



TIMBER NOTICE OF SALE

SALE NAME: TRAPPER KEEPPER

AGREEMENT NO: 30-99119

AUCTION: January 30, 2020 starting at 10:00 a.m., COUNTY: Pacific Pacific Cascade Region Office, Castle Rock, WA

SALE LOCATION: Sale located approximately 7 miles Southwest of Menlo

PRODUCTS SOLD AND SALE AREA: All timber, except leave trees marked with blue paint, leave trees bounded by white "Timber Sale Boundary", all down timber existing 5 years prior to day of sale, and all down timber over 60 inches in diameter, bound by the following; Unit 1, white "Timber Sale Boundary" tags with pink flagging, pink flagging along timber type change and private property, and BPA ROW. Unit 2: Bounded by white "Timber Sale Boundary" tags, pink flagging, BPA ROW and private property. Unit 3: Bounded by white "Timber Sale Boundary" tags, pink flagging, BPA ROW and private property. Unit 4 ROW: Bounded by orange Right of Way tags and orange flagging, on part(s) of Sections 2 all in Township 12 North, Range 8 West, W.M., containing 110 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:

Table with columns: Species, Avg DBH, Ring Count, Total MBF, and MBF by Grade (1P, 2P, 3P, SM, 1S, 2S, 3S, 4S, UT). Rows include Douglas fir, Hemlock, Maple, Red alder, Red cedar, and Sale Total.

MINIMUM BID: \$594,000.00 BID METHOD: Sealed Bids

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

EXPIRATION DATE: October 31, 2021 ALLOCATION: Export Restricted

BID DEPOSIT: \$59,400.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

HARVEST METHOD: Cable, and Ground based equipment. Harvesting activities are estimated to be 5% cable/cable assist and 95% ground-based harvesting. Ground-based harvesting equipment shall be restricted to slopes of 45% and less, and restricted during saturated soil conditions. See clauses H-140 and H-141 for further harvest requirements.



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ROADS: 14.79 stations of required construction. 36.91 stations of required reconstruction. 8.53 stations of optional construction. 47.42 stations of optional reconstruction. 196.70 stations of required prehaul maintenance. 49.14 stations of abandonment. Marbled Murrelet timing restriction applies to work within M-Line Rock Pit, for additional information refer to Clause 1-27 in road plan and Clause H-142 in the contract. Rock used in accordance with the quantities on the ROCK LIST may be obtained from the M-line Rock Pit located in Sec 04, T12N, R08W, W.M. Rock used in accordance with the quantities on the ROCK LIST may be obtained from any commercial source at the Purchaser's expense subject to written approval from Contract Administrator. Road construction will not be permitted from October 1 to April 30 unless authorized in writing by the Contract Administrator. This road activity restriction applies to all road construction and reconstruction work.

ACREAGE DETERMINATION

CRUISE METHOD: The sale acres were determined by GPS delineation. Cruise was completed using variable plot cruise methods.

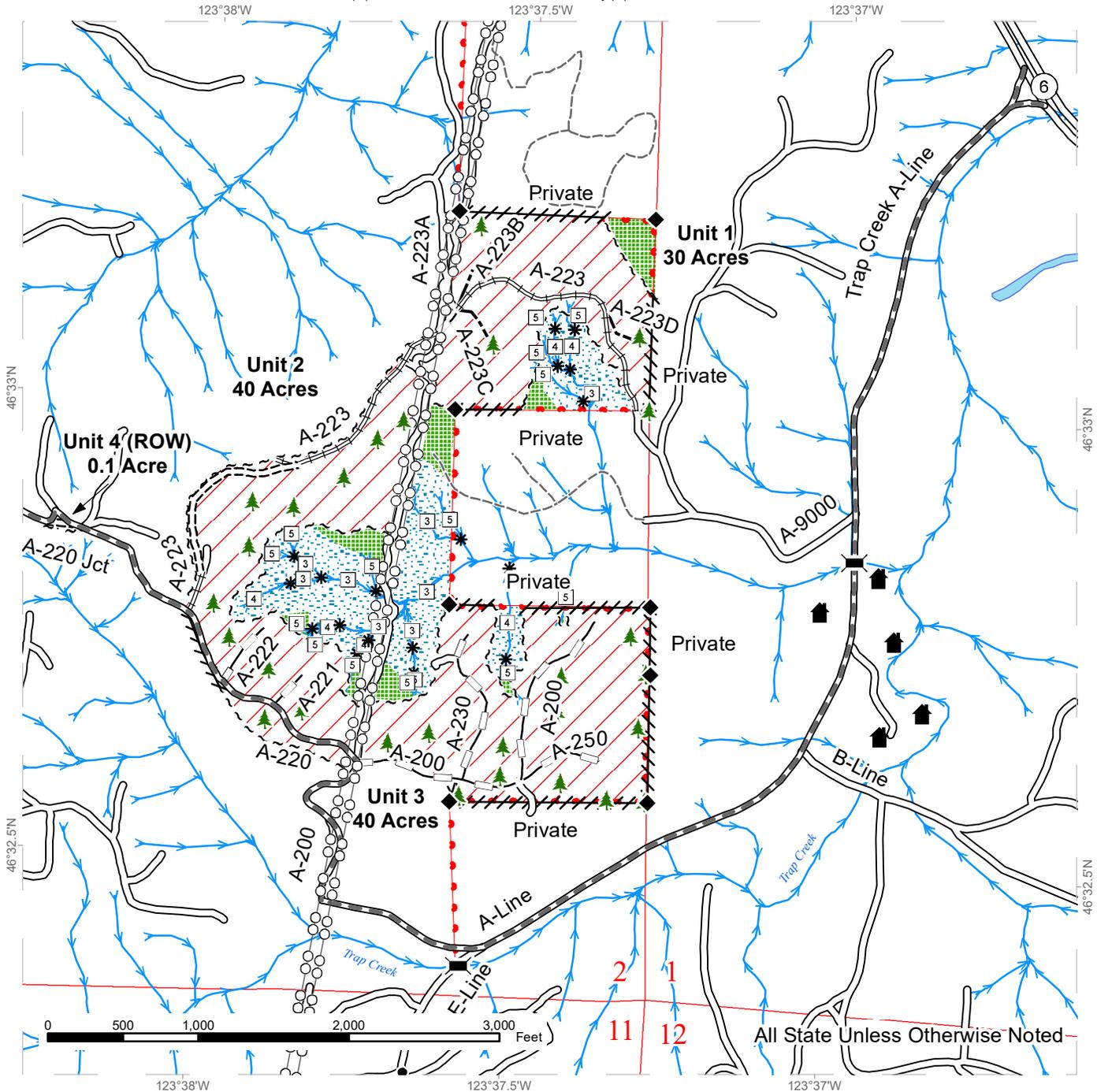
FEES: \$41,000.00 is due on day of sale. \$9.00 per MBF is due upon removal. These are in addition to the bid price.

SPECIAL REMARKS: This sale has approximately 114 MBF of high quality 2 saw DF, 83 MBF of high quality 3 saw DF, and 4 MBF of high quality 3 saw WH, see cruise for details. This sale involves work near BPA ROW and power lines. See contract clause H-141 for additional detail. For Marbled Murrelet timing restrictions, see clause H-142 for additional information.

TIMBER SALE MAP

SALE NAME: TRAPPER KEEPER
AGREEMENT #: 30-099119
TOWNSHIP(S): T12R08W
TRUST(S): State Forest Transfer(1), Common School and Indemnity(3)

REGION: Pacific Cascade Region
COUNTY(S): PACIFIC
ELEVATION RGE: 269-707



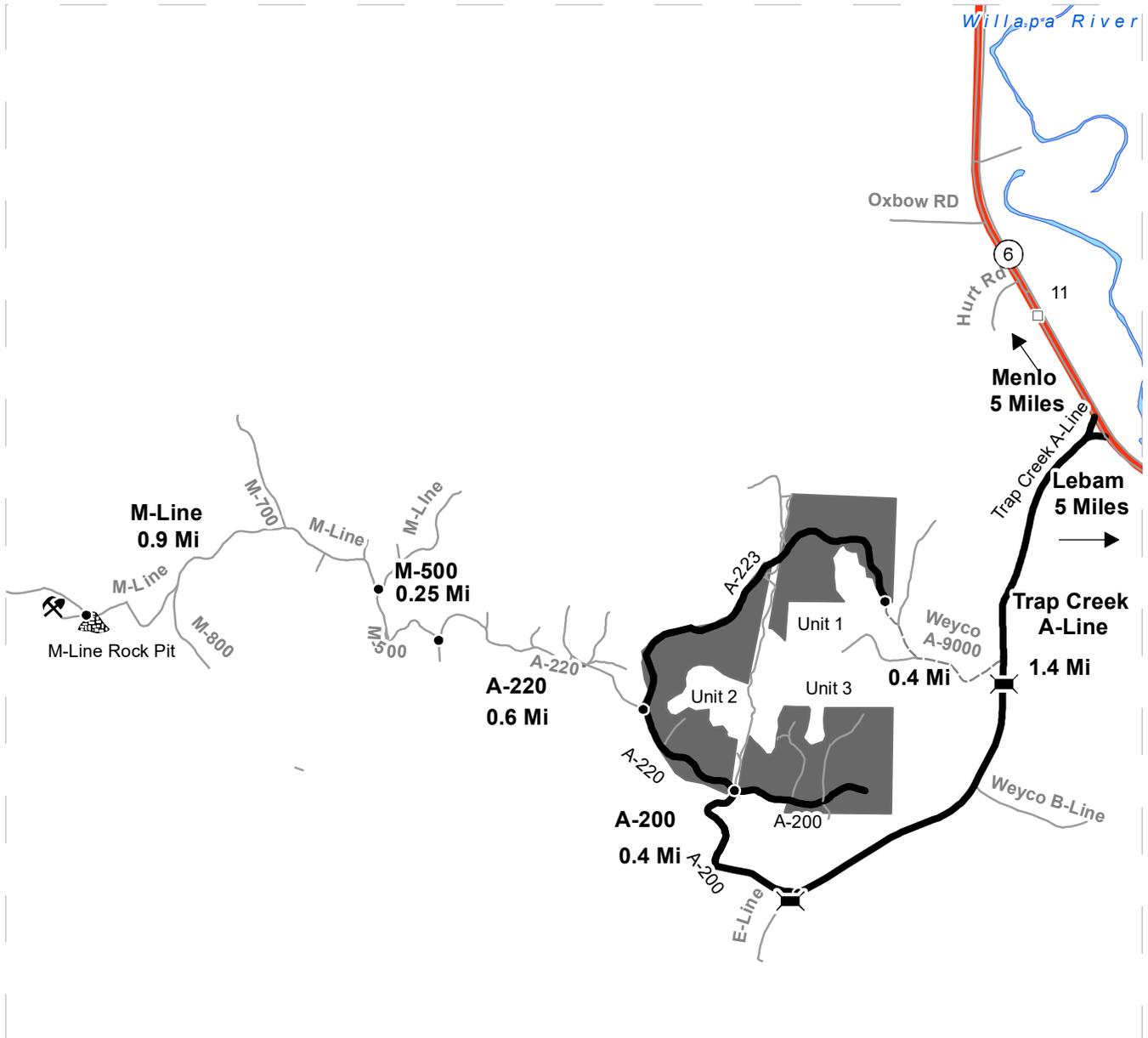
Variable Retention Harvest	Existing Roads	Streams
Leave Tree Area	Required Pre-Haul Maintenance	Stream Type
Riparian Mgt Zone	Required Construction	Stream Type Break
Sale Boundary Tags	Required Reconstruction	Bridge
Right of Way Tags	Optional Construction	Leave Tree Area <1/4-acre
Property Line	Optional Reconstruction	Structure
Flag Line	Old Grades/Trails	Survey Monument
	Power Lines	



DRIVING MAP

SALE NAME: TRAPPER KEEPPER
AGREEMENT#: 30-099119
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Map may not be to scale

- Timber Sale Unit
- Haul Route
- Other Road
- View Only Route
- Highway
- Milepost Markers
- Bridge
- Distance Indicator
- Rock Pit
- Stockpile

DRIVING DIRECTIONS:

From State Route 6, East of Mile Marker 11.

Turn Southwest onto Trap Creek A-Line. Continue 1.4 Miles to A-200. Turn North (Right) on to A-200 (Under BPA powerlines). Continue up hill to A200-A220 Junction. Unit 3 is on the Right. Unit 2 is to the Left.

Unit 1 is located to the North off of the Weyco 9000. This is viewing Route only. Haul will go out the A-223 new construction built with sale.



**STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES**

**BILL OF SALE AND CONTRACT FOR
FOREST PRODUCTS**

Export Restricted Lump Sum AGREEMENT NO. 30-099119

SALE NAME: TRAPPER KEEPPER

**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 January 30, 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 timber, except leave trees marked with blue paint, leave trees bounded by white "Timber Sale Boundary", all down timber existing 5 years prior to day of sale, and all down timber over 60 inches in diameter, bound by the following; Unit 1, white "Timber Sale Boundary" tags with pink flagging, pink flagging along timber type change and private property, and BPA ROW. Unit 2: Bounded by white "Timber Sale Boundary" tags, pink flagging, BPA ROW and private property. Unit 3: Bounded by white "Timber Sale Boundary" tags, pink flagging, BPA ROW and private property. Unit 4 ROW: Bounded by orange Right of Way tags and orange flagging,, located on approximately 110 acres on part(s) of Section 2 in Township 12 North, Range 8 West W.M. in Pacific 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 October 31, 2021.

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 \$953.00 per acre per annum for the acres on which an operating release has not been issued all units..
- 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-062 Habitat Conservation Plan

The State has entered into a Habitat Conservation Plan (HCP) with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (the Services) to address state trust land management issues relating to compliance with the Federal Endangered Species Act. The activities to be carried out under this contract are located within the State's HCP area and are subject to the terms and conditions of the HCP, and the Services' Incidental Take Permit Nos. 812521 and 1168 (collectively referred to as ITP), or as amended hereafter by the Services. The ITP authorizes the incidental take of certain federally listed threatened and endangered species, as specified in the ITP conditions. All HCP materials, including the ITP, are available for review at the State's Regional Offices and the administrative headquarters in Olympia, Washington.

By signing this contract, Purchaser agrees to comply with the terms and conditions of the ITP, and the HCP, which shall become terms of this contract. The State agrees to authorize the lawful activities of the Purchaser carried out pursuant to this contract, PROVIDED the Purchaser remains in compliance with the terms and conditions of both the HCP and ITP. The requirements set forth in this contract are intended to comply with the terms and conditions of the HCP and ITP. Accordingly, non-compliance with the terms and conditions of the HCP and ITP will render the authorization provided in this paragraph void, be deemed a breach of the contract and may subject Purchaser to liability for violation of the Endangered Species Act.

Any modifications to the contract shall be proposed in writing by Purchaser, shall continue to meet the terms and conditions of the HCP and ITP, and shall require the prior written approval of the Region Manager before taking effect.

G-063 Incidental Take Permit Notification Requirements

- a. Purchaser shall immediately notify the Contract Administrator of new locations of permit species covered by the Incidental Take Permits (ITP) that are discovered within the area covered by the State's Habitat Conservation Plan (HCP), including, but not limited to: locations of occupied murrelet habitat; spotted owl nest sites; wolves; grizzly bears; nests, communal roosts, or feeding concentrations of bald eagles; peregrine falcon nests; Columbian white-tailed deer; Aleutian Canada geese; Oregon silverspot butterflies; and

additional stream reaches found to contain bull trout. Purchaser is required to notify the Contract Administrator upon discovery of any fish species found in streams or bodies of water classified as non-fish bearing. In all circumstances, notification must occur within a 24 hour time period.

- b. Upon locating any live, dead, injured, or sick specimens of any permit species covered by the ITP, Purchaser shall immediately notify the Contract Administrator. Purchaser shall notify the Contract Administrator if there is any doubt as to the identification of a discovered permit species. Purchaser may be required to take certain actions to help the Contract Administrator safeguard the well-being of any live, injured or sick specimens of any permit species discovered, until the proper disposition of such specimens can be determined by the Contract Administrator. Any such requirements will be explained to Purchaser by the Contract Administrator during the Pre-Work Conference. In all circumstances, notification must occur within a 24 hour time period.
- c. Purchaser shall refer to a specific ITP number, PRT-812521 or ITP 1168 (copies which are located in the region office) in all correspondence and reports concerning permit activities.
- d. Provisions and requirements of the ITP shall be clearly presented and explained to Purchaser by Contract Administrator during the Pre-Work Conference as per contract clause G-330. All applicable provisions of the ITP and this schedule must be presented and clearly explained by Purchaser to all authorized officers, employees, contractors, or agents of Purchaser conducting authorized activities in the timber sale area. Any questions Purchaser may have about the ITP should be directed to the Contract Administrator.

G-064 Permits

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

G-065 Regulatory Disclaimer

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

G-066 Governmental Regulatory Actions

a. Risk

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

or frustration results from Purchaser's failure to comply with this contract, 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-101 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 become a part of this contract and the Scribner log scale volume, as defined by the Northwest Log Rules Advisory Group, 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: BV-SFIS-US09000572.

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 Castle Rock, 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; Trap Creek A-Line, A-200, A-222, A-223, A-223A, A-223B, A-223C, A-223D, A-230, A-250. Rock Haul Only: M-Line from M500 Jct to M-Line Rock Pit and M-500. The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

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 Trap Creek A-Line or the Sawmill M-Line, unless authority is granted in writing by the Contract Administrator.

G-396 Public Hauling Permit

The hauling of forest products, rock or equipment may require a state, county, or city hauling permit. Purchaser is responsible for obtaining any necessary permit and any costs associated with extra maintenance or repair levied by the permitting agency. Purchaser must provide the Contract Administrator with a copy of the executed permit.

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 \$62,681.00. The total contract price consists of a \$0.00 contract bid price plus \$62,681.00 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 \$100,000.00. The Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by operations under this contract or resulting from Purchaser's noncompliance with any rule or law. Acceptable performance security may be in the form of a performance bond, irrevocable letter of credit, cash, savings or certificate of deposit account assignments, and must name the State as the obligee or beneficiary. A letter of credit must comply with Title 62A RCW, Article 5. Performance security must remain

in full force over the duration of the contract length. Surety bonds issued shall conform to the issuance and rating requirements in clause G-150. The State shall retain the performance security pursuant to RCW 79.15.100. Purchaser shall not operate unless the performance security has been accepted by the State. If at any time the State decides that the security document or amount has become unsatisfactory, Purchaser agrees to suspend operations and, within 30 days of notification, to replace the security with one acceptable to the State or to supplement the amount of the existing security.

P-100 Performance Security Reduction

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

Section H: Harvesting Operations

H-013 Reserve Tree Damage Definition

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

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

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

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

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

H-017 Preventing Excessive Soil Disturbance

Operations may be suspended when soil rutting exceeds 12 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-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-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using cable/cable assist and shovel yarding equipment. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

H-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities.

H-126 Tailholds on State Land

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

H-127 Tailholds on Private Land

If Purchaser chooses to tailhold on private property, Purchaser shall obtain permit(s) and assumes responsibility for all costs and damages associated with the permit(s). Purchaser must provide the State with a copy of the executed permit(s) or a letter from the landowner indicating that a satisfactory tailhold permit(s) has been consummated between Purchaser and the landowner.

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

Ground based yarding equipment will not be permitted on slopes over 45%.

Cable assist operations will not be permitted on slopes over 80%

Ground based yarding equipment shall only operate during dry soil conditions.

Long butts remaining on the sale must be dispersed as directed by Contract Administrator.

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

H-141 Additional Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

Within shovel logging areas, the shovel operator shall break up concentrations of logging debris greater than 10 feet by 10 feet to allow exposure of natural forest soils to ensure proper reforestation.

Any timber harvest within two tree lengths of the BPA right-of-way will require at least one week advance notice to the local BPA Operations and Maintenance District: Olympia District; contact person is Jason Hunt, (360) 570-4307 office or (253) 880-4112 cell.

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

H-142 Wildlife Timing Restrictions

The following wildlife timing restrictions apply to this contract and shall be in place in the locations shown on the attached timber sale map.

Marbled Murrelet - Timing restrictions are described as no operations of heavy equipment within the critical nesting season (April 1 to August 31) during the daily peak activity periods (one hour before official sunrise to two hours after official sunrise and one hour before and after official sunset). Heavy equipment is identified as felling, yarding, and loading equipment for logging, and road maintenance and construction equipment. This area includes the M-Line Rock Pit.

Permission to do otherwise must be granted in writing by the State

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.

Section C: Construction and Maintenance

C-040 Road Plan

Road construction and associated work provisions of the Road Plan for this sale, dated 9/27/2019 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on A-200, A-221, A-222, A-223, A-223B, A-223C, A-223D, A-230, A-250, and M-500. All work shall be completed to the specifications detailed in the Road Plan.

C-060 Designated Road Maintainer

If required by the State, Purchaser shall perform maintenance and replacement work as directed by the Contract Administrator on Trap Creek A-Line and Sawmill M-Line. Purchaser shall furnish a statement in a form satisfactory to the State showing the costs incurred while performing this work. Costs shall be based on the rates set forth in the equipment rate schedule on file at the Region office or Engineering Division in Olympia. The State shall reimburse Purchaser for said costs within 30 days of receipt and approval of the statement.

C-080 Landing Locations Approved Prior to Construction

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

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-030 Landing Debris Clean Up

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

S-035 Logging Debris Clean Up

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

S-050 Cessation of Operations for Low Humidity

When the humidity is 30 percent or lower on the sale area, all operations must cease unless authority to continue is granted by the State in writing.

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 all streams 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-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.

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 Sale boundary.

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

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Purchaser

Eric Wisch

Print Name

Pacific Cascade Region Manager

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:

Timber Sale Name:

Application Number:

EXCISE TAX APPLICABLE ACTIVITIES

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

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

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

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

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

EXCISE TAX EXEMPT ACTIVITIES

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

Temporary Reconstruction: **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 contract. The Department of Revenue bears responsibility for determining forest road excise taxes. The Department of Natural Resources developed this form to help estimate the impact of forest excise taxes. However, the information provided may not precisely calculate the actual amount of taxes due. The Department of Revenue is available for consultation by calling 1.800.548.8829.
(Revised 9/18)

PRE-CRUISE NARRATIVE

Sale Name: TRAPPER KEEPPER	Region: Pacific Cascade
Agreement #: 30-099119	District: St. Helens District; Naselle Unit
Contact Forester: Mike Henrie Phone / Location: 360-751-0075	County(s): Choose a county, Pacific
Alternate Contact: Lisa Kaino Phone / Location: 360-749-0154	Other information: Click here to enter text.

