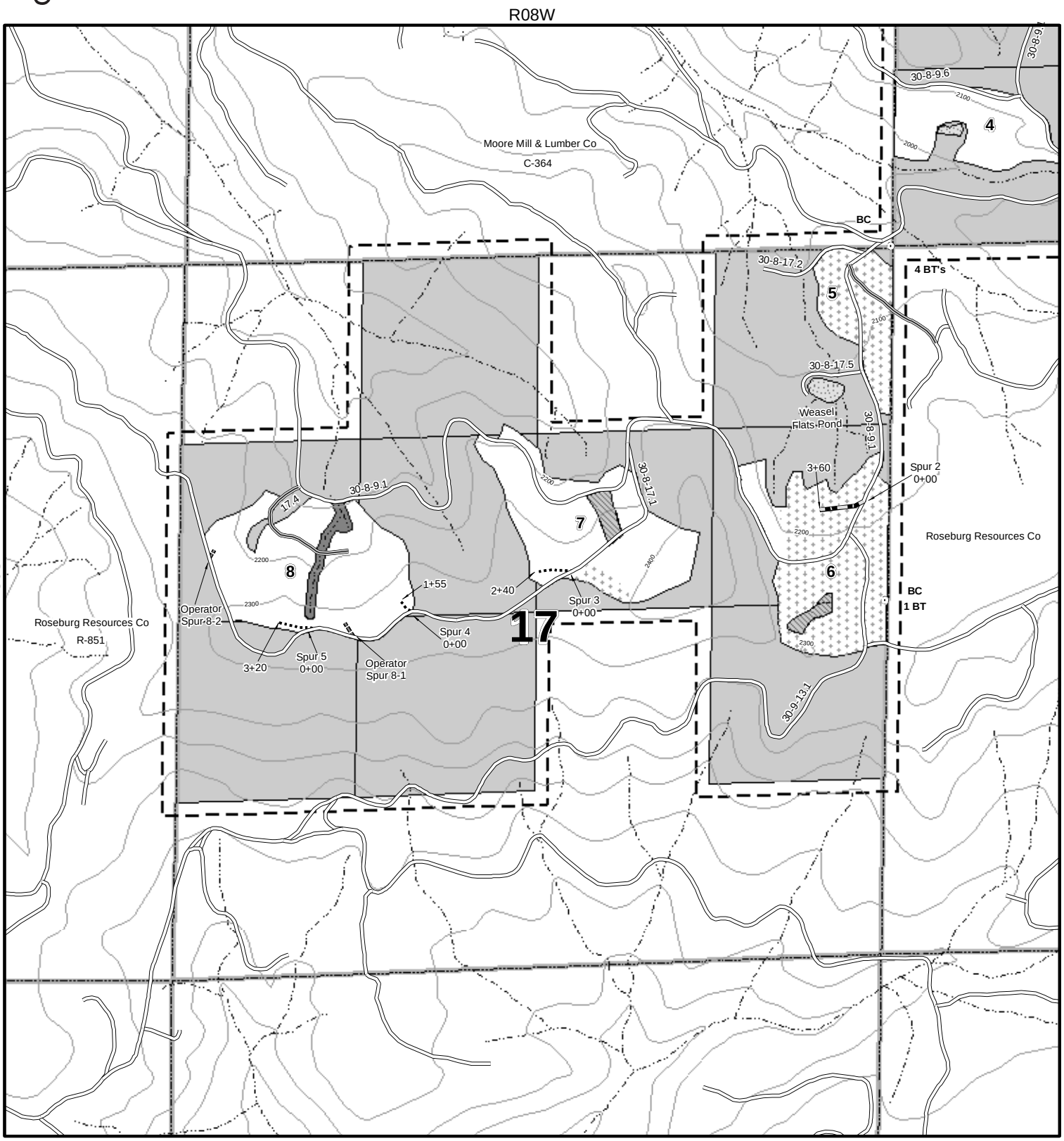
Bureau of Land Management

EXHIBIT A

Sheet 5 of 8

CAMAS BLOOMS

Contract # ORR05-TS-2015.0002



Legend

- Existing Road
- Road to Construct, Rock
- Road to Renovate, Native
- Closed Road-Do Not Use
- Optional Operator Spur
- Streams
- Boundary of Contract Area
- 100ft Contour
- No Harvest Stream Buffer
- Water Body
- Reserve Area
- Harvest Area - Cable Yarding
- Harvest Area - Ground-Based
- Retention Aggregates
- Survey Corner Found
  - BC=Brass Cap
  - BT=Bearing Tree

0 500 1,000 1,500 2,000

Feet

Date: 11/18/2014

Roseburg District
Bureau of Land Management
777 NW Garden Valley Blvd.
Roseburg, Oregon 97471

N W E S

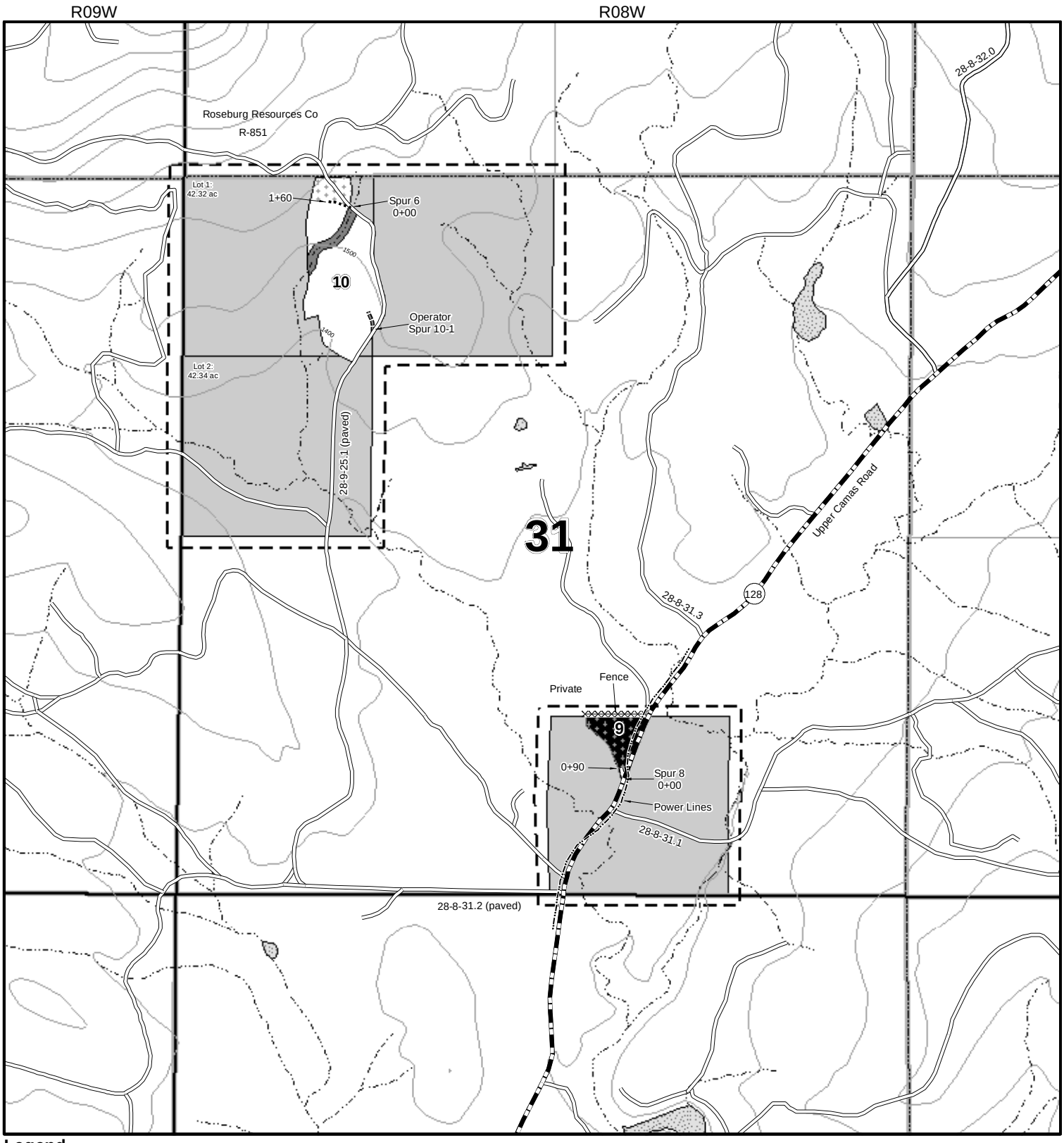
Bureau of Land Management

EXHIBIT A

Sheet 6 of 8

CAMAS BLOOMS

Contract # ORR05-TS-2015.0002



Legend

- Existing Road
- County Road / Highways
- Road to Renovate, Rock
- Road to Construct, Native
- Road to Construct, Rock
- Optional Operator Spur
- Streams
- Boundary of Contract Area
- Fence
- 100ft Contour
- No Harvest Stream Buffer
- Water Body
- Reserve Area
- Harvest Area - Cable Yarding
- Harvest Area - Ground-Based
- Harvest Area - Blue Marked Trees

0 500 1,000 1,500 2,000

Feet

Date: 11/20/2014

Roseburg District
Bureau of Land Management
777 NW Garden Valley Blvd.
Roseburg, Oregon 97471

N W E S

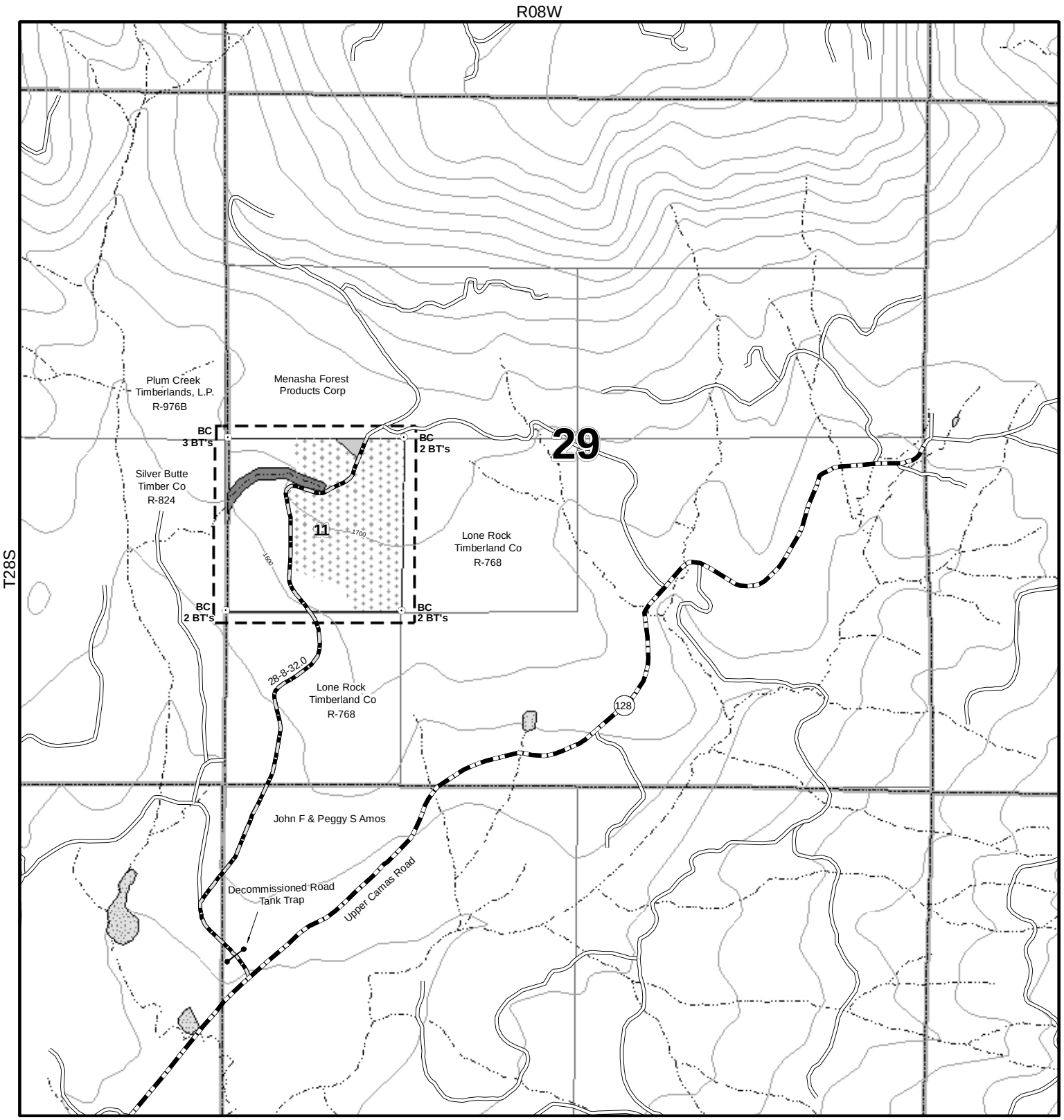
Bureau of Land Management

EXHIBIT A

Sheet 7 of 8

CAMAS BLOOMS

Contract # ORR05-TS-2015.0002



Legend

- Existing Road
- County Road / Highways
- Road to Renovate, Native
- Streams
- Boundary of Contract Area
- 100ft Contour
- No Harvest Stream Buffer
- Water Body
- Reserve Area
- Harvest Area - Cable Yarding
- Harvest Area - Ground-Based
- Survey Corners Found (BC=Brass Cap, BT=Bearing Tree)

0 500 1,000 1,500 2,000

Feet

Date: 10/28/2014

Roseburg District
Bureau of Land Management
777 NW Garden Valley Blvd.
Roseburg, Oregon 97471

N W E S

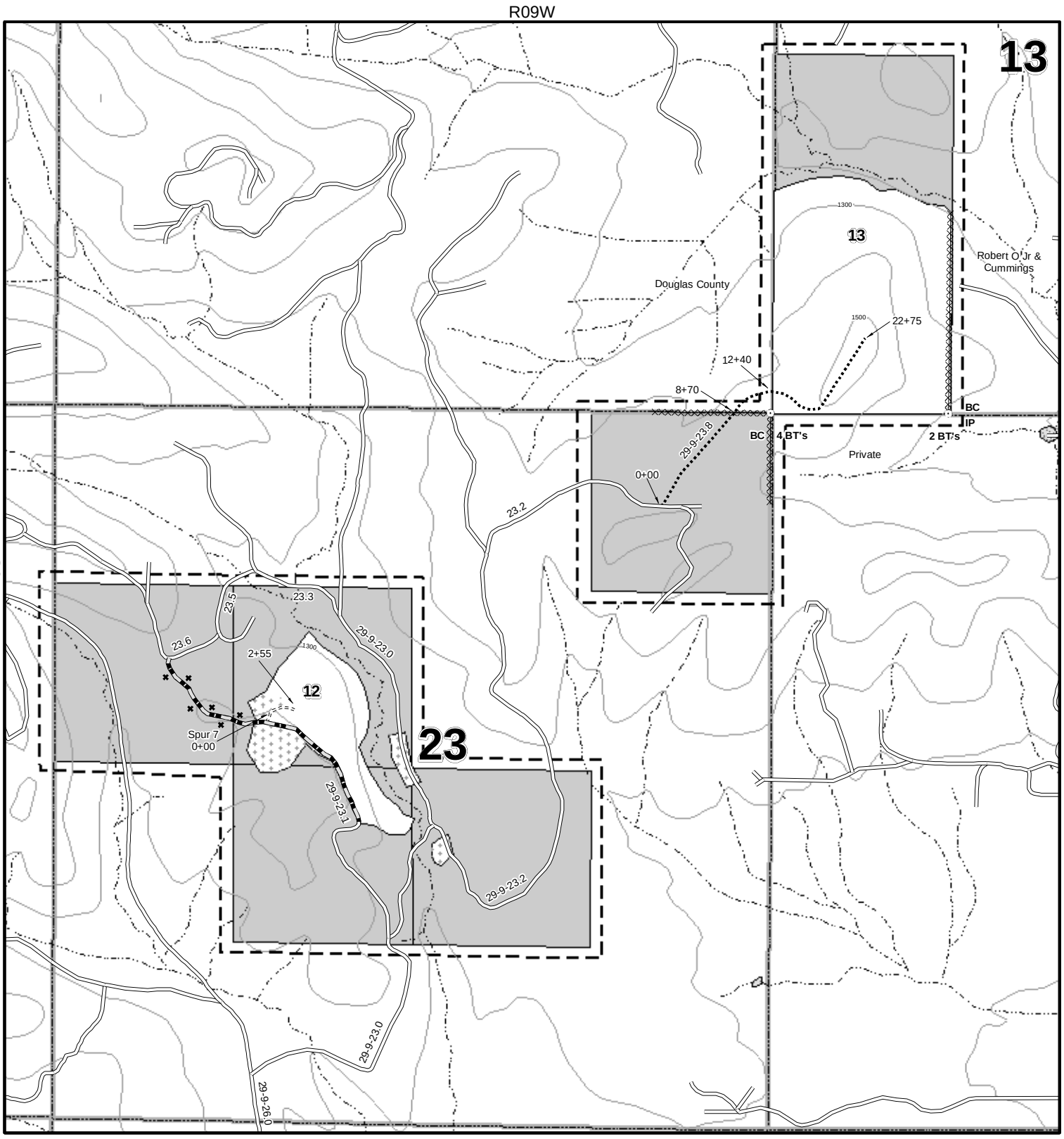
Bureau of Land Management

EXHIBIT A

Sheet 8 of 8

CAMAS BLOOMS

Contract # ORR05-TS-2015.0002



Legend

- Existing Road
- Road to Construct, Rock
- Road to Renovate, Native
- Streams
- Boundary of Contract Area
- Fence
- 100ft Contour
- Water Body
- Reserve Area
- Harvest Area - Cable Yarding
- Harvest Area - Ground-Based
- Survey Corner Found (IP=Iron Pipe, BC=Brass Cap, BT=Bearing Tree)
- Trees Marked for Cutting in Reserve

0 500 1,000 1,500 2,000

Feet

Date: 11/10/2014

Roseburg District
Bureau of Land Management
777 NW Garden Valley Blvd.
Roseburg, Oregon 97471

Form 5450-3a

(February 1986)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

EXHIBIT B / PRE-SALE

5450-3

Contract No.

ORR05-TS-2015.0002

Camas Blooms

The following estimates and calculations of value of timber sold are made solely as an administrative aid for determining: (1) adjustments made or credits given in accordance with Secs. 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 as provided in Sec. 2, Purchaser shall be liable for total purchase price even though 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 **Exhibit A.**

SPECIES	ESTIMATED VOLUME OR QUANTITY *(Units Specified)*		PRICE PER UNIT	ESTIMATED VOLUME OR QUANTITY X UNIT PRICE
Douglas Fir	2,640.0	MBF	$215.20	$568,128.00
Grandfir	1,055.0	MBF	$130.40	$137,572.00
Ponderosa Pine	75.0	MBF	$32.60	$2,445.00
Western Hemlock	21.0	MBF	$100.80	$2,116.80
Incense-cedar	20.0	MBF	$81.40	$1,628.00
Western Redcedar	12.0	MBF	$249.60	$2,995.20
TOTALS	3,823.0	MBF		$714,885.00

The apportionment of the total purchase price is as follows:

Unit 1

Douglas Fir	332.0	MBF	X	$215.20	=	$71,446.40
Grandfir	75.0	MBF	X	$130.40	=	$9,780.00
Ponderosa Pine	2.0	MBF	X	$32.60	=	$65.20
Incense-cedar	3.0	MBF	X	$81.40	=	$244.20
Total	412.0 Mbf					$81,535.80 ÷ 24.0 acres = $3,397.33/Acre

Unit 2

Douglas Fir	165.0	MBF	X	$215.20	=	$35,508.00
Grandfir	207.0	MBF	X	$130.40	=	$26,992.80
Western Hemlock	3.0	MBF	X	$100.80	=	$302.40
Incense-cedar	1.0	MBF	X	$81.40	=	$81.40
Total	376.0 Mbf					$62,884.60 ÷ 23.0 acres = $2,734.11/Acre

Unit 3

Douglas Fir	144.0	MBF	X	$215.20	=	$30,988.80
Grandfir	27.0	MBF	X	$130.40	=	$3,520.80
Ponderosa Pine	1.0	MBF	X	$32.60	=	$32.60
Western Hemlock	3.0	MBF	X	$100.80	=	$302.40
Incense-cedar	1.0	MBF	X	$81.40	=	$81.40
Total	176.0 Mbf					$34,926.00 ÷ 12.0 acres = $2,910.50/Acre

Unit 4

Douglas Fir	131.0	MBF	X	$215.20	=	$28,191.20
Grandfir	3.0	MBF	X	$130.40	=	$391.20
Ponderosa Pine	7.0	MBF	X	$32.60	=	$228.20

The following estimates and calculations of value of timber sold are made solely as an administrative aid for determining: (1) adjustments made or credits given in accordance with Secs. 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 as provided in Sec. 2, Purchaser shall be liable for total purchase price even though 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 **Exhibit A.**

Total	141.0 Mbf				$28,810.60	÷ 12.0 acres = $2,400.88/Acre

Unit 5

Douglas Fir	84.0 MBF	X	$215.20	=	$18,076.80	
Grandfir	11.0 MBF	X	$130.40	=	$1,434.40	
Ponderosa Pine	11.0 MBF	X	$32.60	=	$358.60	
Incense-cedar	1.0 MBF	X	$81.40	=	$81.40	
Total	107.0 Mbf				$19,951.20	÷ 9.0 acres = $2,216.80/Acre

Unit 6

Douglas Fir	214.0 MBF	X	$215.20	=	$46,052.80	
Grandfir	37.0 MBF	X	$130.40	=	$4,824.80	
Ponderosa Pine	29.0 MBF	X	$32.60	=	$945.40	
Incense-cedar	1.0 MBF	X	$81.40	=	$81.40	
Total	281.0 Mbf				$51,904.40	÷ 23.0 acres = $2,256.71/Acre

Unit 7

Douglas Fir	212.0 MBF	X	$215.20	=	$45,622.40	
Grandfir	37.0 MBF	X	$130.40	=	$4,824.80	
Ponderosa Pine	19.0 MBF	X	$32.60	=	$619.40	
Western Hemlock	1.0 MBF	X	$100.80	=	$100.80	
Incense-cedar	2.0 MBF	X	$81.40	=	$162.80	
Western Redcedar	1.0 MBF	X	$249.60	=	$249.60	
Total	272.0 Mbf				$51,579.80	÷ 22.0 acres = $2,344.54/Acre

Unit 8

Douglas Fir	258.0 MBF	X	$215.20	=	$55,521.60	
Grandfir	88.0 MBF	X	$130.40	=	$11,475.20	
Ponderosa Pine	5.0 MBF	X	$32.60	=	$163.00	
Western Hemlock	7.0 MBF	X	$100.80	=	$705.60	
Incense-cedar	4.0 MBF	X	$81.40	=	$325.60	
Total	362.0 Mbf				$68,191.00	÷ 26.0 acres = $2,622.73/Acre

Form 5450-3a

(February 1986)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

EXHIBIT B / PRE-SALE

5450-3

Contract No.

