WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

TIMBER NOTICE OF SALE

***SALE NAME:** Q OLD SPRINGDALE* ***AGREEMENT NO:** 30-99712*

AUCTION: May 26, 2020 starting at 10:00 a.m., Northeast Region Office, Colville, WA **COUNTY:** Stevens

SALE LOCATION: Sale located approximately 2 miles east of Springdale, WA

PRODUCTS SOLD AND SALE AREA: All green conifer species (excluding ponderosa pine) 7 inches and greater in diameter at breast height and all green ponderosa pine 8 inches and greater in diameter at breast height, not banded with blue paint in Units 1, 2, 3, 4, 5 and 6 bounded by white timber sale boundary tags; all green conifer species (excluding ponderosa pine) 7 inches and greater in diameter at breast height and all green ponderosa pine 8 inches and greater in diameter at breast height, not banded with purple paint or bounded by yellow leave tree area tags in Unit 7 bounded by white timber sale boundary tags; and all right of way timber banded with orange paint on part(s) of Sections 12 all in Township 29 North, Range 39 East, Sections 35 and 36 all in Township 30 North, Range 40 East, W.M., containing 435 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:

Species	Avg DBH	Ring Count	Total MBF	MBF by Grade P	SM	1S	2S	3S	4S	5S	6S	UT
Douglas fir	15.3		2,741				1,168	1,182	391			
Ponderosa pine	17		1,942						1,050	892		
Lodgepole	12.1		271				16	189	66			
Larch	11.1		209				43	113	53			
Grand fir	13.8		67				47	13	7			
Sale Total			5,230									

MINIMUM BID: $684,000.00 **BID METHOD:** Sealed Bids

PERFORMANCE SECURITY: $100,000.00 **SALE TYPE:** Lump Sum

EXPIRATION DATE: November 15, 2022 **ALLOCATION:** Export Restricted

BID DEPOSIT: $68,400.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

HARVEST METHOD: Rubber tired skidder, Track skidder, Dozer, and Ground based equipment. Falling and Yarding will not be permitted from February 1 to July 1 unless authorized in writing by the Contract Administrator due to spring breakup and beetle timing restrictions.

ROADS: 62.42 stations of required construction. 185.50 stations of required prehaul maintenance. 57.20 stations of decommissioning. Road construction will not be permitted from November 15 to June 15 unless authorized in writing by the Contract Administrator due to frozen conditions and spring breakup. The hauling of forest products will not be

permitted from February 1 to June 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 red cedar: 8.0 - 17.5 inches dbh has a minimum top of 5.6 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.

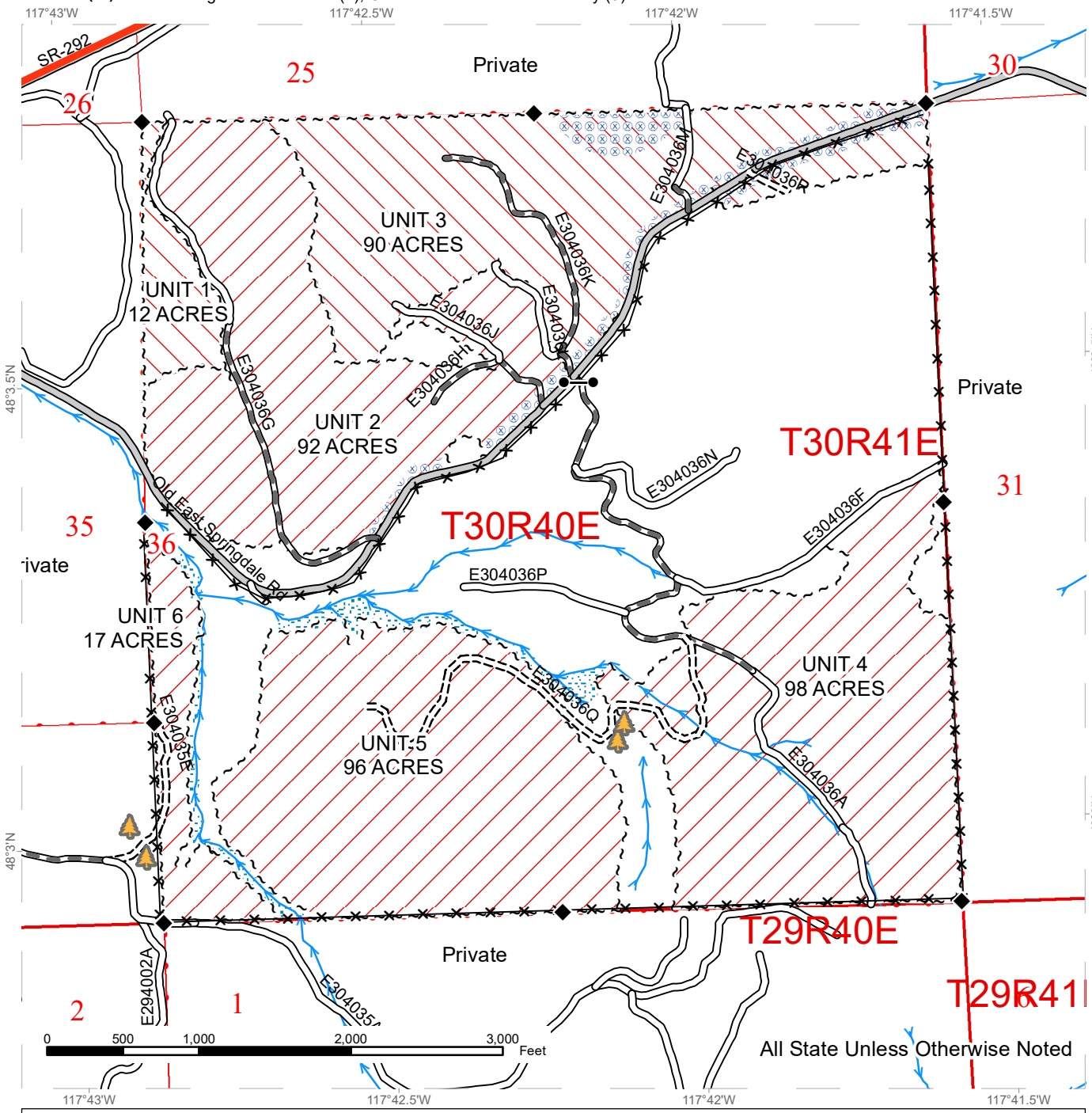
FEES: Within 10 days of day of sale, Purchaser shall provide payment in the amount of $500.00 for a road use permit and payment for 3 mbf of right of way timber at the purchaser's bid price. Purchaser is require pay for a Stevens County road approach permit. $88,910.00 is due on day of sale. $9.00 per MBF is due upon removal. These are in addition to the bid price.

SPECIAL REMARKS: Locked gates restricts access. Contact Northeast Region Office at (509) 684-7474 for access.

TIMBER SALE MAP

SALE NAME: OLD SPRINGDALE
AGREEMENT #: 30-099712
TOWNSHIP(S): T29R39E, T30R40E
TRUST(S): Agricultural School (4), Common School and Indemnity (3)

REGION: Northeast Region
COUNTY(S): Stevens
ELEVATION RGE: 2280-2800



- Public Land Survey Townships
- Variable Retention Harvest
- Unevenaged Managment
- Sale Boundary Tags
- Riparian Mgt Zone
- Hazard Abatement Area
- County Road
- Existing Roads
- Required Pre-Haul Maintenance
- Required Construction
- Streams
- Survey Monument
- ROW trees (orange paint)
- Gates
- Fence

Note: right of way trees banded with orange paint

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Prepared By: mlou490

Modification Date: mlou490 2/13/2020

TIMBER SALE MAP

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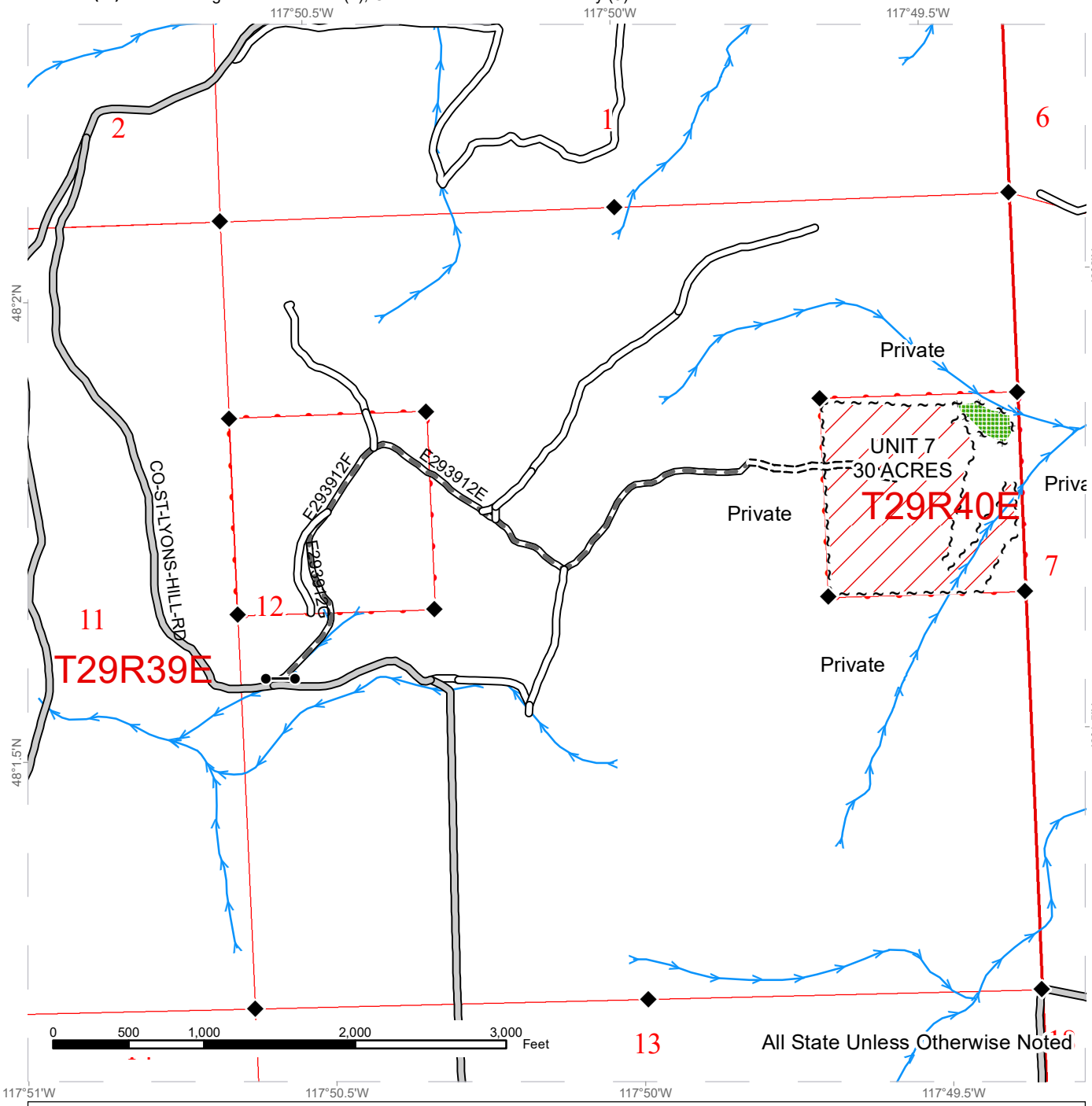

- Public Land Survey Townships
- Variable Retention Harvest
- Sale Boundary Tags
- Leave Tree Tags
- Leave Tree Area
- County Road
- Existing Roads
- Required Pre-Haul Maintenance
- Required Construction
- Streams
- Survey Monument
- Gates

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Prepared By: mlou490

Modification Date: mlou490 1/10/2020

DRIVING MAP

SALE NAME: OLD SPRINGDALE
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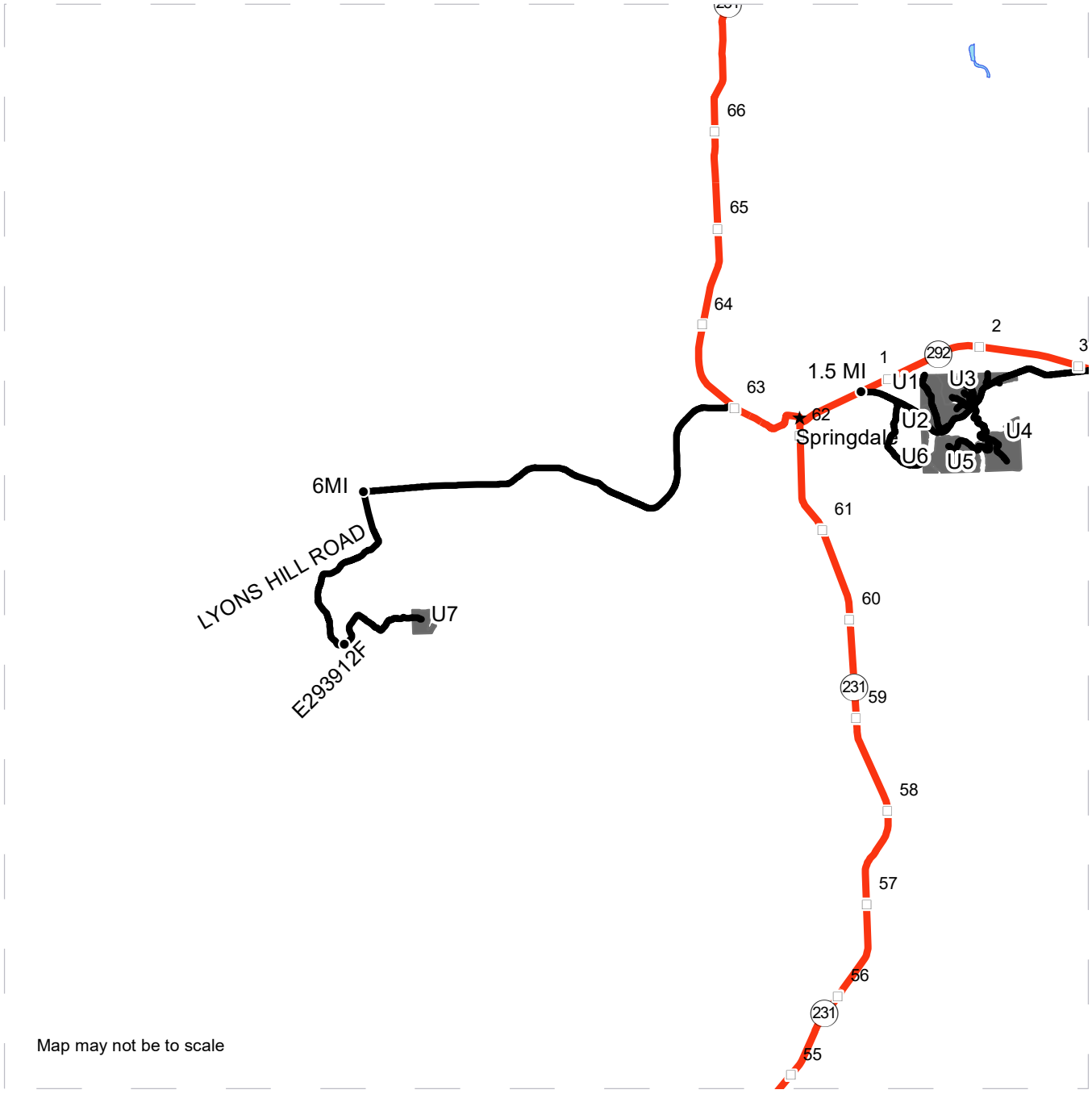

Map may not be to scale

Timber Sale Unit
Haul Route
Milepost Markers
Distance Indicator

DRIVING DIRECTIONS:

Units 1-6 are located approximately 1.5 miles east of Springdale, WA. The route from Springdale is via Highway 292 to Old Springdale Highway.

Unit 7 is located approximately 6 miles west of Springdale, WA. The route from Springdale is via Highway 231, to Springdale Hunters Rd., to Lyons Hill Rd., to the E293912F road.

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Prepared By: mlou490

Modification Date: mlou490 6/5/2019

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

BILL OF SALE AND CONTRACT FOR FOREST PRODUCTS

Export Restricted Lump Sum AGREEMENT NO. 30-099712

SALE NAME: Q OLD SPRINGDALE

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.

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 May 26, 2020 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 green conifer species (excluding ponderosa pine) 7 inches and greater in diameter at breast height and all green ponderosa pine 8 inches and greater in diameter at breast height, not banded with blue paint in Units 1, 2, 3, 4, 5 and 6 bounded by white timber sale boundary tags; all green conifer species (excluding ponderosa pine) 7 inches and greater in diameter at breast height and all green ponderosa pine 8 inches and greater in diameter at breast height, not banded with purple paint or bounded by yellow leave tree area tags in Unit 7 bounded by white timber sale boundary tags; and all right of way timber banded with orange paint, located on approximately 435 acres on part(s) of Section 12 in Township 29 North, Range 39 East, Sections 35, and 36 all in Township 30 North, Range 40 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

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 November 15, 2022.

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.

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 $347.00 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.

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-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, 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.

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.

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.

Road is defined as the road bed, including but not limited to its component parts, such as 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. 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.

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, 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 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 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.

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.

G-220 State Suspends Operation

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.

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; E293912F, E293912E, E304035A, E304035E, E304036G, E304036H, E304036L, E304036K, E304036A, E304036Q, E304036M and E304036R. 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 200 pounds of grass seed to a location designated by the Contract Administrator. Seed provided shall meet the following specifications.

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

Seed shall be certified weed free, premixed and delivered to the 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, re-establish 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 Old Highway East Springdale road, E293912E, E293912F and E304035A, 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 1241 with Rodriguez dated April 17, 1975
Easement 1242 with W.H. Field Co. dated September 16, 1975
Easement 93576 with Boston Timber Opportunities LLC dated June 23, 2017
Road Use Permit 98642 with Peterson and Summers dated July 12, 2019

G-395 Road Approach Permit

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

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 $135,980.00. The total contract price consists of a $0.00 contract bid price plus $135,980.00 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.

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 $0.00. 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 February 1 to July 1 in all units unless authorized in writing by the Contract Administrator.

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 144 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 ‘Trespass and Unauthorized Activity’ clause. Purchaser is required to leave all cut or damaged reserve trees on site.

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 12 feet in width, including rub trees.

b. Skid trails shall not cover more than 30 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.

j. Skid trails shall avoid draws, and when parallel to draws, shall not be located within 30 feet of draws.

k. Skid trails shall not be located within 30 feet of Riparian Management Zones.

l. Skid trails constructed on slopes over 40 percent slope shall have side-case reclaimed to recontour the foot print of the trail after useage.

m. If purchaser plans to construct skid trails outside of the harvest units, they will be subject to approval by the Contract Administrator. Purchaser shall notify the Contract Administrator 30 days prior to planned construction.

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-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-060 Skid Trail Locations

Locations of skid trails must be marked by Purchaser and approved by the Contract Administrator prior to the felling of timber.

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 ground based equipment D6 equivalent or smaller. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

H-130 Hauling Schedule

The hauling of forest products will not be permitted on all roads from February 1 to June 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 units.

b. A minimum of 70% of the slash generated at landings less than 3 inches in diameter will be hauled back and scattered within the harvest units, the remaining slash shall be piled. Slash shall be scattered outside of the extreme hazard abatement areas.

c. All slash piles shall be machine trailed, exposing a minimum of six feet of bare, mineral soil around the perimeter of each pile. Dozer blades shall not be used for piling slash and piles shall be soil free.

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.

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-260 Fall Leaners

Trees in Units 1, 2, 3, 4, 5, 6 and 7 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 1/31/2019 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on E293912F, E293912E, E304035A, E304035E, E304036G, E304036H, E304036L, E304036K, E304036A,

E304036Q, E304036M and E304036R 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-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.

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-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-110 Resource Protection

No harvesting equipment may operate within Riparian Management Zones unless authority is granted in writing by the Contract Administrator.

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.

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

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, the Purchaser is responsible for notifying the following:

Appropriate Department of Ecology regional office (contact information below).
DNR Contract Administrator

ECY - Northwest Region:
1-425-649-7000
(Island, King, Kitsap, San Juan, Skagit, Snohomish, and Whatcom counties)

ECY - Southwest Region:
1-360-407-6300
(Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, and Wahkiakum counties)

ECY - Central Region:
1-509-575-2490
(Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, and Yakima counties)

ECY - Eastern Region:
1-509-329-3400
(Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, and Whitman counties)

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.

S-140 Fence Repair

Purchaser shall immediately repair all fence damage resulting from operations on this sale to an equal or better condition than existed at the time of sale.

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 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.

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

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

_____	_____
Purchaser	Ken McNamee Northeast Region Manager
_____ Print Name	
Date: _____	Date: _____
Address:	

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

STATE OF _____)
)
COUNTY OF _____)

On this _____ day of _____, 20___, before me personally appeared _____
_____ to me known to be the _____ of the corporation that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of the corporation, for the uses and purposes therein mentioned, and on oath stated that (he/she was) (they were) authorized to execute said instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

_____
Notary Public in and for the State of

_____

My appointment expires _____

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

FOREST EXCISE TAX ROAD SUMMARY SHEET

Region: Northeast

Timber Sale Name: Q OLD SPRINGDALE

Application Number: 30- 099712

EXCISE TAX APPLICABLE ACTIVITIES

Construction: 6,242 **linear feet**
Road to be constructed (optional and required) but not abandoned

Reconstruction: 0 **linear feet**
Road to be reconstructed (optional and required) but not abandoned

Abandonment: 0 **linear feet**
Abandonment of existing roads not reconstructed under the contract

Decommission: 5,720 **linear feet**
Road to be made undriveable but not officially abandoned.

Pre-Haul Maintenance: 18,550 **linear feet**
Existing road to receive maintenance work (optional and required) prior to haul

EXCISE TAX EXEMPT ACTIVITIES

Temporary Construction: 0 **linear feet**
Roads to be constructed (optional and required) and then abandoned

Temporary Reconstruction: 0 **linear feet**
Roads to be reconstructed (optional and required) and then abandoned

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)

DNR Timber Sale Trust Distribution Form

Sale Name

Q OLD SPRINGDALE

Agreement Number

99712

Region	District	Unit
Northeast	ARCADIA	

Legal Location

Section(s)	36	Township	30	Range	40	E/W	E
Section(s)	12	Township	29	Range	39	E/W	E

Auction Date	Contract Expiration Date	Sale Acres
5/26/2020	11/15/2022	435

Sale Class	Sale Method	Stand Origin Year
Board	Lump Sum	1954

FPA Number	FPA Renewal Date
3023872	11/19/2022

Sale Volume Ratio

Conifer		
Ponderosa pine	1942	37.10%
Lodgepole	271	5.20%
Larch	209	4.00%
Grand fir	67	1.30%
Douglas fir	2741	52.40%
Totals For Conifer	**5230**	**100.00%**
Total	**5230**	**100.00%**

Harvest Type

Harvest Type	% of Sale
Variable Retention Harvest	76.55%
Variable Density Thinning	2.76%
Seed Tree Removal	20.69%
Total	**100.00%**

Trust Distribution Table

County	3	4	Totals							
33 - Stevens	90.08%	9.92%	100.00%							
			100.00%							

DNR Timber Sale Trust Distribution Form

Trust Levy Codes

Instructions:

To ensure proper distribution of funds to the trust beneficiaries of this sale, the State Lands Assistant must review the data in NaturE and sign in the space provided below.

NaturE Data Reviewed by:

X

(Print Name) (Signature)

Date:

DNR Timber Sale Trust Distribution Form

Trust Distribution Details

33-Stevens

Trust	Harvest Area	Volume
3	1	129.00
	2	1064.00
	3	981.00
	4	1222.00
	5	1083.00
	6	232.00
	7	0.00
Total for 3		4711.00
4	1	0.00
	2	0.00
	3	0.00
	4	0.00
	5	0.00
	6	0.00
	7	519.00
Total for 4		519.00

Total For 33-Stevens 5230.00

Total Volume 5230.00

State of Washington
Department of Natural Resources
Timber Bill of Sale Extension Charges

Extension Per Acre Charge Worksheet

Agreement No.: 30-099712
Q OLD SPRINGDALE

Region: Northeast

Sale Method: Lump Sum

Harvest Type: Evenaged

Geographic Area: NE - Arcadia

Site Class (westside only): None

	Westside PC/Thin		Westside Evenage		Eastside PC/Thin		Eastside Evenage	
	scale	lump	scale	lump	scale	lump	scale	lump
1. Growth Loss								5.00
2. Additional Growth								325.82
3. Loss thru Disrupt.								16.29
Per Acre Charge	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$347.11**

Total Per Acre Charge: **$347.00**

This figure to be Input into the G-050 or G051 clause.

Revision Date: 01/03/2017

PRE-CRUISE NARRATIVE

Sale Name: Old Springdale	Region: **Northeast**
Agreement #: 30-099712	District: Arcadia
Contact Forester:Zach Sr. Amand Phone / Location: (509)890-8154	County(s): Stevens, Choose a county
Alternate Contact:Clay Chambers Phone / Location: (509)844-7224	Other information: Click here to enter text.

Type of Sale: Lump Sum	
Harvest System: Ground based Click here to enter text.	100%
Harvest System: Select harvest system Click here to enter text. Enter % of sale acres	Click here to enter percent sale acres.

UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit # Harvest R/W or RMZ WMZ	Legal Description (Enter only one legal for each unit) Sec/Twp/Rng	Grant or Trust	Gross Proposal Acres	Deductions from Gross Acres (No harvest acres)				Net Harvest Acres	Acreage Determination (List method and error of closure if applicable)
				RMZ/ WMZ Acres	Leave Tree Acres	Existing Road Acres	Other Acres (describe)		
1	36 T30N R40E	03	12.0	0	0	0	0	12.0	GPS (Garmin)
2	36 T30N R40E	03	93.7	0	0	1.5	0	92.2	GPS (Garmin)
3	36 T30N R40E	03	91.8	0	0	1.6	0	90.2	GPS (Garmin)
4	36 T30N R40E	03	98.8	0	0	0.4	0	98.4	GPS (Garmin)
5	36 T30N R40E	03	95.6	0	0	0	0	95.6	GPS (Garmin)
6	36 T30N R40E	03	17.1	0	0	0	0	17.1	GPS (Garmin)
7	12 T29N R39E	04	30.1	0	1.4	0	0	28.7	GPS (Garmin)
ROW 8	12 T29N R39E		0.4	0	0	0	0	0.4	Combination
ROW 9	35 T30N R40E	03	0.1	0	0	0	0	0.1	Combination
ROW 10	36 T30N R40E	03	0.4	0	0	0	0	0.4	
TOTAL ACRES			440	0	1.4	3.5	0	435.1	

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 and pink flagging, borders private ownership to the north and west. Shared boundary on the east with Unit 2. Variable Density Thinning unit painted at 21 trees per acre.	VDT	262 Leave Trees
2	Unit 2 is bound by white "Timber Sale Boundary" tags and pink flagging, borders private ownership to the north, shares boundary with Unit 1 to the west.	VRH	578 Leave Trees
3	Unit 3 is bound by white "Timber Sale Boundary" tags and pink flagging, private property to the north and east, and Department of Natural Resources property.	OSR	572 Leave Trees
4	Unit 4 is bound by white "Timber Sale Boundary" tags and pink flagging, private property to the east and south, and Department of Natural Resources property.	VRH	
5	Unit 5 is bound by white "Timber Sale Boundary" tags and pink flagging, private property to the south, and Department of Natural Resources property.	VRH	
6	Unit 6 is bound by white "Timber Sale Boundary" tags and pink flagging, private property to the west and south, and Department of Natural Resources property.	VRH	114 Leave Trees
7	Unit 7 is bound by white "Timber Sale Boundary" tags and pink flagging, leave trees marked with a band of purple paint. Hancock property to the west and north, small private ownership.to the east and south.	VRH	195 Leave Trees
ROW 8	Right-of-way harvest limits are marked with orange "Right-of-way harvest" tags,	ROW	N/A

	Right-of-Way unit through Hancock ownership.		
ROW 9	Right-of-way harvest limits are marked with orange band of paint on take trees, road center line marked with orange flagging.	ROW	N/A
ROW 10	Right-of-way harvest limits are marked with orange "Right-of-way harvest" tags.	ROW	N/A

OTHER PRE-CRUISE INFORMATION:

Unit #	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	PP, DF 132	Access off of Old Springdale Highway, using the far west entrance on the north side of the road. Road blocked a few hundred feet off of the county road. Can make access with four wheeler.	
2	PP, DF 950	Access off of Old Springdale Highway, any entrance on the north side of the road can be utilized. Old skid trails and four wheel trails can be utilized to get further into the unit. An old road on private parallels the north section line running east to west. There is a shooting pit right off the county road shooting towards the unit. We will need to repost no shooting signs when working in there.	
3	PP, DF / 950	Access off of Old Springdale Highway, any entrance on the north side of the road can be utilized. Old skid trails and four wheel trails can be utilized to get further into the unit. An old road on private parallels the north section line running east to west.	
4	DF, PP / 1,270	Access off of Old Springdale Highway, entrance through south side of road through yellow gate. Cattle currently in section on a graze lease.	
5	PP, DF / 1,225	Access off of Old Springdale Highway, entrance through south side of road through yellow gate. Cattle currently in section on a graze lease.	
6	PP, DF / 255	Access off of Old Springdale Highway, entrance through south side of road through	

		yellow gate. Cattle currently in section on a graze lease. Can access southwest section through gray gate on the south side of the Old Springdale Highway just west of section 36. DNR 786 lock on gate. Gate is full of locks, need to be careful not to lock other landowners out.	
7	DF, PP / 512	Access off of Lyons Hill through green cattle gate. Non-DNR lock, gate combo 8521. No road access into the unit. Follow the right of way timber sale tags into unit.	
ROW 8	PP, LP / 20	Access off of Lyons Hill through green cattle gate. Non-DNR lock, gate combo 8521. No road access into the unit. Follow the right of way timber sale tags into unit. ROW 8 is located on Hancock ownership. Not DNR owned.	Hancock Ownership
ROW 9	PP, DF / 10	Access section through gray gate on the south side of the Old Springdale Highway just west of section 36. DNR 786 lock on gate. Gate is full of locks,	
ROW 10	PP, DF/ 15	Access off of Old Springdale Highway, entrance through south side of road through yellow gate. Cattle currently in section on a graze lease.	
TOTAL MBF	5,339		

REMARKS:

Units 1 is a small Variable Density Thinning Unit painted at 21 trees an acre. Unit 2 shares a common boundary with Unit 1. Access into Units 4, 5, and 6 can be made through yellow DNR gate or gray gate west of section 36. Access is DNR 786 lock. Gate combo for Unit 7 off of Lyons Hill Road is 8125, non DNR lock. Lock purchased for Camas Timber Sale and belongs to land owner. Units 4, 5, and 6 appear have little to no understory due to a high density of brush in the understory. Some small amounts of root rot in the Douglas-fir have been observed in all Units. Legacy trees are present in both units. If unmarked legacies are found during the cruise, please take a gps point and let us know. When getting ready to cruise please let us know so no shooting signs can be place around the shooting pit.