Type of Sale: Lump Sum	
Harvest System: Ground based Click here to enter text.	95%
Harvest System: Downhill Cable Click here to enter text.	5%
S	

UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit #	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	Sec 2 T12 N R 08 W	03	43	6	5	2	0	30	GPS (Garmin)
2	Sec 2 T12 N R 08 W	01/03	56	12	2	2	0	40	GPS (Garmin)
3	Sec 2 T12 N R 08 W	03	54	7	2	5	0	40	GPS (Garmin)
4	Sec 2 T12 N R 08 W	03						0.1	
TOTAL ACRES			153	25	9	9	0	110	

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 is bound by Private Property; reprod and white "Timber Sale Boundary" tags. Leave Trees Areas are outside of white "Timber Sale	NONE	296 Total Leave Trees

	Boundary" tags or bounded individuals with Blue Paint inside of Unit.		
2	Unit is bound by white "Timber Sale Boundary" tags. Leave Trees areas are outside of white "Timber Sale Boundary" tags or bounded individuals with Blue Paint inside of Unit.	NONE	344 Total Leave Trees
3	Unit is bound by reprod; white "Timber Sale Boundary" tags and Private Property and Existing Road. Leave Trees areas are outside of white "Timber Sale Boundary" tags or bounded individuals with Blue Paint inside of Unit.	NONE	360 Total Leave Trees
4	ROW Unit. About 20 trees		

OTHER PRE-CRUISE INFORMATION:

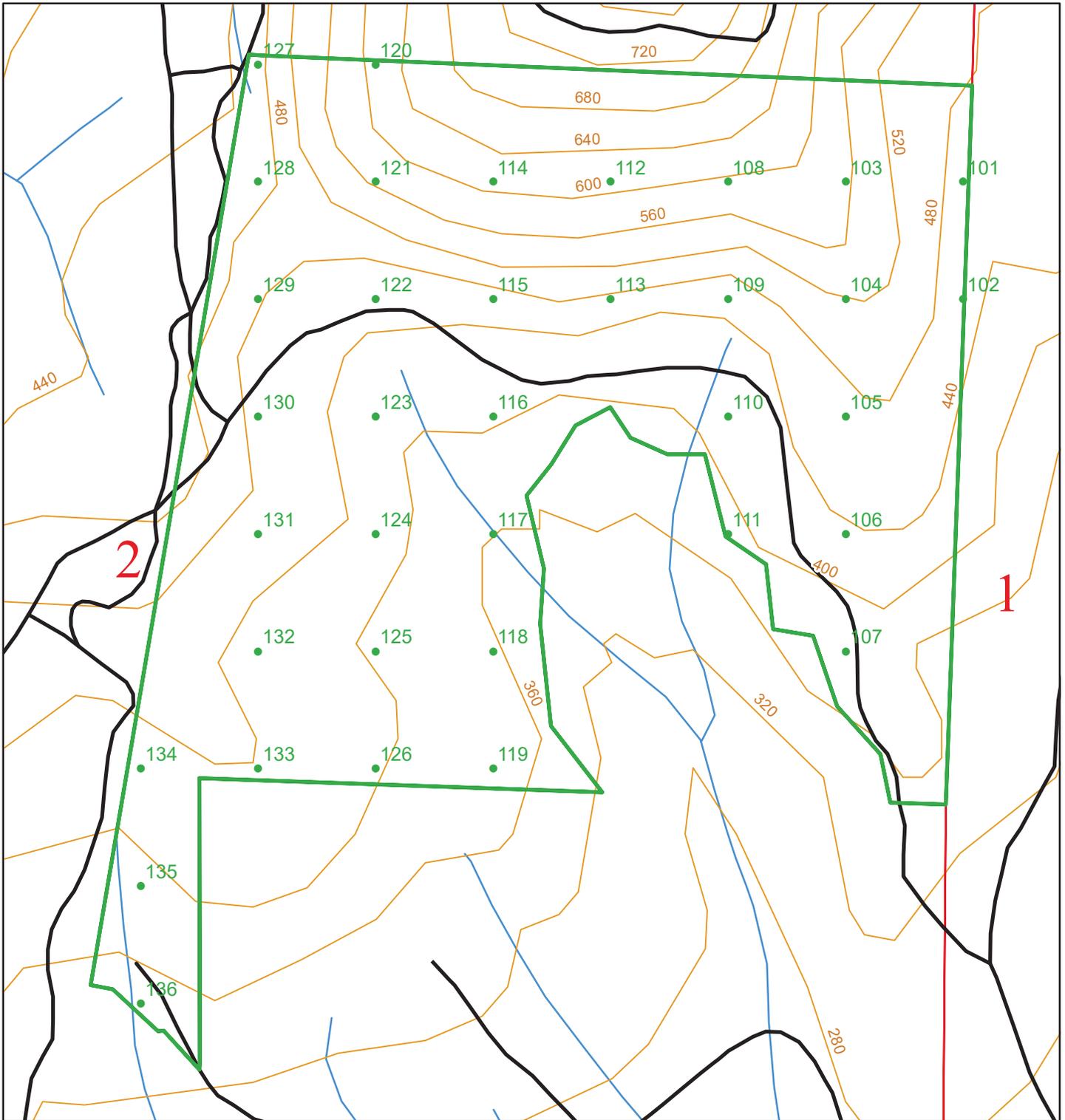
Unit #	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	DF,WH,GF, RA, BLM	Trap Creek A-Line To Weyco 9000 to A-223	See Logging Plan Map
2	DF and WH	Trap Creek A-Line to A-200 to A-220	See Logging Plan Map
3	DF and WH	Trap Creek A-Line to A-200	See Logging Plan Map
4	WH	Trap Creek A-Line to A-200	See Logging Plan Map
TOTAL MBF	2000 MBF EST		

REMARKS:

Unit 1 has "Larger Timber Type (origing year 1949" North of the A-223 Road. May want to cruise separate or use different BAF than Rest of Unit. It is also going to be downhill Cable Yarding.

Unit 1: Origin Year 1949 and 1979.
Unit 2: Origin Year 1980 and 1986.
Unit 3: Origin Year 1976.
Unit 4 ROW: Orgin 1986.

Prepared By: Mike Henrie Date: 05/21/2019	Title: Forester, Naselle Unit	CC:
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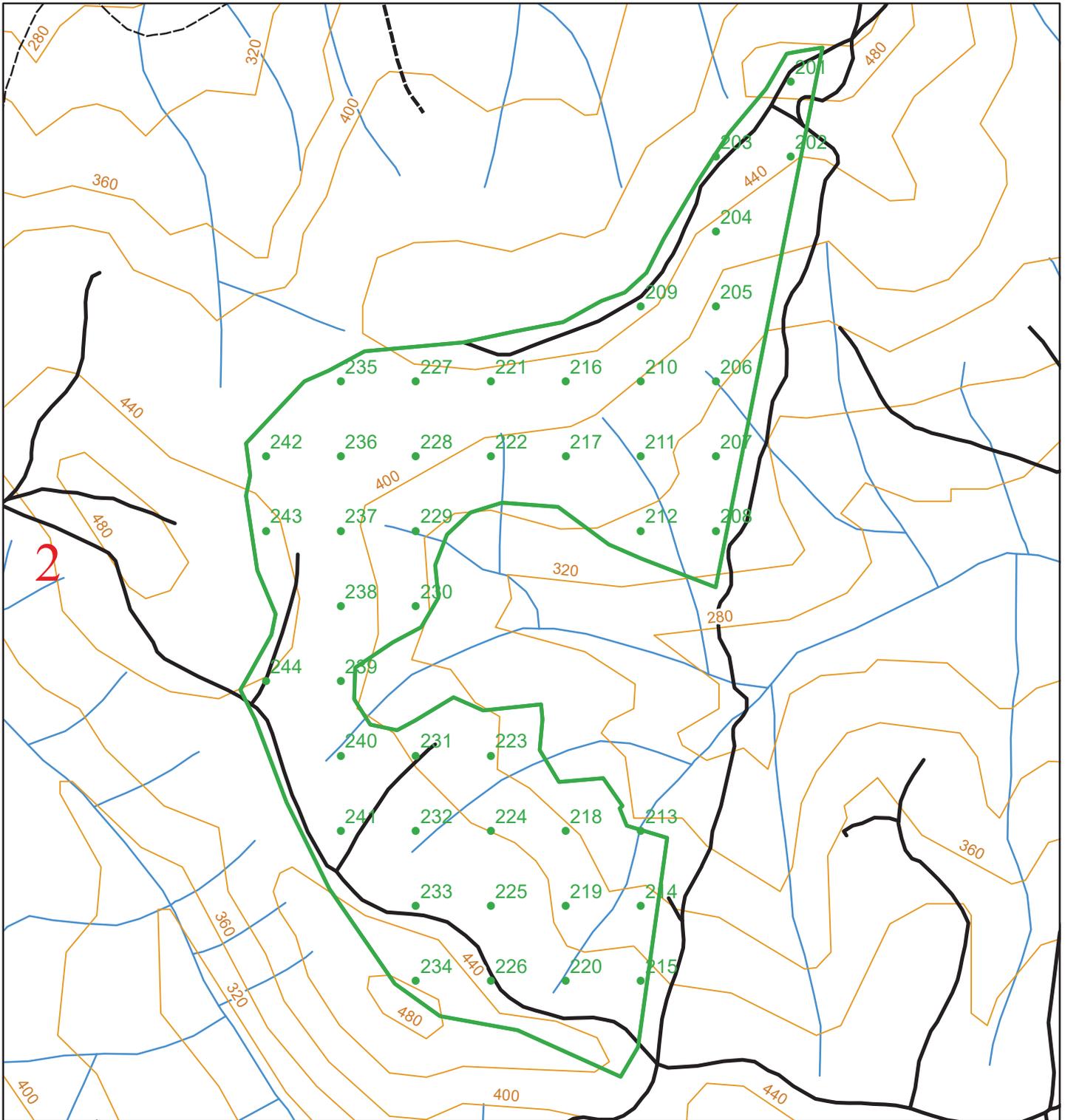
FMA POLYGON AND SAMPLE POINT INFORMATION

FMA_NM:	TRAPPER KEEPER U1	Township:	T12R08W
FMA_ID:	278571	DNR Region:	PACIFIC CASC
Acres:	acres	Total Sample Points:	36
County:	PACIFIC	Spacing Between Points:	Width: 208 Height: 208
		Point Rotation Degrees:	0



Legend

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



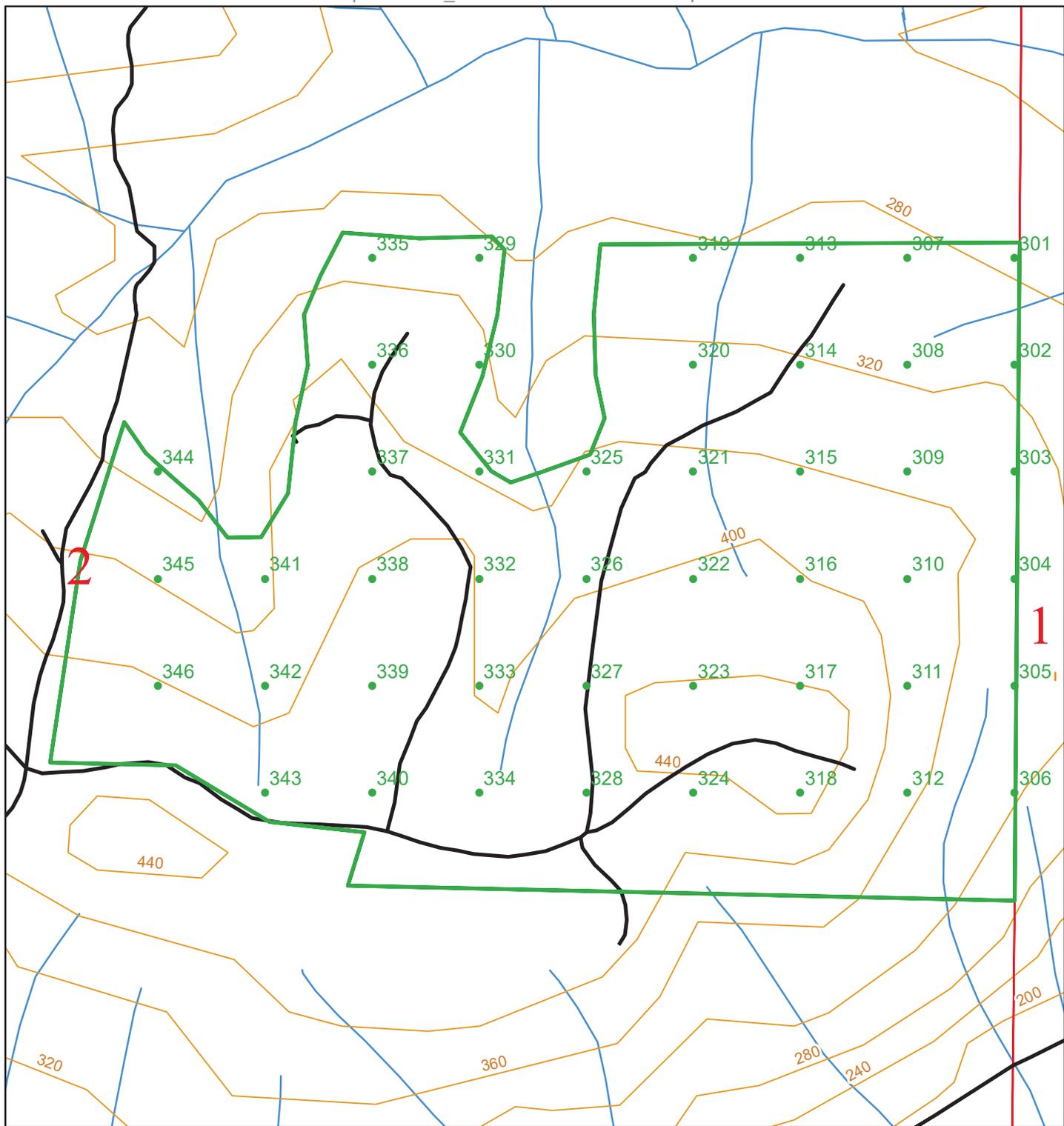
FMA POLYGON AND SAMPLE POINT INFORMATION

FMA_NM:	TRAPPER KEEPER U2	Township:	T12R08W
FMA_ID:	254017	DNR Region:	PACIFIC CASC
Acres:	43	Total Sample Points:	44
County:	PACIFIC	Spacing Between Points:	Width: 208 Height: 208
		Point Rotation Degrees:	0



Legend

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



FMA POLYGON AND SAMPLE POINT INFORMATION

FMA_NM:	TRAPPER KEEPER U3	Township:	T12R08W
FMA_ID:	254016	DNR Region:	PACIFIC CASC
Acres:	44	Total Sample Points:	46
County:	PACIFIC	Spacing Between Points:	Width: 208 Height: 208
		Point Rotation Degrees:	0



Scale 1:3,300

Legend

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

Cruise Narrative

Sale Name: Trapper Keeper	Region: Pacific Cascade
App. #: 30-099119	District: St. Helens District; Naselle Unit
Lead Cruiser: Alex Chaney	Completion date: 02/20/2019
Other Cruisers: Dan Clark	

Unit acreage specifications:

Unit #	Cruised acres	Cruised acres agree with sale acres? Yes/No	If acres do not agree explain why.
1A	20	No	Unit 1 is broken up into 2 units and 2 different age classes
1B	10	No	Unit 1 is broken up into 2 units and 2 different age classes
2A	19	No	Unit 2 is broken up into 2 units and 2 different age classes
2B	21	No	Unit 2 is broken up into 2 units and 2 different age classes
3	40	Yes	
4	0.1	Yes	

Unit cruise specifications:

Unit #	Sample type (VP, FP, ITS,100%)	Expansion factor (BAF, full/half)	Sighting height (4.5 ft, 16 ft.)	Grid size (Plot spacing or % of area)	Plot ratio (Cru./Tally)	Total number of plots
1A	VP	40	4.5'	208'x208'	1:1	20
1B	VP	40/27.78	4.5'	208'x208'	1:1	13
2A	VP	40	4.5'	208'x208'	1:1	19
2B	VP	27.78	4.5'	208'x208'	1:1	22
3	VP	40	4.5'	208'x208'	1:1	45
4	ITS	NA	4.5'	100%	NA	NA

Sale/Cruise Description:

Minor species cruise intensity:	Cruised on appropriate plots.
Minimum cruise spec:	40% Of Form- Factor at 16 feet D.O.B or 5 inch Top, and merchantable top.
Avg. ring count by sp:	DF = 8 WH = NA SS = NA
Leave/take tree description:	Leave tree clumps are bounded with yellow "Leave Tree Area" tags and pink flagging, individual leave trees are marked with a single band of blue paint.
Sort Description:	<p>HA– Logs meeting the following criteria: Surface characteristics for a high quality A sort will have sound tight knots not to exceed 1 ½" in diameter, numbering not more than an average of one per foot of log length. May include logs with not more than two larger knots. Knots and knot indicators ½" in diameter and smaller shall not be a determining factor. Logs will have a growth ring count of 6 or more rings per inch in the outer third top end of the log. (min dia 8".)</p> <p>HB – Logs meeting the following criteria: Surface characteristics for a B sort will have sound tight knots not to exceed 1 ½" in diameter. May include logs with not more than two larger knots up to 2 ½" in diameter. Logs will have a growth ring count of 6 or more rings per inch in the outer third to end of the log. (min dia 8".)</p> <p>R – Logs meeting the following criteria: Gross diameter of 12 inches or</p>

	<p>greater, excessive knots greater than 2 ½ inches with recovery less than 65% of the net scale. D- Domestic logs</p>
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Field observations:

Tapper Keeper Timber Sale

This sale consist of 3 units and 1 right of way located off Highway 6. Units 1 and 2 of each broken into two different units and age classes.

Unit 1A is a 40 year old uniform Douglas Fir stand with a few Western Hemlock and Alder mixed in. The grade of logs in this stand is domestic with Douglas Fir having an average DBH of 11.9" and a bole height of 77ft.

Unit 1B is a 70 year old dominant Douglas Fir stand mixed in with some Big leaf maple, Western hemlock, Red alder and Red cedar. The majority of the logs in this stand were domestic but there were some High quality in it. Average DBH for Douglas fir is 28" with a bole height of 95ft.

Unit 2A is a 40 year old dominant Douglas fir stand with a few Western hemlock. The quality of logs in this unit were domestic with the average DBH for Douglas fir being 11.9" with a bole height 83ft.

Unit 2 B is a 30 year old dominant Douglas fir stand with a few Western hemlock. The quality of logs in this unit were domestic with the average DBH for Douglas fir being 10.2" with a bole height of 52ft.

Unit 3 is a 40 year old dominant Douglas fir stand with some Western hemlock and Red alder throughout the unit. The quality of logs in this unit were domestic with the average DBH of Douglas Fir being 12.4" with a bole height of 84ft.

Unit 4 is a 0.1 acre right of way consisting of Douglas fir, Western hemlock and Red alder.

All units were very similar besides the North section in Unit 1. 95% of this Sale is ground based and 5% is downhill cable. The majority of the logs in this sale are domestic but do have some high quality B's in it. Light storm damage throughout the sale. All roads are drivable but some roads will need a little pre-haul maintenance. There is required construction to build the road through unit 2. You do not need a key to access this sale.

Grants: 01 and 03

Prepared by: Alex Chaney

Title: Timber Cruiser

TC PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																					
T12N R08W S02 Ty00U3 THRU T12N R08W S02 Ty0U2B				Project: TRAPPER										Page 1									
				Acres 110.10										Date 2/20/2019				Time 12:31:47PM					
Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre		
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf			
									5-7	8-11	12-15	16+	12-20	21-30	31-35	36-99							
DF	CU	CU			100.0	125											2	6		0.00	52.3		
DF	HB	2S		5	2.3	1,060	1,036	114			8	92					40	21	797	3.93	1.3		
DF	HB	3S		3	8.3	822	753	83		100							40	9	96	0.74	7.8		
DF	D	2S		13	5.3	2,810	2,663	293			48	52		5	1	1	93	35	14	289	2.03	9.2	
DF	D	3S		40	6.2	8,615	8,084	890	48	52				0	2	2	96	38	7	77	0.61	104.5	
DF	D	4S		29	3.1	5,943	5,758	634	98	2				12	28	26	34	29	5	30	0.26	189.5	
DF	D	UT		10	.9	1,969	1,952	215	79	17	4			15	18	18	49	26	6	39	0.37	49.6	
DF Totals					93	5.2	21,345	20,245	2,229	55	27	7	12	6	10	10	74	28	6	49	0.47	414.3	
WH	CU	CU			100.0	5											3	7		0.00	1.7		
WH	HB	3S		4	8.3	44	41	4		100							40	9	110	0.83	.4		
WH	D	2S		10	3.0	109	105	12			28	72		72		28	33	17	376	2.54	.3		
WH	D	3S		51	7.8	541	499	55	6	94				2	2	96	38	9	106	0.79	4.7		
WH	D	4S		35	4.2	353	338	37	100					8	44	35	13	28	5	30	0.28	11.2	
WH Totals					4	6.5	1,052	983	108	38	52	3	8	3	24	13	60	29	7	54	0.51	18.2	
RA	D	UT		19		21	21	2	1	99				99	1			16	10	58	1.11	.4	
RA	D	4S		81	3.9	88	85	9	100							12	88	38	5	40	0.39	2.1	
RA Totals					0	3.2	109	106	12	80	20			20	0	10	70	35	6	42	0.44	2.5	
BM	CU	CU			100.0	36											10	9		0.00	3.6		
BM	D	UT		32		171	171	19	43	30	27			57	15	27		25	8	48	0.56	3.6	
BM	D	1S		28	8.3	159	146	16				100			100		24	16	220	2.40	.7		
BM	D	2S		14	10.5	80	72	8			100				100		32	13	170	1.55	.4		
BM	D	3S		12		60	60	7		100				100			16	11	70	0.86	.9		
BM	D	4S		12	8.3	70	64	7		100					100		40	9	110	1.01	.6		
BM	D	4S		2		8	8	1	100					100			20	6	20	0.56	.4		
BM Totals					2	10.9	585	521	57	16	34	23	28	32	33	23	12	20	9	51	0.75	10.1	
RC	D	3S		100	9.8	30	27	3			10	90		10		90		28	17	415	7.32	.1	
RC Totals					0	9.8	30	27	3			10	90		10		90		28	17	415	7.32	.1
Totals						5.4	23,120	21,882	2,409	53	28	7	12	6	12	11	72	28	6	49	0.48	445.2	