ORR05-TS-2015.0002

Camas Blooms

The following estimates and calculations of value of timber sold are made solely as an administrative aid for determining: (1) adjustments made or credits given in accordance with Secs. 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 as provided in Sec. 2, Purchaser shall be liable for total purchase price even though 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 **Exhibit A.**

Unit 9						
Douglas Fir	13.0 MBF	X	$215.20	=	$2,797.60	
Grandfir	17.0 MBF	X	$130.40	=	$2,216.80	
Western Redcedar	1.0 MBF	X	$249.60	=	$249.60	
Total	31.0 Mbf				$5,264.00	÷ 2.0 acres = $2,632.00/Acre
Unit 10						
Douglas Fir	76.0 MBF	X	$215.20	=	$16,355.20	
Grandfir	87.0 MBF	X	$130.40	=	$11,344.80	
Incense-cedar	2.0 MBF	X	$81.40	=	$162.80	
Western Redcedar	4.0 MBF	X	$249.60	=	$998.40	
Total	169.0 Mbf				$28,861.20	÷ 12.0 acres = $2,405.10/Acre
Unit 11						
Douglas Fir	446.0 MBF	X	$215.20	=	$95,979.20	
Grandfir	190.0 MBF	X	$130.40	=	$24,776.00	
Incense-cedar	2.0 MBF	X	$81.40	=	$162.80	
Total	638.0 Mbf				$120,918.00	÷ 38.0 acres = $3,182.05/Acre
Unit 12						
Douglas Fir	126.0 MBF	X	$215.20	=	$27,115.20	
Grandfir	90.0 MBF	X	$130.40	=	$11,736.00	
Western Hemlock	3.0 MBF	X	$100.80	=	$302.40	
Western Redcedar	4.0 MBF	X	$249.60	=	$998.40	
Total	223.0 Mbf				$40,152.00	÷ 17.0 acres = $2,361.88/Acre
Unit 13						
Douglas Fir	366.0 MBF	X	$215.20	=	$78,763.20	
Grandfir	165.0 MBF	X	$130.40	=	$21,516.00	
Western Hemlock	3.0 MBF	X	$100.80	=	$302.40	
Western Redcedar	1.0 MBF	X	$249.60	=	$249.60	
Total	535.0 Mbf				$100,831.20	÷ 49.0 acres = $2,057.78/Acre
Unit RW						
Douglas Fir	73.0 MBF	X	$215.20	=	$15,709.60	
Grandfir	21.0 MBF	X	$130.40	=	$2,738.40	

Form 5450-3a

(February 1986)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

EXHIBIT B / PRE-SALE

5450-3

Contract No.

ORR05-TS-2015.0002

Camas Blooms

The following estimates and calculations of value of timber sold are made solely as an administrative aid for determining: (1) adjustments made or credits given in accordance with Secs. 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 as provided in Sec. 2, Purchaser shall be liable for total purchase price even though 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 **Exhibit A.**

Unit RW

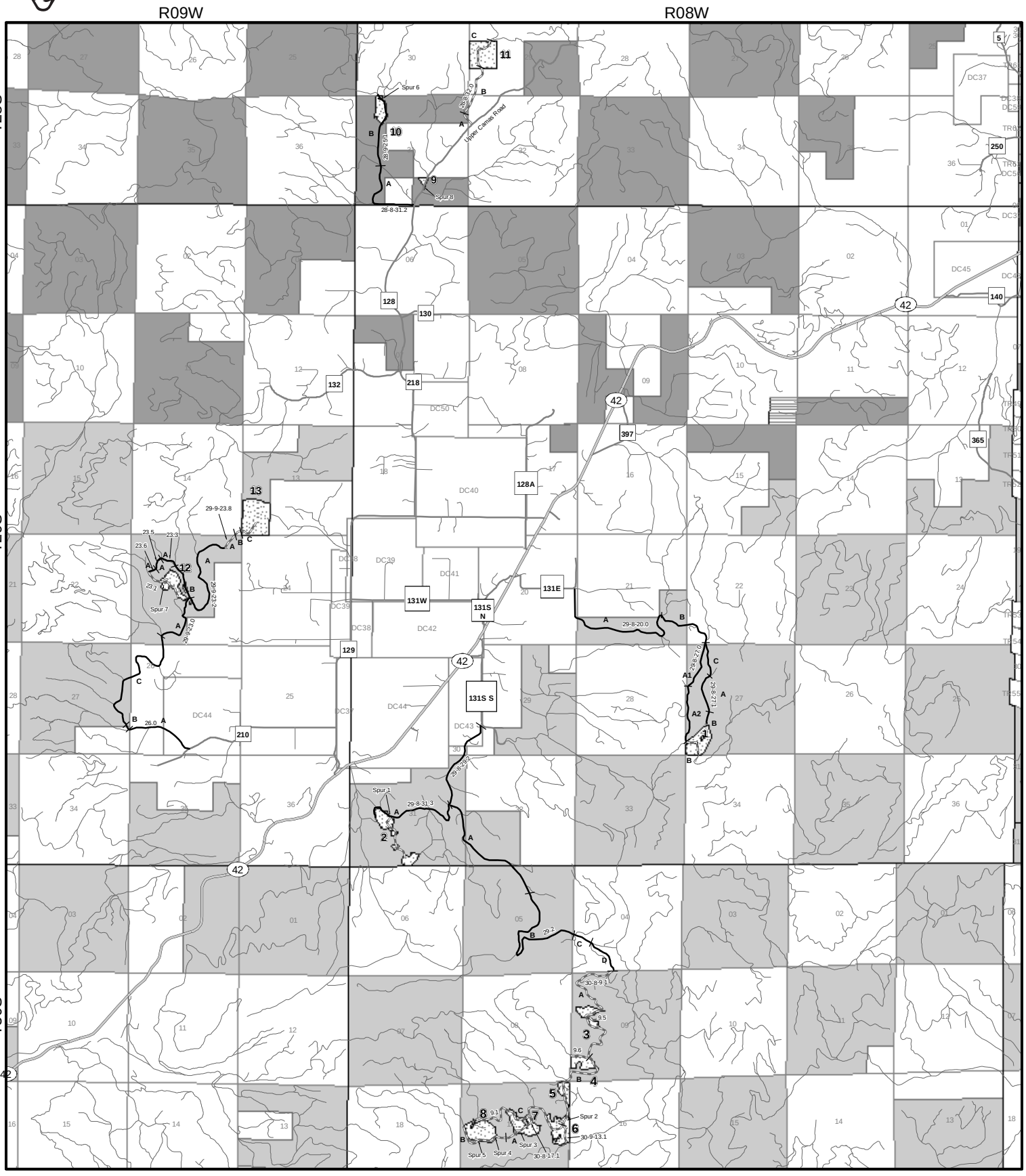
Ponderosa Pine	1.0	MBF	X	$32.60	=	$32.60
Western Hemlock	1.0	MBF	X	$100.80	=	$100.80
Incense-cedar	3.0	MBF	X	$81.40	=	$244.20
Western Redcedar	1.0	MBF	X	$249.60	=	$249.60
Total	100.0	Mbf			$19,075.20	÷ 2.0 acres = $9,537.60/Acre

Bureau of Land Management

EXHIBIT D

Camas Blooms

Contract # ORR05-TS-2015.0002



Legend

- Purchaser Maintenance
- BLM Maintenance
- Existing Road
- County Road
- State Highway
- Harvest Area
- BLM - Oregon and California Railroad
- BLM - Coos Bay Wagon Road
- BLM - Public Domain
- Non-BLM Land

0 0.5 1

Miles

Date: 11/20/2014

Roseburg District
Bureau of Land Management
777 NW Garden Valley Blvd.
Roseburg, Oregon 97471

N W E S

United States Department of the Interior
Bureau of Land Management Roseburg District
EXHIBIT D

Sale Name: Camas Blooms

Contract No. ORR05-TS-2015.0002

Road Number	Road Seg.	Segment Length	Segment Owner	Road Use Fees	Surface Type	Timber Haul Fees	Maintained By
28-8-31.2	A	0.36	BLM		BST	$1.17	BLM
28-8-32.0	A	0.10	BLM		Native		Purchaser
28-8-32.0	B	0.60	BLM		Native		Purchaser
28-8-32.0	C (Por)	0.23	BLM		Native		Purchaser
28-9-25.1	A	0.50	Coos Bay BLM		BST	$1.17	Coos Bay BLM
28-9-25.1	B (Por)	0.69	Coos Bay BLM		BST	$1.17	Coos Bay BLM
29-8-20.0	A	1.40	BLM		Rock	$1.46	BLM
29-8-20.0	B	0.60	BLM		Rock	$1.46	BLM
29-8-20.0	C	0.30	BLM		Rock	$1.46	BLM
29-8-27.0	A (Base)	1.00	BLM		Native	$0.97	BLM
29-8-27.0	A1 (Imp)	0.40	BLM		Rock	$0.49	BLM
29-8-27.0	A2 (Imp)	0.60	LRT	Free Use	Rock	$0.49	BLM
29-8-27.0	B (Por)	0.20	LRT	Free Use	Rock	$0.49	Purchaser
29-8-27.1	A	0.40	BLM		Rock	$1.46	BLM
29-8-27.1	B	0.10	BLM		Rock	$1.46	BLM
29-8-29.2	A	2.80	BLM		BST	$1.17	BLM
29-8-29.2	B	0.80	BLM		BST	$1.17	BLM
29-8-29.2	C	0.20	BLM		BST	$1.17	BLM
29-8-29.2	D (Por)	0.36	BLM		BST	$1.17	BLM
29-8-31.3	A (Por)	1.03	BLM		Rock	$1.46	BLM
29-9-23.0	A	0.59	BLM		Rock	$1.46	BLM
29-9-23.0	B	0.33	BLM		Rock	$1.46	BLM
29-9-23.1	A (Por)	0.40	BLM		Native		Purchaser
29-9-23.2	A (Por)	1.03	BLM		Rock	$1.46	BLM
29-9-23.3	A (Por)	0.14	BLM		Rock	$1.46	BLM
29-9-23.5	A (Por)	0.11	BLM		Rock	$1.46	BLM
29-9-23.6	A	0.10	BLM		Rock	$1.46	BLM
29-9-23.8	A	0.17	BLM		Rock	$0.49	Purchaser
29-9-23.8	B	0.07	BLM		Rock	$0.49	Purchaser
29-9-23.8	C	0.20	BLM		Rock	$0.49	Purchaser
29-9-26.0	A	0.64	BLM		Rock	$1.46	BLM
29-9-26.0	B	0.03	BLM		Rock	$1.46	BLM
29-9-26.0	C (Por)	1.16	BLM		Rock	$1.46	BLM
30-8-17.1	A	0.41	BLM		Rock	$0.49	Purchaser
30-8-17.1	B (Por)	0.53	BLM		Rock	$0.49	Purchaser
30-8-9.1	A	1.60	BLM		Rock	$0.49	Purchaser

United States Department of the Interior
Bureau of Land Management Roseburg District
EXHIBIT D

Sale Name: Camas Blooms

Contract No. ORR05-TS-2015.0002

Road Number	Road Seg.	Segment Length	Segment Owner	Road Use Fees	Surface Type	Timber Haul Fees	Maintained By
30-8-9.1	B	1.12	BLM		Rock	$0.49	Purchaser
30-8-9.1	C (Por)	1.18	BLM		Rock	$0.49	Purchaser
30-8-9.5	A	0.13	BLM		Rock	$0.49	Purchaser
30-8-9.6	A	0.19	Moore Mill	$4.47	Rock	$0.49	Purchaser
30-9-13.1	B (Por)	0.17	BLM		Rock	$0.49	Purchaser
Spur 1	A	0.47	BLM		Native		Purchaser
Spur 2	A	0.07	BLM		Native		Purchaser
Spur 3	A	0.05	BLM		Rock	$0.49	Purchaser
Spur 4	A	0.03	BLM		Rock	$0.49	Purchaser
Spur 5	A	0.06	BLM		Rock	$0.49	Purchaser
Spur 6	A	0.03	BLM		Rock	$0.49	Purchaser
Spur 7	A	0.05	BLM		Native		Purchaser
Spur 8	A	0.02	BLM		Native		Purchaser

ROAD MAINTENANCE SPECIFICATIONS

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

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

ROAD MAINTENANCE SPECIFICATIONS

GENERAL - 3000

3001 The Purchaser shall be required to maintain all roads listed and/or referenced in section 42(D) Special Provisions of this contract in accordance with Sections 3000, 3100, 3200, 3300, 3400, and 3500 of this exhibit.

3002 The Purchaser shall maintain the cross section of existing dirt or graveled roads to the existing geometric standards. Any roads required to be 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.

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.

ROAD MAINTENANCE SPECIFICATIONS

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

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

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

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

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

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

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

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

3108a The Purchaser shall perform logging operations on bituminous roadways only where the locations have been marked on the ground and/or approved by the Authorized Officer. Repair of the road(s) is not considered maintenance and shall be repaired at the Purchaser's expense.

ROAD MAINTENANCE SPECIFICATIONS

3109 The maximum allowable rut depth on aggregate surfaced roads is 2". Roads with ruts exceeding this requirement shall be bladed and brought back into conformance with the typical sections shown in the drawings. Rut depth shall be measured by centering a minimum 3 foot long straightedge across the wheel rut maintaining contact with the aggregate at both ends of the strait edge. The rut depth shall be the distance measured between the bottom of the strait edge and the lowest point of the wheel rut.

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 the Purchaser, prior to October 1 each year, except as specified in Subsection 3203, after initial commencement of construction or logging operations. Thereafter, all roads shall have continuous preventive maintenance and road cleanup until suspension of seasonal operations. This includes all roads used and not used during the proceeding operating seasons.

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

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

FINAL MAINTENANCE - 3300

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

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

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

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

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

OTHER MAINTENANCE - 3400

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

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

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

DECOMMISSIONING – 3500

3501 Decommissioning shall consist of removing culverts, installing water bars, placement of slash, blocking road from access by vehicles. This work is required for road acceptance under Section 18 of this contract.

ROAD MAINTENANCE SPECIFICATIONS

3503 Decommissioning shall be performed on existing roads in accordance with these specifications, and as shown on the Exhibit D Trench Barrier and Waterbar Details at the following locations:

Road No	From Sta	To Sta	Method of Decommissioning
28-8-32.0	0+00	47+00	Blade, waterbar, and block
29-9-23.1	0+00	21+30	Waterbar, remove culverts, slash mulch, and block
Spur 1	0+00	23+65	Waterbar, slash mulch, and block
Spur 2	0+00	3+60	Waterbar, slash mulch, and block
Spur 3	0+00	2+40	Blade, waterbar, and block
Spur 4	0+00	1+55	Blade, waterbar, and block
Spur 5	0+00	3+20	Blade, waterbar, and block
Spur 6	0+00	1+60	Blade, waterbar, and block
Spur 7	0+00	2+55	Waterbar, slash mulch, and block
Spur 8	0+00	0+90	Waterbar, slash mulch, and block

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

3508 Protect areas 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 at locations listed in Section 3503.

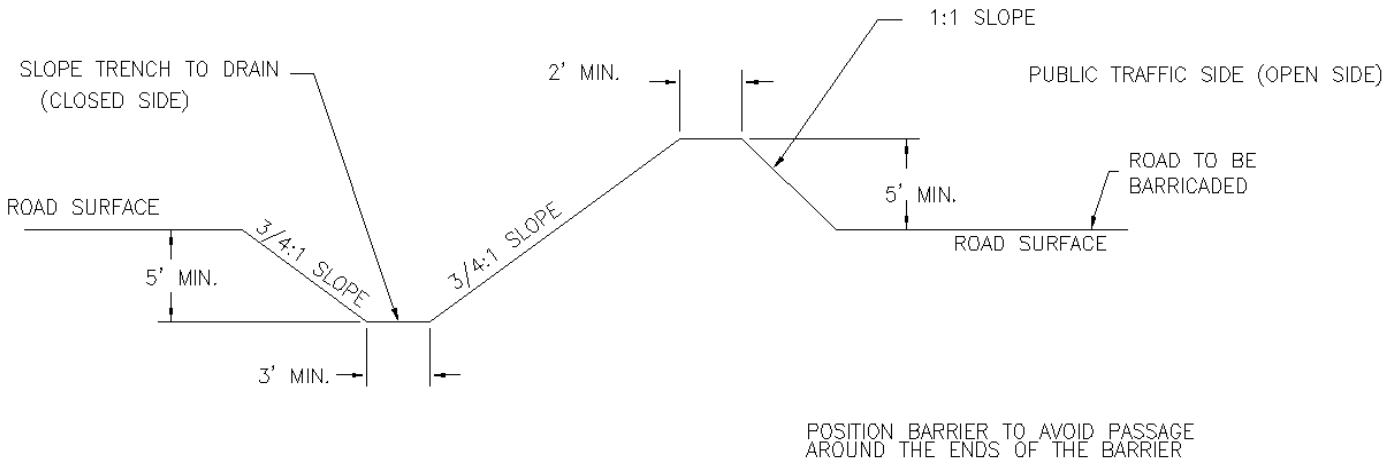
3511 Water barring shall be done on designated roadways, turnouts, disturbed areas, and landings.

3513 Water bars shall be installed across full width of roadway at the spacing shown on the Exhibit D Waterbar Detail sheet.

3514 Protection of exposed surfaces shall be accomplished by placement of slash described in Subsection 3506 or placement of soil stabilization material in accordance with Section 1800 on designated roadways 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.

ROAD MAINTENANCE SPECIFICATIONS

EXHIBIT D
TRENCH BARRIER DETAIL

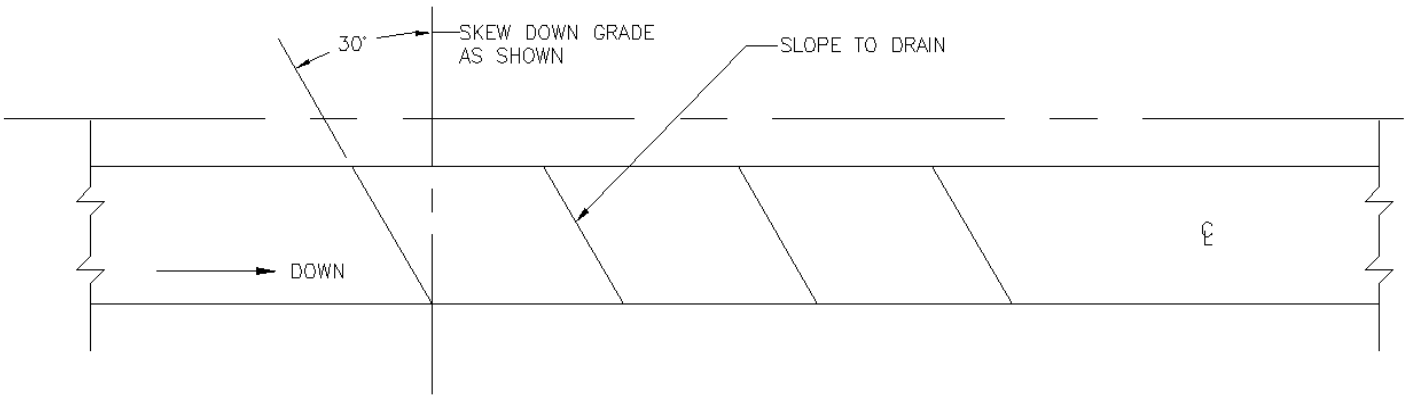


POSITION BARRIER TO AVOID PASSAGE
AROUND THE ENDS OF THE BARRIER

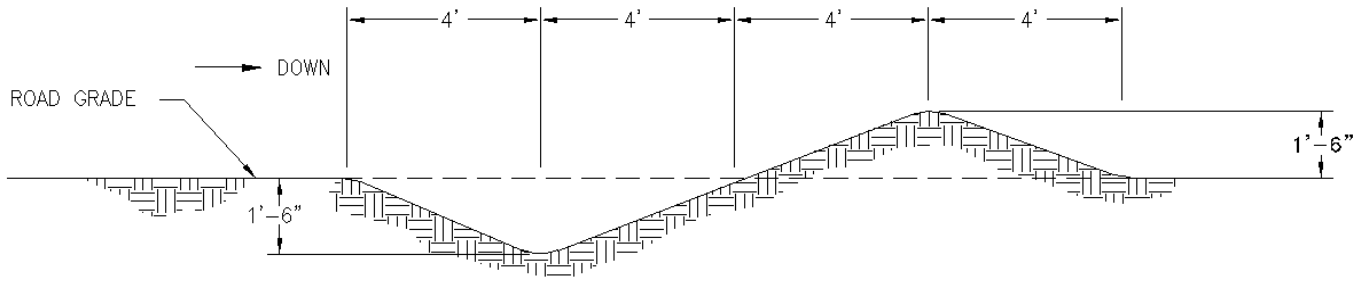
TRENCH BARRIER
SCALE: NONE

ROAD MAINTENANCE SPECIFICATIONS

EXHIBIT D
WATERBAR DETAIL



ROAD PLAN
SCALE: NONE



WATERBAR SPACING IN FEET	
ROAD GRADIENT IN %	SPACING
3 TO 5	300
6 TO 10	200
11 TO 15	150
16 TO 20	75
21 TO 35	50

ROAD PROFILE
SCALE: NONE

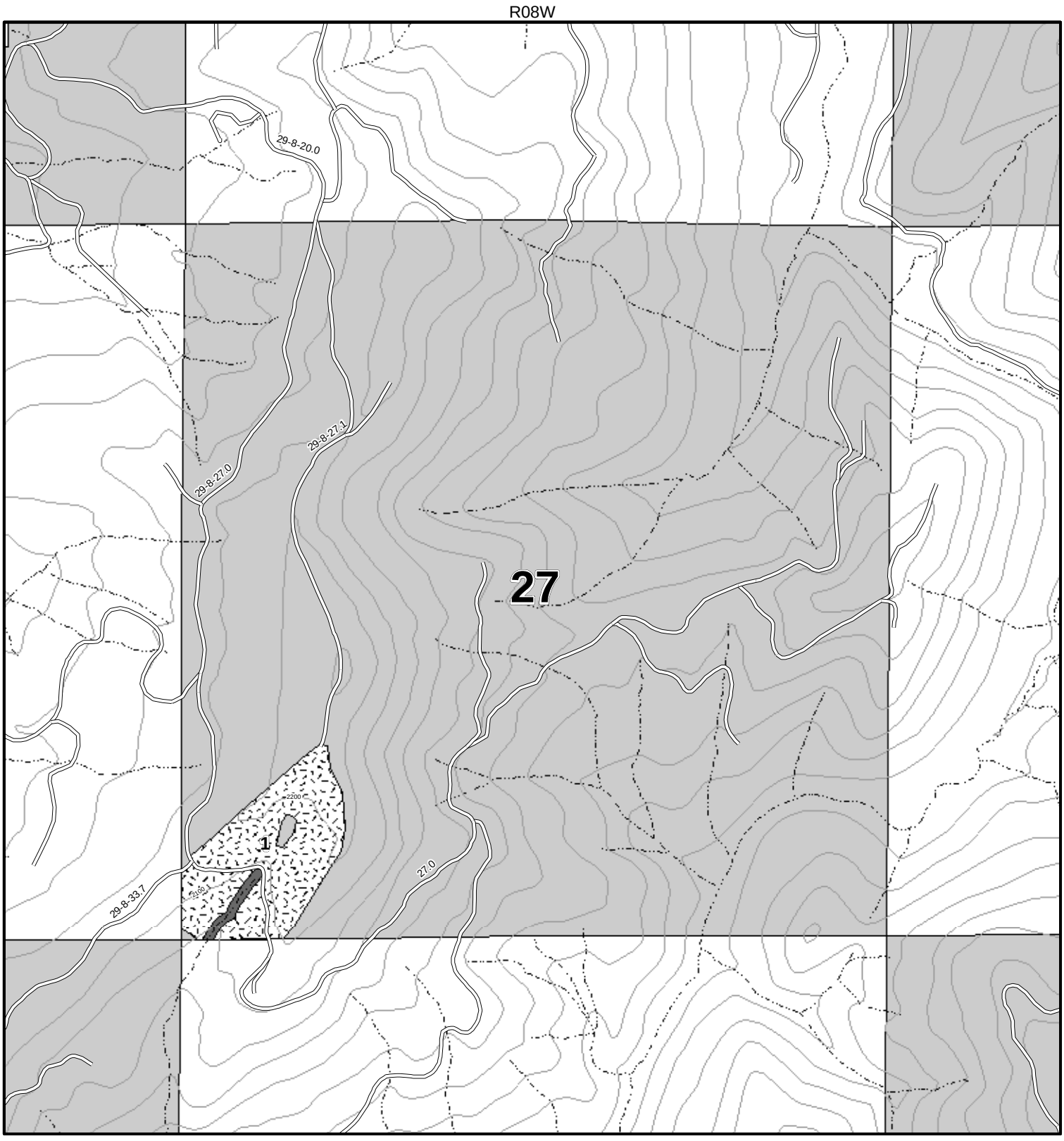
Bureau of Land Management

EXHIBIT E

Sheet 1 of 4

CAMAS BLOOMS

Contract # ORR05-TS-2015.0002



Legend

- Existing Road
- Streams
- 100ft Contour
- No Harvest Stream Buffer
- Marbled Murrelet — *Seasonal Restrictions April 1 - August 5*; *Daily Operating Restrictions August 6 - September 15*
- Bureau of Land Management
- Private/Unknown