Prepared By: Chad Godley Date: 01/15/2019	Title: Arcadia Forester	CC:

Cruise Narrative

Sale Name: Old Springdale	**Region:** Northeast
Agreement Number: 30-099712	**District:** Arcadia
Lead Cruiser: Dylan Worlock	**Completion Date:** 12/24/2019
Other Cruisers on sale: Jim Putnam, Chad Godley, Zach St.Amand	**Legal:** Sections 35 & 36, T 30 N, R 40 E WM. & Section 12, T 29 N, R 39 E WM.

Unit Acreage Specifications:

Unit #	Gross Acres	Net Acres	Total Deletions	Existing Roads	Leave Tree Acres	Power Line	Other
1	11.9	11.9	0.0				
2	93.7	92.2	1.5	1.5			
3	91.3	89.7	1.6	1.6			
4	98.5	98.1	0.4	0.4			
5	95.6	95.6	0.0				
6	16.9	16.9	0.0				
7	31.2	29.8	1.4		1.4		
RW09	0.1	0.1					
RW10	0.4	0.4					
Total	439.6	434.7	4.9	3.5	1.4	0.0	0.0

*RW08 is a private right-of-way, not included in the cruise volume or acreage.

Cruise Sample Design:

This timber sale was cruised using the **variable plot** sampling method. The double basal area system was employed; a small BAF to determine Basal Area (count trees) and a large BAF to determine the Volume-Basal Area Ratio (cruise trees). Each plot was a full plot. Plot locations were created using a computer generated grid, and found using a hand held GPS unit. *Unit 1 was cruised with a fixed plot method due to size of unit and timber type.

Unit #	Small BAF (count)	Large BAF (cruise)	Sighting height	Grid size (plot spacing in feet)	% Cruise to count Target	% Cruise to count Actual	Total number of Plots
1	Fixed Plot	1/20th acre	D4H	250' x 250'	100%	100%	13
2	20	80.28	D4H	275' x 275'	25%	26%	50
3	20	80.28	D4H	275' x 275'	25%	32%	46
4	27.78	111.11	D4H	275' x 275'	25%	25%	59
5	27.78	111.11	D4H	275' x 275'	25%	29%	55
6	27.78	54.45	D4H	260' x 260'	100%	55%	11
7	27.78	90	D4H	260' x 260'	31%	28%	18
Total						38%	252

Cruise Specifications:

Minor species cruise intensity:	We grade the first tree of all minor species encountered with the smaller BAF; then followed through with the small BAF to large BAF ratio.
Minimum top dib:	**Ponderosa pine:** Trees less than 17.5" DBH have a minimum top of 5.6" dib. Trees 17.6" and greater DBH have a minimum top dib of 40% of DOB at 16'or a 6" top whichever is greater. **All other species:** Trees less than 17.5" DBH have a minimum top of 4.6" dib. Trees 17.6" and greater DBH have a minimum top dib of 40% of DOB at 16'or a 6" top whichever is greater.
Minimum dbh:	Ponderosa pine: 8.0 inches DBH All other species: 7.0 inches DBH
Log lengths:	Saw logs: 32 feet where possible, minimum of 12 feet
Take / Leave tree description:	Harvest all green conifers that meet the minimum cruise specifications and are not banded with blue paint (except U7; leave trees are painted with purple paint).
Commercial species observed in sale area, but not in cruise:	
Utility wood:	N/A
Status codes used:	N/A
Sort codes used	D – saw log
Species table used:	NE
Grade table used:	NEGRADE
Other tables used (cruise adjustment):	

Field Observations:

Location:	Southern Stevens County, 3 miles west of Loon Lake, Washington.
Aspect:	North, East, South and West
Elevation:	2280’ to 2600’
Slope:	Unit 1 – 0% to 30%, Average 5% Unit 2 – 0% to 50%, Average 15% Unit 3 – 0% to 22%, Average 5% Unit 4 – 0% to 35%, Average 11% Unit 5 – 0% to 30%, Average 11% Unit 6 – 0% to 35%, Average 12% Unit 7 – 0% to 25%, Average 5%
Harvest Methods:	100% Ground base yarding.
Stand Composition:	The stands are second growth Douglas-fir and ponderosa pine with larger residual trees. There is a minor component of lodgepole pine, western larch, and grand fir.
Stand Health:	Timber within the sale is generally healthy, with some occurrence of mistletoe and occasional root rot.
Timber Quality:	The timber is a mix of domestic quality Douglas-fir (52%) and ponderosa pine (37%) with smaller amounts of lodgepole pine (5%), western larch (4%), and grand fir (1%).
Non-board Foot Volume:	N/A
Other Considerations/remarks:	This sale has units that are very well roaded and are located on gentle slopes. There are a few areas adjacent to the sale units where recreational shooting occurs, adjacent timber may contain metal.

Trust and Counties:

Based on Volume

Unit #	Trust 03 Vol. mbf	Trust 04 Vol. mbf	**Combined Vol. mb**
1	129	0	129
2	1064	0	1064
3	981	0	981
4	1222	0	1222
5	1083	0	1083
6	225	0	225
7	0	519	519
RW09	3	0	3
RW10	5	0	5
Total	4712	519	**5231**
% of Total	90.08%	9.92%	100.00%

*Note – Due to the rounding rules of SuperAce cruise program, each unit volume added individually totals 5,231 mbf, while project volume totals 5,230 mbf. This discrepancy is due to less than 1 acre size of ROWs. Project volume is the correct volume (5,230).

Prepared by: Dylan Worlock

Title: Forest Check Cruiser 1

CC: Timber Sales Document Center & File #30-099712

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T29N R39E S12 Ty00U7
THRU
T30N R40E S36 TyRW10

Project: **OLDSPRIN**

Acres **434.70**

Page **1**
Date **12/24/2019**
Time **8:28:41AM**

Spp	S T	So Gr ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
GF	D	2	69	13.5	124	107	47			38	62	11	26	63		26	16	252	2.06	.4
GF	D	3	20		30	30	13		100					100		32	8	84	0.69	.4
GF	D	4	11	.1	16	16	7	70	30			49	16	35		18	5	22	0.32	.8
GF	**Totals**		1	9.8	170	153	67	7	23	27	43	13	20	67		24	9	100	0.97	1.5
DF	D	2	42	5.5	2,843	2,686	1,168			78	22			100		32	14	266	1.92	10.1
DF	D	3	43	2.7	2,797	2,721	1,183		100			0	6	94		32	8	100	0.71	27.3
DF	D	4	15	1.5	914	900	391	63	37			31	34	35		23	5	30	0.33	30.4
DF	**Totals**		52	3.8	6,554	6,308	2,742	9	48	33	9	5	7	88		28	8	93	0.78	67.7
PP	D	4	54	2.3	2,472	2,416	1,050			78	22	1	1	98		32	14	279	1.77	8.7
PP	D	5	46	3.4	2,124	2,052	892		100			13	18	69		25	7	63	0.59	32.8
PP	**Totals**		37	2.8	4,596	4,468	1,942		46	42	12	7	9	85		26	9	108	0.89	41.5
WL	D	2	20	3.4	103	100	43			100				100		32	12	184	1.27	.5
WL	D	3	54	2.0	264	259	113		100					100		32	8	81	0.58	3.2
WL	D	4	26		121	121	53	100				21	71	8		23	5	24	0.22	5.0
WL	**Totals**		4	1.8	489	480	209	25	54	21		5	18	77		27	6	55	0.46	8.7
LP	D	2	6		38	38	16			100				100		32	12	190	1.09	.2
LP	D	3	69	5.7	461	435	189		100				0	100		32	8	95	0.66	4.6
LP	D	4	25	3.5	157	151	66	78	22			33	33	34		22	5	28	0.28	5.4
LP	**Totals**		5	4.8	655	624	271	19	75	6		8	8	84		27	7	61	0.50	10.2
Totals				3.5	12,464	12,032	5,230	7	49	35	10	6	8	86		27	8	93	0.77	129.6

TC PSTATS

PROJECT STATISTICS

PROJECT OLDSPRIN

DATE 12/24/2019

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
29N	39E	12	OLDSPRING	00U7	THR	434.70	255	973	S	E
30N	40E	36	OLDSPRING	RW10						

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	255	973	3.8		
CRUISE	161	365	2.3	29,693	1.2
DBH COUNT					
REFOREST					
COUNT	80	209	2.6		
BLANKS	14				
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	141	35.7	15.3	72	11.6	45.3	6,554	6,308	1,465	1,465
P PINE	126	20.9	17.0	64	8.0	32.9	4,596	4,468	962	962
LP PINE	65	5.3	12.1	78	1.2	4.2	655	624	137	137
W LARCH	15	5.3	11.1	74	1.1	3.6	489	480	107	107
GR FIR	18	1.1	13.8	58	0.3	1.1	170	153	35	35
TOTAL	*365*	*68.3*	*15.3*	*70*	*22.3*	*87.2*	*12,464*	*12,032*	*2,706*	*2,706*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1 SD: 1.0

SAMPLE TREES - BF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	85.0	7.2	253	272	292			
P PINE	78.9	7.1	320	344	369			
LP PINE			126	126	126			
W LARCH	68.9	18.4	120	147	174			
GR FIR	133.9	33.4	96	144	192			
TOTAL	*89.6*	*4.8*	*252*	*265*	*278*	*321*	*80*	*36*

CL 68.1 SD: 1.0

SAMPLE TREES - CF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	78.6	6.7	58	62	66			
P PINE	67.4	6.1	68	72	77			
LP PINE			28	28	28			
W LARCH	66.4	17.7	27	33	39			
GR FIR	122.2	30.5	23	32	42			
TOTAL	*80.2*	*4.3*	*56*	*58*	*61*	*257*	*64*	*29*

CL 68.1 SD: 1.0

TREES/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	80.9	5.1	34	36	37			
P PINE	101.1	6.3	20	21	22			
LP PINE	356.2	22.3	4	5	6			
W LARCH	369.8	23.1	4	5	7			
GR FIR	853.9	53.4	1	1	2			
TOTAL	*21.3*	*1.3*	*67*	*68*	*69*	*18*	*5*	*2*

CL 68.1 SD: 1.0

BASAL AREA/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	77.4	4.8	43	45	47			
P PINE	93.0	5.8	31	33	35			
LP PINE	320.1	20.0	3	4	5			
W LARCH	344.0	21.5	3	4	4			
GR FIR	613.8	38.4	1	1	2			
TOTAL			*87*	*87*	*87*			

PROJECT STATISTICS

PROJECT OLDSPRIN

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
29N	39E	12	OLDSPRING	00U7	THR	434.70	255	973	S	E
30N	40E	36	OLDSPRING	RW10						

CL 68.1 SD: 1.0

NET BF/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	80.2	5.0	5,991	6,308	6,624			
P PINE	96.4	6.0	4,198	4,468	4,737			
LP PINE	340.8	21.3	491	624	757			
W LARCH	347.8	21.8	376	480	584			
GR FIR	731.2	45.8	83	153	223			
TOTAL			*12,032*	*12,032*	*12,032*			

CL 68.1 SD: 1.0

NET CUFT FT/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	79.7	5.0	1,392	1,465	1,538			
P PINE	94.2	5.9	906	962	1,019			
LP PINE	327.9	20.5	109	137	165			
W LARCH	345.3	21.6	84	107	130			
GR FIR	675.9	42.3	20	35	50			
TOTAL			*2,706*	*2,706*	*2,706*			

CL 68.1 SD: 1.0

TONS/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	79.7	5.0	40	42	44			
P PINE	94.2	5.9	22	23	24			
LP PINE	327.9	20.5	3	3	4			
W LARCH	345.3	21.6	2	3	3			
GR FIR	675.9	42.3	1	1	1			
TOTAL			*72*	*72*	*72*			

CL 68.1 SD: 1.0

V_BAR/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR			132	139	146			
P PINE			127	136	144			
LP PINE	295.6	18.5	116	148	180			
W LARCH	126.8	7.9	104	132	161			
GR FIR	449.7	28.1	72	134	195			
TOTAL	*15.5*	*1.0*	*138*	*138*	*138*	*10*	*2*	*1*

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: OLDSPRIN

Page 1
Date 12/24/2019
Time 8:28:42AM

T30N R40E S36 T00U1

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
30N	40E	36	OLDSPRIN	00U1	11.90	13	80	S	E

T30N R40E S36 T00U1

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
LP		D	3	56	6.0	4,108	3,862	46		100				2	98		32	8	84	0.58	46.2
LP		D	4	44	2.1	3,000	2,938	35	59	41			34	41	25		22	5	28	0.28	104.6
LP	**Totals**			63	4.3	7,108	6,800	81	25	75			15	19	67		25	6	45	0.39	150.8
PP		D	5	100	8.8	2,262	2,062	25		100			17	2	81		25	8	58	0.62	35.4
PP	**Totals**			19	8.8	2,262	2,062	25		100			17	2	81		25	8	58	0.62	35.4
DF		D	2	15		292	292	3			100				100		32	12	190	1.38	1.5
DF		D	3	63		1,185	1,185	14		100					100		32	8	96	0.65	12.3
DF		D	4	22	6.9	446	415	5	100				37	33	30		22	5	25	0.26	16.9
DF	**Totals**			17	1.6	1,923	1,892	23	22	63	15		8	7	85		27	7	62	0.52	30.8
GF		D	4	100		92	92	1	100					100			28	5	30	0.34	3.1
GF	**Totals**			1		92	92	1	100					100			28	5	30	0.34	3.1
Type Totals					4.7	11,385	10,846	129	21	77	3		14	14	72		25	6	49	0.45	220.0

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: OLDSPRIN

Date 12/24/2019

Time 8:28:42AM

T30N R40E S36 T00U2

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
30N	40E	36	OLDSPRIN	00U2	92.20	50	54	S	E

T30N R40E S36 T00U2

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
PP		D	4	56	3.2	5,115	4,953	457			77	23	3		97		31	14	274	1.68	18.1
PP		D	5	44	3.9	3,983	3,828	353		100			13	25	63		25	7	61	0.58	62.6
PP	**Totals**			76	3.5	9,098	8,780	810		44	44	13	7	11	82		26	9	109	0.88	80.7
DF		D	2	34	7.0	517	481	44			100				100		32	13	209	1.48	2.3
DF		D	3	44		613	613	56		100				24	76		31	9	100	0.76	6.1
DF		D	4	22	9.8	334	301	28	53	47			39	61			21	6	27	0.40	11.0
DF	**Totals**			12	4.7	1,464	1,395	129	11	54	35		8	24	68		25	8	72	0.70	19.4
LP		D	2	17		177	177	16			100				100		32	12	190	1.09	.9
LP		D	3	69	4.0	711	683	63		100					100		32	9	101	0.62	6.8
LP		D	4	14	9.3	151	137	13	100				24	35	41		22	5	26	0.27	5.4
LP	**Totals**			9	4.1	1,039	997	92	14	69	18		3	5	92		28	7	76	0.54	13.0
GF		D	2	86	5.8	334	315	29			42	58			100		32	16	325	1.98	1.0
GF		D	3	14		48	48	4		100					100		32	8	100	0.71	.5
GF	**Totals**			3	5.1	383	364	34		13	36	51			100		32	13	250	1.55	1.5
Type Totals					3.7	11,984	11,536	1,064	3	46	40	11	7	12	82		26	9	101	0.82	114.6

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

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T30N R40E S36 T00U3

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
30N	40E	36	OLDSPRING	00U3	89.70	46	57	S	E

T30N R40E S36 T00U3

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		D	2	32	4.2	1,651	1,581	142			79	21			100		32	14	257	1.63	6.2
DF		D	3	47	2.1	2,364	2,315	208		100				3	97		32	9	109	0.74	21.3
DF		D	4	21	.9	1,016	1,007	90	67	33			28	41	31		23	5	30	0.32	33.1
DF	**Totals**			45	2.5	5,031	4,903	440	14	54	26	7	6	10	84		27	7	81	0.65	60.6
PP		D	4	44	1.4	1,783	1,758	158			82	18			100		32	13	239	1.49	7.4
PP		D	5	56	3.1	2,236	2,166	194		100			17	20	63		25	8	63	0.58	34.2
PP	**Totals**			36	2.3	4,018	3,924	352		55	37	8	10	11	80		26	9	94	0.78	41.6
WL		D	2	24	5.5	309	292	26			100				100		32	12	170	1.18	1.7
WL		D	3	60	1.3	715	706	63		100					100		32	9	108	0.73	6.6
WL		D	4	16		182	182	16	100				20	55	25		22	5	21	0.24	8.6
WL	**Totals**			11	2.2	1,206	1,180	106	15	60	25		3	8	88		27	7	70	0.58	16.9
LP		D	3	81	6.2	810	760	68		100					100		32	9	96	0.68	7.9
LP		D	4	19		171	171	15	100				33	19	48		23	5	31	0.30	5.5
LP	**Totals**			9	5.1	980	930	83	18	82			6	4	90		28	7	69	0.55	13.5
Type Totals					2.7	11,236	10,937	981	9	57	27	6	7	10	83		27	8	83	0.67	132.6

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

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T30N R40E S36 T00U4

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
30N	40E	36	OLDSPRING	00U4	98.10	59	46	S	E

T30N R40E S36 T00U4

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		D	2	50	4.2	4,403	4,219	414			91	9			100		32	14	263	1.98	16.0
DF		D	3	35	3.5	3,100	2,991	293		100				7	93		32	8	103	0.75	29.0
DF		D	4	15		1,217	1,217	119	42	58			21	5	74		26	6	39	0.35	31.0
DF	**Totals**			68	3.4	8,720	8,427	827	6	44	45	5	3	3	94		30	8	111	0.89	76.1
PP		D	4	61	.6	2,400	2,387	234			63	37		3	97		32	15	334	2.01	7.1
PP		D	5	39	2.2	1,534	1,500	147		100			9	11	80		25	7	65	0.62	23.0
PP	**Totals**			31	1.2	3,935	3,887	381		39	39	23	3	6	90		26	9	129	1.01	30.1
GF		D	3	47		55	55	5		100					100		32	9	110	0.68	.5
GF		D	4	53		60	60	6	65	35			58		42		17	5	20	0.32	3.0
GF	**Totals**			1		116	116	11	34	66			30		70		19	6	33	0.41	3.5
WL		D	4	100		26	26	3	100					100			24	5	20	0.29	1.3
WL	**Totals**			0		26	26	3	100					100			24	5	20	0.29	1.3
Type Totals					2.7	12,796	12,455	1,222	5	42	43	10	3	4	92		28	9	112	0.90	110.9

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Species, Sort Grade - Board Foot Volumes (Type)

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T30N R40E S36 T00U5

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
30N	40E	36	OLDSPRING	00U5	95.60	55	51	S	E

T30N R40E S36 T00U5

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		D	2	47	7.0	4,515	4,199	401			63	37			100		32	15	301	2.17	13.9
DF		D	3	42	2.6	3,891	3,791	362		100			1	6	93		31	8	101	0.74	37.5
DF		D	4	11		895	895	86	73	27			32	68			22	5	26	0.33	34.7
DF	**Totals**			78	4.5	9,300	8,885	849	7	45	30	18	4	9	87		28	8	103	0.88	86.2
PP		D	4	57	4.7	1,312	1,251	120			90	10			100		32	14	283	2.33	4.4
PP		D	5	43	3.7	976	940	90		100			13	4	83		24	7	63	0.60	14.9
PP	**Totals**			19	4.2	2,288	2,191	209		43	52	6	6	2	93		26	9	113	1.09	19.3
WL		D	3	75	12.5	119	104	10		100					100		32	7	58	0.50	1.8
WL		D	4	25		34	34	3	100				29	71			24	5	26	0.18	1.3
WL	**Totals**			1	9.7	152	138	13	24	76			7	17	76		29	6	45	0.39	3.1
LP		D	3	83	9.1	82	74	7		100					100		32	9	100	1.10	.7
LP		D	4	17		15	15	1	100				100				20	5	20	0.30	.7
LP	**Totals**			1	7.7	96	89	9	17	83			17		83		26	7	60	0.80	1.5
GF		D	3	100		29	29	3		100					100		32	6	50	0.71	.6
GF	**Totals**			0		29	29	3		100					100		32	6	50	0.71	.6
Type Totals					4.5	11,867	11,332	1,083	6	46	33	15	4	8	88		27	8	102	0.90	110.6

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Species, Sort Grade - Board Foot Volumes (Type)

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T30N R40E S36 T00U6

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
30N	40E	36	OLDSPRING	00U6	16.90	11	22	S	E

T30N R40E S36 T00U6

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		D	2	26	11.8	3,725	3,287	56			67	33			100		32	13	210	1.58	15.6
DF		D	3	61	5.2	7,834	7,424	125		100				3	97		32	8	91	0.68	81.7
DF		D	4	13		1,508	1,508	25	90	10			50	10	40		21	5	27	0.29	54.9
DF	**Totals**			92	6.5	13,068	12,219	206	11	62	18	9	6	3	91		28	8	80	0.68	152.2
PP		D	4	46		509	509	9			100				100		32	13	240	1.55	2.1
PP		D	5	54		585	585	10		100			4	26	71		25	7	48	0.47	12.1
PP	**Totals**			8		1,094	1,094	18		53	47		2	14	84		26	8	77	0.66	14.3
Type Totals					6.0	14,162	13,312	225	10	61	20	8	6	4	90		28	8	80	0.68	166.4

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Species, Sort Grade - Board Foot Volumes (Type)

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T29N R39E S12 T00U7

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
29N	39E	12	OLDSPRING	00U7	29.80	18	24	S	E

T29N R39E S12 T00U7

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		D	2	39	2.7	3,651	3,552	106			83	17			100		32	13	244	1.76	14.5
DF		D	3	46	1.3	4,156	4,104	122		100					100		32	8	87	0.57	47.2
DF		D	4	15	4.1	1,319	1,265	38	82	18			46	25	29		19	5	22	0.30	57.5
DF	**Totals**			51	2.2	9,126	8,921	266	12	49	33	7	6	4	90		26	7	75	0.66	119.3
PP		D	4	49		2,370	2,370	71			100				100		32	14	261	1.54	9.1
PP		D	5	51	1.9	2,477	2,429	72		100			11	21	68		26	7	66	0.61	37.0
PP	**Totals**			28	1.0	4,847	4,799	143		51	49		6	11	84		28	9	104	0.82	46.1
WL		D	2	19		574	574	17			100				100		32	13	210	1.45	2.7
WL		D	3	45		1,317	1,317	39		100					100		32	7	62	0.47	21.3
WL		D	4	36		1,024	1,024	31	100				22	78			23	5	27	0.20	37.9
WL	**Totals**			17		2,916	2,916	87	35	45	20		8	27	65		27	6	47	0.38	61.9
GF		D	2	100	24.5	747	564	17			30	70	30	70			21	17	185	2.21	3.0
GF	**Totals**			3	24.5	747	564	17			30	70	30	70			21	17	185	2.21	3.0
LP		D	3	78	11.8	190	168	5		100					100		32	11	150	1.12	1.1
LP		D	4	22	20.0	56	45	1	100						100		32	5	40	0.40	1.1
LP	**Totals**			1	13.6	246	213	6	21	79					100		32	8	95	0.76	2.2
Type Totals					2.6	17,882	17,413	519	12	47	35	6	7	12	81		26	7	75	0.63	232.5

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Species, Sort Grade - Board Foot Volumes (Type)

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T30N R40E S36 TROW9

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
30N	40E	36	OLDSPRING	ROW9	.10	2	6	S	E

T30N R40E S36 TROW9

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
PP		D	4	78	6.4	22,000	20,600	2			26	74			100		32	17	412	2.54	50.0
PP		D	5	22	3.5	5,700	5,500	1		100			18		82		23	9	92	0.86	60.0
PP	**Totals**			96	5.8	27,700	26,100	3		21	21	58	4		96		27	12	237	1.75	110.0
DF		D	3	75		900	900	0		100					100		32	8	90	0.64	10.0
DF		D	4	25		300	300	0	100					100			28	5	30	0.34	10.0
DF	**Totals**			4		1,200	1,200	0	25	75				25	75		30	7	60	0.50	20.0
Type Totals					5.5	28,900	27,300	3	1	23	20	56	4	1	95		28	11	210	1.55	130.0

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Species, Sort Grade - Board Foot Volumes (Type)

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T30N R40E S36 TRW10

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
30N	40E	36	OLDSPRING	RW10	.40	1	26	S	E

T30N R40E S36 TRW10

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		D	2	51	5.9	3,375	3,175	1			100				100		32	13	212	1.67	15.0
DF		D	3	40		2,450	2,450	1		100					100		32	8	98	0.63	25.0
DF		D	4	9	4.3	575	550	0	50	50			59		41		20	6	24	0.34	22.5
DF	**Totals**			51	3.5	6,400	6,175	2	4	44	51		5		95		28	8	99	0.85	62.5
PP		D	4	58		1,600	1,600	1			100				100		32	15	320	2.91	5.0
PP		D	5	42	22.4	1,450	1,125	0		100			7	11	82		28	9	90	0.84	12.5
PP	**Totals**			23	10.7	3,050	2,725	1		41	59		3	5	93		29	11	156	1.50	17.5
GF		D	2	64		1,650	1,650	1			100		12	30	58		26	13	165	1.41	10.0
GF		D	3	25		650	650	0		100					100		32	7	65	0.41	10.0
GF		D	4	11	8.3	300	275	0	36	64			36	27	36		23	6	28	0.35	10.0
GF	**Totals**			21	1.0	2,600	2,575	1	4	32	64		12	22	66		27	8	86	0.71	30.0
WL		D	3	76	13.6	550	475	0		100					100		32	9	95	0.63	5.0
WL		D	4	24		150	150	0	100				33		67		25	5	30	0.26	5.0
WL	**Totals**			5	10.7	700	625	0	24	76			8		92		29	7	63	0.47	10.0
Type Totals					5.1	12,750	12,100	5	4	43	53		6	6	88		28	9	101	0.88	120.0

TC PSPCTLTCM

Species Summary - Trees, Logs, Tons, CCF, MBF

T29N R39E S12 Ty00U7	29.8
T30N R40E S36 Ty00U1	11.9
T30N R40E S36 TyRW1	.4

Project OLDSPRIN
Acres 434.70

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Species	S T	Total Trees	Total Logs	Total Tons	Net Cubic Ft/ Tree	Net Cubic Ft/ Log	CF/ LF	Total CCF Gross	Total CCF Net	Total MBF Gross	Total MBF Net
DOUG FIR		15,502	29,438	18,145	41.07	21.63	0.80	6,367	6,367	2,849	2,742
P PINE		9,086	18,022	10,039	46.04	23.21	0.90	4,183	4,183	1,998	1,942
LP PINE		2,298	4,414	1,428	25.88	13.48	0.50	595	595	285	271
W LARCH		2,324	3,786	1,115	20.00	12.27	0.45	465	465	212	209
GR FIR		482	668	440	31.85	22.98	0.97	153	154	74	67
Totals		29,693	56,328	31,167	39.62	20.88	0.78	11,763	11,763	5,418	5,230

