

#### TIMBER NOTICE OF SALE

SALE NAME: DEER TRAIL

AGREEMENT NO: 30-104298

**AUCTION:** September 26, 2023 starting at 10:00 a.m.,

Northeast Region Office, Colville, WA

**COUNTY:** Stevens

**SALE LOCATION:** Sale located approximately 10 miles west of Springdale, WA.

PRODUCTS SOLD

AND SALE AREA: All conifer species except for leave trees banded with blue paint, and two standing snags

per acre in Units 1, 2, 3, 4, 5, 6, and 7 bounded by white timber sale boundary tags. All green conifer species except for leave trees banded with blue paint and leave trees bounded by yellow leave tree area tags in Unit 8 bounded by white timber sale boundary

tags.

All forest products above located on part(s) of Sections 10 all in Township 29 North, Range 39 East, Sections 2 all in Township 29 North, Range 38 East, Sections 31 all in Township 30 North, Range 38 East, Sections 36 all in Township 30 North, Range 38

East, W.M., containing 315 acres, more or less.

**CERTIFICATION:** This sale is certified under the Sustainable Forestry Initiative® program Standard (cert

no: PwC-SFIFM-513)

#### ESTIMATED SALE VOLUMES AND QUALITY:

	Avg Ring	Total	MBF by Grade									
Species	DBH Count	MBF	P		SM	1S	2S	3S	4S	5S	6S	UT
Douglas fir	15.2	2,952					1,373	1,302	278			
Larch	13.6	763					157	508	98			
Grand fir	14.3	726					273	368	85			
Lodgepole	12.5	587					83	422	82			
Ponderosa pine	17.1	519							193	326		
Redcedar	15	118						106	12			
Spruce	29.5	14					13	1				
Hemlock	12.8	8						8				
Sale Total		5,687										

MINIMUM BID: \$1,147,000.00 BID METHOD: Sealed Bids

**PERFORMANCE** 

SECURITY: \$100,000.00 SALE TYPE: Lump Sum

**EXPIRATION DATE:** September 26, 2025 ALLOCATION: Export Restricted

**BID DEPOSIT:** \$114,700.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised

price.

**HARVEST METHOD:** Cable, Rubber tired skidder, Track skidder, Ground based equipment, and Tethered.

Falling and Yarding will not be permitted from January 1 to April 15 unless authorized in

writing by the Contract Administrator due to spring breakup.

**ROADS:** 45.78 stations of required construction. 394.25 stations of required prehaul maintenance.

38.73 stations of decommissioning. Road construction will not be permitted from

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#### TIMBER NOTICE OF SALE

November 1 to April 15 unless authorized in writing by the Contract Administrator due frozen conditions and spring break up. The hauling of forest products will not be permitted from January 1 to April 15 unless authorized in writing by the Contract Administrator due to spring breakup.

#### ACREAGE DETERMINATION

**CRUISE METHOD:** Acreage determined using GPS methods. Acreage shown above is net harvest acres in

harvest units. Ponderosa pine and western redcedar: 8.0 - 17.5 inches dbh has a minimum top of 4.6 inch dib. All other species: 7.0 - 17.5 inches dbh has minimum top of 4.6 inch dib. All species 17.6 inches and greater dbh have a minimum top dib of 40% of dob at 16

feet or a 6 inch top whichever is greater.

**FEES:** Within 10 days of day of sale, Purchaser shall provide payment for 6,203 board feet of

private right of way timber at the purchaser's per mbf bid price. Purchaser is responsible for obtaining a road approach permit from Stevens county. \$96,679.00 is due on day of

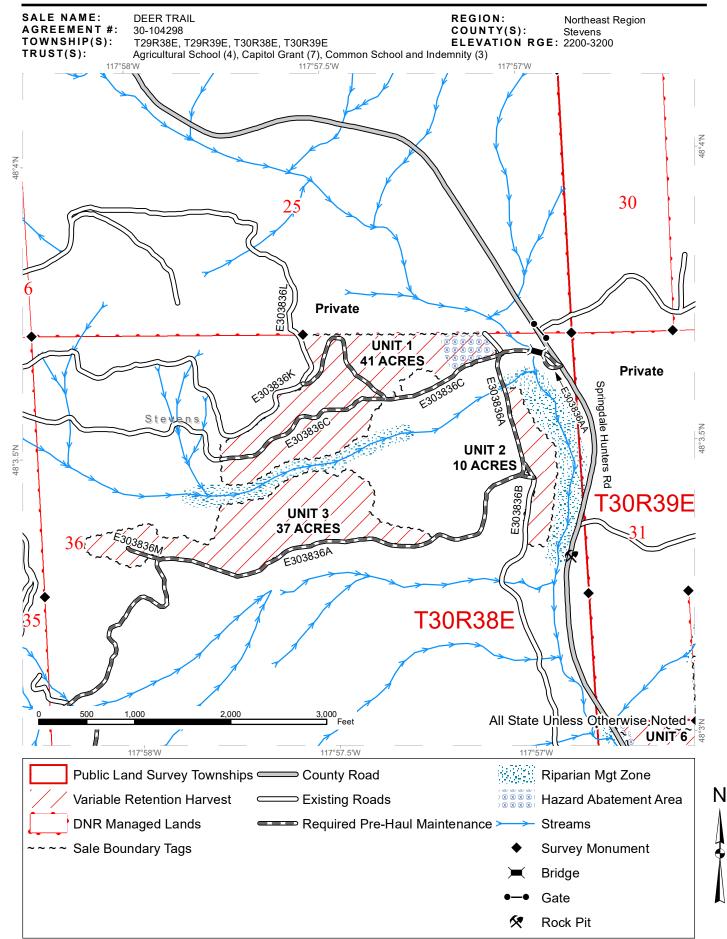
sale. \$9.00 per MBF is due upon removal. These are in addition to the bid price.

**SPECIAL REMARKS:** Cable or tethered harvesting is required in a portion of Unit 8, approximately 25 acres.

Whole tree yarding is required in all ground based units. Locked gate restricts access to

Unit 8. Contact the Northeast Region Office for access.

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DEER TRAIL

SALE NAME:

**REGION:** 

Northeast Region

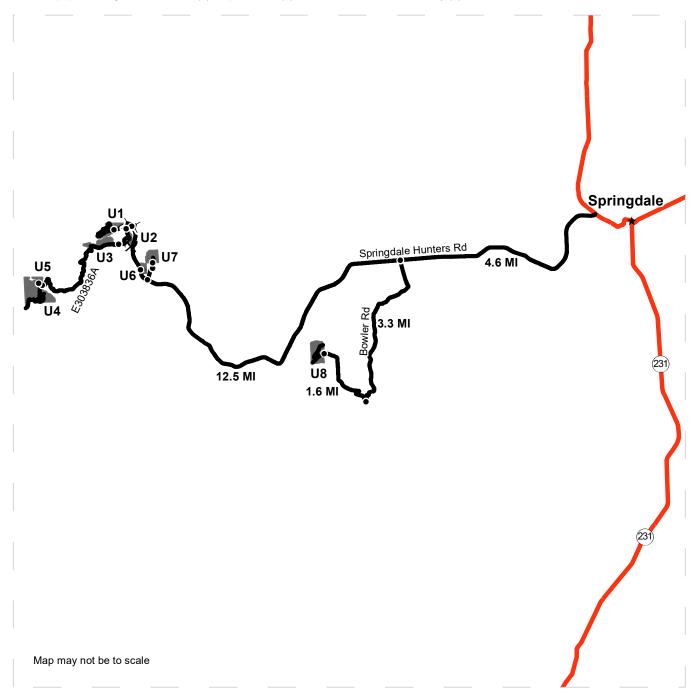
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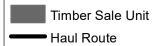
SALE NAME: DEER TRAIL REGION: Northeast Region AGREEMENT #: 30-104298 COUNTY(S): Stevens TOWNSHIP(S): ELEVATION RGE: 2200-3200 T29R38E, T29R39E, T30R38E, T30R39E TRUST(S): Agricultural School (4), Capitol Grant (7), Common School and Indemnity (3) 117°56'W Springdale Hunters Rd **UNIT 2** 10 ACRES T30R39E **Private** 36 T30R38E UNIT 7 34 ACRES Stevens UNÎT 6 4 ACRES E303931F **Private** Private Springdale Hunters Rd 29R38E 3,000 Feet All State Unless Otherwise Noted 117°57'W 117°56.5'W 117°56'W Public Land Survey Townships County Road Riparian Mgt Zone Variable Retention Harvest Equipment Limitation Zone □ Existing Roads **DNR Managed Lands** )⊗⊗⊗⊗( Hazard Abatement Area Required Pre-Haul Maintenance Sale Boundary Tags ==== Required Construction Streams Survey Monument Gate Rock Pit

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SALE NAME:DEER TRAILREGION:Northeast RegionAGREEMENT#:30-104298COUNTY(S):StevensTOWNSHIP(S):T29R38E, T29R39E, T30R38E, T30R39EELEVATION RGE:2200-3200

TRUST(S): Agricultural School (4), Capitol Grant (7), Common School and Indemnity (3)





Other Route



Distance Indicator

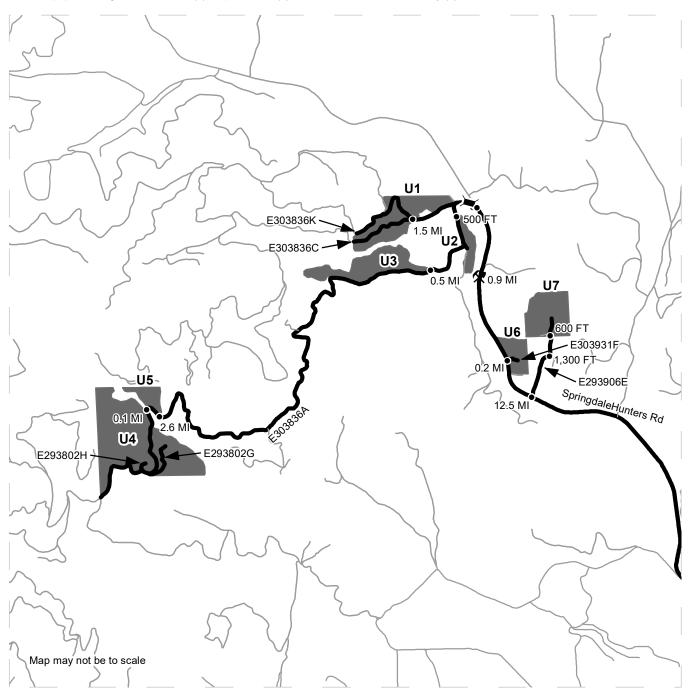


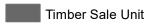
#### **DRIVING DIRECTIONS:**

Units 1-5: From Springdale take Highway 231 to Springdale-Hunters Rd travel west approximately 13.6 miles and turn onto E303836A. For Unit 1 Keep right onto E303836C, the NE side of Unit 1 will be on your right. At the fork approximately 1.5 miles in, keep left to reach the SW section of Unit 1 or stay right to reach the NW side. For Unit 2 Keep left onto E303836A for approximately 500 feet. The west side of Unit 2 parallels the road for approximately 800 Feet. To reach Unit 3 Keep left onto E303836A for approximately 0.5 miles. Stay on E303836A Rd for approximately another 2.6 miles to reach the south end of Unit 5. Continue for 0.1 miles to reach Unit 4. Units 6-7: From Springdale take Highway 231 to Springdale-Hunters Rd travel west approximately 12.5 miles. The a right on the E293906E Rd and at approximately 1,300 feet, keep left and stay on the E293906E Rd. Unit 7 is located approximately 600 feet down at the start of DNR ownership. From the Intersection of Springdale-Hunters Rd and E293906E continue 0.2 miles and turn on the E303931F Rd to reach Unit 6. Unit 8: From Springdale take Highway 231 to Springdale-Hunters Rd travel west approximately 4.6 miles and turn left onto Bowler Rd. Travel 3.3 miles and turn right onto the E293914G Rd. Continue for 1.6 miles to reach Unit 8.

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■ Haul Route

— Other Route

Bridge

Distance Indicator

Rock Pit

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# STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES

# BILL OF SALE AND CONTRACT FOR FOREST PRODUCTS

**Export Restricted Lump Sum AGREEMENT NO. 30-0104298** 

SALE NAME: DEER TRAIL

THE STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES, HEREINAFTER ACTING SOLELY, IN ITS PROPRIETARY CAPACITY, STATE, AND PURCHASER, AGREE AS FOLLOWS:

Section G: General Terms

G-001 Definitions

The following definitions apply throughout this contract;

Bill of Sale and Contract for Forest Products: Contract between the Purchaser and the State, which sets forth the procedures and obligations of the Purchaser in exchange for the right to remove forest products from the sale area. The Bill of Sale and Contract for Forest Products may include a Road Plan for any road construction or reconstruction, where applicable.

Contract Administrator: Region Manager's designee responsible for assuring that the contractual obligations of the Purchaser are met.

Forest Product: Any material derived from the forest for commercial use.

Purchaser: The company or individual that has entered into a Bill of Sale and Contract for Forest Products with the State for the right to harvest and remove forest products from the timber sale area.

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Road Construction: Includes building new and maintaining existing forest roads and associated work that may be optional or required as described in the Road Plan.

State: The Washington State Department of Natural Resources, landowner and seller of Forest Products from the timber sale area. The State is represented by the Region Manager as designated on the contract signature page. Contractual obligations to the State are enforced by the Region Manager or the designated Contract Administrator.

Subcontractor: Individual or company employed by the Purchaser to perform a portion or all of the services required by The Bill of Sale and Contract for Forest Products. The Purchaser is responsible for independently negotiating, procuring and paying for all subcontracted services rendered.

## G-011 Right to Remove Forest Products and Contract Area

Purchaser was the successful bidder on September 26, 2023 and the sale was confirmed on \_\_\_\_\_\_\_. The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase as much of the following forest products as can be cut and removed during the term of this contract: All conifer species except for leave trees banded with blue paint, and two standing snags per acre in Units 1, 2, 3, 4, 5, 6, and 7 bounded by white timber sale boundary tags.

All green conifer species except for leave trees banded with blue paint and leave trees bounded by yellow leave tree area tags in Unit 8 bounded by white timber sale boundary tags.

All forest products above located on approximately 315 acres on part(s) of Section 10 in Township 29 North, Range 39 East, Section 2 in Township 29 North, Range 38 East, Section 31 in Township 30 North, Range 39 East, Section 36 in Township 30 North, Range 38 East W.M. in Stevens County(s) as designated on the sale area and as shown on the attached timber sale map.

All forest products described above from the bole of the tree that meet or exceed 2 inches diameter inside bark on the small end are eligible for removal. Above ground components of a tree that remain as by-products after the manufacture of logs, including but not limited to tree tops, branches, limbs, needles, leaves, stumps, are not eligible for removal under the terms of this contract.

Forest products purchased under a contract that is designated as export restricted shall not be exported until processed. Forest products purchased under a contract that is designated as exportable may be exported prior to processing.

# G-020 Inspection By Purchaser

Purchaser hereby warrants to the State that they have had an opportunity to fully inspect the sale area and the forest products being sold. Purchaser further warrants to the State that they enter this contract based solely upon their own judgment of the value of the forest products, formed after their own examination and inspection of both the timber sale area and the forest products being sold. Purchaser also warrants to the State that they enter this contract without any reliance upon the volume estimates, acreage

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estimates, appraisals, pre-bid documentation, or any other representations by the State Department of Natural Resources.

# G-031 Contract Term

Purchaser shall complete all work required by this contract prior to September 26, 2025.

# G-040 Contract Term Adjustment - No Payment

Purchaser may request an adjustment in the contract term. A claim must be submitted in writing and received by the State within 30 days after the start of interruption or delay. The claim must also indicate the actual or anticipated length of interruption or delay. The State may grant an adjustment without charge only if the cause for contract term adjustment is beyond Purchaser's control. The cause must be one of the following and the adjustment may be granted only if operations or planned operations under this contract are actually interrupted or delayed:

- a. Road and bridge failures which deny access.
- b. Access road closures imposed by road owner.
- c. Excessive suspensions as provided in clause G-220.
- d. Regulatory actions not arising from Purchaser's failure to comply with this contract which will prevent timber harvest for a period less than 6 months.

# G-051 Contract Term Extension - Payment

Extensions of this contract term may be granted only if, in the judgment of the State, Purchaser is acting in good faith and is endeavoring to remove the forest products conveyed. The term of this contract may be extended for a reasonable time by the State if all of the following conditions are satisfied:

- a. A written request for extension of the contract term must be received prior to the expiration date of the contract.
- b. Completion of all required roads and compliance with all contract and regulatory requirements.
- c. For the first extension, not to exceed 1 year, payment of at least 25 percent of the total contract price.

For the second extension, not to exceed 1 year, payment of at least 90 percent of the total contract price.

The payments shall not include the initial deposit which shall be held according to the provisions of RCW 79.15.100.

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- d. Payment of an amount based on 12 percent interest per annum on the unpaid portion of the total contract price.
  - All payments, except the initial deposit, will be deducted from the total contract price to determine the unpaid portion of the contract.
- e. Payment of \$374.00 per acre per annum for the acres on which an operating release has not been issued.
- f. In no event will the extension charge be less than \$200.00.
- g. Extension payments are non-refundable.
- G-053 Surveys Sensitive, Threatened, Endangered Species

Whenever the State determines that a survey for sensitive, threatened, or endangered species is prudent, or when Purchaser determines a survey is prudent and the State agrees, Purchaser shall perform such surveys at Purchaser's expense and to the standards required by the State. The survey information shall be supplied to the State.

G-060 Exclusion of Warranties

The PARTIES AGREE that the IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE and ALL OTHER WARRANTIES EXPRESSED OR IMPLIED ARE EXCLUDED from this transaction and shall not apply to the goods sold. For example, THE FOLLOWING SPECIFIC MATTERS ARE NOT WARRANTED, and are EXCLUDED from this transaction:

- a. The MERCHANTABILITY of the forest products. The use of the term "merchantable" in any document is not intended to vary the foregoing.
- b. The CONDITION of the forest products. The forest products will be conveyed "AS IS."
- c. The ACREAGE contained within any sale area. Any acreage descriptions appearing in the timber notice of sale, timber sale contract, or other documents are estimates only, provided solely for administrative and identification purposes.
- d. The VOLUME, QUALITY, OR GRADE of the forest products. The State neither warrants nor limits the amount of timber to be harvested. The descriptions of the forest products to be conveyed are estimates only, made solely for administrative and identification purposes.
- e. The CORRECTNESS OF ANY SOIL OR SURFACE CONDITIONS, PRE-SALE CONSTRUCTION APPRAISALS, INVESTIGATIONS, AND ALL OTHER PRE-BID DOCUMENTS PREPARED BY OR FOR THE STATE. These documents have been prepared for the State's appraisal purposes only.

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- f. THAT THE SALE AREA IS FREE FROM THREATENED OR ENDANGERED SPECIES or their habitat. The State is not responsible for any interference with forestry operations that result from the presence of any threatened or endangered species, or the presence of their habitat, within the sale area.
- g. THAT THE FORESTRY OPERATIONS to be performed under this contract WILL BE FREE FROM REGULATORY ACTIONS by governmental agencies. The State is not responsible for actions to enforce regulatory laws, such as the Washington Forest Practices Act (chapter 76.09 RCW), taken by the Department of Natural Resources or any other agency that may affect the operability of this timber sale.
- h. Items contained in any other documents prepared for or by the State.

## G-061 Inadvertent Discovery of Cultural Resources

Purchaser acknowledges that cultural resources as defined in WAC 222-16-010 may exist within the timber sale area and that the existence and location of such resources may be unknown at the time this contract is executed. Purchaser has a duty to exercise due care in its operations and in the event any human skeletal remains are discovered by the Purchaser or the State during the course of operations Purchaser shall immediately halt operations and notify local law enforcement in the most expeditious manner possible then notifying the Contract Administrator. In the event cultural resources are discovered by the Purchaser or the State during the course of operations Purchaser shall immediately halt operations and notify the Contract Administrator. Any potential resources shall not be removed or disturbed. Purchaser shall resume operations as directed in writing by the Contract Administrator.

## G-064 Permits

Purchaser is responsible for obtaining any permits not already obtained by the State that relate to Purchaser's operation. Forest Practice Application / Hydraulic Project Approval permits obtained by the State shall be transferred to Purchaser. Purchaser is responsible for all permits, amendments and renewals.

# G-065 Regulatory Disclaimer

The State disclaims any responsibility for, or liability relating to, regulatory actions by any government agency, including actions pursuant to the Forest Practices Act, Ch. 76.09 RCW that may affect the operability of the timber sale.

# G-066 Governmental Regulatory Actions

## a. Risk

Purchaser shall be responsible for any increased operational costs arising from any applicable foreign or domestic governmental regulation or order that does not cause contract performance to become commercially impracticable or that does not substantially frustrate the purpose of the contract. If impracticability or frustration results from Purchaser's failure to comply with this contract,

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Purchaser shall remain responsible for payment of the total contract price notwithstanding the impracticability or frustration.

## b. Sale Area

When portions of the sale area become subject to a foreign or domestic governmental regulation or order that will likely prevent timber harvest for a period that will exceed the expiration date of this contract, and Purchaser has complied with this contract, the following shall apply:

i. RCW 79.15.140 shall govern all adjustments to the contract area.

# c. Adjustment of Price

The State shall adjust the total contract price by subtracting from the total contract price an amount determined in the following manner: The State shall cause the timber sale area subject to governmental regulation or order to be measured. The State shall calculate the percentage of the total sale area subject to the governmental regulation or order. The State shall reduce the total contract price by that calculated percentage. However, variations in species, value, costs, or other items pertaining to the affected sale area will be analyzed and included in the adjustment if deemed appropriate by the State. The State will further reduce the total contract price by the reasonable cost of unamortized roads Purchaser constructed but was unable to fully use for removing timber. A reduction in total contract price terminates all of the Purchaser's rights to purchase and remove the timber and all other interest in the affected sale area.

# G-070 Limitation on Damage

In the event of a breach of any provision of this contract by the State, the exclusive remedy available to Purchaser will be limited to a return of the initial deposit, unapplied payments, and credit for unamortized improvements made by Purchaser. The State shall not be liable for any damages, whether direct, incidental or consequential.

# G-080 Scope of State Advice

No advice by any agent, employee, or representative of the State regarding the method or manner of performing shall constitute a representation or warranty that said method, manner or result thereof will conform to the contract or be suitable for Purchaser's purposes under the contract. Purchaser's reliance on any State advice regarding the method or manner of performance shall not relieve Purchaser of any risk or obligation under the contract. Purchaser retains the final responsibility for its operations under this contract and State shall not be liable for any injuries resulting from Purchaser's reliance on any State advice regarding the method or manner of performance.

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## G-091 Sale Area Adjustment

The Parties may agree to adjustments in the sale area boundary. The cumulative changes to the sale area during the term of the contract shall not exceed more than four percent of the original sale area. If the sale area is increased, the added forest products become a part of this contract. The State shall determine the volume added and shall calculate the increase to the total contract price using the rates set forth in clause G-101, G-102, or G-103. If the sale area is reduced, the State shall determine the volume to be reduced. The State shall calculate the reduction to the total contract price using the rates set forth in clause G-101, G-102, or G-103.

# G-102 Forest Products Not Designated

Any forest products not designated for removal, which must be removed in the course of operations authorized by the State, shall be approved and designated by the Contract Administrator. Added forest products shall become a part of this contract and the Scribner log scale volume, as defined by the Northwest Log Rules Eastside, shall be determined by the Contract Administrator. Added forest products shall be paid for at the following contract payment rates per MBF Scribner log scale.

The pricing schedule has not been set for the sale.

## G-111 Title and Risk of Loss

Title to the forest products under this contract passes to the Purchaser after they are removed from the sale area, if adequate advance payment or payment security has been provided to the State under this contract. Purchaser bears all risk of loss of, or damage to, and has an insurable interest in, the forest products described in this contract from the time the sale is confirmed under RCW 79.15.120. Breach of this contract shall have no effect on this provision.

# G-116 Sustainable Forestry Initiative® (SFI) Certification

Forest products purchased under this contract are certified as being in conformance with the Sustainable Forestry Initiative program Standard under certificate number: PwC-SFIFM-513.

Purchaser shall have at least one person regularly on-site during active operations that have completed training according to the requirements outlined within the SFI® program Standard. Purchaser shall designate in writing the name(s) of the individual(s) who will be on-site and provide proof of their successful completion of an approved training program prior to active operations.

# G-120 Responsibility for Work

All work, equipment, and materials necessary to perform this contract shall be the responsibility of Purchaser. Any damage to improvements, except as provided in clause G-121 or unless the State issues an operating release pursuant to clause G-280, shall be repaired promptly to the satisfaction of the State and at Purchaser's expense.

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# G-121 Exceptions

Exceptions to Purchaser's responsibility in clause G-120 shall be limited exclusively to the following. These exceptions shall not apply where road damage occurs due to Purchaser's failure to take reasonable precautions or to exercise sound forest engineering and construction practices.

The State will bear the cost to repair damages caused by a third party. In all other cases, the Purchaser shall bear responsibility for the costs as described below.

Road is defined as the road bed, including but not limited to its component parts, such as cut and fill slopes, subgrade, ditches, culverts, bridges, and cattle guards.

For the purposes of this clause, damage will be identified by the State and is defined as:

- 1. Failure of (a) required improvements or roads designated in clause C-050, or (b) required or optional construction completed to the point that authorization to haul has been issued;
- 2. Caused by a single event from forces beyond the control of Purchaser, its employees, agents, or invitees, including independent contractors; and
- 3. Includes, but is not limited to natural disasters such as earthquakes, volcanic eruptions, landslides, and floods.

The repair work identified by the State shall be promptly completed by Purchaser at an agreed price. The State may elect to accomplish repairs by means of State-provided resources.

For each event, Purchaser shall be solely responsible for the initial \$5,000 in repairs. For repairs in excess of \$5,000, the parties shall share equally the portion of costs between \$5,000 and \$15,000. The State shall be solely responsible for the portion of the cost of repairs that exceed \$15,000.

Nothing contained in clauses G-120 and G-121 shall be construed as relieving Purchaser of responsibility for, or damage resulting from, Purchaser's operations or negligence, nor shall Purchaser be relieved from full responsibility for making good any defective work or materials. Authorization to haul does not warrant that Purchaser built roads are free from material defect and the State may require additional work, at Purchasers expense regardless of cost, to remedy deficiencies at any time.