0 500 1,000 1,500 2,000

Feet

Date: 11/10/2014

Roseburg District
Bureau of Land Management
777 NW Garden Valley Blvd.
Roseburg, Oregon 97471

N W E S

Bureau of Land Management

EXHIBIT E

Sheet 2 of 4

CAMAS BLOOMS

Contract # ORR05-TS-2015.0002

Legend

- Existing Road
- Road to Construct, Rock
- Road to Renovate, Native
- Closed Road-Do Not Use
- Optional Operator Spur
- Streams
- 100ft Contour
- No Harvest Stream Buffer
- Marbled Murrelet *Seasonal Restrictions April 1 - August 5* *Daily Operating Restrictions August 6 - September 15*
- Marbled Murrelet Daily Operating Restrictions April 1 - August 5
- Bureau of Land Management
- Private/Unknown

0 500 1,000 1,500 2,000

Feet

Date: 11/10/2014

Roseburg District
Bureau of Land Management
777 NW Garden Valley Blvd.
Roseburg, Oregon 97471

N W E S

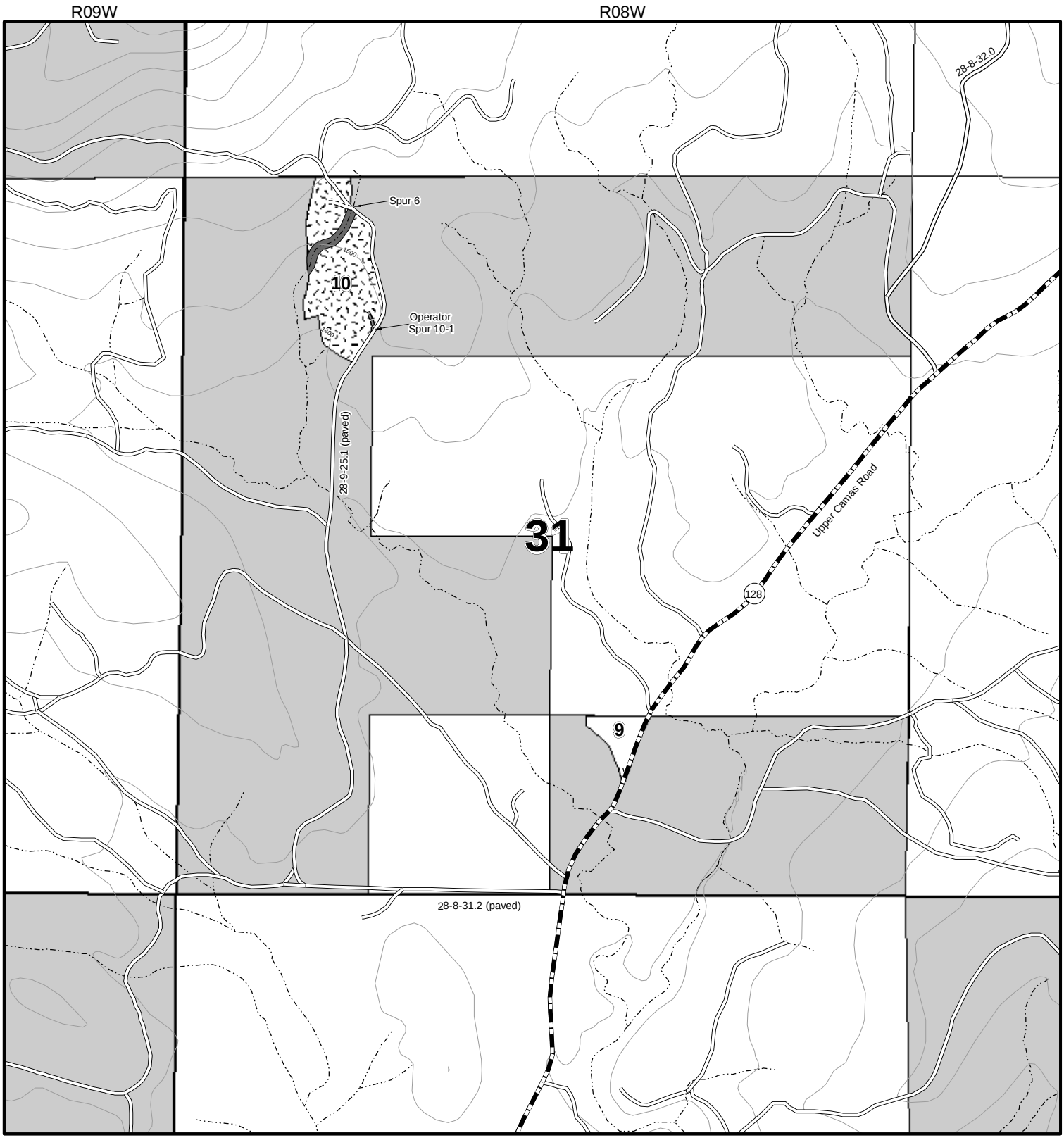
Bureau of Land Management

EXHIBIT E

Sheet 3 of 4

CAMAS BLOOMS

Contract # ORR05-TS-2015.0002



Legend

- Existing Road
- County Road / Highways
- Road to Construct, Native
- Optional Operator Spur
- Streams
- 100ft Contour
- No Harvest Stream Buffer
- Marbled Murrelet — *Seasonal Restrictions April 1 - August 5*; *Daily Operating Restrictions August 6 - Sept 15*
- Harvest Area
- Bureau of Land Management
- Private/Unknown

0 500 1,000 1,500 2,000

Feet

Date: 11/10/2014

Roseburg District
Bureau of Land Management
777 NW Garden Valley Blvd.
Roseburg, Oregon 97471

N W E S

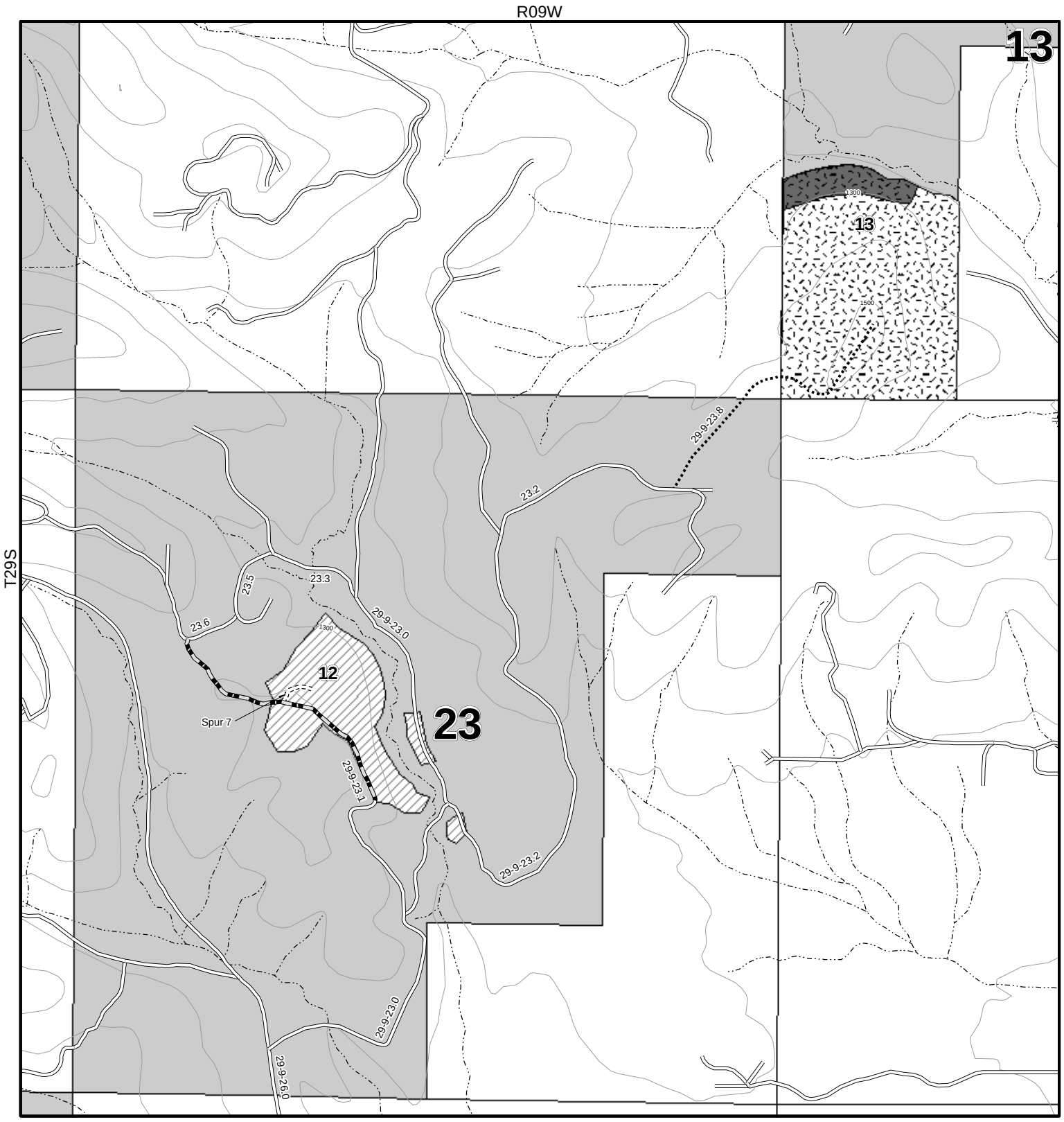
Bureau of Land Management

EXHIBIT E

Sheet 4 of 4

CAMAS BLOOMS

Contract # ORR05-TS-2015.0002



Legend

- Existing Road
- Road to Construct, Rock
- Road to Construct, Native
- Road to Renovate, Native
- Streams
- 100ft Contour
- Spotted Owl Seasonal Restrictions February 1 - July 15
- Marbled Murrelet *Seasonal Restrictions April 1 - August 5* *Daily Operating Restrictions August 6 - September 15*
- Marbled Murrelet Daily Operating Restrictions April 1 - August 5
- Bureau of Land Management
- Private/Unknown

0 500 1,000 1,500 2,000

Feet

Date: 11/20/2014

Roseburg District
Bureau of Land Management
777 NW Garden Valley Blvd.
Roseburg, Oregon 97471

N W E S

United States of America

Department of the Interior

Bureau Of Land Management

Timber Sale Appraisal

District : Roseburg
Sale Name : Camas Blooms
Sale Date : 01/27/2015
Appraisal Method : 16' MBF

Contract # : ORR05-TS-2015.002
Job File # : 088
Master Unit : Douglas
Planning Unit : South River

Contents

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Timber - Sale - Summary

Legal Description

Forest Type	Township	Range	Section	Subdivision
CBWR	28 S	8 W	29	NW1/4 SW1/4
CBWR	28 S	8 W	31	Lot 1, Lot 2, NE1/4 NW1/4, SW1/4 SE1/4
O&C	29 S	8 W	27	W1/2 SW1/4
O&C	29 S	8 W	31	Lot 5, Lot 6, E1/2 SW1/4, SW1/4 SE1/4
O&C	29 S	9 W	13	W1/2 SW1/4
O&C	29 S	9 W	23	NE1/4 NE1/4, S1/2 NW1/4, NE1/4SW1/4, NW1/4 SE1/4
O&C	30 S	8 W	9	S1/2 NW1/4, SW 1/4
O&C	30 S	8 W	17	E1/2 NE1/4, SW1/4 NE1/4, E1/2 NW1/4, SW1/4 NW1/4, N1/2 SW1/4, NE1/4 SE1/4

Cutting Volume (16' MBF)

Unit	DF	GF	PP	WH	IC	WRC			Total	Regen	Partial	ROW
1	332	75	2		3				412	0	24	0
2	165	207		3	1	0			376	0	23	0
3	144	27	1	3	1				176	0	12	0
4	131	3	7	0	0	0			141	0	12	0
5	84	11	11		1				107	0	9	0
6	214	37	29	0	1				281	0	23	0
7	212	37	19	1	2	1			272	0	22	0
8	258	88	5	7	4	0			362	0	26	0
9	13	17		0		1			31	0	2	0
10	76	87		0	2	4			169	0	12	0
11	446	190			2	0			638	0	38	0
12	126	90		3	0	4			223	0	17	0
13	366	165	0	3	0	1			535	0	49	0
RW	73	21	1	1	3	1			100	0	0	2
Totals	**2,640**	**1,055**	**75**	**21**	**20**	**12**			**3,823**	**0**	**269**	**2**

Logging Costs per 16' MBF

Stump to Truck	$	152.73
Transportation	$	48.90
Road Construction	$	42.40
Road Amortization	$	0.11
Road Maintenance	$	8.44

Other Allowances :

Equipment Cleaning	$ 0.47
Misc	$ 1.53
Slash Disposal	$ 3.27
Total Other Allowances :	**$ 5.28**

Total Logging Costs per 16' MBF $ **257.87**

Utilization Centers

Center #1 : Roseburg, OR	31	Miles
Center #2	0	Miles
Weighted distance to Utilization Centers	31	

Length of Contract

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

Profit & Risk

Total Profit & Risk		13 %
Basic Profit & Risk	11 % + Additional Risk	2 %
Back Off		0 %

Tract Features

Avg Log	Douglas-fir : 37 bf	All : 41 bf
Recovery	Douglas-fir : 95 %	All : 92 %
Salvage	Douglas-fir : 0 %	All : 0 %

Avg Volume (16' MBF per Acre)	14
Avg Yarding Slope	55 %
Avg Yarding Distance (feet)	250
Avg Age	50
Volume Cable	60 %
Volume Ground	40 %
Volume Aerial	0 %
Road Construction Stations	34.95
Road Improvement Stations	0.00
Road Renovation Stations	98.55
Road Decomission Stations	0.00

Cruise

Cruised By	TK, JC, DS, JB, CK, JL, BG, EW
Date	10/01/2014
Type of Cruise	3P & 100%
County, State	Douglas, OR

Net Volume

Green (16' MBF)	3,823
Salvage (16' MBF)	0
Douglas-fir Peeler	0
Export Volume	0
Scaling Allowance ($0.75 per 16' MBF)	$2,867.25

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Stumpage Summary

Stumpage Computation (16' MBF)

Species	Trees	Net Volume	Pond Value	(-) Profit & Risk	(-) Logging Cost	(+) Marginal Log Value	(-) Back Off	Appraised Price	Appraised Value
DF	23,098	2,640	$ 543.76	$ 70.69	$ 257.87			$ 215.20	$ 568,128.00
GF	5,424	1,055	$ 446.33	$ 58.02	$ 257.87			$ 130.40	$ 137,572.00
PP	937	75	$ 325.66	$ 42.34	$ 257.87			**$ 32.60**	$ 2,445.00
WH	325	21	$ 412.23	$ 53.59	$ 257.87			$ 100.80	$ 2,116.80
IC	425	20	$ 390.00	$ 50.70	$ 257.87			$ 81.40	$ 1,628.00
WRC	185	12	$ 583.31	$ 75.83	$ 257.87			$ 249.60	$ 2,995.20
Totals	**30,394**	**3,823**							**$ 714,885.00**

Log Code by Percent

Species	Code #1	Code #2	Code #3	Code #4	Code #5	Code #6
Douglas-fir				15.0	73.0	12.0
Grand Fir				43.0	50.0	7.0
Incense-cedar					66.0	34.0
Ponderosa Pine				12.0	70.0	18.0
Western Hemlock				19.0	64.0	17.0
Western red-cedar			79.0	21.0		

Marginal Log Volume

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

Appraised By : Kehoe, Mark **Date :** 12/17/2014

Area Approval By : Snider, Douglas **Date :** 12/17/2014

District Approval By : Snider, Douglas **Date :** 12/18/2014

Prospectus

Appraisal Method : (16' MBF)

Species	Trees	Net Volume 16' MBF	Net Volume 32' MBF	Net Volume CCF
Douglas-fir	23,098	2,640	2,205	
Grand Fir	5,424	1,055	851	
Ponderosa Pine	937	75	57	
Western Hemlock	325	21	16	
Incense-cedar	425	20	15	
Western red-cedar	185	12	10	
Total	**30,394**	**3,823**	**3,154**	

All Species

Gross Volume	Number Trees	Avg bf Volume Per Tree	DBH	Gross Merch Volume	Merch Logs	Avg bf Gross Merch Log
4,142	30,394	136	12.6	4,034	99,151	41

Merch Logs	Cull Logs	Total Logs	Logs per Tree	Net Volume	Gross Volume	Recovery
99,151	2,103	101,254	3.3	3,823	4,142	92 %

Douglas-fir

Gross Volume	Number Trees	Avg bf Volume Per Tree	DBH	Gross Merch Volume	Merch Logs	Avg bf Gross Merch Log
2,775	23,098	120	12.1	2,758	74,761	37

Merch Logs	Cull Logs	Total Logs	Logs per Tree	Net Volume	Gross Volume	Recovery
74,761	832	75,593	3.3	2,640	2,775	95 %

Cutting Areas

Unit	Regen Acres	Partial Cut Acres	Right Of Way Acres	Total Acres
1		24		24
2		23		23
3		12		12
4		12		12
5		9		9
6		23		23
7		22		22
8		26		26
9		2		2
10		12		12
11		38		38
12		17		17
13		49		49
RW			2	2
Totals :		**269**	**2**	**271**

Exhibit B

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

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

Sale Totals (16' MBF)

Species	Net Volume	Bid Price	Sale SubTotal
Douglas-fir	2,640		
Grand Fir	1,055		
Ponderosa Pine	75		
Western Hemlock	21		
Incense-cedar	20		
Western red-cedar	12		
Sale Totals	**3,823**		

Unit Details (16' MB)

Unit 1 **24 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	332		
Grand Fir	75		
Incense-cedar	3		
Ponderosa Pine	2		
Unit Totals	**412**		

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

Species	Net Volume	Bid Price	Species Value
Douglas-fir	76		
Grand Fir	87		
Incense-cedar	2		
Western Hemlock			
Western red-cedar	4		
Unit Totals	**169**		

Unit 11 **38 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	446		
Grand Fir	190		
Incense-cedar	2		
Western red-cedar			
Unit Totals	**638**		

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

Species	Net Volume	Bid Price	Species Value
Douglas-fir	126		
Grand Fir	90		
Incense-cedar			
Western Hemlock	3		
Western red-cedar	4		
Unit Totals	**223**		

Unit 13 **49 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	366		
Grand Fir	165		
Incense-cedar			
Ponderosa Pine			
Western Hemlock	3		
Western red-cedar	1		
Unit Totals	**535**		

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

Species	Net Volume	Bid Price	Species Value
Douglas-fir	165		
Grand Fir	207		
Incense-cedar	1		
Western Hemlock	3		
Western red-cedar			
Unit Totals	**376**		

Unit 3 **12 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	144		
Grand Fir	27		
Incense-cedar	1		
Ponderosa Pine	1		
Western Hemlock	3		
Unit Totals	**176**		

Unit 4 **12 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	131		
Grand Fir	3		
Incense-cedar			
Ponderosa Pine	7		
Western Hemlock			
Western red-cedar			
Unit Totals	**141**		

Unit 5 **9 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	84		
Grand Fir	11		
Incense-cedar	1		
Ponderosa Pine	11		
Unit Totals	**107**		

Unit 6 **23 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	214		
Grand Fir	37		
Incense-cedar	1		
Ponderosa Pine	29		
Western Hemlock			
Unit Totals	**281**		

Unit 7 **22 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	212		
Grand Fir	37		
Incense-cedar	2		
Ponderosa Pine	19		
Western Hemlock	1		
Western red-cedar	1		
Unit Totals	**272**		

Unit 8 **26 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	258		
Grand Fir	88		
Incense-cedar	4		
Ponderosa Pine	5		
Western Hemlock	7		
Western red-cedar			
Unit Totals	**362**		

Unit 9 **2 Acres** **Value per Acre : $0.00**

Species	Net Volume	Bid Price	Species Value
Douglas-fir	13		
Grand Fir	17		
Western Hemlock			
Western red-cedar	1		
Unit Totals	**31**		

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

Species	Net Volume	Bid Price	Species Value
Douglas-fir	73		
Grand Fir	21		
Incense-cedar	3		
Ponderosa Pine	1		
Western Hemlock	1		
Western red-cedar	1		
Unit Totals	**100**		