PROJECT STATISTICS**PROJECT TRAPPER**

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
12N	08	02	KEEPER	00U3	THR	110.10	120	615	S	W
12N	08W	02	KEEPER	0U2B						
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			57.0	5.2	19,192	20,245	21,299			
WHEMLOCK			287.9	26.3	725	983	1,241			
BL MAPLE			481.3	43.9	292	521	750			
R ALDER			507.2	46.3	57	106	155			
WR CEDAR			1095.4	99.9	0	27	54			
TOTAL			52.3	4.8	20,839	21,882	22,926	109	27	12
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			50.9	4.6	5,227	5,481	5,735			
WHEMLOCK			284.7	26.0	196	265	334			
BL MAPLE			480.0	43.8	84	149	214			
R ALDER			482.8	44.0	21	38	54			
WR CEDAR			1095.4	99.9	0	13	27			
TOTAL			45.7	4.2	5,698	5,945	6,193	83	21	9
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					106	112	118			
WHEMLOCK			221.4	20.2	85	115	146			
BL MAPLE			180.4	16.5	44	78	112			
R ALDER			423.3	38.6	35	64	94			
WR CEDAR			1095.4	99.9	0	66	132			
TOTAL			40.0	3.6	105	111	116	64	16	7

T12N R08W S02 T0U1B										T12N R08W S02 T0U1B				
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt					
12N	08W	02	KEEPER	0U1B	10.00	13	35	S	W					

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre	
									Log Scale Dia.				Log Length				Ln	Dia	Bd	CF/ Lf		
									5-7	8-11	12-15	16+	12-20	21-30	31-35	36-99	Ft	In	Ft	Lf		
DF		CU	CU		100.0	571												6	11		0.00	13.6
DF		HB	2S	32	2.3	11,675	11,405	114			8	92					100	40	21	797	3.93	14.3
DF		HB	3S	2	5.6	831	785	8		100						100	40	11	170	1.03	4.6	
DF		DM	2S	57	4.4	21,234	20,310	203			25	75	0	1	2	97	39	16	424	2.48	47.9	
DF		DM	3S	6	.7	2,091	2,078	21		100			4	16	7	74	35	10	116	1.04	17.9	
DF		DM	4S	3	8.3	925	847	8	58	42			42	8	27	22	27	7	35	0.49	24.2	
DF	Totals			83	5.1	37,327	35,425	354	1	9	17	72	1	2	2	95	32	13	289	2.02	122.6	
BM		CU	CU		100.0	400												10	9		0.00	40.0
BM		DM	UT	32		1,880	1,880	19	43	30	27		57	15	27		25	8	48	0.56	39.2	
BM		DM	1S	28	8.3	1,749	1,603	16			100			100			24	16	220	2.40	7.3	
BM		DM	2S	14	10.5	883	790	8		100					100		32	13	170	1.55	4.6	
BM		DM	3S	12		664	664	7		100			100				16	11	70	0.86	9.5	
BM		DM	4S	12	8.3	772	708	7		100					100		40	9	110	1.01	6.4	
BM		DM	4S	2		93	93	1	100				100				20	6	20	0.56	4.6	
BM	Totals			13	10.9	6,441	5,739	57	16	34	23	28	32	33	23	12	20	9	51	0.75	111.7	
WH		CU	CU															4	21		0.00	.6
WH		DM	2S	89	3.0	1,196	1,160	12			28	72		72		28	33	17	376	2.54	3.1	
WH		DM	3S	8		101	101	1		100					100		35	11	160	1.53	.6	
WH		DM	4S	3	33.3	55	36	0	100					100			22	6	20	0.49	1.8	
WH	Totals			3	4.0	1,352	1,297	13	3	8	25	64		67	8	25	27	14	210	1.88	6.2	
RC		DM	3S	100	9.8	329	296	3			10	90	10			90	28	17	415	7.32	.7	
RC	Totals			1	9.8	329	296	3			10	90	10			90	28	17	415	7.32	.7	
RA		DM	4S	100		92	92	1	100						100		40	6	60	1.19	1.5	
RA	Totals			0		92	92	1	100						100		40	6	60	1.19	1.5	
Type Totals					5.9	45,541	42,849	428	4	12	18	66	6	8	5	82	26	11	177	1.59	242.6	

T12N R08W S02 T0U2B										T12N R08W S02 T0U2B				
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt					
12N	08W	02	KEEPER	0U2B	21.00	22	54	S	W					

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre
									Log Scale Dia.				Log Length				Ln	Dia	Bd	CF/	
									5-7	8-11	12-15	16+	12-20	21-30	31-35	36-99	Ft	In	Ft	Lf	
DF		CU	CU		100.0	95											1	5		0.00	108.3
DF		DM	3S	25	6.2	2,613	2,450	51	54	46				12	20	68	36	7	64	0.59	38.2
DF		DM	4S	67	1.9	6,696	6,569	138	100				11	8	21	61	33	5	34	0.28	193.4
DF		DM	UT	8		714	714	15	100				16	43		41	26	5	28	0.31	25.8
DF	Totals			99	3.8	10,119	9,734	204	88	12			8	11	19	61	23	5	27	0.33	365.7
WH		CU	CU		100.0	24											17	5		0.00	1.2
WH		DM	3S	100		59	59	1	100					100			28	8	50	0.71	1.2
WH	Totals			1	28.6	83	59	1	100					100			23	7	25	0.44	2.4
Type Totals					4.0	10,202	9,793	206	88	12			8	12	19	61	23	5	27	0.33	368.1

T12N R08W S02 T00U4										T12N R08W S02 T00U4				
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt					
12N	08W	02	KEEPER	00U4	.10	1	8	S	W					

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre
									Log Scale Dia.				Log Length				Ln	Dia	Bd	CF/ Lf	
									5-7	8-11	12-15	16+	12-20	21-30	31-35	36-99	Ft	In	Ft	Lf	
DF		CU	CU														3	11		0.00	86.6
DF		DM	3S	40		2,598	2,598	0	100							100	36	7	60	0.53	43.3
DF		DM	4S	60	10.0	4,330	3,897	0	100	22		33	44				30	5	30	0.49	129.9
DF	Totals			31	6.3	6,928	6,495	1	100	13		20	67				22	7	25	0.48	259.8
WH		CU	CU														5			0.00	146.6
WH		DM	3S	47		6,597	6,597	1	100						100		40	8	90	0.71	73.3
WH		DM	4S	53		7,330	7,330	1	100	20		40	40				30	5	33	0.29	219.9
WH	Totals			67		13,927	13,927	1	53	47		11	21	68			22	6	32	0.42	439.8
RA		DM	UT	100		300	300	0	100	33		67					16	5	15	0.25	20.0
RA	Totals			1		300	300	0	100	33		67					16	5	15	0.25	20.0
Type Totals					2.0	21,155	20,722	2	68	32		12	1	20	67		22	6	29	0.43	719.6

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	TRAPPER		DATE	2/20/2019		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
12N	08W	02	KEEPER	0U1A	20.00	20	101	S	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
				PLOTS	TREES	TREES	TREES			
TOTAL		20	101	5.1						
CRUISE		10	49	4.9	5,228		.9			
DBH COUNT										
REFOREST										
COUNT		10	52	5.2						
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR	46	252.2	11.9	77	56.7	196.0	21,546	20,302	5,846	5,812
WHEMLOCK	2	6.2	10.9	80	1.2	4.0	376	376	115	115
R ALDER	1	3.0	11.0	45	0.6	2.0	121	121	46	46
TOTAL	49	261.4	11.9	77	58.5	202.0	22,043	20,799	6,007	5,973
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	54.3	8.0		94	102	111				
WHEMLOCK	54.4	50.9		32	65	98				
R ALDER										
TOTAL	55.5	7.9		92	100	107	123	31	14	
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	53.8	7.9		28	30	32				
WHEMLOCK	42.9	40.1		12	20	27				
R ALDER										
TOTAL	54.4	7.8		27	29	31	118	30	13	
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	44.8	10.3		226	252	278				
WHEMLOCK	447.2	102.5			6	13				
R ALDER	447.2	102.5			3	6				
TOTAL	46.9	10.8		233	261	290	93	23	10	
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	31.7	7.3		182	196	210				
WHEMLOCK	447.2	102.5			4	8				
R ALDER	447.2	102.5			2	4				
TOTAL	33.1	7.6		187	202	217	46	11	5	
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	30.4	7.0		18,885	20,302	21,719				
WHEMLOCK	447.2	102.5			376	761				
R ALDER	447.2	102.5			121	246				
TOTAL	30.6	7.0		19,340	20,799	22,258	39	10	4	
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	30.0	6.9		5,412	5,812	6,212				
WHEMLOCK	447.2	102.5			115	233				
R ALDER	447.2	102.5			46	93				
TOTAL	30.6	7.0		5,553	5,973	6,392	39	10	4	

TC TSTATS				STATISTICS				PAGE	2		
				PROJECT	TRAPPER			DATE	2/20/2019		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
12N	08W	02	KEEPER	0U1A	20.00	20	101	S	W		
CL:	68.1 %	COEFF		V-BAR/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15		
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				96	104	111					
WHEMLOCK				447.2	102.5	94			190		
R ALDER				447.2	102.5	61			123		
TOTAL				<i>197.0</i>	<i>45.2</i>	<i>96</i>	<i>103</i>	<i>110</i>	<i>1,631</i>	<i>408</i>	<i>181</i>

TC TSTATS				STATISTICS						PAGE	1
				PROJECT	TRAPPER		DATE				2/20/2019
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
12N	08W	02	KEEPER	0UIB	10.00	13	70	S	W		
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES					
TOTAL		13	70	5.4							
CRUISE		7	35	5.0	980	3.6					
DBH COUNT											
REFOREST											
COUNT		6	35	5.8							
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	24	43.4	28.0	95	35.0	185.1	37,327	35,425	8,151	8,039	
BL MAPLE	7	50.3	16.4	47	18.2	73.6	6,441	5,739	1,782	1,635	
WHEMLOCK	2	2.5	25.6	71	1.7	8.8	1,352	1,297	315	315	
WR CEDAR	1	.4	48.0	58	0.6	4.5	329	296	147	147	
R ALDER	1	1.5	20.0	41	0.7	3.3	92	92	73	73	
TOTAL	35	98.0	22.7	69	57.8	275.3	45,541	42,849	10,467	10,209	
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	65.4	13.9		1,041	1,210	1,379					
BL MAPLE	47.5	21.2		142	180	218					
WHEMLOCK	107.7	100.9			840	1,688					
WR CEDAR											
R ALDER											
TOTAL	84.1	14.6		814	954	1,093	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		
DOUG FIR	49.5	10.5		229	256	283					
BL MAPLE	39.2	17.5		41	50	59					
WHEMLOCK	71.5	66.9		56	170	284					
WR CEDAR											
R ALDER											
TOTAL	66.9	11.6		187	212	237	179	45	20		
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	73.4	21.2		34	43	53					
BL MAPLE	138.5	39.9		30	50	70					
WHEMLOCK	276.1	79.6		1	2	4					
WR CEDAR	360.6	103.9			0	1					
R ALDER	360.6	103.9			2	3					
TOTAL	51.5	14.8		83	98	113	115	29	13		
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	69.7	20.1		148	185	222					
BL MAPLE	132.0	38.0		46	74	102					
WHEMLOCK	245.4	70.7		3	9	15					
WR CEDAR	360.6	103.9			4	9					
R ALDER	360.6	103.9			3	7					
TOTAL	30.1	8.7		251	275	299	39	10	4		
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	77.9	22.5		27,471	35,425	43,378					
BL MAPLE	131.5	37.9		3,563	5,739	7,914					

TC TSTATS				STATISTICS				PAGE	2	
				PROJECT	TRAPPER			DATE	2/20/2019	
TWP	RGE	SECT	TRACT	TYPE	ACRES		PLOTS	TREES	CuFt	BdFt
12N	08W	02	KEEPER	0U1B	10.00		13	70	S	W
CL:	68.1 %	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK		270.4	77.9	286	1,297	2,308				
WR CEDAR		360.6	103.9		296	605				
R ALDER		360.6	103.9		92	187				
TOTAL		<i>54.2</i>	<i>15.6</i>	<i>36,156</i>	<i>42,849</i>	<i>49,541</i>	<i>127</i>	<i>32</i>	<i>14</i>	
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		72.9	21.0	6,349	8,039	9,729				
BL MAPLE		131.0	37.8	1,018	1,635	2,253				
WHEMLOCK		244.2	70.4	93	315	537				
WR CEDAR		360.6	103.9		147	299				
R ALDER		360.6	103.9		73	148				
TOTAL		<i>43.8</i>	<i>12.6</i>	<i>8,920</i>	<i>10,209</i>	<i>11,497</i>	<i>83</i>	<i>21</i>	<i>9</i>	
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				148	191	234				
BL MAPLE				48	78	108				
WHEMLOCK		279.4	80.5	33	148	263				
WR CEDAR		360.6	103.9		66	135				
R ALDER		360.6	103.9		28	56				
TOTAL		<i>189.0</i>	<i>54.5</i>	<i>131</i>	<i>156</i>	<i>180</i>	<i>1,543</i>	<i>386</i>	<i>171</i>	

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	TRAPPER		DATE	2/20/2019		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
12N	08W	02	KEEPER	0U2A	19.00	19	93	S	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
				PLOTS	TREES	TREES	TREES			
TOTAL		19	93	4.9						
CRUISE		9	42	4.7	4,896		.9			
DBH COUNT										
REFOREST										
COUNT		10	51	5.1						
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR	36	219.2	11.9	83	49.3	170.5	19,562	18,710	5,073	5,073
WHEMLOCK	6	38.5	11.0	67	7.6	25.3	3,133	2,946	751	751
TOTAL	42	257.7	11.8	81	57.0	195.8	22,696	21,656	5,824	5,824
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		56.2	9.4	101	111	122				
WHEMLOCK		53.0	23.6	84	110	136				
TOTAL		55.1	8.5	102	111	121	121	30	13	
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		65.1	10.8	28	32	35				
WHEMLOCK		61.3	27.3	22	30	38				
TOTAL		64.0	9.9	28	31	35	163	41	18	
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		33.4	7.9	202	219	236				
WHEMLOCK		175.4	41.3	23	38	54				
TOTAL		31.0	7.3	239	258	276	40	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		28.0	6.6	159	171	182				
WHEMLOCK		151.2	35.6	16	25	34				
TOTAL		22.5	5.3	185	196	206	21	5	2	
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		28.0	6.6	17,474	18,710	19,946				
WHEMLOCK		150.3	35.4	1,902	2,946	3,989				
TOTAL		22.5	5.3	20,509	21,656	22,802	21	5	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	
DOUG FIR		27.5	6.5	4,744	5,073	5,401				
WHEMLOCK		149.7	35.3	486	751	1,016				
TOTAL		22.1	5.2	5,521	5,824	6,127	21	5	2	
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				102	110	117				
WHEMLOCK		55.6	13.1	75	117	158				
TOTAL		208.8	49.2	105	111	116	1,839	460	204	

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	TRAPPER		DATE	2/20/2019		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
12N	08W	02	KEEPER	0U2B	21.00	22	107	S	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
				PLOTS	TREES	TREES	TREES			
TOTAL		22	107	4.9						
CRUISE		12	54	4.5	4,971		1.1			
DBH COUNT										
REFOREST										
COUNT		10	53	5.3						
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR	53	235.5	10.2	52	41.9	133.8	10,119	9,734	2,803	2,785
WHEMLOCK	1	1.2	14.0	50	0.3	1.3	83	59	28	23
TOTAL	54	236.7	10.2	52	42.2	135.1	10,202	9,793	2,832	2,808
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	44.3	6.1		46	49	52				
WHEMLOCK										
TOTAL	43.9	6.0		46	49	52	77	19	9	
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	54.0	7.5		14	15	16				
WHEMLOCK										
TOTAL	53.3	7.3		14	15	16	113	28	13	
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	34.8	7.6		218	236	253				
WHEMLOCK	469.0	102.2			1	2				
TOTAL	35.0	7.6		219	237	255	51	13	6	
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	29.8	6.5		125	134	143				
WHEMLOCK	469.0	102.2			1	3				
TOTAL	30.6	6.7		126	135	144	39	10	4	
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	32.9	7.2		9,035	9,734	10,432				
WHEMLOCK	469.0	102.2			59	119				
TOTAL	33.4	7.3		9,080	9,793	10,506	47	12	5	
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	30.2	6.6		2,601	2,785	2,968				
WHEMLOCK	469.0	102.2			23	47				
TOTAL	31.1	6.8		2,618	2,808	2,998	40	10	4	
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				68	73	78				
WHEMLOCK	469.0	102.2			47	95				
TOTAL	188.0	41.0		67	72	78	1,478	369	164	

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	TRAPPER		DATE	2/20/2019		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
12N	08W	02	KEEPER	00U3	40.00	45	236	S	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
				PLOTS	TREES	TREES	TREES			
TOTAL		45	236	5.2						
CRUISE		20	90	4.5	9,955		.9			
DBH COUNT										
REFOREST										
COUNT		25	146	5.8						
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR	83	240.2	12.4	84	57.1	200.9	24,024	22,704	6,304	6,292
WHEMLOCK	5	4.7	15.6	79	1.6	6.2	802	729	214	214
R ALDER	2	4.0	11.1	45	0.8	2.7	216	207	62	62
TOTAL	90	248.9	12.4	84	59.5	209.8	25,043	23,639	6,581	6,569
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	51.5	5.8		117	125	132				
WHEMLOCK	16.4	8.1		145	158	171				
R ALDER	54.4	50.9		32	65	98				
TOTAL	50.3	5.4		118	125	132	101	25	11	
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	57.0	6.4		34	36	39				
WHEMLOCK	9.2	4.6		44	46	48				
R ALDER	63.7	59.6		8	21	33				
TOTAL	55.3	6.0		34	37	39	122	31	14	
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	47.9	7.1		223	240	257				
WHEMLOCK	350.3	52.2		2	5	7				
R ALDER	413.2	61.5		2	4	6				
TOTAL	43.2	6.4		233	249	265	75	19	8	
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	41.3	6.1		189	201	213				
WHEMLOCK	334.5	49.8		3	6	9				
R ALDER	378.4	56.4		1	3	4				
TOTAL	36.8	5.5		198	210	221	54	14	6	
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	42.0	6.3		21,283	22,704	24,126				
WHEMLOCK	331.6	49.4		369	729	1,088				
R ALDER	382.2	56.9		89	207	324				
TOTAL	37.8	5.6		22,309	23,639	24,970	57	14	6	
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	41.6	6.2		5,903	6,292	6,682				
WHEMLOCK	339.4	50.6		106	214	323				
R ALDER	379.5	56.5		27	62	98				

TC TSTATS				STATISTICS				PAGE	2	
				PROJECT	TRAPPER			DATE	2/20/2019	
TWP	RGE	SECT	TRACT	TYPE	ACRES		PLOTS	TREES	CuFt	BdFt
12N	08W	02	KEEPER	00U3	40.00		45	236	S	W
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	
TOTAL		37.2	5.5	6,204	6,569	6,933	55	14	6	
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				106	113	120				
WHEMLOCK		301.9	45.0	59	117	175				
R ALDER		308.1	45.9	33	77	122				
TOTAL		265.1	39.5	106	113	119	2,805	701	312	

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	TRAPPER		DATE	2/20/2019		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
12N	08W	02	KEEPER	00U4	0.10	1	8	S	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
TOTAL		1	8	8.0						
CRUISE		1	8	8.0	37		21.6			
DBH COUNT										
REFOREST										
COUNT										
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR	3	129.9	14.3	60	38.2	144.3	6,928	6,495	2,701	2,701
WHEMLOCK	3	219.9	11.0	69	43.5	143.9	13,927	13,927	3,986	3,986
R ALDER	2	20.0	7.6	23	2.3	6.4	300	300	77	77
TOTAL	8	369.8	12.1	63	84.7	294.6	21,155	20,722	6,764	6,764
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		52.9	36.6	32	50	68				
WHEMLOCK		63.8	44.1	35	63	91				
R ALDER		47.1	44.1	8	15	22				
TOTAL		71.2	26.8	34	46	59	230	58	26	
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		51.1	35.4	13	21	28				
WHEMLOCK		70.2	48.6	9	18	27				
R ALDER		80.6	75.5	1	4	7				
TOTAL		74.3	28.0	11	16	20	251	63	28	

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

T12N R08W S02 Ty00U	40.0
T12N R08W S02 Ty00U	.1
T12N R08W S02 Ty0U2	21.0

Project TRAPPER
Acres 110.10

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Species	Total	Total	Total	Net Cubic Ft/		CF/ LF	Total CCF		Total MBF	
	Trees	Logs	Tons	Tree	Log		Gross	Net	Gross	Net
DOUG FIR	24,210	39,845	17,274	24.92	15.14	0.47	6,061	6,034	2,350	2,229
WHEMLOCK	1,114	1,822	937	26.20	16.02	0.51	293	292	116	108
BL MAPLE	503	717	472	32.54	22.82	0.91	178	164	64	57
R ALDER	237	275	114	17.52	15.09	0.44	41	41	12	12
WR CEDAR	4	7	34	410.17	205.09	7.32	15	15	3	3
Totals	26,067	42,666	18,832	25.11	15.34	0.48	6,588	6,546	2,546	2,409

Wood Type Species	Total	Total	Total	Net Cubic Ft/		CF/ LF	Total CCF		Total MBF	
	Trees	Logs	Tons	Tree	Log		Gross	Net	Gross	Net
C	25,328	41,674	18,246	25.04	15.22	0.47	6,369	6,341	2,469	2,340
H	739	992	586	27.73	20.67	0.75	220	205	76	69
Totals	26,067	42,666	18,832	25.11	15.34	0.48	6,588	6,546	2,546	2,409



Forest Practices Application/Notification Notice of Decision

FPA/N No: 2936810
 Effective Date: 09/03/2019
 Expiration Date: 09/03/2022
 Shut Down Zone: 651N
 EARR Tax Credit: Eligible Non-eligible
 Reference: Trapper Keeper TBS
 30-099119

Decision

- Notification Operations shall not begin before the effective date.
- 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 Class III Class IVG Class IVS

Number of Years Granted on Multi-Year Request

4 years 5 years

Conditions on Approval / Reasons for Disapproval

Notify the Department of Natural Resources two business days before beginning operations. Call 360-577-2025 or email (pcforestpractices@dnr.wa.gov and the Forest Practices Forester) and provide the application number and legal description for your activity.

NOTE: Forest practice activities located within 0.25 miles of an occupied marbled murrelet site are subject to disturbance avoidance timing restrictions per WACs 222-24-030, 222-30-050, 222-30-060, 222-30-065, 222-30-070, and 222-30-100. (April 1 to August 31)

Issued By: Alex Lilla

Region: Pacific Cascade

Title: Forest Practices Forester

Date: 09/03/2019

Copies to: Landowner, Timber Owner and Operator.