Wood Type Species	Total Trees	Total Logs	Total Tons	Net Cubic Ft/ Tree	Net Cubic Ft/ Log	CF/ LF	Total CCF Gross	Total CCF Net	Total MBF Gross	Total MBF Net
C	29,693	56,328	31,167	39.62	20.88	0.78	11,763	11,763	5,418	5,230
Totals	29,693	56,328	31,167	39.62	20.88	0.78	11,763	11,763	5,418	5,230

TC PLOGSTVB

Log Stock Table - MBF

T29N R39E S12 Ty00U7
THRU
T30N R40E S36 TyRW10

Project: OLDSPRIN
Acres 434.70

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Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
GF		D	2	12	5	8.3	5	7.5								5				
GF		D	2	14	0		0	.1						0						
GF		D	2	24	0		0	.3							0					
GF		D	2	30	17	29.7	12	17.7								12				
GF		D	2	32	31	5.7	29	44.2						0	12	17				
GF		D	3	32	13		13	19.4			3	10								
GF		D	4	12	1		1	2.1		1										
GF		D	4	16	2		2	3.1			2									
GF		D	4	20	0		0	.0			0									
GF		D	4	26	0		0	.0		0										
GF		D	4	28	1		1	1.6		1										
GF		D	4	32	3		3	3.8		2	0									
GF		Totals			74	9.8	67	1.3		5	5	10		0	12	34				
DF		D	2	32	1,236	5.5	1,168	42.6						478	345	221	123			
DF		D	3	18	2		2	.1					2							
DF		D	3	20	2		2	.1					2							
DF		D	3	24	7		7	.2			7									
DF		D	3	26	18		18	.6			4	5	9							
DF		D	3	28	17		17	.6			3	14								
DF		D	3	30	25		25	.9			15	9								
DF		D	3	32	1,145	2.9	1,112	40.6			267	277	568							
DF		D	4	12	13		13	.5		9	4	1								
DF		D	4	14	13		13	.5		6	6	1								
DF		D	4	16	30		30	1.1		24	5									
DF		D	4	18	28		28	1.0		25	3	1								
DF		D	4	20	36		36	1.3		19	15	2								
DF		D	4	24	58	5.2	55	2.0		14	29	12								
DF		D	4	26	10		10	.4		4	6									
DF		D	4	28	38		38	1.4		38										
DF		D	4	30	29		29	1.1		29										
DF		D	4	32	141	2.0	138	5.1		79	60									
DF		Totals			2,849	3.8	2,742	52.4		247	424	321	582	478	345	221	123			
PP		D	4	20	13		13	.7						13						
PP		D	4	26	7		7	.4						7						
PP		D	4	32	1,054	2.3	1,029	53.0						388	254	318	69			

TC PLOGSTVB

Log Stock Table - MBF

T29N R39E S12 Ty00U7
THRU
T30N R40E S36 TyRW10

Project: OLDSPRIN
Acres 434.70

Date 12/24/2019
Time 8:28:41AM

Spp	S T	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
PP		D	5	12	16		16	.8			15	1								
PP		D	5	14	7		7	.4			7									
PP		D	5	16	31	6.9	29	1.5			29									
PP		D	5	18	19		19	1.0			18	1								
PP		D	5	20	45		45	2.3			24	9	11							
PP		D	5	23	2		2	.1			2									
PP		D	5	24	87	1.6	85	4.4			24	35	27							
PP		D	5	26	28		28	1.5			16	7	6							
PP		D	5	28	24		24	1.2			22	2								
PP		D	5	30	24		24	1.3			24									
PP		D	5	32	640	4.4	612	31.5			95	234	283							
PP		Totals			1,998	2.8	1,942	37.1			276	289	327	409	254	318	69			
WL		D	2	32	45	3.4	43	20.7						43						
WL		D	3	32	115	2.0	113	54.0			42	32	38							
WL		D	4	12	1		1	.4	1											
WL		D	4	14	1		1	.4	1											
WL		D	4	16	7		7	3.2	7											
WL		D	4	18	2		2	.7	2											
WL		D	4	20	1		1	.5	1											
WL		D	4	24	12		12	5.5	12											
WL		D	4	26	20		20	9.4	20											
WL		D	4	28	6		6	3.1	6											
WL		D	4	32	4		4	2.0	4											
WL		Totals			212	1.8	209	4.0	53		42	32	38	43						
LP		D	2	32	16		16	6.0						16						
LP		D	3	30	1		1	.3			1									
LP		D	3	32	200	5.7	188	69.4			37	107	45							
LP		D	4	12	3		3	1.0	3											
LP		D	4	14	0		0	.1	0											
LP		D	4	16	4		4	1.4	4		0									
LP		D	4	18	9		9	3.2	9											
LP		D	4	20	6		6	2.1	4		2									
LP		D	4	24	10		10	3.5	3		7									
LP		D	4	26	7		7	2.5	6		1									
LP		D	4	28	3		3	1.2	1		2									

TC PLOGSTVB

Log Stock Table - MBF

T29N R39E S12 Ty00U7
THRU
T30N R40E S36 TyRW10

Project: OLDSPRIN
Acres 434.70

Date 12/24/2019
Time 8:28:41AM

Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
LP		D	4	30	2	8.3	2	.7		2										
LP		D	4	32	25	8.8	23	8.4		20		3								
LP		Totals			285	4.8	271	5.2		51		52		107		45		16		
Total		All Species			5,418	3.5	5,230	100.0		356		801		758		992		948		612		573		192		

STATISTICS

PROJECT OLDSPRIN

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	40E	36	OLDSPRIN	00U1	11.90	13	80	S	E

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	13	80	6.2		
CRUISE	12	80	6.7	1,465	5.5
DBH COUNT					
REFOREST					
COUNT					
BLANKS	1				
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
LP PINE	54	83.1	10.4	75	15.3	49.3	7,108	6,800	1,486	1,486
P PINE	12	18.5	14.6	59	5.6	21.5	2,262	2,062	542	542
DOUG FIR	12	18.5	12.3	70	4.3	15.2	1,923	1,892	424	424
GR FIR	2	3.1	9.0	57	0.5	1.4	92	92	29	29
TOTAL	*80*	*123.1*	*11.4*	*71*	*25.9*	*87.4*	*11,385*	*10,846*	*2,481*	*2,481*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % COEFF — **SAMPLE TREES - BF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
LP PINE			116	116	116			
P PINE	22.9	7.6	124	134	144			
DOUG FIR	50.6	16.8	102	123	144			
GR FIR								
TOTAL			*119*	*119*	*119*			

CL: 68.1 % COEFF — **SAMPLE TREES - CF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
LP PINE			25	25	25			
P PINE			35	35	35			
DOUG FIR	47.2	15.7	23	28	32			
GR FIR								
TOTAL			*27*	*27*	*27*			

CL: 68.1 % COEFF — **TREES/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
LP PINE	123.5	35.6	54	83	113			
P PINE	190.0	54.8	8	18	29			
DOUG FIR	162.3	46.8	10	18	27			
GR FIR	360.6	103.9		3	6			
TOTAL	*81.7*	*23.6*	*94*	*123*	*152*	*289*	*72*	*32*

CL: 68.1 % COEFF — **BASAL AREA/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
LP PINE	111.8	32.2	33	49	65			
P PINE	186.7	53.8	10	22	33			
DOUG FIR	207.7	59.9	6	15	24			
GR FIR	360.6	103.9		1	3			
TOTAL	*68.7*	*19.8*	*70*	*87*	*105*	*204*	*51*	*23*

CL: 68.1 % COEFF — **NET BF/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
LP PINE	111.7	32.2	4,611	6,800	8,989			
P PINE	164.5	47.4	1,084	2,062	3,039			
DOUG FIR	227.7	65.6	650	1,892	3,134			
GR FIR	360.6	103.9		92	188			
TOTAL	*74.2*	*21.4*	*8,526*	*10,846*	*13,167*	*238*	*60*	*26*

STATISTICS

PROJECT **OLDSPRIN**

DATE 12/24/2019

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	**40E**	**36**	**OLDSPRIN**	**00U1**	11.90	13	80	S	E

CL: 68.1 % COEFF VAR. S.E.% — **NET CUFT FT/ACRE** — # OF PLOTS REQ. 5 10 — INF. POP. 15

SD: 1.0

CL: 68.1 % COEFF VAR.% S.E.% — **NET CUFT FT/ACRE** — # OF PLOTS REQ. 5 10 — INF. POP. 15

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH
LP PINE	110.4	31.8	1,013	1,486	1,959
P PINE	175.9	50.7	267	542	816
DOUG FIR	224.6	64.8	149	424	699
GR FIR	360.6	103.9		29	60
TOTAL	*70.0*	*20.2*	*1,980*	*2,481*	*2,982*

CL: 68.1 % COEFF VAR.% S.E.% — **TONS/ACRE** — # OF PLOTS REQ. 5 10 — INF. POP. 15

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH
LP PINE	110.4	31.8	24	36	47
P PINE	175.9	50.7	6	13	20
DOUG FIR	224.6	64.8	4	12	20
GR FIR	360.6	103.9		1	2
TOTAL	*71.4*	*20.6*	*49*	*62*	*74*

CL: 68.1 % COEFF VAR.% S.E.% — **V-BAR/ACRE** — # OF PLOTS REQ. 5 10 — INF. POP. 15

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH
LP PINE	122.8	35.4	94	138	182
P PINE	161.8	46.6	50	96	141
DOUG FIR	189.8	54.7	43	124	206
GR FIR	360.6	103.9		68	138
TOTAL	*87.1*	*25.1*	*98*	*124*	*151*

STATISTICS

PROJECT OLDSPRIN

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	40E	36	OLDSPRIN	00U2	92.20	50	203	S	E

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	50	203	4.1		
CRUISE	32	53	1.7	5,070	1.0
DBH COUNT					
REFOREST					
COUNT	15	45	3.0		
BLANKS	3				
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
P PINE	43	39.9	17.0	68	15.2	62.8	9,098	8,780	1,839	1,839
DOUG FIR	5	9.2	15.2	69	3.0	11.6	1,464	1,395	343	343
LP PINE	4	5.4	13.3	92	1.4	5.2	1,039	997	199	199
GR FIR	1	.5	24.6	102	0.3	1.6	383	364	72	72
TOTAL	*53*	*55.0*	*16.5*	*70*	*20.0*	*81.2*	*11,984*	*11,536*	*2,453*	*2,453*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % COEFF — **SAMPLE TREES - BF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
P PINE	83.5	12.7	308	353	398			
DOUG FIR	66.9	33.2	131	196	261			
LP PINE	38.4	22.0	154	198	241			
GR FIR								
TOTAL	*84.1*	*11.5*	*296*	*334*	*373*	*282*	*71*	*31*

CL: 68.1 % COEFF — **SAMPLE TREES - CF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
P PINE	72.8	11.1	63	70	78			
DOUG FIR	55.7	27.7	33	46	59			
LP PINE	32.3	18.5	32	39	46			
GR FIR								
TOTAL	*73.2*	*10.0*	*60*	*67*	*74*	*214*	*54*	*24*

CL: 68.1 % COEFF — **TREES/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
P PINE	32.5	4.6	38	40	42			
DOUG FIR	189.4	26.8	7	9	12			
LP PINE	319.2	45.1	3	5	8			
GR FIR	555.6	78.5	0	0	1			
TOTAL	*18.5*	*2.6*	*54*	*55*	*56*	*14*	*3*	*2*

CL: 68.1 % COEFF — **BASAL AREA/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
P PINE	21.3	3.0	61	63	65			
DOUG FIR	187.9	26.5	9	12	15			
LP PINE	318.6	45.0	3	5	8			
GR FIR	555.6	78.5	0	2	3			
TOTAL			*81*	*81*	*81*			

CL: 68.1 % COEFF — **NET BF/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
P PINE	26.4	3.7	8,453	8,780	9,108			
DOUG FIR	188.5	26.6	1,023	1,395	1,767			
LP PINE	319.5	45.1	547	997	1,447			
GR FIR	555.6	78.5	78	364	649			
TOTAL			*11,536*	*11,536*	*11,536*			

STATISTICS

PROJECT OLDSPRIN

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	40E	36	OLDSPRIN	00U2	92.20	50	203	S	E

CL: 68.1 % COEFF VAR. S.E.% — **NET CUFT FT/ACRE** — # OF PLOTS REQ. 5 10 — INF. POP. 15
SD: 1.0

CL: 68.1 % COEFF VAR.% S.E.% — **NET CUFT FT/ACRE** — # OF PLOTS REQ. 5 10 — INF. POP. 15
SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH
P PINE	24.5	3.5	1,776	1,839	1,903
DOUG FIR	188.0	26.6	252	343	434
LP PINE	318.9	45.1	109	199	288
GR FIR	555.6	78.5	16	72	129
TOTAL			*2,453*	*2,453*	*2,453*

CL: 68.1 % COEFF VAR.% S.E.% — **TONS/ACRE** — # OF PLOTS REQ. 5 10 — INF. POP. 15
SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
P PINE	24.5	3.5	43	44	46			
DOUG FIR	188.0	26.6	7	10	12			
LP PINE	318.9	45.1	3	5	7			
GR FIR	555.6	78.5	0	2	4			
TOTAL	*4.3*	*.6*	*60*	*61*	*61*	*1*	*0*	*0*

CL: 68.1 % COEFF VAR.% S.E.% — **V-BAR/ACRE** — # OF PLOTS REQ. 5 10 — INF. POP. 15
SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
P PINE			135	140	145			
DOUG FIR			88	120	152			
LP PINE	120.5	17.0	105	192	278			
GR FIR	147.3	20.8	49	227	406			
TOTAL	*366.8*	*51.8*	*142*	*142*	*142*	*5,373*	*1,343*	*597*

STATISTICS

PROJECT OLDSPRIN

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	40E	36	OLDSPRING	00U3	89.70	46	176	S	E

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	46	176	3.8		
CRUISE	32	57	1.8	6,018	.9
DBH COUNT					
REFOREST					
COUNT	13	28	2.2		
BLANKS	1				
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	24	31.6	13.9	76	9.0	33.5	5,031	4,903	1,064	1,064
P PINE	22	17.9	16.9	70	6.8	27.8	4,018	3,924	837	837
W LARCH	6	9.6	12.6	78	2.3	8.3	1,206	1,180	264	264
LP PINE	5	7.9	12.7	74	2.0	7.0	980	930	211	211
TOTAL	*57*	*67.1*	*14.5*	*74*	*20.1*	*76.5*	*11,236*	*10,937*	*2,377*	*2,376*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % COEFF — **SAMPLE TREES - BF** — # OF TREES REQ. — INF. POP.

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	73.8	15.4	204	241	278			
P PINE	59.7	13.0	244	281	317			
W LARCH	47.3	21.1	158	200	242			
LP PINE	32.5	16.2	106	126	146			
TOTAL	*67.2*	*8.9*	*220*	*242*	*263*	*180*	*45*	*20*

CL: 68.1 % COEFF — **SAMPLE TREES - CF** — # OF TREES REQ. — INF. POP.

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	69.2	14.4	44	51	58			
P PINE	51.1	11.1	52	59	65			
W LARCH	45.9	20.4	35	44	54			
LP PINE	31.2	15.5	24	29	33			
TOTAL	*60.4*	*8.0*	*47*	*51*	*55*	*146*	*36*	*16*

CL: 68.1 % COEFF — **TREES/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	77.6	11.4	28	32	35			
P PINE	83.6	12.3	16	18	20			
W LARCH	212.2	31.3	7	10	13			
LP PINE	175.8	25.9	6	8	10			
TOTAL			*67*	*67*	*67*			

CL: 68.1 % COEFF — **BASAL AREA/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	76.7	11.3	30	33	37			
P PINE	76.5	11.3	25	28	31			
W LARCH	194.9	28.7	6	8	11			
LP PINE	173.7	25.6	5	7	9			
TOTAL			*77*	*77*	*77*			

CL: 68.1 % COEFF — **NET BF/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	78.1	11.5	4,339	4,903	5,467			
P PINE	77.4	11.4	3,476	3,924	4,371			
W LARCH	196.1	28.9	839	1,180	1,521			
LP PINE	174.9	25.8	690	930	1,170			
TOTAL			*10,937*	*10,937*	*10,937*			

STATISTICS

PROJECT OLDSPRIN

DATE 12/24/2019

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	**40E**	**36**	**OLDSPRING**	**00U3**	89.70	46	176	S	E

CL: 68.1 % COEFF

SD: 1.0 VAR.

NET CUFT FT/ACRE

S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15

CL: 68.1 % COEFF

SD: 1.0 VAR.%

NET CUFT FT/ACRE

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	77.7	11.4	942	1,064	1,185			
P PINE	76.5	11.3	743	837	932			
W LARCH	195.8	28.8	188	264	340			
LP PINE	174.1	25.6	157	211	265			
TOTAL			*2,376*	*2,376*	*2,376*			

CL: 68.1 % COEFF

SD: 1.0 VAR.%

TONS/ACRE

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	77.7	11.4	27	30	34			
P PINE	76.5	11.3	18	20	22			
W LARCH	195.8	28.8	5	6	8			
LP PINE	174.1	25.6	4	5	6			
TOTAL			*62*	*62*	*62*			

CL: 68.1 % COEFF

SD: 1.0 VAR.%

V-BAR/ACRE

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR			130	146	163			
P PINE			125	141	157			
W LARCH			102	143	184			
LP PINE			99	134	168			
TOTAL	*273.5*	*40.3*	*143*	*143*	*143*	*2,987*	*747*	*332*

STATISTICS

PROJECT OLDSPRIN

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	40E	36	OLDSPRING	00U4	98.10	59	184	S	E

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	59	184	3.1		
CRUISE	26	46	1.8	5,896	.8
DBH COUNT					
REFOREST					
COUNT	28	73	2.6		
BLANKS	5				
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	24	39.1	16.5	74	14.3	57.9	8,720	8,427	1,992	1,992
P PINE	18	16.8	17.1	56	6.5	26.8	3,935	3,887	804	804
GR FIR	3	3.0	9.4	51	0.5	1.4	116	116	27	27
W LARCH	1	1.3	8.2	56	0.2	.5	26	26	9	9
TOTAL	*46*	*60.1*	*16.3*	*68*	*21.5*	*86.6*	*12,796*	*12,455*	*2,832*	*2,832*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % COEFF — **SAMPLE TREES - BF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	68.9	14.3	307	358	410			
P PINE	71.6	17.9	395	481	567			
GR FIR	132.4	91.6	5	63	121			
W LARCH								
TOTAL	*79.1*	*11.8*	*333*	*378*	*422*	*250*	*63*	*28*

CL: 68.1 % COEFF — **SAMPLE TREES - CF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	66.5	13.9	73	85	96			
P PINE	61.5	15.4	80	95	109			
GR FIR	113.2	78.3	3	13	24			
W LARCH								
TOTAL	*71.3*	*10.6*	*73*	*82*	*91*	*203*	*51*	*23*

CL: 68.1 % COEFF — **TREES/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	68.7	8.9	36	39	43			
P PINE	118.2	15.4	14	17	19			
GR FIR	648.3	84.3	0	3	5			
W LARCH	768.1	99.9	0	1	3			
TOTAL	*31.3*	*4.1*	*58*	*60*	*63*	*39*	*10*	*4*

CL: 68.1 % COEFF — **BASAL AREA/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	61.3	8.0	53	58	63			
P PINE	108.7	14.1	23	27	31			
GR FIR	568.6	74.0	0	1	2			
W LARCH	768.1	99.9	0	0	1			
TOTAL			*87*	*87*	*87*			

CL: 68.1 % COEFF — **NET BF/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	63.8	8.3	7,728	8,427	9,125			
P PINE	112.8	14.7	3,316	3,887	4,457			
GR FIR	579.7	75.4	28	116	203			
W LARCH	768.1	99.9	0	26	51			
TOTAL	*12.0*	*1.6*	*12,260*	*12,455*	*12,649*	*6*	*1*	*1*

STATISTICS

PROJECT **OLDSPRIN** DATE 12/24/2019

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	**40E**	**36**	**OLDSPRING**	**00U4**	98.10	59	184	S	E

CL: 68.1 % COEFF **NET CUFT FT/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.0 VAR. S.E.% LOW AVG HIGH 5 10 15

CL: 68.1 % COEFF **NET CUFT FT/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.0 VAR.% S.E.% LOW AVG HIGH 5 10 15

DOUG FIR	62.4	8.1	1,830	1,992	2,154			
P PINE	111.2	14.5	688	804	920			
GR FIR	546.3	71.1	8	27	46			
W LARCH	768.1	99.9	0	9	18			
TOTAL	*10.3*	*1.3*	*2,794*	*2,832*	*2,870*	*4*	*1*	*0*

CL: 68.1 % COEFF **TONS/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.0 VAR.% S.E.% LOW AVG HIGH 5 10 15

DOUG FIR	62.4	8.1	52	57	61			
P PINE	111.2	14.5	17	19	22			
GR FIR	546.3	71.1	0	1	1			
W LARCH	768.1	99.9	0	0	0			
TOTAL	*16.6*	*2.2*	*75*	*77*	*79*	*11*	*3*	*1*

CL: 68.1 % COEFF **V-BAR/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.0 VAR.% S.E.% LOW AVG HIGH 5 10 15

DOUG FIR			133	146	158			
P PINE			124	145	166			
GR FIR	579.7	75.4	20	82	144			
W LARCH	768.1	99.9	0	55	109			
TOTAL	*407.6*	*53.0*	*142*	*144*	*146*	*6,633*	*1,658*	*737*

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STATISTICS

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PROJECT OLDSPRIN

DATE 12/24/2019

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	**40E**	**36**	**OLDSPRING**	**00U5**	95.60	55	173	S	E

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	55	173	3.1		
CRUISE	31	51	1.6	5,706	.9
DBH COUNT					
REFOREST					
COUNT	20	54	2.7		
BLANKS	4				
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	33	45.3	16.2	70	16.1	64.7	9,300	8,885	2,092	2,092
P PINE	14	11.8	17.7	58	4.8	20.2	2,288	2,191	547	547
W LARCH	2	1.3	12.0	105	0.3	1.0	152	138	34	34
LP PINE	1	.7	15.8	70	0.3	1.0	96	89	31	31
GR FIR	1	.6	12.6	69	0.1	.5	29	29	13	13
TOTAL	*51*	*59.7*	*16.4*	*68*	*21.6*	*87.4*	*11,867*	*11,332*	*2,716*	*2,716*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % COEFF — **SAMPLE TREES - BF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	88.5	15.4	308	364	420			
P PINE	71.6	19.8	277	345	413			
W LARCH	43.0	40.3	69	115	161			
LP PINE								
GR FIR								
TOTAL	*87.4*	*12.2*	*297*	*338*	*379*	*305*	*76*	*34*

CL: 68.1 % COEFF — **SAMPLE TREES - CF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	76.5	13.3	71	82	93			
P PINE	62.6	17.3	71	86	101			
W LARCH	52.9	49.5	15	29	43			
LP PINE								
GR FIR								
TOTAL	*74.7*	*10.5*	*71*	*79*	*87*	*223*	*56*	*25*

CL: 68.1 % COEFF — **TREES/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	47.8	6.4	42	45	48			
P PINE	150.0	20.2	9	12	14			
W LARCH	534.0	71.9	0	1	2			
LP PINE	519.5	70.0	0	1	1			
GR FIR	741.6	99.9	0	1	1			
TOTAL			*60*	*60*	*60*			

CL: 68.1 % COEFF — **BASAL AREA/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	43.8	5.9	61	65	68			
P PINE	133.5	18.0	17	20	24			
W LARCH	519.5	70.0	0	1	2			
LP PINE	519.5	70.0	0	1	2			
GR FIR	741.6	99.9	0	1	1			
TOTAL			*87*	*87*	*87*			

CL: 68.1 % COEFF — **NET BF/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	46.9	6.3	8,324	8,885	9,446			
P PINE	132.5	17.9	1,800	2,191	2,583			

STATISTICS

PROJECT **OLDSPRIN** DATE 12/24/2019

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	**40E**	**36**	**OLDSPRING**	**00U5**	95.60	55	173	S	E

CL: 68.1 % COEFF **NET BF/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.0

	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
W LARCH	521.1	70.2	41	138	234			
LP PINE	519.5	70.0	27	89	151			
GR FIR	741.6	99.9	0	29	58			
TOTAL	*12.9*	*1.7*	*11,135*	*11,332*	*11,529*	*7*	*2*	*1*

CL: 68.1 % COEFF **NET CUFT FT/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	45.9	6.2	1,963	2,092	2,221			
P PINE	132.9	17.9	449	547	644			
W LARCH	525.9	70.8	10	34	58			
LP PINE	519.5	70.0	9	31	52			
GR FIR	741.6	99.9	0	13	27			
TOTAL	*4.8*	*.6*	*2,699*	*2,716*	*2,734*	*1*	*0*	*0*

CL: 68.1 % COEFF **TONS/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	45.9	6.2	56	60	63			
P PINE	132.9	17.9	11	13	15			
W LARCH	525.9	70.8	0	1	1			
LP PINE	519.5	70.0	0	1	1			
GR FIR	741.6	99.9	0	0	1			
TOTAL	*11.0*	*1.5*	*74*	*75*	*76*	*5*	*1*	*1*

CL: 68.1 % COEFF **V-BAR/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR			129	137	146			
P PINE			89	108	128			
W LARCH	521.1	70.2	41	136	232			
LP PINE	360.4	48.5	26	88	150			
GR FIR	741.6	99.9	0	58	115			
TOTAL	*338.0*	*45.5*	*127*	*130*	*132*	*4,561*	*1,140*	*507*

STATISTICS

PROJECT OLDSPRIN

DATE 12/24/2019

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	40E	36	OLDSPRING	00U6	16.90	11	40	S	E

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	11	40	3.6		
CRUISE	10	22	2.2	1,468	1.5
DBH COUNT					
REFOREST					
COUNT	1	2	2.0		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	18	76.8	14.7	73	23.7	90.9	13,068	12,219	2,879	2,881
P PINE	4	10.0	13.6	47	2.7	10.1	1,094	1,094	248	248
TOTAL	*22*	*86.9*	*14.6*	*70*	*26.4*	*101.0*	*14,162*	*13,312*	*3,128*	*3,129*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 % COEFF — **SAMPLE TREES - BF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	67.3	16.3	181	216	251			
P PINE	51.3	35.5	172	267	361			
TOTAL	*63.6*	*14.2*	*192*	*223*	*255*	*170*	*42*	*19*

CL: 68.1 % COEFF — **SAMPLE TREES - CF** — # OF TREES REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	64.0	15.5	43	51	59			
P PINE	42.8	29.6	40	57	74			
TOTAL	*60.0*	*13.4*	*45*	*52*	*59*	*151*	*38*	*17*

CL: 68.1 % COEFF — **TREES/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR			77	77	77			
P PINE	263.8	83.3	2	10	18			
TOTAL			*87*	*87*	*87*			

CL: 68.1 % COEFF — **BASAL AREA/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR			91	91	91			
P PINE	222.5	70.3	3	10	17			
TOTAL			*101*	*101*	*101*			

CL: 68.1 % COEFF — **NET BF/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR			12,219	12,219	12,219			
P PINE	239.2	75.6	267	1,094	1,920			
TOTAL			*13,312*	*13,312*	*13,312*			

CL: 68.1 % COEFF — **NET CUFT FT/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR			2,881	2,881	2,881			
P PINE	230.9	72.9	67	248	430			
TOTAL			*3,129*	*3,129*	*3,129*			

CL: 68.1 % COEFF — **TONS/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR			82	82	82			
P PINE	230.9	72.9	2	6	10			
TOTAL			*88*	*88*	*88*			

CL: 68.1 % COEFF — **V-BAR/ACRE** — # OF PLOTS REQ. — INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15

STATISTICS

PROJECT **OLDSPRIN** DATE 12/24/2019

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	**40E**	**36**	**OLDSPRING**	**00U6**	16.90	11	40	S	E

CL: 68.1 %
SD: 1.0

	COEFF VAR.	S.E.%	V-BAR/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR			134	134	134			
P PINE	239.2	75.6	26	108	190			
TOTAL	*134.3*	*42.4*	*132*	*132*	*132*	*793*	*198*	*88*

STATISTICS

PROJECT OLDSPRIN

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
29N	39E	12	OLDSPRING	00U7	29.80	18	85	S	E

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	18	85	4.7		
CRUISE	15	24	1.6	4,039	.6
DBH COUNT					
REFOREST					
COUNT	3	7	2.3		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	12	71.3	13.2	66	18.7	67.9	9,126	8,921	2,011	2,011
P PINE	6	20.9	17.2	69	8.2	34.0	4,847	4,799	1,040	1,040
W LARCH	4	40.6	10.2	70	7.2	23.2	2,916	2,916	625	625
GR FIR	1	1.5	23.6	44	1.0	4.6	747	564	141	141
LP PINE	1	1.1	15.9	82	0.4	1.5	246	213	54	54
TOTAL	*24*	*135.5*	*13.3*	*68*	*35.9*	*131.2*	*17,882*	*17,413*	*3,871*	*3,871*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

SAMPLE TREES - BF

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	78.9	23.8	178	233	289			
P PINE	71.7	31.9	199	292	385			
W LARCH	96.1	54.9	56	125	194			
GR FIR								
LP PINE								
TOTAL	*75.8*	*15.8*	*197*	*234*	*271*	*240*	*60*	*27*