Sale Volume Totals

271 **Acres** 0 **Regen** 269 **Partial** 2 **R/W** 14 **Units**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Net	16' MBF GM	16' MBF Gross	32' MBF Net	32' MBF GM	32' MBF Gross	CCF Net	CCF GM	CCF Gross
Douglas-fir	23,098	74,761	832	2,640	2,758	2,775	2,205	2,300	2,315	0	0	0
Grand Fir	5,424	20,737	590	1,055	1,137	1,202	851	912	964	0	0	0
Ponderosa Pine	937	2,132	198	75	79	84	57	60	64	0	0	0
Western Hemlock	325	515	366	21	22	39	16	17	30	0	0	0
Incense-cedar	425	643	70	20	24	26	15	18	20	0	0	0
Western red-cedar	185	363	47	12	14	16	10	11	12	0	0	0
Totals	**30,394**	**99,151**	**2,103**	**3,823**	**4,034**	**4,142**	**3,154**	**3,318**	**3,405**	**0**	**0**	**0**

Unit Totals

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

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	2,910	9,510	93	349	347	332
Grand Fir	337	1,502	41	86	81	75
Incense-cedar	75	107	16	4	4	3
Ponderosa Pine	31	64	6	2	2	2
Unit Totals	**3,353**	**11,183**	**156**	**441**	**434**	**412**

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

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Grand Fir	1,070	3,893	110	234	223	207
Douglas-fir	1,371	4,708	47	173	173	165
Western Hemlock	36	63	29	4	3	3
Incense-cedar	10	15	3	1	1	1
Western red-cedar	1	2				
Unit Totals	**2,488**	**8,681**	**189**	**412**	**400**	**376**

Unit : 3 **12 Acres** **0 Regen** **12 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,305	4,131	41	151	151	144
Grand Fir	142	533	13	31	29	27
Western Hemlock	46	75	57	7	4	3

Ponderosa Pine	12	24	3	1	1	1
Incense-cedar	9	14	1	1	1	1
Unit Totals	**1,514**	**4,777**	**115**	**191**	**186**	**176**

Unit : 4 **12 Acres** **0 Regen** **12 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,603	3,740	37	137	136	131
Ponderosa Pine	86	183	18	8	7	7
Grand Fir	23	56	1	3	3	3
Incense-cedar	7	8				
Western Hemlock	2	2	4			
Western red-cedar	1	1				
Unit Totals	**1,722**	**3,990**	**60**	**148**	**146**	**141**

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

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	783	2,393	24	88	87	84
Ponderosa Pine	139	334	42	13	12	11
Grand Fir	57	197	8	13	12	11
Incense-cedar	7	9		1	1	1
Unit Totals	**986**	**2,933**	**74**	**115**	**112**	**107**

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

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,740	6,132	60	225	224	214
Grand Fir	217	746	21	42	40	37
Ponderosa Pine	358	847	56	32	31	29
Incense-cedar	37	50	2	2	2	1
Western Hemlock	1	1	1			
Unit Totals	**2,353**	**7,776**	**140**	**301**	**297**	**281**

Unit : 7 **22 Acres** **0 Regen** **22 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,740	6,053	61	223	222	212
Grand Fir	206	764	18	42	40	37
Ponderosa Pine	230	497	61	22	20	19
Incense-cedar	61	82	8	3	2	2
Western Hemlock	9	15	15	2	1	1
Western red-cedar	20	28	3	1	1	1

Unit Totals	**2,266**	**7,439**	**166**	**293**	**286**	**272**

Unit : 8 **26 Acres** **0 Regen** **26 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,918	7,393	73	271	270	258
Grand Fir	409	1,760	52	101	95	88
Western Hemlock	112	183	122	13	7	7
Incense-cedar	102	154	21	5	5	4
Ponderosa Pine	70	160	9	5	5	5
Western red-cedar	10	18	1			
Unit Totals	**2,621**	**9,668**	**278**	**395**	**382**	**362**

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

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Grand Fir	75	287	11	19	18	17
Douglas-fir	63	317	5	14	13	13
Western red-cedar	5	13		1	1	1
Western Hemlock	2	2				
Unit Totals	**145**	**619**	**16**	**34**	**32**	**31**

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

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Grand Fir	432	1,700	52	100	94	87
Douglas-fir	649	2,113	22	80	79	76
Western red-cedar	79	153	19	6	5	4
Incense-cedar	37	65	2	2	2	2
Western Hemlock	3	7	3			
Unit Totals	**1,200**	**4,038**	**98**	**188**	**180**	**169**

Unit : 11 **38 Acres** **0 Regen** **38 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	4,099	12,678	124	468	466	446
Grand Fir	969	3,866	95	215	205	190
Incense-cedar	50	71	9	3	3	2
Western red-cedar	5	8				
Unit Totals	**5,123**	**16,623**	**228**	**686**	**674**	**638**

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

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	1,242	3,598	35	132	131	126
Grand Fir	617	1,843	44	102	97	90
Western red-cedar	47	107	19	6	5	4
Western Hemlock	62	80	79	7	3	3
Incense-cedar	4	8	2			
Unit Totals	**1,972**	**5,636**	**179**	**247**	**236**	**223**

Unit : 13 **49 Acres** **0 Regen** **49 Partial** **0 R/W**

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	3,187	10,472	103	384	382	366
Grand Fir	780	3,306	86	188	178	165
Western Hemlock	42	68	44	5	3	3
Western red-cedar	10	18	1	1	1	1
Incense-cedar	3	7	1			
Ponderosa Pine	1	2				
Unit Totals	**4,023**	**13,873**	**235**	**578**	**564**	**535**

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

SpeciesName	# of Trees	Merch Logs	Cull Logs	16' MBF Gross	16' MBF GM	16' MBF Net
Douglas-fir	488	1,523	107	80	77	73
Grand Fir	90	284	38	26	22	21
Incense-cedar	23	53	5	4	3	3
Ponderosa Pine	10	21	3	1	1	1
Western Hemlock	10	19	12	1	1	1
Western red-cedar	7	15	4	1	1	1
Unit Totals	**628**	**1,915**	**169**	**113**	**105**	**100**

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Stump to Truck Costs

Total (16' MBF)

Total Stump to Truck Costs	Net Volume	Cost / Net Volume
$ 583,889.69	3,823	$ 152.73

Detail

Yarding & Loading

Yarding System	Unit Of Measure	Units	Cost / Unit	Total Cost
Short Twr<40	GM MBF	556	$ 101.23	$ 56,283.88
Short Twr<40	GM MBF	856	$ 121.48	$ 103,986.88
Short Twr<40	GM MBF	858	$ 151.85	$ 130,287.30
Short Twr<40	GM MBF	149	$ 379.63	$ 56,564.87
Shovel	GM MBF	132	$ 107.59	$ 14,201.88
Wheel Skidder	GM MBF	1,378	$ 124.26	$ 171,230.28
Track Skidder	GM MBF	115	$ 108.64	$ 12,493.60
Subtotal				**$ 545,048.69**

Other Costs

Explanation	Unit Of Measure	Units	Cost / Unit	Total Cost
Lift Trees	Trees	114	$ 150.00	$ 17,100.00
Intermediate Supports	IS	15	$ 250.00	$ 3,750.00
Subtotal				**$ 20,850.00**

Additional Move-Ins

Equipment	# Move-In	Cost / Move In	Total Cost
Yarder / Loader	2	$ 688.00	$ 1,376.00
Yarder / Loader	2	$ 688.00	$ 1,376.00
Yarder / Loader	2	$ 688.00	$ 1,376.00
Skidder	2	$ 688.00	$ 1,376.00
Dozer	4	$ 688.00	$ 2,752.00
Other	1	$ 9,735.00	$ 9,735.00
Subtotal			**$ 17,991.00**

Other Allowances Costs

Total (16' MBF)

Total Other Allowances Costs	Net Volume	Cost / Net Volume *	Total Buy Out Cost
$20,178.00	3,823	$5.28	$0.00

Equipment Cleaning

Detail (16' MBF)

Cost Item	Total Cost	Cost / Net Vol *	Buy Out	Buy Out Cost
Yarder	$ 330.00	$ 0.09	N	$ 0.00
Shovel	$ 660.00	$ 0.17	N	$ 0.00
Track Skidder	$ 330.00	$ 0.09	N	$ 0.00
Wheel Skidder	$ 330.00	$ 0.09	N	$ 0.00
Other Equipment	$ 165.00	$ 0.04	N	$ 0.00
Subtotal	**$ 1,815.00**	**$ 0.47**		**$ 0.00**

Misc

Detail (16' MBF)

Cost Item	Total Cost	Cost / Net Vol *	Buy Out	Buy Out Cost
Subsoiling	$ 5,175.00	$ 1.35	N	$ 0.00
Move-in	$ 688.00	$ 0.18	N	$ 0.00
Subtotal	**$ 5,863.00**	**$ 1.53**		**$ 0.00**

Slash Disposal

Detail (16' MBF)

Cost Item	Total Cost	Cost / Net Vol *	Buy Out	Buy Out Cost
Landings-All (clean-up, covering, piling, burning)	$ 12,500.00	$ 3.27	N	$ 0.00
Subtotal	**$ 12,500.00**	**$ 3.27**		**$ 0.00**

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

General

Yarding & Loading

-Acres yarding/day and volume/acre/unit were used to determine loads/day for yarding costs.
-$4.25/gallon fuel cost and 4.5 mbf/load were used for logging cost calculations.
-Track skidder w/2 cutters was used for yarding spurs.
-9.9 16'GM from Douglas County land is included in Track Skidder cost.
-Lift trees & Intermediate Supports are based on Cruiser/Appraiser's logging plan est.
-Extra move-in allowance is allowed due to the distance and road conditions between units.
-2 Yarder, 2 Loader, 2 Shovel, 2 Skidder & 4 Dozers @ 688.00/piece = $8,256.00

-Other: This is a total of move-in costs associated with inter-unit move-ins. Inter-unit move-ins are required due to pavement & distance between units and restrictions associated with this sale.
2 cable inter-unit move-ins: Unit 1 to Unit 3 @ $1,485.00 and Unit 10 to Unit 11 @ $1,045.00
Total cable inter-unit move-ins = $2,530.00
6 ground-based inter-unit move-ins. Unit 1 to Unit 2 @ $1,320.00. Unit 2 to Unit 5 @ $1,155.00. Unit 8 to Unit 12 @ $1,265.00. Unit 12 to Unit 10 @ $1,595.00. Unit 10 to Unit 9 @ $990.00. Unit 9 to Unit 11 @ $880.00.
Total Ground-based Inter-unit Move-ins: $7,205.00
Total Inter-unit Move-ins: $9,735.00
Inter-unit move-ins were calculated using distance and time between units, number of equipment per move, 2 hours loading/unloading per piece, 1.5 hrs RTM between Roseburg and sale area, and $110.00/hr lowboy rates.

Road Costs

(see Engineering Appraisal for details).

Transportation

Sale Area mid point to jct. of DC#129 and HWY 42: 7.2 miles and 30.1 min
HWY 42 to OR#99: 16.9 miles and 48 min
OR#99 to I-5 exit#119: 2.9 miles and 8 min
I-5 exit#119 to Roseburg City Limits: 4 miles and 10 min

Both are Round trip minutes and miles.

Total: 96.1 RTMs + 60 min delay time = 156.1 RTMs
156.1 min/60 min/hr. = 2.6 hrs./load

4043.9 (16'GM)/4.5 mbf/load = 899 loads
899 loads x 2.6 hrs./load = 2,337 hrs.
2,337 hrs. x $80.00/hr = $186,960.00

-This includes 9.9 16'GM from Douglas County Land.

(see Transportation appendix for details).

Other Allowances

-Slash Disposal:
Landing Machine Pile & Cover: 100 Cat and Cable Landings @ $125.00/landing = $12,500.00

-Equipment Cleaning:
Cable Yarding side: 1 yarder, loader @ 3 hrs./piece x $55.00/hr x 2 seasons = $660.00
Ground Base side: 1 Rubber Tired Skidder, 1 Track Skidder, 1 Loader @ 3hrs./piece x $55.00/hr x 2 seasons = 990.00

-Skid Trail Subsoiling:
3.5 miles of skid trails/.75 miles subsoiled/day = 5 days x 9 hrs/day = 45 hrs x $ 115.00/ hr = $5,175.00
Move-in, 1 Excavator x $688.00 per move x 1 move-in = $688.00
Equipment Cleaning: 1 Excavator @ 3 hrs/piece x $55.00/hr = $165.00
Total Skid Trail Subsoiling cost: $6,028.00

Prospectus

DF and GF up to 24" were 3P cruised. The remaining, including minors, were 100% cruised. The combined standard error for the 3P cruise was 5.24%

Additional Profit & Risk applied for additional inter-sale move-ins, small timber, and seasonal restrictions.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Version: 5.1.0.32

Summary of All Roads and Projects Updated: 6/30/2014

T.S. Contract Name: Camas Blooms Tract No: Sale Date: 12/15/2015
Prepared by: CLesniak Ph: 5414643278 Print Date: 12/17/2014 2:23:40 PM
Construction: 34.95 sta
Improve: 0.00 sta Renov: 98.55 sta Decom: 0.00 sta Temp: 0.00 sta

200 Clearing and Grubbing: 6.6 acres $28,328.17

300 Excavation: $22,862.47
Haul < 500 ft: 0 sta-yds
Haul > 500 ft: 0 yd-mi

400 Drainage: $5,172.20
Culvert: 0 lf DownSpout: 10 lf
PolyPipe: 108 lf

500 Renovation: $6,599.52

700-1200 Surfacing: $84,171.57
Commercial Quarry Name: Weaver (B&B) 2,459 lcy

1300 Geotextiles: $0.00

1400 Slope Protection: $0.00

1800 Soil Stabilization: 0.0 acres $0.00

1900 Cattleguards: $0.00

2100 RoadSide Brushing: 0.0 acres $0.00

2300 Engineering: 0.00 sta. $0.00

2400 Minor Concrete: $0.00

2500 Gabions: $0.00

8000 Miscellaneous: $0.00

Mobilization: Const. $13,062.52 Surf. $1,203.00..... $14,265.52

Quarry Development: $700.00

Total: 3,823 mbf @ $42.401/mbf = $162,099.45

Notes:
Quantities shown are estimates only and not pay items.
Surfacing Quantities are loose cubic yards.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Contract Name: Camas Blooms
Sale Date: 12/15/2015
Tract No:

ROAD CONSTRUCTION SUMMARY

	1/ Const/Impr/Renov/Decom/Temp					2/ yd-miles haul		3/ Lin ft CMP		4/ Lin ft Polypipe			5/ Lin ft Downspout			6/ slide removal cy		
Road Number	Type 1/	Miles	Clear Grubb	Excav -ation	Drain -age	Reno- vation	Surf- acing	Geo- textile	Slope Protect	Soil Stabil	Cattle Guard	Rdside Brush	Engin- eering	Minor Concrete	Gab- ions	Miscel- laneous	Mobil- ization	Quarry Develop	Sub- Total
28-8-32.0	R	0.93				$1,003											$89		$1,092
29-9-23.1	R	0.40	$6,974 1.5acres		$1,619 4/ 36'	$5,596	$1,712 50lcy										$1,436	$14	$17,351
29-9-23.8	C	0.43	$9,298 2.0acres	$8,718	$1,763 4/ 36'		$50,387 1472lcy										$6,949	$419	$77,534
SPUR 1	R	0.47	$5,059 1.4acres	$4,004			$1,369 40lcy										$946	$11	$11,389
SPUR 2	R	0.07	$1,130 0.3acres	$1,380													$223		$2,733
Spur 3	C	0.05	$994 0.3acres	$1,672	$1,790 4/ 36' 5/ 10'		$9,550 279lcy										$1,380	$79	$15,465
Spur 4	C	0.03	$905 0.2acres	$966			$6,367 186lcy										$822	$53	$9,113
SPUR 5	C	0.06	$1,357 0.3acres	$2,162			$8,694 254lcy										$1,209	$72	$13,494
SPUR 6	C	0.03	$905 0.2acres	$1,508			$6,093 178lcy										$842	$51	$9,399
SPUR 7	C	0.05	$1,255 0.3acres	$1,672													$260		$3,187
SPUR 8	C	0.02	$452 0.1acres	$781													$110		$1,343

Notes:

Quantities shown are estimates only and not pay items.
Surfacing Quantities are loose cubic yards.

TIMBER SALE ROAD SPECIFICATIONS

TABLE OF CONTENTS

TIMBER SALE ROAD SPECIFICATIONS

GENERAL – 100

101 - Prework Conference(s):

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

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

102 - Definitions:

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

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

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.

TIMBER SALE ROAD SPECIFICATIONS

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.

TIMBER SALE ROAD SPECIFICATIONS

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.

TIMBER SALE ROAD SPECIFICATIONS

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.

Slash Mulch – A mulch consisting of clearing, grubbing, or logging debris, commonly used for road decommissioning. If slash mulch is not available, other mulches may be substituted as described in sections 1800 and 3500 of this contract.

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:

103a - Padded Drum (Tamping) Rollers. The unit shall consist of a drum with pads, be either self propelled or towed by a tractor, and capable of operating at a speed of 6 mph. The drum shall be no less than 48 inches in diameter over the pads and not less than 60 inches in width. The pads shall have a minimum height of 3 inches, and a face area of not less than 14 square inches. The weight at drum shall be no less than 8000 lb.

103b - Sheepfoot (Tamping) rollers. A tamping roller unit shall consist of two watertight metal drums mounted in frames in such manner as to be fully oscillating, together

with a tractor having sufficient weight and power under actual working conditions to pull the roller drums at a minimum speed of 2.5 miles per hour. The drums shall be no less than 60 inches in diameter and no less than 54 inches in length, measured at the drum's surface, and shall be studded with tamping feet projecting not less than 7 inches from the face of the drums.

The distance between circumferential rows of tamper feet shall be such that the diagonal distance from any foot to the nearest foot in each adjacent row shall be not more than 12 inches. The cross-sectional area of the face of each tamper foot, measured perpendicular to the axis of the stud, shall be not less than 5-1/2 square inches nor more than 8 square inches.

The weight of the tamping-roller unit shall be such as to exert a minimum pressure of 250 pounds per square inch on the ground area in contact with the tamping feet, and the roller shall be so designed that the weight may be increased to exert a pressure up to 500 pounds per square inch on the ground area in contact with the tamping feet. The ground pressure shall be determined by dividing the total weight of the roller unit, not including the weight of the tractor, by the total cross-sectional area of the tamping feet in one row of tamping feet parallel to the axis of the roller.

103c - Smooth-wheel power rollers. Smooth-wheel power rollers shall either be of the 3-wheel type, weighing not less than 10 tons, or of the tandem type, 2-wheel or 3-wheel, weighing not less than 8 tons. Smooth-wheel roller shall provide compression of 325 pounds per linear inch of width of rear wheels or drum.

103d - Pneumatic-tired rollers. Pneumatic-tired rollers shall be of the double-axle type equipped with pneumatic tires each of equal size and type. The spacing between the sidewalls of adjacent tires shall not exceed 5 inches and the rear tires shall be staggered in relation to the front tires. The rolling width of the unit shall be not less than 60 inches, exclusive of the power unit. The roller shall be so constructed that the contact pressure is uniformly distributed on all of the tires, and the tires shall be inflated to maintain the air pressure in the several tires within a total tolerance of 5 pounds per square inch. The roller shall be so constructed that the total weight shall be between 1,000 and 2,000 pounds per tire. The actual operating weight of the rollers shall be as ordered by the Authorized Officer.

Each pneumatic-tired roller shall be drawn by equipment having sufficient power and weight under normal working condition to pull the roller at a minimum speed

of 5 miles per hour, or it may be self-propelled to obtain a minimum speed of 5 miles per hour.

103e - Grid roller. A grid roller shall consist of two or more cylindrical drums independently mounted on a common shaft in a rigid frame. Each drum shall have a minimum outside diameter of 5 feet and a minimum width of 2 feet 6 inches. The overall width of the roller exclusive of frame shall be not less than 5 feet 6 inches of which not more than 6 inches shall be used for center spacing between two roller drums. The face of the drums shall have the appearance of woven open-mesh made by interlacing bars of not less than 1-1/4 inches nor more than 1-3/4 inches diameter space spaced on 4-1/2 inches to 5-1/2 inches center. Net opening between the bars shall be not less than 3 inches nor more than 4 inches. The roller shall be so constructed that counterweights can be used to adjust the gross weight of the roller to not less than 27,000 pounds. The grid roller shall be drawn by a power unit capable of propelling the fully loaded roller through 6 inches of loose embankment material at a speed of at least 4 miles per hour.

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.

201a - This work shall consist of clearing, grubbing, removing and disposing of vegetation, debris, surface objects, and protruding obstructions from borrow pits, quarries, channel changes, stockpile sites, etc., in accordance with these specifications .

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.

202a - Where clearing limits for structures have not been staked or shown on the plans, the limits shall extend 10 feet out from the outside edge of the structure.

202b - Where clearing limits for borrow pits, or quarries, stockpile sites, channel changes, and ditches have not been staked or shown on the plans, the limits shall extend 10 feet back of the top of the cut slope and 5 feet outside of the outside slope lines.

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

203a - Brush under 2 feet in height need not be cut within the limits established for clearing.

TIMBER SALE ROAD SPECIFICATIONS

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 in accordance with Subsections 204a, 204b, 204c, and 204d.

204a - Stumps, including those overhanging cut banks, shall be removed within the required excavation limits.

204b - Stumps and other protruding objects shall be completely removed within the limits of required embankments having heights of less than 4 feet. When authorized, stumps and other nonperishable objects may be left provided they do not extend more than 6 inches above the existing ground line.

204c - On excavated areas, roots and embedded wood shall be removed to a depth not less than 6 inches below the subgrade.

204d - On areas to be occupied by embankments having heights greater than 4 feet, no stump or portion thereof shall remain within 3 feet of embankment subgrades or slope surfaces after grubbing is completed.

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

210 - Disposal of clearing and grubbing debris shall be by piling or scattering over government owned lands outside of established clearing limits in a manner acceptable to the Authorized Officer. The areas for such scattering or piling shall have the prior approval of the Authorized Officer. Piled slash may be re-used as mulch during road decommissioning.

210a - Disposal of clearing and grubbing on non-government property by scattering this material outside of clearing limits will be permitted provided the Purchaser obtains a written permit from the property owner on whose property the disposal is to be made. The Purchaser shall furnish the Authorized Officer a certified copy of the permit and a written release from the property owner absolving the Government from responsibilities in connection with the disposal of debris on said property.

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

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

EXCAVATION AND EMBANKMENT - 300

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

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

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

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

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.

TIMBER SALE ROAD SPECIFICATIONS

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 12 inches in depth.

305c - Embankments formed of material containing less than 25 percent rock not larger than 8 inches in the greatest dimension shall be placed in 12-inch layers. Material containing more than 25 percent rock not larger than 12 inches in the greatest dimension shall be placed in successive layers not exceeding 2 feet in thickness. Individual rocks and boulders greater than 12 inches in diameter may be used to construct 2 foot embankment layers, provided they are carefully distributed, with interstices filled with fine material to form a dense and compact mass.

305d - Where embankments are constructed predominantly of blasted rock material, depth of layers shall not exceed 4 feet. Rock fragments having dimensions greater than 4 feet will be permitted provided that they have no dimensions greater than 6 feet and that clearance between adjacent fragments is adequate for the placing and compacting of material in horizontal layers as specified, and that no part of the larger fragments comes within 4 feet of subgrade.