Issued in person: Landowner Timber Owner Operator By: Jacqui Spahr

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
Pacific Cascade Region
PO Box 280
Castle Rock WA 98611

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:

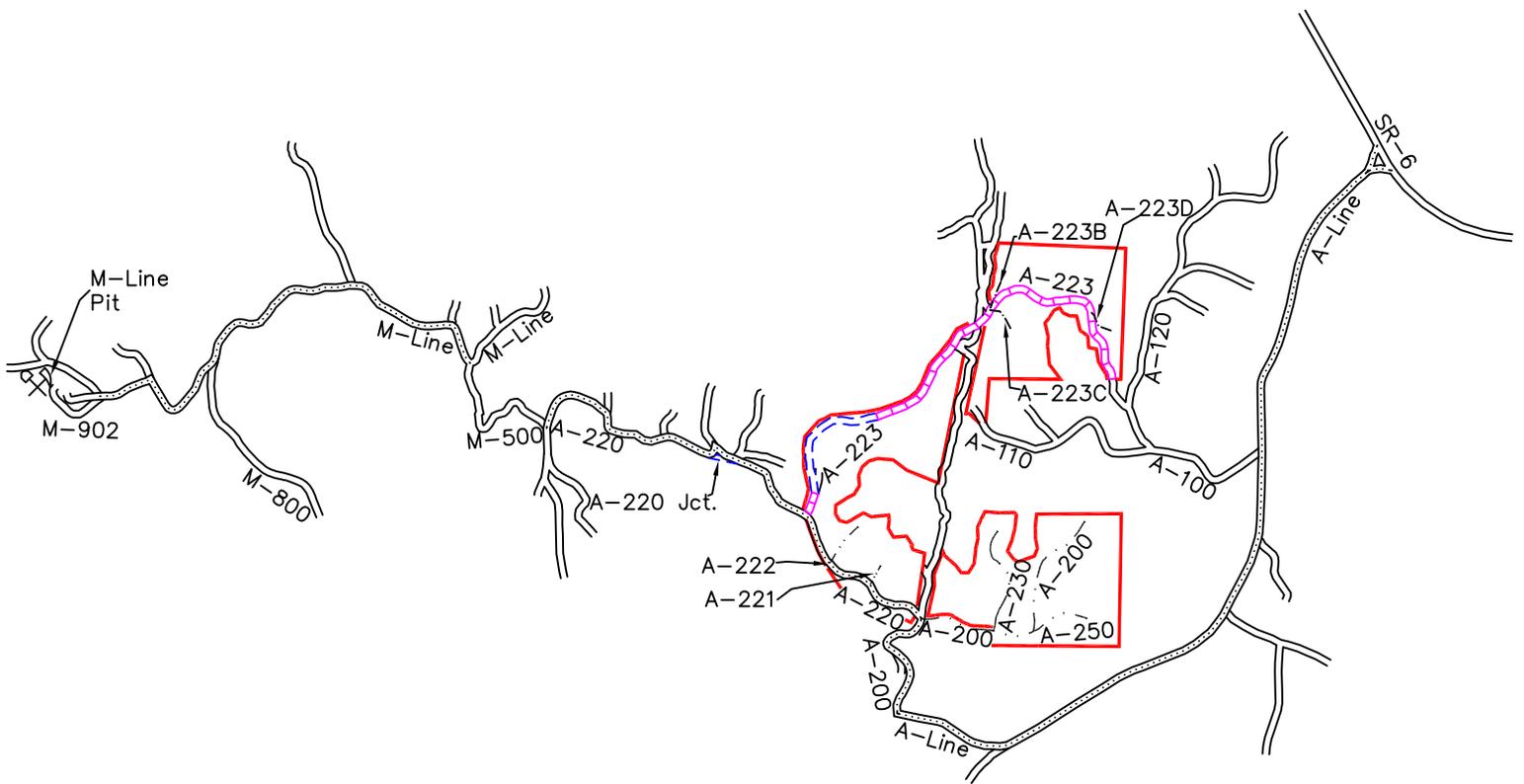
On this day _____,	I placed in the United States mail at _____	Castle Rock	_____	WA,
(date)		(post office location)		
postage paid, a true and accurate copy of this document. Notice of Decision FPA # _____				
_____		_____		
(Printed name)		(Signature)		

TRAPPER KEEPER OVERVIEW ROAD PLAN MAP

Page 1 of 5



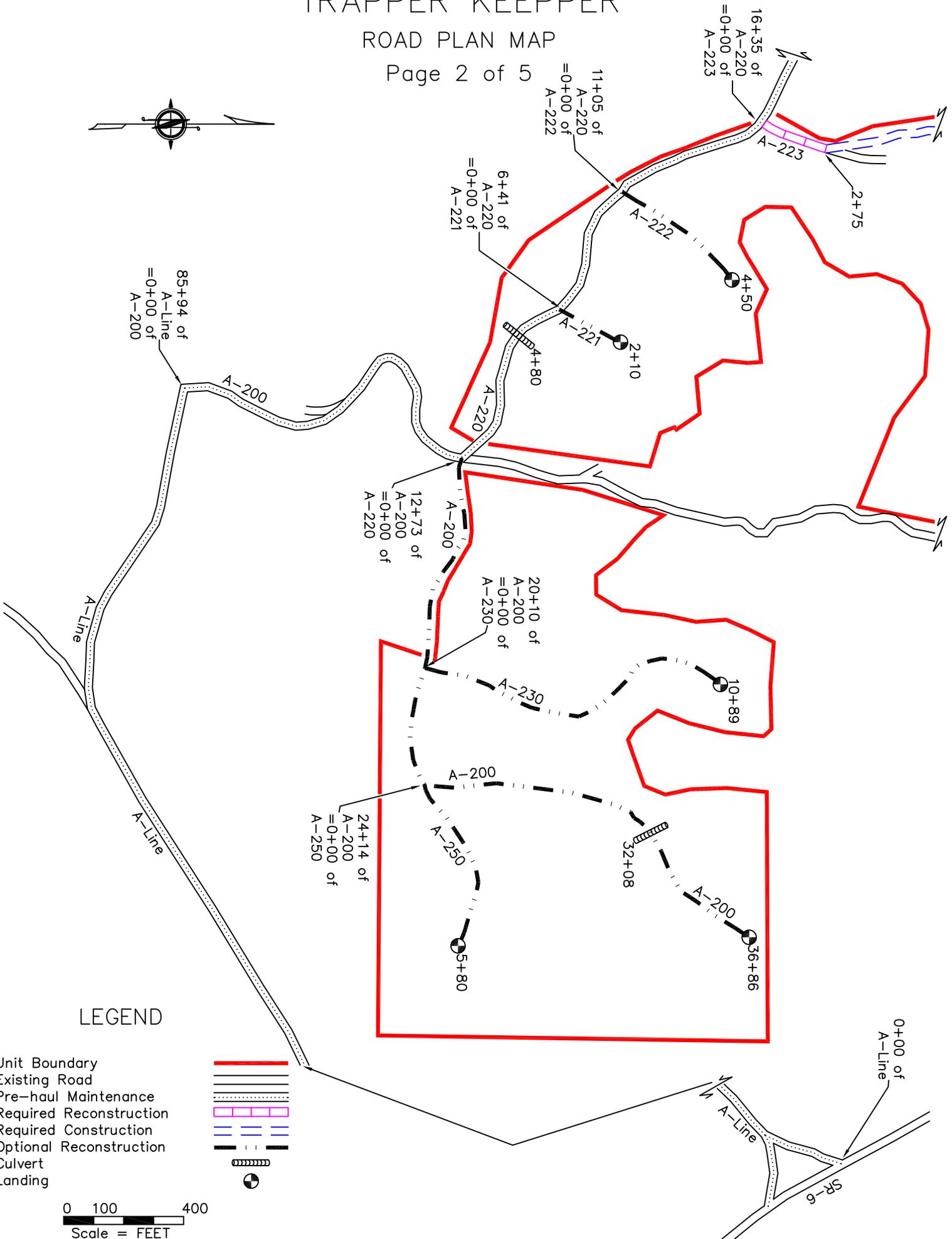
Not to Scale



TRAPPER KEEPPER

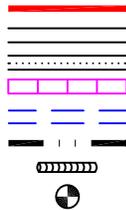
ROAD PLAN MAP

Page 2 of 5



LEGEND

- Unit Boundary
- Existing Road
- Pre-haul Maintenance
- Required Reconstruction
- Required Construction
- Optional Reconstruction
- Culvert
- Landing

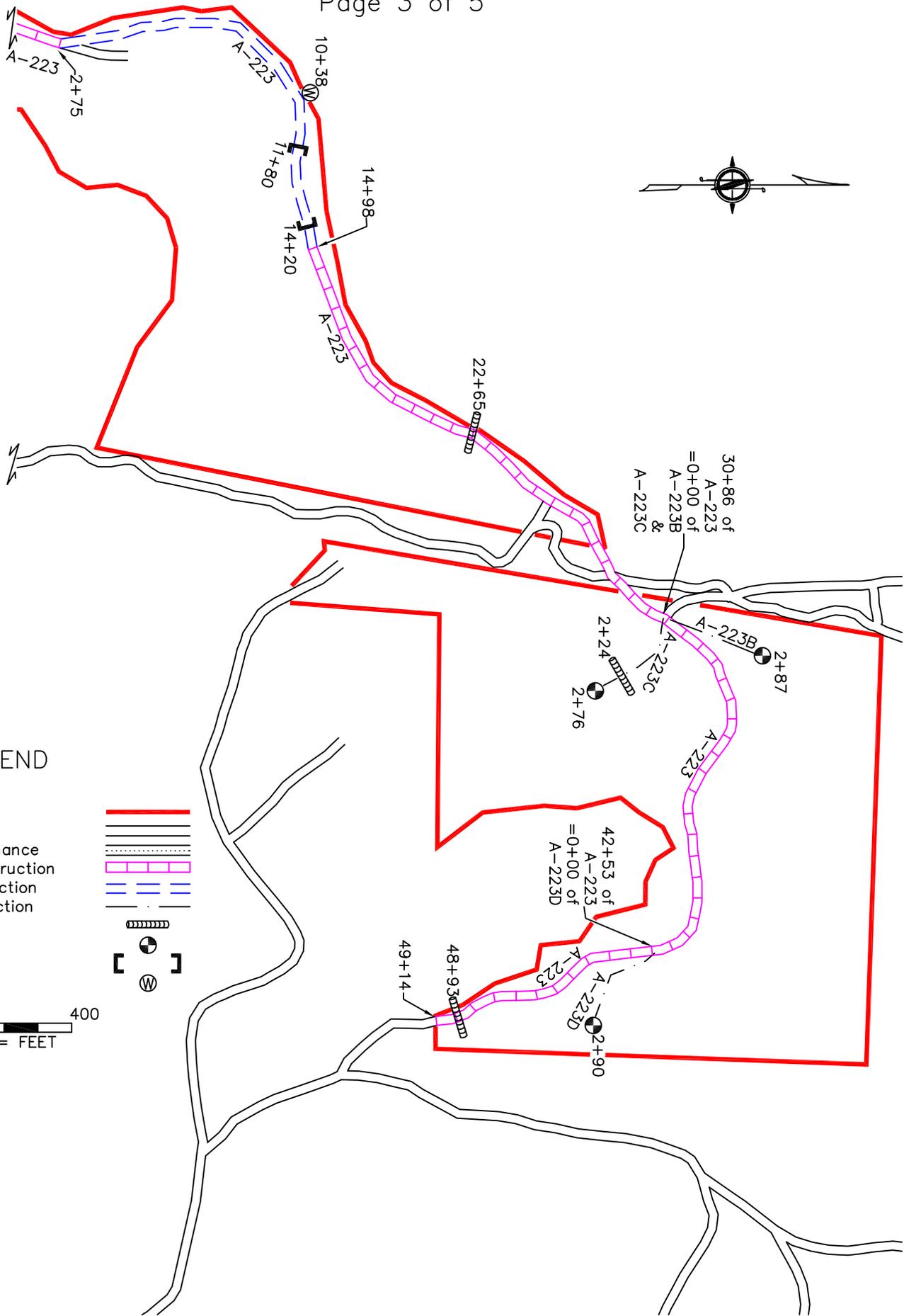


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TRAPPER KEEPER

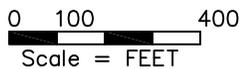
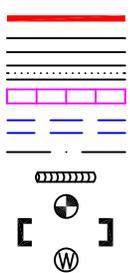
ROAD PLAN MAP

Page 3 of 5



LEGEND

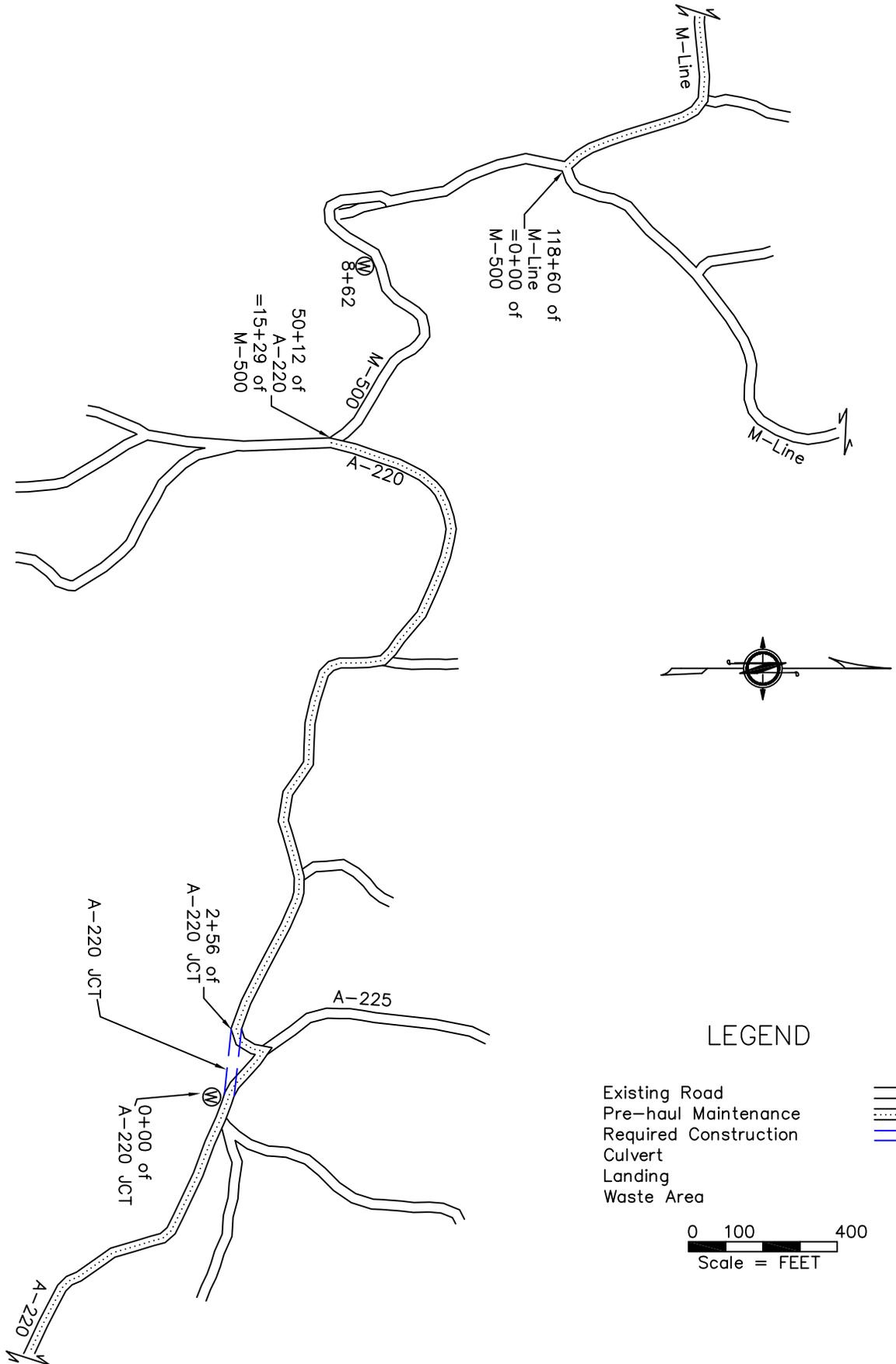
- Unit Boundary
- Existing Road
- Pre-haul Maintenance
- Required Reconstruction
- Required Construction
- Optional Construction
- Culvert
- Landing
- End Haul Area
- Waste Area



TRAPPER KEEPPER

ROAD PLAN MAP

Map page 4 of 5



LEGEND

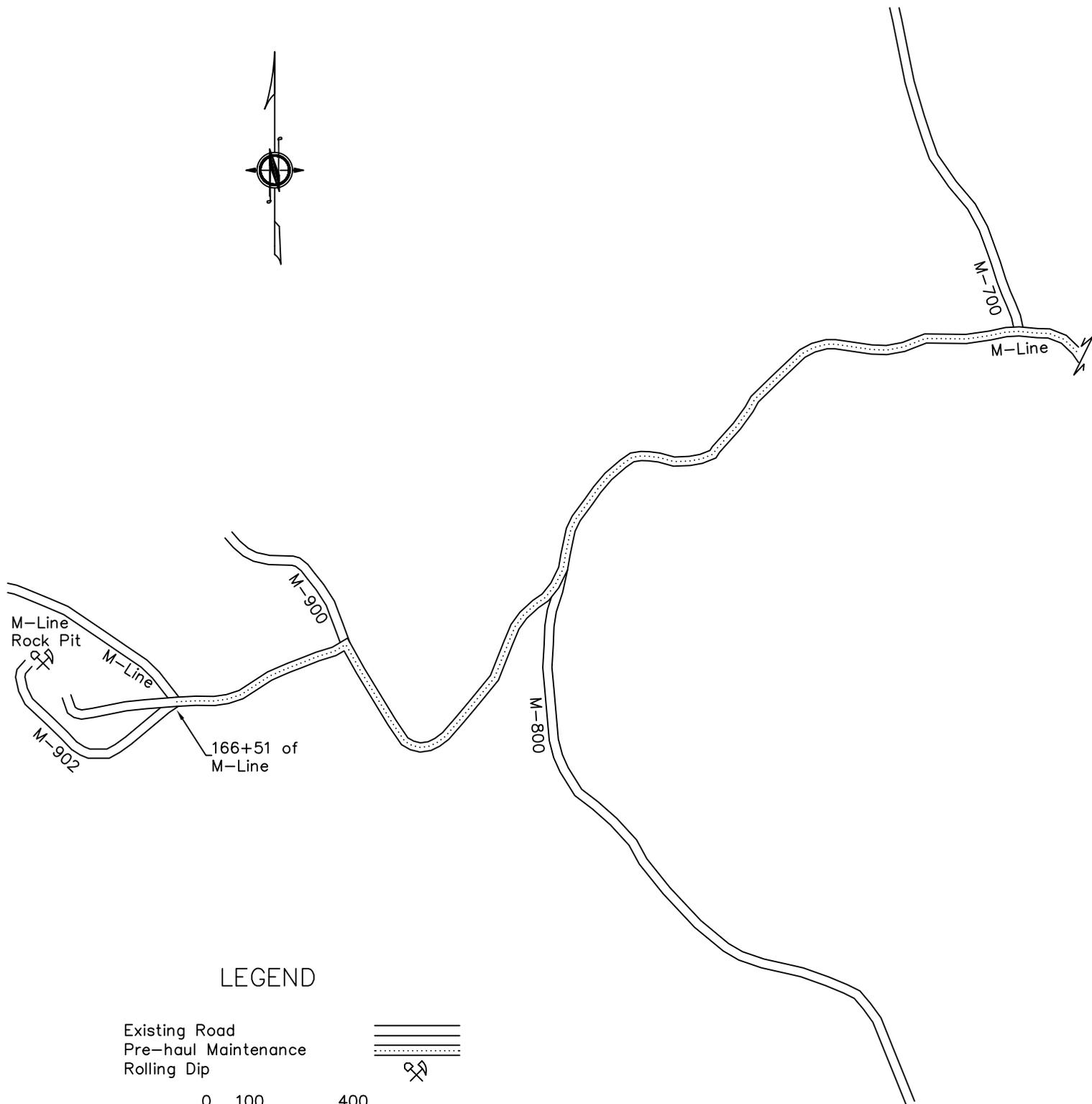
- Existing Road
- Pre-haul Maintenance
- Required Construction
- Culvert
- Landing
- Waste Area

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Scale = FEET

TRAPPER KEEPPER

ROAD PLAN MAP

Map page 5 of 5



LEGEND

Existing Road
Pre-haul Maintenance
Rolling Dip



0 100 400
Scale = FEET

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

TRAPPER KEEPPER TIMBER SALE ROAD PLAN
PACIFIC COUNTY
ST HELENS DISTRICT
PACIFIC CASCADE REGION

AGREEMENT NO.: 30-099119

STAFF ENGINEER: TYLER SLOAN

DRAWN & COMPILED BY: ALICIA COMPTON

SECTION 0 – SCOPE OF PROJECT

0-1 ROAD PLAN SCOPE

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

0-2 REQUIRED ROADS

The specified work on the following roads is required.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
A-Line	0+00 to 85+94	Pre-haul/Post-haul Maintenance
A-200	0+00 to 12+73	Pre-haul Maintenance
A-220	0+00 to 50+12	Pre-haul Maintenance
A-220 JCT	0+00 to 2+56	Construction
A-223	0+00 to 2+75	Reconstruction
A-223	2+75 to 14+98	Construction
A-223	14+98 to 49+14	Reconstruction
M-Line	118+60 to 166+51	Pre-Haul Maintenance

0-3 OPTIONAL ROADS

The specified work on the following roads is not required. Any optional roads built by the Purchaser must meet all the specifications in the road plan.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
A-200	12+73 to 36+86	Reconstruction
A-221	0+00 to 2+10	Reconstruction
A-222	0+00 to 4+50	Reconstruction
A-223 B	0+00 to 2+87	Construction
A-223 C	0+00 to 2+76	Construction
A-223 D	0+00 to 2+90	Construction
A-230	0+00 to 10+89	Reconstruction
A-250	0+00 to 5+80	Reconstruction

0-4 CONSTRUCTION

Construction includes, but is not limited to clearing; grubbing; right-of-way debris disposal; excavation and/or embankment to subgrade; ditch construction; landing construction; acquisition and installation of drainage structures; compaction of subgrade and embankment; acquisition, manufacture, and application of rock; erosion control.