# G-140 Indemnity

To the fullest extent permitted by law, Purchaser shall indemnify, defend and hold harmless State, agencies of State and all officials, agents and employees of State, from and against all claims arising out of or resulting from the performance of the contract. "Claim" as used in this contract means any financial loss, claim, suit, action, damage, or expense, including but not limited to attorneys' fees, attributable for bodily injury,

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sickness, disease or death, or injury to or destruction of tangible property including loss of use resulting therefrom. Purchasers' obligations to indemnify, defend, and hold harmless includes any claim by Purchasers' agents, employees, representatives, or any subcontractor or its employees. Purchaser expressly agrees to indemnify, defend, and hold harmless State for any claim arising out of or incident to Purchasers' or any subcontractors' performance or failure to perform the contract. Purchasers' obligation to indemnify, defend, and hold harmless State shall not be eliminated or reduced by any actual or alleged concurrent negligence of State or its agents, agencies, employees and officials. Purchaser waives its immunity under Title 51 RCW to the extent it is required to indemnify, defend and hold harmless State and its agencies, officials, agents or employees.

## G-150 Insurance

Purchaser shall, at its cost and expense, buy and maintain insurance of the types and amounts listed below. Failure to buy and maintain the required insurance may result in a breach and/or termination of the contract at State's option. State may suspend Purchaser operations until required insurance has been secured.

All insurance and surety bonds should be issued by companies admitted to do business within the State of Washington and have a rating of A-, Class VII or better in the most recently published edition of Best's Reports. If an insurer is not admitted, all insurance policies and procedures for issuing the insurance policies must comply with Chapter 48.15 RCW and 284-15 WAC.

The State of Washington, Department of Natural Resources region office of sale origin shall be provided written notice before cancellation or non-renewal of any insurance referred to therein, in accord with the following specifications:

- 1. Insurers subject to Chapter 48.18 RCW (admitted and regulated by the Insurance Commissioner): The insurer shall give the State 45 days advance notice of cancellation or non-renewal. If cancellation is due to non-payment of premium, the State shall be given 10 days advance notice of cancellation.
- 2. Insurers subject to Chapter 48.15 RCW (surplus lines): The State shall be given 20 days advance notice of cancellation. If cancellation is due to non-payment of premium, the State shall be given 10 days advance notice of cancellation.

Before starting work, Purchaser shall furnish State of Washington, Department of Natural Resources with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements specified in the contract. Insurance coverage shall be obtained by the Purchaser prior to operations commencing and continually maintained in full force until all contract obligations have been satisfied or an operating release has been signed by the State.

Purchaser shall include all subcontractors as insured under all required insurance policies, or shall furnish separate certificates of insurance and endorsements for each

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subcontractor. Subcontractor(s) must comply fully with all insurance requirements stated herein. Failure of subcontractor(s) to comply with insurance requirements does not limit Purchaser's liability or responsibility.

The State of Washington, Department of Natural Resources, its elected and appointed officials, agents and employees shall be named as an additional insured via endorsement on all general liability, excess, umbrella, and property insurance policies.

All insurance provided in compliance with this contract shall be primary as to any other insurance or self-insurance programs afforded to or maintained by State. Purchaser waives all rights against State for recovery of damages to the extent these damages are covered by general liability or umbrella insurance maintained pursuant to this contract.

By requiring insurance herein, State does not represent that coverage and limits will be adequate to protect Purchaser and such coverage and limits shall not limit Purchaser's liability under the indemnities and reimbursements granted to State in this contract.

The limits of insurance, which may be increased as deemed necessary by State of Washington, Department of Natural Resources, shall not be less than as follows:

Commercial General Liability (CGL) Insurance. Purchaser shall maintain general liability (CGL) insurance, and, if necessary, commercial umbrella insurance with a limit of not less than \$1,000,000.00 per each occurrence. If such CGL insurance contains aggregate limits, the General Aggregate limit shall be at least twice the "each occurrence" limit. CGL insurance shall have products-completed operations aggregate limit of at least two times the "each occurrence" limit. CGL coverage shall include a Logging and Lumbering Endorsement (i.e. Logger's Broad-Form) to cover the events that include, but are not limited to, fire suppression expenses, accidental timber trespasses, and wildfire property damage with limits of not less than \$2,000,000.00 each occurrence.

CGL insurance shall be written on Insurance Services Office (ISO) occurrence form CG 00 01 (or a substitute form providing equivalent coverage). All insurance shall cover liability arising out of premises, operations, independent contractors, products completed operations, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another party assumed in a business contract), and contain separation of insured (cross liability) condition.

Employer's Liability "Stop Gap" Insurance. Purchaser shall buy employers liability insurance, and, if necessary, commercial umbrella liability insurance with limits not less than \$1,000,000.00 each accident for bodily injury by accident or \$1,000,000.00 each employee for bodily injury by disease.

Workers' Compensation Coverage. Purchaser shall comply with all State of Washington workers' compensation statutes and regulations. Workers' compensation coverage shall be provided for all employees of Purchaser and employees of any

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subcontractor or sub-subcontractor. Coverage shall include bodily injury (including death) by accident or disease, which exists out of or in connection with the performance of this contract. Except as prohibited by law, Purchaser waives all rights of subrogation against State for recovery of damages to the extent they are covered by workers' compensation, employer's liability, commercial general liability, or commercial umbrella liability insurance.

If Purchaser, subcontractor or sub-subcontractor fails to comply with all State of Washington workers' compensation statutes and regulations and State incurs fines or is required by law to provide benefits to or obtain coverage for such employees, Purchaser shall indemnify State. Indemnity shall include all fines, payment of benefits to Purchaser or subcontractor employees, or their heirs or legal representatives, and the cost of effecting coverage on behalf of such employees.

Business Auto Policy (BAP). Purchaser shall maintain business auto liability and, if necessary, commercial umbrella liability insurance with a limit not less than \$1,000,000.00 per accident. Such insurance shall cover liability arising out of "Any Auto". Business auto coverage shall be written on ISO form CA 00 01, or substitute liability form providing equivalent coverage. If necessary the policy shall be endorsed to provide contractual liability coverage and cover a "covered pollution cost or expense" as provided in the 1990 or later editions of CA 00 01. Purchaser waives all rights against State for the recovery of damages to the extent they are covered by business auto liability or commercial umbrella liability insurance.

# G-160 Agents

The State's rights and duties will be exercised by the Region Manager at Colville, Washington. The Region Manager will notify Purchaser in writing who is responsible for administering the contract. The Region Manager has sole authority to waive, modify, or amend the terms of this contract in the manner prescribed in clause G-180. No agent, employee, or representative of the State has any authority to bind the State to any affirmation, representation, or warranty concerning the forest products conveyed beyond the terms of this contract.

Purchaser is required to have a person on site during all operations who is authorized to receive instructions and notices from the State. Purchaser shall inform the State in writing who is authorized to receive instructions and notices from the State, and any limits to this person's authority.

# G-170 Assignment and Delegation

No rights or interest in this contract shall be assigned by Purchaser without prior written permission of the State. Any attempted assignment shall be void and ineffective for all purposes unless made in conformity with this paragraph. Purchaser may perform any duty through a delegate, but Purchaser is not thereby relieved of any duty to perform or any liability. Any assignee or delegate shall be bound by the terms of the contract in the same manner as Purchaser.

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#### G-180 Modifications

Waivers, modifications, or amendments of the terms of this contract must be in writing signed by Purchaser and the State.

# G-190 Contract Complete

This contract is the final expression of the Parties' agreement. There are no understandings, agreements, or representations, expressed or implied, which are not specified in this contract.

#### G-200 Notice

Notices required to be given under the following clauses shall be in writing and shall be delivered to Purchaser's authorized agent or sent by certified mail to Purchaser's address of record:

G-210 Violation of Contract G-220 State Suspends Operations

All other notices required to be given under this contract shall be in writing and delivered to the authorized agent or mailed to the Party's post office address. Purchaser agrees to notify the State of any change of address.

## G-210 Violation of Contract

- a. If Purchaser violates any provision of this contract, the Contract Administrator, by written notice, may suspend those operations in violation. If the violation is capable of being remedied, Purchaser has 30 days after receipt of a suspension notice to remedy the violation. If the violation cannot be remedied (such as a violation of WAC 240-15-015) or Purchaser fails to remedy the violation within 30 days after receipt of a suspension notice, the State may terminate the rights of Purchaser under this contract and collect damages.
- b. If the contract expires pursuant to clause G-030 or G-031 without Purchaser having performed all its duties under this contract, Purchaser's right to operate is terminated and Purchaser shall not have the right to remedy the breach. This provision shall not relieve Purchaser of any payment obligations.
- c. The State has the right to remedy the breach in the absence of any indicated attempt by Purchaser or if Purchaser is unable, as determined by the State, to remedy the breach. Any expense incurred by the State shall be charged to Purchaser and shall be paid within 30 days of receipt of billing.
- d. If Purchaser's violation is a result of a failure to make a payment when due, in addition to a. and b. above, interest shall accrue on the unpaid balance at 12 percent per annum, beginning the date payment was due.

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# G-220 State Suspends Operations

The Contract Administrator may suspend any operation of Purchaser under this contract when the State is suffering, or there is a reasonable expectation the State will suffer environmental, monetary, or other damage if the operation is allowed to continue.

Purchaser shall be in breach of this contract if the operation continues after the suspension notice or if the operation resumes without prior approval and notice from the Contract Administrator.

Purchaser may request a modification of a suspension within 30 days of the start of suspension through the dispute resolution process in clause G-240. If this process results in a finding that the suspension exceeded the time reasonably necessary to stop or prevent damage to the State, Purchaser is entitled to request a contract term adjustment under clause G-040.

If it reasonably appears that the damage that the State is suffering, or can reasonably be expected to suffer if the operation is allowed to continue, will prevent harvest for a period that will exceed 6 months, and Purchaser has complied with this contract, the provisions of clause G-066 shall govern just as if the harvest was prevented by an applicable foreign or domestic governmental regulation or order.

# G-230 Unauthorized Activity

Any cutting, removal, or damage of forest products by Purchaser, its employees, agents, or invitees, including independent contractors, in a manner inconsistent with the terms of this contract or State law, is unauthorized. Such activity may subject Purchaser to liability for triple the value of said forest products under RCW 79.02.320 or RCW 79.02.300 and may result in prosecution under RCW 79.02.330 or other applicable statutes.

# G-240 Dispute Resolution

The following procedures apply in the event of a dispute regarding interpretation or administration of this contract and the parties agree that these procedures must be followed before a lawsuit can be initiated.

- a. In the event of a dispute, Purchaser must make a written request to the Region Manager for resolution prior to seeking other relief.
- b. The Region Manager will issue a written decision on Purchaser's request within ten business days.
- c. Within ten business days of receipt of the Region Manager's decision,
  Purchaser may make a written request for resolution to the Deputy Supervisor
  Uplands of the Department of Natural Resources.

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d. Unless otherwise agreed, a conference will be held by the Deputy Supervisor - Uplands within 30 calendar days of the receipt of Purchaser's request for review of the Region Manager's written decision. Purchaser and the Region Manager will have an opportunity to present their positions. The Deputy Supervisor - Uplands will issue a decision within a reasonable time of being presented with both Parties' positions.

# G-250 Compliance with All Laws

Purchaser shall comply with all applicable statutes, regulations and laws, including, but not limited to; chapter 27.53 RCW, chapter 68.50 RCW, WAC 240-15 and WAC 296-54. Failure to comply may result in forfeiture of this contract.

#### G-260 Venue

This contract shall be governed by the laws of the State of Washington. In the event of a lawsuit involving this contract, venue shall be proper only in Thurston County Superior Court.

# G-270 Equipment Left on State Land

All equipment owned or in the possession of Purchaser, its employees, agents, or invitees, including independent contractors, shall be removed from the sale area and other State land by the termination date of this contract. Equipment remaining unclaimed on State land 60 days after the expiration of the contract period is subject to disposition as provided by law. Purchaser shall pay to the State all costs of moving, storing, and disposing of such equipment. The State shall not be responsible for any damages to or loss of the equipment or damage caused by the moving, storing or disposal of the equipment.

## G-280 Operating Release

An operating release is a written document, signed by the State and Purchaser, indicating that Purchaser has been relieved of certain rights or responsibilities with regard to the entire or a portion of the timber sales contract. Purchaser and State may agree to an operating release for this sale, or portion of this sale, prior to the contract expiration, when all contract requirements pertaining to the release area have been satisfactorily completed. Upon issuance of a release, Purchaser's right to cut and remove forest products on the released area will terminate.

## G-310 Road Use Authorization

Purchaser is authorized to use the following State roads and roads for which the State has acquired easements and road use permits; E293914G, E293914E, E293914H, E293915F, E293910G, E293906E, E303931F, E303836A, E303836AA, E303836C, E303836K, E303836B, E303836M, E293802M, E293802G, E293802H. The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

#### G-320 Erosion Control

Purchaser shall deliver 300 pounds of grass seed to a location designated by the Contract Administrator. Seed provided shall meet the following specifications.

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25% Smooth Broom, 17% White Dutch Clover, 17% Small Burnett, 25% Mountain Brome, 16% Upland Drylar Bluegrass

Seed shall be certified weed free, premixed and delivered to Deer Park Work Center in 50 pound bags clearly labeled with the timber sale name on each bag.

## G-330 Pre-work Conference

Purchaser shall arrange with the Contract Administrator to review this contract and to examine the sale area before beginning any operations. A plan of operations shall be developed and agreed upon by the Contract Administrator and Purchaser before beginning any operations. To the extent that the plan of operations is inconsistent with the contract, the terms of the contract shall prevail. State's acceptance and approval of Purchaser's plan of operations shall not be construed as any statement or warranty that the plan of operations is adequate for Purchaser's purposes or complies with applicable laws.

#### G-340 Preservation of Markers

Any legal land subdivision survey corners and witness objects are to be preserved. If such are destroyed or disturbed, the Purchaser shall, at the Purchaser's own expense, reestablish them through a licensed land surveyor in accordance with U.S. General Land Office standards. Corners and/or witness objects that must be disturbed or destroyed in the process of road construction or logging shall be adequately referenced and/or replaced in accordance with RCW 58.24.040(8). Such references must be approved by the Contract Administrator prior to removal of said corners and/or witness objects.

## G-360 Road Use Reservation

The State shall have the right to use, without charge, all existing roads and any road constructed or reconstructed on State lands by Purchaser under this contract. The State may extend such rights to others. If the State grants such rights to others, the State shall require performance or payment, as directed by the State, for their proportionate share of maintenance based on their use.

## G-370 Blocking Roads

Purchaser shall not block the E293914G, E293914E, E293914H, E293915F, E303836A, E303836AA, E303836B, E303836C, E303836K, E293906E and E303931F roads, unless authority is granted in writing by the Contract Administrator.

# G-380 Road Easement and Road Use Permit Requirements

Purchaser agrees to comply with the terms and conditions of the attached:

Easement 1228 with Hasse dated December 5, 1974
Easement 2353 with Long Lane Ranch dated December 20, 1989
Easement 101390 with McMillan and Holland dated October 5, 2020
Easement 87843 with Gresswell dated December 12, 2011

# G-395 Road Approach Permit

Purchaser must enter into a road approach permit with Stevens county.

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Purchaser must provide the State with a copy of the executed permit, or a letter from Stevens county, indicating that a satisfactory road approach permit has been consummated between Purchaser and Stevens county.

# G-430 Open Fires

Purchaser shall not set, or allow to be set by Purchaser's employees, agents, invitees and independent contractors, any open fire at any time of the year without first obtaining permission, in writing, from the Contract Administrator.

#### G-450 Encumbrances

This contract and Purchaser's activities are subject to the following:

#### **DATA MISSING**

Section P: Payments and Securities

## P-011 Initial Deposit

Purchaser paid DATA MISSING initial deposit, which will be maintained pursuant to RCW 79.15.100(3). If the operating authority on this contract expires without Purchaser's payment of the full amount specified in Clause P-020, the initial deposit will be immediately forfeited to the State, and will be offset against Purchaser's remaining balance due. Any excess initial deposit funds not needed to ensure full payment of the contract price, or not needed to complete any remaining obligations of the Purchaser existing after contract expiration, will be refunded to the Purchaser.

# P-020 Payment for Forest Products

Purchaser agrees to pay the total, lump sum contract price of \$147,862.00. The total contract price consists of a \$0.00 contract bid price plus \$147,862.00 in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066 clause. Purchaser shall be liable for the entire purchase price, and will not be entitled to any refunds or offsets unless expressly stated in this contract.

THE PURCHASE PRICE SHALL NOT BE AFFECTED BY ANY FACTORS, INCLUDING: the amount of forest products actually present within the contract area, the actual acreage covered by the contract area, the amount or volume of forest products actually cut or removed by purchaser, whether it becomes physically impossible or uneconomic to remove the forest products, and whether the subject forest products have been lost or damaged by fire or any other cause. The only situations Purchaser may not be liable for the full purchase price are governed by clause G-066, concerning governmental regulatory actions taken during the term of the contract.

## P-045 Guarantee of Payment

Purchaser will pay for forest products prior to cutting or will guarantee payment by posting an approved payment security. The amount of cash or payment security shall be determined by the State and shall equal or exceed the value of the cutting proposed by Purchaser.

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## P-050 Billing Procedure

The State will compute and forward to Purchaser statements of charges provided for in the contract. Purchaser shall deliver payment to the State on or before the date shown on the billing statement.

# P-080 Payment Account Refund

Advance payments made under P-045 or P-045.2 remaining on account above the value for the charges shall be returned to Purchaser within 30 days following the final report of charges. Refunds not made within the 30 day period will accrue interest at the interest rate, as established by WAC 332-100-030, computed on a daily basis until paid.

# P-090 Performance Security

Purchaser agrees to furnish, within 30 days of the confirmation date, security acceptable to the State in the amount of \$100,000.00. The Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by operations under this contract or resulting from Purchaser's noncompliance with any rule or law. Acceptable performance security may be in the form of a performance bond, irrevocable letter of credit, cash, savings or certificate of deposit account assignments, and must name the State as the obligee or beneficiary. A letter of credit must comply with Title 62A RCW, Article 5. Performance security must remain in full force over the duration of the contract length. Surety bonds issued shall conform to the issuance and rating requirements in clause G-150. The State shall retain the performance security pursuant to RCW 79.15.100. Purchaser shall not operate unless the performance security has been accepted by the State. If at any time the State decides that the security document or amount has become unsatisfactory, Purchaser agrees to suspend operations and, within 30 days of notification, to replace the security with one acceptable to the State or to supplement the amount of the existing security.

# P-100 Performance Security Reduction

The State may reduce the performance security after an operating release has been issued if the State determines that adequate security exists for any remaining obligations of Purchaser.

# Section H: Harvesting Operations

## H-001 Operations Outside the Sale Boundaries

No operations shall occur outside the sale boundaries, as described within the contract, unless approved in writing by the State.

# H-010 Cutting and Yarding Schedule

Falling and Yarding will not be permitted from January 1 to April 15 in Units 1, 2, 3, 4, 5, 6, 7 and 8, unless authorized in writing by the Contract Administrator. If operating in Units 6, 7 and 8 during the pine beetle window from April 15 to June 30, logs must be hauled off site with 7 days. unless authorized in writing by the Contract Administrator.

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## H-011 Certification of Fallers and Yarder Operators

All persons engaged in the felling and yarding of timber must receive certification in writing from the Contract Administrator. Certification may be revoked when the Contract Administrator determines that non-compliance of leave tree selection criteria or cut tree selection criteria is occurring, or excessive damage to leave trees or skid trails is occurring.

Excessive damage for leave trees is defined in clause H-012. Excessive damage for reserve trees is defined in clause H-013.

Excessive skid trail damage is defined in clause H-015 or H-016.

When leave tree damage exceeds the limits set forth in clause H-012, Purchaser shall be subject to liquidated damages (clause D-040) When reserve tree damage exceeds the limits set forth in clause H-013, Purchaser shall be subject to liquidated damages (clause D-041).

# H-013 Reserve Tree Damage Definition

Reserve trees are trees required and designated for retention within the sale boundary. Purchaser shall protect reserve trees from being cut, damaged, or removed during operations.

Reserve tree damage exists when one or more of the following criteria occur as a result of Purchaser's operation, as determined by the Contract Administrator:

- a. A reserve tree has one or more scars on its trunk exposing the cambium layer, which in total exceeds 100 square inches.
- b. A reserve tree top is broken or the live crown ratio is reduced below 30 percent.
- c. A reserve tree has more than 1/3 of the circumference of its root system injured such that the cambium layer is exposed.

If the Contract Administrator determines that a reserve tree has been cut or damaged, the Purchaser shall provide a replacement reserve tree of like condition, size, and species within the sale unit containing the damaged leave tree, as approved by the Contract Administrator. Purchaser may be required to pay liquidated damages for Excessive Reserve Tree Damage as detailed in clause D-041.

Removal of designated reserve trees from the sale area is unauthorized, and may invoke the use of the G-230 'Unauthorized Activity' clause. Purchaser is required to leave all cut or damaged reserve trees on site.

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# H-016 Skid Trail Requirements

A skid trail is defined as an area that is used for more than three passes by any equipment.

Purchaser shall comply with the following during the yarding operation:

- a. A skid trail will not exceed 16 feet in width, including rub trees.
- b. Skid trails shall not cover more than 20 percent of the total acreage on one unit.
- c. Location of the skid trails must be marked by Purchaser and approved by the Contract Administrator.
- d. Except for rub trees, skid trails shall be felled and yarded prior to the felling of adjacent timber.
- e. Rub trees shall be left standing until all timber tributary to the skid trail has been removed.
- f. Excessive soil damage is not permitted. Excessive soil damage is described in clause H-017.
- g. Purchaser will not have more than two skid trails open to active skidding at any one time. All other skid trails used for skidding timber will be closed.
- h. Once a skid trail is closed, Purchaser will not reopen a skid trail unless approved in writing by the Contract Administrator.
- i. Skid trails will be water barred at the time of completion of yarding, if required by the Contract Administrator.

Purchaser shall not deviate from the requirements set forth in this clause without prior written approval from the Contract Administrator.

H-017 Preventing Excessive Soil Disturbance

Operations may be suspended when soil rutting exceeds 10 inches as measured from the natural ground line. To reduce soil damage, the Contract Administrator may require water bars to be constructed, grass seed to be placed on exposed soils, or other mitigation measures. Suspended operations shall not resume unless approval to do so has been given, in writing, by the Contract Administrator.

H-025 Timing Requirements for Timber Removal

All forest products must be removed within 30 days of being felled.

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#### H-035 Fall Trees Into Sale Area

Trees shall be felled into the sale area unless otherwise approved by the Contract Administrator.

#### H-050 Rub Trees

Trees designated for cutting along skid trails and cable corridors shall be left standing as rub trees until all timber that is tributary to the skid trail or cable corridor has been removed.

## H-051 Branding and Painting

Purchaser shall provide a State of Washington registered log brand, acceptable to the State, unless the State agrees to furnish the brand. All purchased timber shall be branded in a manner that meets the requirements of WAC 240-15-030(2)(a)(i). All timber purchased under a contract designated as export restricted shall also be painted in a manner that meets the requirements of WAC 240-15-030(2)(a)(ii).

For pulp loads purchased under a contract designated as export restricted, Purchaser shall brand at least 3 logs with legible brands at one end. Also, 10 logs shall be painted at one end with durable red paint.

## H-080 Snags Not to be Felled

Snags not required to be felled for safety reasons may be left standing. Snags felled for safety reasons shall not be removed and must remain where felled.

# H-110 Stump Height

Trees shall be cut as close to the ground as practicable. Stump height shall not exceed 12 inches in height measured on the uphill side, or 2 inches above the root collar, whichever is higher.

## H-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using hand falling and cable or tethered equipment in the designated cable area in Unit 8. Non-cable areas, forest products shall be harvested and removed using D6 equivalent or smaller ground skidding equipment and ground based harvesting equipment. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

# H-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities.

# H-126 Tailholds on State Land

If Purchaser tailholds on State land, methods to minimize damage to live trees outside the sale area shall be employed and must be approved in writing by the Contract Administrator.

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## H-130 Hauling Schedule

The hauling of forest products will not be permitted on all roads from January 1 to April 15 unless authorized in writing by the Contract Administrator.

# H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

- a. Whole tree yarding is required in all ground based units.
- b. A minimum of 70% of the slash generated at landings, 3 inches and less in diameter shall be hauled back and scattered away from leave trees in all harvest units. The remaining slash shall be machine piled.
- c. All slash piles must be machine trailed exposing a minimum of six feet of bare mineral soil around the perimeter of each pile. Excavator or Loader shall be used for piling and piles shall be soil free.
- d. No operations associated with timber harvest, hauling or road work will be permitted within 1/2 mile of an active northern goshawk nest from March 1 to August 1 or later if young are still on the nest.
- e. Cable logging corridors shall be water barred at the time of completion of yarding, if directed by the Contract Administrator.
- f. Trees shall not be felled outside of harvest units for cable yarding operations.
- g. Intermediate supports may be required to prevent soil rutting.
- h. Slash shall not be deposited within Riparian Management Zones.
- i. If the standing dead are removed, Purchaser shall leave two standing snags per acre from the larger diameter classes when safe to do so.

Permission to do otherwise must be granted in writing by the Contract Administrator.

# H-190 Completion of Settings

Operations begun on any setting of the sale area shall be completed before any operation begins on subsequent settings unless authorized in writing by the Contract Administrator.

H-220 Protection of Residual or Adjacent Trees

Unless otherwise specified by this contract, the Contract Administrator shall identify damaged adjacent or leave trees that shall be paid for according to clause G-230.

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H-230 Tops and Limbs Outside the Sale Boundary

Tops and limbs outside the sale boundary as a result of Purchaser's operation shall be removed concurrently with the yarding operation unless otherwise directed by the Contract Administrator.

H-250 Additional Falling Requirements

Within all units, all non-merchantable live stems of grand fir over 3 inches in diameter at breast height not banded with blue paint, shall be felled concurrently with felling operations. Areas of young or immature timber may be excluded from this requirement by the Contract Administrator.

H-260 Fall Leaners

Trees within all units that have been pushed over in falling or skidding operations shall be felled.

Section C: Construction and Maintenance

C-040 Road Plan

Road construction and associated work provisions of the Road Plan for this sale, dated 12/7/2022 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on E293914G, E293914E, E293914H, E293915F, E293910G, E293906E, E303931F, E303836A, E303836A, E303836C, E303836K, E303836B, E303836M, E293802M, E293802G, E293802H roads. All work shall be completed to the specifications detailed in the Road Plan.