306 - Layers of embankment, selected borrow, final subgrade, and selected roadway excavation material as specified under Subsections 305a, and 305b shall be moistened or dried to a uniform optimum moisture content suitable for maximum density and compacted to full width with compacting equipment conforming to requirements of Subsections 103f and 103i.

306a - Optimum moisture content shall be determined by hand clump test i.e., where a soil sample forms a firm ball by hand that does not crumble, free moisture is not visible on the surface, and material does not squeeze between fingers.

306b - Minimum compaction for each layer of embankment, selected borrow, and selected roadway excavation material placed at optimum moisture shall be a minimum of 8 complete passes or until visual displacement ceases.

TIMBER SALE ROAD SPECIFICATIONS

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

312 - When material, except solid rock, encountered in cuts at subgrade, is suitable for use in forming the finished roadbed, the top 6-inch layer of the subgrade shall be thoroughly scarified for the full width of the roadbed. Roots, sod, and other deleterious material or stones that will not pass a 6-inch square opening shall be removed. The scarified material shall be processed to the optimum moisture content suitable for maximum density and compacted in accordance with Subsection 306 and 306a.

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

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 and 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.

321b - Excess construction material as specified under Subsection 321 shall be loaded, hauled, and disposed of at a designated disposal site or used as embankment for designated roadbeds as shown on the plans.

321c - End-dumping will be permitted for the placement of excess materials under Subsection 321 in designated disposal areas or within areas approved by the

Authorized Officer. Watering, rolling, and placement in layers are not required. Materials placed shall be sloped, shaped, and otherwise brought to a visible condition acceptable to the Authorized Officer.

324 - Excavated material shall not be allowed to cover boles of standing trees to a depth in excess of 2 feet on the uphill side.

327 - The finished grading shall be approved 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 other erosion control devices in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans. Individual lengths and locations are approximate; final lengths and locations will be determined by the Authorized Officer upon completion of the roadbed 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 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.

405b - Corrugated-aluminum-alloy pipe culverts and pipe-arch culverts shall conform to the requirements of AASHTO M 196.

405e - Corrugated-polyethylene pipe for culverts 12-inch through 36-inch diameter shall meet the requirements of AASHTO M 294.

TIMBER SALE ROAD SPECIFICATIONS

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 shall conform to the lines, grades, dimensions, and typical diagram shown on the Culvert Installation Detail Sheet.

412 - Where ledge rock or boulders are encountered, they shall be excavated a minimum of 10 inches below the invert grade for a width of at least 2 feet on each side of the pipe and shall be backfilled with compacted select fill material.

TIMBER SALE ROAD SPECIFICATIONS

412a - Where soft or spongy soils are encountered, they shall be excavated a minimum of 2 feet below the invert grade for a width of at least one pipe diameter on each side of the pipe and shall be backfilled with compacted select fill material.

413 - Pipe culverts shall be bedded on select fill material, having a depth of not less than 6 inches as shown on plans. Foundation material shall be of uniform density throughout the length of the structure and shall be shaped to fit the pipe.

416 - Select fill material for pipe culverts shall be fine readily compactable soil, or crushed rock material in accordance with Section 1204 gradation C, as shown on the plans.

417 - For pipe culverts:
Side-fill material conforming to the requirements of Subsection 416 shall be placed and compacted under the haunches of the pipe, and shall be brought up evenly and simultaneously on both sides of the pipe to 1 foot above the pipe, in layers not exceeding 6 inches in depth and 1 pipe diameter/span, or a minimum of 2 feet in width each side of, and adjacent to, the full length of the pipe barrel. Each layer shall be moistened or dried to a uniform moisture content suitable for maximum compaction and immediately compacted by approved hand or pneumatic tampers as specified in Subsection 306 and 306a.

418 - Side fills beyond the compaction limits specified under Subsection 417 shall be compacted as specified under Section 300.

419 - The pipe culvert after being bedded and backfilled as required by these specifications shall be protected by a 1-foot cover of fill before heavy equipment is permitted to cross the drainage structures. Removal of the protection fill shall be as directed by the Authorized Officer.

423 - Construction of catch basins conforming to lines, grades, dimensions and typical diagrams shown on the plans, shall be required for culverts.

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

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

428 - Remove and dispose of old culverts in a legal manner, and for any fees required. The Purchaser shall remove the old culverts from the work site prior to road acceptance.

429 - Keep the excavation site dewatered so that the installation of culverts is completed under dry conditions. Dispose of excess water in a manner that will avoid damage to adjacent property. 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, installing culverts and splash pads, minor excavation and/or embankment, cleaning and shaping drainage ditches, brushing vegetation from cut and embankment slopes, cleaning and repairing drainage structures of existing roads in accordance with these specifications, as shown on the plans, and as marked on the ground with stakes or metal tags.

501a - This work shall include the removal and disposal of slides in accordance with these specifications.

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

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.

TIMBER SALE ROAD SPECIFICATIONS

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 Subsection103f and 103i.

504a - Minimum compaction required shall be a minimum of 8 passes over each full-width layer, or until visual displacement ceases.

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.

509 - The finished grading shall be approved 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.

TIMBER SALE ROAD SPECIFICATIONS

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

AGGREGATE BASE COURSE - 1000
CRUSHED ROCK MATERIAL

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

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

1002b - In accordance with Subsections 1005 and 1006, the following test reports for crushed rock material shall be submitted to, and approved by, the Authorized Officer, prior to delivery and placement of aggregate: AASHTO T96, AASHTO T210, and DMSO. Tests must have been conducted within the last 365 days and be for the same quarry shot that the crushed rock is coming from. New tests must be performed if there is a new shot, or other change in the material being supplied to the crusher.

1002c - In accordance with Subsection 1004, the following test reports for crushed rock material shall be submitted to and approved by the Authorized Officer, prior to delivery and placement of aggregate: AASHTO T11 and AASHTO T27.

1003 - Crushed rock material produced from gravel shall have 2 manufactured fractured faces on 65 percent, by weight, of the material retained on the No. 4 sieve.

TIMBER SALE ROAD SPECIFICATIONS

1004 - Crushed rock materials shall consist of hard durable rock fragments conforming to the following gradation requirements (as determined by AASHTO T11 & T27):

TABLE 1004

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

GRADATION

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

TIMBER SALE ROAD SPECIFICATIONS

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

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

1006a - The crushed rock material shall show a loss of not more than 20 percent by weight, when submerged in DMSO, dimethyl sulfoxide, for five days, according to Federal Highway Administration Region 10 Accelerated Weathering Test Procedure.

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

1009 - The roadbed, as shaped and compacted under Sections 300 and 500 of these specifications, shall be approved by the Authorized Officer prior to placement of crushed rock materials. Notification for final inspection prior to rocking shall be 72 hours prior to that inspection.

1010 - Crushed rock materials shall be placed and processed on the approved roadbed in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans and compacted in layers not to exceed 3 inches in depth. When more than one layer is required, each shall be shaped, processed, compacted, and approved in writing by the Authorized officer before the succeeding layer is placed. Irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and adding or removing crushed rock material until the surface is smooth and uniform.

1010a - Crushed rock material used to repair or reinforce a soft, muddy, frozen, yielding, or rutted roadbed shall not be construed as surfacing under this specification unless approved as such by the Authorized Officer prior to placement.

1012 - Each layer of crushed rock material shall be placed, processed, shaped, moistened or dried to a uniform moisture content suitable for maximum compaction, and compacted to full width by compaction equipment conforming to the requirements of Subsection 103f and 103i. Minimum compaction shall be a minimum of 8 passes over each full-width layer, or until visual displacement ceases.

AGGREGATE SURFACE COURSE - 1200
CRUSHED ROCK MATERIAL

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

1202a - Crushed rock materials used in this work may be obtained from commercial sources selected by the Purchaser at his option and expense, providing the rock materials furnished comply with these specifications.

1202b - In accordance with Subsections 1205 and 1206, the following test reports for crushed rock material shall be submitted to and approved by the Authorized Officer, prior to delivery and placement of aggregate: AASHTO T96, AASHTO T210, and DMSO. Tests must have been conducted within the last 365 days and be for the same quarry shot that the crushed rock is coming from. New tests must be performed if there is a new shot, or other change in the material being supplied to the crusher.

1202c - In accordance with Subsection 1204, the following test reports for crushed rock material shall be submitted to and approved by the Authorized Officer, prior to delivery and placement of aggregate: AASHTO T11 and AASHTO T27.

1203 - When crushed rock material is produced from gravel, not less than 65 percent by weight of the particles retained on the No. 4 sieve will have 2 manufactured fractured faces.

1204 - Crushed rock material shall consist of hard durable rock fragments conforming to the following gradation requirements (as determined by AASHTO T11 & T27):

TABLE 1204

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

GRADATION

Sieve Designation	C	C-1	D	D-1	E	E-1
1-1/2-inch	100	100	-	-	-	-
1-inch	-	-	100	100	-	-
3/4-inch	50-90	60-90	-	70-98	100	100
1/2-inch	-	-	-	-	-	70-98
No. 4	25-50	30-55	30-60	36-60	40-75	44-70
No. 8	-	22-43	-	25-47	-	30-54
No. 30	-	11-27	-	12-31	-	15-34
No. 40	5-25	-	5-30	-	5-35	-
No. 200	2-15	3-15	3-15	3-15	2-15	3-15

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

1206 - Crushed rock material shall show a durability value of not less than 35 as determined by AASHTO T210.

TIMBER SALE ROAD SPECIFICATIONS

1206a - The crushed rock material shall show a loss of not more than 20 percent by weight, when submerged in DMSO, dimethyl sulfoxide, for five days, according to Federal Highway Administration Region 10 Accelerated Weathering Test Procedure.

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 base course shall be completed and approved by the Authorized Officer, prior to placing crushed rock material, in accordance to the requirements of Subsections 300 and 500. Notification for final inspection prior to rocking shall be 72 hours prior to the inspection.

1210 - Crushed rock material conforming to the requirements of these specifications shall be placed on the approved roadbed and base course in accordance with these specifications and conforming to the lines, grades, dimensions, and typical cross sections shown on the plans. Compacted layers shall not exceed 3 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 unless approved by the Authorized Officer.

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 103i. Minimum compaction shall be 8 passes over each full-width layer, or until visual displacement ceases.

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, geofabric rolls, 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 silt fences, straw bales, geofabric rolls, or similar erosion control devices in accordance with these specifications and in reasonably close conformity with the lines and grades as directed by the Authorized Officer.

1703a - Additional erosion control work consisting of furnishing and installing silt fences, straw bales, geofabric rolls, or similar erosion control devices, may be required at the option of the Authorized Officer. Providing that the additional erosion control 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 installing such additional erosion control devices. Costs shall be based upon the unit price set forth in the current BLM Timber Appraisal Production Cost Schedule.

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

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.

SOIL STABILIZATION – 1800

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

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

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

From: September 1st	To: October 15th

If soil stabilization of disturbed areas is not completed by the specified fall date, the Purchaser shall treat disturbed areas in accordance with Section 1700. The Authorized Officer may modify the above seasonal dates to conform to existing weather conditions and changes in the construction schedule.

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

1804 - The BLM shall provide native grass/forb seed for this project.

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

TIMBER SALE ROAD SPECIFICATIONS

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

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

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

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 0.5 acres designated for treatment as shown on the plans and as specified under Subsections 1802a and 1806a, a mixture of grass seed and mulch material at the following rate of application:

Grass Seed	25 lbs./acre
Mulch	2000 lbs./acre

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

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

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

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

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

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.

1820 - When sprayed, the mix must overlap on the ground uniformly so that there will be no voids in the treated areas.

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 when winds would drift the mix 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.

TIMBER SALE ROAD SPECIFICATIONS

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 maybe performed mechanically with self powered, self-propelled equipment and/or manually with hand tools, including chain saws.

2103 - Vegetation cut manually and/or mechanically less than 6 inches in diameter when measured 6 inches above the ground shall be cut to a maximum height of 2 inches above the ground surface or above obstructions such as rocks or stumps on cut and fill slopes and all limbs below the 2 inch area will be severed from the trunk.

2103a - Vegetation shall be cut and removed from the road bed between the outside shoulders and the ditch centerline and such vegetation shall be cut to a maximum height of 2 inches above the ground and running surface. Limbs below the 2 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 when measured 6 inches above the ground line 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.

TIMBER SALE ROAD SPECIFICATIONS

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 distance of 15 feet from edge of subgrade, 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.

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.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ROSEBURG DISTRICT
TIMBER SALE EXHIBIT C

CONTRACT NAME: CAMAS BLOOMS
CONTRACT NO: ORR05-TS-2015.0002

ROAD NUMBER	STA/MP TO STA/MP	CONST.	RENOV.	EXISTING SURFACE TYPE	PROPOSED BASE COURSE		PROPOSED SURFACE COURSE		ROAD DIMENSIONS			TYP. ROAD SECTION	SHEET NO.
					DEPTH	TYPE	DEPTH	TYPE	A	B	C		
28-8-32.0	0+00 – 49+00		X	NATIVE					EXISTING			4	5,7
29-9-23.1	0+00 – 16+10		X	NATIVE					15'			4	6,7
29-9-23.1	16+10 – 21+30		X	NATIVE					17'			2	6,7
29-9-23.8	0+00 – 11+20	X			9"	1004A			15'	12'		4	6,8
29-9-23.8	11+20 – 19+25	X			6"	1004A	3"	1204C	15'	13'	12'	4	6,8,9
29-9-23.8	19+25 – 22+75	X			9"	1004A			15'	12'		4	6,9
SPUR 1	0+00 – 24+65		X	NATIVE					14'			4	3,7
SPUR 2	0+00 – 3+60		X	NATIVE					14'			4	4,10
SPUR 3	0+00 – 2+40	X			9"	1004A			15'	12'		4	4,10
SPUR 4	0+00 – 1+55	X			9"	1004A			15'	12'		4	4,11
SPUR 5	0+00 – 3+20	X			9"	1004A			15'	12'		4	4,11
SPUR 6	0+00 – 1+60	X			9"	1004A			15'	12'		4	5,12
SPUR 7	0+00 – 2+55	X							14'			4	6,12
SPUR 8	0+00 – 0+90	X							40'			4	5,13

INDEX OF SHEETS

REV. NO.	DESCRIPTION	DATE	APPROVED

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS OREGON STATE OFFICE

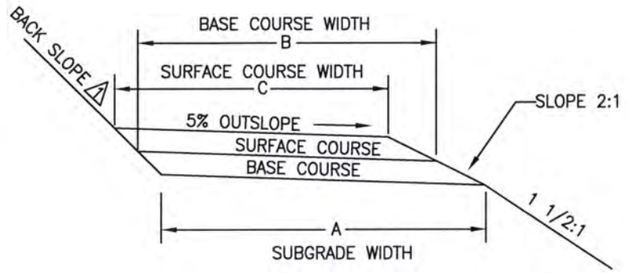
CAMAS BLOOMS
ROAD SUMMARY

ROSEBURG DISTRICT OREGON

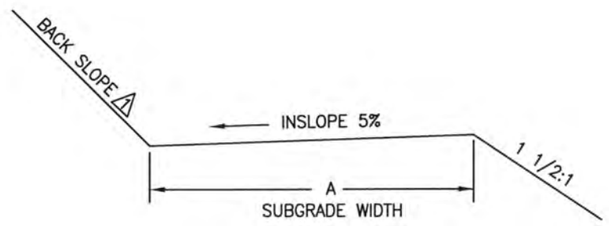
ENGINEERING APPROVAL
SUBMITTED — FIELD MANAGER
RECOMMENDED — A&M SUPPORT SERVICES
APPROVED — FOR DISTRICT MANAGER

DRAWN: C. LESNIAK	SCALE: NONE
DATE: 11/20/14	SHEET 1 OF 16
ORR05-TS-2015.0002	BLM #

ALWAYS THINK SAFETY



SECTION OUT SLOPE ROAD ①



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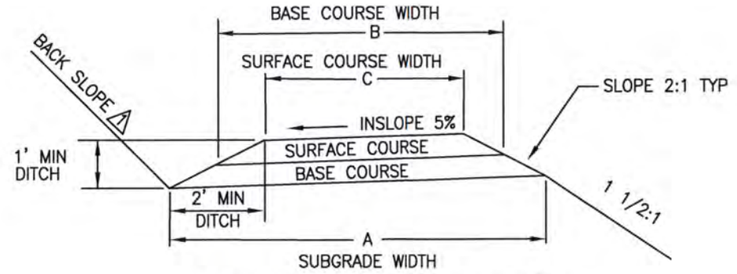

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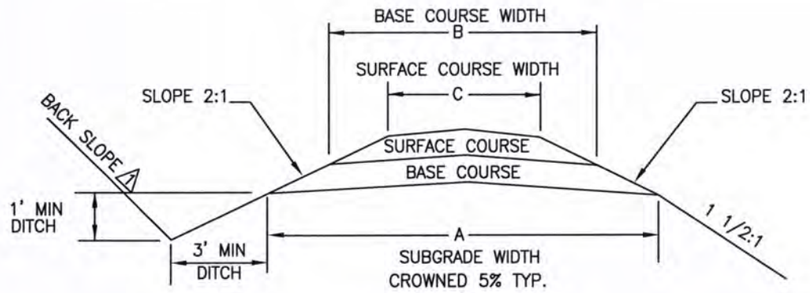

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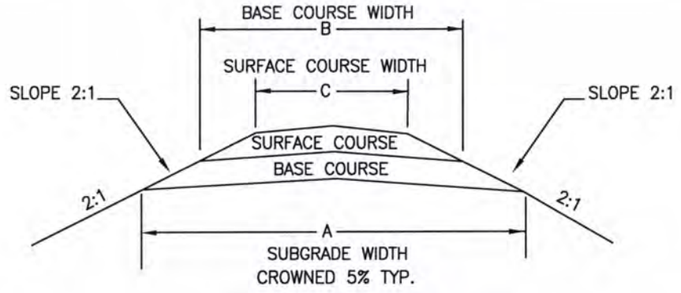
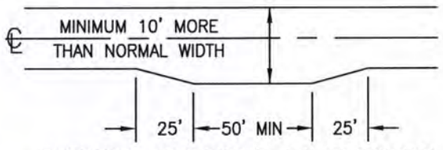


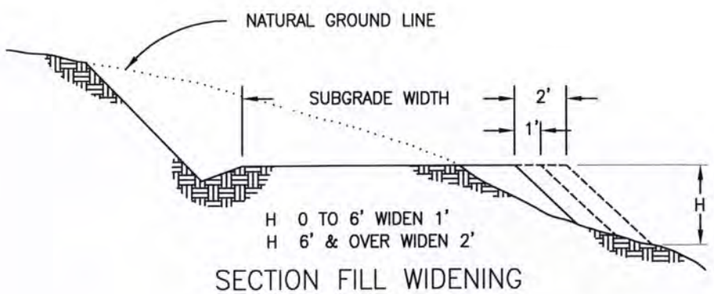
SECTION ROAD ⑤



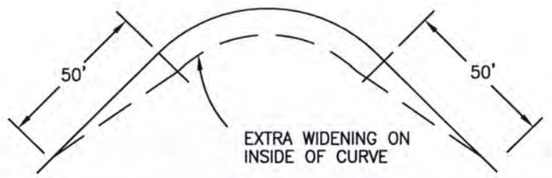
TYPICAL TURNOUT DIMENSIONS

NOTES:

1. Backslope to match existing backslope unless otherwise specified.
2. Backslope for Non-Design Roads:
   Slopes under 50%, ¾:1
   Slopes over 50%, ½:1
   Solid Rock ¼:1
3. Out slope road segments with grades less than 6%, crown or inslope road segments with grades exceeding 6%.
4. Inslope road sections permitted only for temporary roads. Native surface restricted to summer haul.



SECTION FILL WIDENING



DEGREE OF CURVE	8–21	22–35	36–51	52–64	65–79	80–90
EXTRA WIDTH IN FEET	1	2	3	4	5	6

CURVE WIDENING TABLE FOR NON-DESIGN ROADS OR AS SHOWN ON PLANS. MAX 75° CURVE OR AS SHOWN ON PLANS.