0-5 RECONSTRUCTION

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
A-200	12+73 to 36+86	Clear and grub, grade and clean ditch according to TYPICAL SECTION SHEET, apply rock according to the ROCK LIST, install culvert according to the CULVERT LIST
A-221	0+00 to 2+10	Clear and grub, grade and clean ditch according to TYPICAL SECTION SHEET, apply rock according to the ROCK LIST
A-222	0+00 to 4+50	Clear and grub, grade and clean ditch according to TYPICAL SECTION SHEET, apply rock according to the ROCK LIST
A-223	0+00 to 2+75	Clear and grub, grade and clean ditch according to TYPICAL SECTION SHEET, apply rock according to the ROCK LIST
A-223	14+98 to 49+14	Clear and grub, grade and clean ditch according to TYPICAL SECTION SHEET, apply rock according to the ROCK LIST, apply and compact rock at sag, install culvert according to the CULVERT LIST
A-230	0+00 to 10+89	Clear and grub, grade and clean ditch according to TYPICAL SECTION SHEET, apply rock according to the ROCK LIST
A-250	0+00 to 5+80	Clear and grub, grade and clean ditch according to TYPICAL SECTION SHEET, apply rock according to the ROCK LIST

0-6 PRE-HAUL MAINTENANCE

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
A-Line	0+00 to 85+94	Brush, grade, apply rock, and compact
A-200	0+00 to 12+73	Brush, clean ditches, grade, apply rock, and compact
A-220	0+00 to 50+12	Brush, clean ditches, grade, apply rock, and compact
M-Line	118+60 to 166+51	Grade, and compact

0-7 POST-HAUL MAINTENANCE

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

0-10 ABANDONMENT

This project includes abandonment listed in Clause 9-21 ROAD ABANDONMENT.

0-11 ABANDONMENT BEFORE TIMBER REMOVAL

Purchaser shall abandon the following road(s) at the start of the timber sale contract, before the removal of timber.

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
A-223	49+14	See section 9

0-12 DEVELOP ROCK SOURCE

Purchaser may develop an existing rock source. Rock source development will involve clearing, stripping, waste disposal, drilling, and shooting. Work for developing rock sources is listed in Section 6 ROCK AND SURFACING.

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 must be submitted in writing to the Contract Administrator for consideration. Before work begins, Purchaser shall obtain approval from the State for the submitted plan.

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

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.

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

1-6 ORDER OF PRECEDENCE

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

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

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

1-8 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:

- Orange painted trees for pre-haul maintenance and reconstruction
- Stakes, orange paint, and reference points for construction

1-16 CONSTRUCTION STAKES SET BY STATE

Purchaser shall perform work on the following road(s) in accordance with the construction stakes and reference points set in the field for grade and alignment. Reconstruction of existing road grades must conform to the original location except where construction staked or designed.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
A-220 JCT	0+00 to 2+56	Centerline stakes
A-223	2+75 to 14+98	Centerline stakes, slope stakes

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 any hauling other than timber cut on the right-of-way, without written approval from the Contract Administrator.

1-22 WORK NOTIFICATIONS

Purchaser shall notify the Contract Administrator a minimum of 3 business days before work begins.

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 and compaction
- Drainage installation
- Rock application and compaction

1-25 ACTIVITY TIMING RESTRICTION

The specified activities are not allowed during the listed closure period(s) unless authorized in writing by the Contract Administrator. Restrictions for hauling forest products are specified in Contract Clause H-130 HAULING SCHEDULE.

<u>Road</u>	<u>Activity</u>	<u>Closure Period</u>
All	All construction and reconstruction	October 1 to April 30

1-26 OPERATING DURING CLOSURE PERIOD

If permission is granted to operate during a closure period listed in Clause 1-25 ACTIVITY TIMING RESTRICTION or Contract Clause H-130 HAULING SCHEDULE, Purchaser shall provide a maintenance plan to include further protection of state resources. Purchaser shall obtain written approval from the Contract Administrator for the maintenance plan, and shall put preventative measures in place before operating during the closure period. Purchaser is required to maintain all haul roads at their own expense including those listed in Contract Clause C-060 DESIGNATED ROAD MAINTAINER. If other operators are using, or desire to use these designated maintainer roads, a joint operating plan must be developed. All parties shall follow this plan.

1-27 TIMING RESTRICTION FOR MARBLED MURRELET

On the following road(s), any road work, right-of-way timber falling and yarding, rock pit operation, or heavy equipment operation is not allowed from one hour before official sunrise to two hours after official sunrise, and from one hour before official sunset to one hour after official sunset from April 1 through August 31. This restriction does not apply to hauling timber, rock, or equipment.

<u>Road</u>
M-Line
M-Line Rock Pit

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

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

1-32 BRIDGE SURFACE RESTRICTION

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

If tracked equipment is used on bridge surfaces, Purchaser shall immediately cease all road construction and hauling operations. Purchaser shall remove any dirt, rock, or other material tracked or spilled on the bridge surface and have surface evaluated by the District Engineer or their designee for any damage caused by transporting equipment. Any damage to the surface(s) will be repaired, at the Purchaser's expense, as directed by the Contract Administrator.

Purchaser shall have bridges load rated by a Registered Professional Engineer licensed in the State of Washington. All load rating reports, calculations, or drawings must be stamped by the licensed engineer and submitted to the Contract Administrator prior to allowing any work to continue. All damage to the bridge from transporting equipment will be repaired at the Purchaser's expense.

1-33 SNOW PLOWING RESTRICTION

Snowplowing will be allowed after the execution of a SNOW PLOWING AGREEMENT, which is available from the Contract Administrator upon request. If damage occurs while plowing, further permission to plow may be revoked by the Contract Administrator.

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.

1-42 UTILITY ACCESS ROAD

The following road(s) intersect(s) existing utility access roads. Purchaser shall conduct road work on the intersecting roads so that the utility access roads are accessible at all times.

<u>Road</u>	<u>Stations</u>
A-223	25+60 to 28+62

1-43 ROAD WORK AROUND UTILITIES

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

<u>Road</u>	<u>Stations</u>	<u>Utility</u>	<u>Utility Contact</u>
A-Line	0+00 to 85+94	Overhead & underground	Bonneville Power Administration 800-282-3713, 811
A-200	0+00 to 13+73	Overhead	Bonneville Power Administration 800-282-3713
A-220	0+00 to 1+00	Overhead	Bonneville Power Administration 800-282-3713
A-223	25+60 to 28+62	Overhead	Bonneville Power Administration 800-282-3713

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.

2-3 ROAD MAINTENANCE – DESIGNATED MAINTAINER

Purchaser may be required to perform maintenance on roads listed in Contract Clause C-060 DESIGNATED ROAD MAINTAINER as directed by the Contract Administrator. Purchaser shall maintain roads 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

On the following road(s), Purchaser shall use a grader to shape the existing surface before rock application. Purchaser shall accomplish all grading using a motor grader with a minimum of 175 horsepower.

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
A-Line	0+00 to 85+94	Grade and shape, apply specified rock, and compact
A-200	0+00 to 12+73	Grade and shape, apply specified rock, and compact
A-220	0+00 to 50+12	Grade and shape, apply specified rock, and compact
M-Line	118+60 to 166+51	Grade, shape, and compact

2-7 CLEANING DITCHES, HEADWALLS, AND CATCH BASINS

On the following road(s), Purchaser shall clean ditches, headwalls, and catch basins. Work must be completed before timber haul and must be done in accordance with the TYPICAL SECTION SHEET. Pulling ditch material across the road or mixing in with the road surface is not allowed.

<u>Road</u>	<u>Stations</u>
A-200	0+00 to 12+73
A-220	11+10 to 22+50

SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL

3-1 BRUSHING

On the following road(s), Purchaser shall cut vegetative material up to 5 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.

<u>Road</u>	<u>Stations</u>
A-Line	0+00 to 85+94
A-200	0+00 to 12+73
A-220	16+35 to 50+12

3-2 BRUSHING RESTRICTION

Pulling, digging, pushing over, and other non-cutting methods used for vegetation removal may not be used for brushing. Excavator buckets, log loaders and similar equipment may not be used for brushing unless otherwise approved in writing by the Contract Administrator.

3-5 CLEARING

Purchaser shall fall all vegetative material larger than 5 inches DBH or over 4 feet high between the marked right-of-way boundaries and within waste and debris areas, or 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.

3-8 PROHIBITED DECKING AREAS

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

- Within the grubbing limits.
- Within 25 feet of any stream.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- On slopes greater than 45%.
- Against standing trees.

3-10 GRUBBING

Purchaser shall remove all stumps between the grubbing limits specified on the TYPICAL SECTION SHEET. Purchaser shall also remove stumps with undercut roots outside the grubbing limits. Grubbing must be completed before starting excavation and embankment.

3-12 STUMP PLACEMENT

Purchaser shall place grubbed stumps outside of the grubbing limits and in compliance with all other clauses in this road plan. Stumps must be positioned upright, on stable locations.

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 Clause 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 clearing limits.

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 before timber haul.

3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS

Waste areas for organic debris are located as listed below at areas approved in writing by the Contract Administrator.

<u>Road</u>	<u>Disposal Location</u>	<u>Requirements</u>
A-220 JCT	0+00	Left side of road
A-223	10+38	Left side of road

3-23 PROHIBITED DISPOSAL AREAS

Purchaser shall not place organic debris in the following areas:

- Within 25 feet of a cross drain culvert.
- Within 50 feet of a live stream, or wetland
- On road subgrades, or excavation and embankment slopes.
- On slopes greater than 45%.
- 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

Purchaser shall scatter organic debris outside of the grubbing limits in natural openings unless otherwise detailed in this road plan.

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 in areas specified in Clause 3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS. Piles must be free of rock and soil.

3-32 END HAULING ORGANIC DEBRIS

Purchaser shall end haul or push organic debris to the designated waste areas specified in Clause 3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS.

<u>Road</u>	<u>Stations</u>
A-223	11+80 to 14+20

SECTION 4 – EXCAVATION

4-1 EXCAVATOR CONSTRUCTION

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

<u>Road</u>	<u>Stations</u>
A-223	11+80 to 14+20

4-2 PIONEERING

Pioneering may not extend past construction that will be completed during the current construction season. In addition, the following actions must be taken as pioneering progresses:

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

4-3 ROAD GRADE AND ALIGNMENT STANDARDS

Purchaser shall follow these standards for road grade and alignment:

- Grade and alignment must have smooth continuity, without abrupt changes in direction.
- Maximum grades may not exceed 18 percent favorable and 15 percent adverse.
- Minimum curve radius is 60 feet at centerline.
- Maximum grade change for sag vertical curves is 8% in 100 feet.
- Maximum grade change for crest vertical curves is 6% in 100 feet.

4-5 CUT SLOPE RATIO

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

<u>Material Type</u>	<u>Excavation Slope Ratio</u>	<u>Excavation Slope Percent</u>
Common Earth	1:1	100
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:

<u>Material Type</u>	<u>Embankment Slope Ratio</u>	<u>Embankment Slope Percent</u>
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:

- 6 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 2 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.

4-12 FULL BENCH CONSTRUCTION

On the following road(s), and where side slopes exceed 45%, Purchaser shall use full bench construction for the entire subgrade width. Purchaser shall end haul waste material to the location specified in Clause 4-37 WASTE AREA LOCATION.

<u>Road</u>	<u>Full Bench Location</u>
A-223	11+80 to 14+20

4-21 TURNOUTS

Purchaser shall construct turnouts as designated on the ROCK LIST. Locations changes are subject to written approval by the Contract Administrator. Minimum dimensions are shown on the ROCK LIST.

4-22 TURNAROUNDS

Purchaser shall construct turnarounds as designated on the ROCK LIST. Turnarounds must be no larger than 30 feet long and 30 feet wide. Locations are subject to written approval by the Contract Administrator.

4-25 DITCH CONSTRUCTION AND RECONSTRUCTION

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

4-27 DITCH WORK – MATERIAL USE PROHIBITED

Purchaser shall not pull ditch material across the road or mix in with the road surface. Excavated material must be scattered outside the grubbing limits or end hauled to the location specified in Clause 4-37 WASTE AREA LOCATION.

4-28 DITCH DRAINAGE

Ditches must drain to cross-drain culverts or ditchouts.

4-29 DITCHOUTS

Purchaser shall construct ditchouts as identified on the CULVERT LIST and as directed by the Contract Administrator. Ditchouts must be constructed in a manner that diverts ditch water onto the forest floor and must 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 45% if the waste material is compacted and free of organic debris. On side slopes greater than 45%, all waste material must be end hauled or pushed to the designated embankment sites and waste areas identified in Clause 4-37 WASTE AREA LOCATION.

4-37 WASTE AREA LOCATION

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

<u>Road</u>	<u>Waste Area Location</u>
A-223	10+38 Left
A-220 JCT	0+00 Left
M-500EXT	8+62 Left

4-38 PROHIBITED WASTE DISPOSAL AREAS

Purchaser shall not deposit waste material in the following areas:

- Within 20 feet of a cross drain culvert.
- Within 50 feet of a live stream or wetland.
- Within a riparian management zone.
- On side slopes steeper than 45%.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- Within the operational area for cable landings.
- Against standing timber.

4-48 NATIVE MATERIAL

Native material consists of naturally occurring material that is free of organic debris, trash, and rocks greater than 3 inches in any dimension.

4-55 ROAD SHAPING

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

4-56 DRY WEATHER SHAPING

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

4-60 FILL COMPACTION

Purchaser shall compact all embankment and waste material in accordance with the COMPACTION LIST by routing equipment over the entire width of each lift. A plate compactor must be used for embankment and waste area segments too narrow to accommodate equipment. Waste material may be placed by end-dumping or sidecasting until sufficiently wide enough to support the equipment.

4-61 SUBGRADE COMPACTION

Purchaser shall compact constructed and reconstructed subgrades in accordance with the COMPACTION LIST by routing equipment over the entire width except ditch.

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 in accordance with the COMPACTION LIST by routing equipment over the entire width.

SECTION 5 – DRAINAGE

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 LIST. Culvert, downspout, and flume lengths may be adjusted to fit as-built conditions and may not terminate directly on unprotected soil. Culverts may be new or used material and must meet the specifications in Clauses 10-17 through 10-22.

5-6 CULVERT TYPE

On the following roads, Purchaser shall install culverts made of plastic in accordance with Clauses 10-17 through 10-22.

5-10 CULVERT MARKER INSTALLATION

At all new culverts Purchaser shall install culvert markers inlet and outlet in accordance with the CULVERT MARKER INSTALLATION DETAIL.

5-12 UNUSED MATERIALS STATE PROPERTY

On required roads, any materials listed on the CULVERT LIST that are not installed will become the property of the state. Purchaser shall stockpile materials as directed by the Contract Administrator.

5-15 CULVERT INSTALLATION

Culvert installation must be in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL and 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.

5-17 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

Cross drain culverts must 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.

5-20 ENERGY DISSIPATERS

Purchaser shall install energy dissipaters in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all culverts on the CULVERT LIST that specify the placement of rock. Energy dissipater installation is subject to approval by the Contract Administrator.

The type of energy dissipater and the amount of material must be consistent with the specifications listed on the CULVERT LIST. Energy dissipaters must extend a minimum of 1 foot to each side of the culvert at the outlet and a minimum of 2 feet beyond the outlet. Rock must be set in place by machine.

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.

5-26 HEADWALLS FOR CROSS DRAIN CULVERTS

Purchaser shall construct headwalls in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts on the CULVERT LIST that specify the placement of rock. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets. 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 diameter above the top of the culvert. Rock may not restrict the flow of water into culvert inlets or catch basins. Rock must be set in place by machine.

SECTION 6 – ROCK AND SURFACING

6-2 ROCK SOURCE ON STATE LAND

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the following source on state land at no charge to the Purchaser. Purchaser shall obtain written approval from the Contract Administrator for the use of material from any other source. If other operators are using, or desire to use the rock source, a joint operating plan must be developed. All parties shall follow this plan. Purchaser shall notify the Contract Administrator a minimum of 3 calendar days before starting any operations in the listed locations.

<u>Source</u>	<u>Location</u>
M-Line Rock Pit	Sec 4, T12N, R8W, W.M.

6-3 ROCK SOURCE STATE LAND, EXISTING STOCKPILE

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the following existing stockpile(s) on state land at no charge to the Purchaser. Purchaser shall not remove additional yardage without prior written approval from the Contract Administrator. Other stockpiles may not be used without prior written approval from the Contract Administrator.

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>	<u>Quantity</u>
M-Line Stockpile	M-902	2" Minus	258 cy

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 are subject to written approval by the Contract Administrator before their use.

6-10 ROCK SOURCE DEVELOPMENT PLAN BY STATE

Purchaser shall conduct rock source development and use at the following sources, in accordance with the written ROCK SOURCE DEVELOPMENT PLAN prepared by the state and included in this road plan. Upon completion of operations, the rock source must be left in the condition specified in the ROCK SOURCE PLAN, and approved in writing by the Contract Administrator.

<u>Source</u>
M-Line Rock Pit

6-23 ROCK GRADATION TYPES

Purchaser shall provide or manufacture rock in accordance with the types and amounts listed in the ROCK LIST. Rock must meet the following specifications for gradation and uniform quality when placed in hauling vehicles.

6-41 SELECT PIT RUN ROCK

No more than 50 percent of the rock may be larger than 6 inches in any dimension and no rock may be larger than 12 inches in any dimension. Select Pit Run rock may not contain more than 5 percent by weight of organic debris, dirt, and trash. Rock may require processing to meet this specification.

6-55 ROCK APPLICATION MEASURED BY COMPACTED DEPTH

Measurement of specified rock depths, are defined as the compacted depths using the compaction methods required in this road plan. Estimated quantities specified in the ROCK LIST are loose 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.

6-56 ROCK MEASUREMENT BY TRUCK VOLUME

Measurement of culvert backfill, energy dissipater, spot rock, and landing rock is on a cubic yard truck measure basis. The Contract Administrator will measure each truck box before rock hauling. An average of such volumes for each truck will be used to tally the volume hauled. The Contract Administrator may periodically require that a load be flattened off and its volume calculated. Purchaser shall maintain load tally sheets for each truck and shall give them to the Contract Administrator on a weekly basis during rocking operations.

6-70 APPROVAL BEFORE ROCK APPLICATION

Purchaser shall obtain written approval from the Contract Administrator for subgrade compaction and drainage installation 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 in accordance with the COMPACTION LIST 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.

6-75 OPTIONAL ROCK EXCEPTION

On the following roads, if hauling takes place from May 1 to September 30, Purchaser may provide and place less rock than shown on the ROCK LIST, when approved in writing by the Contract Administrator.

If less rock is applied, Purchaser shall submit a written plan, for approval, describing how these roads will be constructed, used, maintained, and treated post-haul. Purchaser shall meet post-haul specifications in Section 9 POST-HAUL ROAD WORK, the FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS, or other conditions of the approved plan.

<u>Road</u>	<u>Stations</u>
A-200	12+73 to 36+86
A-221	0+00 to 2+10
A-222	0+00 to 4+50
A-223B	0+00 to 2+87
A-223C	0+00 to 2+76
A-223D	0+00 to 2+90
A-230	0+00 to 10+89
A-250	0+00 to 5+80

6-76 DRY WEATHER ROCK COMPACTION

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

6-80 WATERING FOR DUST ABATEMENT

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

SECTION 8 – EROSION CONTROL

8-2 PROTECTION FOR EXPOSED SOIL

Purchaser shall provide and evenly spread a 4-inch layer of straw to all exposed soils within 50 feet of a stream or wetland. Soils must be covered before the first anticipated storm event. Soils may not sit exposed during any rain event.

8-15 REVEGETATION

On the following road(s), Purchaser shall require grass seed on all exposed soil resulting from road work activities. Other methods of covering must be approved in writing by the Contract Administrator.

<u>Road</u>	<u>Location</u>	<u>Qty (lbs)*</u>	<u>Type</u>
A-223	0+00 to 49+14	65	Seed
A-200	12+73 to 36+86	22	Seed
A-221	0+00 to 2+10	2	Seed
A-222	0+00 to 4+50	4	Seed
A-223B	0+00 to 2+87	7	Seed
A-223C	0+00 to 2+76	7	Seed
A-223D	0+00 to 2+90	8	Seed
A-230	0+00 to 10+89	10	Seed
A-250	0+00 to 5+80	5	Seed
Waste Area	-	4	Seed
Pre-haul Ditching	-	9	Seed

*Quantities are estimates only. Actual quantities may vary and are the responsibility of the Purchaser.

8-16 REVEGETATION SUPPLY

The Purchaser shall provide the grass seed.

8-17 REVEGETATION TIMING

Purchaser shall revegetate during the first available opportunity after road work is completed. Soils may not be allowed to sit exposed for longer than one month without receiving revegetation treatment unless otherwise approved in writing by the Contract Administrator.

8-19 ASSURANCE FOR SEEDED AREA

Purchaser shall ensure the growth of a uniform and dense crop (at least 70% coverage) of 3-inch tall grass. Purchaser shall reapply the seed in areas that have failed to germinate or have been damaged through any cause, restore eroded or disturbed areas, clean up and properly dispose of eroded materials, and reapply the seed at no additional cost to the state.

8-25 GRASS SEED

Purchaser shall evenly spread the seed mixture listed below on all exposed soil at a rate of 50 pounds per acre of exposed soil. Grass seed must meet the following specifications:

1. Weed seed may not exceed 0.5% by weight.
2. All seed species must have a minimum 90% germination rate, unless otherwise specified.
3. Seed must be certified.
4. Seed must be furnished in standard containers showing the following information:
 - a. Common name of seed
 - b. Net weight
 - c. Percent of purity
 - d. Percentage of germination
 - e. Percentage of weed seed and inert material
5. Seed must conform to the following mixture unless a comparable mix is approved in writing by the Contract Administrator.

<u>Kind and Variety of Seed in Mixture</u>	<u>% by Weight</u>
Perennial Rye	20-45
Red Fescue	30-40
Highland Bent	5-15
White Clover	10-20
Inert and Other Crop	0.5

SECTION 9 – POST-HAUL ROAD WORK

9-1 EARTHEN BARRICADES

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

<u>Road</u>	<u>Stations</u>
A-223	49+14

9-3 CULVERT MATERIAL REMOVED FROM STATE LAND

Culverts removed from roads become 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.

<u>Road</u>	<u>Stations</u>	<u>Additional Requirements</u>
A-Line	0+00 to 85+94	Apply replacement rock, grade, and compact

9-10 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface.

9-11 LANDING EMBANKMENT

Purchaser shall slope landing embankments to the original construction specifications.

9-21 ROAD ABANDONMENT

Purchaser shall abandon the following roads by the specified date.

<u>Road</u>	<u>Stations</u>	<u>Type</u>	<u>Date</u>
A-223	49+14	Light	Before timber haul

9-22 LIGHT ABANDONMENT

- Block roads with earthen barricades in accordance with the attached EARTHEN BARRICADE DETAIL.
- Apply grass seed concurrently with abandonment and in accordance with Section 8 EROSION CONTROL.