SAMPLE TREES - CF

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	74.6	22.5	41	52	64			
P PINE	55.4	24.7	45	60	75			
W LARCH	96.1	54.9	12	27	43			
GR FIR								
LP PINE								
TOTAL	*68.6*	*14.3*	*44*	*52*	*59*	*196*	*49*	*22*

TREES/ACRE

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	33.9	8.2	65	71	77			
P PINE	97.0	23.5	16	21	26			
W LARCH	123.3	29.9	28	41	53			
GR FIR	308.7	74.8	0	2	3			
LP PINE	424.3	102.8		1	2			
TOTAL			*136*	*136*	*136*			

BASAL AREA/ACRE

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	28.8	7.0	63	68	73			
P PINE	95.4	23.1	26	34	42			
W LARCH	118.2	28.6	17	23	30			
GR FIR	308.7	74.8	1	5	8			
LP PINE	424.3	102.8		2	3			
TOTAL			*131*	*131*	*131*			

NET BF/ACRE

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15

STATISTICS

PROJECT **OLDSPRIN** DATE 12/24/2019

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
29N	**39E**	**12**	**OLDSPRING**	**00U7**	29.80	18	85	S	E

CL: 68.1 % COEFF **NET BF/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.0 VAR. S.E.% LOW AVG HIGH 5 10 15

DOUG FIR	36.6	8.9	8,129	8,921	9,713			
P PINE	96.7	23.4	3,675	4,799	5,924			
W LARCH	118.4	28.7	2,079	2,916	3,753			
GR FIR	308.7	74.8	142	564	986			
LP PINE	424.3	102.8		213	431			
TOTAL			*17,413*	*17,413*	*17,413*			

CL: 68.1 % COEFF **NET CUFT FT/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.0 VAR.% S.E.% LOW AVG HIGH 5 10 15

DOUG FIR	33.5	8.1	1,848	2,011	2,175			
P PINE	95.7	23.2	799	1,040	1,281			
W LARCH	118.8	28.8	445	625	805			
GR FIR	308.7	74.8	36	141	247			
LP PINE	424.3	102.8		54	110			
TOTAL			*3,871*	*3,871*	*3,871*			

CL: 68.1 % COEFF **TONS/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.0 VAR.% S.E.% LOW AVG HIGH 5 10 15

DOUG FIR	33.5	8.1	53	57	62			
P PINE	95.7	23.2	19	25	31			
W LARCH	118.8	28.8	11	15	19			
GR FIR	308.7	74.8	1	4	7			
LP PINE	424.3	102.8		1	3			
TOTAL			*103*	*103*	*103*			

CL: 68.1 % COEFF **V-BAR/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.0 VAR.% S.E.% LOW AVG HIGH 5 10 15

DOUG FIR			120	131	143			
P PINE			108	141	174			
W LARCH			90	126	162			
GR FIR	102.9	24.9	31	122	213			
LP PINE	424.3	102.8		138	279			
TOTAL	*306.7*	*74.3*	*133*	*133*	*133*	*3,976*	*994*	*442*

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STATISTICS

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PROJECT OLDSPRIN

DATE 12/24/2019

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	**40E**	**36**	**OLDSPRING**	**ROW9**	0.10	2	6	S	E

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	2	6	3.0		
CRUISE	2	6	3.0	6	100.0
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
P PINE	4	40.0	27.5	79	31.4	164.7	27,700	26,100	5,263	5,263
DOUG FIR	2	20.0	11.3	51	4.1	13.8	1,200	1,200	299	299
TOTAL	*6*	*60.0*	*23.4*	*70*	*36.9*	*178.5*	*28,900*	*27,300*	*5,562*	*5,562*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 %	COEFF		**SAMPLE TREES - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
P PINE	51.3	29.3	461	653	844			
DOUG FIR	70.7	66.2	20	60	100			
TOTAL	*88.2*	*39.3*	*276*	*455*	*634*	*370*	*93*	*41*

CL: 68.1 %	COEFF		**SAMPLE TREES - CF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
P PINE	39.9	22.8	102	132	162			
DOUG FIR	51.1	47.8	8	15	22			
TOTAL	*78.5*	*35.0*	*60*	*93*	*125*	*293*	*73*	*33*

CL: 68.1 %	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
P PINE			40	40	40			
DOUG FIR	141.4	132.4		20	46			
TOTAL	*47.1*	*44.1*	*34*	*60*	*86*	*156*	*39*	*17*

CL: 68.1 %	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
P PINE	18.0	16.9	137	165	193			
DOUG FIR	141.4	132.4		14	32			
TOTAL	*5.7*	*5.3*	*169*	*179*	*188*	*2*	*1*	*0*

CL: 68.1 %	COEFF		**NET BF/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
P PINE	9.2	8.6	23,849	26,100	28,351			
DOUG FIR	141.4	132.4		1,200	2,789			
TOTAL	*15.0*	*14.1*	*23,460*	*27,300*	*31,140*	*16*	*4*	*2*

CL: 68.1 %	COEFF		**NET CUFT FT/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
P PINE	7.1	6.6	4,914	5,263	5,613			
DOUG FIR	141.4	132.4		299	694			
TOTAL	*.9*	*.8*	*5,516*	*5,562*	*5,609*	*0*	*0*	*0*

CL: 68.1 %	COEFF		**TONS/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
P PINE	7.1	6.6	118	126	135			
DOUG FIR	141.4	132.4		9	20			
TOTAL	*2.3*	*2.1*	*132*	*135*	*138*	*0*	*0*	*0*

CL: 68.1 %	COEFF		**V-BAR/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15

STATISTICS

PROJECT **OLDSPRIN** DATE 12/24/2019

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	**40E**	**36**	**OLDSPRING**	**ROW9**	0.10	2	6	S	E

CL: 68.1 % COEFF **V-BAR/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.0 VAR. S.E.% LOW AVG HIGH 5 10 15

P PINE	19.7	18.4	145	158	172			
DOUG FIR	141.4	132.4		87	202			
TOTAL	*44.8*	*41.9*	*131*	*153*	*174*	*141*	*35*	*16*

TC TSTATS

STATISTICS

PAGE 1

PROJECT OLDSPRIN

DATE 12/24/2019

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
30N	**40E**	**36**	**OLDSPRING**	**RW10**	0.40	1	26	S	E

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	1	26	26.0		
CRUISE	1	26	26.0	26	100.0
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	11	27.5	16.8	81	10.3	42.3	6,400	6,175	1,454	1,454
P PINE	3	7.5	24.6	81	5.0	24.8	3,050	2,725	755	755
GR FIR	10	25.0	13.5	61	6.8	24.8	2,600	2,575	568	568
W LARCH	2	5.0	11.6	91	1.1	3.7	700	625	133	133
TOTAL	*26*	*65.0*	*16.4*	*74*	*23.6*	*95.7*	*12,750*	*12,100*	*2,910*	*2,910*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 %

SD: 1.0

SAMPLE TREES - BF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	63.9	20.2	179	225	270			
P PINE	66.1	45.7	197	363	529			
GR FIR	108.6	36.1	66	103	140			
W LARCH	96.2	90.0	12	125	238			
TOTAL	*85.6*	*17.1*	*154*	*186*	*218*	*305*	*76*	*34*

CL: 68.1 %

SD: 1.0

SAMPLE TREES - CF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	63.5	20.0	42	53	63			
P PINE	53.2	36.8	64	101	138			
GR FIR	106.7	35.5	15	23	31			
W LARCH	92.1	86.2	4	27	49			
TOTAL	*87.7*	*17.5*	*37*	*45*	*53*	*320*	*80*	*36*

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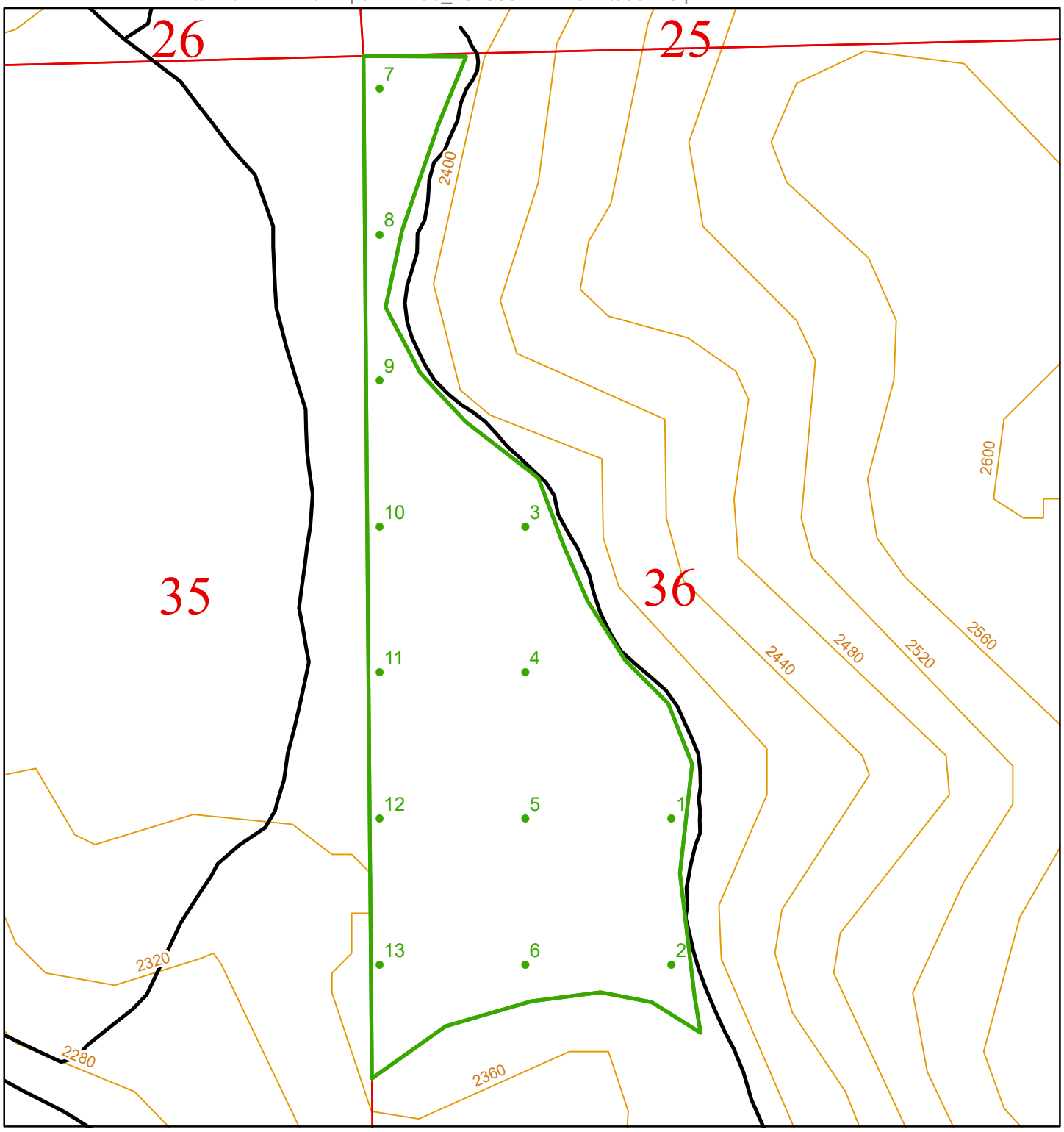

FMA POLYGON AND SAMPLE POINT INFORMATION

FMA_NM:	OLD SPRINGDALE U1	Township:	T30R40E
FMA_ID:	306278	DNR Region:	NORTHEAST
Acres:	12	Total Sample Points:	13
County:	STEVENS	Spacing Between Points:	250
		Point Rotation Degrees:	0

D: Deleted Plot
WT: Walkthrough Plot

N

0 80 160 320 480 640 Feet

Scale 1:2,900

Legend
- Sample Points
- FMA polys
- Public Land Survey Sections
- Contours 40-foot

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Hilary Franz, Commissioner of Public Lands

Jun 12, 2019 11:14 AM

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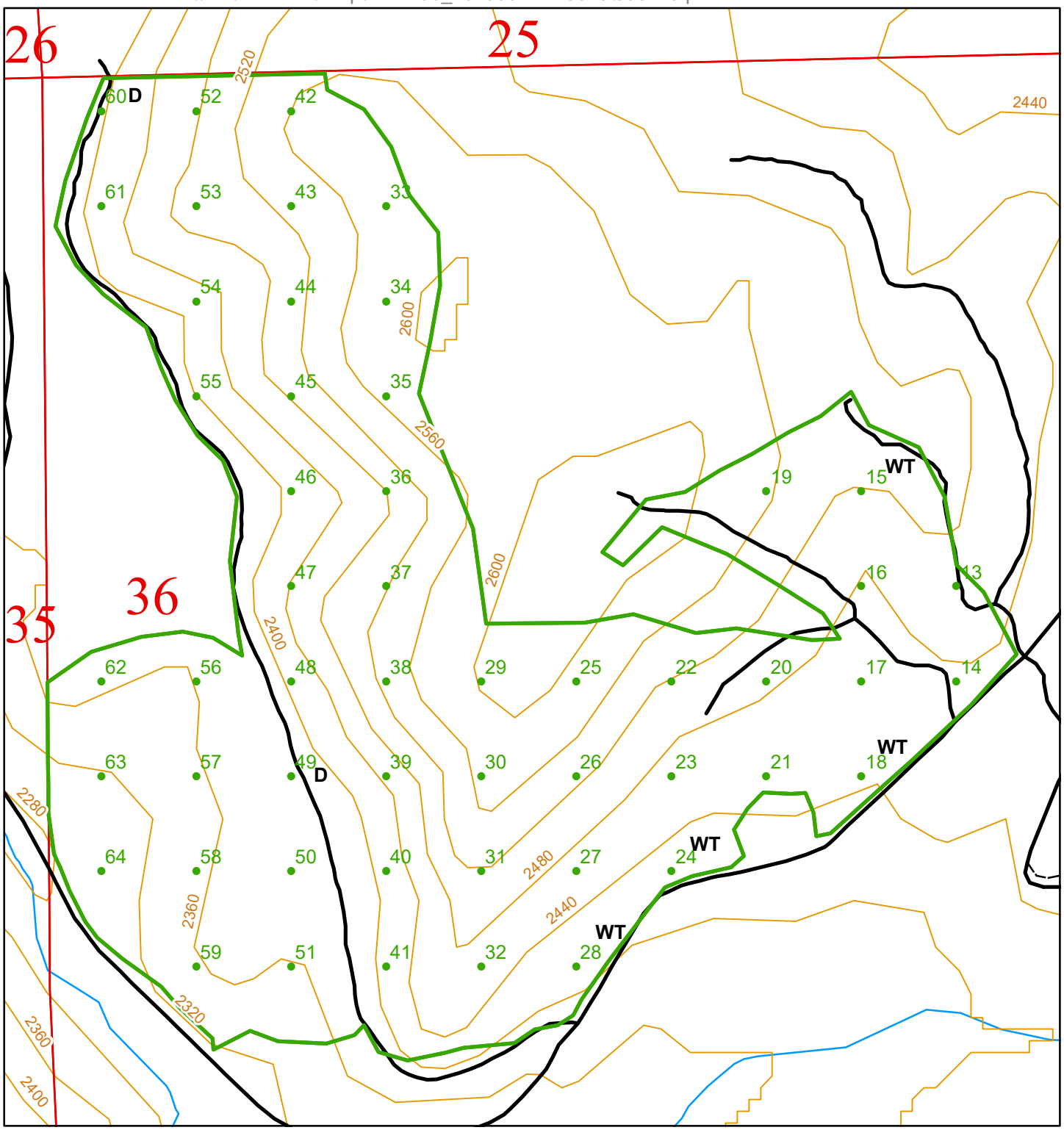

FMA POLYGON AND SAMPLE POINT INFORMATION

FMA_NM:	OLD SPRINGDALE U2	Township:	T30R40E
FMA_ID:	306279	DNR Region:	NORTHEAST
Acres:	94	Total Sample Points:	52
County:	STEVENS	Spacing Between Points:	Width: 275 Height: 275
		Point Rotation Degrees:	0

D: Deleted Plot
WT: Walkthrough Plot

N

0 140 280 560 840 1,120 Feet

Scale 1:4,900

Legend
- Sample Points
- FMA polys
- Public Land Survey Sections
- Contours 40-foot

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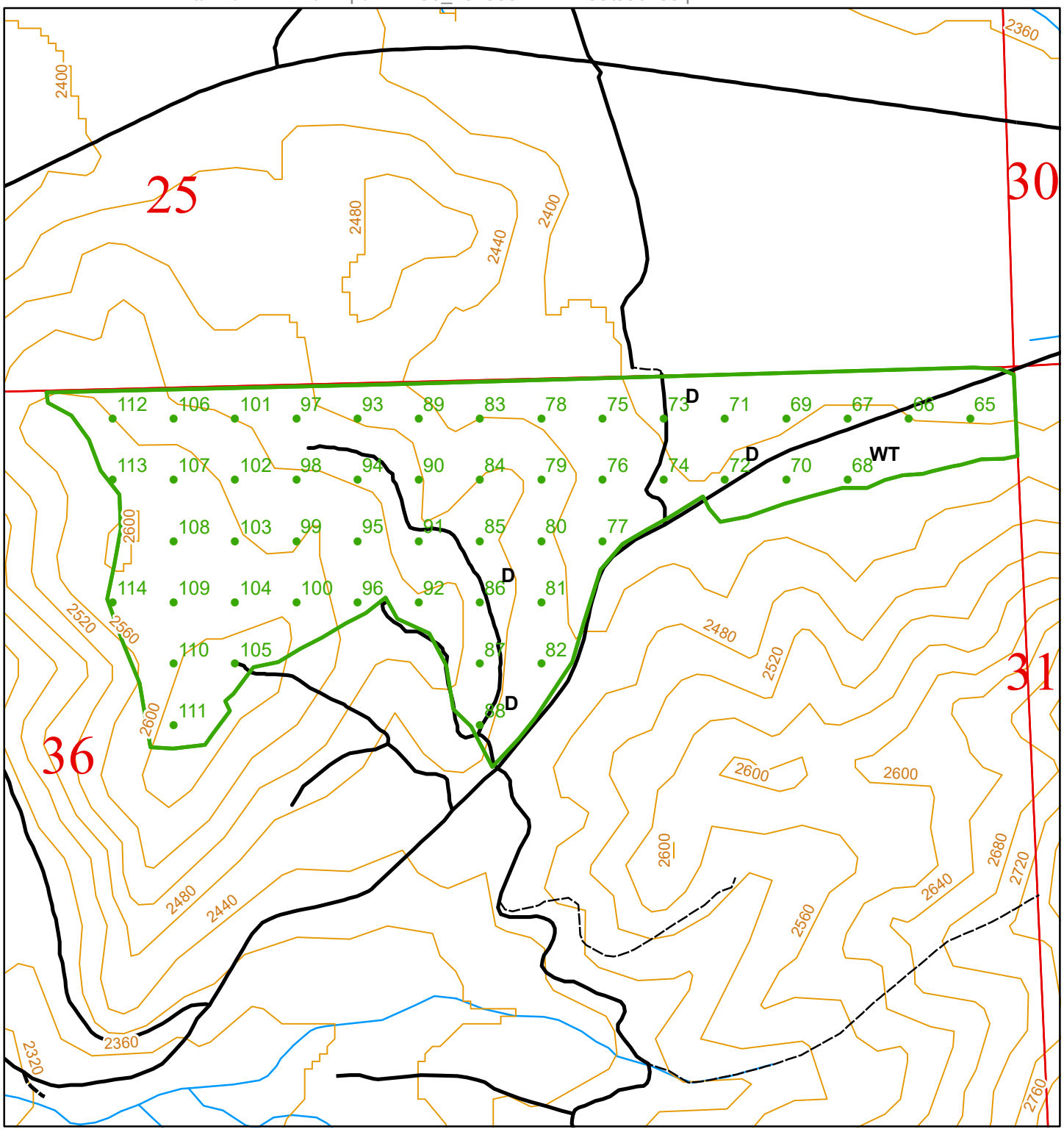

FMA POLYGON AND SAMPLE POINT INFORMATION

FMA_NM:	OLD SPRINGDALE U3	Township:	T30R40E
FMA_ID:	306280	DNR Region:	NORTHEAST
Acres:	91	Total Sample Points:	50
County:	STEVENS	Spacing Between Points:	Width: 275 Height: 275
		Point Rotation Degrees:	0

D: Deleted Plot
WT: Walkthrough Plot

N

0 220 440 880 1,320 1,760 Feet

Scale 1:7,600

Legend
- Sample Points
- FMA polys
- Public Land Survey Sections
- Contours 40-foot

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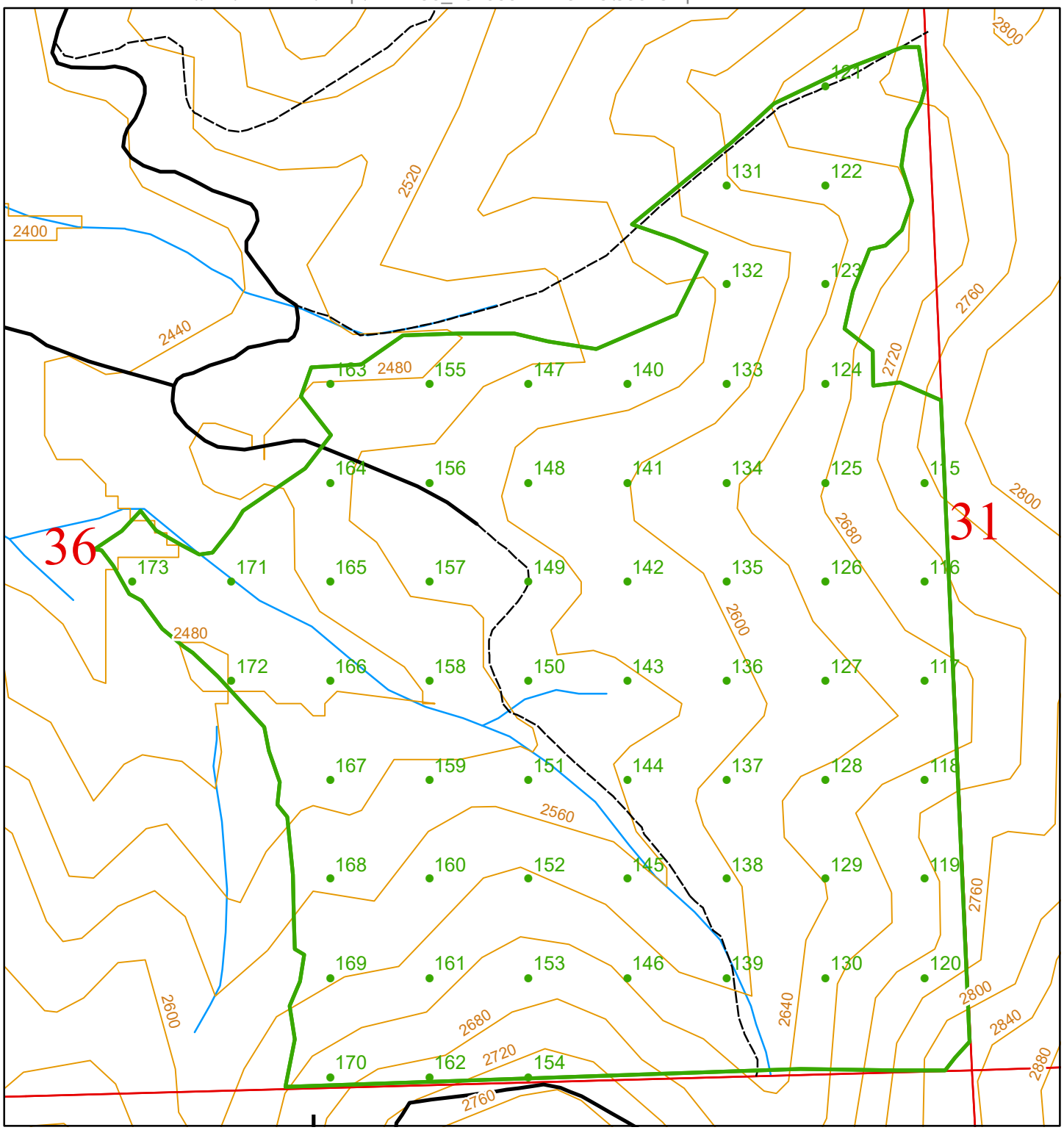

FMA POLYGON AND SAMPLE POINT INFORMATION

FMA_NM:	OLD SPRINGDALE U4	Township:	T30R40E
FMA_ID:	306281	DNR Region:	NORTHEAST
Acres:	99	Total Sample Points:	59
County:	STEVENS	Spacing Between Points:	Width: 275 Height: 275
		Point Rotation Degrees:	0

D: Deleted Plot
WT: Walkthrough Plot

N

0 135 270 540 810 1,080 Feet

Scale 1:4,700

Legend
- Sample Points
- FMA polys
- Public Land Survey Sections
- Contours 40-foot

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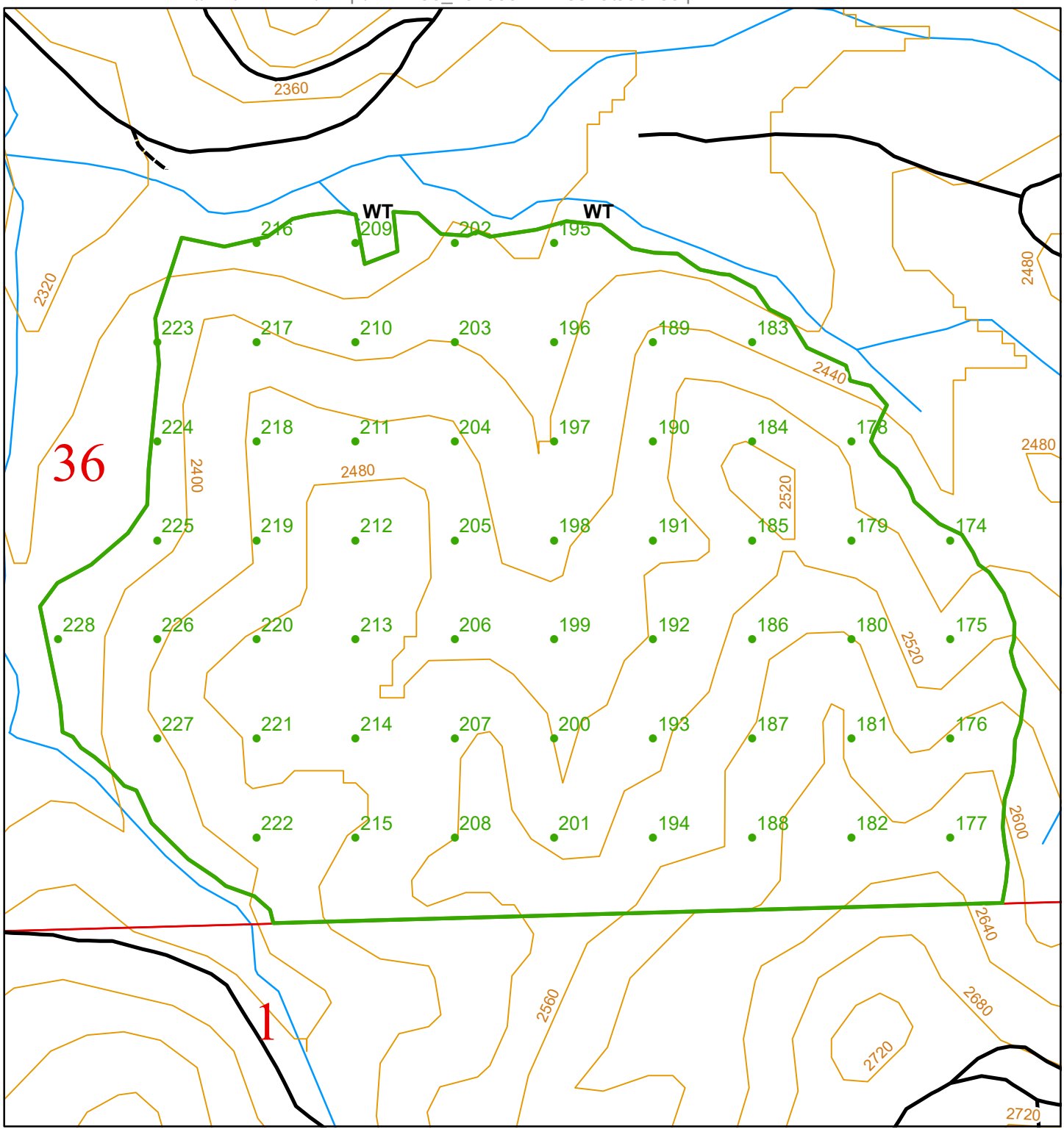

FMA POLYGON AND SAMPLE POINT INFORMATION

FMA_NM:	OLD SPRINGDALE U5	Township:	T30R40E
FMA_ID:	306283	DNR Region:	NORTHEAST
Acres:	96	Total Sample Points:	55
County:	STEVENS	Spacing Between Points:	Width: 275 Height: 275
		Point Rotation Degrees:	0