C-080 Landing Locations Approved Prior to Construction

Landings shall be marked by Purchaser and approved by the Contract Administrator prior to construction.

C-100 Landing Location Restricted

Landing locations are restricted to those shown on the timber sale map unless otherwise authorized in writing by the Contract Administrator.

C-130 Dust Abatement

Purchaser shall abate dust on the E293906E used for hauling from June 15 to September 15.

C-140 Water Bars

Purchaser shall, as directed by the Contract Administrator, construct water bars across haul roads, skid trails and fire trails as necessary to control soil erosion and water pollution.

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Section S: Site Preparation and Protection

# S-001 Emergency Response Plan

An Emergency Response Plan (ERP) shall be provided to the Contract Administrator containing but not limited to, valid contact numbers and procedures for medical emergencies, fire, hazardous spills, forest practice violations and any unauthorized or unlawful activity on or in the vicinity of the sale area. The Contract Administrator and the State shall be promptly notified whenever an incident occurs requiring an emergency response.

The ERP must be presented for inspection at the prework meeting and kept readily available to all personnel, including subcontractors, on site during active operations.

#### S-010 Fire Hazardous Conditions

Purchaser acknowledges that operations under this Contract may increase the risk of fire. Purchaser shall conduct all operations under this agreement following the requirements of WAC 332-24-005 and WAC 332-24-405 and further agrees to use the highest degree of care to prevent uncontrolled fires from starting.

In the event of an uncontrolled fire, Purchaser agrees to provide equipment and personnel working at the site to safely and effectively engage in first response fire suppression activity.

Purchaser's failure to effectively engage in fire-safe operations is considered a breach and may result in suspension of operations.

## S-020 Extreme Hazard Abatement

Purchaser shall provide a written Extreme Hazard Abatement plan that meets the requirements of WAC 332-24 prior to the beginning of logging operations. The plan must be acceptable to the Contract Administrator. The plan will identify how Purchaser will accomplish abatement. Purchaser shall also provide, and keep current, a written timetable for completion of all specified work in the plan. The Contract Administrator's acceptance and approval of Purchaser's hazard abatement plan shall not be construed as any statement or warranty that the hazard abatement plan is adequate for Purchaser's purposes or complies with applicable laws.

# S-030 Landing Debris Clean Up

Landing debris shall be disposed of in a manner approved in writing by the Contract Administrator.

# S-035 Logging Debris Clean Up

Slash and debris created from harvest activities shall be treated in a manner approved in writing by the Contract Administrator.

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## S-040 Noxious Weed Control

Purchaser shall notify the Contract Administrator in advance of moving equipment onto State lands. Purchaser shall thoroughly clean all off road equipment prior to entry onto State land to remove contaminated soils and noxious weed seed. If equipment is moved from one DNR project area to another, the Contract Administrator reserves the right to require the cleaning of equipment. Equipment shall be cleaned at a location approved by the Contract Administrator.

# S-060 Pump Truck or Pump Trailer

Purchaser shall provide a fully functional pump truck or pump trailer equipped to meet the specifications of WAC 332-24-005 and WAC 332-24-405 during the "closed season" or as extended by the State and shall provide trained personnel to operate this equipment on the sale area during all operating periods.

## S-100 Stream Cleanout

Slash or debris which enters any stream as a result of operations under this contract and which is identified by the Contract Administrator shall be removed and deposited in a stable position. Removal of slash or debris shall be accomplished in a manner that avoids damage to the natural stream bed and bank vegetation.

#### S-120 Stream Protection

No timber shall be felled into, across, or yarded through any stream.

#### S-130 Hazardous Materials

## a. Hazardous Materials and Waste - Regulatory Compliance

Purchaser is responsible for understanding and complying with all applicable local, state, and federal hazardous material/waste laws and regulations for operations conducted under this contract. Such regulations pertain to, but may not be limited to, hazardous material storage, handling and transport, personnel protection, release notification and emergency response, cleanup, and waste disposal.

Purchaser shall be responsible for restoring the site in the event of a spill or other releases of hazardous material/waste during operations conducted under this contract.

# b. Hazardous Materials Spill Prevention

All operations shall be conducted in a manner that avoids the release of hazardous materials, including petroleum products, into the environment (water, air or land).

c. Hazardous Materials Spill Containment, Control and Cleanup

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If safe to do so, Purchaser shall take immediate action to contain and control all hazardous material spills. Purchaser shall ensure that enough quick response spill kits capable of absorbing 10 gallons of oil, coolant, solvent or contaminated water are available on site to quickly address potential spills from any piece of equipment at all times throughout active operations. If large quantities of bulk fuel/other hazardous materials are stored on site, Purchaser must be able to effectively control a container leak and contain & recover a hazmat spill equal to the largest single on site storage container volume. (HAZWOPER reg. 29CFR 1910.120 (j) (1) (vii)).

# d. Hazardous Material Release Reporting

Releases of oil or hazardous materials to the environment must be reported according to the State Department of Ecology (ECY). It is the responsibility of the Purchaser to have all emergency contact information readily available and a means of remote communication for purposes of quick notification. In the event of a spill covered in part a., the Purchaser is responsible for immediately notifying all the following:

- -Department of Emergency Management at 1-800-258-5990
- -National Response Center at 1-800-424-8802
- -Appropriate Department of Ecology (ECY) at 1-800-645-7911
- -DNR Contract Administrator

# S-131 Refuse Disposal

As required by RCW 70.93, All Purchaser generated refuse shall be removed from state lands for proper disposal prior to termination of this contract. No refuse shall be burned, buried or abandoned on state forest lands. All refuse shall be transported in a manner such that it is in compliance with RCW 70.93 and all loads or loose materials shall be covered/secured such that these waste materials are properly contained during transport.

# Section D: Damages

# D-013 Liquidated Damages or Failure to Perform

The following clauses provide for payments by Purchaser to the State for breaches of the terms of this contract other than failure to perform. These payments are agreed to as liquidated damages and not as penalties. They are reasonable estimates of anticipated harm to the State, which will be caused by Purchaser's breach. These liquidated damages provisions are agreed to by the State and Purchaser with the understanding of the difficulty of proving loss and the inconvenience or infeasibility of obtaining an adequate remedy. These liquidated damages provisions provide greater certainty for the Purchaser by allowing the Purchaser to better assess its responsibilities under the contract.

Clause P-020 governs Purchaser's liability in the event Purchaser fails to perform any of the contract requirements other than the below liquidated damage clauses without

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written approval by the State. Purchaser's failure to pay for all or part of the forest products sold in this contract prior to expiration of the contract term results in substantial injury to the State. Therefore, Purchaser agrees to pay the State the full lump sum contract price in P-020 in the event of failure to perform.

D-041 Reserve Tree Excessive Damage

When Purchaser's operations exceed the damage limits set forth in clause H-013, Reserve Tree Damage Definition, and when the Contract Administrator determines that a suitable replacement for a damaged reserve tree is not possible, the damaged trees result in substantial injury to the State. The value of the damaged reserve trees at the time of the breach is not readily ascertainable. Therefore, the Purchaser agrees to pay the State as liquidated damages at the rate of \$1,000.00 per tree for all damaged reserve trees that are not replaced in the units.

## **SIGNATURES**

This agreement may be executed in any number of counterparts (including by electronic mail in portable document format (.pdf), or by facsimile) each of which shall be deemed an original but all of which, when taken together, shall constitute one and the same Agreement binding on all parties.

IN WITNESS WHEREOF, the Parties hereto have entered into this contract.

	DEPARTMENT OF NATURAL RESOURCES
Purchaser	Patrick Ryan Northeast Region Manager
Print Name	Northeast Region Wanager
Date:Address:	Date:

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# CORPORATE ACKNOWLEDGEMENT (Required for both LLC and Inc. Entities)

STATE OF		)		
COUNTY OF		)		
On this	day of		, 20	, before me personally
			to me	known to be the of the corporation
and on oath stated th	at (he/she was) (they was)	vere) authorized to	o execute sa	poses therein mentioned id instrument.  r official seal the day and
		Notary I	Public in and	d for the State of
			-:	
		iviy appo	ointment exp	oires

6/28/2023 27 of 27 Agreement No. 30-0104298



# WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

# FOREST EXCISE TAX ROAD SUMMARY SHEET

Region: Northeast				
Timber Sale Name: DE	ER TR	RAIL		
Application Number:	30-	104298		
EXCISE TAX APPLICABI	LE ACT	IVITIES		
Construction: Road to be constructed (option)		,578 Trequired) but no	ot abana	linear feet loned
Reconstruction: Road to be reconstructed (op	otional a	0 nd required) but i	not aba	linear feet ndoned
Abandonment: Abandonment of existing room	ads not r	0 reconstructed und	der the d	linear feet
Decommission: Road to be made undriveable		3873 t officially abande	oned.	linear feet
Pre-Haul Maintenance: Existing road to receive main		39,425 e work (optional d	and req	linear feet uired) prior to haul
EXCISE TAX EXEMPT A	CTIVIT	IES		
Temporary Construction Roads to be constructed (option abandoned)		nd required) and	0	linear feet
Temporary Reconstructed (of then abandoned		and required) and	0 d	linear feet

All parties must make their own assessment of the taxable or non-taxable status of any work performed under the timber sale contact. The Department of Revenue bears responsibility for determining forest road excise taxes. The Department of Natural Resources developed this form to help estimate the impact of forest excise taxes. However, the information provided may not precisely calculate the actual amount of taxes due. The Department of Revenue is available for consultation by calling 1.800.548.8829. (Revised 9/18)

## **PRE-CRUISE NARRATIVE**

Sale Name: Deer Trail	Region: Northeast
Agreement #: 30-104298	District: Arcadia
Contact Forester: Dylan Walters Phone / Location: (509) 844-7224	County(s): Stevens, Choose a county
Alternate Contact: Monika Sowinska Phone / Location: (509) 680-8517	Other information: Click here to enter text.

Type of Sale: Lump Sum	
Harvest System: Ground based Click here to enter text.	90%
Harvest System: Uphill Cable Click here to enter text.	10%
Enter % of sale acres	
Harvest System: Select harvest system Click here to enter text.	Click here to enter percent sale acres.

## **UNIT ACREAGES AND METHOD OF DETERMINATION:**

Unit#	Legal		sal	Deductions from Gross Acres (No harvest acres)					Acreage Determinatio
Harvest R/W or RMZ WMZ	Description (Enter only one legal for each unit) Sec/Twp/Rng	Grant or Trust	Gross Proposal Acres	RMZ/ WMZ Acres	Leave Tree Acres	Existing Road Acres	Other Acres (describe)	Net Harvest Acres	n (List method and error of closure if applicable)
1	Sec 36 T30N R38E	03	44.8	1.3	0	3.0	0	41.8	GPS (Garmin)
2	Sec 36 T30N R38E	03	9.7	0	0	0	0	9.7	GPS (Garmin)
3	Sec 36 T30N R38E	03	38.3	1.0	0	0.2	0	38.1	GPS (Garmin)
4	Sec 2 T29N R38E	04	108. 9	.4	0	1.2	0	107. 7	GPS (Garmin)
5	Sec 2 T29N R38E	04	9.2	0	0	0	0	9.2	GPS (Garmin)
6	Sec 31 T30N R39E	07	14.1	0	0	0	0	14.1	GPS (Garmin)
7	Sec 31 T30N R39E	07	33.9	0	0	0	0	33.9	GPS (Garmin)
8	Sec 10 T29N R39E	04	64.4	0	4.2	1.1	0	59.1	GPS (Garmin)
ROW 1	Sec 31 T30N R39E	Private	.7	0	0	0.3	0	.4	GPS (Garmin)
TOTAL ACRES			324	2.7	4.2	5.8	0	314	

# **HARVEST PLAN AND SPECIAL CONDITIONS:**

Unit#	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
1	Unit 1 is bound by white "Timber Sale Boundary" tags, pink flashers and pink flagging. Private ownership borders the north of Unit 1. DNR ownership borders the east and west sides of Unit 1. DNR ownership and Unit 3 border the south. Leave trees are marked with a band of blue paint.	VRH	279 leave trees
2	Unit 2 is bound by white "Timber Sale Boundary" tags, pink flashers and pink flagging. Unit 2 is borderd by DNR ownership to the north, east, south, an west. Leave trees are marked with a	VRH	62 leave trees
3	band of blue paint.  Unit 3 is bound by white "Timber Sale Boundary" tags, pink flashers and pink flagging. DNR ownership and Unit 1 border the north of Unit 3. DNR ownership borders the east, west, and south. Leave trees are marked with a		
4	band of blue paint.  Unit 4 is bound by white "Timber Sale Boundary" tags, pink flashers and pink flagging. Private timber industry borders the north and west of Unit 4. Unit 5 and DNR ownership border the east. Private and DNR ownership border the south of Unit 4. Leave trees are marked with a band of blue paint.	VRH	229 leave trees 655 leave trees
5	Unit 5 is bound by white "Timber Sale Boundary" tags, pink flashers and pink flagging. Private timber industry property borders the north of Unit 5. DNR ownership borders the east. Unit 4 borders the south and west. Leave trees are marked with a band of blue paint.	VRH	61 leave trees

6	Unit 6 is bound by white "Timber Sale Boundary" tags, pink flashers and pink flagging. Private ownership borders the north and east of Unit 6. DNR ownership borders the south and west boundaries. Leave trees are marked with a band of blue paint.	VRH	86 leave trees
7	Unit 7 is bound by white "Timber Sale Boundary" tags, pink flashers and pink flagging. Private ownership surrounds Unit 7 to the north, south, east, and west. Leave trees are marked with a band of blue paint.	VRH	207 leave trees
8	Unit 8 is bound by white "Timber Sale Boundary" tags, pink flashers and pink flagging. Private ownership surrounds Unit 8 to the north, south, and west. DNR ownership borders the east of Unit 8. Leave trees are marked with a band of blue paint. Leave Tree Area's marked by yellow "Leave Tree Area" tags, pink flashers and pink flagging.	VRH	400 leave tress
ROW 1	Going into Unit 7. Tagged with orange "Right-of-Way" tags, pink flashers, and pink ribbons.	ROW	

# OTHER PRE-CRUISE INFORMATION:

Unit #	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	DF, PP/ 700 MBF	From Springdale take Highway 231 to Springdale-Hunters Rd. travel west approximately 13.6 and turn onto E303836A. Keep right onto E303836C, for the northeast side of Unit 1 will be on your right. At the fork approximately 1.5 miles in, keep left to reach the SW section on Unit 1 and stay right to reach the NW side.	
2	LPP, DF/ 205 MBF	From Springdale take Highway 231 to Springdale-Hunters Rd. travel west approximately 13.6 and turn onto E303836A. Keep left onto E303836A for	

	Т	1 (00) = 1 (1)	
		approximately 600'. The north side of	
		Unit 2 will be on east side of the road.	
		From Springdale take Highway 231 to	
		Springdale-Hunters Rd. travel west	
		approximately 13.6 and turn onto	
		E303836A. Keep right onto E303836A	
		for approximately 0.5 miles. The south side of Unit 3 will be on the north side of	
3	DF, WL/ 646 MBF	the road.	
3	DI, WE/ 040 WIDI	From Springdale take Highway 231 to	
		Springdale-Hunters Rd. travel west	
		approximately 13.6 and turn onto	
		E303836A. Keep right onto E303836A	
		for approximately 3.5 miles to reach Unit	
4	DF, PP/ 1,800 MBF	4.	
·	, , . , . ,	From Springdale take Highway 231 to	
		Springdale-Hunters Rd. travel west	
		approximately 13.6 and turn onto	
		E303836A. Keep right onto E303836A	
		for approximately 3.3 miles. The south	
		side of Unit 5 will be on the north side of	
5	DF, WL/ 200 MBF	the road.	
6		From Springdale take Highway 231 to	
		Springdale-Hunters Rd. Travel west	
		approximately 12.7 and turn onto	
	LPP, WL/ 191 MBF	E303931F.	
7		From Springdale take Highway 231 to	
		Springdale-Hunters Rd. Travel west	
		approximately 12.5 miles to E293906E.	
		At approximately 1300', keep left and	
		stay on E293906E. Unit 7 is located	
		approximately 600' down at the start of	
		DNR ownership. The gate into Unit 7 off	
	DE WI / 660 MDE	of Springdale Hunters Rd. can be opened	
Q	DF, WL/ 668 MBF	with an A786 key.	
8		From Springdale take Highway 231 to	
		Springdale-Hunters Rd. Travel west approximately 10 miles to Lyons hill Rd.	
		Stay on Lyons Hill Rd. for approximately	
		1.2 miles and turn right on Bowler Rd.	
		and continue on Bowler for 1.7 miles and	
		turn onto E293914G. Continue on	
		E293914G for approximately 1.5 miles	
		on E293915F Rd. for approximately 1.5	
	PP, DF/ 1,300 MBF	miles and Unit 8 will be on both sides of	
	1 , 51 / 1,000 10151	mines and emit o will be on both black of	

		DNR ownership. The gate combo on E293914G is 3929.	
ROW 1		From Springdale take Highway 231 to	
Private		Springdale-Hunters Rd. Travel west	
land		approximately 12.5 miles to E293906E.	
		At approximately 1300', keep left and stay on E293906E.	
	GF, DF/ 28 MBF	Private – Not on state land	
TOTAL MBF	5,738 MBF		

#### **REMARKS:**

Prepared By:	Title: Dylan Walters	CC:
Date: 12/29/2022		

# Timber Sale Cruise Report Deer Trail

Sale Name: Q DEER TRAIL
Sale Type: LUMP SUM
Region: NORTHEAST
District: ARCADIA

Lead Cruiser: Jake Culp

Other Cruisers: Hailey Howard

#### **Cruise Narrative:**

Location:

Legal - Section 36 of T30N R38E, Sections 2 and 32 of T29N R38E, Section 31 of T30N R39E, and Section 10 of T29N R39E.

General - Approx. 10 miles west of Springdale, WA in Stevens County.

Access - All units are accessed from Springdale-Hunters Rd.

#### Cruise Design:

- -This sale was cruised using variable radius plots, utilizing the cruise-count method. The walk-through method was used on plots near boundaries.
- -Minor species cruise intensity: We grade the first tree of all minor species encountered; then follow the set cruise design.
- -Min. DBH: 8" DBH for PP and RC, 7" DBH for all other species
- -Log Length: 32' logs where possible, minimum of 12' lengths
- -Top DIB: Trees less than 17.5" DBH have a minimum top of 4.6" DIB for all species; Trees 17.6" and greater DBH have a minimum top DOB of 40% of DOB at 16' or a 6" top, whichever is greater.

#### Take/Leave Prescription:

Cut all trees not marked with blue paint. Leave all hardwoods. Leave all trees within tagged and flagged "Leave Tree Areas".

#### Cruise Acres determination:

FMA unit acreages with existing road acreages and RMZ acreages removed.

#### Stand composition:

The stands are second growth, mostly even aged Douglas fir, ponderosa pine, lodgepole pine, grand fir, and western larch with minor components of western red cedar, Engelmann spruce and western hemlock. Large residual trees and legacy trees are found within the sale area.

#### Timber quality:

Timber to be harvested is comprised of domestic quality Douglas fir (52%), western larch (13%), grand fir (13%), lodgepole pine (10%), ponderosa pine (9%), western red cedar (2%), and less than 1% of both Engelmann spruce and western hemlock. Small amounts of pole quality western red cedar can be found in Unit 3.

#### Stand health/defect:

Older timber in the sale area can be rough, with branch clusters, sweep, and crooks. Other defects noted include forks, spike knots, wind and snow damage. Root rot pockets observed throughout the sale, most of which is in Unit 4. Indian paint fungus was seen in many of the mature GF throughout the sale. Dwarf mistletoe can be found in the DF and WL throughout.

#### Aspect:

South, Southeast, East, West, Northwest

Elevation: 2300'-3200'

#### Harvesting methods:

90% ground based, 10% uphill cable

#### Slope:

Unit 1- Max 40%, Avg. 12%

Unit 2- Max 15%, Avg. 6%

Unit 3- Max 35%, Avg. 5%

Unit 4- Max 30%, Avg. 10%

Unit 5- Max 30%, Avg. 12%

Unit 6- Max 25%, Avg. 10%

Unit 7- Max 25%, Avg. 7%

Unit 8- Max 60%, Avg. 15%

#### Other considerations/remarks:

The northwest portion of Unit 8 is steep cable ground with loose rocks, making it more difficult operator ground.

#### Trust:

This sale is 56% Trust 4, 29% Trust 3, and 15% Trust 7.

Unit	Trust	Volume
1	3	772 MBF
2	3	165 MBF
3	3	592 MBF
4	4	1720 MBF
5	4	116 MBF
6	7	223 MBF
7	7	743 MBF
8	4	1357 MBF

## Timber Sale Notice Volume (MBF)

				MBF Volume by Grade				
Sp	DBH	Rings/In	Age	All	2 Saw	3 Saw	4 Saw	5 Saw
DF	15.2			2,952	1,372	1,302	278	
WL	13.6			763	157	508	97	
GF	14.3			726	273	368	85	
LP	12.5			587	83	422	82	
PP	17.1			519			193	326
RC	15.0			118		106	13	
ES	29.5			14	13	1		
WH	12.8			8		8	1	
ALL	14.4			5,687	1,899	2,714	748	326

# Timber Sale Notice Weight (tons)

	Tons by Grade											
Sp	All	2 Saw	3 Saw	4 Saw	5 Saw							
DF	18,504	7,837	8,767	1,900								
GF	4,490	1,536	2,352	602								
WL	4,343	787	3,026	529								
LP	3,192	429	2,294	470								
PP	2,917			920	1,997							
RC	671		581	89								
WH	63		57	6								
ES	61	51	10									
ALL	34,240	10,639	17,087	4,517	1,997							

# Timber Sale Overall Cruise Statistics (Cut + Leave Trees)

BA	_		V-BAR SE		
(sq ft/acre)	(%)	(bi/sq it)	(%)	(bi/acre)	(%)
141.4	3.4	141.0	2.0	19,931	4.0

# **Timber Sale Unit Cruise Design**

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
Q DEER TRAIL U1	B1C: VR, 1 BAF (33.61) Measure/ Count Plots, Sighting Ht = 4.5 ft	40.5	44.4	29	8	0
Q DEER TRAIL U2	B1C: VR, 1 BAF (33.61) Measure/ Count Plots, Sighting Ht = 4.5 ft	9.7	9.7	9	5	0
Q DEER TRAIL U3	B1C: VR, 1 BAF (33.61) Measure/ Count Plots, Sighting Ht = 4.5 ft	37.1	37.6	29	10	1
Q DEER TRAIL U4	B1C: VR, 1 BAF (25.15) Measure/ Count Plots, Sighting Ht = 4.5 ft	107.3	108.8	65	17	0
Q DEER TRAIL U5	B1C: VR, 1 BAF (25.15) Measure/ Count Plots, Sighting Ht = 4.5 ft	9.2	9.3	11	4	1
Q DEER TRAIL U6	B1C: VR, 1 BAF (33.61) Measure/ Count Plots, Sighting Ht = 4.5 ft	14.1	14.0	13	5	0
Q DEER TRAIL U7	B1C: VR, 1 BAF (25.15) Measure/ Count Plots, Sighting Ht = 4.5 ft	33.9	33.9	24	8	0
Q DEER TRAIL U8	B1C: VR, 1 BAF (33.61) Measure/ Count Plots, Sighting Ht = 4.5 ft	63.3	64.5	41	11	0
All		315.1	322.1	221	68	2

# Timber Sale Log Grade x Sort Summary

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
DF	LIVE	2 SAW	Domestic	13.7	32	4,434	4,354	1.8	7,836.8	1,371.8
DF	LIVE	3 SAW	Domestic	8.0	32	4,180	4,132	1.1	8,767.4	1,302.0
DF	LIVE	4 SAW	Domestic	5.3	22	902	882	2.2	1,899.6	278.0
ES	LIVE	2 SAW	Domestic	20.2	32	42	41	2.3	51.4	12.8
ES	LIVE	3 SAW	Domestic	11.1	32	7	4	40.2	9.8	1.2
GF	LIVE	2 SAW	Domestic	13.7	32	929	867	6.7	1,535.6	273.0
GF	LIVE	3 SAW	Domestic	7.9	31	1,182	1,169	1.1	2,352.3	368.3
GF	LIVE	4 SAW	Domestic	5.2	22	271	269	0.7	601.7	84.6
GF	LIVE	CULL	Cull	21.5	32	137	0	100.0	0.0	0.0
GF	LIVE	UTILITY	Pulp	6.8	12	3	0	100.0	0.0	0.0
LP	LIVE	2 SAW	Domestic	11.7	32	314	264	15.8	428.5	83.3
LP	LIVE	3 SAW	Domestic	7.9	32	1,416	1,338	5.5	2,293.8	421.5
LP	LIVE	4 SAW	Domestic	5.1	21	276	261	5.7	469.9	82.1
LP	LIVE	CULL	Cull	5.8	32	55	0	100.0	0.0	0.0
PP	LIVE	4 SAW	Domestic	14.3	32	618	612	1.0	920.4	192.7
PP	LIVE	5 SAW	Domestic	7.6	27	1,089	1,034	5.0	1,996.8	325.9
RC	LIVE	3 SAW	Domestic	9.5	31	338	336	0.7	581.3	105.8
RC	LIVE	4 SAW	Domestic	6.2	18	40	40	0.0	89.4	12.6
WH	LIVE	3 SAW	Domestic	7.5	32	24	24	0.0	56.5	7.6
WH	LIVE	4 SAW	Domestic	5.5	20	3	3	0.0	6.2	0.8
WL	LIVE	2 SAW	Domestic	13.6	32	500	500	0.0	787.1	157.4
WL	LIVE	3 SAW	Domestic	8.0	32	1,633	1,612	1.3	3,025.9	508.0
WL	LIVE	4 SAW	Domestic	5.1	22	312	309	0.8	529.4	97.5