SECTION 10 - MATERIALS

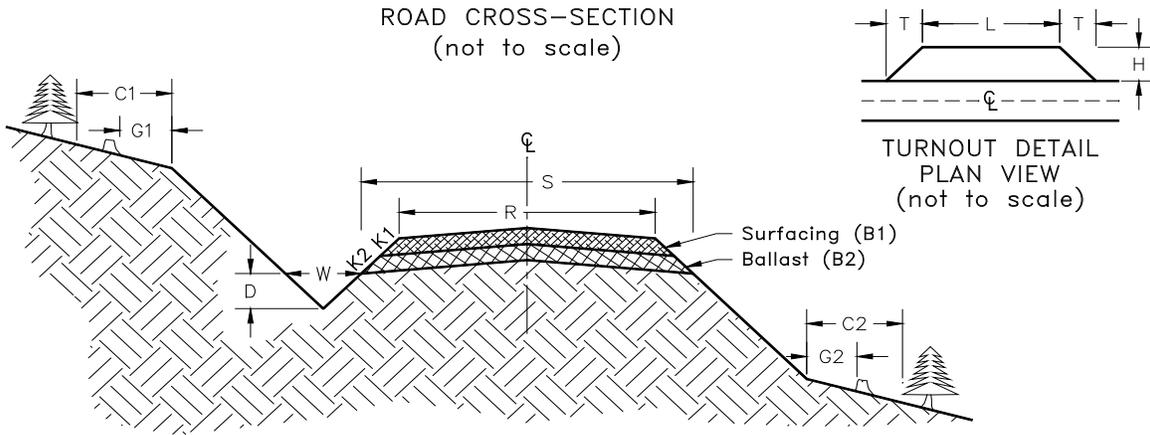
10-17 CORRUGATED PLASTIC CULVERT

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.

10-22 PLASTIC BAND

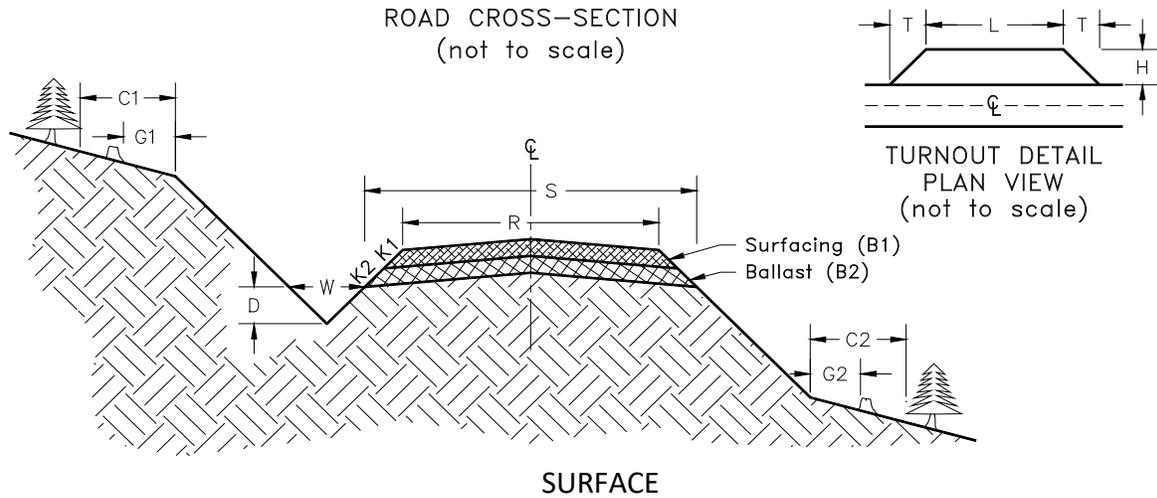
Plastic coupling and end bands must meet the AASHTO specification designated for the culvert. Only fittings supplied or recommended by the culvert manufacturer may be used. Couplings must be split coupling band. Split coupling bands must have a minimum of four corrugations, two on each side of the pipe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

TYPICAL SECTION SHEET



Road Number	From Station	To Station	Tolerance Class	Subgrade Width ft	Road Width ft	Ditch Width ft	Ditch Depth ft	Crown @ CL in	Grubbing Limits ft		Clearing Limits ft	
									G1	G2	C1	C2
				S	R	W	D					
A-Line	0+00	85+94	A	-	12	-	-	4	-	-	-	-
A-200	0+00	12+73	A	-	12	3	1	4	-	-	-	-
A-200	12+73	36+86	A	14	12	3	1	4	2	2	10	10
A-220	0+00	50+12	A	-	12	3	1	4	-	-	-	-
A-223	0+00	2+75	A	16	12	3	1	4	2	2	10	10
A-223	2+75	14+98	B	16	12	3	1	4	2	2	10	10
A-223	14+98	49+14	A	-	12	3	1	4	2	2	10	10
M-Line	118+60	166+51	A	-	12	-	-	4	-	-	-	-
A-221	0+00	2+10	A	14	12	3	1	4	2	2	10	10
A-222	0+00	4+50	A	14	12	3	1	4	2	2	10	10
A-223 B	0+00	2+87	C	16	12	3	1	4	2	2	10	10
A-223 C	0+00	2+76	C	16	12	3	1	4	2	2	10	10
A-223 D	0+00	2+90	C	16	12	3	1	4	2	2	10	10
A-230	0+00	10+89	A	14	12	3	1	4	2	2	10	10
A-250	0+00	5+80	A	14	12	3	1	4	2	2	10	10
A-220 JCT	0+00	2+56	A	16	12	3	1	4	2	2	10	10

ROCK LIST

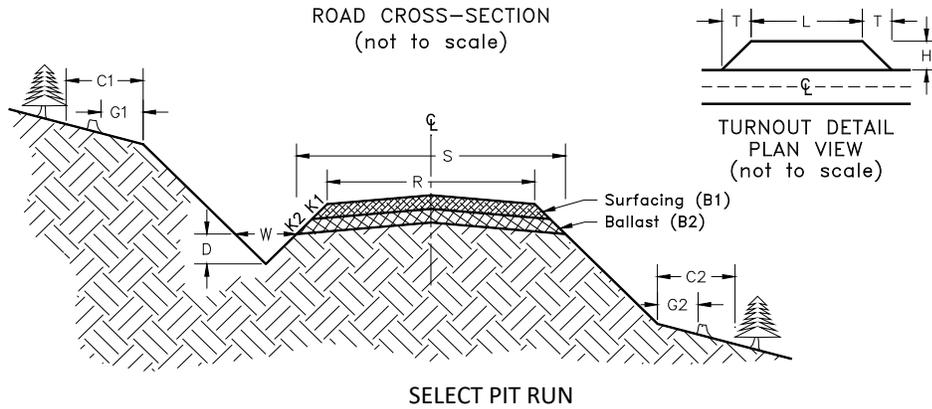


Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth (in)	C.Y. per Station or Unit	# of Stations or Units	C.Y. Subtotal	Rock Source	Turnout		
									Length	Width	Taper
			K2	B2				M-Line Stockpile	L	H	T
A-Line	Spot Rock				-	-	50				
A-200	Spot Rock				-	-	10				
A-220	Spot Rock				-	-	20				
A-223	Culvert Inlet Fill				-	-	2				
A-220 JCT	0+00	2+56	1 1/2:1	6	30	2.56	76				

*Optional Rock: If Contractor elects to haul on optional rock roads in dry weather, the depth listed above is recommended but not required.

REQUIRED CRUSHED ROCK: 158 CY
 OPTIONAL CRUSHED ROCK: 0 CY

ROCK LIST



Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth (in)	C.Y. per Station or Unit	# of Stations or Units	C.Y. Subtotal	Rock Source M-Line Rock Pit	Turnout		
									Length	Width	Taper
			K2	B2	SELECT PIT RUN				L	H	T
A-223	0+00	2+75	1 1/2:1	15	81	2.75	223				
		Junctions			85	1	85				
A-223	2+75	14+98	1 1/2:1	15	81	12.23	990				
		Turnouts (10+38 to 10+58)			23	1	23		40	10	25
A-223	14+98	49+14	1 1/2:1	9	46	34.16	1569				
A-200	* 12+73	* 36+86	1 1/2:1	9	46	24.13	1110				
		Turnouts			20	1	20		40	10	25
A-221	* 0+00	* 2+10	1 1/2:1	9	46	2.10	96				
		Junctions			10	1	10				
A-222	* 0+00	* 4+50	1 1/2:1	9	46	4.50	207				
		Junctions			10	1	10				
A-223 B	* 0+00	* 2+87	1 1/2:1	15	81	2.87	232				
		Junctions			10	1	10				
		Landings			70	1	70				
A-223 C	* 0+00	* 2+76	1 1/2:1	15	81	2.76	223				
		Junctions			10	1	10				
		Landings			100	1	100				
A-223 D	* 0+00	* 2+90	1 1/2:1	15	81	2.90	235				
		Junctions			10	1	10				
		Landings			70	1	70				
A-230	* 0+00	* 10+89	1 1/2:1	9	46	10.89	500				
		Turnarounds			25	1	25				
		Junctions			10	1	10				
		Landings			60	1	60				
A-250	* 0+00	* 5+80	1 1/2:1	9	46	5.80	266				
A-220 JCT	* 0+00	* 2+56	1 1/2:1	12	63	2.56	161				

*Optional Rock per 6-75

REQUIRED SELECT PIT RUN: 3051 CY

OPTIONAL SELECT PIT RUN: 3274 CY

CULVERT LIST

Road Number	Location	Culvert			Armoring (C.Y.)			Backfill	Bedding	Inlet	Remarks
		Dia (In)	Length	Type	Inlet	Outlet	Type	Material	Material	Marker	
A-200	32+08	18	30	PD	0.5	0.5	SP	SP	NT	Y	Cross drain
A-220	4+80	18	30	PD	0.5	0.5	SP	CR	NT	Y	Replace damaged culvert
A-223C	2+24	18	30	PD	0.5	0.5	SP	SP	NT	Y	Ditchout Right
A-223	22+65	-	-	-	2.0	-	CR	-	-	Y	Fill hole at inlet
A-223	48+93	18	30	SP	0.5	0.5	SP	CR	NT	Y	Cross drain

Key:

- SP - Select Pit Run
- NT - Native (bank run)
- CR - 2 Inch Minus Crushed
- LL - Light Loose Riprap
- PD - Polyethylene Pipe Double Wall
- PSDS - Polyethylene Downspout Single Wall

COMPACTION LIST

Road	From Station	To Station	Type	Max Depth Per Lift (inches)	Equipment Type	Equipment Weight (lbs)	Minimum Number of Passes	Maximum Operating Speed (mph)	Maximum Amount of Deflection (inches)
All Roads			Subgrade	12	Vibratory Smooth Drum	14,000	4	3	2
All Roads			Fill	24	Vibratory Smooth Drum	14,000	4	3	2
All Roads			Waste Area	24	Excavation	28,000	-	-	4
All Roads			Pre-haul Surface	6	Vibratory Smooth Drum	14,000	3	3	1
All Roads			Post-haul Surface	6	Vibratory Smooth Drum	14,000	3	3	1
All Roads			Rock	12	Vibratory Smooth Drum	14,000	3	3	1

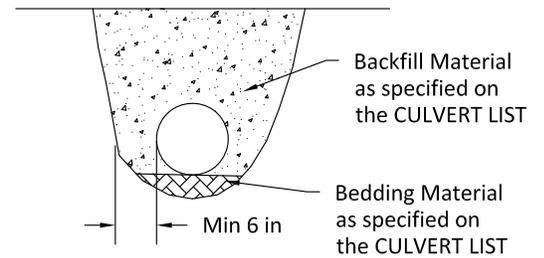
CULVERT AND DRAINAGE SPECIFICATION DETAIL
PAGE 1 OF 2

INSTALLATION REQUIREMENTS:

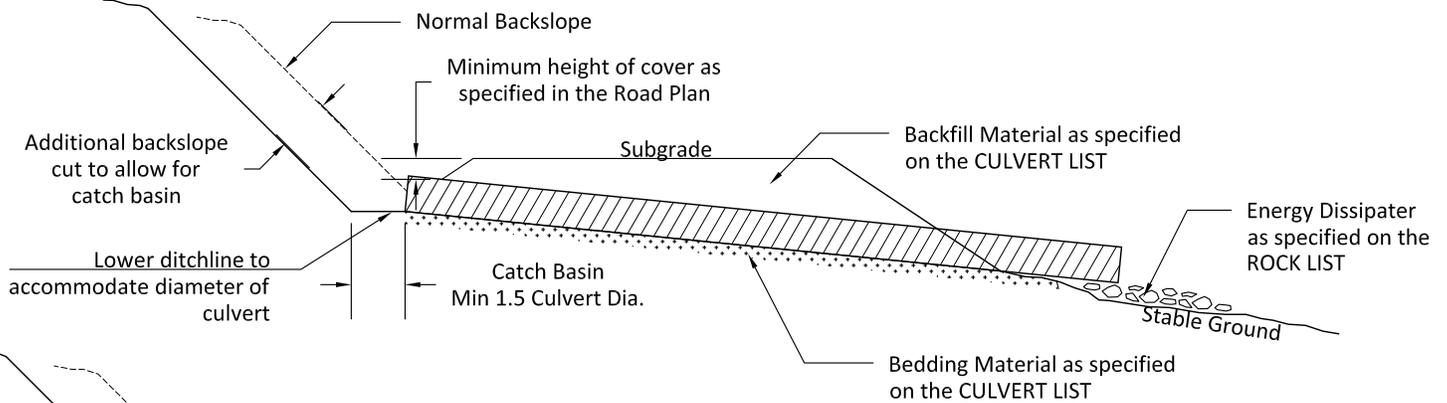
1. Proper preparation of foundation and placement of any required bedding material shall precede the installation of all culverts. This includes necessary leveling of the native trench bottom and compaction of required bedding material to form a uniform, dense, unyielding base. The pipe must be uniformly supported along the barrel.
2. Backfill material shall be compacted under the culvert haunches, around the sides, and above the culvert in accordance with the COMPACTION LIST.

ALL DRAWINGS ARE NOT TO SCALE

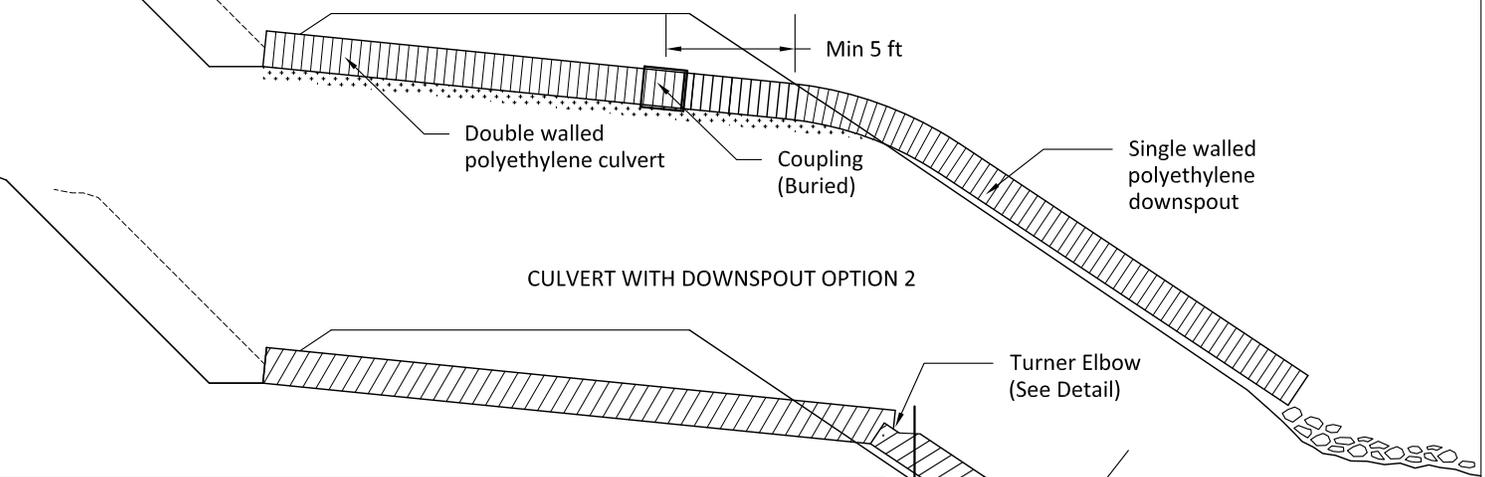
CROSS SECTION



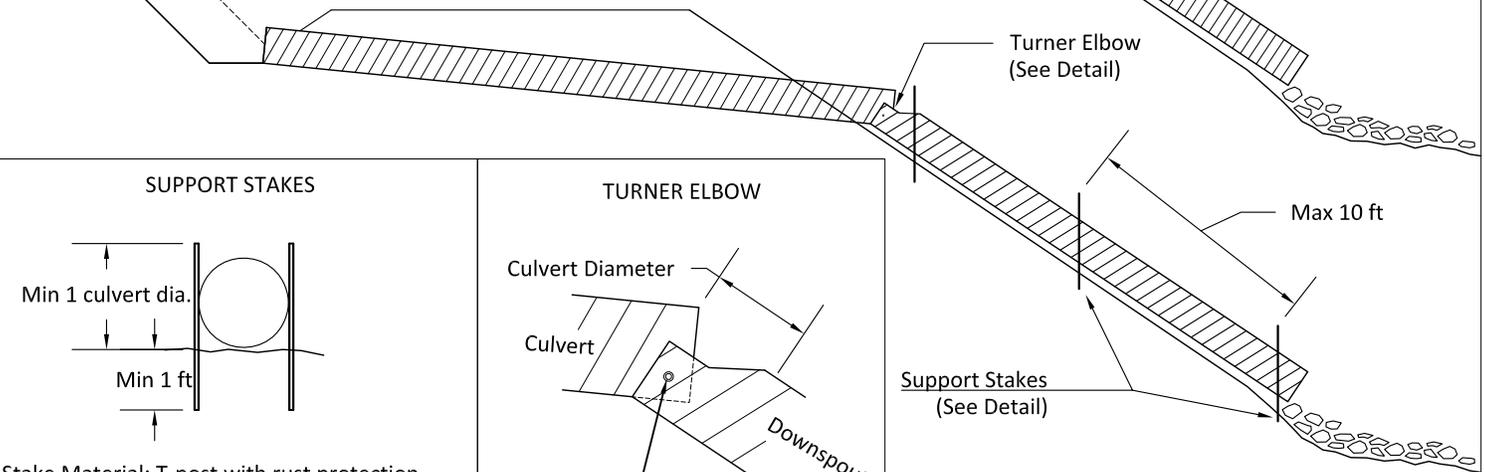
CULVERT PROFILE (TYPICAL)



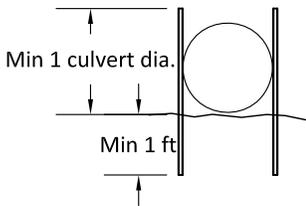
CULVERT WITH DOWNSPOUT OPTION 1



CULVERT WITH DOWNSPOUT OPTION 2

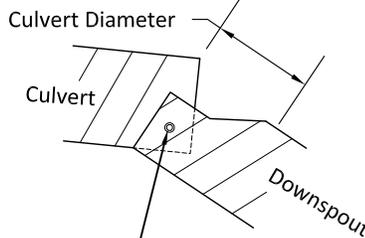


SUPPORT STAKES



Stake Material: T-post with rust protection coating.
Connections: Bolt support stakes to the culvert with $\frac{5}{8}$ " u-bolts, with washers on both the inside and outside of the culvert.
Alternative staking methods may be approved, in writing, by the Contract Administrator.

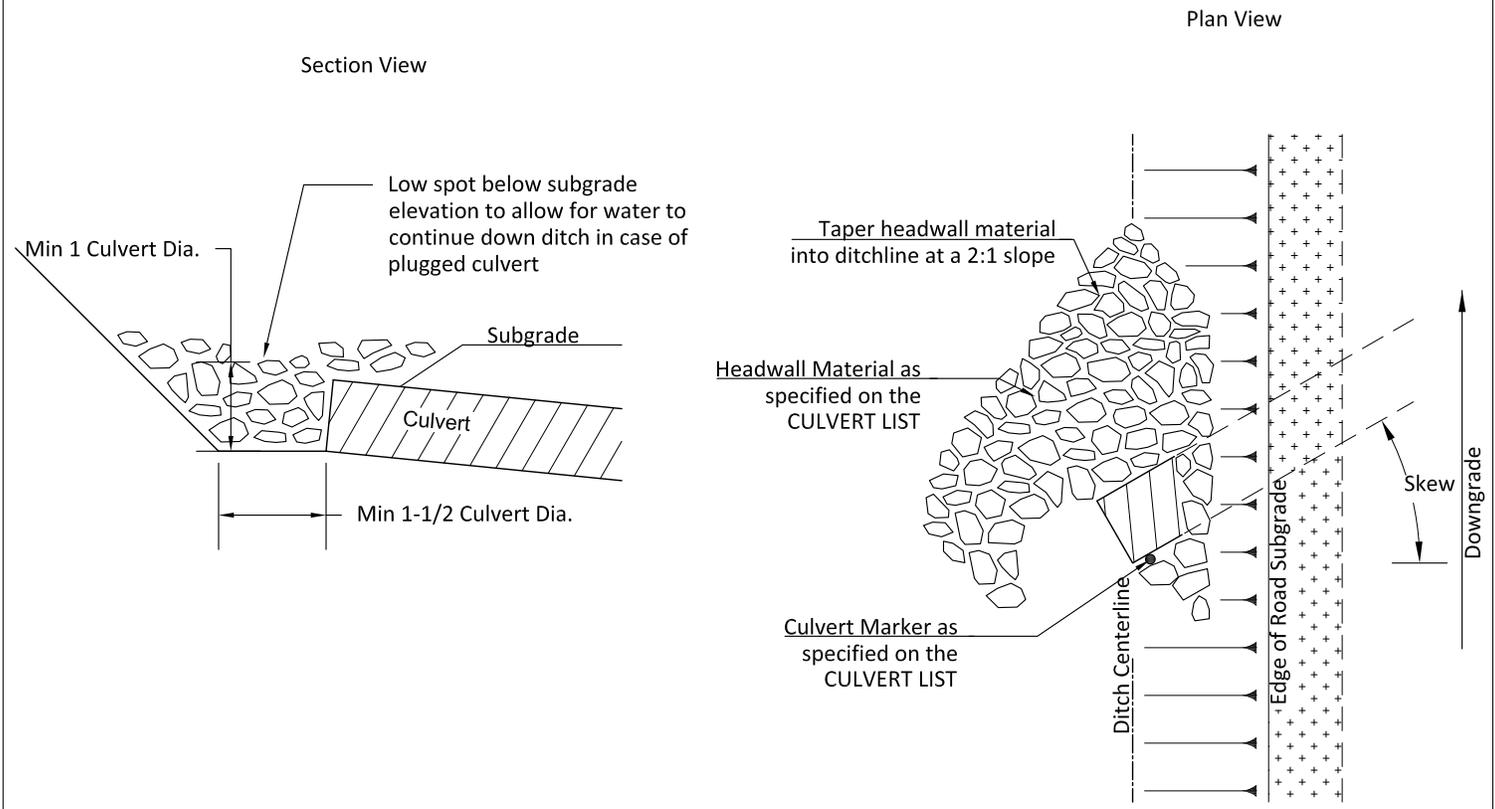
TURNER ELBOW



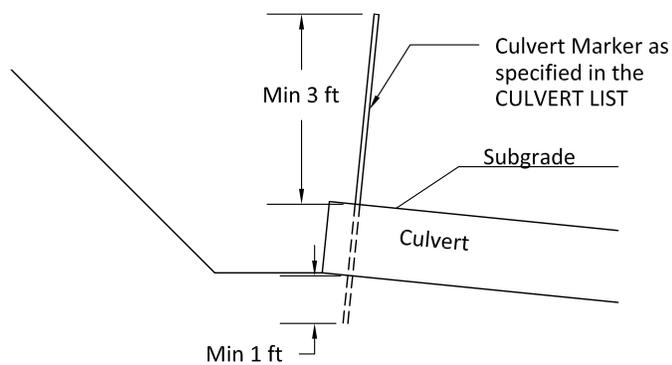
Bolted with $\frac{5}{8}$ " galvanized bolts and washers (both sides)
Downspout must be 6 inches larger in diameter than the culvert.