D: Deleted Plot
WT: Walkthrough Plot

N

0 135 270 540 810 1,080 Feet

Scale 1:4,700

Legend
- Sample Points
- FMA polys
- Public Land Survey Sections
- Contours 40-foot

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Jun 12, 2019 11:56 AM

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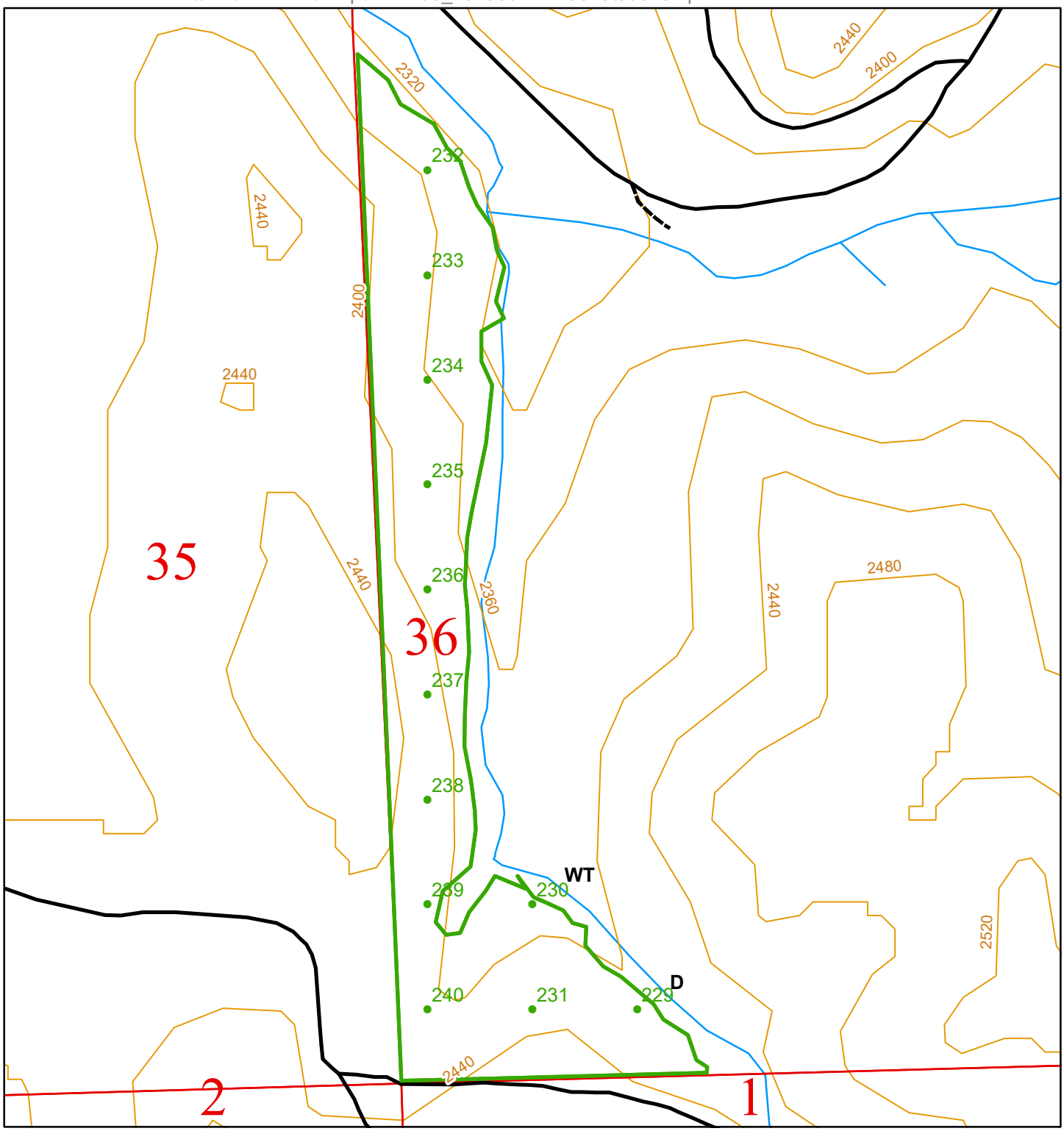

FMA POLYGON AND SAMPLE POINT INFORMATION

FMA_NM:	OLD SPRINGDALE U6	Township:	T30R40E
FMA_ID:	306284	DNR Region:	NORTHEAST
Acres:	17	Total Sample Points:	12
County:	STEVENS	Spacing Between Points:	Width: 260 Height: 260
		Point Rotation Degrees:	0

D: Deleted Plot
WT: Walkthrough Plot

N

0 120 240 480 720 960 Feet

Scale 1:4,200

Legend
- Sample Points
- FMA polys
- Public Land Survey Sections
- Contours 40-foot

Washington State Department of Natural Resources
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Jun 12, 2019 12:08 PM

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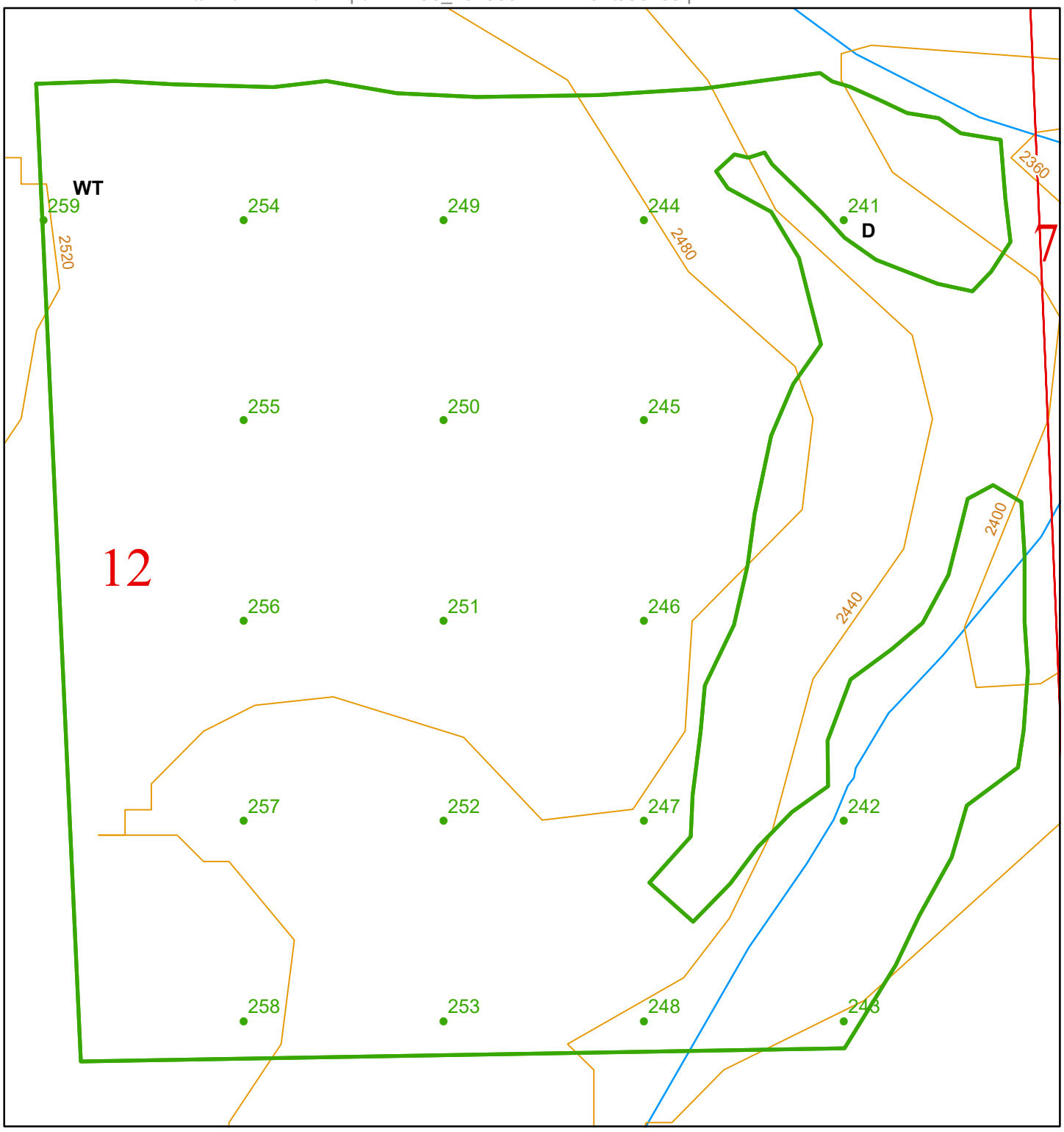

FMA POLYGON AND SAMPLE POINT INFORMATION

FMA_NM:	OLD SPRINGDALE U7	Township:	T29R39E
FMA_ID:	306285	DNR Region:	NORTHEAST
Acres:	30	Total Sample Points:	19
County:	STEVENS	Spacing Between Points:	Width: 260 Height: 260
		Point Rotation Degrees:	0

D: Deleted Plot
WT: Walkthrough Plot

N

0 62.5 125 250 375 500 Feet

Scale 1:2,200

Legend
- Sample Points
- FMA polys
- Public Land Survey Sections
- Contours 40-foot

Washington State Department of Natural Resources
Hilary Franz, Commissioner of Public Lands

Jun 12, 2019 12:24 PM

For DNR Region Office Use Only	
FPA/N #:	3023872
Region:	NE
Received Date:	11/5/2019

Forest Practices Application/Notification
Eastern Washington

Project Name: Old Springdale

PLEASE USE THE INSTRUCTIONS TO COMPLETE THIS APPLICATION.

1. **Landowner, Timber Owner and Operator**

Legal Name of LANDOWNER **Washington State Department of Natural Resources**	Legal Name of TIMBER OWNER ☒ Same as Landowner	Legal Name of OPERATOR ☒ Same as Landowner
Mailing Address: **WA DNR 225 S. Silke Road**	Mailing Address:	Mailing Address:
City, State, Zip: **Colville, WA 99114-9369**	City, State, Zip:	City, State, Zip:
Phone: (509) 684-7474 Email: **robert.hechinger@dnr.wa.gov**	Phone: Email:	Phone: Email:

2. **Contact Person**

Contact Person: Clay Chambers	Phone: (509)684-7474 Email:

3. **Are you converting the land to non-forestry use within 3 years of harvest?**

☒ No ☐ Yes If yes, include your SEPA checklist and SEPA determination (if applicable) and county clearing and grading permit (if applicable).

4. **If you are harvesting timber, enter the Forest Tax Number of the Timber Owner:**

888-888-888 Eligible for EARR Tax Credit ☐ No ☒ Yes

Contact the Department of Revenue at 1-800-548-8829 for tax reporting information or to obtain a number.

5. **Are you a small forest landowner per RCW 76.09.450? See instructions**

☒ No ☐ Yes If yes, **Check all that apply**. If no, skip to Question 6.

☐ My entire proposed harvest area is on a single contiguous ownership consisting of one or more parcels.

For DNR Region Office Use Only	
FPA/N #:	3023872
Region:	NE
Received Date:	11/5/2019

Forest Practices Application/Notification
Eastern Washington

Project Name: Old Springdale RW LG

PLEASE USE THE INSTRUCTIONS TO COMPLETE THIS APPLICATION.

1. Landowner, Timber Owner and Operator

Legal Name of LANDOWNER	Legal Name of TIMBER OWNER	Legal Name of OPERATOR
Boston Timber Opportunities, LLC	☐ Same as Landowner BTO Cutco, Inc.	☒ Same as Landowner
Mailing Address: 616 Highway 395 S	Mailing Address: 616 Highway 395 S	Mailing Address:
City, State, Zip: Colville, WA 99114	City, State, Zip: Colville, WA 99114	City, State, Zip:
Phone: (509) 685-2561 Email:	Phone: (509) 685-2561 Email:	Phone: Email:

2. Contact Person

Contact Person: Stan Smith	Phone: (509) 675-3273 Email: smsmith@hnrg.com

3. Are you converting the land to non-forestry use within 3 years of harvest?

☐No ☐Yes If yes, include your SEPA checklist and SEPA determination (if applicable) and county clearing and grading permit (if applicable).

4. a. If you are harvesting timber, enter the Forest Tax Number of the Timber Owner:

800 074 756

Contact the Department of Revenue at 1-800-548-8829 for tax reporting information or to obtain a number.

b. Are you eligible for EARR Tax Credit? ☐ No ☒ Yes

5. Are you a small forest landowner per RCW 76.09.450? See instructions

☒No ☐Yes If yes, **Check all that apply**. If no, skip to Question 6.

☐ My entire proposed harvest area is on a single contiguous ownership consisting of one or more parcels.

☐ My proposed forest practices activities is within an area covered by an approved Forest Stewardship Plan or Forest Management Plan developed in cooperation with DNR.

☐ I received technical assistance from a DNR small forest landowner Stewardship and Technical Assistance Forester in preparing this FPA/N.

☐ I have participated in a Washington State University Extension Service and/or DNR-sponsored Forest Stewardship Coached Planning course.

☐ I have attended a Washington State University Extension Service and/or DNR-sponsored Family Forest Owner Field Day.

6. Are you substituting prescriptions from an approved state or federal conservation agreement or Watershed Analysis?

☒ No ☐ Yes Write 'HCP' or 'Using Prescriptions' in tables that apply. Attach or reference prescriptions and/or crosswalks for approved state or federal conservation agreements or Watershed Analysis on file at the Region office.

7. What is the legal description of your forest practices?

Section	Township	Range	E/W	Tax Parcel Number	County
35, 36	30	40	E		Stevens
12	29	39	E		Stevens

8. Have you reviewed this forest practices activity area to determine whether it may involve historic sites and/or Native American cultural resources? Read the instructions before answering this question.

☐ No ☒ Yes If contacts were made, please provide additional information in Question 28.

9. Do you have a DNR approved Road Maintenance and Abandonment Plan (RMAP)?

a. ☐ No ☒ Yes Enter the RMAP number:R2302663, R2301293 If yes, continue to b. If no, skip to c.

b. ☒ No ☐ Yes Is this Forest Practices Application/Notification for work that is included in this approved RMAP?

c. ☒ No ☐ Yes Is a Checklist RMAP required (see instructions)?

10. Are there potentially unstable slopes or landforms in or around the area of your forest practices activity?

☒ No ☐ Yes If yes, attach Appendix D. Slope Stability Informational Form and map of areas reviewed for and locations of unstable slopes and landforms found. If applicable, attach a geotechnical letter, memo, or report, Watershed Analysis prescriptions, and/or a SEPA Environmental Checklist.

11. Is this Forest Practices Application/Notification (answer every question):

a. ☒ No ☐ Yes A request for a multi-year permit? If yes, length requested: ☐ 4 years or ☐ 5 years. Not everyone qualifies for a multi-year permit. See instructions for details.

b. ☒ No ☐ Yes An Alternate Plan? If yes, include a template or detailed plan. See instructions for details.

c. ☒ No ☐ Yes For a funded Forest Family Fish Passage Program project?

d. ☒ No ☐ Yes Within an urban growth area?
If yes, see instructions for additional required documents.

e. ☒ No ☐ Yes Within a public park? If yes, include SEPA Environmental Checklist or SEPA Determination, except for harvest/salvage of less than 5,000 board feet within a developed public park. Park name: _____

f. ☒ No ☐ Yes Within 500 feet of a public park? Park name: _____

g. ☒ No ☐ Yes In an approved Conversion Option Harvest Plan (COHP) from the local government? If yes, include a copy. This only applies to proposals within urban growth areas.

h. ☒ No ☐ Yes Within 200 feet of the Ordinary High Water Mark (OHWM) or floodway of Type S Water?
If yes, check with the county or city to determine whether a substantial development permit is required under the local shorelines master plan.

i. ☒ No ☐ Yes Within 50 miles of saltwater AND do you own more than 500 acres of forest land in Washington State? If yes, include Marbled Murrelet Form or attach/reference HCP prescriptions.

j. ☒ No ☐ Yes In or directly adjacent to a potential Channel Migration Zone (CMZ)? If yes, include CMZ Assessment Form. Attach/reference applicable HCP and/or Watershed Analysis prescriptions.

You are required to verify all waters within 130 feet of your proposed forest practices activities prior to submitting a Forest Practices Application / Notification. Use the Water Type Classification Worksheet and/or a Water Type Modification form to explain how you verified water types. See Water Typing Requirements in the instructions.

* * * * * **If not working in or over typed Waters, skip to Question 16** * * * * *

Prior to answering Questions 12-15 in this section please refer to the Forest Practices Application Instructions and Forest Practices Board Manual Section 5.

12. Are you proposing any of the following projects NOT permitted by current HPAs from WDFW?

a. ☒ No ☐ Yes Installing, replacing, or repairing a culvert at or below the bankfull width of Type S or F Water(s) that exceeds a five percent gradient?

b. ☒ No ☐ Yes Constructing, replacing, or repairing a bridge at or below the bankfull width of unconfined streams in Type S or F Water(s)?

c. ☒ No ☐ Yes Placing fill material within the 100-year flood level of unconfined streams in Type S or F Water(s)?

13. Have you consulted with DNR and/or WDFW about the proposed hydraulic project(s) in or over Type S or F Water? ☒ No ☐ Yes

14. If installing, replacing, removing, or maintaining structures in or over any typed Water, complete the table below. Provide crossing locations and identifiers on your Activity Map. Provide plan details in Question 28 or attach plan to the FPA/N. Type S and F Waters require detailed plan information. Complex hydraulic projects in Type N Waters may also be required per WAC 222-24-042(2). See instructions for detailed plan requirements.

Crossing Identifier *(letter, number)*	Water Type *(S, F, Np, Ns)*	*Existing HPA Number *(if applicable)*	HPA Expiration Date *(if applicable)*	Planned Activity *(install, replace, remove, temporary, structure maintenance)*	Structure *(bridge, ford/equipment crossing** puncheon/fill, arch, pipe arch, round culvert, other)*	Proposed Size *(width x length) (inches x feet)*	Culvert Design Method *(no-slope, stream-sim, hydraulic, other) (F and S only)*	Channel Bed Width *(ft) (F and S only)*	Stream Gradient *(%) (F and S only)*	Is this an RMAP Project?
C1	Ns			Install	Round Culvert	36" x 36'				N

*Existing HPAs issued by WDFW will be complied and enforced by WDFW until expiration. Plan details are not required for hydraulic projects permitted with an existing HPA (see instructions).

** Fords and equipment crossings on Type S and F Waters may result in an unauthorized incidental take of certain threatened or endangered fish species. For more information, see 'Background for the state's Incidental Take Permits for certain threatened and endangered fish species' following Question 22 of the FPA/N Instructions.

15. If conducting any of the following activities in or over typed Water(s), complete the table below. Some activities will require identifiers on the Activity Map and/or more information in Question 28. See instructions.

*Activity	Type S Water	Type F Water	Type Np Water	Type Ns Water
Equipment Crossing**	PROVIDE DETAILS IN QUESTION 14			X
Suspending Cables				
Cable Yarding				
LWD Placement/Removal				
Beaver Dam Removal				
Felling and Bucking				X
Other *(describe in Question 28)*				

*Existing HPAs issued by WDFW will be complied and enforced by WDFW until expiration. Plan details are not required for hydraulic projects permitted with an existing HPA (see instructions).

** Fords and/or equipment crossings on Type S and F Waters must be identified in Question 14.

16. If constructing or abandoning forest roads, complete the table below. Show the road locations and identifiers on the Activity Map. Include abandonment plans for all temporary roads and abandonment projects.

Road Identifier (name, number)	Road Construction		Road Abandonment	
	Length (feet)	Steepest Side-slope (%)	Length (feet)	Abandonment Date (MM/YYYY)
E304035E	1,162	40		
E304036Q	3,808	40		
E293912E	1,007	5		
E304036R	265	5		

17. If depositing spoils and/or expanding or developing a rock pit for forestry use, complete the table below. Show locations and identifiers on the Activity Map.

Spoil Area Identifier *(letter, number)*	Amount of Spoils Deposited *(cubic yards)*
W1	100
W2	100
W3	100

Rock Pit Identifier *(name, number or letter)*	Acres of New Rock Pit Developed	Acres of Existing Rock Pit Expanded

18. If operating within 200 feet of a wetland not associated Type F Water, complete the table below. Welands associated with Type S or F water should be listed in Question 25. Show the boundaries of each wetland, along with its identifier, and Wetland Management Zones on the Activity Map. See instructions for information.

Wetland Identifier *(letter, number)*	Wetland Type *(A, B, Forested)*	Planned Activities in Wetland	Planned Activities in Maximum Width WMZ	Total Wetland Acres	How many Acres will be drained?	How many Acres will be filled?

* * * * * **If not harvesting or salvaging timber, skip to Question 27** * * * * *

19. If harvesting or salvaging timber, complete the table below. Show all harvest areas and unit numbers on your Activity Map. For even-aged harvest units, also show surrounding stand information on the Activity Map.

Unit Number	Harvest Type *(Even-aged, Uneven-aged, Salvage, Right-of-Way)*	Biomass Harvest *(Y or N)*	Harvest Method *(rubber tired skidder, tracked skidder, dozer, shovel, full suspension cable, leading end suspension cable, helicopter, cable assist/tethered logging, animal, chipper, forwarder, slash bundler)*	Acres to be Harvested	Volume to be Harvested	Volume to be Harvested *(biomass tonnage)*	Volume to be Harvested *(salvage only) (%)*	Estimated Number of Trees per acre Remaining after Harvest		Steepest Slope in Harvest Unit *(%)*
								Less than 10"dbh	Greater than or equal to 10"dbh	
1	Uneven-aged	N	Rubber Tired Skidder, Tracked Skidder, Dozer	12	132			0	21	5
2	Even-aged	N	Rubber Tired Skidder, Tracked Skidder, Dozer	92	1,276			0	6	65
3	Uneven-aged	N	Rubber Tired Skidder, Tracked Skidder, Dozer	90	1,248			150	6	50
4	Even-aged	N	Rubber Tired Skidder, Tracked Skidder, Dozer	98	1,359			0	6	50
5	Even-aged	N	Rubber Tired Skidder, Tracked	96	1,302			0	6	45

			Skidder, Dozer							
6	Even-aged	N	Rubber Tired Skidder, Tracked Skidder, Dozer	17	236			0	6	40
7	Even aged	N	Rubber Tired Skidder, Tracked Skidder, Dozer	29	402			0	6	45
ROW 8	Right-of-Way	N	Rubber Tired Skidder, Tracked Skidder, Dozer	0.4	20			ROW	ROW	5
ROW 9	Right-of-Way	N	Rubber Tired Skidder, Tracked Skidder, Dozer	0.1	10			ROW	ROW	40
ROW 10	Right-of-Way	N	Rubber Tired Skidder, Tracked Skidder, Dozer	0.4	15			ROW	ROW	10

20. Reforestation. Check all that apply:

☒ Planting. Tree Species: Western Larch, Ponderosa Pine

☒ Natural. Include a Natural Regeneration Plan

☐ Not required because of one or more of the following:

- ☐ I am converting some or all of this land to non-forest land in the next 3 years or lands are exempted under WAC 222-34-050.
- ☐ Individual dead, dying, down, or wind-thrown trees will be salvaged.
- ☐ Trees are removed under a thinning program reasonably expected to maximize the long-term productivity of commercial timber.
- ☐ I am leaving at least 100 vigorous, undamaged, and well-distributed saplings or merchantable trees per acre.
- ☐ An average of 150 tree seedlings per acre are established on the harvest area and my harvest will not damage them.
- ☐ Road right-of-way or rock pit development harvest only.

*** * Do you own MORE than 80 acres of forest land in Washington? If yes, skip to Question 25 * ***

21. Are you using the exempt 20-acre parcel riparian management zone (RMZ) rule (WAC 222-30-023) on type S, F, or Np Waters?

☒ No Skip to Question 25.

☐ Yes Continue to Question 22. See instructions for qualifications and information.

22. Choose the answer below that best fits your situation. Show all RMZs on the Activity Map.

☐ a. ALL of the following apply to me and my land: (If no, answer b.)

- Between June 5, 2006 and today's date I have always owned less than 80 acres of forest land in Washington.
- Between June 5, 2006 and today's date this parcel has always been 20 acres or less of contiguous ownership. See RCW 76.09.020 for definition of 'contiguous'.
- Between June 5, 2006 and today's date this parcel has always been owned by me or someone else that has owned less than 80 acres of forest land in Washington.

b. ONE OR MORE of the following apply to me and/or my land (check all that apply):
If any of the statements below apply AND you use the exempt 20-acre parcel RMZ rule, you are NOT authorized under the State's Incidental Take Permits (see explanation in FPA instructions under Question 22).

- ☐ Between June 5, 2006 and today's date I have owned more than 80 acres of forest land in Washington.
- ☐ Between June 5, 2006 and today's date this parcel has been a part of more than 20 acres of contiguous ownership. See RCW 76.09.020 for definition of 'contiguous'.
- ☐ Between June 5, 2006 and today's date this parcel has been owned by someone that has owned more than 80 forested acres in Washington.

23. If harvesting within 345 feet of a Type S or F Water on an exempt 20-acre parcel, complete the table below. Show RMZs and stream segment identifiers on the Activity Map. If you are harvesting within 75 feet or within the maximum RMZ

Stream Segment Identifier *(letter)*	Segment Length *(feet)*	Adjacent Harvest Type *(partial cut or other)*	RMZ Maximum Width *(feet)*	Are you harvesting within the maximum RMZ? *(Y or N)*

(whichever is less), stream shade must be assessed and met following harvest. Describe in Question 28 how stream shade was determined to be met or use the 'Appendix F. Stream Shade Assessment Worksheet' if necessary.

24. Are you harvesting within 29 feet of a Type Np Water on an exempt 20-acre parcel?

☒ No Skip to Question 27.

☐ Yes See instructions and describe leave tree strategy in Question 28.Then skip to Question 27.

25. If harvesting within 200 feet of any Type S or F Water or periodically inundated areas of their associated wetlands, complete the table below. Include Desired Future Condition (DFC) for all inner zone harvests unless you have an HCP prescription. Show RMZs, CMZs, and stream segment identifiers on the Activity Map. If you are harvesting within 75 feet or within the maximum RMZ, whichever is less, stream shade must be assessed and met following harvest. Describe in Question 28 how stream shade was determined to be met or use the 'Appendix F. Stream Shade Assessment Worksheet' if necessary.

Stream Segment Identifier *(letter)*	Water Type *(S, F)*	Site Class *(I-V)*	Stream Width *(feet)*	Is there a CMZ? *(Y or N)*	RMZ Harvest Code(s) *(see instructions)*	DFC Run Number	Total width of RMZ *(feet)*
Z	F	III	< 15	N	B, M		90

26. If harvesting within 50 feet of Type Np Water, complete the table(s) below. Show RMZs and stream segment identifiers on the Activity Map.

Stream Segment Identifier *(letter)*	Selected Strategy *(partial cut or clearcut)*

Stream Segment Identifier *(letter)*	Selected Strategy *(partial cut or clearcut)*

27. How are the following currently marked on the ground? *(Flagging color, paint color, road, fence, etc.)*

Harvest/Salvage Boundaries: Pink flagging, pink flashers and white "Timber Sale Boundary" tags

Clumped Wildlife Reserve Trees/Green Recruitment Trees: Reserve trees are marked with a band of blue paint. Reserve tree area within unit 7 is bounded by yellow "Leave Tree Area" tags, pink flashers and pink flagging.

Right-of-Way Limits/Road Centerlines: Centerlines of new roads or marked with orange flagging. Right-of-way (ROW 8) limits are marked with orange "Right-of-Way" tags and pink ribbon. ROW 9 take trees outside of harvest units are marked with a band or orange paint.

Stream Crossing Work: Ns stream crossing (C1) is marked with orange ribbon for centerline.

Riparian Management Zone Boundaries and Leave/Take Trees: RMZ's are bounded out with white "Timber Sale Boundary" tags, pink flashers, and pink flagging.

Channel Migration Zone: N/A

Wetland Management Zone Boundaries and Leave/Take Trees: N/A

28. Additional Information (attach additional pages if necessary): For hydraulic projects in or over Type S, F, or complex N Water(s) see instructions for required plan information. If applicable, document the mitigation measures you will be implementing from a geotechnical memo, letter, or report.

Approved WTM's for this proposal, NE-55-18-0032 and NE-55-18-0042.

All Np streams have a 50' no harvest buffer and are bounded out with white "Timber Sale Boundary" tags, pink flashers, and pink flagging.

The F stream adjacent to units 5 and 6 is protected with a 75 foot no harvest riparian management zone.

A 1.4 acre leave tree area exists in Unit 7 and is intended to provide added protection to a unique wildlife habitat feature within a dry draw.

ROW Unit 8 is approximately 0.4 acres and lies on private land owned by Hancock Forest Management adjacent to Unit 7.

A culvert crossing will be installed in a Type Ns water (C1 on FPA map).

In between Units 4 and 5 there is a 300 foot wide green-up strip that contains an isolated Np. This Np lies further than 50 feet away from unit boundaries and does not require an RMZ buffer.

A DNR State Lands cultural resource technician performed a remote review of the proposal area. No cultural or historical resources were found that would be impacted by this proposed activity.