# Timber Sale Log Sort x Diameter Bin Summary

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 8	LIVE	Domestic	6.1	26	2,814	1.6	6,152.8	886.7
DF	9 - 11	LIVE	Domestic	10.1	32	2,461	1.2	4,945.0	775.4
DF	12 - 14	LIVE	Domestic	12.8	32	2,352	1.2	4,408.4	741.0
DF	15 - 19	LIVE	Domestic	16.1	32	1,594	1.3	2,732.9	502.3
DF	20+	LIVE	Domestic	22.6	32	147	15.7	264.6	46.3
ES	9 - 11	LIVE	Domestic	11.1	32	4	40.2	9.8	1.2
ES	15 - 19	LIVE	Domestic	17.8	32	14	6.3	18.5	4.6
ES	20+	LIVE	Domestic	22.5	32	26	0.0	32.9	8.3
GF	< 5	LIVE	Domestic	4.5	20	15	0.0	26.3	4.8
GF	5 - 8	LIVE	Domestic	6.1	26	869	0.8	1,895.0	273.8

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
GF	5 - 8	LIVE	Pulp	6.8	12	0	100.0	0.0	0.0
GF	9 - 11	LIVE	Domestic	9.8	31	553	1.4	1,032.6	174.2
GF	12 - 14	LIVE	Domestic	12.6	32	403	11.1	811.6	127.0
GF	15 - 19	LIVE	Domestic	15.8	32	399	3.0	630.8	125.8
GF	20+	LIVE	Domestic	20.2	32	64	0.0	93.2	20.2
GF	20+	LIVE	Cull	21.4	32	0	100.0	0.0	0.0
LP	5 - 8	LIVE	Cull	5.8	32	0	100.0	0.0	0.0
LP	5 - 8	LIVE	Domestic	5.9	26	971	4.9	1,732.1	306.0
LP	9 - 11	LIVE	Domestic	10.3	32	822	8.7	1,327.3	259.0
LP	12 - 14	LIVE	Domestic	12.0	32	70	17.3	132.8	22.0
PP	5 - 8	LIVE	Domestic	6.8	25	471	9.0	1,016.7	148.3
PP	9 - 11	LIVE	Domestic	9.7	32	564	1.4	980.1	177.7
PP	12 - 14	LIVE	Domestic	12.5	32	192	3.1	296.1	60.6
PP	15 - 19	LIVE	Domestic	15.8	32	419	0.0	624.4	132.2
RC	5 - 8	LIVE	Domestic	6.3	22	85	0.0	172.2	26.8
RC	9 - 11	LIVE	Domestic	10.5	32	203	1.2	350.7	63.9
RC	12 - 14	LIVE	Domestic	12.0	32	47	0.0	72.6	14.9
RC	15 - 19	LIVE	Domestic	16.3	32	41	0.0	75.1	12.8
WH	5 - 8	LIVE	Domestic	6.4	28	16	0.0	35.9	5.0
WH	9 - 11	LIVE	Domestic	9.3	32	11	0.0	26.9	3.4
WL	< 5	LIVE	Domestic	4.5	21	17	13.1	24.6	5.3
WL	5 - 8	LIVE	Domestic	6.1	27	1,039	0.8	1,957.1	327.5
WL	9 - 11	LIVE	Domestic	9.9	32	865	1.5	1,573.6	272.7
WL	12 - 14	LIVE	Domestic	12.9	32	375	0.0	602.3	118.0
WL	15 - 19	LIVE	Domestic	15.4	32	125	0.0	184.7	39.4

# Unit Sale Notice Volume (MBF): Q DEER TRAIL U1

				MBF Volume by Grade						
Sp	DBH	Rings/In	Age	All	2 Saw	3 Saw	4 Saw	5 Saw		
DF	12.7			355	128	167	60			
GF	12.8			161	74	67	20			
LP	15.1			135	27	94	14			
PP	17.4			48			17	31		
WL	10.6			37		26	11			
RC	19.0			19		15	4			
ES	29.5			14	13	1				
WH	11.4			4		4				
ALL	13.5			772	241	374	125	31		

# Unit Cruise Design: Q DEER TRAIL U1

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B1C: VR, 1 BAF (33.61) Measure/Count Plots, Sighting Ht = 4.5 ft	40.5	44.4	29	8	0

# Unit Cruise Summary: Q DEER TRAIL U1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	9	65	2.2	0
GF	7	26	0.9	0
LP	4	19	0.7	0
PP	7	11	0.4	0
WL	4	7	0.2	0
RC	1	5	0.2	0
ES	1	1	0.0	0
WH	1	1	0.0	0
ALL	34	135	4.7	0

Sp	ВА	BA CV	BA SE	V-BAR	V-BAR CV	V-BAR SE	Net Vol	Vol CV	Vol SE
	(sq ft/acre)	(%)	(%)	(bf/sq ft)	(%)	(%)	(bf/acre)	(%)	(%)
DF	75.3	100.2	18.6	142.5	28.4	9.5	10,735	104.2	20.9

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
GF	30.1	155.9	28.9	132.2	44.2	16.7	3,983	162.0	33.4
LP	22.0	148.6	27.6	150.9	12.0	6.0	3,322	149.1	28.2
PP	12.7	191.8	35.6	113.7	20.5	7.7	1,449	192.9	36.5
WL	8.1	263.3	48.9	129.7	19.9	9.9	1,052	264.1	49.9
RC	5.8	271.6	50.4	98.5	0.0	0.0	571	271.6	50.4
ES	1.2	538.5	100.0	299.5	0.0	0.0	347	538.5	100.0
WH	1.2	538.5	100.0	90.3	0.0	0.0	105	538.5	100.0
ALL	156.5	53.0	9.8	137.8	34.6	5.9	21,564	63.3	11.5

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	ВА	RD	MBF Net
DF	LIVE	CUT	9	ALL	12.7	57	71	8,774	8,753	0.2	69.8	61.4	17.2	354.5
ES	LIVE	CUT	1	ALL	29.5	104	104	375	347	7.5	0.2	1.2	0.2	14.1
GF	LIVE	CUT	7	ALL	12.8	51	63	4,749	3,983	16.1	33.7	30.1	8.4	161.3
LP	LIVE	CUT	4	ALL	15.1	67	84	3,664	3,322	9.3	17.7	22.0	5.7	134.5
PP	LIVE	CUT	7	ALL	17.4	67	89	1,255	1,186	5.6	6.3	10.4	2.5	48.0
RC	LIVE	CUT	1	ALL	19.0	60	75	476	457	4.0	2.4	4.6	1.1	18.5
WH	LIVE	CUT	1	ALL	11.4	43	52	105	105	0.0	1.6	1.2	0.3	4.2
WL	LIVE	CUT	4	ALL	10.6	58	72	902	902	0.0	11.3	7.0	2.1	36.5
ALL	LIVE	CUT	34	ALL	13.3	57	71	20,300	19,054	6.1	143.0	137.9	37.6	771.7
ALL	ALL	ALL	34	ALL	13.3	57	71	20,300	19,054	6.1	143.0	137.9	37.6	771.7

# Unit Sale Notice Volume (MBF): Q DEER TRAIL U2

				MBF Volume by Grade					
Sp	DBH	Rings/In	Age	All	2 Saw	3 Saw	4 Saw		
DF	14.5			69	24	37	7		
LP	12.9			66		55	11		
GF	16.0			30	14	14	2		
ALL	14.2			165	38	107	20		

# Unit Cruise Design: Q DEER TRAIL U2

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B1C: VR, 1 BAF (33.61) Measure/Count Plots, Sighting Ht = 4.5 ft	9.7	9.7	9	5	0

# Unit Cruise Summary: Q DEER TRAIL U2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
WL		3	0.3	0
PP		1	0.1	0
DF	9	14	1.6	0
LP	4	13	1.4	0
GF	2	7	0.8	0
ALL	15	38	4.2	0

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
WL	11.2	150.0	50.0						
PP	3.7	300.0	100.0						
DF	52.3	72.7	24.2	146.2	35.0	11.7	7,642	80.6	26.9
LP	48.5	92.3	30.8	140.9	16.3	8.1	6,841	93.7	31.8
GF	26.1	154.5	51.5	117.5	41.7	29.5	3,072	160.1	59.4
ALL	141.9	62.4	20.8	138.3	31.3	8.1	19,620	69.8	22.3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	ВА	RD	MBF Net
DF	LIVE	CUT	9	ALL	14.5	62	78	7,207	7,096	1.5	42.3	48.5	12.7	68.8
GF	LIVE	CUT	2	ALL	16.0	61	77	3,163	3,072	2.9	18.7	26.1	6.5	29.8
LP	LIVE	CUT	4	ALL	12.9	65	81	7,319	6,841	6.5	53.5	48.5	13.5	66.4
WL	LIVE	CUT	0	ALL	18.0						4.2	7.5	1.8	
ALL	LIVE	CUT	15	ALL	14.2	63	79	17,690	17,009	3.8	118.7	130.7	34.6	165.0
ALL	ALL	ALL	15	ALL	14.2	63	79	17,690	17,009	3.8	118.7	130.7	34.6	165.0

Unit Sale Notice Volume (MBF): Q DEER TRAIL U3

				MBF Volume by Grade							
Sp	DBH	Rings/In	Age	All	2 Saw	3 Saw	4 Saw	5 Saw	Utility		
DF	12.5			218	56	124	38				
WL	12.3			125		106	19				
RC	14.3			100		91	9				
GF	12.9			76	17	47	12		0		
LP	10.5			39	11	21	7				
PP	16.6			34			19	15			
ALL	12.8			592	84	389	104	15	0		

Unit Cruise Design: Q DEER TRAIL U3

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B1C: VR, 1 BAF (33.61) Measure/Count Plots, Sighting Ht = 4.5 ft	37.1	37.6	29	10	1

Unit Cruise Summary: Q DEER TRAIL U3

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	15	50	1.7	0
WL	11	20	0.7	0
RC	6	18	0.6	0
GF	7	16	0.6	0
PP	5	13	0.4	0
LP	3	6	0.2	0
ALL	47	123	4.2	0

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	57.9	102.7	19.1	115.2	45.6	11.8	6,674	112.4	22.4
WL	23.2	150.6	28.0	161.7	13.7	4.1	3,749	151.2	28.3
RC	20.9	225.4	41.9	136.7	38.0	15.5	2,852	228.6	44.6
GF	18.5	133.4	24.8	110.5	55.5	21.0	2,049	144.5	32.5
PP	15.1	164.2	30.5	113.2	44.9	20.1	1,705	170.2	36.5

Sp	BA (sq ft/acre)				V-BAR CV (%)				Vol SE (%)
LP	7.0	270.3	50.2	151.5	55.8	32.2	1,053	276.0	59.7
ALL	142.6	59.0	11.0	126.8	41.0	6.0	18,082	71.8	12.5

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	ВА	RD	MBF Net
DF	LIVE	CUT	15	ALL	12.5	56	69	6,083	5,873	3.4	59.8	51.0	14.4	217.9
GF	LIVE	CUT	7	ALL	12.9	53	66	2,697	2,049	24.0	20.4	18.5	5.2	76.0
LP	LIVE	CUT	3	ALL	10.5	47	58	1,053	1,053	0.0	11.6	7.0	2.1	39.1
PP	LIVE	CUT	5	ALL	16.6	53	68	924	918	0.7	5.4	8.1	2.0	34.1
RC	LIVE	CUT	6	ALL	14.3	59	74	2,693	2,693	0.0	17.7	19.7	5.2	99.9
WL	LIVE	CUT	11	ALL	12.3	77	97	3,381	3,374	0.2	25.3	20.9	5.9	125.2
ALL	LIVE	CUT	47	ALL	12.8	59	73	16,832	15,961	5.2	140.2	125.2	34.9	592.1
ALL	ALL	ALL	47	ALL	12.8	59	73	16,832	15,961	5.2	140.2	125.2	34.9	592.1

# Unit Sale Notice Volume (MBF): Q DEER TRAIL U4

				MBF Volume by Grade							
Sp	DBH	Rings/In	Age	All	2 Saw	3 Saw	4 Saw	5 Saw			
DF	13.9			944	334	510	101				
WL	12.9			324	34	246	44				
GF	12.6			232	49	146	36				
PP	16.6			219			35	184			
ALL	13.5			1,720	418	902	216	184			

# Unit Cruise Design: Q DEER TRAIL U4

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B1C: VR, 1 BAF (25.15) Measure/Count Plots, Sighting Ht = 4.5 ft	107.3	108.8	65	17	0

# Unit Cruise Summary: Q DEER TRAIL U4

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	30	179	2.8	0
WL	25	56	0.9	0
PP	6	77	1.2	0
GF	8	43	0.7	0
ALL	69	355	5.5	0

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	69.3	85.2	10.6	138.7	33.8	6.2	9,605	91.6	12.2
WL	21.7	153.4	19.0	144.7	24.1	4.8	3,135	155.3	19.6
PP	29.8	146.9	18.2	101.4	31.4	12.8	3,021	150.2	22.3
GF	16.6	171.7	21.3	130.0	27.7	9.8	2,163	173.9	23.4
ALL	137.4	44.0	5.5	130.5	31.7	3.8	17,924	54.3	6.7

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	ВА	RD	MBF Net
DF	LIVE	CUT	30	ALL	13.9	60	74	8,939	8,800	1.6	60.2	63.5	17.0	944.2
GF	LIVE	CUT	8	ALL	12.6	56	70	2,175	2,163	0.6	19.2	16.6	4.7	232.1
PP	LIVE	CUT	6	ALL	16.6	62	81	2,080	2,040	1.9	13.4	20.1	4.9	218.9
WL	LIVE	CUT	25	ALL	12.9	71	89	3,074	3,023	1.7	23.0	20.9	5.8	324.4
ALL	LIVE	CUT	69	ALL	13.8	62	77	16,268	16,026	1.5	115.8	121.1	32.5	1,719.6
ALL	ALL	ALL	69	ALL	13.8	62	77	16,268	16,026	1.5	115.8	121.1	32.5	1,719.6

# Unit Sale Notice Volume (MBF): Q DEER TRAIL U5

				MBF Volume by Grade					
Sp	DBH	Rings/In	Age	All	2 Saw	3 Saw	4 Saw	5 Saw	
DF	13.8			44	7	31	6		
PP	19.1			41			25	17	
WL	14.8			25		23	2		
GF	12.0			6	4	3			
ALL	15.2			116	11	56	33	17	

# Unit Cruise Design: Q DEER TRAIL U5

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B1C: VR, 1 BAF (25.15) Measure/Count Plots, Sighting Ht = 4.5 ft	9.2	9.3	11	4	1

# Unit Cruise Summary: Q DEER TRAIL U5

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	6	20	1.8	0
PP	6	18	1.6	0
WL	1	8	0.7	0
GF	2	2	0.2	0
ALL	15	48	4.4	0

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	45.7	80.9	24.4	130.2	35.2	14.4	5,954	88.2	28.3
PP	41.2	103.2	31.1	122.9	26.3	10.7	5,060	106.5	32.9
WL	18.3	222.5	67.1	167.4	0.0	0.0	3,062	222.5	67.1
GF	4.6	222.5	67.1	145.3	33.6	23.8	665	225.0	71.2
ALL	109.7	52.5	15.8	134.3	28.7	7.4	14,740	59.9	17.5

Sp	Status	Rx	N	D	DBH	BL	THT	<b>BF Gross</b>	BF Net	Defect %	TPA	ВА	RD	MBF Net
DF	LIVE	CUT	6	ALL	13.8	59	74	4,778	4,763	0.3	35.2	36.6	9.8	43.8
GF	LIVE	CUT	2	ALL	12.0	64	79	692	665	4.0	5.8	4.6	1.3	6.1
PP	LIVE	CUT	6	ALL	19.1	71	94	4,872	4,498	7.7	18.4	36.6	8.4	41.4
WL	LIVE	CUT	1	ALL	14.8	82	104	2,679	2,679	0.0	13.4	16.0	4.2	24.6
ALL	LIVE	CUT	15	ALL	15.4	67	85	13,021	12,604	3.2	72.8	93.7	23.7	116.0
ALL	ALL	ALL	15	ALL	15.4	67	85	13,021	12,604	3.2	72.8	93.7	23.7	116.0

## Unit Sale Notice Volume (MBF): Q DEER TRAIL U6

				MBF Volume by Grade					
Sp	DBH	Rings/In	Age	All	2 Saw	3 Saw	4 Saw	5 Saw	
LP	9.6			140	11	94	36		
WL	18.3			50	33	16	2		
GF	13.9			16	7	8	1		
DF	9.5			13		6	7		
PP	15.8			3				3	
ALL	10.5			223	50	123	47	3	

# Unit Cruise Design: Q DEER TRAIL U6

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B1C: VR, 1 BAF (33.61) Measure/Count Plots, Sighting Ht = 4.5 ft	14.1	14.0	13	5	0

# Unit Cruise Summary: Q DEER TRAIL U6

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
LP	11	40	3.1	0
WL	2	10	0.8	0
GF	2	3	0.2	0
DF	2	5	0.4	0
PP	1	1	0.1	0
ALL	18	59	4.5	0

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
LP	103.4	76.8	21.3	98.8	45.5	13.7	10,213	89.2	25.3
WL	25.9	120.5	33.4	197.6	2.3	1.6	5,109	120.5	33.5
GF	7.8	190.0	52.7	147.8	49.2	34.8	1,147	196.3	63.1
DF	12.9	199.7	55.4	87.8	3.3	2.3	1,135	199.7	55.4
PP	2.6	360.6	100.0	91.1	0.0	0.0	236	360.6	100.0
ALL	152.5	49.8	13.8	116.9	44.6	10.5	17,839	66.8	17.4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	ВА	RD	MBF Net
DF	LIVE	CUT	2	ALL	9.5	48	59	908	908	0.0	21.0	10.3	3.4	12.8
GF	LIVE	CUT	2	ALL	13.9	62	77	1,147	1,147	0.0	7.4	7.8	2.1	16.2
LP	LIVE	CUT	11	ALL	9.6	53	65	12,142	9,957	18.0	200.6	100.8	32.5	140.4
PP	LIVE	CUT	1	ALL	15.8	65	86	247	236	4.6	1.9	2.6	0.7	3.3
WL	LIVE	CUT	2	ALL	18.3	82	104	3,577	3,577	0.0	9.9	18.1	4.2	50.4
ALL	LIVE	CUT	18	ALL	10.3	54	66	18,019	15,824	12.2	240.8	139.6	42.9	223.1
ALL	ALL	ALL	18	ALL	10.3	54	66	18,019	15,824	12.2	240.8	139.6	42.9	223.1

Unit Sale Notice Volume (MBF): Q DEER TRAIL U7

				MBF Volume by Grade						
Sp	DBH	Rings/In	Age	All	2 Saw	3 Saw	4 Saw	5 Saw		
LP	13.1			207	35	158	14			
GF	17.7			205	109	83	12			
DF	15.4			203	91	102	10			
WL	15.2			122	64	46	12			
WH	14.2			4		3	1			
PP	14.9			3				3		
ALL	15.0			743	299	391	49	3		

Unit Cruise Design: Q DEER TRAIL U7

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B1C: VR, 1 BAF (25.15) Measure/Count Plots, Sighting Ht = 4.5 ft	33.9	33.9	24	8	0

# Unit Cruise Summary: Q DEER TRAIL U7

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
WP		1	0.0	0
DF	10	48	2.0	0
LP	8	33	1.4	0
GF	8	29	1.2	0
WL	8	22	0.9	0
PP	1	2	0.1	0
WH	1	1	0.0	0
ALL	36	136	5.7	0

# Unit Cruise Statistics (Cut + Leave Trees): Q DEER TRAIL U7

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
WP	1.0	489.9	100.0						
DF	50.3	93.3	19.0	132.6	47.9	15.1	6,668	104.8	24.3
LP	34.6	124.7	25.5	176.2	12.8	4.5	6,094	125.4	25.9
GF	30.4	122.0	24.9	198.5	20.8	7.4	6,032	123.7	26.0

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Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
WL	23.1	115.6	23.6	171.4	26.1	9.2	3,950	118.5	25.3
PP	2.1	338.8	69.2	87.5	0.0	0.0	183	338.8	69.2
WH	1.0	489.9	100.0	118.2	0.0	0.0	124	489.9	100.0
ALL	142.5	40.2	8.2	162.9	31.8	5.3	23,222	51.3	9.8

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	ВА	RD	MBF Net
DF	LIVE	CUT	10	ALL	15.4	64	80	6,104	5,973	2.1	34.8	45.1	11.5	202.5
GF	LIVE	CUT	8	ALL	17.7	80	102	6,348	6,032	5.0	17.8	30.4	7.2	204.5
LP	LIVE	CUT	8	ALL	13.1	72	90	6,479	6,094	5.9	36.9	34.6	9.6	206.6
PP	LIVE	CUT	1	ALL	14.9	64	84	92	92	0.0	0.9	1.0	0.3	3.1
WH	LIVE	CUT	1	ALL	14.2	58	71	124	124	0.0	1.0	1.0	0.3	4.2
WL	LIVE	CUT	8	ALL	15.2	78	98	3,641	3,591	1.4	16.6	21.0	5.4	121.7
ALL	LIVE	CUT	36	ALL	15.0	71	90	22,788	21,906	3.9	108.0	133.1	34.2	742.6
ALL	ALL	ALL	36	ALL	15.0	71	90	22,788	21,906	3.9	108.0	133.1	34.2	742.6

# Unit Sale Notice Volume (MBF): Q DEER TRAIL U8

				MBF Volume by Grade						
Sp	DBH	Rings/In	Age	All	2 Saw	3 Saw	4 Saw	5 Saw		
DF	17.8			1,107	732	327	49			
PP	17.4			170			98	72		
WL	14.3			80	26	46	8			
ALL	17.0			1,357	758	372	154	72		

# Unit Cruise Design: Q DEER TRAIL U8

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B1C: VR, 1 BAF (33.61) Measure/Count Plots, Sighting Ht = 4.5 ft	63.3	64.5	41	11	0

## Unit Cruise Summary: Q DEER TRAIL U8

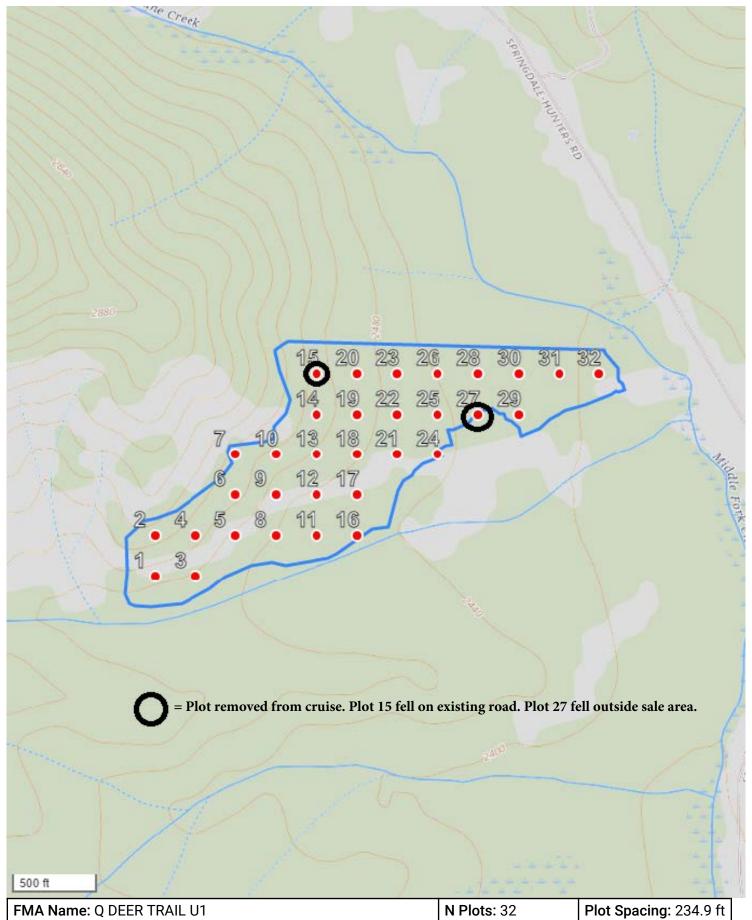
Sp	<b>Cruised Trees</b>	All Trees	Trees/Plot	Ring-Count Trees
DF	34	133	3.2	0
PP	6	28	0.7	0
WL	8	9	0.2	0
ALL	48	170	4.1	0

# Unit Cruise Statistics (Cut + Leave Trees): Q DEER TRAIL U8

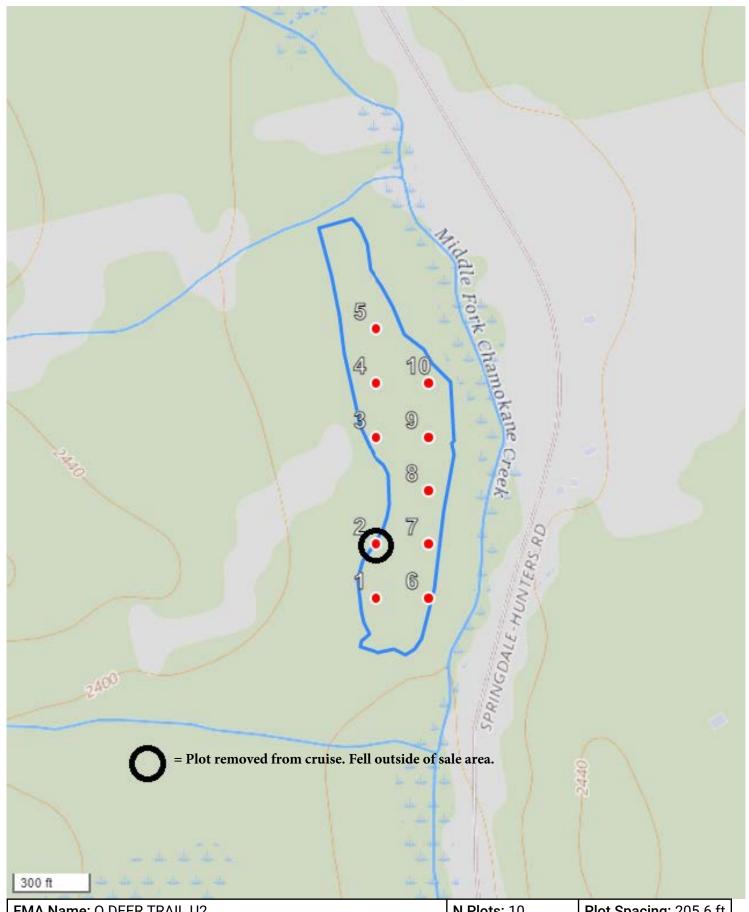
Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	109.0	59.6	9.3	170.7	26.8	4.6	18,612	65.3	10.4
PP	23.0	168.4	26.3	130.9	45.3	18.5	3,005	174.3	32.1
WL	7.4	388.1	60.6	171.2	29.0	10.3	1,263	389.1	61.5
ALL	139.4	56.2	8.8	164.2	29.8	4.3	22,880	63.6	9.8