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REV. NO.	DESCRIPTION	DATE	APPROVED

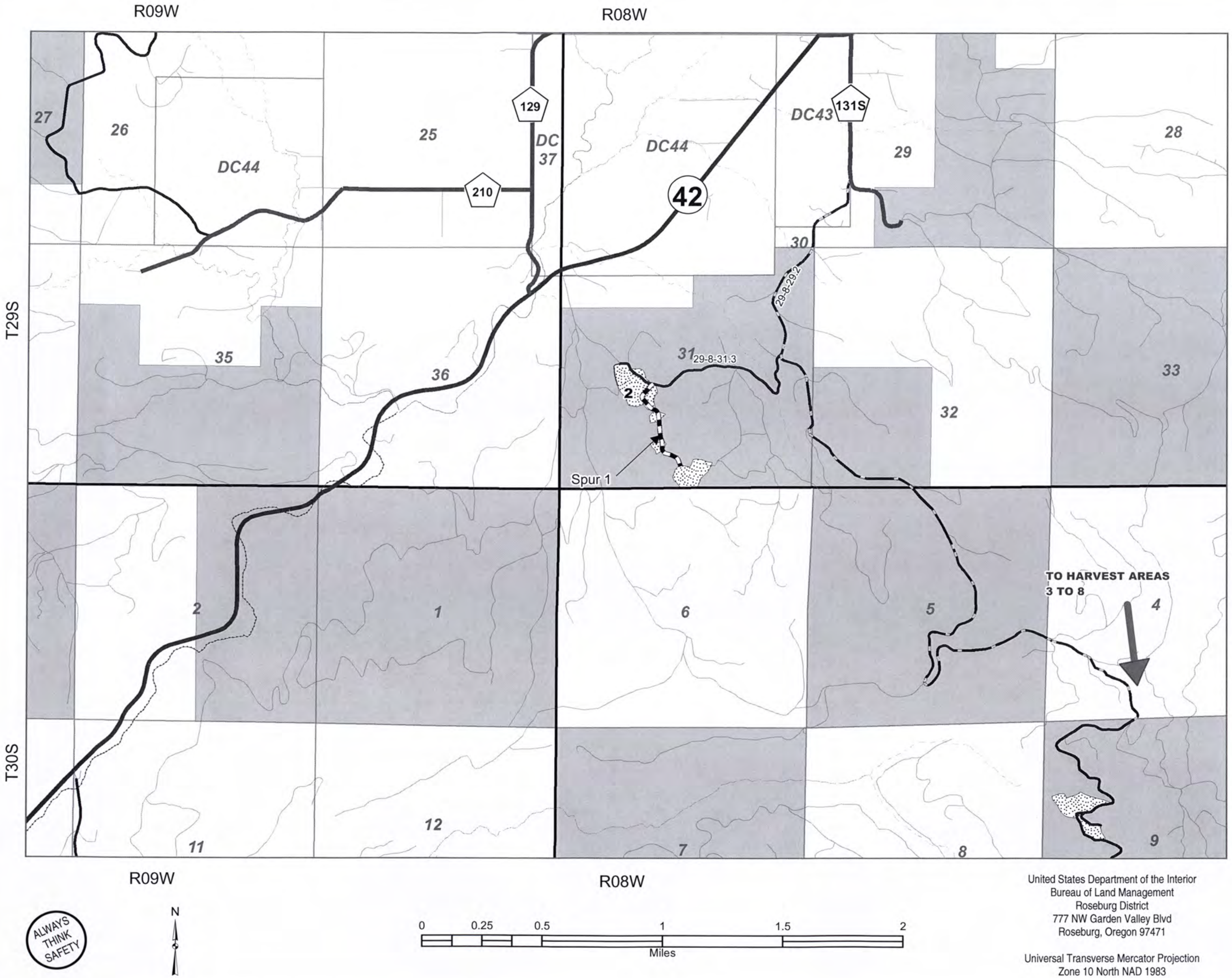
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS OREGON STATE OFFICE

CAMAS BLOOMS TYPICAL SECTIONS

ROSEBURG DISTRICT OREGON

DESIGNED
REVIEWED
APPROVED

DRAWN: T. KING	SCALE: NONE
DATE: 4-18-2014	SHEET 2 OF 16
DRAWING NO. ORR05-TS-2015.0002	BLM #



LEGEND

ROAD TO CONSTRUCT , NATIVE
ROAD TO CONSTRUCT, ROCK
ROAD TO RENOVATE, NATIVE
HAUL ROUTE, ROCK
HAUL ROUTE, PAVED
OTHER ROADS
COUNTY AND STATE HIGHWAY
HARVEST AREA

LAND OWNERSHIP

BLM
OTHER

United States Department of the Interior
Bureau of Land Management
Roseburg District
777 NW Garden Valley Blvd
Roseburg, Oregon 97471

Universal Transverse Mercator Projection
Zone 10 North NAD 1983

REV. NO.	DESCRIPTION	DATE	APPROVED

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS OREGON STATE OFFICE

CAMAS BLOOMS
VICINITY MAP (1 OF 4)

ROSEBURG DISTRICT OREGON

DESIGNED
REVIEWED
APPROVED

DRAWN: C. LESNIAK	SCALE: AS SHOWN
DATE: 11-18-2014	SHEET 3 OF 16
DRAWING NO. ORR05-TS-2015.0002	BLM

R09W

R08W

T30S

T30S

TO HIGHWAY 42
1 MILE

29-8-29.2

30-8-9.1

30-8-9.5

30-8-9.6

30-8-17.2

30-8-9.1

30-8-17.1

30-9-13.1

Spur 2

Spur 3

Spur 4

Spur 5

1 6 5 4 3

12 7 8 9 10

13 18 17 16 15 21

LEGEND

- ROAD TO CONSTRUCT , NATIVE
- ROAD TO CONSTRUCT, ROCK
- ROAD TO RENOVATE, NATIVE
- HAUL ROUTE, ROCK
- HAUL ROUTE, PAVED
- OTHER ROADS
- COUNTY AND STATE HIGHWAY
- HARVEST AREA

LAND OWNERSHIP

- BLM
- OTHER

R09W

R08W

ALWAYS THINK SAFETY

N

0 0.25 0.5 1 1.5 2
Miles

United States Department of the Interior
Bureau of Land Management
Roseburg District
777 NW Garden Valley Blvd
Roseburg, Oregon 97471

Universal Transverse Mercator Projection
Zone 10 North NAD 1983

REV. NO.	DESCRIPTION	DATE	APPROVED

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS OREGON STATE OFFICE

CAMAS BLOOMS
VICINITY MAP (2 OF 4)

ROSEBURG DISTRICT OREGON

DESIGNED	
REVIEWED	
APPROVED	
DRAWN: C. LESNIAK	SCALE: AS SHOWN
DATE: 11-19-2014	SHEET 4 OF 16
DRAWING NO. ORR05-TS-2015.0002	BLM

R09W R08W

T28S

T29S

24 19 20 21 22

26 25 30 29 28

36 31 32 33

1 6 5 4

28-8-32.0

11

10

Spur 6

Spur 8

9

128

28-9-25.1

28-8-31.2

TO HIGHWAY 42
2 MILES

LEGEND

- ROAD TO CONSTRUCT , NATIVE
- ROAD TO CONSTRUCT, ROCK
- ROAD TO RENOVATE, NATIVE
- HAUL ROUTE, ROCK
- HAUL ROUTE, PAVED
- OTHER ROADS
- COUNTY AND STATE HIGHWAY
- HARVEST AREA

LAND OWNERSHIP

- BLM
- OTHER

ALWAYS THINK SAFETY

N

0 0.25 0.5 1 1.5 2
Miles

United States Department of the Interior
Bureau of Land Management
Roseburg District
777 NW Garden Valley Blvd
Roseburg, Oregon 97471

Universal Transverse Mercator Projection
Zone 10 North NAD 1983

REV. NO.	DESCRIPTION	DATE	APPROVED

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS OREGON STATE OFFICE

CAMAS BLOOMS VICINITY MAP (3 OF 4)

ROSEBURG DISTRICT OREGON

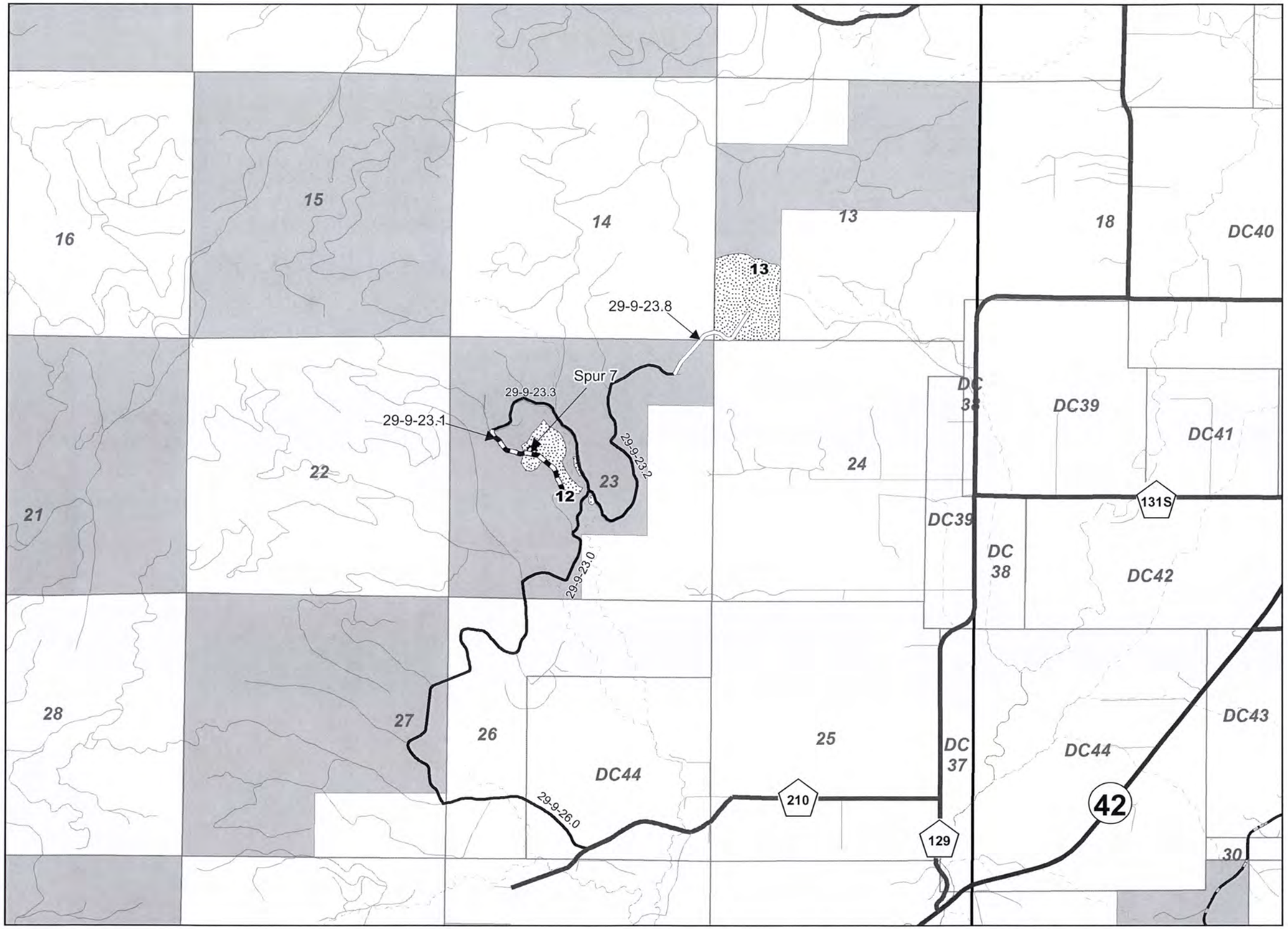
DESIGNED
REVIEWED
APPROVED

DRAWN: C. LESNIAK	SCALE: AS SHOWN
DATE: 11-19-2014	SHEET 5 OF 16
DRAWING NO. ORR05-TS-2015.0002	BLM

R09W

R08W

T29S



LEGEND

- ROAD TO CONSTRUCT , NATIVE
- ROAD TO CONSTRUCT, ROCK
- ROAD TO RENOVATE, NATIVE
- HAUL ROUTE, ROCK
- HAUL ROUTE, PAVED
- OTHER ROADS
- COUNTY AND STATE HIGHWAY
- HARVEST AREA

LAND OWNERSHIP

- BLM
- OTHER

R09W

R08W

ALWAYS THINK SAFETY

N

0 0.25 0.5 1 1.5 2
Miles

United States Department of the Interior
Bureau of Land Management
Roseburg District
777 NW Garden Valley Blvd
Roseburg, Oregon 97471

Universal Transverse Mercator Projection
Zone 10 North NAD 1983

REV. NO.	DESCRIPTION	DATE	APPROVED

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS — OREGON STATE OFFICE

CAMAS BLOOMS VICINITY MAP (4 OF 4)

ROSEBURG DISTRICT — OREGON

DESIGNED	
REVIEWED	
APPROVED	Thomas J Syverson
DRAWN: C. LESNIAK	SCALE: AS SHOWN
DATE: 11-19-2014	SHEET 6 OF 16
DRAWING NO. ORR05-TS-2015.0002	BLM

ROAD RENOVATION

Notes:

1. All roads shall be renovated in accordance with attached specifications and the work items listed below. Renovation may include roadside brushing, installing culverts and splash pads, blading, shaping, cleaning ditches, removing slide material, and cleaning existing drainage structures. Features to construct are so noted. Existing features are noted at approximate station in the notes below. The Purchaser shall dispose of all culvert pipe removed as a part of the work described in this contract at a legal site off of BLM land.
2. All renovation and construction shall be done and approved prior to any hauling activity.
3. Existing turnouts, on roads to be surfaced, shall be surfaced to the same standard as the road.
4. Back slopes shall be cut to match existing unless otherwise specified.
5. All work shall be performed according to OSHA safety requirements.

STA	DESCRIPTION
	28-8-32.0
0+00	BEGIN RENOVATION AT THE JUNCTION OF BLM 28-8-32.0 AND DOUGLAS COUNTY 128. REMOVE THE WATERBARS. SHAPE AND SMOOTH THE ROAD WITH A GRADER. THE ROAD BEGINS ON PRIVATE LANDS. CONTRACTOR'S ACTIVITIES MUST REMAIN WITHIN THE ROAD PRISM.
1+00	TEMPORARILY FILL IN TRENCH BARRICADE FOR THE DURATION OF THE TIMBER HARVEST OF UNIT 11.
4+70	ENTER BLM PROPERTY
9+60	ENTER PRIVATE PROPERTY
17+20	ENTER LONE ROCK TIMBER PROPERTY
32+00	ENTER BLM PROPERTY, AND THE BEGINNING OF UNIT 11
49+00	END OF RENOVATION.

STA	DESCRIPTION
	29-9-23.1
0+00	BEGIN RENOVATION AT JUNCTION OF ROADS 29-9-23.1 AND 29-9-23.3 BEGIN CLEARING, GRUBBING, BLADING, AND COMPACTION
8+20	SUNKEN GRADE, PLACE 20 C.Y. OF 3" MINUS (1004A) ROCK ON THE ROAD TO FILL IN THE RUTS.
9+00	BOUNDARY OF HARVEST UNIT
10+00	JUNCTION WITH SPUR 7 ON LEFT, SEE PAGE 12 FOR JUNCTION DETAIL.
10+80	SUNKEN GRADE, PLACE 30 C.Y. OF 3" MINUS (1004A) ROCK ON THE ROAD TO FILL IN THE RUTS.
11+80	CONSTRUCT A TRUCK TURNOUT ON THE LEFT PER TYPICAL TURNOUT DIMENSIONS ON SHEET 2.
14+90	INSTALL 18" X 36' TEMPORARY CROSS DRAIN CULVERT WITH 0° SKEW TO THE ROAD.
15+60	CONSTRUCT A TRUCK TURN OUT ON THE LEFT PER TYPICAL TURNOUT DIMENSIONS ON SHEET 2. KEEP ALL SIDE-CAST AND FILL MATERIAL OFF OF SLOPES GREATER THAN 35%.
16+10	ROAD DIMENSION CHANGE. FROM STATION 16+10 TO 21+30 CONSTRUCT A 17' WIDE, INSLOPED ROAD WITH NO DITCH.
16+86	BEGIN WIDENING THE ROAD INTO THE CUT BANK.

STA	DESCRIPTION
17+11	FILL FAILURE IN OLD ROAD PRISM. WIDEN ROAD 3' TO A FINAL WIDTH OF 17' BY EXCAVATING OUT THE CUT SIDE OF THE ROAD. TAPER IT BACK 25' IN EITHER DIRECTION TO BLEND IT INTO THE EXISTING CUT SLOPES. CONTRACTOR SHALL USE FULL BENCH/END HAUL TECHNIQUE WITH NO SIDE-CAST ALLOWED. EXCAVATED MATERIAL MUST BE END HAULED TO THE LANDING AT STATION 21+30.
17+36	RESUME EXISTING ALIGNMENT
18+40	BEGINNING OF CUT BANK SLUMP IN THE ROAD. WIDEN ROAD 5' BY DIGGING THE BANK BACK AT THE TOP OF THE SCARP (MARKED IN THE FIELD WITH ORANGE FLAGGING) AND BRING DOWN A NEW BACKSLOPE AT ½:1. FINAL SUBGRADE WIDTH MUST BE A MINIMUM OF 17'. CONTRACTOR SHALL USE FULL BENCH/END HAUL TECHNIQUE WITH NO SIDE-CAST ALLOWED. EXCAVATED MATERIAL MUST BE END HAULED TO THE LANDING AT STATION 21+30.
18+70	END OF SLUMP IN ROAD
20+70	BEGINNING OF EXISTING LANDING, 60' X 60.' NO ADDITIONAL SIZE REQUIRED. CLEAN MATERIAL EXCAVATED FROM STATION 17+11 AND BETWEEN STATIONS 18+40 AND 18+70 SHALL BE DUMPED, DISPERSED AND COMPACTED EVENLY ACROSS THE SURFACE. MATERIAL CONTAINING ORGANICS MUST BE PLACED OFF OF THE FAR SIDE OF THE LANDING, OPPOSITE OF THE UNIT. ALL WASTED MATERIAL MUST BE SMOOTHED OUT, AND FREE TO DRAIN WATER.
21+30	END OF RENOVATION. DIG A 5 FOOT DEEP TRENCH BARRIER WITH A DITCHOUT ACROSS THE 29-9-23.1 ROAD AS IT EXITS THE LANDING.

STA	DESCRIPTION
	SPUR 1
0+00	BEGIN ROAD RENOVATION. BEGIN CLEARING, GRUBBING, BLADING, AND COMPACTION. BUILD A FLARED JUNCTION AT THE INTERSECTION OF ROADS 29-8-31.3 AND SPUR 1. PLACE 40 C.Y. OF 3" MINUS (1004A) ROCK FROM STATION 0+00 TO STATION 1+00.
1+00	END ROCKING, CONTINUE RENOVATION WITH NATIVE SURFACE
9+90	LEAVING LOGGING UNIT, (CUT TREES ARE MARKED IN BLUE)
16+00	ENTERING LOGGING UNIT
17+00	LEAVING LOGGING UNIT, (CUT TREES ARE MARKED IN BLUE)
23+25	ENTERING LOGGING UNIT
24+65	END OF RENOVATION.

ALWAYS THINK SAFETY

REV. NO.	DESCRIPTION	DATE	APPROVED

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS OREGON STATE OFFICE

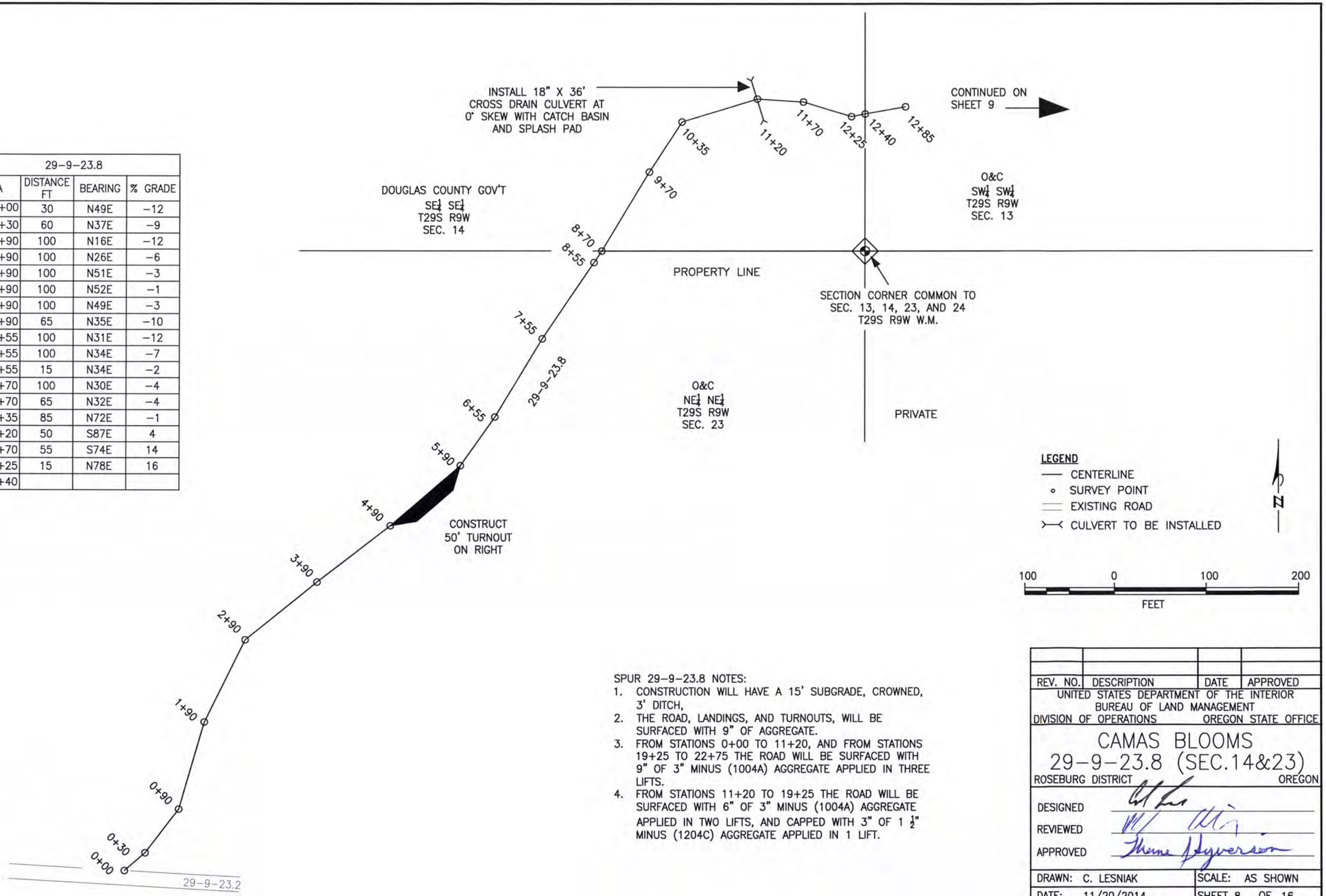
CAMAS BLOOMS
RENOVATION NOTES

ROSEBURG DISTRICT OREGON

DESIGNED
REVIEWED
APPROVED

DRAWN: C. LESNIAK	SCALE: AS SHOWN
DATE: 11/20/2014	SHEET 7 OF 16
DRAWING NO. ORR05-TS-2015.0002	BLM #

29-9-23.8			
STA	DISTANCE FT	BEARING	% GRADE
0+00	30	N49E	-12
0+30	60	N37E	-9
0+90	100	N16E	-12
1+90	100	N26E	-6
2+90	100	N51E	-3
3+90	100	N52E	-1
4+90	100	N49E	-3
5+90	65	N35E	-10
6+55	100	N31E	-12
7+55	100	N34E	-7
8+55	15	N34E	-2
8+70	100	N30E	-4
9+70	65	N32E	-4
10+35	85	N72E	-1
11+20	50	S87E	4
11+70	55	S74E	14
12+25	15	N78E	16
12+40			



LEGEND

- CENTERLINE
- SURVEY POINT
- EXISTING ROAD
- CULVERT TO BE INSTALLED

N

100 0 100 200

FEET

SPUR 29-9-23.8 NOTES:

1. CONSTRUCTION WILL HAVE A 15' SUBGRADE, CROWNED, 3' DITCH,
2. THE ROAD, LANDINGS, AND TURNOUTS, WILL BE SURFACED WITH 9" OF AGGREGATE.
3. FROM STATIONS 0+00 TO 11+20, AND FROM STATIONS 19+25 TO 22+75 THE ROAD WILL BE SURFACED WITH 9" OF 3" MINUS (1004A) AGGREGATE APPLIED IN THREE LIFTS.
4. FROM STATIONS 11+20 TO 19+25 THE ROAD WILL BE SURFACED WITH 6" OF 3" MINUS (1004A) AGGREGATE APPLIED IN TWO LIFTS, AND CAPPED WITH 3" OF 1 ½" MINUS (1204C) AGGREGATE APPLIED IN 1 LIFT.