29. We acknowledge the following:

- The information on this application/notification is true.
- We understand this proposed forest practice is subject to:
  - The Forest Practices Act and Rules AND
  - All other federal, state or local regulations.
- Compliance with the Forest Practices Act and Rules does not ensure compliance with the Endangered Species Act or other federal, state or local laws.
- If we said that we would not convert the land to non-forestry use, the county or city may deny development permits on this parcel for the next 6 years.
- The following may result in an unauthorized incidental take of certain endangered or threatened fish species:
  - Conversion of land to non-forestry use.
  - Harvesting within the maximum RMZ on a 20-acre exempt parcel that was acquired after June 5, 2006.
  - Equipment Crossings/Fords in or over Type S and F Waters.
- Inadvertent Discovery – Chapters 27.44, 27.53, 68.50 and 68.60 RCW
  - If you find or suspect you have found an archaeological object or Native American cairn, grave, or glyptic record, immediately cease disturbance activity, protect the area and promptly contact the Department of Archaeology and Historic Preservation at 360 586-3077.
  - If you find or suspect you have found human skeletal remains, immediately cease disturbance activity, protect the area, and contact the County Coroner or Medical Examiner and local law enforcement as soon as possible. Failure to report human remains is a misdemeanor.

The landowner understands that by signing and submitting this FPA, he/she is authorizing the Department of Natural Resources to enter the property in order to review the proposal, inspect harvest operations, and monitor compliance for up to three years after its expiration date. RCW 76.09.150

Signature of legal LANDOWNER	**Signature of legal TIMBER OWNER*** *(If different than landowner)*	**Signature of legal OPERATOR** *(If different than landowner)*
Robert Hechinger		
Print Name: Robert Hechinger	Print Name:	Print Name:
Date: 11/5/19	Date:	Date:

** NOTE: If you are a "Perpetual Timber Rights Owner," and are submitting this without the Landowner's Signature, provide written evidence the landowner has been notified.*

Please make a copy of this FPA/N for your records. If this FPA/N contains a hydraulic project requiring WDFW concurrence review, it will not be available online for public review until after the WDFW concurrence review period.

29. We acknowledge the following:

- The information on this application/notification is true.
- We understand this proposed forest practice is subject to:
  - The Forest Practices Act and Rules AND
  - All other federal, state or local regulations.
- Compliance with the Forest Practices Act and Rules does not ensure compliance with the Endangered Species Act or other federal, state or local laws.
- If we said that we would not convert the land to non-forestry use, the county or city may deny development permits on this parcel for the next 6 years.
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Signature of legal LANDOWNER	**Signature of legal TIMBER OWNER*** *(If different than landowner)*	**Signature of legal OPERATOR** *(If different than landowner)*
Stan Smith	Stan Smith	
Print Name: Stan Smith	Print Name: Stan Smith	Print Name: Same as Landowner
Date: 7/1/19	Date: 7/1/19	Date:

** NOTE: If you are a "Perpetual Timber Rights Owner," and are submitting this without the Landowner's Signature, provide written evidence the landowner has been notified.*

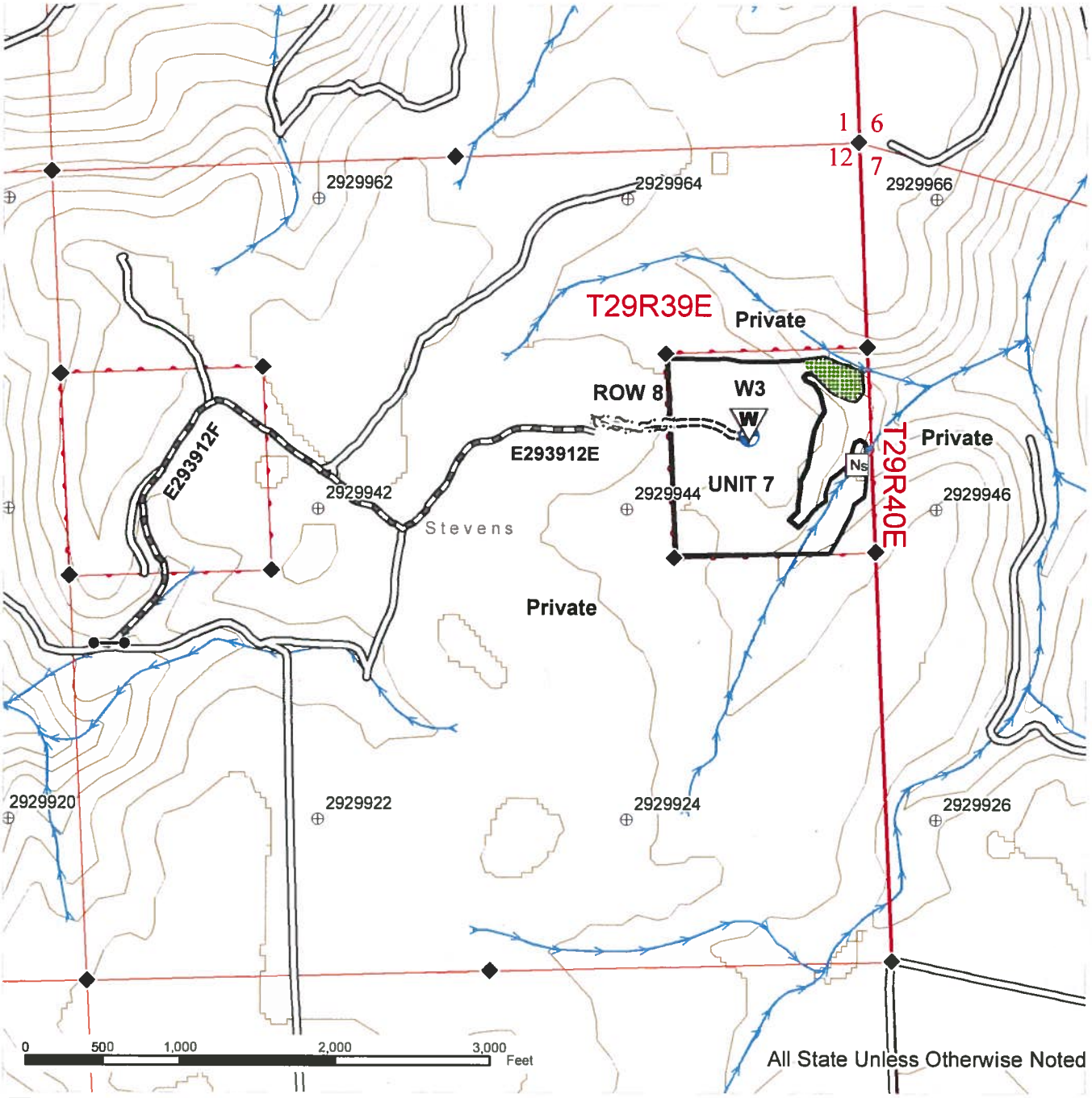
Please make a copy of this FPA/N for your records. If this FPA/N contains a hydraulic project requiring WDFW concurrence review, it will not be available online for public review until after the WDFW concurrence review period.

FOREST PRACTICES ACTIVITY MAP

3023872

SALE NAME: OLD SPRINGDALE
APPLICATION #: TBD by FP Staff

COUNTY(S): Stevens
TOWNSHIP(S): T29R39E, T30R40E



- Even Aged Harvest
- Right of Way Tags
- Existing Roads
- Required Pre-Haul Maintenance
- New Construction
- Gate (<<Lock Type>>)
- Landing - Proposed
- Waste Area
- Leave Tree Area
- Streams
- Non-Fish Seasonal
- Contours 40-foot
- Tics - 2000' Interval
- Public Land Survey Townships
- Public Land Survey Sections

N

Prepared By: ZSTA490

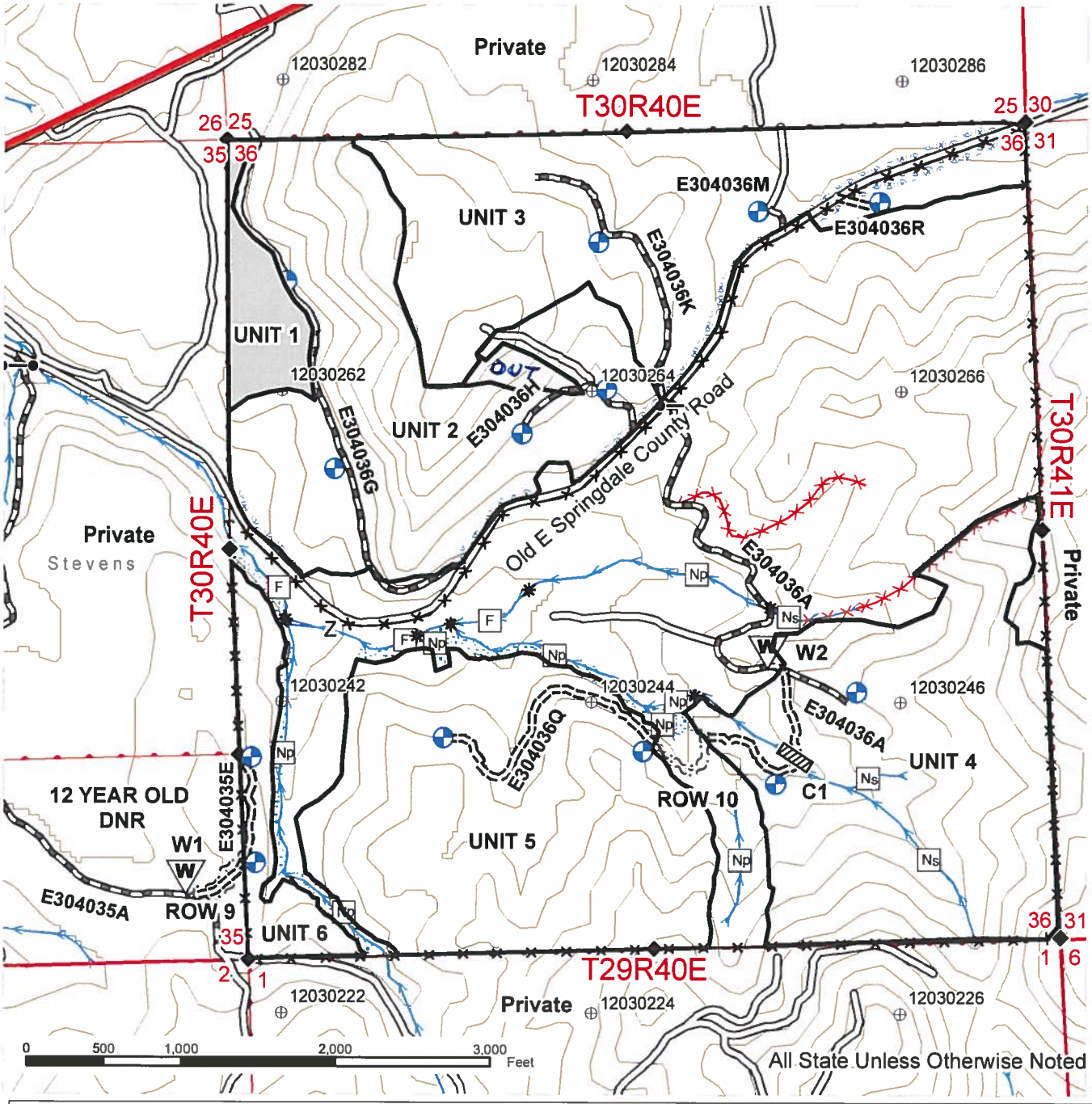
Modification Date: ccha490 10/7/2019

FOREST PRACTICES ACTIVITY MAP

3023872

SALE NAME: OLD SPRINGDALE
APPLICATION #: TBD by FP Staff

COUNTY(S): Stevens
TOWNSHIP(S): T29R39E, T30R40E



- Un-Even Aged Harvest
- Even Aged Harvest
- Right of Way Tags
- Existing Roads
- Required Pre-Haul Maintenance
- New Construction
- Culvert
- Gate (<<Lock Type>>)
- Landing - Proposed
- Waste Area
- Riparian Mgt Zone
- Hazard Abatement Area
- Streams
- Fish
- Non-Fish Perennial
- Non-Fish Seasonal
- Stream Break
- Contours 40-foot
- Tics - 2000' Interval
- Public Land Survey Townships
- Public Land Survey Sections

N

Prepared By: ZSTA490

Modification Date: ccha490 10/7/2019

Forest Practices Application/Notification

Notice of Decision

FPA/N No: 3023872
Effective Date: 11/19/2019
Expiration Date: 11/19/2022
Shut Down Zone: 686
EARR Tax Credit: [x] Eligible [ ] Non-eligible
Reference: DNR/BTO "Old Springdale"
35, 36-30-40 & 12-29-39

Decision

[ ] Notification	Operations shall not begin before the effective date.
[x] Approved	This Forest Practices Application is subject to the conditions listed below.
[ ] Disapproved	This Forest Practices Application is disapproved for the reasons listed below.
[ ] Closed	Applicant has withdrawn FPA/N.

FPA/N Classification

[ ] Class II [x] Class III [ ] Class IVG [ ] Class IVS

Number of Years Granted on Multi-Year Request

[ ] 4 years [ ] 5 years

Conditions on Approval / Reasons for Disapproval

Approved without conditions.

Issued By: Matt Binder **Region:** Northeast

Title: Forest Practices Forester **Date:** 11/19/2019

Copies to: **[x] Landowner, Timber Owner and Operator.**

Issued in person: **[ ] Landowner [ ]Timber Owner [ ] Operator By:**_____

Appeal Information

You have thirty (30) days to appeal this Decision and any related State Environmental Policy Act determinations to the Pollution Control Hearings Board in writing at the following addresses:
Physical address: 1111 Israel Rd. SW, Ste 301, Tumwater, WA 98501
Mailing address: P.O. BOX 40903, OLYMPIA, WA 98504-0903
Information regarding the Pollution Control Hearings Board can be found at: http://www.eluho.wa.gov/
At the same time you file an appeal with the Pollution Control Hearings Board, also send a copy of the appeal to the Department of Natural Resources' region office and the Office of the Attorney General at the following addresses:

Office of the Attorney General
Natural Resources Division
1125 Washington Street SE
PO Box 40100
Olympia, WA 98504-0100

And

Department Of Natural Resources
Northeast Region
225 S Silke Rd
Colville, WA 99114

Other Applicable Laws

Operating as described in this application/notification does not ensure compliance with the Endangered Species Act, or other federal, state, or local laws.

Transfer of Forest Practices Application/Notification (WAC 222-20-010)

Use the "Notice of Transfer of Approved Forest Practices Application/Notification" form. This form is available at region offices and on the Forest Practices website: **http://www.dnr.wa.gov/businesspermits/forestpractices**. Notify DNR of new Operators within 48 hours.

Continuing Forest Land Obligations (RCW 76.09.060, RCW 76.09.070, RCW 76.09.390, and WAC 222-20-055)

Obligations include reforestation, road maintenance and abandonment plans, conversions of forest land to non-forestry use and/or harvest strategies on perennial non-fish habitat (Type Np) waters in Eastern Washington.

Before the sale or transfer of land or perpetual timber rights subject to continuing forest land obligations, the seller must notify the buyer of such an obligation on a form titled "Notice of Continuing Forest Land Obligation". The seller and buyer must both sign the "Notice of Continuing Forest Land Obligation" form and send it to the DNR Region Office for retention. This form is available at DNR region offices.

If the seller fails to notify the buyer about the continuing forest land obligation, the seller must pay the buyer's costs related to continuing forest land obligations, including all legal costs and reasonable attorneys' fees incurred by the buyer in enforcing the continuing forest land obligation against the seller.

Failure by the seller to send the required notice to the DNR at the time of sale will be prima facie evidence in an action by the buyer against the seller for costs related to the continuing forest land obligation prior to sale.

DNR affidavit of mailing:

On this day 11-20-19 (date), I placed in the United States mail at Colville (post office location), WA, postage paid, a true and accurate copy of this document, Notice of Decision FPA/# 3023872

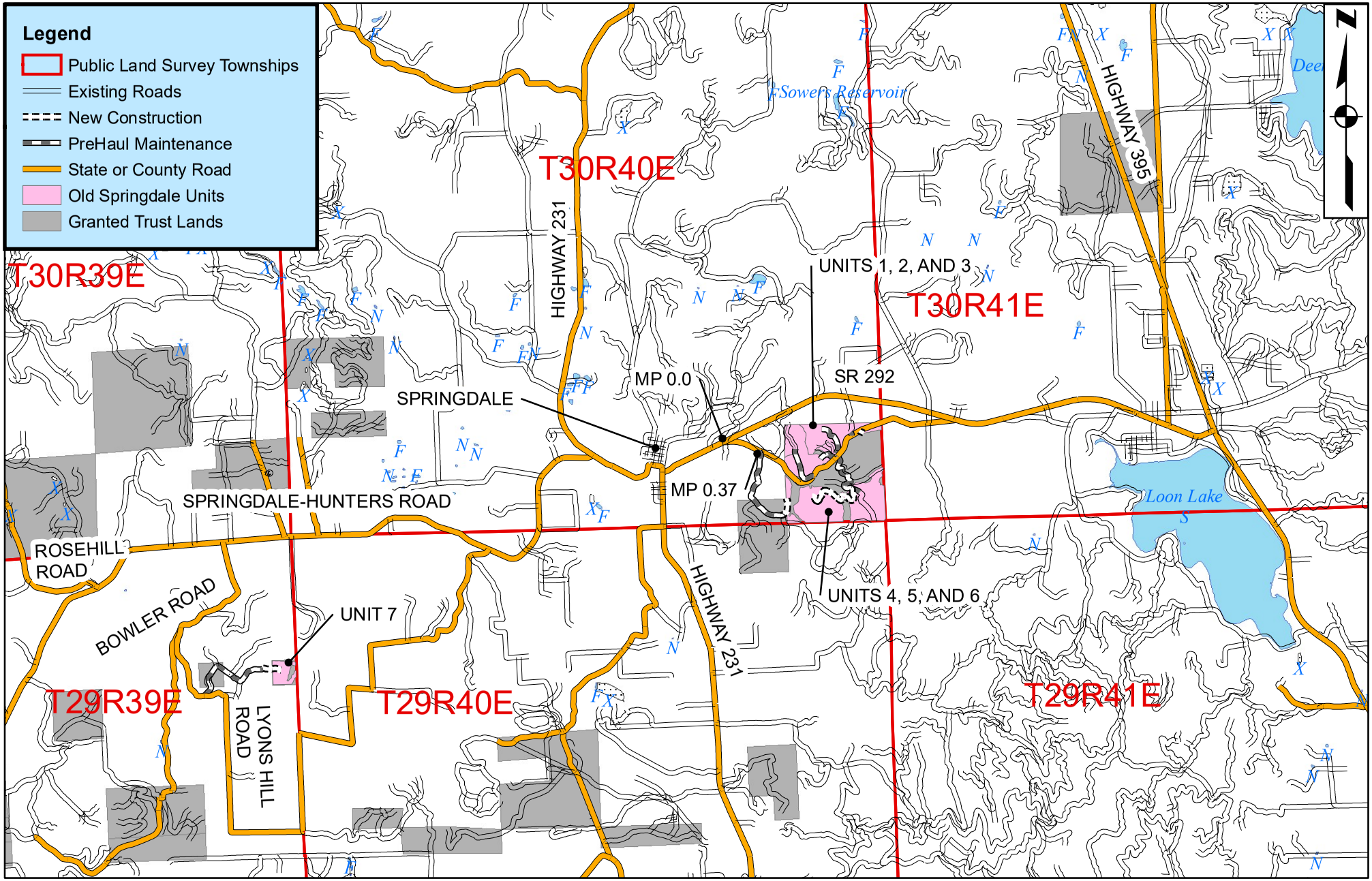
Galadriel Hook (Printed name) Galadriel Hook (Signature)

Washington State Department of Natural Resources

Sale Name: Old Springdale
Agreement No.: 30-099712

Road Plan Map
Page 1 of 4

Region: Northeast
County: Stevens



0 3,500 7,000 14,000 21,000 Feet

1 inch = 7,000 feet

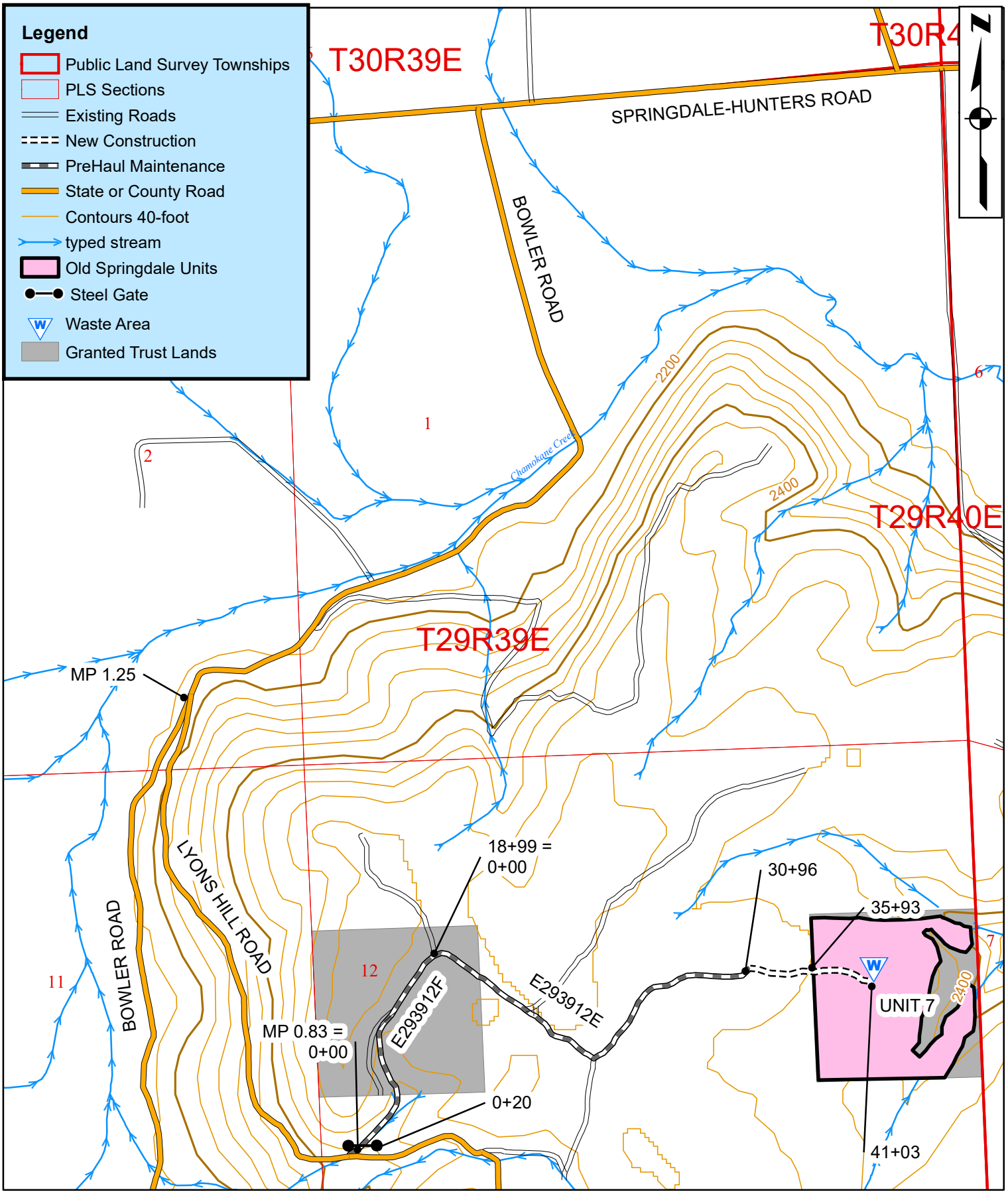
Date: 1/31/19

Washington State Department of Natural Resources

Sale Name: Old Springdale
Agreement No.: 30-099712

Road Plan Map
Page 2 of 4

Region: Northeast
County: Stevens



0 500 1,000 2,000 3,000 Feet

1 inch = 1,000 feet

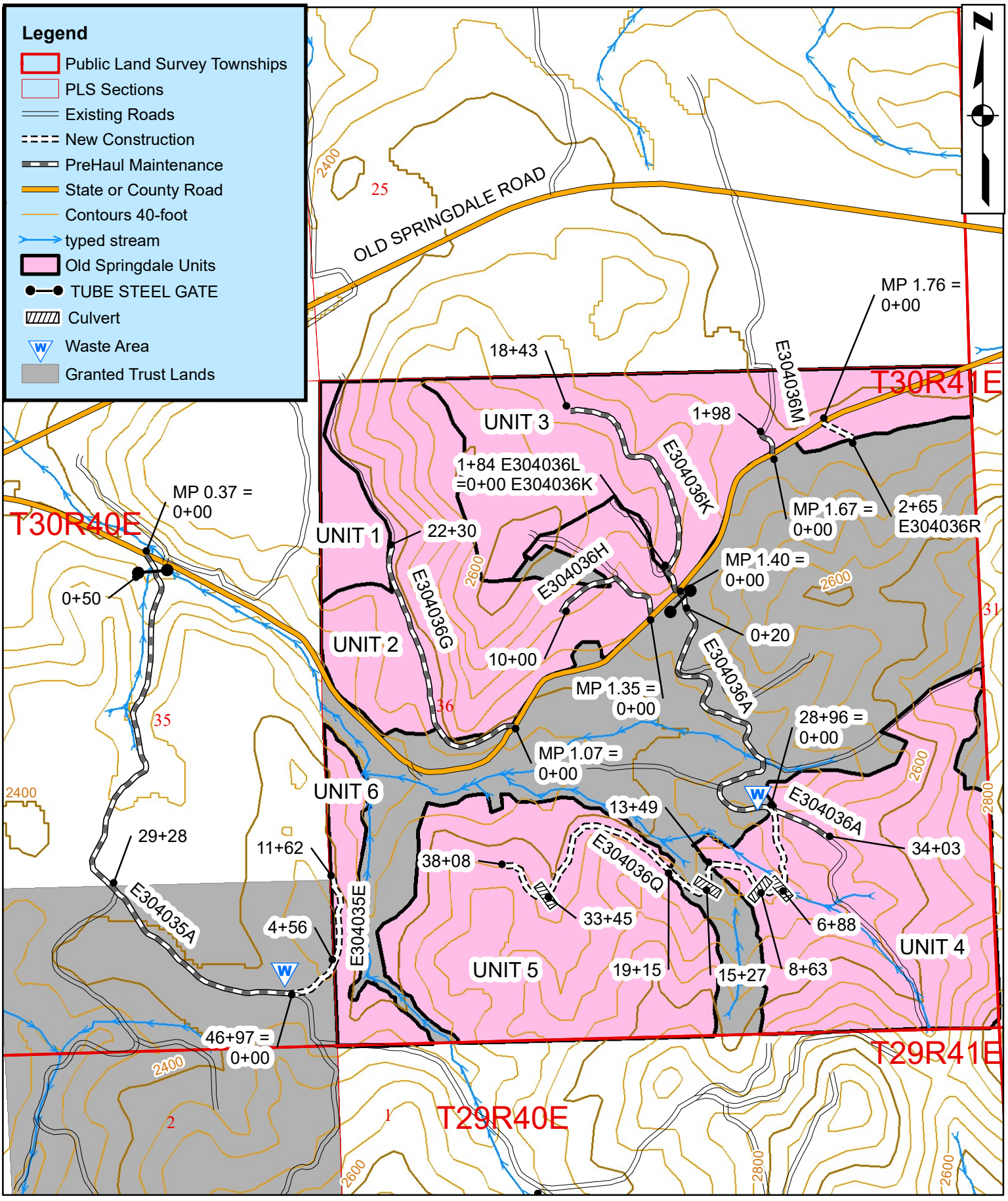
Date: 1/31/19

Washington State Department of Natural Resources

Sale Name: Old Springdale
Agreement No.: 30-099712

Road Plan Map
Page 3 of 4

Region: Northeast
County: Stevens



0 500 1,000 2,000 3,000 Feet

1 inch = 1,000 feet

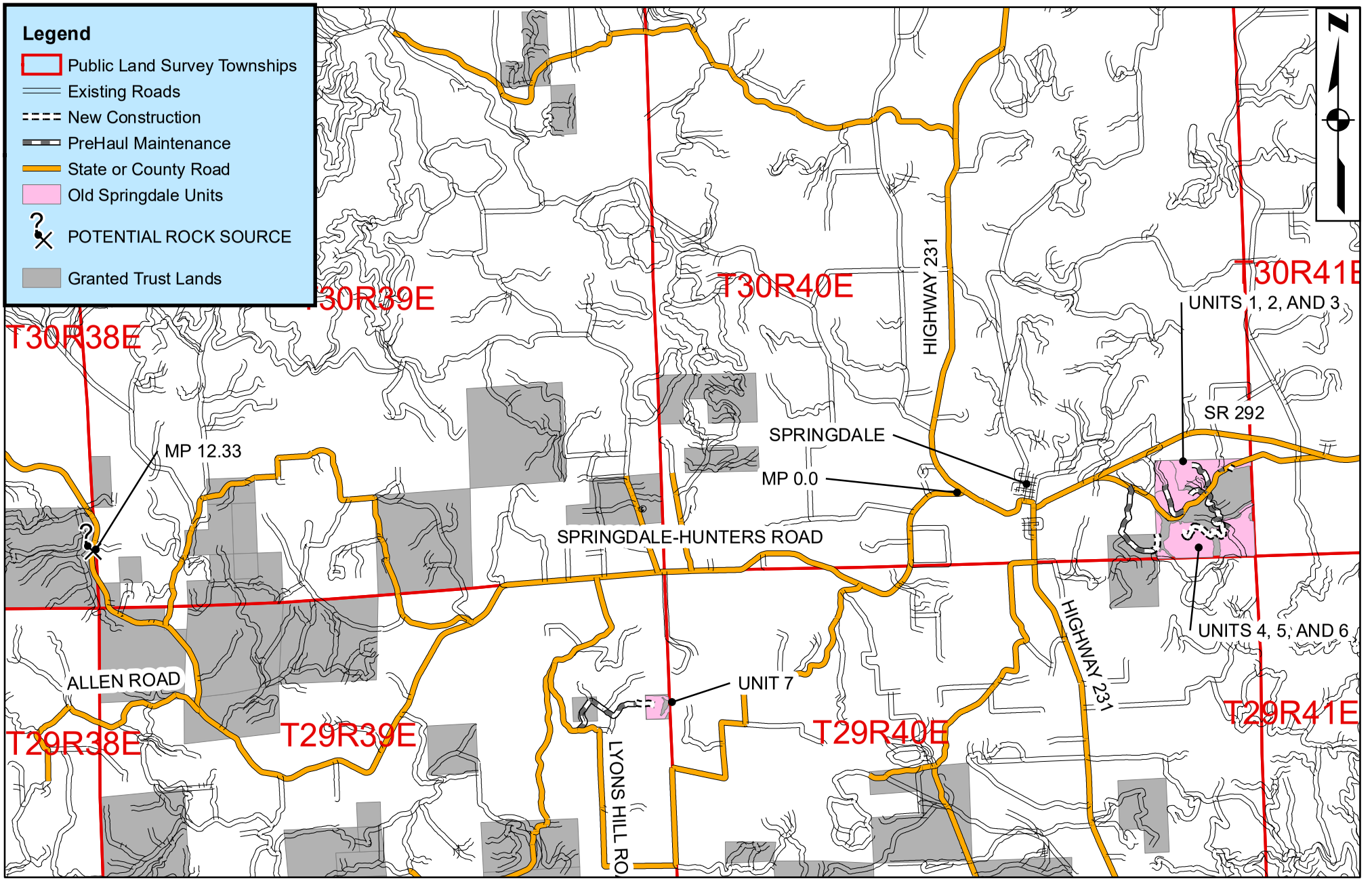
Date: 1/31/19

Washington State Department of Natural Resources

Sale Name: Old Springdale
Agreement No.: 30-099712

Road Plan Map
Page 4 of 4

Region: Northeast
County: Stevens



1 inch = 7,000 feet

Date: 1/31/19

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

OLD SPRINGDALE TIMBER SALE ROAD PLAN
STEVENS COUNTY
ARCADIA DISTRICT
NORTHEAST REGION

AGREEMENT NO.: 30-099712 STAFF ENGINEER: TRAVIS PARRY

DATE: 1/31/2019 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.