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	34	ALL	17.8	71	89	17,773	17,492	1.6	59.3	102.5	24.3	1,107.2
PP	LIVE	CUT	6	ALL	17.4	66	86	2,811	2,683	4.5	12.4	20.5	4.9	169.8
WL	LIVE	CUT	8	ALL	14.3	76	96	1,263	1,263	0.0	6.6	7.4	2.0	80.0

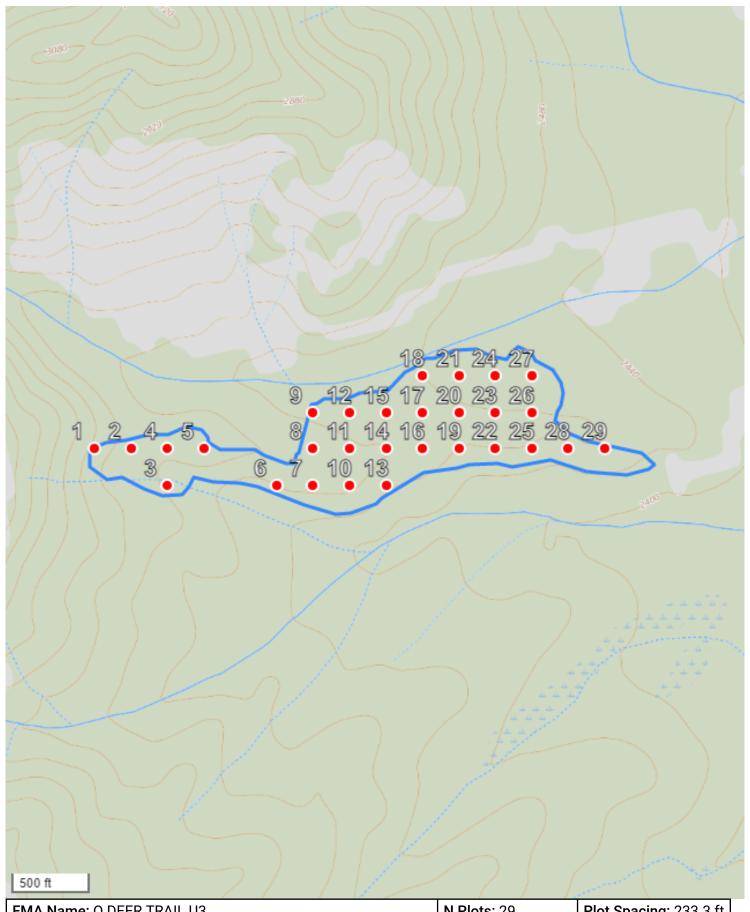
Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	ВА	RD	MBF Net
ALL	LIVE	CUT	48	ALL	17.5	70	89	21,847	21,438	1.9	78.3	130.3	31.2	1,357.0
ALL	ALL	ALL	48	ALL	17.5	70	89	21,847	21,438	1.9	78.3	130.3	31.2	1,357.0



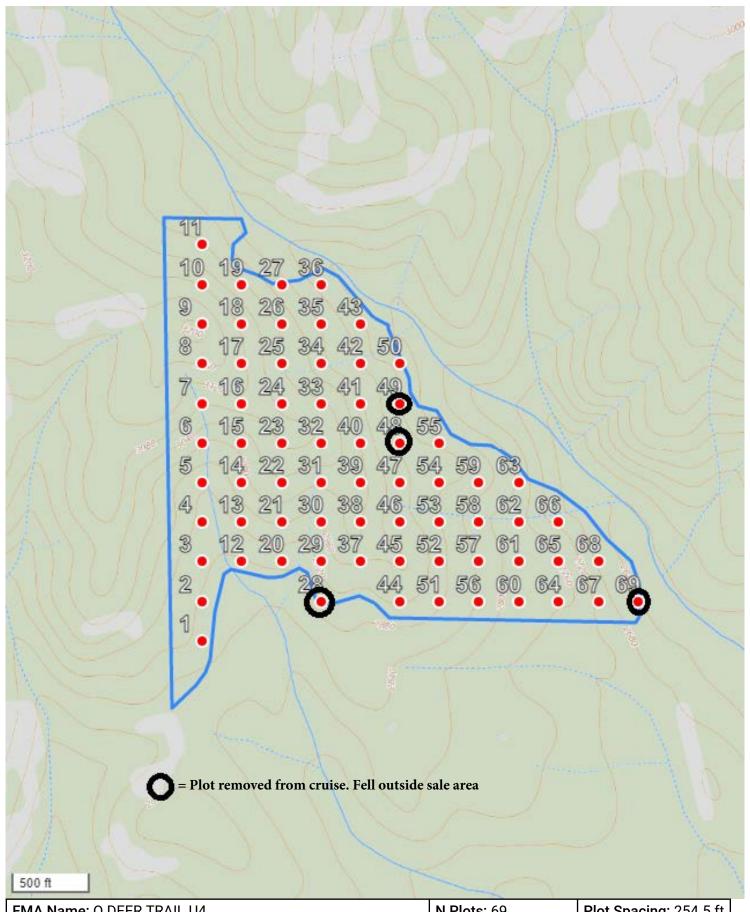
FMA Name: Q DEER TRAIL U1	N Plots: 32	Plot Spacing: 234.9 ft
Grid Name: Q DEER TRAIL U1 - 1	Acres Treated: 40.2	Main Azimuth: 0 deg



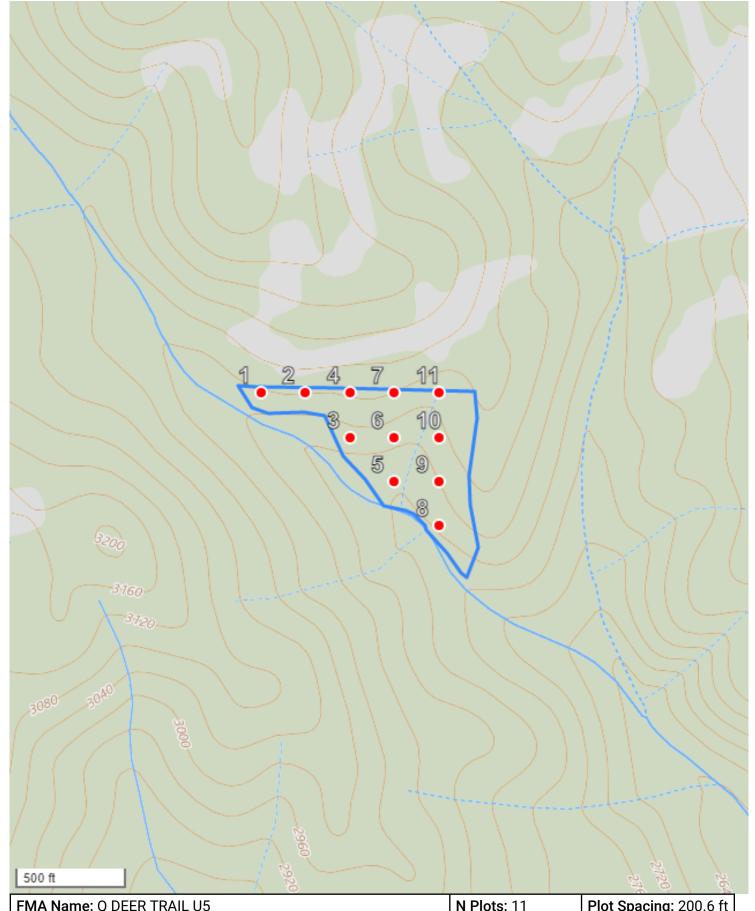
FMA Name: Q DEER TRAIL U2	N Plots: 10	Plot Spacing: 205.6 ft
Grid Name: Q DEER TRAIL U2 - 1	Acres Treated: 9.7	Main Azimuth: 0 deg



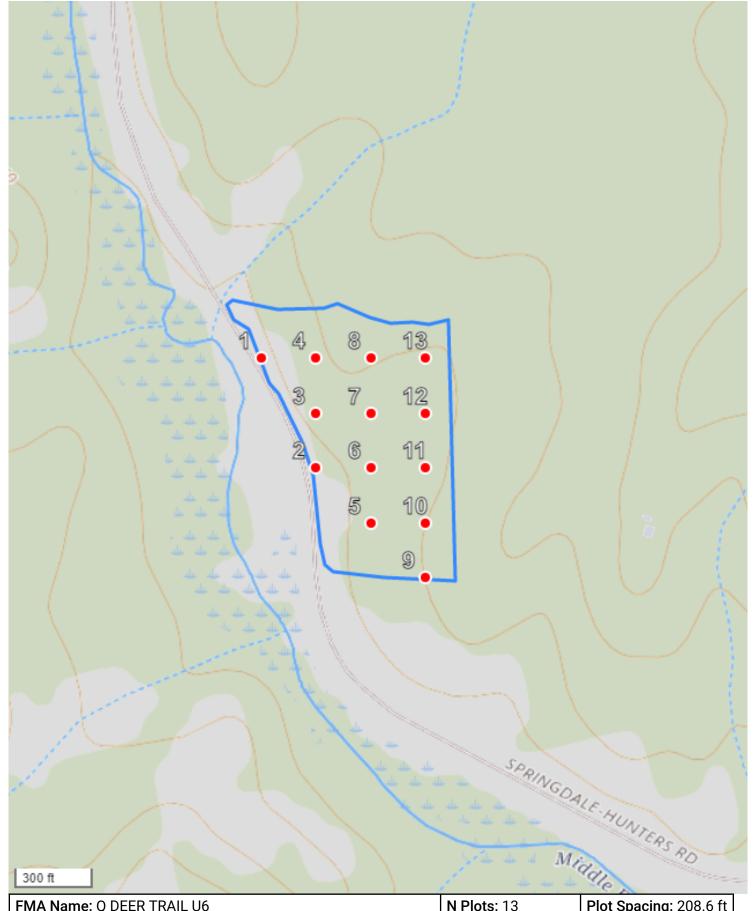
FMA Name: Q DEER TRAIL U3	N Plots: 29	Plot Spacing: 233.3 ft
Grid Name: Q DEER TRAIL U3 - 1	Acres Treated: 37.1	Main Azimuth: 0 deg



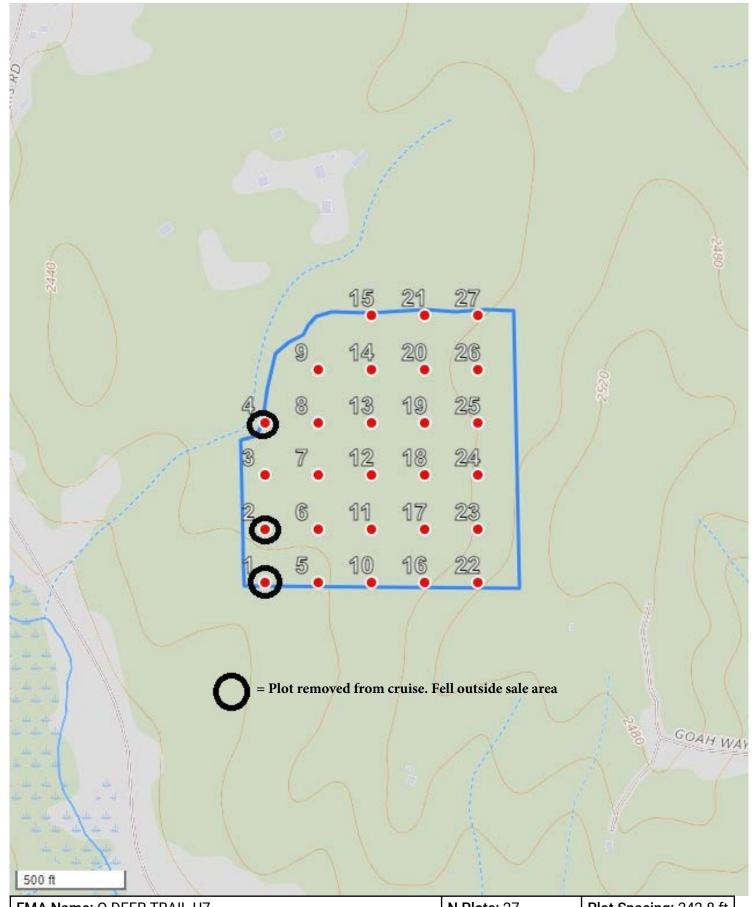
FMA Name: Q DEER TRAIL U4	N Plots: 69	Plot Spacing: 254.5 ft
Grid Name: Q DEER TRAIL U4 - 1	Acres Treated: 107.3	Main Azimuth: 0 deg



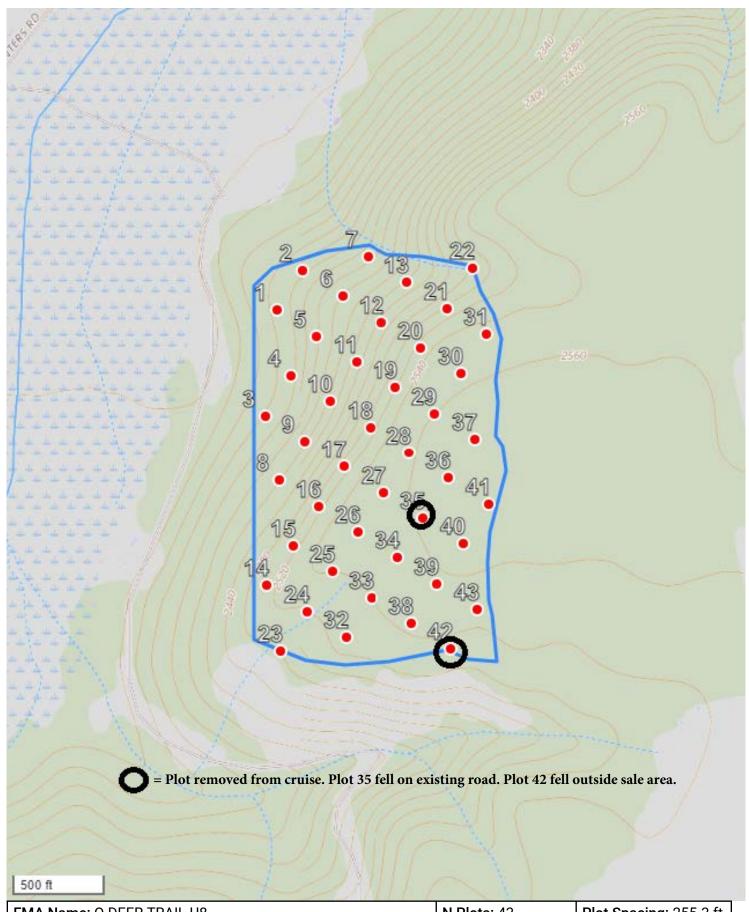
FMA Name: Q DEER TRAIL U5	N Plots: 11	Plot Spacing: 200.6 ft
Grid Name: Q DEER TRAIL U5 - 1	Acres Treated: 9.2	Main Azimuth: 0 deg



FMA Name: Q DEER TRAIL U6	N Plots: 13	Plot Spacing: 208.6 ft
Grid Name: Q DEER TRAIL U6 - 1	Acres Treated: 14.1	Main Azimuth: 0 deg



FMA Name: Q DEER TRAIL U7	N Plots: 27	Plot Spacing: 242.8 ft
Grid Name: Q DEER TRAIL U7 - 1	Acres Treated: 33.9	Main Azimuth: 0 deg



FMA Name: Q DEER TRAIL U8	N Plots: 43	Plot Spacing: 255.3 ft
Grid Name: Q DEER TRAIL U8 - 1	Acres Treated: 63.3	Main Azimuth: 33 deg



# Forest Practices Application/Notification Notice of Decision

FPA/N No:	3026170
Effective Date:	3/14/23
Expiration Date:	3/14/26
Shut Down Zone	.687
EARR Tax Credit:	☑ Eligible ☐ Non-eligible
Reference:	Deer Trail
	36-30-38.2-29-38.10-29-39.31-30-39

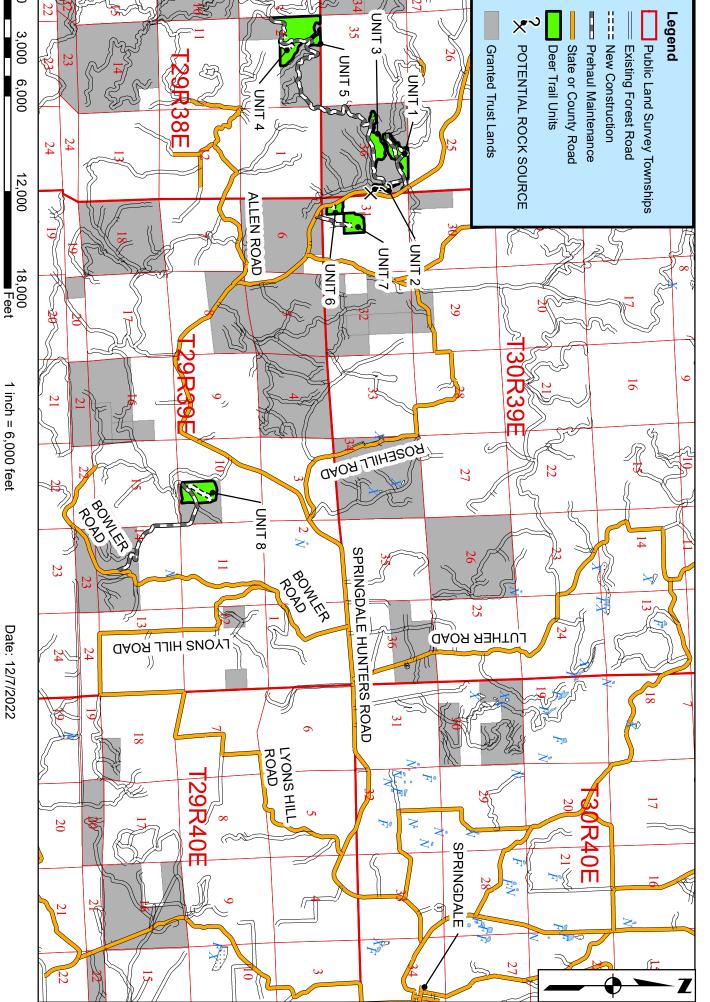
			Reference					
				36-30-38,2-29-38,10-29-39,31-30-39				
Decision								
☐ Notification Accepted	on Accepted Operations shall not begin before the effective date.							
■ Approved	This Forest Pra	his Forest Practices Application is subject to the conditions listed below.						
☐ Disapproved	This Forest Pra	actices Application is	s disapproved for th	ne reasons listed below.				
☐ Withdrawn	Applicant has	Applicant has withdrawn the Forest Practices Application/Notification (FPA/N).						
☐ Closed		ices obligations are						
FPA/N Classification			Number of Ye	ears Granted on Multi-Year Request				
☐ Class II	☐ Class IVG	☐ Class IVS	☐ 4 years	□ 5 years				
Conditions on Approval/F	Reasons for Disa	approval						
Approved with no conditions	3	T						
Issued By: Matt Binder	3	1 1	Region: North	east				
Title: Forest Practice	es Forester		Date: 03/14/20	)23				
Coming to	mdowner Tirch	or Ourses and Ourse						
Copies to:	muowner, rimbe	er Owner and Oper						
Issued in person:	O ⊠ TO ⊠ OP	By: Ragene Chris	stensen	Date: 03/14/2023				
2022 June - EPA/N Notice of De	ecision			Page 1 of 2				

# Washington State Department of Natural Resources

Page 1 of 4 Road Plan Map

Agreement No.: 30-004298 Sale Name: Deer Trail

County: Stevens Region: Northeast

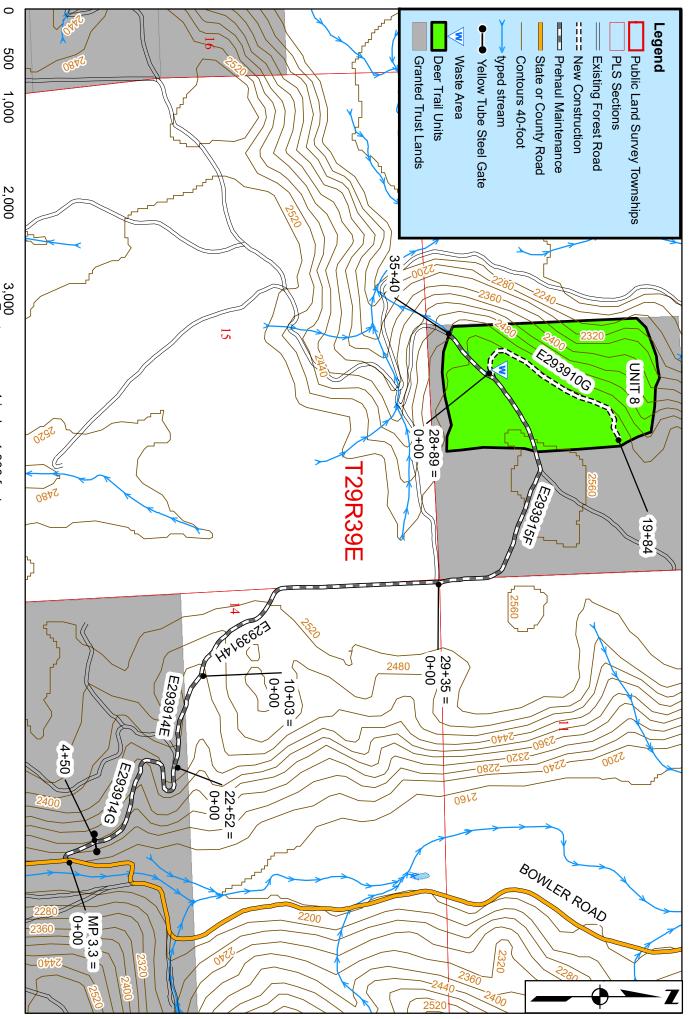


1 inch = 6,000 feet

Date: 12/7/2022

# Washington State Department of Natural Resources

Sale Name: Deer Trail Agreement No.: 30-004298 Road Plan Map Page 2 of 4 County: Stevens Region: Northeast



Feet

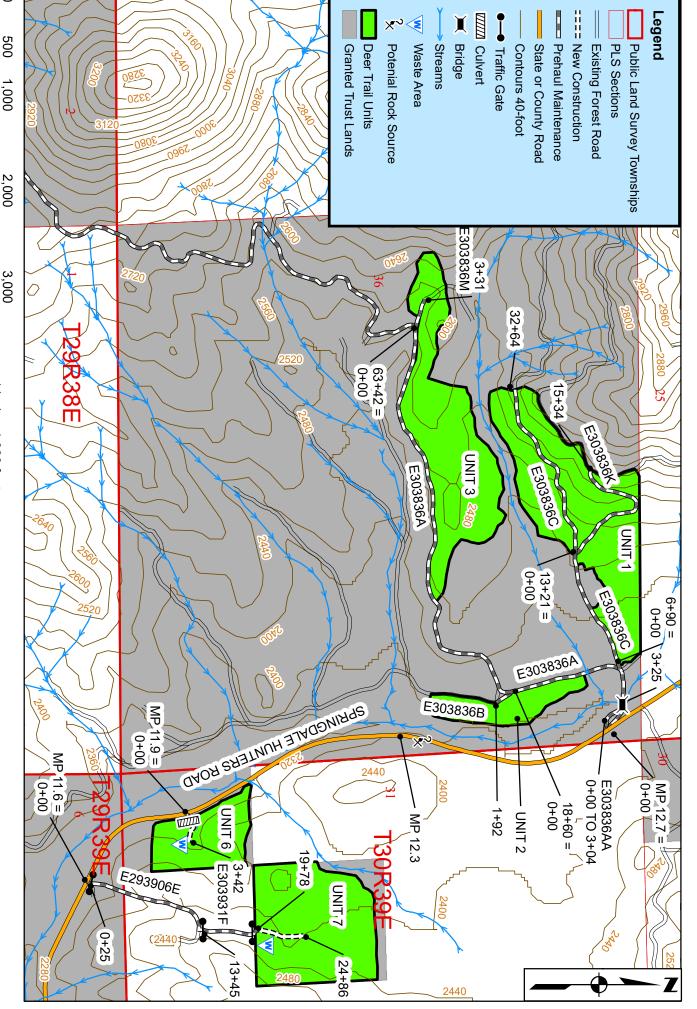
1 inch = 1,000 feet

Date: 12/7/2022

## Washington State Department of Natural Resources

Road Plan Map Region: Northeast
Page 3 of 4 County: Stevens

Sale Name: Deer Trail Agreement No.: 30-004298



Feet

1 inch = 1,000 feet

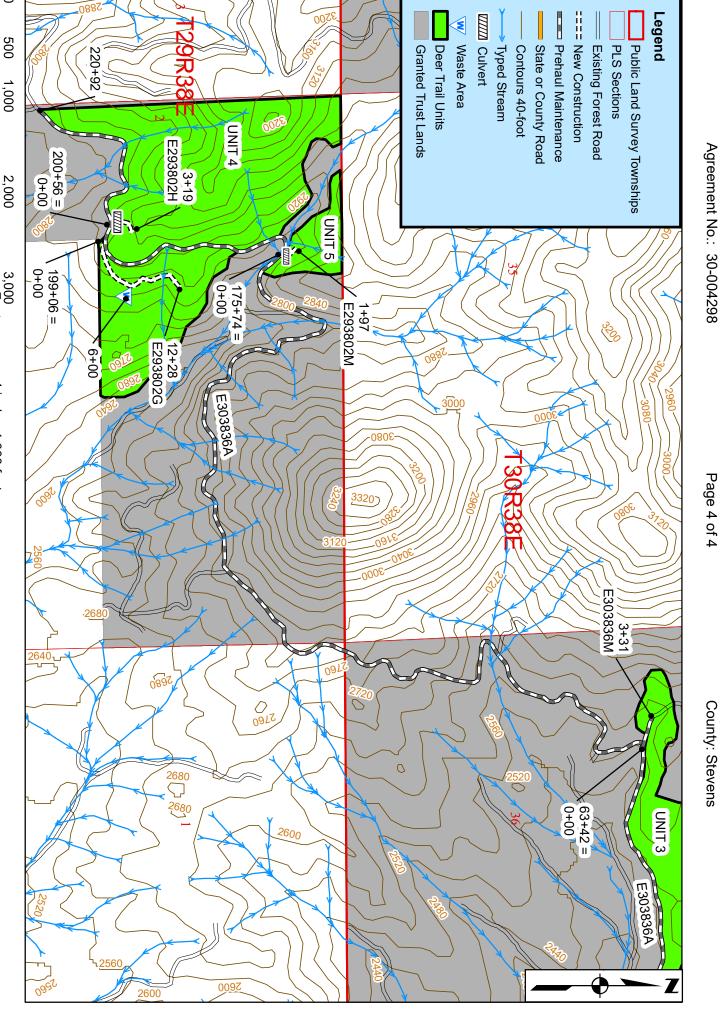
Date: 12/7/2022

# Washington State Department of Natural Resources

Page 4 of 4 Road Plan Map

County: Stevens Region: Northeast

Sale Name: Deer Trail



Feet

1 inch = 1,000 feet

Date: 12/7/2022

## STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES

## DEER TRAIL TIMBER SALE ROAD PLAN STEVENS COUNTY ARCADIA DISTRICT NORTHEAST REGION

AGREEMENT NO.: 10-104298 STAFF ENGINEER: TRAVIS PARRY

DATE: 12/7/2022 DRAWN & COMPILED BY: TRAVIS PARRY

## SECTION 0 - SCOPE OF PROJECT

## 0-1 ROAD PLAN SCOPE

Clauses in this road plan apply to all road related work, including landings and rock source development, unless otherwise noted.