ALWAYS THINK SAFETY

REV. NO.	DESCRIPTION	DATE	APPROVED

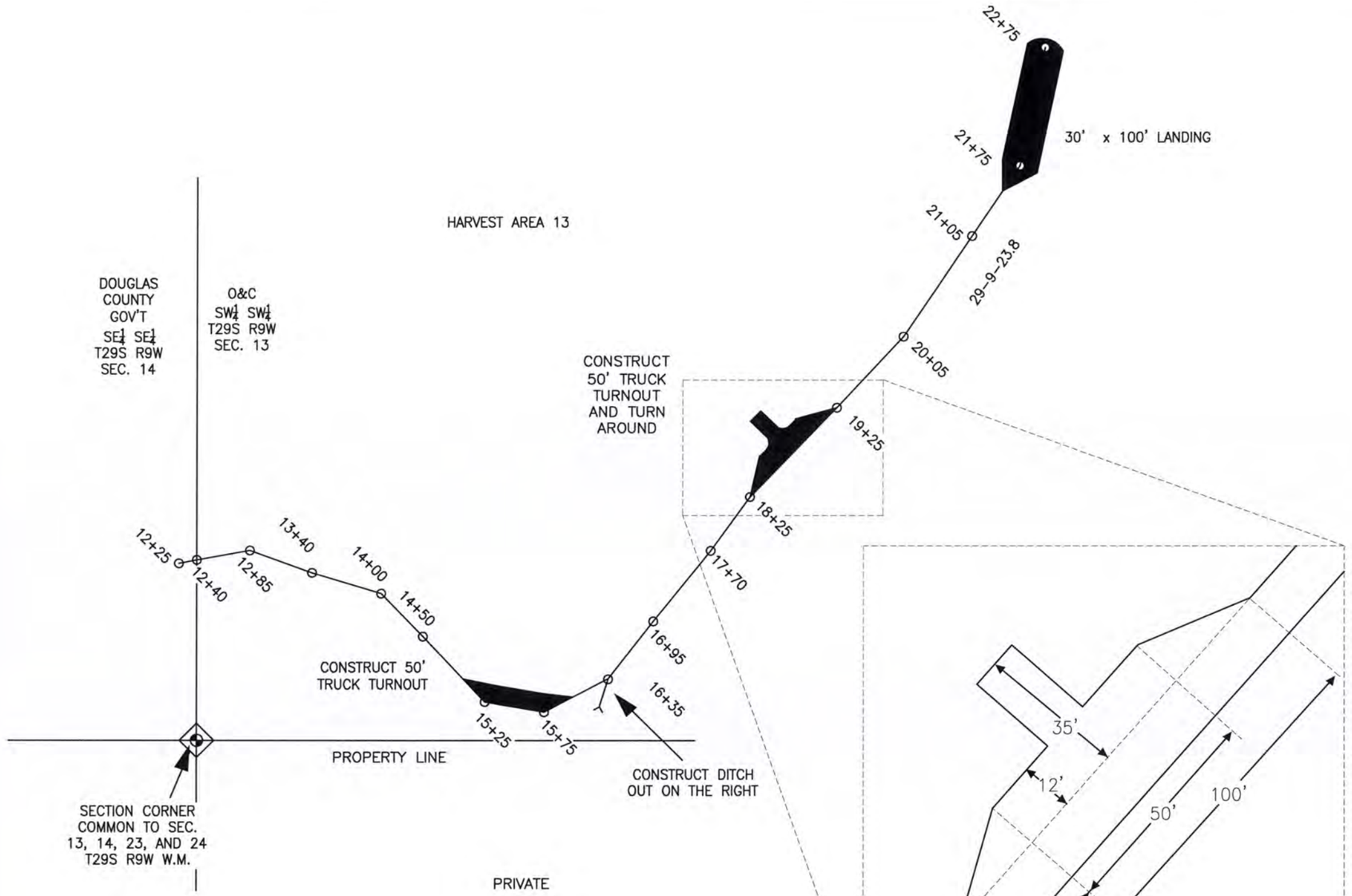
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS OREGON STATE OFFICE

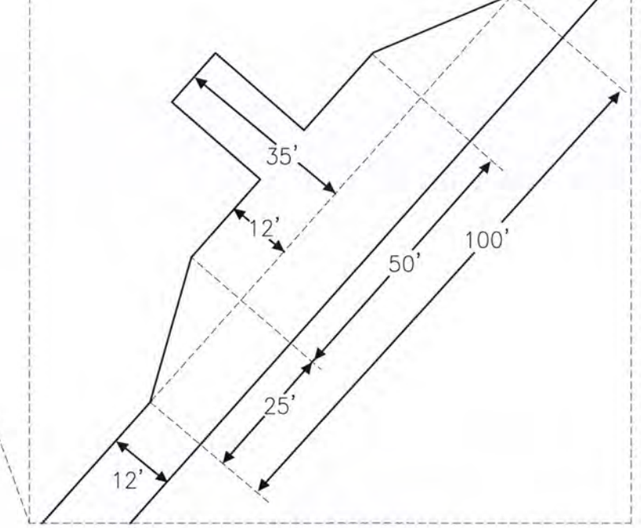
CAMAS BLOOMS
29-9-23.8 (SEC.14&23)

ROSEBURG DISTRICT OREGON

DESIGNED
REVIEWED
APPROVED Thomas Syverson

DRAWN: C. LESNIAK	SCALE: AS SHOWN
DATE: 11/20/2014	SHEET 8 OF 16
DRAWING NO. ORR05-TS-2015.0002	BLM #





TRUCK TURN AROUND DETAIL

DIMENSIONS ARE FOR FINISHED ROCK SURFACE, ADD 1.5' OF WIDTH ALONG EACH EDGE FOR THE SUBGRADE.

29-9-23.8			
STA	DISTANCE FT	BEARING	% GRADE
12+40	45	N79E	16
12+85	55	S71E	17
13+40	60	S74E	17
14+00	50	S45E	17
14+50	75	S44E	16
15+25	50	S81E	16
15+75	60	N61E	16
16+35	60	N37E	9
16+95	75	N38E	7
17+70	55	N35E	8
18+25	100	N45E	10
19+25	80	N43E	7
20+05	100	N34E	3
21+05	70	N34E	4
21+75	100	N12E	-5
22+75			

SPUR 29-9-23.8 NOTES:

1. CONSTRUCTION WILL HAVE A 15' SUBGRADE, CROWNED, 3' DITCH,
2. THE ROAD, LANDINGS, AND TURNOUTS, WILL BE SURFACED WITH 9" OF AGGREGATE.
3. FROM STATIONS 0+00 TO 11+20, AND FROM STATIONS 19+25 TO 22+75 THE ROAD WILL BE SURFACED WITH 9" OF 3" MINUS (1004A) AGGREGATE APPLIED IN THREE LIFTS.
4. FROM STATIONS 11+20 TO 19+25 THE ROAD WILL BE SURFACED WITH 6" OF 3" MINUS (1004A) AGGREGATE APPLIED IN TWO LIFTS, AND CAPPED WITH 3" OF 1 ½" MINUS (1204C) AGGREGATE APPLIED IN 1 LIFT.

REV. NO.	DESCRIPTION	DATE	APPROVED

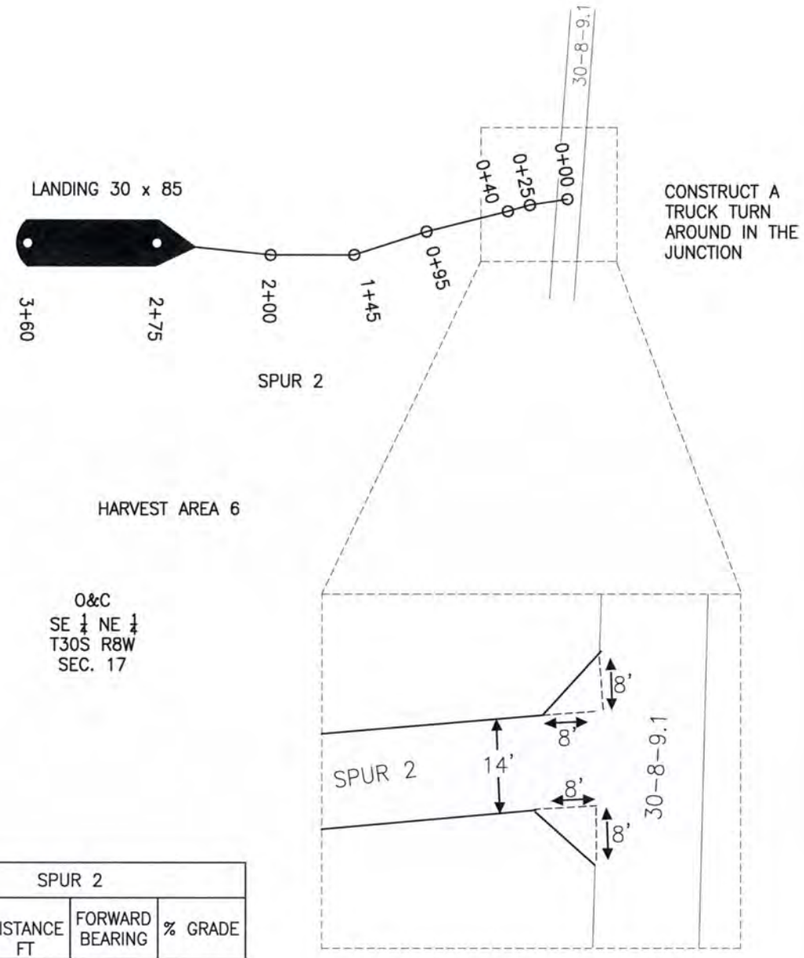
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS OREGON STATE OFFICE

CAMAS BLOOMS 29-9-23.8 (SEC. 13)

ROSEBURG DISTRICT OREGON

DESIGNED
REVIEWED
APPROVED

DRAWN: C. LESNIAK	SCALE: AS SHOWN
DATE: 11/20/2014	SHEET 9 OF 16
DRAWING NO. ORR05-TS-2015.0002	BLM #



JUNCTION / TRUCK TURN AROUND DETAIL

DIMENSIONS ARE FOR SUBGRADE ONLY, NO SURFACING REQUIRED.

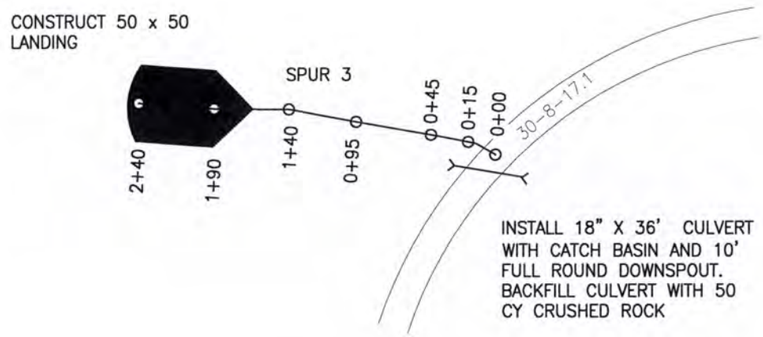
SPUR 2			
STA	DISTANCE FT	FORWARD BEARING	% GRADE
0+00	25	S81W	−3
0+25	15	S74W	2
0+40	55	S76W	−4
0+95	50	S72W	2
1+45	55	W	−10
2+00	75	N84W	3
2+75	85	W	1
3+60			

SPUR 2 NOTES:
1. RENOVATION WILL HAVE A 14' SUBGRADE, NATIVE SURFACING, CROWNED, 3' DITCH.

LEGEND
- CENTERLINE
- SURVEY POINT
- EXISTING ROAD

N

100 0 100 200
FEET



SPUR 3			
STA	DISTANCE FT	FORWARD BEARING	% GRADE
0+00	15	N60W	12
0+15	30	N79W	12
0+45	50	N80W	11
0+95	45	N74W	10
1+40	50	S86W	2
1+90	50	N86W	−1
2+40			

SPUR 3 NOTES:
1. CONSTRUCTION WILL HAVE A 15' SUBGRADE, CROWNED, 3' DITCH, AND SURFACED WITH 9" OF 3" MINUS (1004A) AGGREGATE.

LEGEND
- CENTERLINE
- SURVEY POINT
- EXISTING ROAD
- CULVERT TO BE INSTALLED

N

100 0 100 200
FEET

REV. NO.	DESCRIPTION	DATE	APPROVED

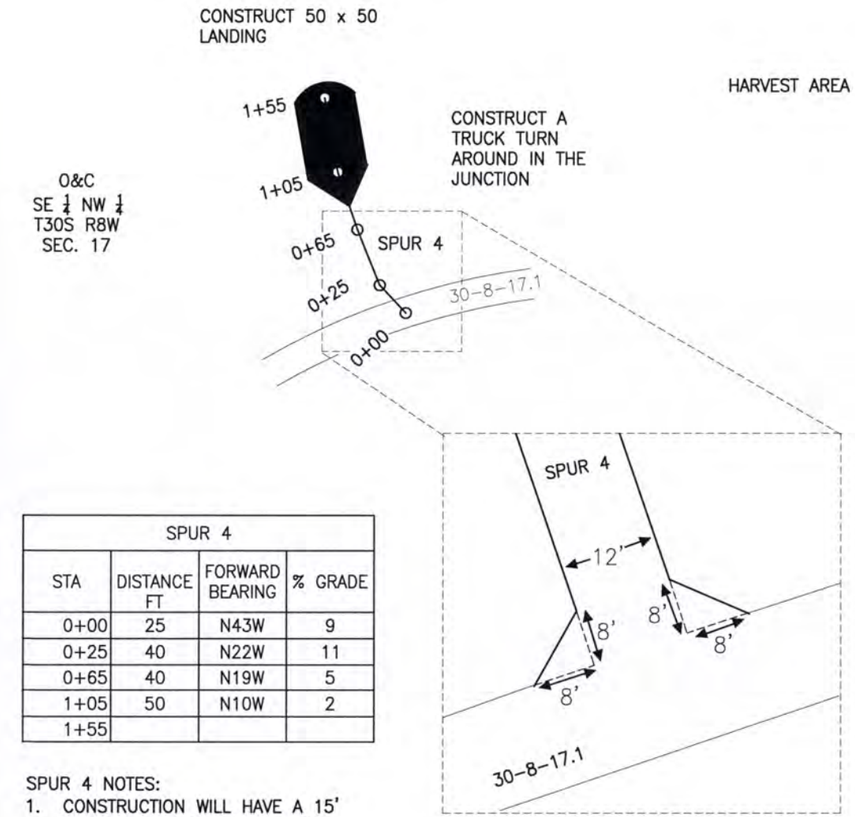
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS OREGON STATE OFFICE

CAMAS BLOOMS SPURS 2 & 3

ROSEBURG DISTRICT OREGON

DESIGNED
REVIEWED
APPROVED Theme Syverson

DRAWN: C. LESNIAK	SCALE: AS SHOWN
DATE: 11/20/2014	SHEET 10 OF 16
DRAWING NO. ORR05-TS-2015.0002	BLM #

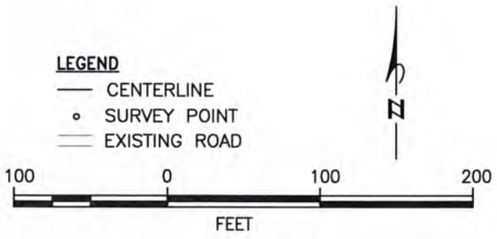


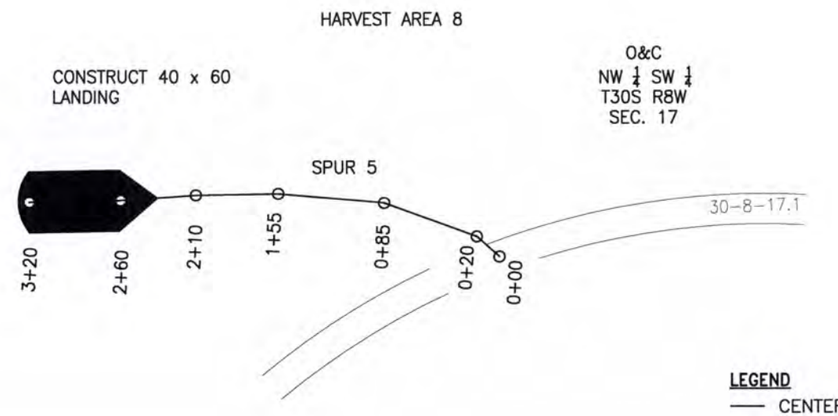
SPUR 4			
STA	DISTANCE FT	FORWARD BEARING	% GRADE
0+00	25	N43W	9
0+25	40	N22W	11
0+65	40	N19W	5
1+05	50	N10W	2
1+55			

SPUR 4 NOTES:
1. CONSTRUCTION WILL HAVE A 15' SUBGRADE, CROWNED, 3' DITCH, AND SURFACED WITH 9" OF 3" MINUS (1004A) AGGREGATE.

JUNCTION / TRUCK TURN AROUND DETAIL

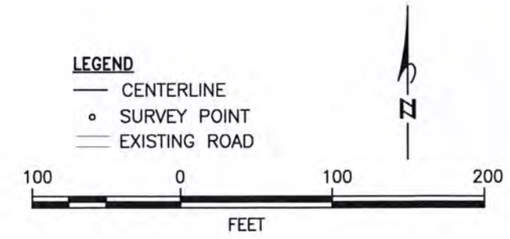
DIMENSIONS ARE FOR FINISHED ROCK SURFACE, ADD 1.5' OF WIDTH ALONG EACH EDGE FOR THE SUBGRADE.





SPUR 5			
STA	DISTANCE FT	FORWARD BEARING	% GRADE
0+00	20	N48W	3
0+20	65	N70W	10
0+85	70	N85W	15
1+55	55	S89W	15
2+10	50	S86W	7
2+60	60	S89W	−2
3+20			

SPUR 5 NOTES:
1. CONSTRUCTION WILL HAVE A 15' SUBGRADE, CROWNED, 3' DITCH, AND SURFACED WITH 9" OF 3" MINUS (1004A) AGGREGATE.



ALWAYS THINK SAFETY

REV. NO.	DESCRIPTION	DATE	APPROVED

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS — OREGON STATE OFFICE

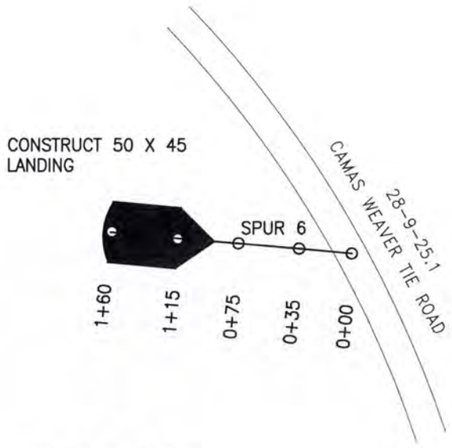
CAMAS BLOOMS SPURS 4 & 5

ROSEBURG DISTRICT — OREGON

DESIGNED
REVIEWED
APPROVED

DRAWN: C. LESNIAK	SCALE: AS SHOWN
DATE: 11/20/2014	SHEET 11 OF 16
DRAWING NO. ORR05-TS-2015.0002	BLM #

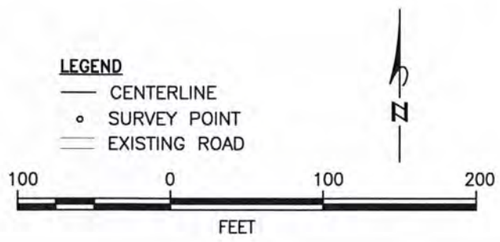
CBWR
NW ¼ NW ¼
T28S R8W
SEC. 31



HARVEST AREA 10

SPUR 6			
STA	DISTANCE FT	FORWARD BEARING	% GRADE
0+00	35	N85W	−3
0+35	40	N85W	−7
0+75	40	N85W	−6
1+15	45	N85W	−2
1+60			

SPUR 6 NOTES:
1. CONSTRUCTION WILL HAVE A 15' SUBGRADE, CROWNED, 3' DITCH, AND SURFACED WITH 9" OF 3" MINUS (1004A) AGGREGATE.



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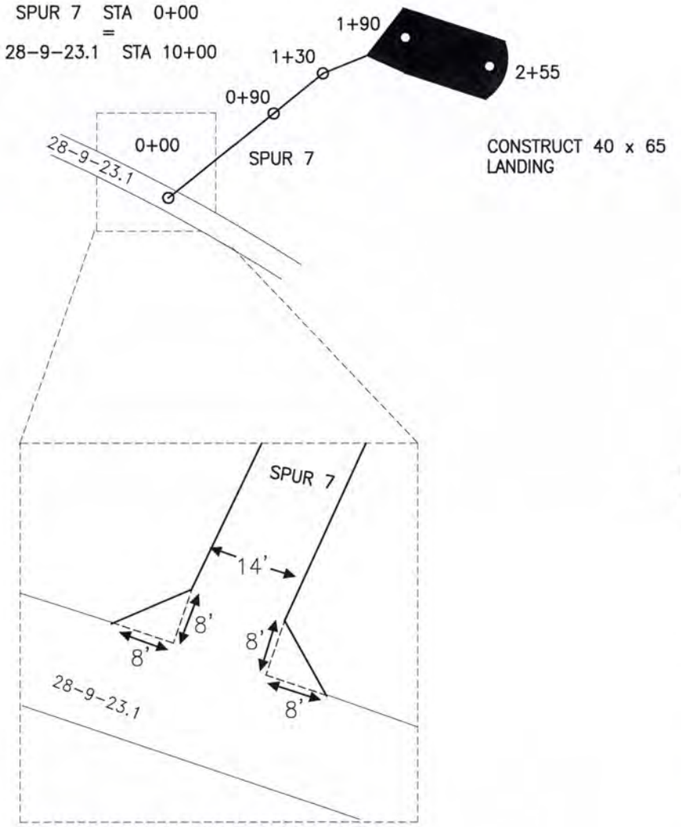
O&C
SE ¼ NW ¼
T29S R9W
SEC. 23

HARVEST AREA 12

CONSTRUCT A TRUCK TURN AROUND IN THE JUNCTION

SPUR 7 STA 0+00
=
28-9-23.1 STA 10+00



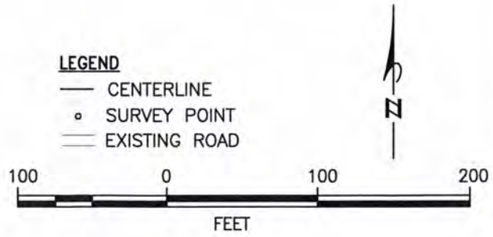
JUNCTION / TRUCK TURN AROUND DETAIL

DIMENSIONS ARE FOR SUBGRADE ONLY, NO SURFACING REQUIRED.

CONSTRUCT 40 x 65
LANDING

SPUR 7			
STA	DISTANCE FT	FORWARD BEARING	% GRADE
0+00	90	N54E	−6
0+90	40	N50E	−13
1+30	60	N60E	−10
1+90	65	S68E	−5
2+55			

SPUR 7 NOTES:
1. CONSTRUCTION WILL HAVE A 14' SUBGRADE, NATIVE SURFACING, CROWNED, 3' DITCH.