CULVERT AND DRAINAGE SPECIFICATION DETAIL
PAGE 2 OF 2

HEADWALLS

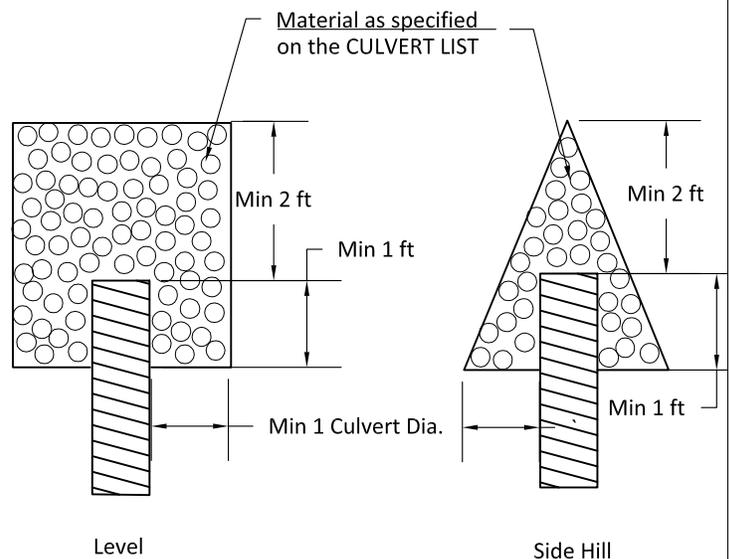


CULVERT MARKERS



Culvert Marker Material: 1 Inch I.D., Schedule 40 PVC Pipe, White. Marker must be capped on the top.
 Culvert Marker Placement: Place on uphill side of culvert, between corrugations if possible.
 Alternative culvert marker types may be approved, in writing, by the Contract Administrator.

ENERGY DISSIPATORS



Min Energy Dissipator Depth: 1 Culvert Dia.

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Page 1 of 2

Cuts and Fills

- Maintain slope lines to a stable gradient compatible with the cut slope/fill slope ratios. 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, shape 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.

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Page 2 of 2

Preventative Maintenance

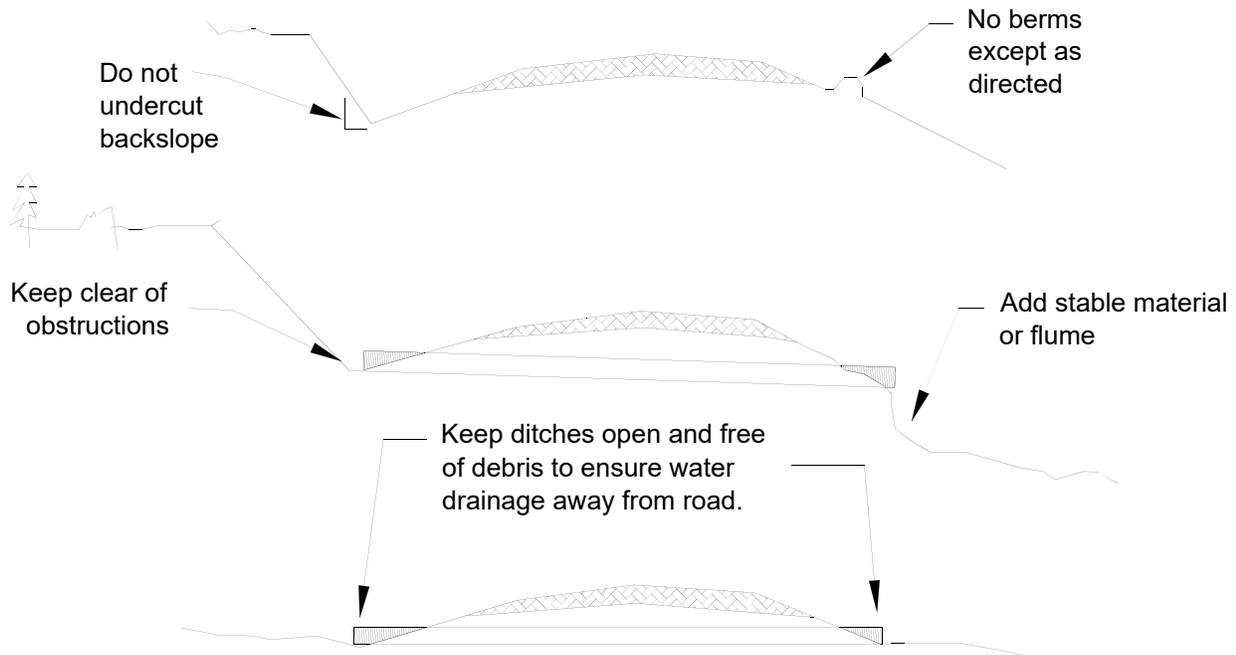
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

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.

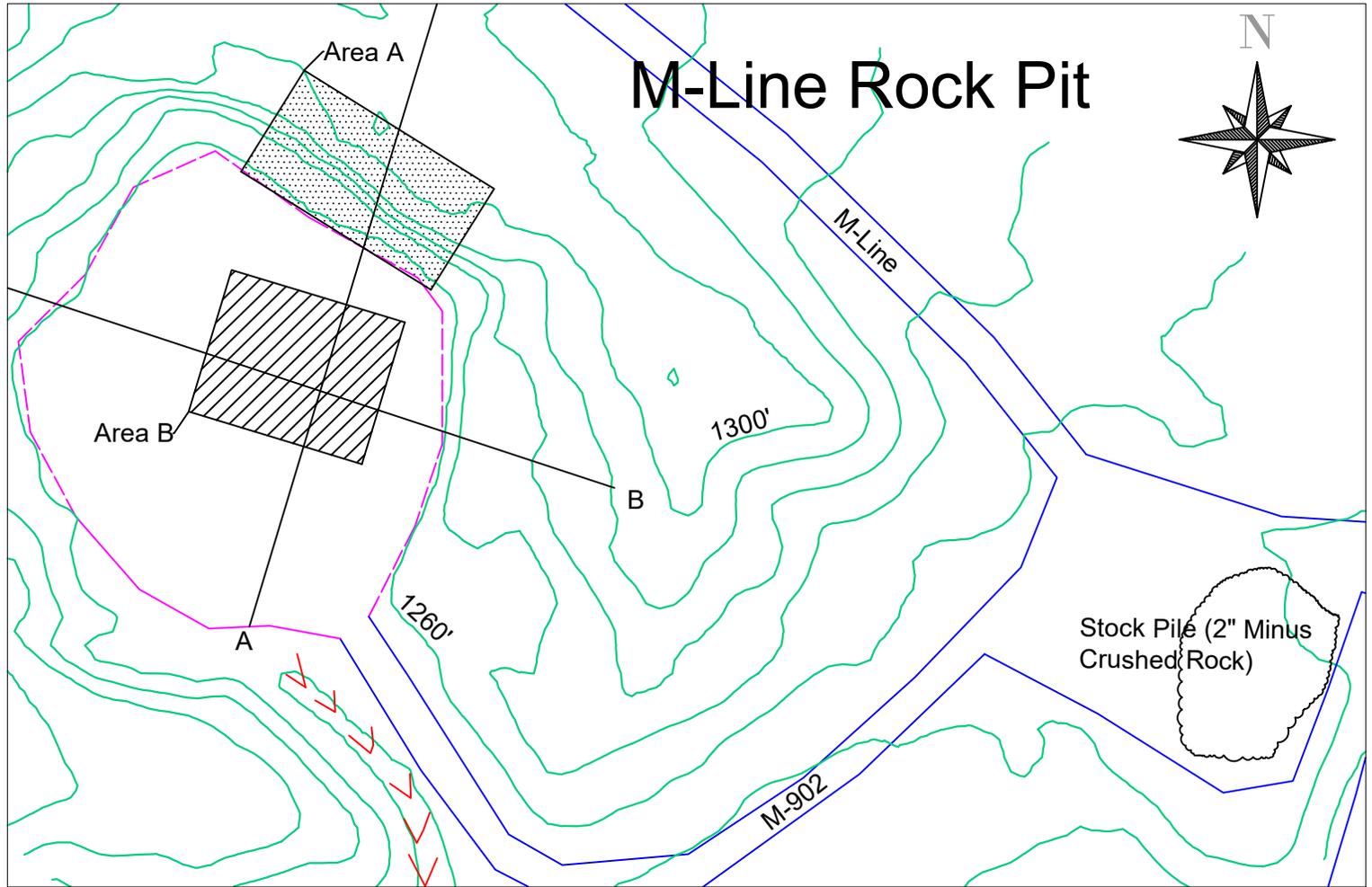


M-LINE PIT DEVELOPMENT PLAN

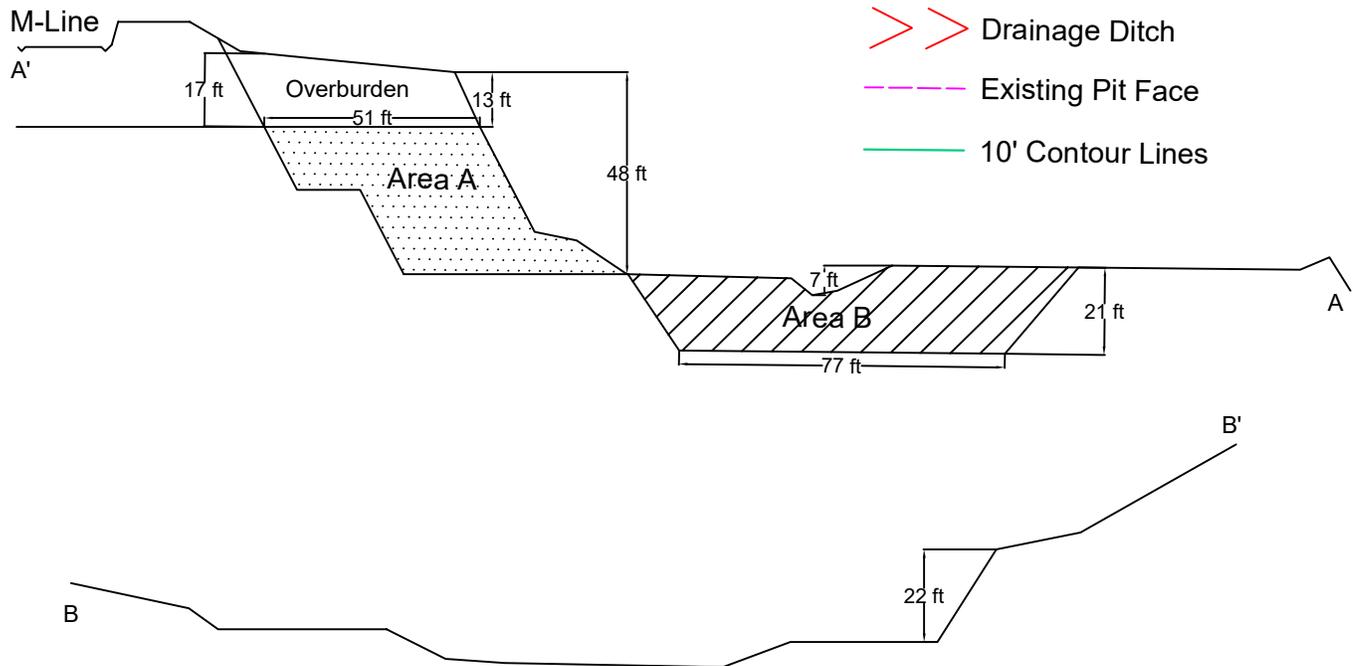
(Page 1 of 2)

1. All operations shall be carried out in compliance with all the regulations of:
 - a. Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations (30 CFR) U.S. Department of Labor, Mine Safety and Health Administration.
 - b. "Safety Standards for Construction Work" (296-155 WAC), Washington Department of Labor and Industries.
2. Mining shall be in Area A. Development in any other area, including Area B, must be approved in writing by the Contract Administrator.
3. Purchaser shall submit an informational drilling and shooting plan to Contract Administrator 5 working days before any drilling (Form #M-126PAC)
4. All vegetation including stumps shall be cleared a minimum of 15 feet beyond the top of all working faces. Trees shall be cleared to a minimum of $\frac{3}{4}$ of the height of the tallest tree adjacent to the pit. The Contractor shall maintain a minimum of 10 foot wide stripped area from the pit face at all times.
5. Overburden shall be end hauled to the designated waste area and compacted in accordance with the COMPACTION LIST.
6. Pit faces created or modified by this sale shall not exceed 20 feet in height and shall be sloped no steeper than $\frac{1}{4}$:1.
7. Working bench width shall be a minimum of 15 feet.
8. Upon completion of pit operations:
 - a. The pit floor shall be left in a smooth and neat condition.
 - b. All exposed soil in the waste area shall be grass seeded in accordance with Road Plan Clauses 8-15 REVEGETATION and 8-25 GRASS SEED.
 - c. Pit faces and walls shall be scaled and cleared of loose and overhanging material and benches shall have safety berms constructed or access blocked to highway vehicles.
 - d. The area will be left in a condition that will not endanger public safety, damage property, or be hazardous to human life. The site shall be cleared of all temporary structures, equipment and rubbish, and shall be left in a neat and presentable condition.
 - e. Purchaser shall ask Contract Administrator for written approval of final rock source condition and compliance with the terms of this plan.

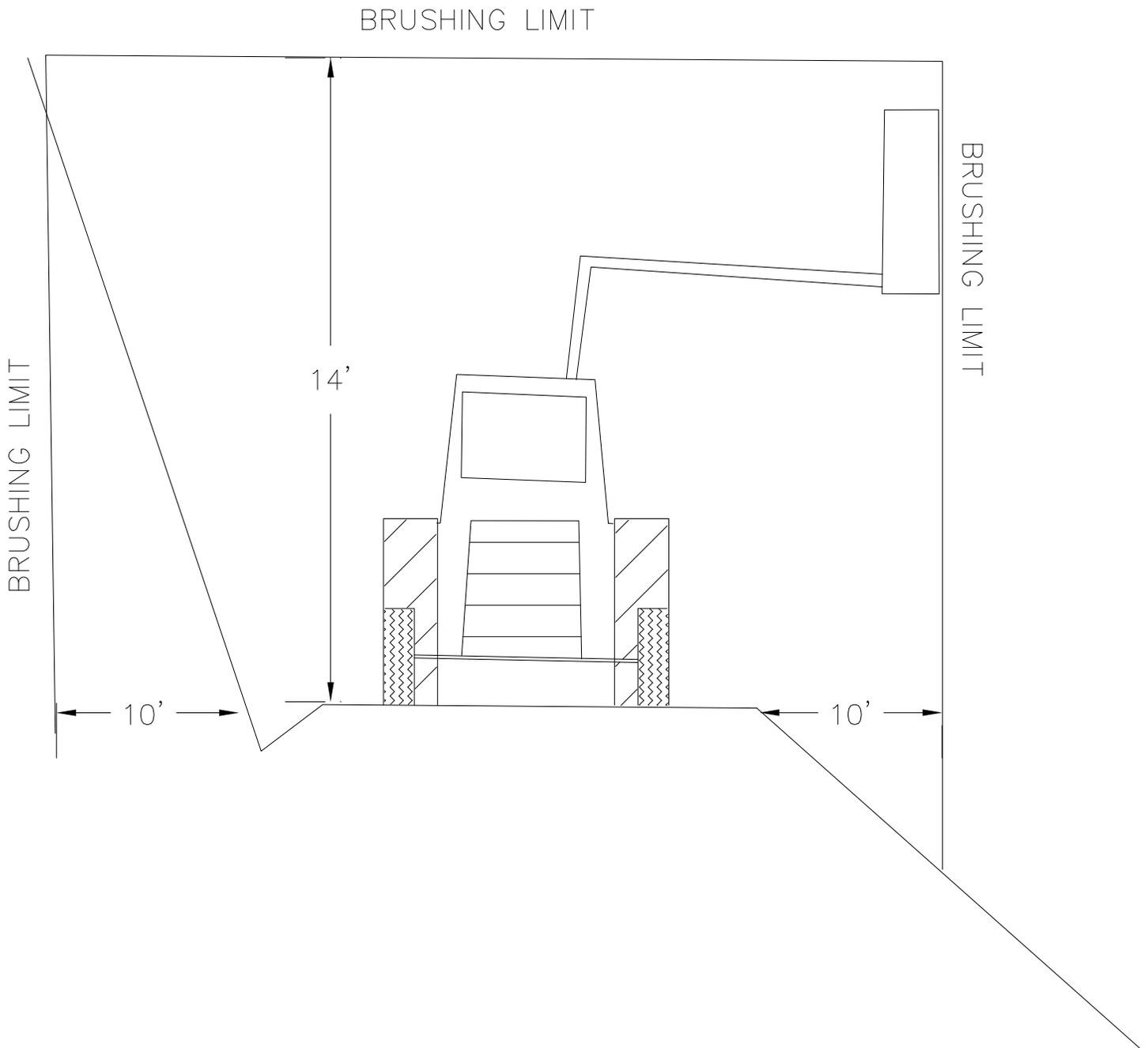
M-Line Rock Pit



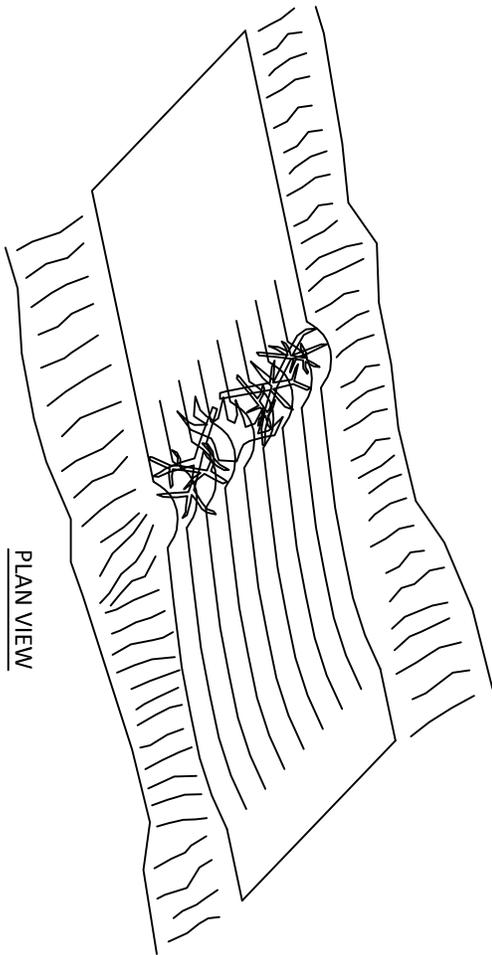
-  Area A
-  Area B
-  Drainage Ditch
-  Existing Pit Face
-  10' Contour Lines



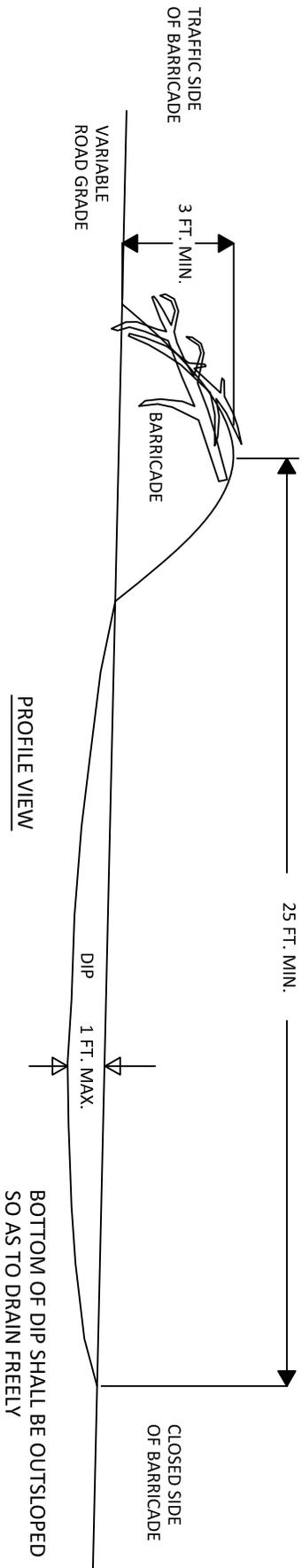
BRUSHING SECTION DETAIL

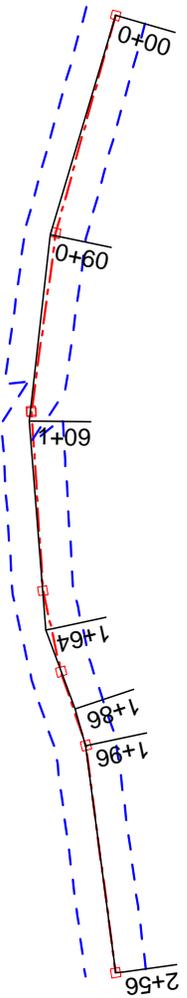


EARTHEN BARRICADE DETAIL



SLASH AND ROOT WADS SHALL BE INCORPORATED INTO THE TRAFFIC SIDE OF THE BARRICADE.