## 0-2 REQUIRED ROADS

The specified work on the following roads is required.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
E293914G	0+00 to 22+52	Pre-Haul Maintenance
E293914E	0+00 to 10+03	Pre-Haul Maintenance
E293914H	0+00 to 29+35	Pre-Haul Maintenance
E293915F	0+00 to 35+40	Pre-Haul Maintenance
E293910G	0+00 to 19+84	Construction
E293906E	0+00 to 19+78	Pre-Haul Maintenance
	19+78 to 24+86	Construction
E303931F	0+00 to 3+42	Construction
E303836A	0+00 to 220+92	Pre-Haul Maintenance
E303836AA	0+00 to 3+04	Pre-Haul Maintenance
E303836C	0+00 to 32+64	Pre-Haul Maintenance
E303836K	0+00 to 15+34	Pre-Haul Maintenance
E303836B	0+00 to 1+92	Pre-Haul Maintenance
E303836M	0+00 to 3+31	Pre-Haul Maintenance
E293802M	0+00 to 1+97	Construction
E293802G	0+00 to 12+28	Construction
E293802H	0+00 to 3+19	Construction

## 0-4 CONSTRUCTION

This project includes, but is not limited to the following construction requirements:

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
E293910G	0+00 to 19+84	New construction, construct road in accordance with Typical Section Detail, Rock List, and the Culvert and Drainage List.
	0+00	Waste area on left. See Clause 4-36 DISPOSAL OF WASTE MATERIAL and Clause 4-37 WASTE AREA LOCATION
E293906E	19+78 to 24+86	New construction, construct road in accordance with Typical Section Detail, Rock List, and the Culvert and Drainage List.
	20+00	Waste area on right. See Clause 4-36 DISPOSAL OF WASTE MATERIAL and Clause 4-37 WASTE AREA LOCATION
E303931F	0+00 to 3+42	New construction, construct road in accordance with Typical Section Detail, Rock List, and the Culvert and Drainage List.
	0+10	Install 18" x 60' culvert. Spread and compact 10 cy 1-1/4" minus surface rock to road surface.
	0+50	Construct county road approach in accordance with the TYPICAL "T" INTERSECTION DETAIL and the Stevens County road approach permit.
	3+42	Waste area on right. See Clause 4-36 DISPOSAL OF WASTE MATERIAL and Clause 4-37 WASTE AREA LOCATION
E293802M	0+00 to 1+97	New construction, construct road in accordance with Typical Section Detail, Rock List, and the Culvert and Drainage List.
	0+00	Install 18" x 36' culvert.
E293802G	0+00 to 12+28	New construction, construct road in accordance with Typical Section Detail, Rock List, and the Culvert and Drainage List.

	6+00	Waste area on left. See Clause 4-36
		DISPOSAL OF WASTE MATERIAL and
		Clause 4-37 WASTE AREA LOCATION
E293802H	0+00 to 3+19	New construction, construct road in
		accordance with Typical Section Detail,
		Rock List, and the Culvert and Drainage
		List.

Construction includes, but is not limited to clearing & grubbing, pioneering & decking logs, subgrade construction and compaction, rolling dip, cross drain, and culvert installation, Fish passage structure installation, cut & fill, embankment construction, riprap and rock application. Construct to the TYPICAL SECTION SHEET, ROCK LIST, and CULVERT & DRAINAGE LIST, for general specifications, unless otherwise specified in design details.

## 0-6 PRE-HAUL MAINTENANCE

This project includes, but is not limited to the following pre-haul maintenance requirements:

Road	<u>Stations</u>	<u>Requirements</u>
E293914G	0+00 to 22+52	Pre-haul maintenance. Reshape road to provide drainage as needed
	4+50	Existing tube steel gate. Close and lock gate each day once hauling is complete, see Clause 7-70 GATE CLOSURE
E293914E	0+00 to 10+03	Pre-haul maintenance. Reshape road to provide drainage as needed
E293914H	0+00 to 29+35	Pre-haul maintenance. Reshape road to provide drainage as needed
E293915F	0+00 to 35+40	Pre-haul maintenance. Reshape road to provide drainage as needed
	28+89	Intersection with new construction E293910G on right
E293906E	0+00 to 19+78	Pre-haul maintenance. Reshape road to provide drainage as needed
	0+25	Existing tube steel gate. Close and lock gate each day once hauling is complete, see Clause 7-70 GATE CLOSURE.
		Relocate gate approximately 50 feet upstation to allow off highway parking of log traffic
	13+45	Existing stock gate. Consult with Contract Administrator regarding closing gate daily.

	19+78	Existing stock gate. Consult with Contract Administrator regarding closing gate daily.
E303836A	0+00 to 220+92	Pre-haul maintenance. Reshape road to provide drainage as needed
	3+25	Existing bridge, spread and compact 5 cy 5/8" minus surface rock on each approach
	6+90	Intersection with existing E303836C on right
	18+60	Intersection with existing E303836B on left
	199+06	Intersection with new construction E293802G on left
	200+56	Intersection with new construction E293802H on right
E303836AA	0+00 to 3+04	Pre-haul maintenance. Reshape road to provide drainage as needed
E303836C	0+00 to 32+64	Pre-haul maintenance. Reshape road to provide drainage as needed
	13+21	Intersection with existing E303836K on right
E303836K	0+00 to 15+34	Pre-haul maintenance. Reshape road to provide drainage as needed
E303836B	0+00 to 1+92	Pre-haul maintenance. Reshape road to provide drainage as needed
E303836M	0+00 to 3+31	Pre-haul maintenance. Reshape road to provide drainage as needed

Maintenance includes, but is not limited to brushing, clearing, grubbing, subgrade reshaping, rolling dip, cross drain, and culvert installation, cleaning culverts and ditches, grading, and riprap and rock application. Reference the TYPICAL SECTION SHEET, ROCK LIST, and CULVERT & DRAINAGE LIST, for general specifications.

## 0-7 POST-HAUL MAINTENANCE

This project includes post-haul road maintenance listed in Clause 9-5 POST-HAUL MAINTENANCE.

## 0-9 DECOMMISSIONING

This project includes decommissioning listed in Clause 9-20 ROAD DECOMMISSIONING.

## SECTION 1 – GENERAL

## 1-1 ROAD PLAN CHANGES

If the Purchaser desires a change from this road plan including, but not limited to relocation, extension, change in design, or adding roads; a revised road plan shall be submitted, in writing, to the Contract Administrator for consideration. The State must approve the submitted plans before road work begins.

## 1-2 UNFORESEEN CONDITIONS

Quantities established in this road plan are minimum acceptable values. Additional quantities required by the state due to unforeseen conditions, or Purchaser's choice of construction season or techniques will be at the Purchaser's expense. Unforeseen conditions include, but are not limited to, solid subsurface rock, subsurface springs, saturated ground, and unstable soils.

## 1-3 ROAD DIMENSIONS

Purchaser shall perform road work in accordance with the dimensions shown on the TYPICAL SECTION SHEET and the specifications within this road plan, unless controlled by construction stakes or design data (plan, profile, and cross-sections).

## 1-4 ROAD TOLERANCES

Purchaser shall perform road work within the tolerances listed below. The tolerance class for each road is listed on the TYPICAL SECTION SHEET.

Tolerance Class	<u>A</u>	<u>B</u>	<u>C</u>
Road and Subgrade Width (feet)	+1.5	+1.5	+2.0
Subgrade Elevation (feet +/-)	0.5	1.0	2.0
Centerline alignment (feet lt./rt.)	1.0	1.5	3.0

## 1-6 ORDER OF PRECEDENCE

Any conflict or inconsistency in the road plan will be resolved by giving the documents precedence in the following order:

- 1. Addenda.
- 2. Designs or Plans. On designs and plans, figured dimensions shall take precedence over scaled dimensions.
- 3. Road Plan Clauses.
- 4. Typical Section Sheet.
- 5. Standard Lists.
- 6. Standard Details.
- 7. Road Plan maps.

In case of any ambiguity or dispute over interpreting the road plan, the Contract Administrator's or designee's decision will be final.

## 1-7 TEMPORARY ROAD CLOSURE

Purchaser shall notify the Contract Administrator a minimum of 5 calendar days before the closure of any road. Construction may not close any road for more than 21 consecutive calendar days.

## 1-8 REPAIR OR REPLACEMENT OF DAMAGED MATERIALS

Purchaser shall repair or replace all materials, roadway infrastructure, and road components damaged during road work or operation activities. The Contract Administrator will direct repairs and replacements. Repairs to structural materials must be made in accordance with the manufacturer's recommendation, and may not begin without written approval from the Contract Administrator.

## 1-9 DAMAGED METALLIC COATING

Any cut ends, or damaged galvanized or aluminized coating on existing or new bridge components, culverts, downspouts, and flumes must be cleaned and treated with a minimum of two coats of zinc rich paint or cold galvanizing compound.

## 1-15 ROAD MARKING

Purchaser shall perform road work in accordance with the state's marked location. All road work is marked as follows:

- Centerline marked with orange ribbon for new construction.
- Road stationing marked on orange ribbon and/or pink tags.

## 1-18 REFERENCE POINT DAMAGE

Purchaser shall reset reference points (RPs) that were moved or damaged at any time during construction to their original locations. Excavation and embankment may not proceed on road segments controlled by said RPs until Purchaser resets all moved or damaged RPs.

## 1-21 HAUL APPROVAL

Purchaser shall not use roads under this road plan for timber hauling, rock hauling, other than timber cut on the right-of-way, without written approval from the Contract Administrator.

## 1-23 ROAD WORK PHASE APPROVAL

Purchaser shall obtain written approval from the Contract Administrator upon completion of each of the following phases of road work:

- Subgrade construction
- Drainage installation
- Subgrade compaction
- Rock application
- Rock compaction

## 1-25 ACTIVITY TIMING RESTRICTION

Construction restrictions apply to this contract. All construction, reconstruction and transportation of heavy equipment and/or trucks is prohibited between the following dates, except as may be authorized in writing by the Contract Administrator.

## November 15 to May 31

## 1-26 OPERATING DURING CLOSURE PERIOD

If permission is granted to operate during a closure period listed in Clause 1-25 ACTIVITY TIMING RESTRICTIONS, the Contractor shall provide a maintenance plan to include further protection of state resources. The Contract Administrator must approve the maintenance plan, in writing, before operation in the closure period. The Contractor shall be required to maintain all haul roads including those listed in Contract Clause C-060 DESIGNATED ROAD MAINTAINER.

## 1-29 SEDIMENT RESTRICTION

Purchaser shall not allow silt-bearing runoff to enter any streams.

## 1-30 CLOSURE TO PREVENT DAMAGE

In accordance with Contract Clause G-220 STATE SUSPENDS OPERATION, the Contract Administrator will suspend road work or hauling right-of-way timber, forest products, or rock under the following conditions:

- Wheel track rutting exceeds 4 inches on jaw run roads.
- Wheel track rutting exceeds 3 inches on crushed rock roads.
- Wheel track rutting exceeds 6 inches on native surface roads.
- Surface or base stability problems persist.
- Weather is such that satisfactory results cannot be obtained in an area of operations.
- In the opinion of the Contract Administrator excessive road damage or rutting may occur.

Operations must stop unless authority to continue working or hauling is granted in writing by the Contract Administrator. In the event that surface or base stability problems persist, Purchaser shall cease operations, or perform corrective maintenance or repairs, subject to specifications within this road plan. Before and during any suspension, Purchaser shall protect the work from damage or deterioration.

## 1-32 BRIDGE OR ASPHALT SURFACE RESTRICTION

The use of metal tracked equipment is not allowed on bridge or asphalt surfaces at any time. If Purchaser must run equipment on bridge or asphalt surfaces, then rubber tired equipment or other methods, approved in writing by Contract Administrator, must be used.

If tracked equipment is used on bridge or asphalt surfaces, Purchaser shall immediately

cease all operations. Purchaser shall remove any dirt, rock, or other material tracked or spilled on the bridge or asphalt surface(s) and have surface(s) evaluated for any damage caused by transporting equipment. The Contract Administrator will immediate inform the Region Engineer, or their designee. Any damage to the surface(s) will be repaired, at the Purchaser's expense, as directed by the Contract Administrator.

## 1-33 SNOW PLOWING RESTRICTION

Snowplowing will be allowed after the execution of a SNOW PLOWING AGREEMENT, which is available from the Contact Administrator upon request.

## 1-40 ROAD APPROACHES TO COUNTY ROADS AND STATE HIGHWAYS

Purchaser shall immediately remove any mud, dirt, rock, or other material tracked or spilled on to county roads and state highways.

If additional damage to the surface, signs, guardrails, etc. occurs then the damage will be repaired, at the Purchaser's expense, as directed by the Contract Administrator when authorized by the county or WSDOT.

## 1-41 REQUIREMENTS FOR PAVED ROAD APPROACHES

Requirements for the Springdale-Hunters Road approaches:

Purchaser shall build up approaches to allow a smooth grade transition between the Springdale-Hunters Road and the E293906E, E293931F, and E303836A Roads. The surface of the E293906E, E293931F, and E303836A Road approaches must slope down away from the edge of Springdale-Hunters Road at minimum grade of 2% to a maximum grade of 6% for a distance of 6 feet from the county road shoulder, unless otherwise directed by the Contract Administrator or as shown in the county road approach permit.

## 1-43 ROAD WORK AROUND UTILITIES

Road work is in close proximity to a utility. Known utilities are listed, but it is the Purchaser's responsibility to identify any utilities not listed. Purchaser shall work in accordance with all applicable laws or rules concerning utilities. Purchaser is responsible for all notification, including "call before you dig", and liabilities associated with the utilities and their rights-of-way.

<u>Road</u>	<u>Utility</u>	Utility Contact
Hunters-Springdale	Underground and	Avista
Road	Overhead Utilities	

## SECTION 2 – MAINTENANCE

## 2-1 GENERAL ROAD MAINTENANCE

Purchaser shall maintain all roads used under this contract in accordance with the FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS for the entire term of this contract. Maintenance is required even during periods of inactivity.

## 2-2 ROAD MAINTENANCE – PURCHASER MAINTENANCE

Purchaser shall perform maintenance on roads listed in Contract Clause C-050 PURCHASER ROAD MAINTENANCE AND REPAIR in accordance with FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS.

## 2-4 PASSAGE OF LIGHT VEHICLES

Purchaser shall maintain road(s) in a condition that will allow the passage of light Administrative vehicles.

## 2-5 MAINTENANCE GRADING – EXISTING ROAD

Purchaser shall use a grader to shape the existing surface before commencement of haul and upon completion of the sale. Purchaser shall accomplish all grading using a motor grader with a minimum of 175 horsepower.

## 2-6 CLEANING CULVERTS

Purchaser shall clean the inlets and outlets of all culverts and shall obtain written approval from the Contract Administrator before beginning hauling activities or rock application.

## 2-7 CLEANING DITCHES, HEADWALLS, AND CATCH BASINS

Purchaser shall clean ditches, headwalls, and catch basins. Work shall be completed before commencement of haul and upon completion of the sale and shall be subject to the written approval of the Contract Administrator. Work shall be done in accordance with the Culvert and Drainage Detail. Pulling ditch material across crushed rock road surfaces or mixing in with the road surface is not allowed.

## 2-8 MAINTAINING EROSION CONTROL STRUCTURES

Purchaser shall clean and maintain all erosion control structures. Work must be completed before hauling begins and must be done in accordance with the CULVERT AND DRAINAGE SPECIFICATIONS DETAIL. Excavated material must be scattered outside the grubbing limits.

## SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL

## 3-1 BRUSHING

Purchaser shall cut vegetative material up to 3 inches in diameter, including limbs, as shown on the BRUSHING DETAIL. Brushing must be achieved by manual or mechanical cutting of brush, trees, and branches. Root systems and stumps of cut vegetation may not be disturbed unless directed by the Contract Administrator. Contractor shall remove brushing debris from the road surface, ditchlines, and culvert inlets and outlets.

## 3-5 CLEARING

Purchaser shall fall all vegetative material larger than 3 inches DBH or over 6 feet high between the marked right-of-way boundaries and within waste and debris areas. If not marked in the field, between the clearing limits specified on the TYPICAL SECTION SHEET. Clearing must be completed before starting excavation and embankment.

## 3-7 RIGHT-OF-WAY DECKING

Purchaser shall deck all right-of-way timber. Decks must be parallel to the road centerline and placed within the cleared right-of-way. Decks must be free of dirt, limbs, and other right-of-way debris, and removable by standard log loading equipment from the roadbed.

## 3-8 PROHIBITED DECKING AREAS

Purchaser shall not deck right-of-way timber in the following areas:

- Within the grubbing limits.
- Within 50 feet of any stream.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- On slopes greater than 35%.
- Against standing trees.

## 3-10 GRUBBING

Purchaser shall remove all stumps between the grubbing limits specified on the TYPICAL SECTION SHEET. Those stumps outside the grubbing limits but with undercut roots shall also be removed. Stumps over 22 inches diameter shall be split. Stumps over 40 inches shall be quartered. Grubbing shall be completed before starting excavation and embankment.

## 3-12 STUMP PLACEMENT

Purchaser shall place grubbed stumps outside of the grubbing limits or as directed by the Contract Administrator and in compliance with all other clauses in this road plan.

## 3-14 STUMPS WITHIN DESIGNATED WASTE AREAS

Purchaser is not required to remove stumps within waste areas if they are cut flush with the ground.

## 3-20 ORGANIC DEBRIS DEFINITION

Organic debris is defined as all vegetative material not eligible for removal by Contract Clauses G-010 PRODUCTS SOLD AND SALE AREA or G-011 RIGHT TO REMOVE FOREST PRODUCTS AND CONTRACT AREA, that is larger than one cubic foot in volume within the grubbing limits as shown on the TYPICAL SECTION SHEET.

## 3-21 DISPOSAL COMPLETION

Purchaser shall remove organic debris from the road surface, ditchlines, and culvert inlets and outlets. Purchaser shall complete all disposal of organic debris, except by burning, before the application of rock or timber haul.

## 3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS

Waste areas for organic debris shall be located within the cleared right-of-way or in natural openings, or in areas approved in writing by the Contract Administrator.

## 3-23 PROHIBITED DISPOSAL AREAS

Purchaser shall not place organic debris in the following areas:

- Within 50 feet of a cross drain culvert.
- Within 100 feet of a live stream, wetland, or within the riparian management zone.
- On road subgrades, or excavation and embankment slopes.
- On slopes greater than 35%.
- Within the operational area for cable landings where debris may shift or roll.
- On locations where brush can fall into the ditch or onto the road surface.
- Against standing timber.

## 3-24 BURYING ORGANIC DEBRIS RESTRICTED

Purchaser shall not bury organic debris unless otherwise stated in this plan.

## 3-25 SCATTERING ORGANIC DEBRIS

On all new construction, Purchaser shall scatter organic debris outside of the clearing limits of the road or as directed by the Contract Administrator.

## 3-30 EXCLUSION OF DOZER BLADES

Purchaser shall not use dozer blades for the piling of organic debris.

## 3-31 PILING

Purchaser shall pile organic debris no closer than 20 feet from standing timber and no higher than 10 feet. Piles must be free of rock and soil Debris piles shall be placed within the cleared right-of-way, or in natural openings, as designated by the Contract Administrator. Placement of debris piles outside of the right-of-way limits is subject to the written approval of the Contract Administrator. No piling within the Riparian Management Zone (RMZ).

## SECTION 4 – EXCAVATION

## 4-1 EXCAVATOR CONSTRUCTION

Purchaser shall use a track mounted hydraulic excavator for construction work, unless authorized, in writing, by the Contract Administrator.

## 4-2 PIONEERING

Pioneering shall not extend past construction that will be completed during the current construction season. Pioneering shall not extend more than 1000 feet beyond completed construction unless approved in writing by the Contract Administrator. In addition, the following actions shall be taken as pioneering progresses:

- Drainage shall be provided on all uncompleted construction.
- Road pioneering operations shall not undercut the final cut slope or restrict drainage.
- Culverts at live stream crossings shall be installed during pioneering operations prior to embankment.

## 4-3 ROAD GRADE AND ALIGNMENT STANDARDS

Purchaser shall follow these standards for road grade and alignment except as designed:

- Grade and alignment must have smooth continuity, without abrupt changes in direction.
- Maximum grades may not exceed 16 percent favorable and 10 percent adverse.
- Minimum curve radius is 60 feet at centerline.
- Maximum grade change for sag vertical curves is 5% in 100 feet.
- Maximum grade change for crest vertical curves is 4% in 100 feet.

## 4-4 SWITCHBACK STANDARDS

A switchback is defined as a curved segment of road between a beginning and end of the same curve, where the change of traffic travel direction is greater than 90 degrees. Purchaser shall follow these standards for switchbacks:

- Maximum adverse grades for switchbacks is 10%
- Maximum favorable grades for switchbacks is 12%.
- Maximum transition grades entering and leaving switchbacks is a 5% grade change.
- Transition grades required to meet switchback grade limitations must be constructed on the tangents preceding and departing from the switchbacks.

## 4-5 CUT SLOPE RATIO

Purchaser shall construct excavation slopes no steeper than shown on the following table, unless construction staked or designed:

	<u>Excavation</u>	Excavation Slope
Material Type	Slope Ratio	<u>Percent</u>
Common Earth (on side slopes up to 55%)	1:1	100
Common Earth (56% to 70% side slopes)	¾:1	133
Common Earth (on slopes over 70%)	½:1	200
Fractured or loose rock	1/2:1	200
Hardpan or solid rock	<b>½:1</b>	400

## 4-6 EMBANKMENT SLOPE RATIO

Purchaser shall construct embankment slopes no steeper than shown on the following table, unless construction staked or designed:

	<u>Embankment</u>	<u>Embankment</u>
Material Type	Slope Ratio	Slope Percent
Sandy Soils	2:1	50
Common Earth and Rounded Gravel	1½:1	67
Angular Rock	11/4:1	80

## 4-7 SHAPING CUT AND FILL SLOPE

Purchaser shall construct excavation and embankment slopes to a uniform line and left rough for easier revegetation.

## 4-8 CURVE WIDENING

The minimum widening placed on the inside of curves is:

- 7 feet for curves of 50 to 79 feet radius.
- 4 feet for curves of 80 to 100 feet radius.

## 4-9 EMBANKMENT WIDENING

The minimum embankment widening is:

- 2 feet for embankment heights at centerline of 1 to 6 feet.
- 4 feet for embankment heights at centerline of greater than 6 feet.

## 4-20 SUBGRADE DIMENSIONS FOR INTERSECTIONS

On the following road(s), Purchaser shall construct the subgrade to the dimensions shown on the TYPICAL T INTERSECTION DETAIL or the WYE INTERSECTION DETAIL.

<u>Road</u>	<u>Detail</u>
E293910G	Wye Intersection Detail
E303931F	Typical T Intersection
E293802G	Wye Intersection Detail
E293802H	Wye Intersection Detail
E293802M	Wye Intersection Detail

## 4-21 TURNOUTS

Purchaser shall construct turnouts intervisible with a maximum distance of 1,000 feet between turnouts unless otherwise shown on drawings. Locations may be adjusted to fit the final subgrade alignment and sight distances. Minimum dimensions are shown on the TYPICAL SECTION SHEET.

## 4-22 TURNAROUNDS

Turnarounds shall be no larger than 30 feet long and 30 feet wide. Locations shall be subject to approval by the Contract Administrator.

## 4-25 DITCH CONSTRUCTION AND RECONSTRUCTION

Purchaser shall construct or reconstruct ditches into the subgrade as specified on the TYPICAL SECTION SHEET. Ditches must be constructed concurrently with construction of the subgrade.

## 4-28 DITCH DRAINAGE

Ditches must drain to cross-drain culverts or ditchouts.

## 4-29 DITCHOUTS

Purchaser shall construct ditchouts as identified and as needed and as directed by the Contract Administrator. Ditchouts shall be constructed in a manner that diverts ditch water onto the forest floor and shall have excavation backslopes no steeper than a 1:1 ratio.

## 4-35 WASTE MATERIAL DEFINITION

Waste material is defined as all dirt, rock, mud, or related material that is extraneous or unsuitable for construction material. Waste material, as used in Section 4 EXCAVATION, is not organic debris.

## 4-36 DISPOSAL OF WASTE MATERIAL

Purchaser may sidecast waste material on side slopes up to 55% if the waste material is compacted and free of organic debris. On side slopes greater than 55%, all waste

material must be end hauled or pushed to the designated embankment sites and waste areas identified.

## 4-37 WASTE AREA LOCATION

Purchaser shall deposit waste material in the listed designated areas or areas approved by the Contract Administrator. The amount of material allowed in a waste area is at the discretion of the Contract Administrator or as listed.

Road	Waste Area Location
E293906E	20+00
E293931F	3+42
E293910G	0+00
E293802G	6+00

## 4-38 PROHIBITED WASTE DISPOSAL AREAS

Purchaser shall not deposit waste material in the following areas:

- Within 50 feet of a cross drain culvert.
- Within 100 feet of a live stream or wetland.
- Within a riparian management zone.
- On side slopes steeper than 35%.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- Against standing timber.
- Outside the clearing limits.