Road	Stations	Type
E293912F	0+00 to 18+99	Pre-haul maintenance
E293912E	0+00 to 30+96	Pre-haul maintenance
	30+96 to 41+03	New Construction
E304035A	0+00 to 46+97	Pre-haul maintenance
E304035E	0+00 to 11+62	New Construction
E304036G	0+00 to 22+30	Pre-haul maintenance
E304036H	0+00 to 10+00	Pre-haul maintenance
E304036L	0+00 to 1+84	Pre-haul maintenance
E304036K	0+00 to 18+43	Pre-haul maintenance
E304036A	0+00 to 34+03	Pre-haul maintenance
E304036Q	0+00 to 38+08	New Construction
E304036M	0+00 to 1+98	Pre-haul maintenance
E304036R	0+00 to 2+65	New Construction

0-4 CONSTRUCTION

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

Road	Stations	Requirements
E293912E	30+96 to 41+03	New construction, construct road in accordance with Typical Section Detail, Rock List, and the Culvert and Drainage List.
	35+93	Enter DNR managed land and Unit 7
E304035E	0+00 to 11+62	New construction, construct road in accordance with Typical Section Detail, Rock List, and the Culvert and Drainage List.
	4+56	Enter Unit 6
E304036Q	0+00 to 38+08	New construction, construct road in accordance with Typical Section Detail, Rock List, and the Culvert and Drainage List.
	6+88	Install 36” x 36’ culvert, armor inlet and outlet with 5 cy light loose rip rap for each. Spread and compact 10 cy 5/8” minus surface rock to road surface. Apply 2’ fill widening to each side of road as specified in Clause 4-9 EMBANKMENT WIDENING
	8+63	Install 18” x 34’ culvert, armor inlet and outlet with 5 cy light loose rip rap for each. Spread and compact 10 cy 5/8” minus surface rock to road surface. Apply 2’ fill widening to each side of road as specified in Clause 4-9 EMBANKMENT WIDENING
	13+49	Leave Unit 4
	15+27	Install 24” x 34’ culvert, armor inlet and outlet with 5 cy light loose rip rap for each. Spread and compact 10 cy 5/8” minus surface rock to road surface. Apply 2’ fill widening to each side of road as specified in Clause 4-9 EMBANKMENT WIDENING
	19+15	Enter Unit 5
	33+45	Install 18” x 34’ culvert, armor inlet and outlet with 5 cy light loose rip

		rap for each. Spread and compact 10 cy 5/8" minus surface rock to road surface. Apply 2' fill widening to each side of road as specified in Clause 4-9 EMBANKMENT WIDENING
E304036R	0+00 to 2+65	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	Stations	Requirements
E293912F	0+00 to 18+99	Pre-haul maintenance. Reshape road to provide drainage as needed
	0+20	Private gate. Close and lock gate after hauling is complete each day per Clause 7-70 GATE CLOSURE
E293912E	0+00 to 30+96	Pre-haul maintenance. Reshape road to provide drainage as needed
E304035A	0+00 to 46+97	Pre-haul maintenance. Reshape road to provide drainage as needed
	0+50	Private tube steel gate close and lock gate after hauling is complete each day per Clause 7-70 GATE CLOSURE
	29+28	Enter DNR managed land
E304036G	0+00 to 22+30	Pre-haul maintenance. Reshape road to provide drainage as needed
E304036H	0+00 to 10+00	Pre-haul maintenance. Reshape road to provide drainage as needed
E304036L	0+00 to 1+84	Pre-haul maintenance. Reshape road to provide drainage as needed
E304036K	0+00 to 18+43	Pre-haul maintenance. Reshape road to provide drainage as needed

E304036A	0+00 to 34+03	Pre-haul maintenance. Reshape road to provide drainage as needed
	0+20	Yellow tube steel gate close and lock gate after hauling is complete each day per Clause 7-70 GATE CLOSURE
	28+96	Intersection with new construction E304036Q on right and entering Unit 4
E304036M	0+00 to 1+98	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 MAINTENANCE9-5 .

0-9 DECOMMISSIONING

This project includes decommissioning listed in Clause 9-20ROAD 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	A	B	C
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 Work maps.

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

1-8 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 with red station 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.

<u>November 15 to May 31</u>

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 Purchaser 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 Purchaser 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 3 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.

1-33 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.

1-43 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.

Road	Stations	Utility	Utility Contact
Old Springdale road	MP 0.00 – 2.77	Underground phone	**811**

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.

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. Purchaser 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 clearing 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, in natural openings, 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 14 percent favorable and 12 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:

Material Type	Excavation Slope Ratio	Excavation Slope Percent
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	½:1	200
Hardpan or solid rock	¼:1	400

4-6 EMBANKMENT SLOPE RATIO

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

Material Type	Embankment Slope Ratio	Embankment Slope Percent
Sandy Soils	2:1	50
Common Earth and Rounded Gravel	1½:1	67
Angular Rock	1¼:1	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.

Purchaser shall apply embankment widening equally to both sides of the road to achieve the required width.

4-10 WIDEN THE EXISTING SUBGRADE

Purchaser shall widen the subgrade and fill slopes to the dimensions shown on the TYPICAL SECTION SHEET. If necessary, Purchaser shall reconstruct excavation slopes to provide sufficient width for the road surface and any ditches.

4-12 FULL BENCH CONSTRUCTION

Where side slopes exceed 45%, Purchaser shall use full bench construction for the entire subgrade width except as construction staked or designed. If designated, Purchaser shall end haul waste material to the location specified in Clause 4-37 WASTE AREA LOCATION.

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.

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.

4-49 BORROW SOURCE

Purchaser shall obtain borrow material from borrow sources identified or approved by the Contract Administrator. Development of the borrow source must be in accordance with a written BORROW SOURCE DEVELOPMENT PLAN to be submitted by the Purchaser and approved in writing by the Contract Administrator.

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. Purchaser 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.

5-12 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. Purchaser 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.

Road	Size
On any portion of road used for timber or rock haul.	18" x 34' culvert 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 36 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.

5-30 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 Purchaser 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 Purchaser. 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 Purchaser shall notify the Contract Administrator a minimum of 5 calendar days before starting any operations in the listed locations.

Source	Location	Rock Type
Potential Rock	NE ¼ Sec 36, T30N R38E. Near Milepost 12.33 Springdale-Hunters Road	Potential ballast & rip rap, 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 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: **R**

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.

6-22 FRACTURE REQUIREMENT FOR ROCK

A minimum of 50% by visual inspection of coarse aggregate must have at least one fractured face. Coarse aggregate is the material greater than 1/4-inch in size.

6-23 ROCK GRADATION TYPES

Purchaser shall provide or manufacture rock in accordance with the types and amounts listed in the ROCK LIST. Rock shall meet the following specifications for gradation and uniform quality. The exact point of evaluation for conformance to specifications will be determined by the Contract Administrator.

6-26 5/8-INCH MINUS CRUSHED ROCK

% Passing 5/8" square sieve	100%
% Passing 3/8" square sieve	55 - 75%
% Passing U.S. #4 sieve	40 - 60%

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

6-28 1 ¼-INCH MINUS CRUSHED ROCK

% Passing 1 ¼" square sieve	100%
% Passing 5/8" square sieve	55 - 75%
% Passing U.S. #4 sieve	20 - 50%

Of the fraction passing the No. 4 sieve, 40% to 60% must pass the No. 10 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 ½ 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. Purchaser 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 for 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.

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	Station	Comment
E293912F	0+20	Close and lock gate after hauling is complete each day
E304035A	0+50	Close and lock gate after hauling is complete each day
E304036A	0+20	Close and lock gate after hauling is complete each day

7-81 4-WIRE FENCE OR GATE RECONSTRUCTION

Purchaser shall reconstruct the following existing fence to original condition.

Road	Stations
E304036R	0+20

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.

SECTION 9 – POST-HAUL ROAD WORK

9-1 EARTHEN BARRICADES

Purchaser shall construct barricades in accordance with the EARTHEN BARRICADE DETAIL D8.

Road	Stations
E304036G	5+00 Reconstruct earthen berm in location of existing berm
E304036H	0+20
E304036L	0+20
E304036M	0+20

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	Stations	Additional Requirements
E293912F	0+00 to 18+99	Post Haul Grade
E293912E	0+00 to 41+03	Post Haul Grade
E304035A	0+00 to 46+97	Post Haul Grade
E304035E	0+00 to 11+62	Spot Grade as Needed
E304036G	0+00 to 22+30	Spot Grade as Needed
E304036H	0+00 to 10+00	Spot Grade as Needed
E304036L	0+00 to 1+84	Spot Grade as Needed
E304036K	0+00 to 18+43	Spot Grade as Needed
E304036A	0+00 to 34+03	Post Haul Grade
E304036Q	0+00 to 38+08	Post Haul Grade
E304036M	0+00 to 1+98	Spot Grade as Needed
E304036R	0+00 to 2+65	Spot Grade as Needed
	0+00	Reconstruct barb wire fence to original condition once hauling is complete

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.

Road	Stations	Type
E304036G	0+00 to 22+30	Light Decommissioning
E304036H	0+00 to 10+00	Light Decommissioning
E304036L	0+00 to 1+84	Light Decommissioning
E304036K	0+00 to 18+43	Light Decommissioning
E304036M	0+00 to 1+98	Light Decommissioning
E304036R	0+00 to 2+65	Light Decommissioning

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.

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).

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.

10-20 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.

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.

Diameter	Gauge	Corrugation
18"	16 (0.064")	$2\ ^{2}/_{3}$" X $^{1}/_{2}$"
24" to 48"	14 (0.079")	$2\ ^{2}/_{3}$" X $^{1}/_{2}$"
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.

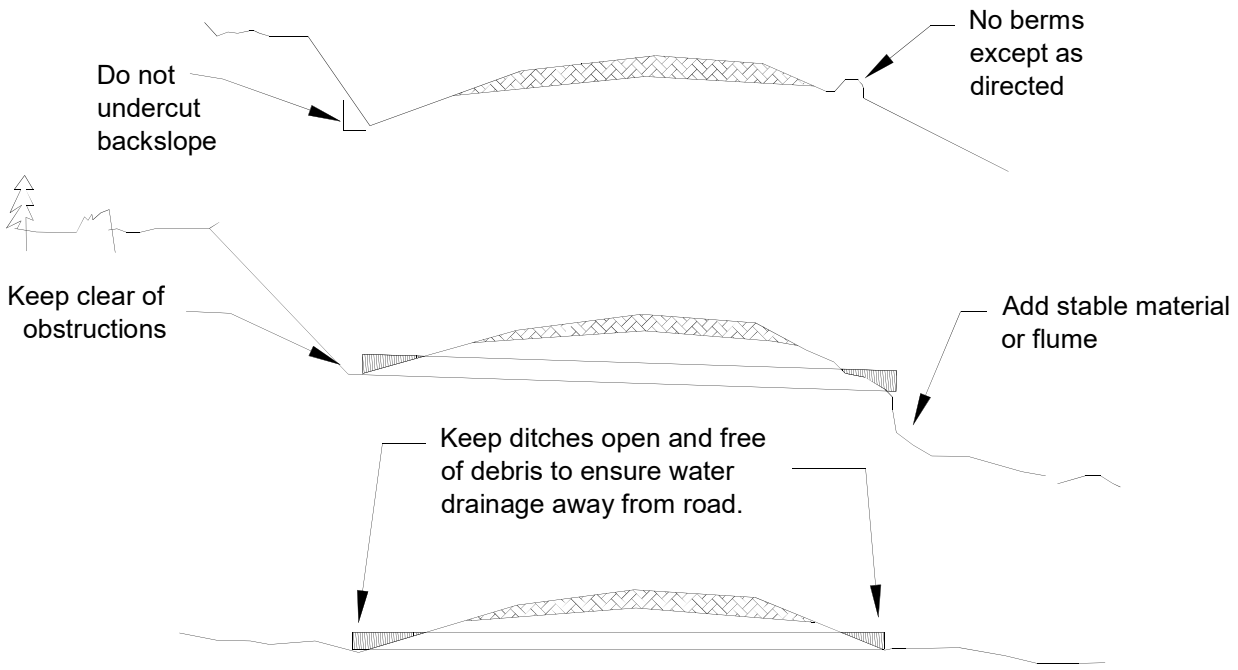
FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

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.

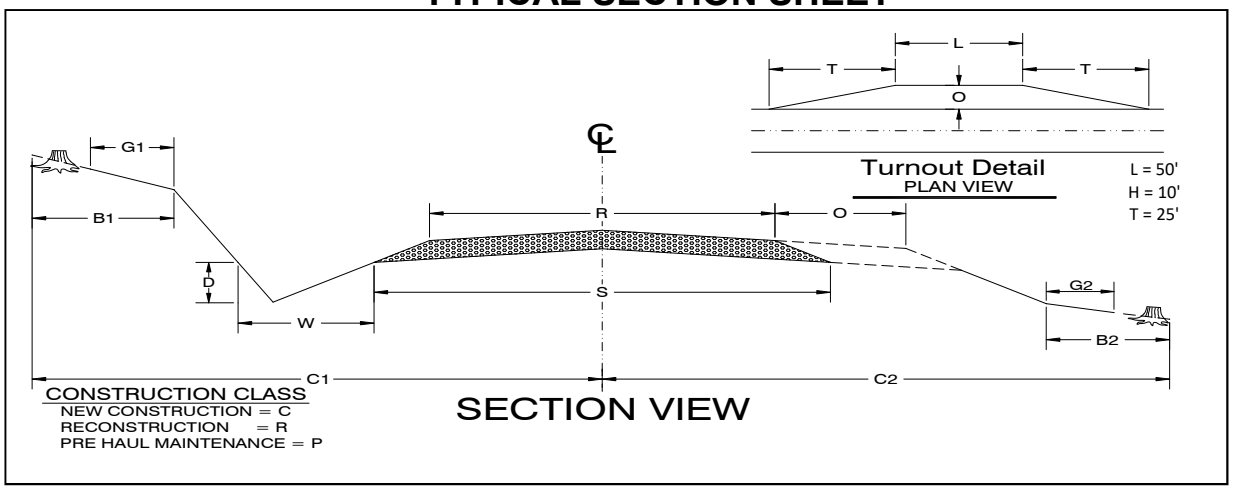


STATE OF WASHINGTON

DEPARTMENT OF NATURAL RESOURCES

Application No.: 30-099712 **Name of Sale: Old Springdale**

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	DITCH WIDTH (W)	DITCH DEPTH (D)	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)
E293912F	0+00	18+99	P		C	14'	12'	subgrade shape varies											
E293912E	0+00	30+96	P		C	14'	12'	subgrade shape varies											
	30+96	41+03	C		C	14'	12'		4					3	3	10	10		
E304035A	0+00	46+97	P		C	14'	12'	subgrade shape varies											
E304035E	0+00	11+62	C						4					3	3	10	10		
E304036G	0+00	22+30	P		C	14'	12'	subgrade shape varies											
E304036H	0+00	10+00	P		C	14'	12'	subgrade shape varies											
E304036L	0+00	1+84	P		C	14'	12'	subgrade shape varies											
E304036K	0+00	18+43	P		C	14'	12'	subgrade shape varies											
E304036A	0+00	34+03	P		C	14'	12'	subgrade shape varies											
E304036Q	0+00	38+08	C						4					3	3	10	10		
E304036M	0+00	1+98	P		C	14'	12'	subgrade shape varies											
E304036R	0+00	2+65	C						4					3	3	10	10		

DATE: 1/31/19 *Optional Page One of One DRAWN BY: RK

STATE OF WASHINGTON

DEPARTMENT OF NATURAL RESOURCES

Application No.: 30-099712 Name of Sale: Old Springdale Date: 1/31/2019

CULVERT & DRAINAGE LIST

Road Name	Station	CULVERT			LENGTH			RIPRAP			Ditch	Staked	Rolling Dip	Notes
		Diameter (in)	Gauge	Skew (deg)	Culvert (ft)	Downspout	Flume	Inlet C.Y.	Outlet C.Y.	Catchbasin				
E293912F	0+00 to 18+99			Reshape or install rolling dips.									1	9,13,14
E293912E	0+00 to 41+03			Reshape or install rolling dips.									3	9,13,14
E304035A	0+00 to 46+97			Reshape or install rolling dips.									2	9,13,14
E304035E	0+00 to 11+62			Install rolling dips.									3	9,14
E304036G	0+00 to 22+30			Reshape or install rolling dips.									1	9,13,14
E304036H	0+00 to 10+00			Reshape or install rolling dips.									0	9,13,14
E304036L	0+00 to 1+84			Reshape or install rolling dips.									0	9,13,14
E304036K	0+00 to 18+43			Reshape or install rolling dips.									1	9,13,14
E304036A	0+00 to 34+03			Reshape or install rolling dips.									2	9,13,14
E304036Q	0+00 to 38+08			Install rolling dips.									10	9,14
	6+88	36	14		36			1	1					1,2,3,6,10,11
	8+63	18	16		34			1/2	1/2					1,2,3,6,10,11
	15+27	24	14		34			1/2	1/2					1,2,3,6,10,11
	33+45	18	16		34			1/2	1/2					1,2,3,6,10,11
E304036M	0+00 to 1+98			Reshape or install rolling dips.									0	9,13,14
E304036R	0+00 to 2+65			Reshape or install rolling dips.									2	9,14
	One additional 18"x34' CMP culverts to be installed at													
	location to be determined by the Contract Administrator													
	Additional Rolling Dips shall be installed at the discretion of the Contract Administrator													

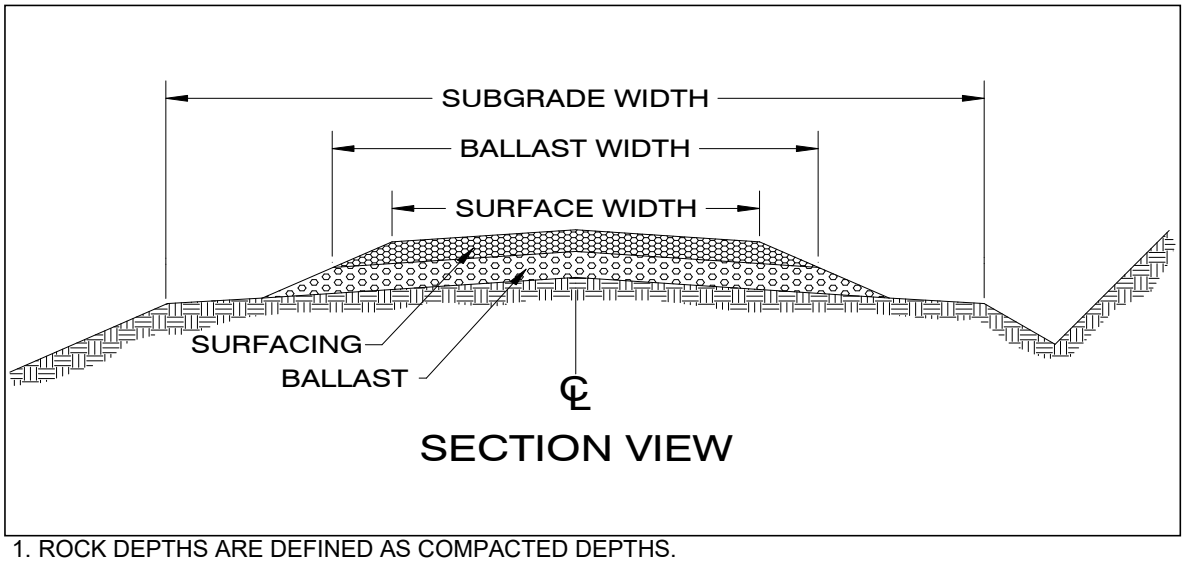
STRUCTURE NOTES

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
10. See Pipe Installation Detail D1
11. Install Energy dissipater - See D1
12. Install Ditchout
13. Reshape Rolling Dip
14. Install additional rolling dips as directed in section 9-5 Post Haul Maint.

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Application No.: 30-099712 **Name of Sale: Old Springdale**

ROCK LIST



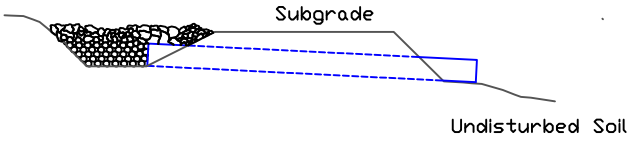
SECTION VIEW

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%

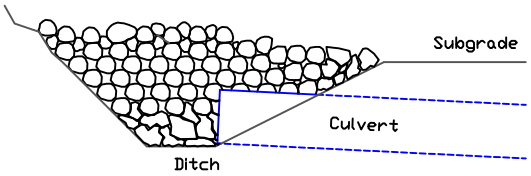
ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	BALLAST SOURCE	BALLAST WIDTH (ft)	BALLAST DEPTH (in)	BALLAST QUANTITY (cu.yd./sta)	SURFACE SOURCE	SURFACE WIDTH (ft)	SURFACE DEPTH (in)	SURFACE QUANTITY (cu.yd./sta)	FABRIC WIDTH (ft)
E304036Q	6+88			Surface rock over cmp 10 cy.				E				
				Armoring for inlet/outlet 2 cy				D				
	8+63			Surface rock over cmp 10 cy.				E				
				Armoring for inlet/outlet 1 cy				D				
	15+27			Surface rock over cmp 10 cy.				E				
				Armoring for inlet/outlet 1 cy				D				
	33+45			Surface rock over cmp 10 cy.				E				
				Armoring for inlet/outlet 1 cy				D				
Additional surface rock for spot patching			200	cy				C				
placed as directed by the Contract Administrator												
E: Commercial 5/8 in minus source per contractor												
D: Light Loose Rip Rap from either commercial source or onsite diggable source approved in writing by CA												
C: Commercial 1-1/4 in minus source per contractor												
cy = cubic yards												

DATE: 1/31/19

CULVERT AND DRAINAGE SPECIFICATIONS DETAIL - D1



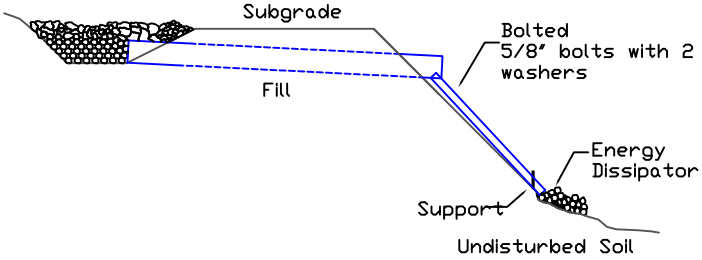
HEADWALLS



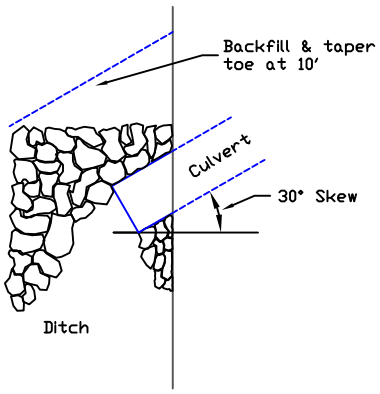
Headwall to be constructed of material that will resist erosion

FLUME

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

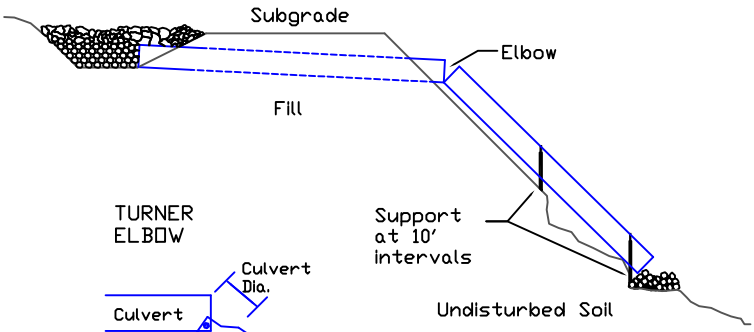


PLAN VIEW



DOWNSPOUT

Use where ground conditions are irregular.