REV. NO.	DESCRIPTION	DATE	APPROVED

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS — OREGON STATE OFFICE

CAMAS BLOOMS
SPURS 6 & 7

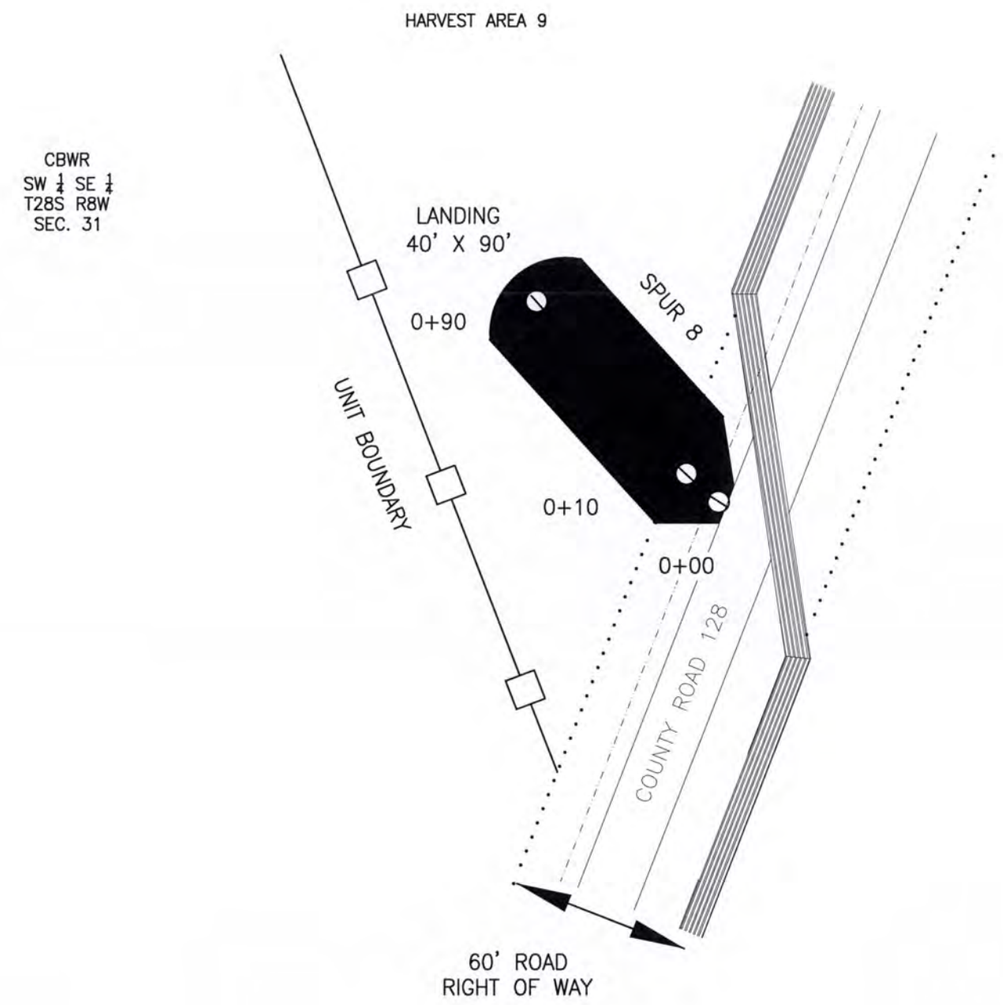
ROSEBURG DISTRICT — OREGON

DESIGNED
REVIEWED
APPROVED

DRAWN: C. LESNIAK	SCALE: AS SHOWN
DATE: 11/20/2014	SHEET 12 OF 16
DRAWING NO. ORR05-TS-2015.0002	BLM #

SPUR 8			
STA	DISTANCE FT	BEARING	% GRADE
0+00	10	N42W	2
0+10	80	N42W	2
0+90			

NOTES:
1. CONTRACTOR SHALL BUILD A THROUGH–FILL OVER THE DITCHLINE TO PROTECT UNDERGROUND UTILITIES. USE MATERIAL FROM THE END OF THE LANDING, THEN PULL THE MATERIAL BACK DURING DECOMMISSIONING.
2. CONTRACTOR WILL BE RESPONSIBLE FOR SECURING A PERMIT TO OPERATE IN THE DOUGLAS COUNTY ROAD RIGHT–OF–WAY, AND FOR RECEIVING CLEARANCE FROM THE OREGON UTILITY NOTIFICATION CENTER.



LEGEND
- CENTERLINE
- SURVEY POINT
- EXISTING ROAD
- HARVEST UNIT BOUNDARY
- COUNTY RIGHT–OF–WAY BOUNDARY
- OVERHEAD POWERLINES
- UNDERGROUND TELEPHONE LINES

N

50 0 50 100
FEET

REV. NO.	DESCRIPTION	DATE	APPROVED

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS OREGON STATE OFFICE

CAMAS BLOOMS SPUR 8

ROSEBURG DISTRICT OREGON

DESIGNED
REVIEWED
APPROVED

DRAWN: C.LESNIAK	SCALE: AS SHOWN
DATE: 11/20/2014	SHEET 13 OF 16
DRAWING NO. ORR05–TS–2015.0002	BLM #

CULVERT LIST

CULVERT LOCATIONS										DOWNSPOUT (NOTE 4)				REMARKS (NOTE 6)
DESIGNED (NOTE 2)						AS BUILT								
ROAD NO. STATION OR M.P.	SIZE (IN)	GAGE	LENGTH (FT)	SKEW ANGLE (DEG.)	INSTALL TYPE (NOTE 3)	ROAD NO. STATION OR M.P.	SIZE	GAGE	LENGTH	TYPE	SIZE	LENGTH	ELBOW TYPE (NOTE 5)	
30-8-17.1 (JCT SPUR 3)														
STA 0+00	18"		36	30	4					a	18"	10'	a	PERMANENT CULVERT TO BE INSTALLED ACROSS ROAD NO. 30-8-17.1. BACKFILL WITH 50 CY OF CRUSHED ROCK
29-9-23.1														
STA 14+90	18"		36	0	3									TEMPORARY CULVERT, TO BE REMOVED AT END OF HAUL
29-9-23.8														
STA 11+20	18"		36	0	2									PERMANENT CROSS DRAIN CULVERT WITH CATCH BASIN AND SPLASH PAD

NOTES:

1. DESIGNED CULVERT LENGTHS AND LOCATIONS ARE APPROXIMATE.
2. ALL CULVERTS HAVE 2 2/3" X 1/2" CORRUGATIONS UNLESS OTHERWISE SPECIFIED.
3. SEE CULVERT INSTALLATION SHEET.
4. DOWN SPOUT TYPES:
   a. FULL
   b. HALF
   c. FLUME
5. ELBOW TYPES:
   a. CONVENTIONAL OR FABRICATED
   b. TURNER TYPE
   c. SLIP JOINT
6. INCLUDE SPECIAL SECTIONS, STRUCTURES, HEADWALLS, FOOTINGS, AND OTHER DATA.

GAGE CHART		
GAGE	DEC. EQUIV INCHES	
	STEEL	ALUM.
10	0.1380	0.1350
12	0.1090	0.1050
14	0.0790	0.0750
16	0.0640	0.0600

ROUND PIPE CULVERT				
MATERIAL	SIZE	GAGE	CORRUGATIONS	LENGTH
*	18"			108'

FULL ROUND CULVERT DOWNSPOUT				
MATERIAL	SIZE	GAGE	CORRUGATIONS	LENGTH
*	18"			10'

* MATERIAL TYPE: HI-DENSITY POLYETHYLENE OR ALUMINIZED

REV. NO.	DESCRIPTION	DATE	APPROVED

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS OREGON STATE OFFICE

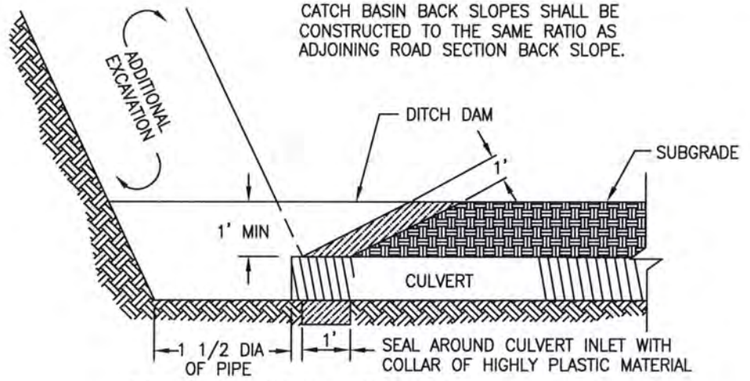
CAMAS BLOOMS CULVERT SUMMARY

ROSEBURG DISTRICT OREGON

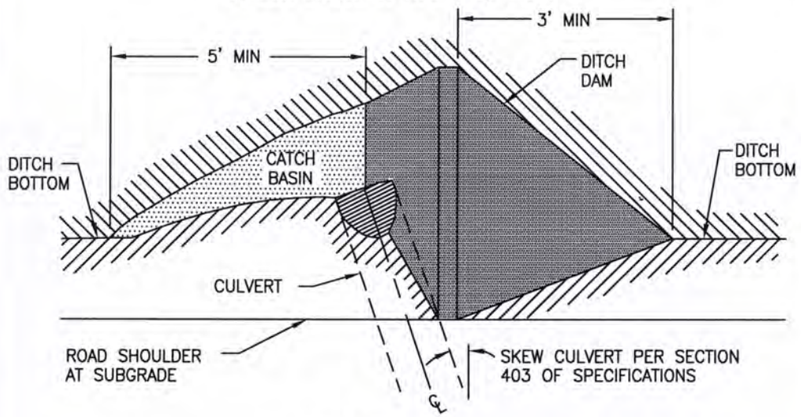
DESIGNED
REVIEWED
APPROVED

ALWAYS THINK SAFETY

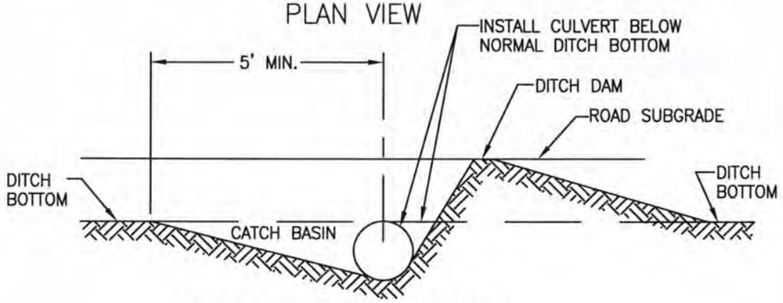
DRAWN: C. LESNIAK	SCALE: NONE
DATE: 11/20/14	SHEET 14 OF 16
DRAWING NO. ORR05-TS-2015.0002	BLM #



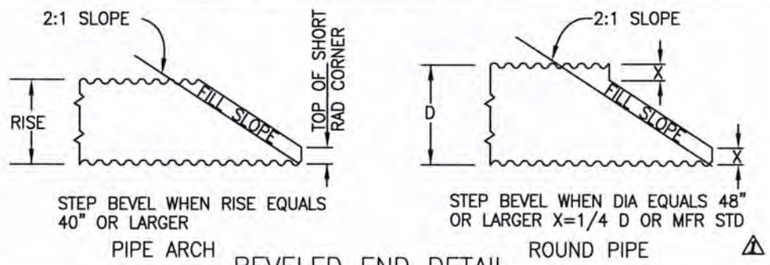
CROSS SECTION AT CATCH BASIN
CULVERT INSTLATION TYPE 2, 3, AND 4



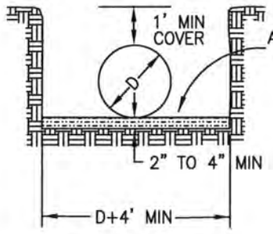
PLAN VIEW



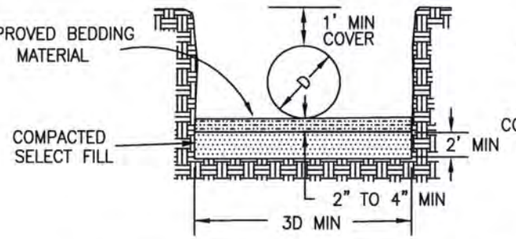
CATCH BASIN ELEVATION



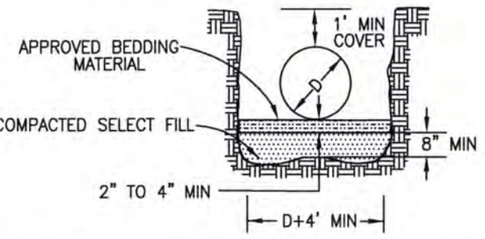
BEVELED END DETAIL



BEDDING OF CULVERTS ON STABLE NATURAL GROUND FOUNDATION



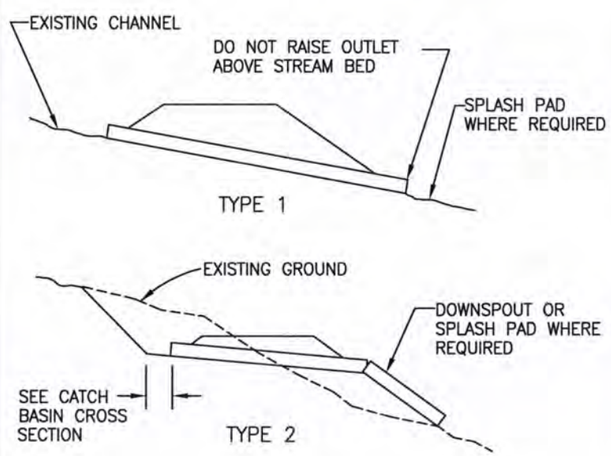
BEDDING OF CULVERTS ON SOFT SPONGY, UNSTABLE SOIL FOUNDATION OR COMPACTED EMBANKMENT



BEDDING OF CULVERTS IN SOLID ROCK OR BOULDER FOUNDATION

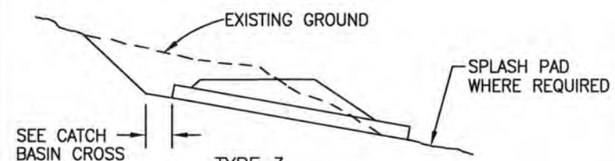
NOTES:
1. BEDDING MATERIAL SHALL BE PLACED LOOSE AND SHAPED TO FIT THE BOTTOM OF THE CULVERT
2. BACKFILL IN ACCORDANCE WITH SECTION 417 OF SPECIFICATIONS
3. MAINTAIN 8" MIN DEPTH BETWEEN HIGH POINT OF ROCK AND/OR BOULDERS AND THE BOTTOM OF THE CULVERT BEDDING

BEDDING OF CULVERTS

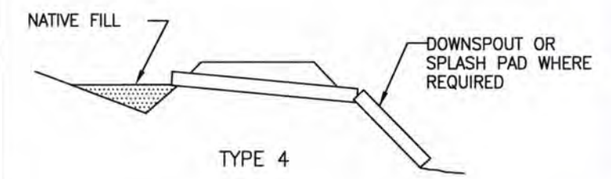


TYPE 1

TYPE 2

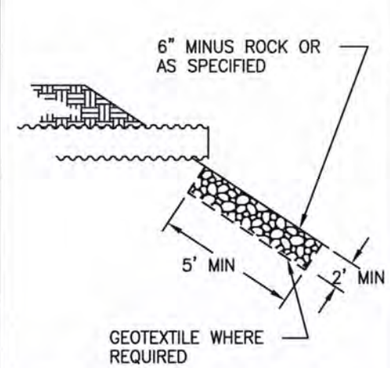


TYPE 3



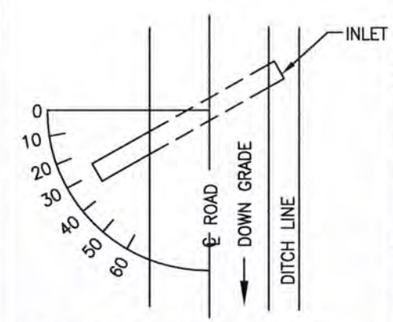
TYPE 4

CULVERT INSTALLATION TYPES



SPLASH PAD SHALL BE 1' WIDER THAN PIPE DIA ON EACH SIDE

SPLASH PAD



THE GRADE OF CROSS DRAINS SHALL BE AT LEAST 2% GREATER THAN THE GRADE OF THE DITCH

SKEW DIAGRAM

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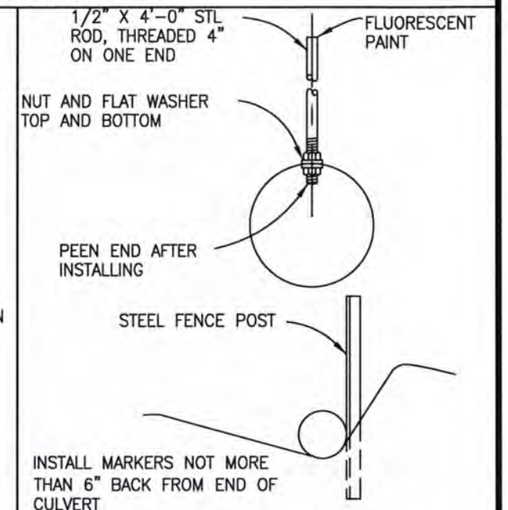


CULVERT MARKER INSTALLATION

REV. NO.	DESCRIPTION	DATE	APPROVED

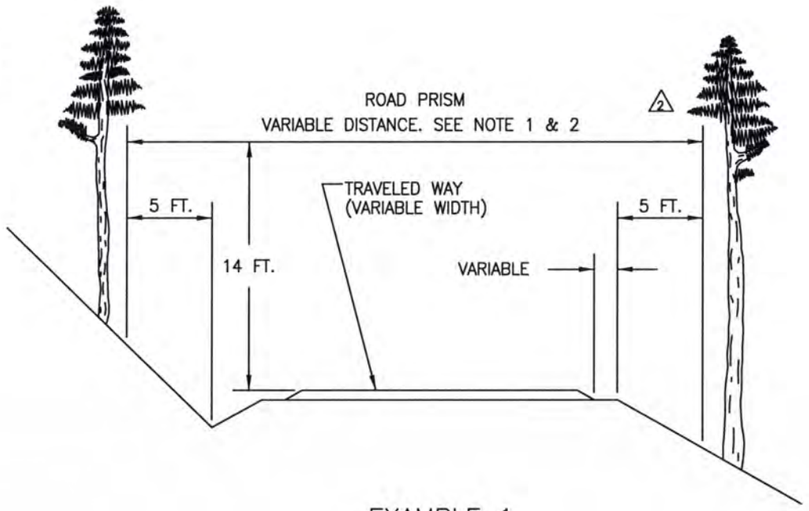
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS — OREGON STATE OFFICE

CAMAS BLOOMS CULVERT INSTALLATIONS

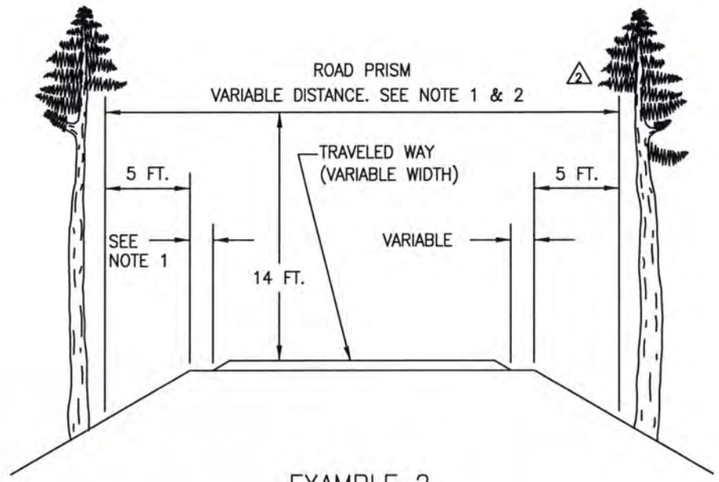
ROSEBURG DISTRICT — OREGON

DESIGNED	
REVIEWED	
APPROVED	
DRAWN: B. ALBIN	SCALE: NOT TO SCALE
DATE: 2/20/2013	SHEET 15 OF 16
DRAWING NO. ORR05-TS-2015.0002	BLM #

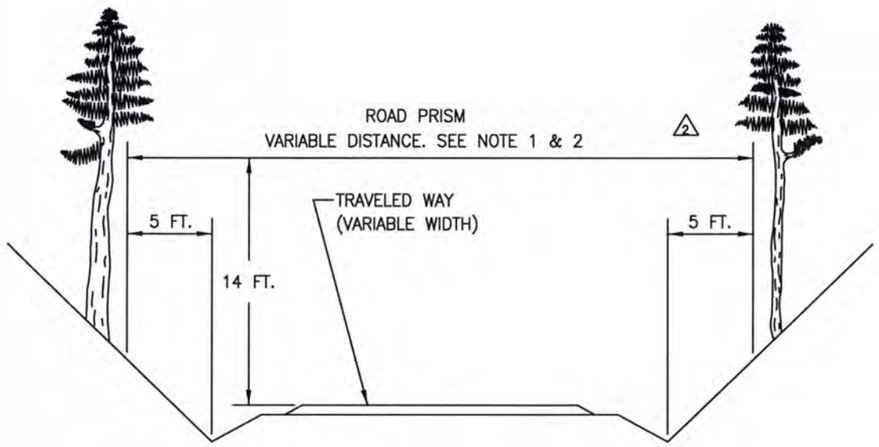
NOTE:
1. ALL AREAS WITHIN THE VARIABLE DISTANCE SHALL BE CLEARED OF VEGETATION.
2. ALL AREAS WITHIN THE VARIABLE DISTANCE SHALL BE FREE OF ALL OVERHANGING LIMBS AND BRANCHES WITHIN 14 FEET ELEVATION ABOVE RUNNING SURFACE. (2)



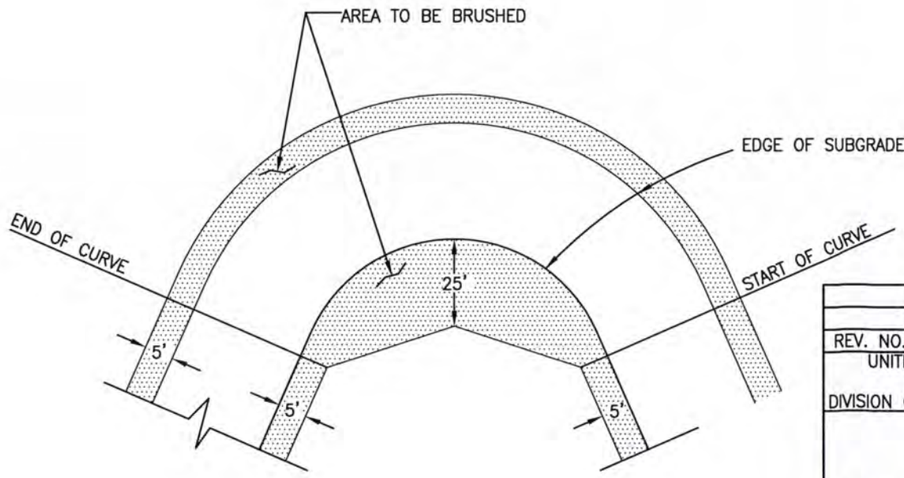
EXAMPLE 1



EXAMPLE 2



EXAMPLE 3



CURVE

ALWAYS THINK SAFETY

REV. NO.	DESCRIPTION	DATE	APPROVED

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIVISION OF OPERATIONS OREGON STATE OFFICE

CAMAS BLOOMS BRUSHING DETAIL

ROSEBURG DISTRICT OREGON

DESIGNED
REVIEWED
APPROVED

DRAWN: B. ALBIN	SCALE: NONE
DATE: 2/26/13	SHEET 16 OF 16
DRAWING NO. ORR05-TS-2015.0002	BLM #