## 4-45 SELECT BORROW

Select borrow consists of granular material, either naturally occurring or processed, and contains no more than 5% clay, organic debris, or trash by volume. Select borrow material must be free of rocks greater than 6 inches in any dimension.

## 4-46 COMMON BORROW

Common borrow consists of soil, and/or aggregate that is non-plastic and contains no more than 5% clay, organic debris, or trash by volume. The material is considered non-plastic if the fines in the sample cannot be rolled, between the hand and a smooth surface, into a thread at any moisture content. Common borrow material must be free of rocks greater than 6 inches in any dimension.

## 4-47 BORROW MATERIAL

Borrow material may not contain more than 5% clay, organic debris, or trash by volume. Borrow material must be free of rocks greater than 6 inches in any dimension.

## 4-48 NATIVE MATERIAL

Native material consists of naturally occurring material that is free of organic debris, trash, and rocks greater than 6 inches in any dimension.

## 4-55 ROAD SHAPING

Purchaser shall shape the subgrade and surface as shown on the TYPICAL SECTION SHEET. The subgrade and surface shape must ensure runoff in an even, un-concentrated manner, and must be uniform, firm, and rut-free. Purchaser shall accomplish all shaping using a motor grader with a minimum of 175 horsepower.

## 4-56 DRY WEATHER SHAPING

The Contract Administrator may require the application of water to facilitate shaping activities. The method of water application is subject to written approval by the Contract Administrator.

## 4-60 FILL COMPACTION

Purchaser shall compact all embankment and waste material. Minimum acceptable compaction is achieved by placing embankments in 1 foot or shallower lifts, and routing excavation equipment over the entire width of each lift.

Except as otherwise specified in this plan, a vibratory plate compactor or tamper shall be used for areas specifically requiring keyed embankment construction, and for embankment segments too narrow to accommodate equipment. Compaction with a plate compactor shall be made by a minimum of three full coverages; each lift shall not exceed 6 inches in depth.

## 4-61 SUBGRADE COMPACTION

Purchaser shall compact constructed or reconstructed subgrades deeper than 3 feet at the road shoulder by routing equipment over the entire width. Contractor shall obtain written approval from the Contract Administrator for subgrade compaction before Rock application.

## 4-62 DRY WEATHER COMPACTION

The Contract Administrator may require the application of water to facilitate compaction activities. The method of water application is subject to written approval by the Contract Administrator.

## 4-63 EXISTING SURFACE COMPACTION

Purchaser shall compact maintained road surfaces by routing equipment over the entire width.

## SECTION 5 – DRAINAGE

## 5-1 REMOVAL OF SHOULDER BERMS

Purchaser shall remove berms from road shoulders to permit the escape of runoff. The construction of ditchouts will be required where ponding will result from the effects of sidecast debris.

## 5-5 CULVERTS

Purchaser shall install culverts as part of this contract. Culverts must be installed concurrently with subgrade work and must be installed before subgrade compaction and rock application. Culvert locations and the minimum requirements for culvert length and diameter are designated on the CULVERT & DRAINAGE LIST. Culvert, downspout, and flume lengths may be adjusted to fit as-built conditions and may not terminate directly on unprotected soil. Culverts shall be new steel, aluminum, or polyethylene meeting the material specifications in Clauses 10-15 through 10-23. Culvert placement shall precede embankment construction.

## 5-7 USED CULVERT MATERIAL

On the following road(s), Purchaser may install used culverts. All other roads must have new culverts installed. Culverts must meet the specifications in Clauses 10-15 through 10-24.

<u>Road</u>	<u>Stations</u>
E303931F	0+10
E283802H	0+10

## 5-12 UNUSED MATERIALS STATE PROPERTY

On required roads, any materials listed on the CULVERT & DRAINAGE LIST that are not installed will become the property of the state. Contractor shall stockpile materials at Northeast Region Headquarters in Colville.

## 5-13 CONTINGENCY CULVERTS

The following culverts will be supplied by the Purchaser and are available for installation as directed by the Contract Administrator.

<u>Road</u>	<u>Size</u>
On any portion of road used	18" x 34' culvert
for timber or rock haul.	18" culvert band

## 5-15 CULVERT INSTALLATION

Culvert installation must be in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL and the National Corrugated Metal Pipe Association's "Installation Manual for Corrugated Steel Drainage Structures" the Corrugated Polyethylene Pipe Association's "Recommended Installation Practices for Corrugated

Polyethylene Pipe and Fittings". Corrugated Polyethylene pipe must be installed in a manner consistent with the manufacturer's recommendations.

## 5-16 APPROVAL FOR LARGER CULVERT INSTALLATION

Purchaser shall obtain written approval from the Contract Administrator for the installation of culverts 30 inches in diameter and over before backfilling.

## 5-17 CROSS DRAIN SKEW AND SLOPE

Cross drains, on road grades in excess of 3%, must be skewed at least 30 degrees from perpendicular to the road centerline, except where the cross drain is at the low point in the road culverts will not be skewed. Cross drain culverts must be installed at a slope steeper than the incoming ditch grade, but not less than 3% or more than 10%.

## 5-18 CULVERT DEPTH OF COVER

All culverts shall be installed with a depth of cover of not less than 1 foot of compacted subgrade over the top of the culvert at the shallowest point. Stream crossing culverts shall be installed with a depth of cover specified in the Engineer's design, or to the minimum depth recommended by the culvert manufacturer for the type of cover material over the pipe, whichever is greater.

## 5-20 ENERGY DISSIPATERS

Energy dissipaters shall be installed to prevent erosion and are subject to approval by the Contract Administrator. The type of energy dissipater and the amount of material shall be consistent with the specifications listed on the CULVERT AND DRAINAGE SPECIFICATION DETAIL.

## 5-21 DOWNSPOUTS AND FLUMES

Downspouts and flumes longer than 5 feet shall be staked on both sides at maximum intervals of 10 feet with 6-foot heavy-duty steel posts, and fastened securely to the posts with No. 10 galvanized smooth wire or 1/2-inch bolts in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL.

## 5-25 CATCH BASINS

Purchaser shall construct catch basins in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL. Minimum dimensions of catch basins are 2 feet wide and 4 feet long unless specified otherwise on the CULVERT AND DRAINAGE LIST.

## 5-26 HEADWALLS FOR CROSS DRAIN CULVERTS

Purchaser shall construct headwalls accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts, except for temporary culverts. Headwalls shall also be constructed at all culverts identified on the CULVERT AND DRAINAGE LIST that specifies the placement of rock. Rock shall be placed by zero drop height methods. Minimum specifications require that rock be placed at a width of one

culvert diameter on each side of the culvert opening, and to a height of one culvert diameters above the top of the culvert.

## 5-27 ARMORING FOR CULVERTS

Purchaser shall place LIGHT LOOSE RIP RAP in conjunction with or immediately following construction of the embankment. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets as designated on the CULVERT AND DRAINAGE SPECIFICATIONS DETAIL or as directed by the Contract Administrator. Rock may not restrict the flow of water into culvert inlets or catch basins. Rock must be set in place by machine. Placement must be with a zero-drop-height only. No placement by end dumping or dropping of rock is allowed. LIGHT LOOSE RIP RAP must meet the specifications in Clause 6-50 LIGHT LOOSE RIP RAP.

## 5-30 DRIVABLE WATERBAR CONSTRUCTION

Purchaser shall construct drivable waterbars in accordance with the DRIVABLE WATERBAR DETAIL and as specified on the CULVERT AND DRAINAGE LIST or as marked in the field. Drivable waterbars must be installed concurrently with construction of the subgrade and must be maintained in an operable condition.

## 5-31 ROLLING DIP CONSTRUCTION

Purchaser shall construct Rolling dips in accordance with the ROLLING DIP DETAIL and as specified on the CULVERT & DRAINAGE LIST or marked in the field. Rolling dips must be installed concurrently with construction of the subgrade and shall be maintained in an operable condition. Minimum frequency of rolling dips shall be at a maximum spacing of 400 feet horizontal or one for every 10 feet of vertical change or as directed by the Contractor Administrator.

## 5-33 NATIVE SURFACE ROADS

If overwintered, native surface roads must be water barred by November 15. Purchaser shall construct waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical distance of no more than 10 feet between waterbars or between natural drainage paths, and with a maximum spacing of 300 feet.

## 6-2 ROCK SOURCE ON STATE LAND

Rock used in accordance with the quantities on the ROCKLIST may be obtained from the following source(s) on state land at no charge to the Contractor. Use of material from any other source must have prior written approval from the Contract Administrator. If other operators are using, or desire to use the rock source(s), a joint operating plan shall be developed. All parties shall follow this plan. The Contractor shall notify the Contract Administrator a minimum of 5 calendar days before starting any operations in the listed locations.

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>
Potential	Milepost 12.3 Springdale-	Potential Pit Run & surface rock,
Rock	Hunters Road	possibly ripable.

## 6-5 ROCK FROM COMMERCIAL SOURCE

Rock used in accordance with the quantities on the ROCK LIST may be obtained from any commercial source at the Purchaser's expense. Rock sources will be subject to written approval by the Contract Administrator before their use.

## 6-12 ROCK SOURCE SPECIFICATIONS

Rock sources must be in accordance with the following specifications <, unless otherwise specified in the ROCK SOURCE DEVELOPMENT AND RECLAMATION PLAN:

Pit walls may not be undermined or over steepened. The maximum slope of the walls must be consistent with recognized engineering standards for the type of material being excavated in accordance with the following table:

Material	Maximum Slope Ratio (Horiz. :Vert.)	Maximum Slope Percent					
Sand	2:1	50					
Gravel	1.5:1	67					
Common Earth	1:1	100					
Fractured Rock	0.5:1	200					
Solid Rock	0:1	vertical					

- Pit walls must be maintained in a condition to minimize the possibility of the walls sliding or failing.
- The width of pit benches must be a minimum of 1.5 times the maximum length of the largest machine used.
- The surface of pit floors and benches must be uniform and free-draining at a minimum 2% outslope gradient.
- All operations must be carried out in compliance with all regulations of the Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling

Operations (30 CFR) U.S. Department of Labor, Mine Safety and Health Administration and Safety Standards for Construction Work (296-155 WAC), Washington Department of Labor and Industries.

All vehicle access to the top of the pit faces must be blocked.

## 6-14 DRILL AND SHOOT

Rock drilling and shooting must meet the following specifications:

- Oversize material remaining in the rock source at the conclusion of the timber sale shall not exceed 5% of the total volume mined in that source.
- Oversize material is defined as rock fragments larger than three feet in any dimension.
- Oversized rock that exceeds the maximum allowable amount shall be reduced and stockpiled.
- Contractor shall notify the Contract Administrator a minimum of 3 working days before blasting operations.
- Contractor shall submit an informational drilling and shooting plan to the Contract Administrator 3 working days before any drilling.
- All operations must be carried out in compliance with the Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations (30 CFR) U.S. Department of Labor, Mine Safety and Health Administration and the Safety Standards for Construction Work (296-155 WAC), Washington Department of Labor and Industries.
- Purchaser shall block access roads and trails before blasting operations.

## 6-25 FINES

% Passing U.S. #40 sieve 100% % Passing U.S. #200 sieve 0%

The portion of aggregate retained on the No. 200 sieve may not contain more than 0.2 percent organic debris and trash. All percentages are by weight.

## 6-26 5/8-INCH MINUS CRUSHED ROCK

% Passing 5/8" square sieve
 % Passing 3/8" square sieve
 % Passing U.S. #4 sieve
 40 - 60%

Of the fraction passing the No. 4 sieve, 40% to 60% must pass the No. 10 sieve.

## 6-28 1 1/4-INCH MINUS CRUSHED ROCK

% Passing 1 ¼" square sieve
 % Passing 5/8" square sieve
 % Passing U.S. #4 sieve
 % Passing U.S. #40 sieve
 % Passing U.S. #200 sieve

The portion of aggregate retained on the No. 4 sieve may not contain more than 0.2 percent organic debris and trash. All percentages are by weight.

## 6-38 4-INCH IN-PLACE ROCK

4-inch in-place rock must have a minimum of 90 percent of the top 4 inches of the running surface pass a 4-inch square opening.

In-place rock may not contain more than 5 percent by weight of organic debris and trash. No more than 40 percent of rock may be larger than 8 inches in any dimension and no rock may be larger than 12 inches in any dimension.

## 6-50 LIGHT LOOSE RIP RAP

Light loose rip rap must consist of angular, hard, sound, and durable stone. It must be free from segregation, seams, cracks, and other defects tending to destroy its resistance to weather. Light loose rip rap must be free of rock fines, soil, organic debris or other extraneous material, and must meet the following requirements:

At Least/Not More Than	Weight Range	Size Range
20% / 90%	300 lbs. to 1 ton	20"- 36"
80% /	50 lbs. to 1/2 ton	12"- 30"
10% / 20%	50 lbs. max	3"- 8"

## 6-55 ROCK APPLICATION MEASURED BY COMPACTED DEPTH

Measurement of specified rock depths, are defined as the compacted depth(s) using the compaction methods required in this road plan. Estimated quantities specified in the ROCK LIST are compacted yards. Contractor shall apply adequate amounts of rock to meet the specified rock depths. Specified rock depths are minimum requirements, and are not subject to reduction.

## 6-70 APPROVAL BEFORE ROCK APPLICATION

Purchaser shall obtain written approval from the Contract Administrator before rock application.

## 6-71 ROCK APPLICATION

Purchaser shall apply rock in accordance with the specifications and quantities shown on the ROCK LIST. Rock must be spread, shaped, and compacted full width concurrent with rock hauling operations. The Contract Administrator will direct locations for rock that is to be applied as spot patching. Road surfaces must be compacted by routing equipment over the entire width.

## 6-73 ROCK FOR WIDENED PORTIONS

Purchaser shall apply rock to turnarounds, turnouts, and areas with curve widening to the same depth and specifications as the traveled way.

## 6-80 WATERING FOR DUST ABATEMENT

Purchaser shall use water for dust abatement as directed by the Contract Administrator.

## **SECTION 7 – STRUCTURES**

## 7-70 GATE CLOSURE

On the following road(s), Purchaser shall keep gates closed and locked except during periods of haul. All gates that remain open during haul must be locked or securely fastened in the open position. All gates must be closed at termination of use.

Road	<u>Station</u>	<u>Comment</u>
E293914G	4+50	Close and lock gate each day when
		hauling activities are complete
E293906E	0+25	Close and lock gate each day when
		hauling activities are complete
	13+45	Existing stock gate. Consult with
		Contract Administrator regarding
		closing gate daily.
	19+78	Existing stock gate. Consult with
		Contract Administrator regarding
		closing gate daily.

## 7-75 GATE MAINTENANCE

Purchaser shall conduct gate maintenance as listed.

<u>Road</u>	<u>Station</u>	<u>Requirements</u>
E293906E	0+25	Relocate existing gate
		approximately 50 feet up-station
		to allow off highway parking of
		log trucks

SECTION 8 - EROSION CONTROL

## 8-1 SEDIMENT CONTROL STRUCTURES

Sediment control shall be accomplished using sediment traps, silt fences, settling ponds, slash windrows, or other methods as approved in writing by the Contract Administrator.

## 9-1 EARTHEN BARRICADES

Purchaser shall construct barricades in accordance with the EARTHEN BARRICADE DETAIL.

Road	<u>Stations</u>
E303931F	0+25
E293802G	0+25
E293802H	0+25

## 9-3 CULVERT MATERIAL REMOVED FROM STATE LAND

Culvert material removed from roads becomes the property of the Purchaser and must be removed from state land.

## 9-5 POST-HAUL MAINTENANCE

Purchaser shall perform post-haul maintenance in accordance with the FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS and as specified below.

Road	<u>Stations</u>	Additional Requirements
E293914G	0+00 to 22+52	Post Haul Grade
E293914E	0+00 to 10+03	Post Haul Grade
E293914H	0+00 to 29+35	Post Haul Grade
E293915F	0+00 to 35+40	Post Haul Grade
E293910G	0+00 to 19+84	Post Haul Grade
E293906E	0+00 to 24+86	Post Haul Grade
E303931F	0+00 to 3+42	Post Haul Grade
E303836A	0+00 to 220+92	Post Haul Grade
E303836AA	0+00 to 3+04	Post Haul Grade
E303836C	0+00 to 32+64	Post Haul Grade
E303836K	0+00 to 15+34	Post Haul Grade
E303836B	0+00 to 1+92	Post Haul Grade
E303836M	0+00 to 3+31	Post Haul Grade
E293802M	0+00 to 1+97	Post Haul Grade
E293802G	0+00 to 12+28	Post Haul Grade
E293802H	0+00 to 3+19	Post Haul Grade

## 9-10 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface as approved, in writing, by the Contract Administrator.

## 9-11 LANDING EMBANKMENT

Purchaser shall slope landing embankments to the original construction specifications.

## 9-20 ROAD DECOMMISSIONING

Purchaser shall decommission the following roads at the termination of use.

<u>Road</u>	<u>Stations</u>	<u> </u>
E293910G	0+00 to 19+84	Light Decommissioning
E303931F	0+00 to 3+42	Heavy Decommissioning, remove road side cast fill material from station 0+00 to 0+50
E293802G	0+00 to 12+28	Heavy Decommissioning, remove road side cast fill material from station 0+00 to 0+50
E293802H	0+00 to 3+19	Heavy Decommissioning, remove road side cast fill material from station 0+00 to 0+50

## 9-22 LIGHT DECOMMISSIONING

- Remove road shoulder berms except as directed.
- Construct non-drivable waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical drop of no more than 10 feet between waterbars or between natural drainage paths and with a maximum spacing of 100 feet, or as marked in the field.
- Skew waterbars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3 percent grade.
- Key waterbars into the cut-slope to intercept the ditch. Waterbars must be outsloped to provide positive drainage. Outlets must be on stable locations.
- Block roads with earthen barricades in accordance with the attached EARTHEN BARRICADE DETAIL.
- Remove culverts
- Remove ditch cross drain culverts and leave the resulting trench open.
- Slope all trench walls and approach embankments no steeper than 1.5:1
- Cover, concurrently with abandonment, all exposed soils within <100> feet of any live stream, with a 8-inch deep layer of straw.
- Provide and evenly spread a 6-inch layer of straw to all exposed soils associated with stream culvert and puncheon removals, as well as all waste material generated by fill removal that is within 30 feet of excavation limits.
- Scatter woody debris onto abandoned road surfaces.

## 9-24 HEAVY DECOMMISSIONING AND ABANDONMENT

- Fill in ditches.
- Outslope the surface at a minimum of 10 percent from station 0+50 to end of road.
- Remove embankments, sidecast fill, and place material into cut-banks and shape banks to conform to the natural ground from station 0+00 to 0+50.
- Remove road shoulder berms except as directed.
- Construct non-drivable waterbars in accordance with the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical drop of no more than 10 feet between waterbars or between natural drainage paths and with a maximum spacing of 100 feet, or as marked in the field.
- Skew waterbars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3 percent grade.
- Key waterbars into the cut-slope to intercept the ditch. Waterbars must be outsloped to provide positive drainage. Outlets must be on stable locations.
- Block roads with earthen barricades in accordance with the attached EARTHEN BARRICADE DETAIL.
- Remove culverts
- Remove ditch cross drain culverts and leave the resulting trench open.
- Slope all trench walls and approach embankments no steeper than 1.5:1
- Provide and evenly spread a 6-inch layer of straw to all exposed soils associated with stream culvert and puncheon removals, as well as all waste material generated by fill removal that are within 30 feet of excavation limits.
- Scatter woody debris onto abandoned road surfaces.

## **SECTION 10 MATERIALS**

## 10-15 CORRUGATED STEEL CULVERT

Metallic coated steel culverts must meet AASHTO M-36 (ASTM A-760) specifications. Culverts must be galvanized (zinc coated meeting AASHTO M-218) or aluminized aluminum type 2 coated meeting AASHTO M-274.

## 10-17 CORRUGATED PLASTIC CULVERT

Polyethylene culverts must meet AASHTO M-294 specifications, or ASTM F-2648 specifications for recycled polyethylene. Culverts must be Type S – double walled with a corrugated exterior and smooth interior.

## 10-18 CORRUGATED STEEL STRUCTURAL PLATE

Structural plate culverts must be galvanized steel meeting AASHTO M-167 (ASTM A-761) specifications.

## 10-20 FLUME AND DOWNSPOUT

Downspouts and flumes shall meet the AASHTO specification designated for the culvert. Plastic downspouts and flumes shall be Type S – double walled with a corrugated exterior and smooth interior.

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## 10-21 METAL BAND

Metal coupling and end bands must meet the AASHTO specification designated for the culvert and must have matching corrugations. Culverts 24 inches and smaller must have bands with a minimum width of 12 inches. Culverts over 24 inches must have bands with a minimum width of 24 inches.

## 10-22 PLASTIC BAND

Plastic coupling and end bands shall meet the AASHTO specification designated for the culvert. Only fittings supplied or recommended by the culvert manufacturer shall be used. Couplings shall be split coupling band. Split coupling bands shall have a minimum of four corrugations, two on each side of the pipe joint.

## 10-23 RUBBER CULVERT GASKETS

Rubber gaskets must be continuous closed cell, synthetic expanded rubber gaskets conforming to the requirements of ASTM D 1056. Rubber gaskets must be used with all corrugated metal pipe coupling bands.

## 10-24 GAUGE AND CORRUGATION

Unless otherwise stated in the engineer's design, metal culverts must conform to the following specifications for gage and corrugation as a function of diameter.

<u>Diameter</u>	<u>Gauge</u>	<u>Corrugation</u>
18"	16 (0.064")	2 <sup>2</sup> / <sub>3</sub> " X <sup>1</sup> / <sub>2</sub> "
24" to 48"	14 (0.079")	2 <sup>2</sup> / <sub>3</sub> " X <sup>1</sup> / <sub>2</sub> "
54" to 96"	12 (0.109")	3" X 1"

## FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

## **Cuts and Fills**

- Maintain slope lines to a stable gradient compatible with the construction materials. Remove slides from ditches and the roadway. Repair fill-failures, in accordance with Clause 4-6 EMBANKMENT SLOPE RATIO, with selected material or material approved by the Contract Administrator. Remove overhanging material from the top of cut slopes.
- Waste material from slides or other sources shall be placed and compacted in stable locations identified in the road plan or approved by the Contract Administrator, so that sediment will not deliver to any streams or wetlands.
- Slide material and debris shall not be mixed into the road surface materials, unless approved by the Contract Administrator.

## Surface

- Grade and compact the road surface, turnouts, and shoulders to the original shape on the TYPICAL SECTION SHEET to provide a smooth, rut-free traveled surface and maintain surface water runoff in an even, unconcentrated manner.
- Blading shall not undercut the backslope or cut into geotextile fabric on the road.
- If required by the Contract Administrator, water shall be applied as necessary to control dust and retain fine surface rock.
- Surface material shall not be bladed off the roadway. Replace surface material when lost or worn away, or as directed by the Contract Administrator.
- Remove shoulder berms, created by grading, to facilitate drainage, except as marked or directed by the Contract Administrator.
- For roads with geotextile fabric: spread surface aggregate to fill in soft spots and wheel ruts (barrel spread) to prevent damage to the geotextile fabric.

## **Drainage**

- Prevent silt bearing road surface and ditch runoff from delivering sediment to any streams or wetlands.
- Maintain rolling dips and drivable waterbars as needed to keep them functioning as intended.
- Maintain headwalls to the road shoulder level with material that will resist erosion.
- Maintain energy dissipaters at culvert outlets with non-erodible material or rock.
- Keep ditches, culverts, and other drainage structures clear of obstructions and functioning as intended.
- Inspect and clean culverts at least monthly, with additional inspections during storms and periods of high runoff. This shall be done even during periods of inactivity.

## **Preventative Maintenance**

 Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

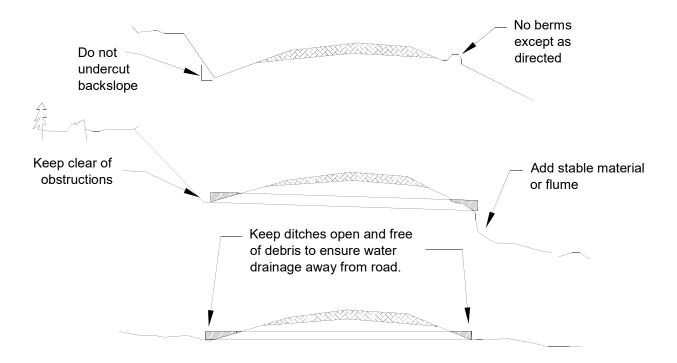
## FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

## **Termination of Use or End of Season**

• At the conclusion of logging operations, ensure all conditions of these specifications have been met.

## **Debris**

• Remove fallen timber, limbs, and stumps from the slopes, roadway, ditchlines, and culvert inlets.