TURNER ELBOW

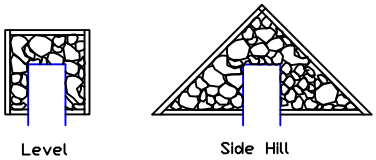
Bolted 5/8" bolts with bridge washers on both sides

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

Minimum Cover	Minimum Bed Depth	Min. Trench Width	Nominal Diameter
A	B	C	D
12"	6"	36"	18"
12"	6"	42"	24"
12"	6"	48"	30"
12"	6"	54"	36"

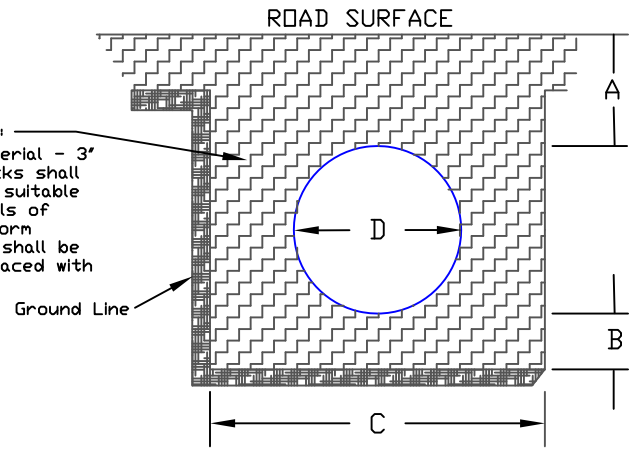
DISSIPATOR SPEC'S
Size in Culvert Diameters

Area	2 X 2
Depth	1
Aggragate	1/3



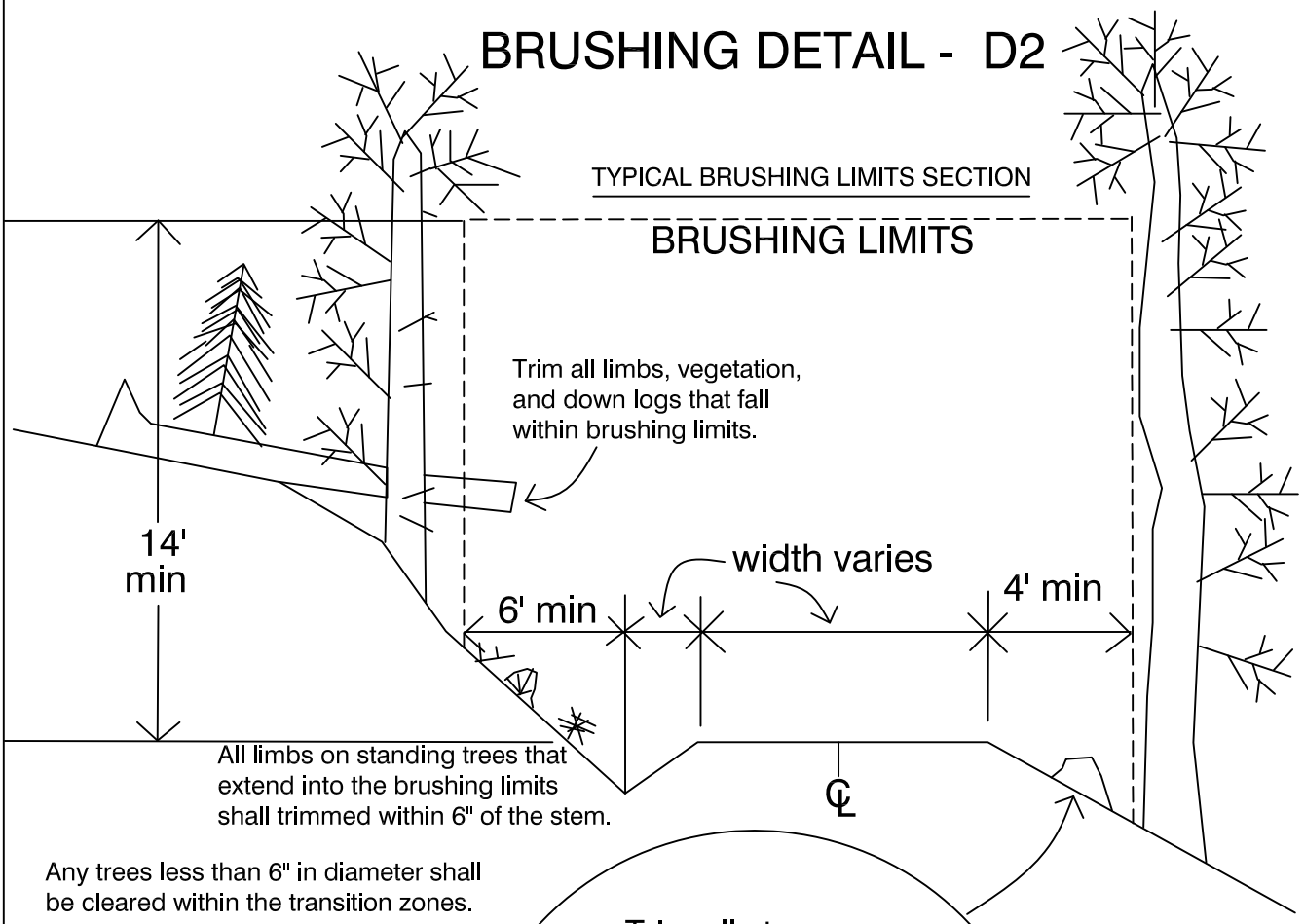
ROAD SURFACE

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.



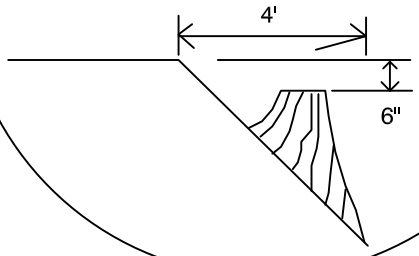
BRUSHING DETAIL - D2

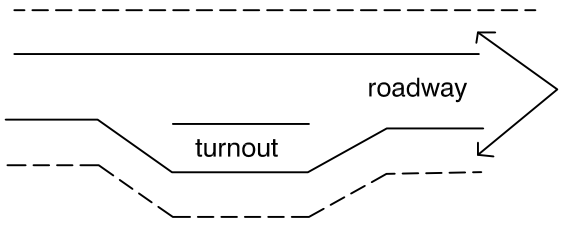
TYPICAL BRUSHING LIMITS SECTION



Any trees less than 6" in diameter shall be cleared within the transition zones.

Trim all stumps and vegetation within 4' of edge of road and in ditch to at least 6" below the elevation of the edge of road.

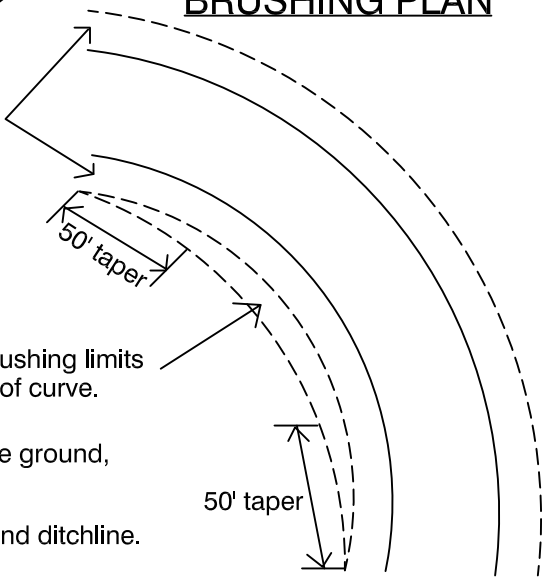




Brushing limits as shown on Typical Section

TURNOUT BRUSHING PLAN

CURVE BRUSHING PLAN

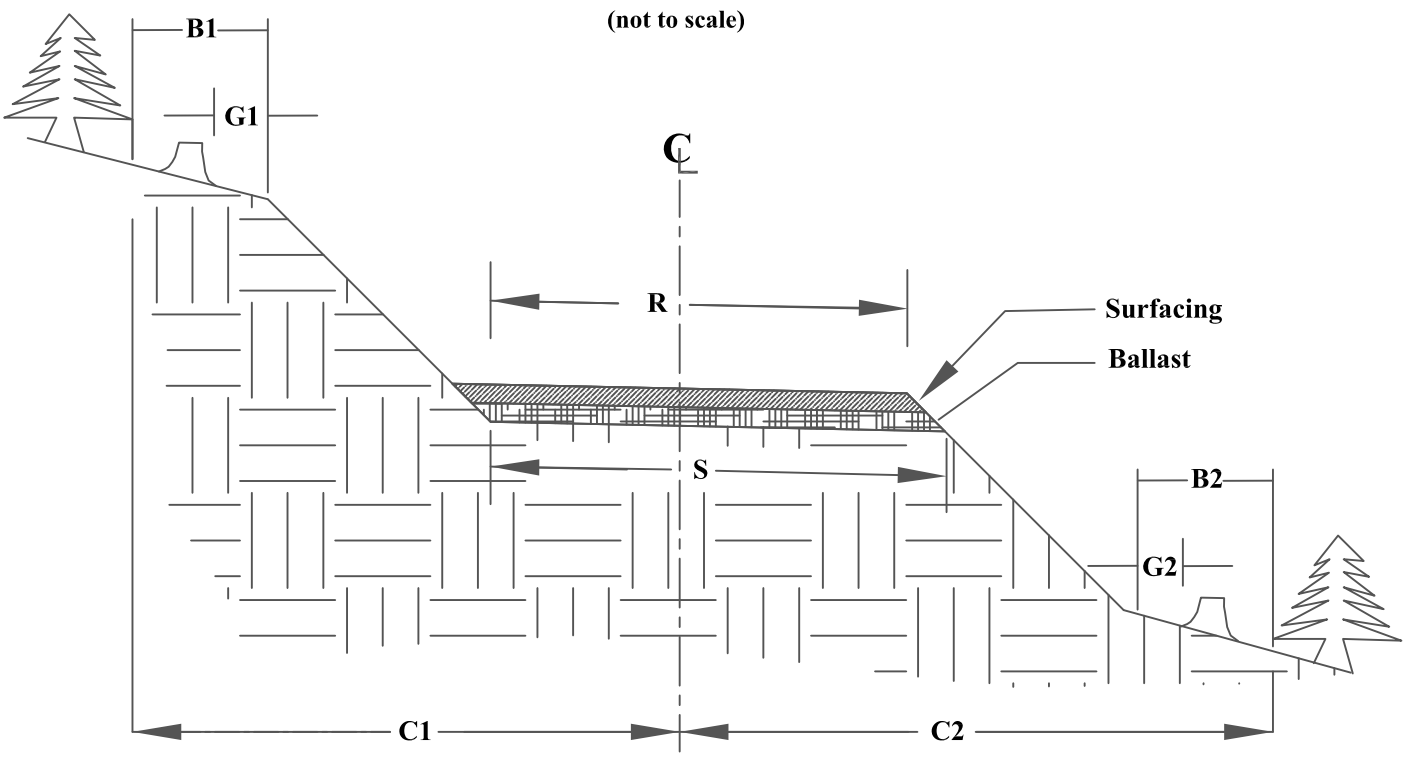


1. All vegetation within the brushing limits shall be cut to within 8" of the ground, unless otherwise directed by the contract administrator.
2. All brush, trees, limbs, etc. shall be removed from the road surface and ditchline.
3. All debris that may roll or migrate into the ditchline shall be removed.

Drawn by: GP. Rev. 11-13-2012 by: JE

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°.

The minimum cross grade from "B" to "E" is 1% greater than the original road grade.

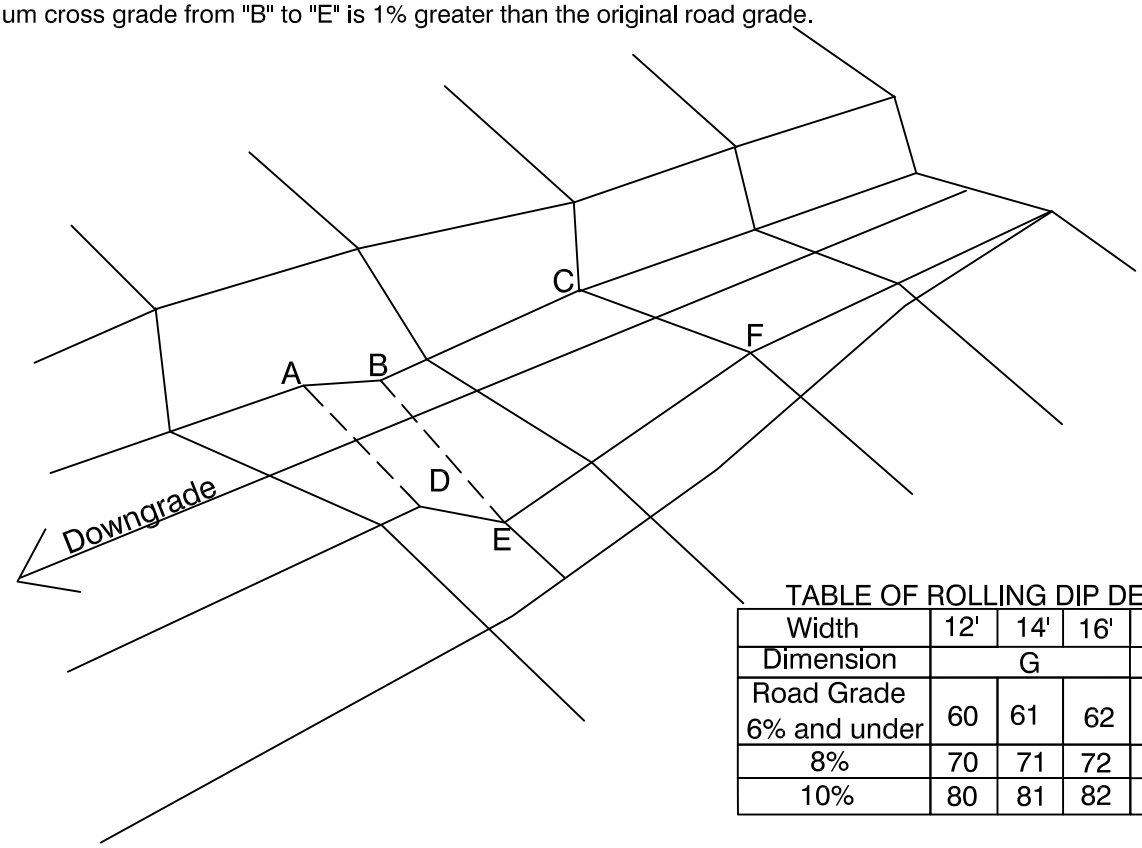
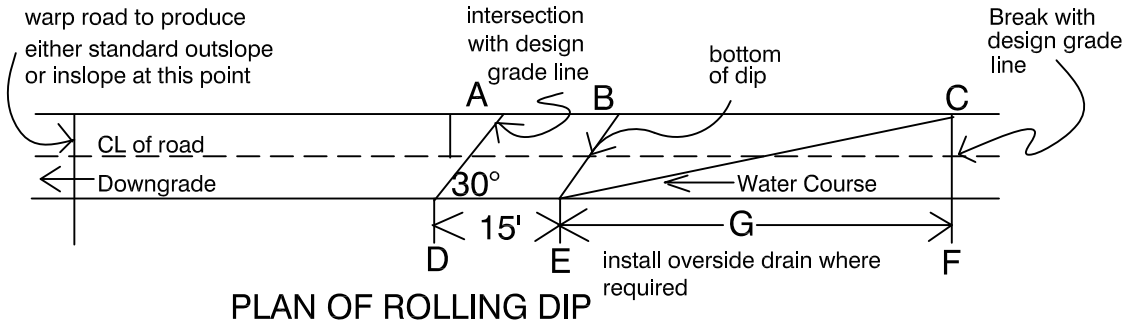
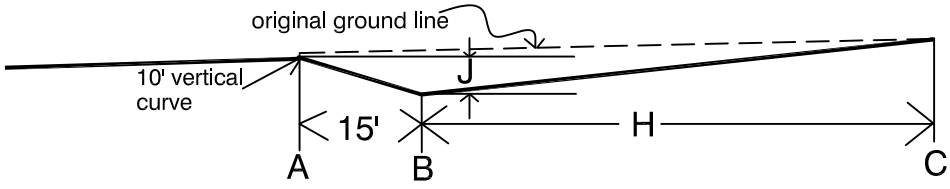


TABLE OF ROLLING DIP DEMENSIONS

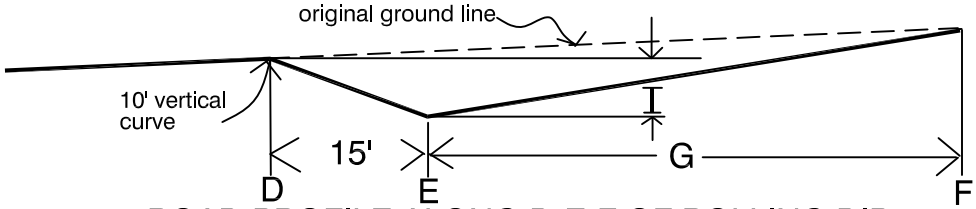
Width	12'	14'	16'	ALL		
Dimension	G			H	I	J
Road Grade 6% and under	60	61	62	52	.8	0.3
8%	70	71	72	62	1.0	0.2
10%	80	81	82	72	1.1	0.1



PLAN OF ROLLING DIP



ROAD PROFILE ALONG A-B-C OF ROLLING DIP

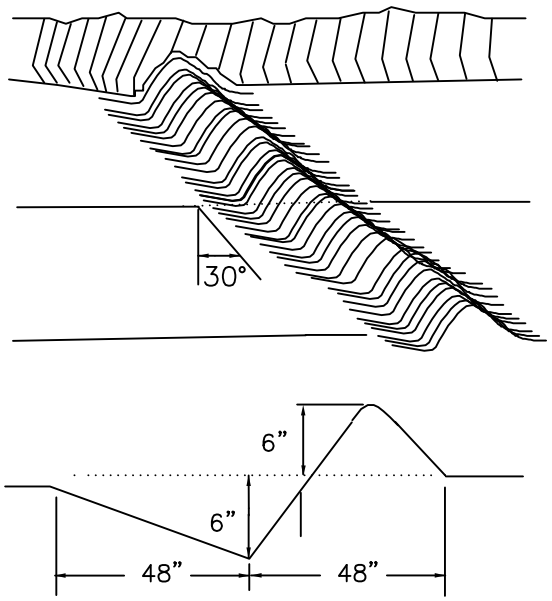


ROAD PROFILE ALONG D-E-F OF ROLLING DIP

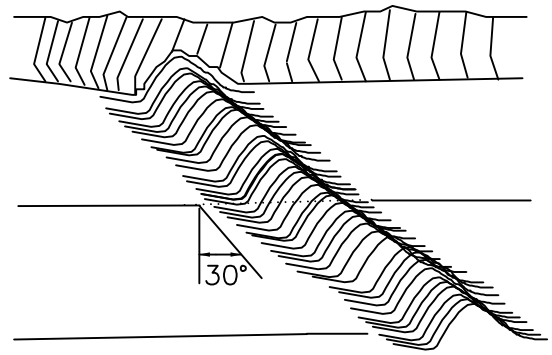
Drawn by: GP

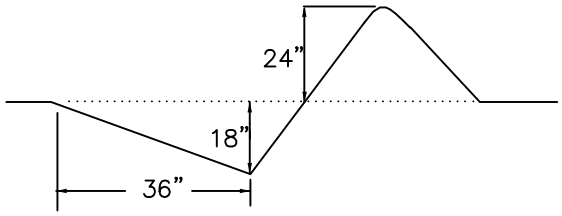
WATERBAR DETAIL–D6

DRIVABLE WATERBAR



NON DRIVABLE WATERBAR



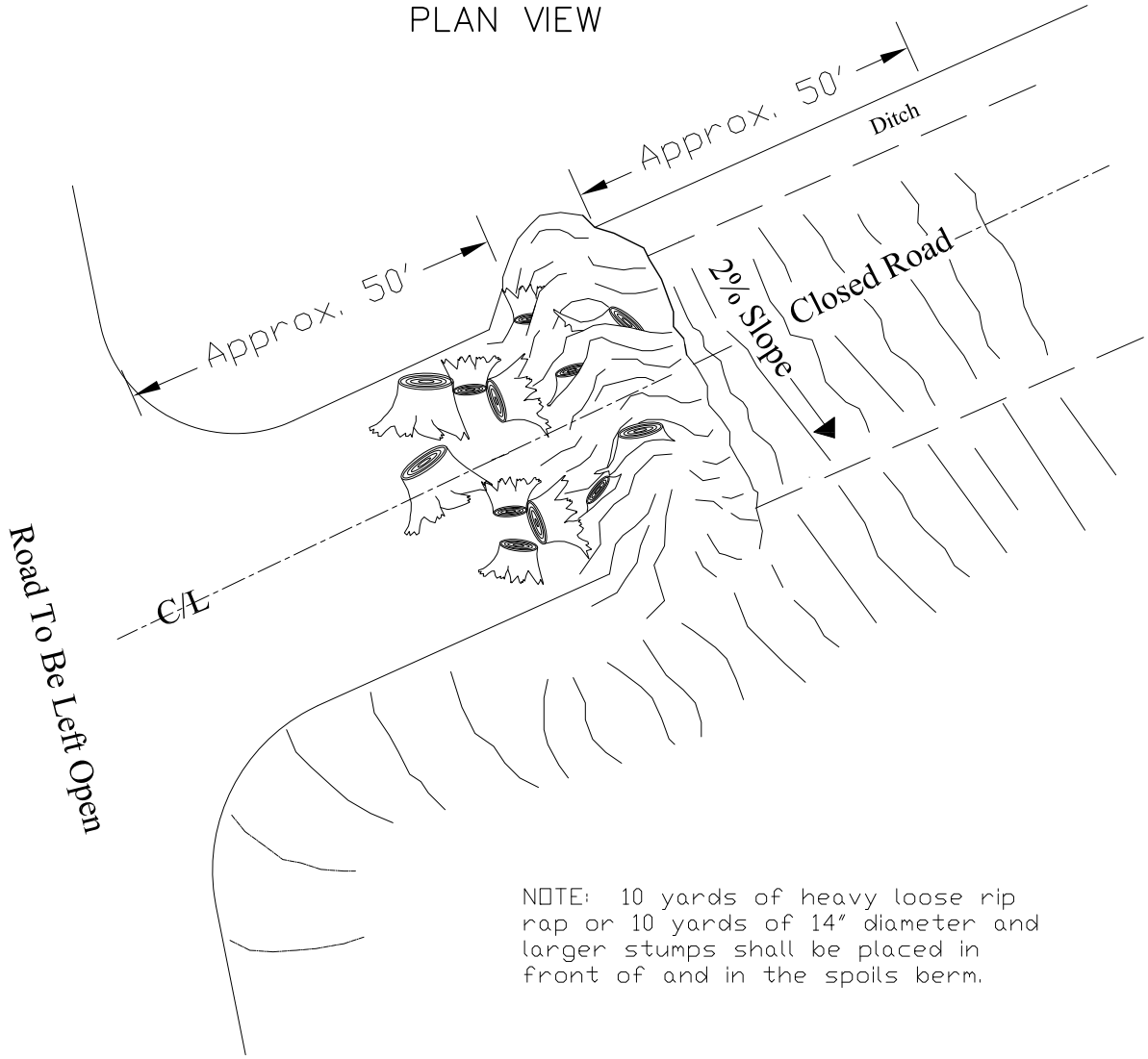


1. Waterbar construction for forest roads Specifications are average and may be adjusted to conditions.
2. Waterbar shall keyed into the bank.
3. The waterbar shall be outsloped for proper drainage.
4. Rock outlet if fill slope is present.

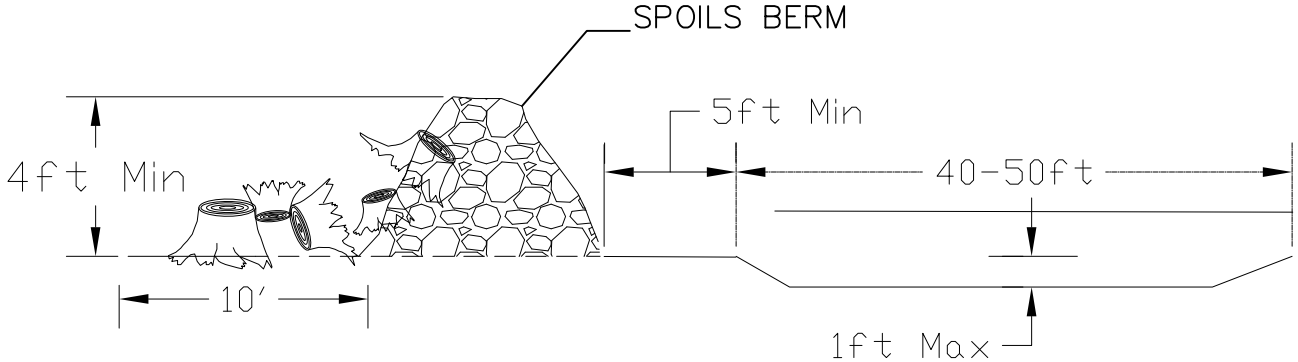
Revised: 05/21/2012

SPOILS BERM DETAIL-D8

PLAN VIEW



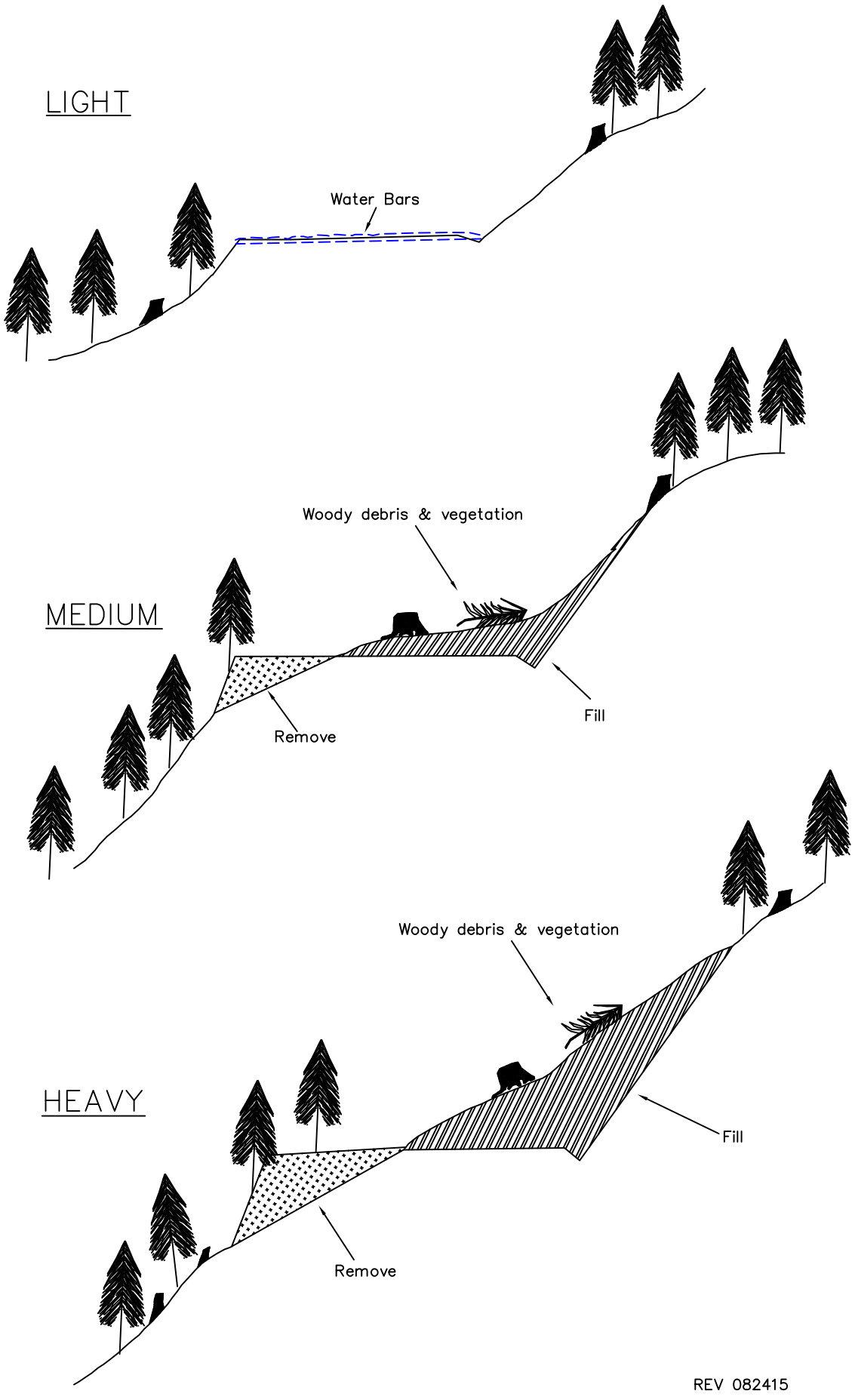
NOTE: 10 yards of heavy loose rip rap or 10 yards of 14" diameter and larger stumps shall be placed in front of and in the spoils berm.



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

Revised 8-29-2008

ROAD ABANDONMENT DETAIL–D12
CROSS SECTIONS



REV 082415

Sale Name: Old Springdale SUMMARY - Road Development Costs

REGION: Northeast CONTRACT #: 30-099712 ENGINEER: Travis Parry

DISTRICT: Arcadia DATE: 1/31/2019

ROAD NUMBERS:	*Construction*	*Reconstruction*	*Maintenance*	*Decommission*	*Abandonment*
Comments:	E293912E, E304035E, E304036Q, E304036R		E293912F, E293912E, E304035A, E304036G, E304036H, E304036L, E304036K, E304036A, E304036M	E304036G, E304036H, E304036L, E304036K, E304036M, E304036R	
ROAD STANDARD:	*Construction*	*Reconstruction*	*Maintenance*	*Decommission*	*Abandonment*
NUMBER OF STATIONS:	***62.42***	***0.00***	***185.50***	***57.20***	
CLEARING & GRUBBING:	$3,745	$0	$742	$0	
EXCAVATION AND FILL:	$25,146	$0	$668	$2,574	
MISC. MAINTENANCE:	$936	$0	$3,525	$0	
ROAD ROCK:	$3,200	$0	$0	$0	
ADDITIONAL ROCK:	$0	$0	$0	$0	
CULVERTS AND FLUMES:	$4,870	$0	$0	$0	
STRUCTURES/MATERIALS:	$0	$0	$0	$0	$0
	$37,898	$0	$4,935	$2,574	$0

TOTAL COSTS:	$37,898	$0	$4,935	$2,574	$0
COST PER STATION:	*$607.14*	*$0.00*	*$26.60*	*$45.00*	*$0*

	$/per move	# of moves	Total
MOBILIZATION:	$1,700	2	$3,400

additional rock, additional culverts, tax $9,953

TOTAL (All Roads) =	$58,760
SALE VOLUME mbf =	5,230
TOTAL $/MBF =	$11.24