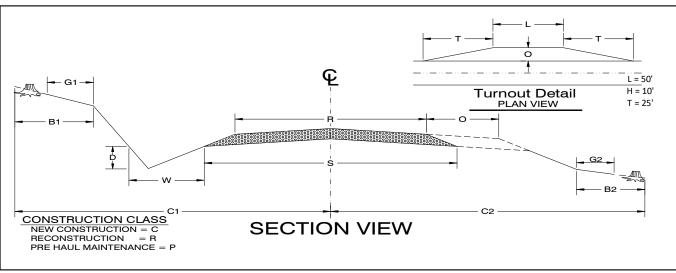


## STATE OF WASHINGTON

## DEPARTMENT OF NATURAL RESOURCES

Application No.: 30-104298 Name of Sale: Deer Trail Date: 12/7/2022

## **TYPICAL SECTION SHEET**



ROAD NAME	START STATION	END STATION	CONSTRUCTION CLASS	FULL BENCH	TOLERANCE CLASS	SUBGRADE WIDTH (S)	ROAD WIDTH (R)	INSLOPE "/10'	OUTSLOPE "/10'	CROWN " AT CL	<b>DITCH WIDTH (W)</b>	<b>DITCH DEPTH (D)</b>	DITCH 2 SIDES	GRUBBING CUT BANK (G1	GRUBBING FILL TOE (G2)	ROAD CUT CLEARING (B1	ROAD FILL CLEARING (B2	R/W CUT CLEARING (C1)	R/W FILL CLEARING (C2)
E293914G	0+00	22+52	Р		С	14'		sub											
E293914E	0+00	10+03	Р		O	14'		sub											
E293914H	0+00	29+35	Р		С	14'		sub											
E293915F	0+00	35+40	Р		O	14'		sub	grac	de sl	hape	e va	ries						
E293910G	0+00	19+84	С		O	14'	12'		4					თ	3	10	10		
E293906E	0+00	19+78	Р		O	14'	12'	sub	grac	de sl	hape	e va	ries						
E293906E	19+78	24+86	С		C	14'	12'		4					3	3	10	10		
E303931F	0+00	3+42	С		С	14'	12'		4					3	3	10	10		
E303836A	0+00	220+92	Р		С	14'	12'	sub	grad	de sl	hape	e va	ries						
E303836AA	0+00	3+04	Р		O	14'	12'	sub	grac	le sl	hape	e va	ries						
E303836C	0+00	32+64	Р		C	14'	12'	sub	grac	de sl	hape	e va	ries						
E303836K	0+00	15+34	Р		С	14'	12'	sub	grad	de sl	hape	e va	ries						
E303836B	0+00	1+92	Р		С	14'	12'	sub	grad	de sl	hape	e va	ries						
E303836M	0+00	3+31	Р		C	14'		sub											
E293802M	0+00	1+97	С		C	14'	12'		4					3	3	10	10		
E293802G	0+00	12+28	С		C	14'	12'		4					3	3	10	10		
E293802H	0+00	3+19	С		C	14'	12'		4					3	3	10	10		

\*Optional

Page One of One

DRAWN BY: RK

## STATE OF WASHINGTON

## DEPARTMENT OF NATURAL RESOURCES

Application No.: 30-104298 Name of Sale: Deer Trail Date: 12/7/2022

## **CULVERT & DRAINAGE LIST**

	Sta	Station CULVERT LENGTH RIPRAP				LENGTH									
Road Name	Start	End	Diameter (in)	Gauge	Skew (deg)	Culvert (ft)	Downspout	Flume	Inlet C.Y.	Outlet C.Y.	Catchbasin	Ditch	Staked	Rolling Dip	Notes
E293914G	0+00	22+52			Resha	pe or i	nstall r							5	9,13,14
E293914E	0+00	10+03			Resha	pe or i	nstall r	olling d	ips.					2	9,13,14
E293914H	0+00	29+35			Resha	pe or i	nstall r	olling d	ips.					7	
E293915F	0+00	35+40			Resha	pe or i	nstall r	olling d	ips.					9	9,13,14
E293910G	0+00	19+84			Install									5	9,14
E293906E	0+00	19+78			Resha	pe or i	nstall r	olling d	ips.					5	9,13,14
E293906E	19+78	24+86			Install	rolling	dips.							1	9,14
E303931F	0+00	3+42			Install									1	9,14
	0+10		18	16		60									1,2,3,6,10,11
E303836A	0+00	220+92			Resha	pe or i	nstall r	olling d	ips.					60	9,13,14
E303836AA	0+00	3+04			Resha	pe or i	nstall r	olling d	ips.					1	9,13,14
E303836C	0+00	32+64			Resha	eshape or install rolling dips.									9,13,14
E303836K	0+00	15+34				Reshape or install rolling dips.								3	9,13,14
E303836B	0+00	1+92					nstall r							0	9,13,14
E303836M	0+00	3+31					nstall r	olling d	ips.					0	9,13,14
E293802M	0+00	1+97			install	rolling	dips.							0	9,14
	0+00		18	16		36	1								1,2,3,6,10,11
E293802G	0+00	12+28			Install									3	9,14
E293802H	0+00	3+19			Install	rolling	dips.							1	9,14
	0+10		18	16		30			1/4	1/4					1,2,3,6,10,11
One additional 1	I I8"x34' ∩	MP culve	erts to h	l ne insta	l illed at	locatio	n to be	L deterr	nined h	ov the (	Contrac	t Adm	l inistrate	or	
Additional Rollin															

## **STRUCTURE NOTES**

- 1. Install Headwall See Detail D1
- 2. Install Catchbasin See Detail D1
- 3. Armor Catchbasin See Detail D1
- 4. Armor Ditch
- 5. Heavy Loose Riprap

- 6. Light Loose Riprap
- 7. Step Bevel Pipe Ends
- 8. Remove Existing Pipe
- 9. See Rolling Dip Detail D5
- 12. Install Ditchout
- 13. Reshape Rolling Dip
- 14. Install additional rolling dips as directed in section 9-5 Post Haul Maint.
- 10. See Pipe Installation Detail D1
- 11. Install Energy dissipater See D1

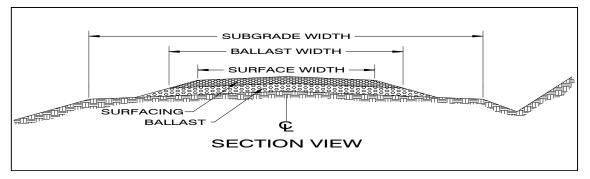
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## STATE OF WASHINGTON

## DEPARTMENT OF NATURAL RESOURCES

Application No.: 30-104298 Name of Sale: Deer Trail Date: 12/7/2022

## **ROCK LIST**



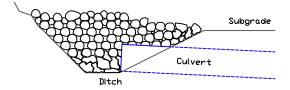
- 1. ROCK DEPTHS ARE DEFINED AS COMPACTED DEPTHS.
- 2. LOOSE YARD QUANTITIES ARE DEPENDANT ON SOURCE.
- 3. ROCK SLOPES SHALL BE 1.5(H): 1(V).
- 4. ALL ROCK SOURCES ARE SUBJECT TO APPROVAL BY THE CONTRACT ADMINISTRATOR.
- 5. THE ROCK QUANITIES SHOWN ASSUME AN EXPANSION FACTOR OF 25%

ROAD NAME	START	END STATION	SUBGRADE WIDTH (ft)	BALLAST SOURCE	BALLAST WIDTH (ft)	BALLAST DEPTH (in)	BALLAST QUANTITY (cu.yd./sta)	SURFACE SOURCE	SURFACE WIDTH (ft)	SURFACE DEPTH (in)	SURFACE QUANTITY	FABRIC WIDTH (ft)
E293906E	0+00	0+50					approach I	В				4
E303931F	0+00	0+50		approa			L approach	В				+
20000011	0.00	0.00		approa				+-				+ 1
E303836A	0+00	0+50					approach	В				
					ches 10							
	3+25					on bridge	Э.	В				
				approa	ches 10	) су						
												$\perp$
												4
									-			+
												+
												+
												+
												+
												+
Additional surfa	ace rock for sp	ot patching a	nd add	itional c	ulverts	210	су	С				1
	placed as directed by the Contract Administrator											
	Additiona	l rip rap rock	for add	itional c	ulverts	1	су	D				
	placed as dire	cted by the C	Contract	Admin	strator							
	B: Commercial 5/8 in minus source per contractor					$\perp$						
C: Commercial 1-1/4	1 in minus soui	ce per contra	actor	<u> </u>								$\perp$
D: Commercial or dig	gable onsite s	ource for ligh	t loose	rip rap	per con	tractor						$\perp$
cy = cubic yards												
Page 1 of 1												

## **CULVERT AND DRAINAGE SPECIFICATIONS DETAIL - D1**

HEADWALLS

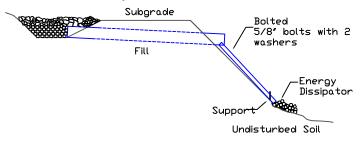




Headwall to be constructed of material that will resist erosion

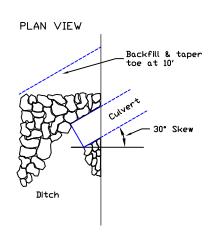
## FLUME

Use where ground conditions are uniform, providing for stability of flume.



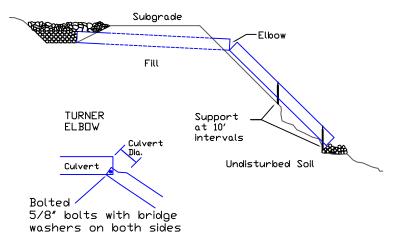
## DOWNSPOUT

Use where ground conditions are irregular.



## CULVERT BACKFILL & BASE PREPARATION (For Culverts Less Than 36")

Minimum Cover	Minimum Bed Depth	Min. Trench Width	Nominal Diameter
Α	В	С	D
12"	6"	36*	18"
12"	6 <b>"</b>	42"	24"
12"	6 <b>"</b>	48"	30"
12"	6 <b>″</b>	54"	36"





Area 2 X 2 Depth 1 Aggragate 1/3

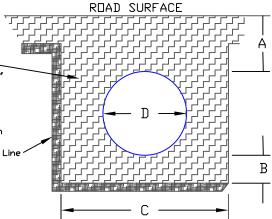


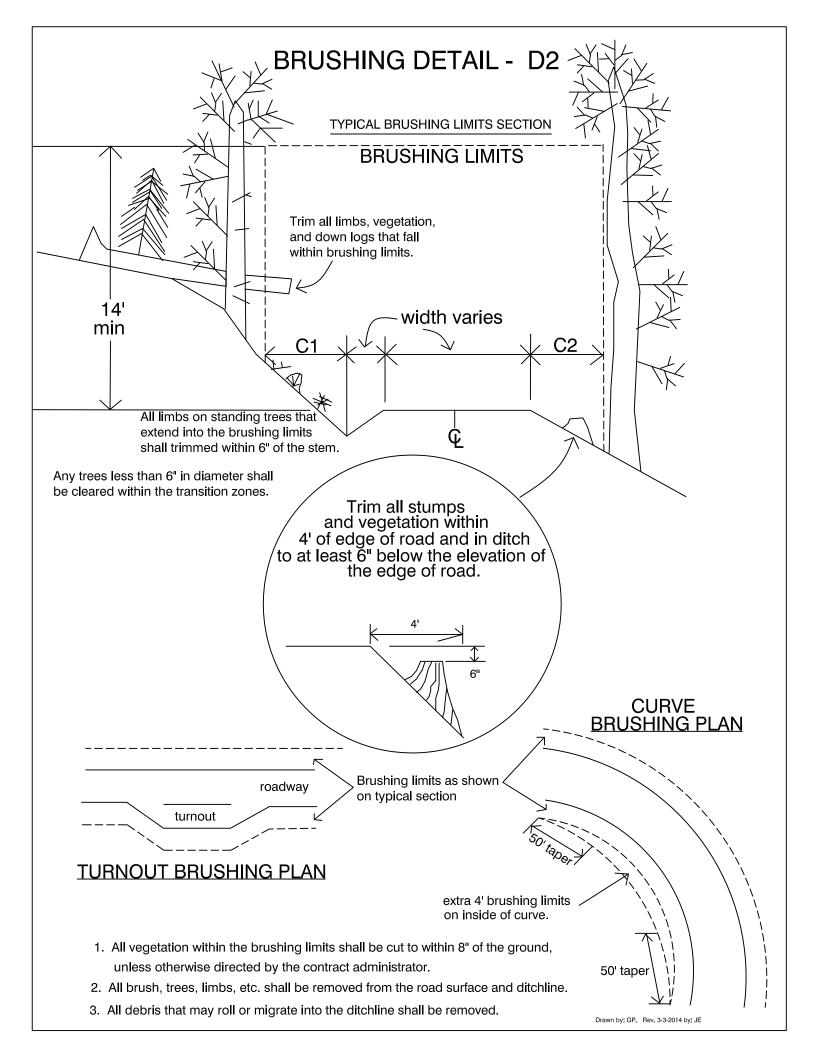


BEDDING MATERIAL:

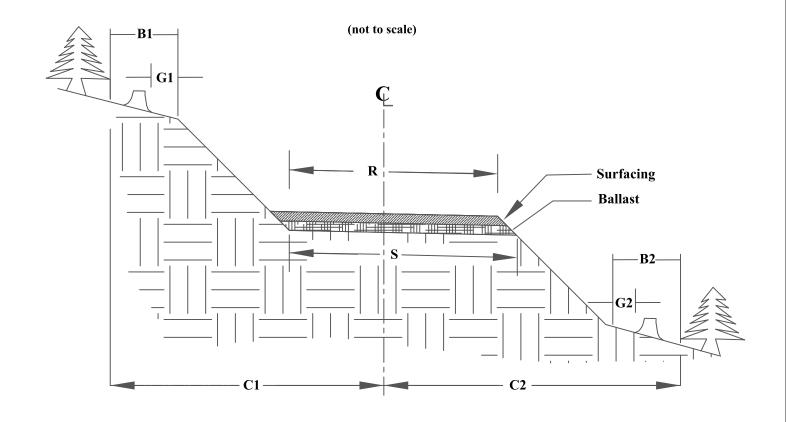
Use granular material - 3'
minus. Large rocks shall
be replaced with suitable
material. Materials of
poor or non-uniform
bearing capacity shall be
removed and replaced with
suitable fill.

Ground Line





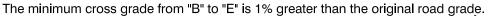
## OUTSLOPED ROAD CROSS-SECTION DETAIL D3

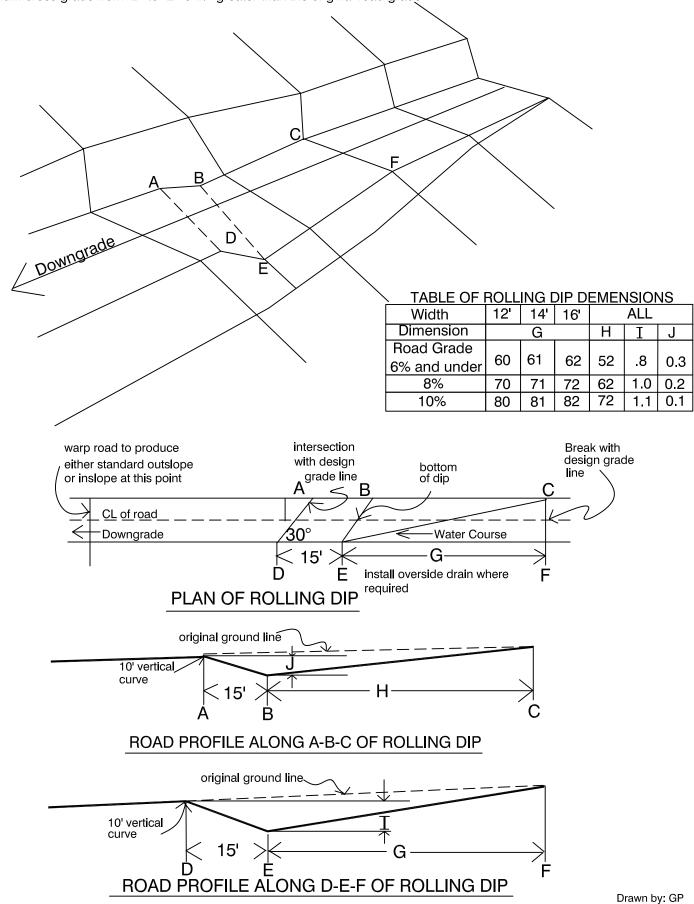


Drawn by: JBB 2/18/03 Revised: JE 01/14/20162

## STANDARD 30° ROLLING DIP - D5

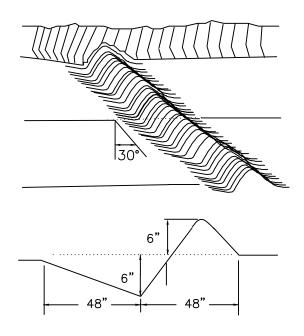
Note: Plan of dip shown is for an outsloped rolling dip. Dips may be either insloped or outsloped. When insloped, dips shall discharge into a culvert, drop inlet, overside drain, or drainage ditch. When outsloped, they shall discharge into an overside drain or on to natural ground. Minimum skew is 30°, and the maximum skew is 45°.



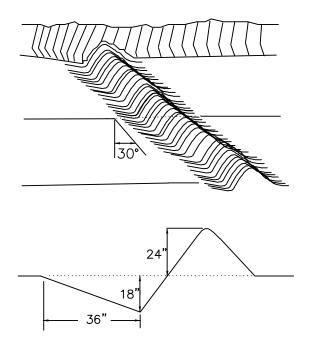


## WATERBAR DETAIL-D6

DRIVABLE WATERBAR



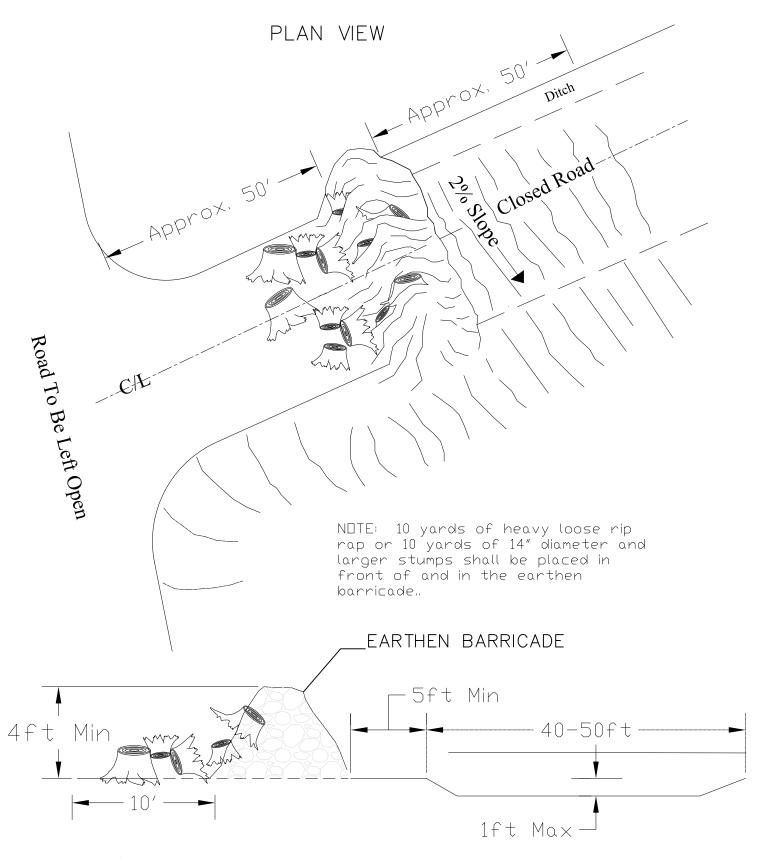
NON DRIVABLE WATERBAR



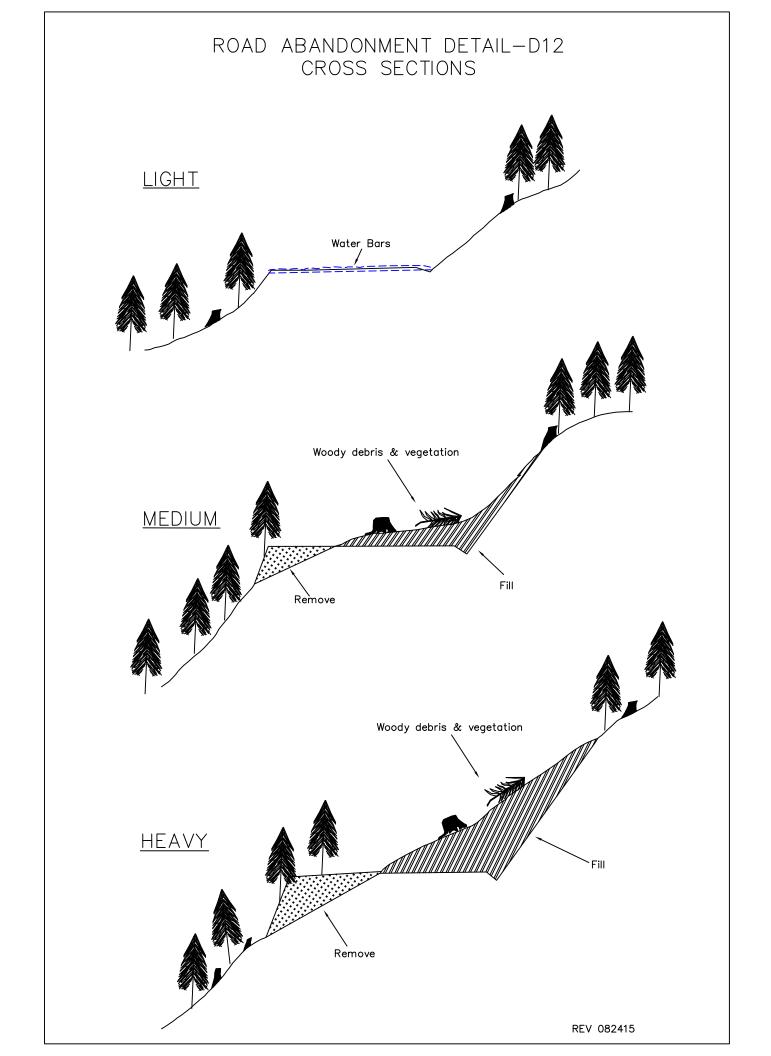
- 1. Waterbar construction for forest roads Specifications are average and may be adjusted to conditions.
- 2. Waterbar shall keyed into the bank.
- 3. The waterbar shall be outsloped for proper drainage.
- 4. Rock outlet if fill slope is present.

Revised: 05/21/2012

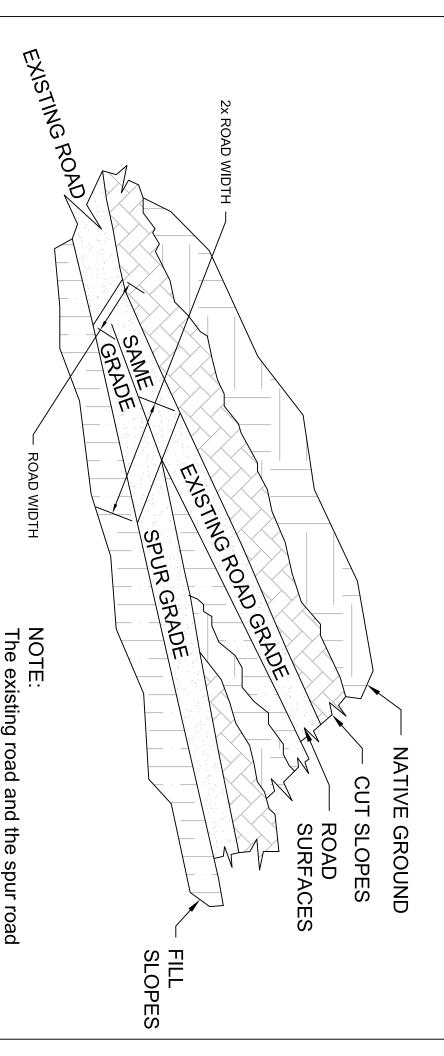
## EARTHEN BARRICADE DETAIL-D8



Note:  $\frac{1}{3}$  of stumps or rip rap shall be partially buried in the earthen barricade and/or road surface.



# **DETAIL D17 - WYE INTERSECTION DETAIL**

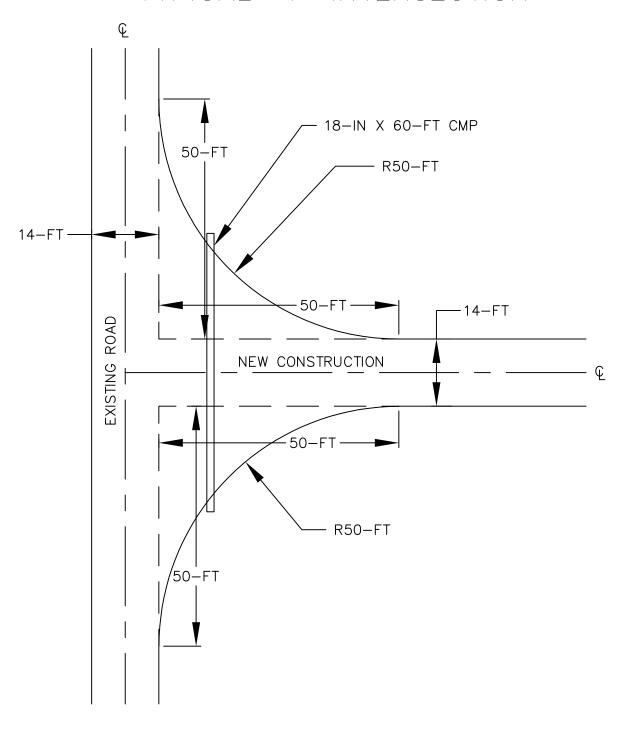


shall have the same grade until the

road width has been achieved.

roads are completely separated. The roads shall not separate until twice the

## TYPICAL "T" INTERSECTION



## **Sale Name: DEER TRAIL SUMMARY - Road Development Costs**

REGION: Northeast CONTRACT #: 30-104298 ENGINEER: Travis Parry DISTRICT: Arcadia DATE: 12/7/2022

	Construction	Reconstruction	Maintenance	Decommission	Abandonment
ROAD NUMBERS: Comments:	E293910G, E293906E, E303931F, E293802M, E293802G, E293802H		E293914G, E293914E, E293914H, E293915F, E293906E, E303836A, E303836AA, E303836C, E303836K, E303836B, E303836M	E293910G, E303931F, E293802G, E293802H	
ROAD STANDARD:	Construction	Reconstruction	Maintenance	Decommission	Abandonment
NUMBER OF STATIONS:	45.78	0.00	394.25	38.73	0.00
CLEARING & GRUBBING:	\$5,951	\$0	\$591	\$0	0
EXCAVATION AND FILL:	\$9,627	\$0	\$1,163	\$2,782	\$0
MISC. MAINTENANCE:	\$1,602	\$0	\$10,645	\$0	\$0
ROAD ROCK:	\$350	\$0	\$700	\$0	\$0
ADDITIONAL ROCK:	\$0	\$0	\$0	\$0	\$0
CULVERTS AND FLUMES:	\$5,040	\$0	\$0	\$0	\$0
STRUCTURES/MATERIALS:	\$0	\$0	\$0	\$0	\$0

\$22,571 \$0 \$13,099 \$2,782 \$0

TOTAL COSTS:	\$22,571	\$0	\$13,099	\$2,782	\$0
COST PER STATION:	\$493.03	\$0.00	\$33.22	\$0.72	<i>\$0</i>

	\$/per move	# of moves	Total
MOBILIZATION:	\$2,100	3	\$6,300

additional rock, culverts, tax \$9,426

TOTAL (All Roads) = \$54,177 SALE VOLUME mbf = 5,700 TOTAL \$/MBF = \$9.50

Sale Name: DEER TRAIL SUMMARY - Road Development Costs	