Grade %

Assumed expansion factors

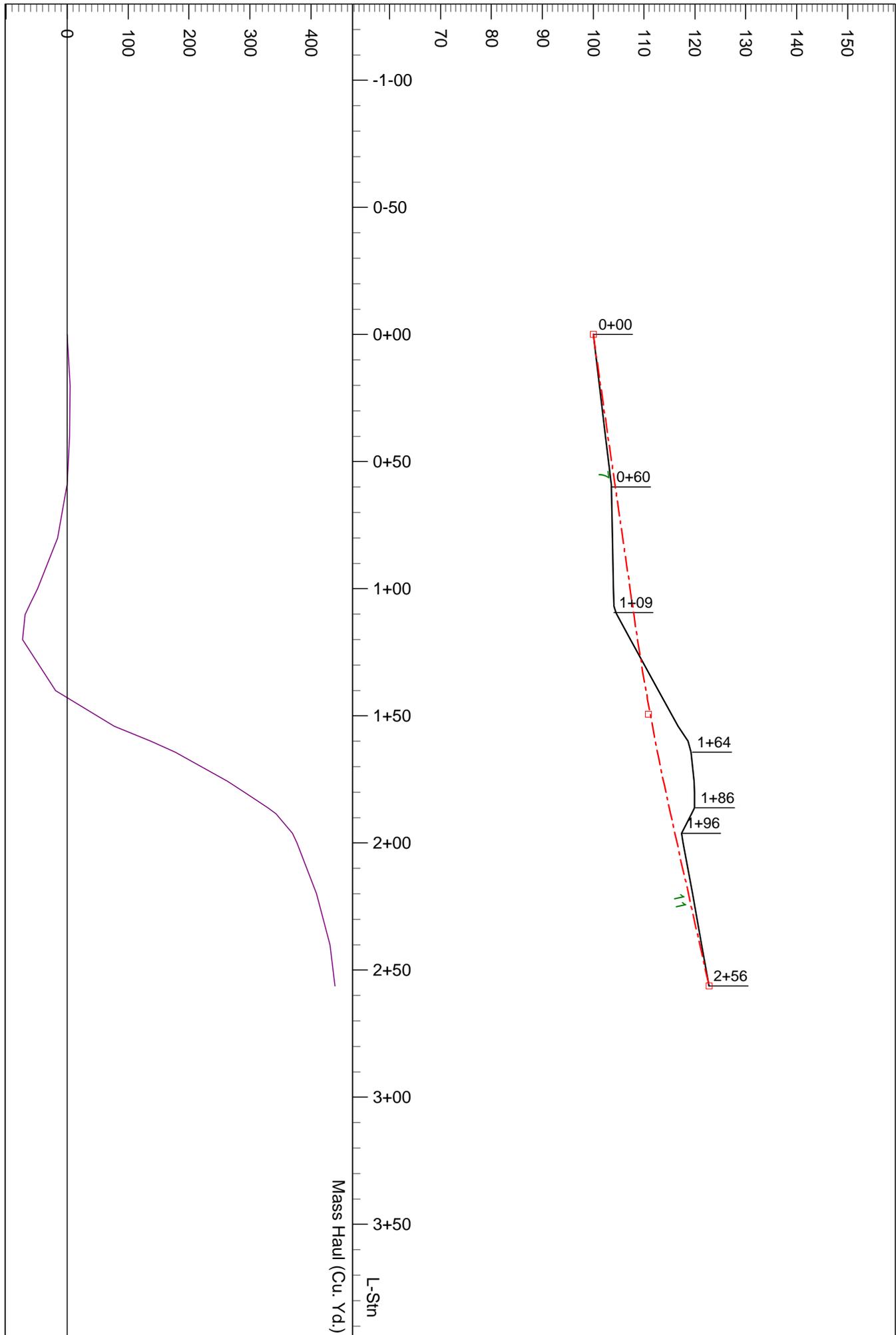
Cut: 1.4

Fill: 0.8

*All volumes are estimates.

Topography

Subgrade

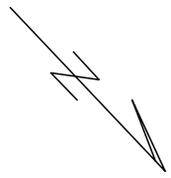
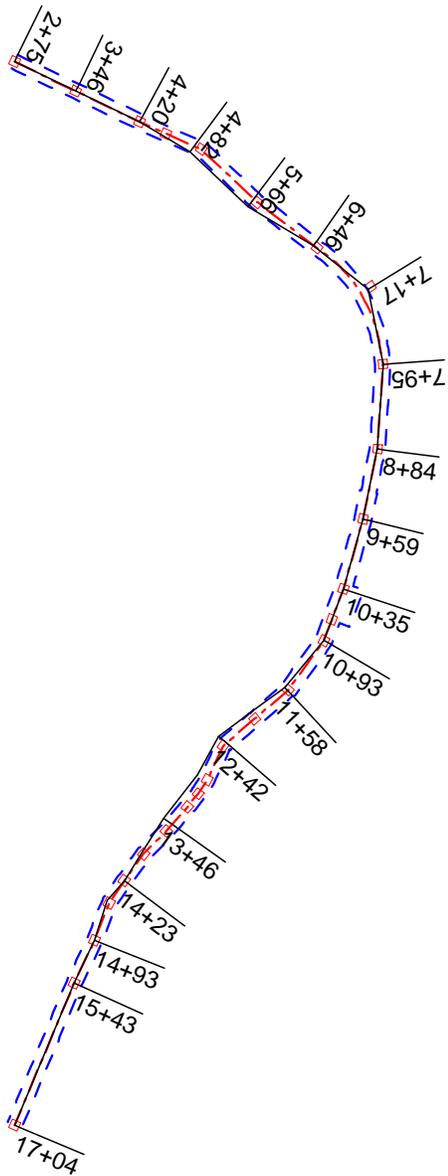


Mass Haul (Cu. Yd.)

--- L-line

— P-line

- - - Road Edges



Grade %

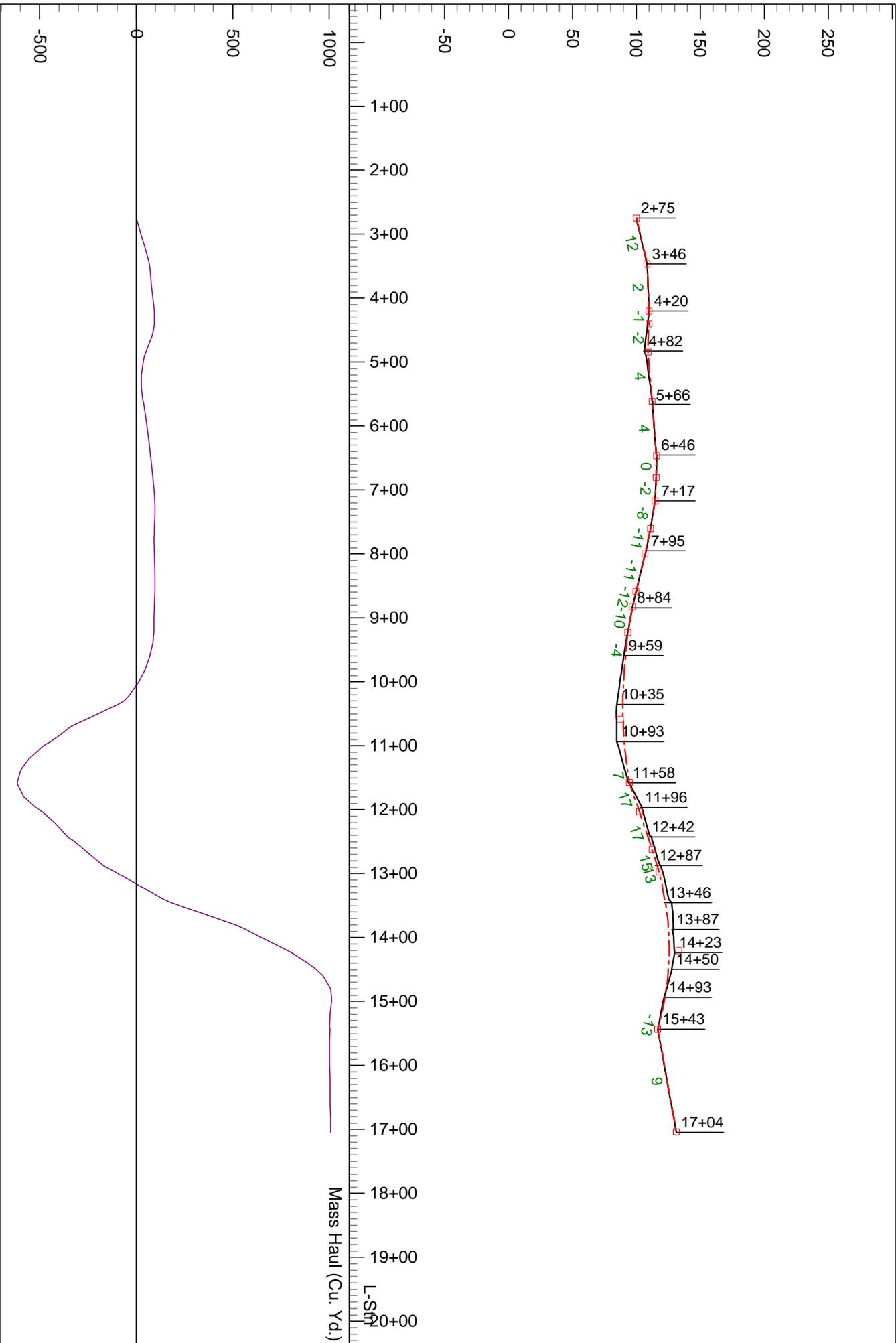
Subgrade

Topography

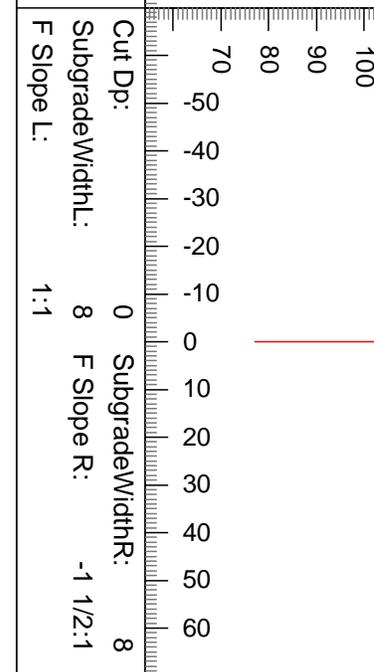
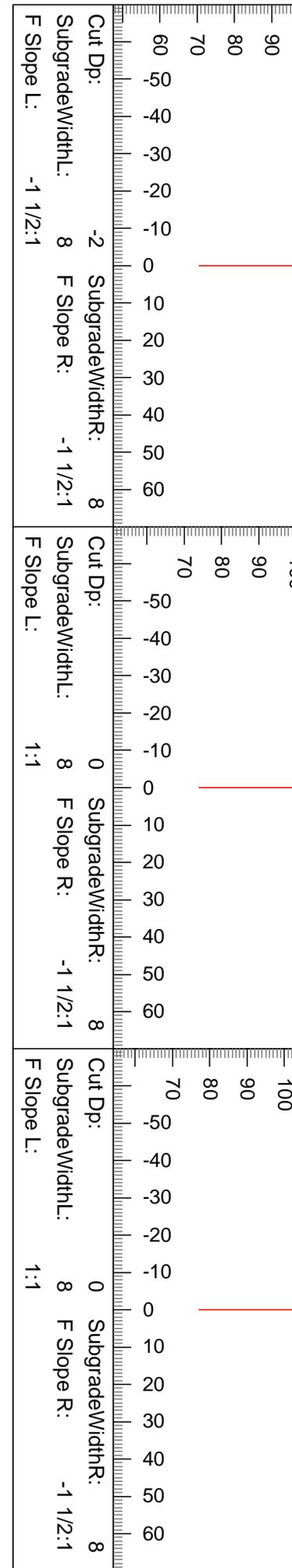
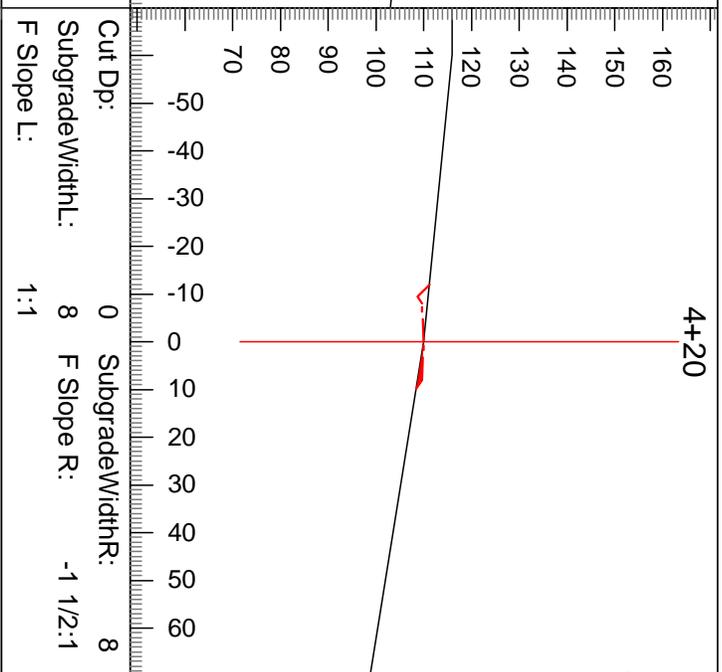
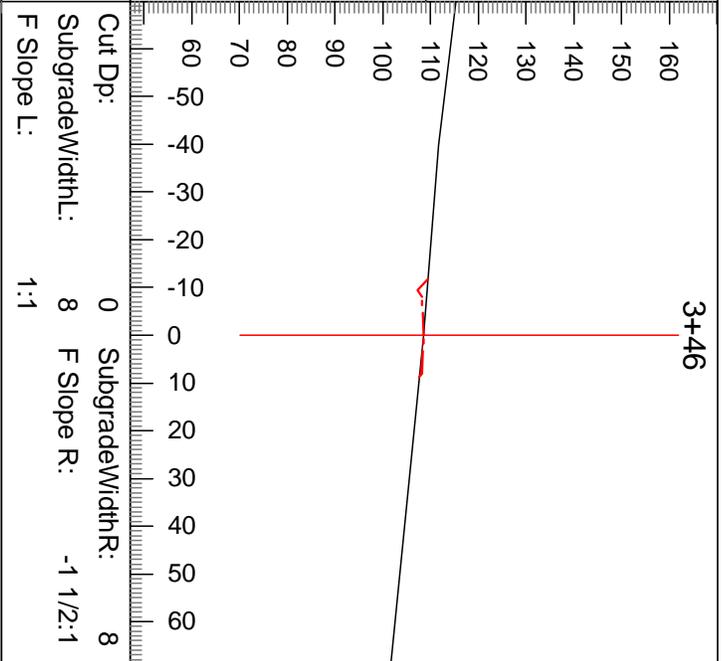
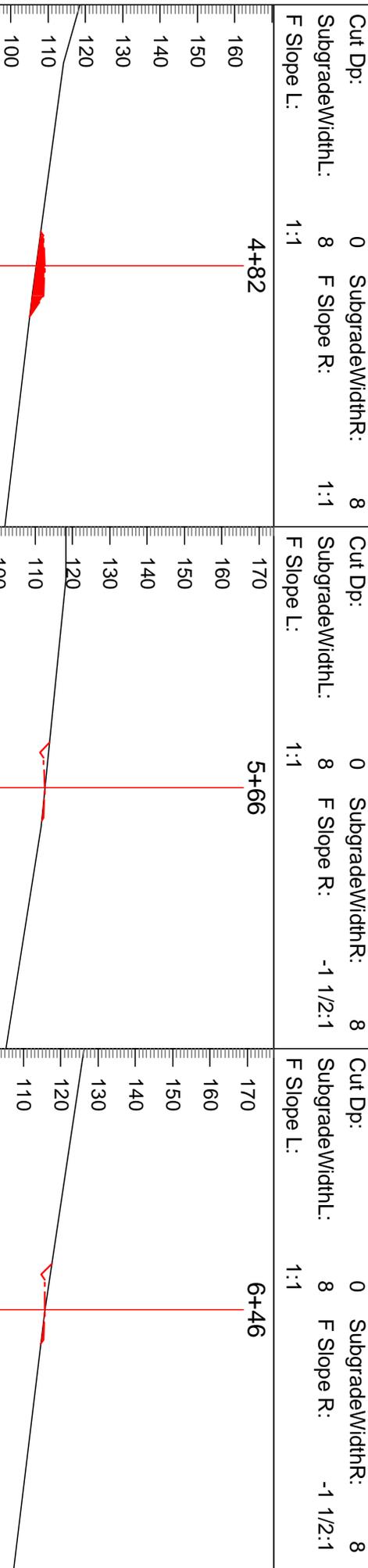
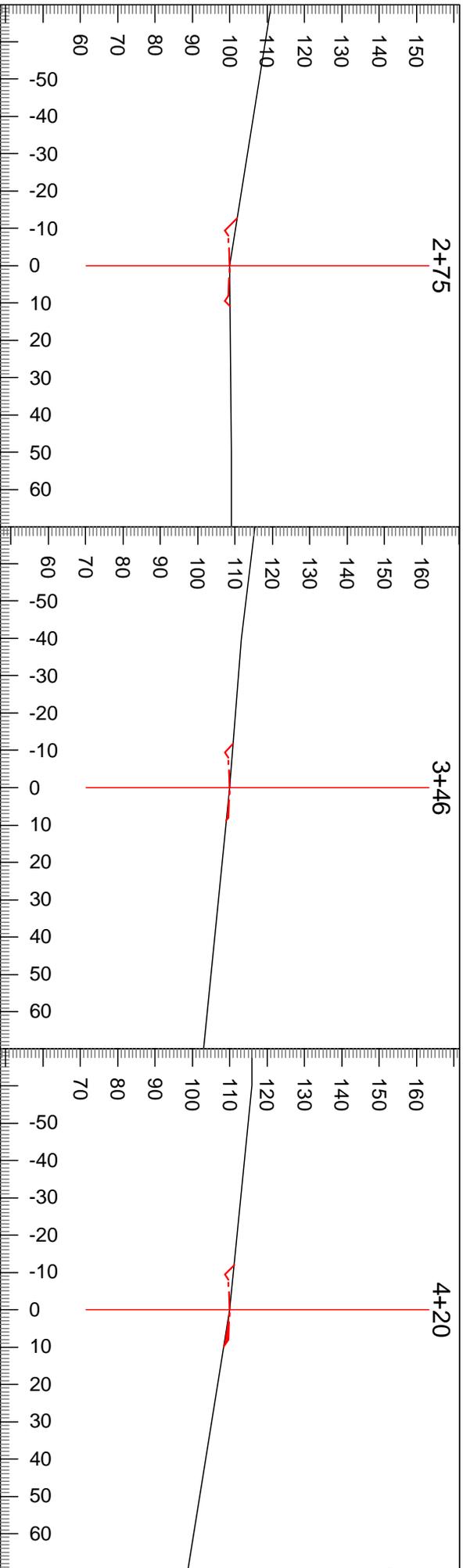
Assumed expansion factors

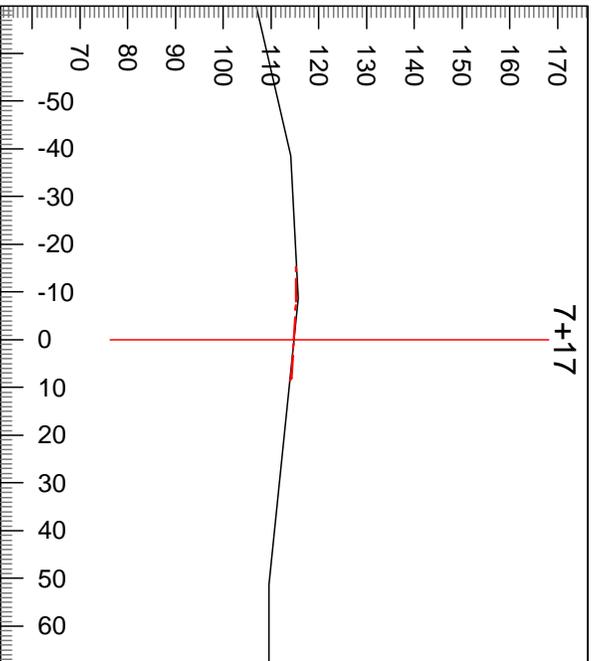
Cut: 1.4 Fill: 0.8

*All volumes are estimates.

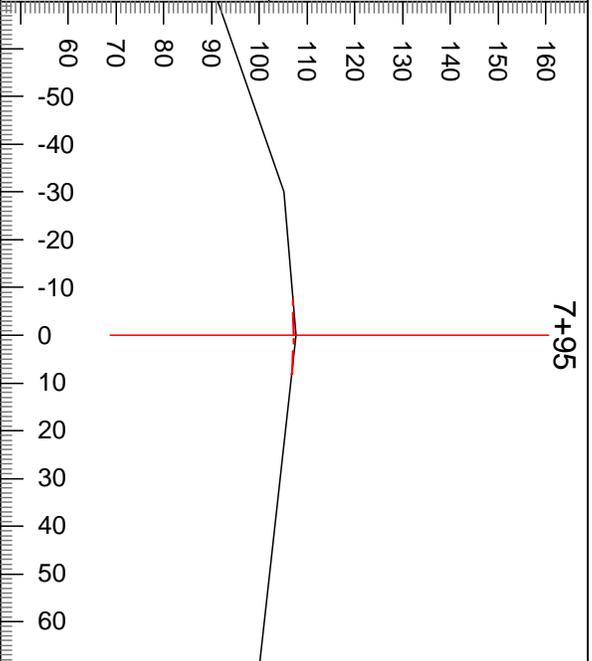


Mass Haul (Cu. Yd.)

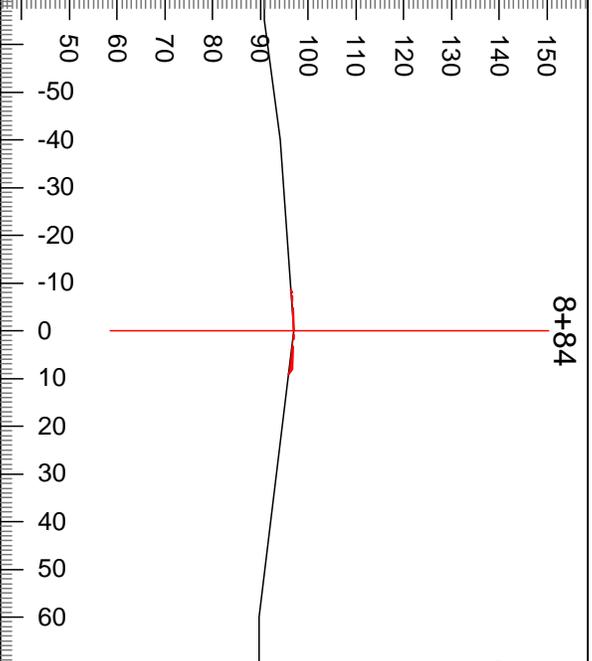




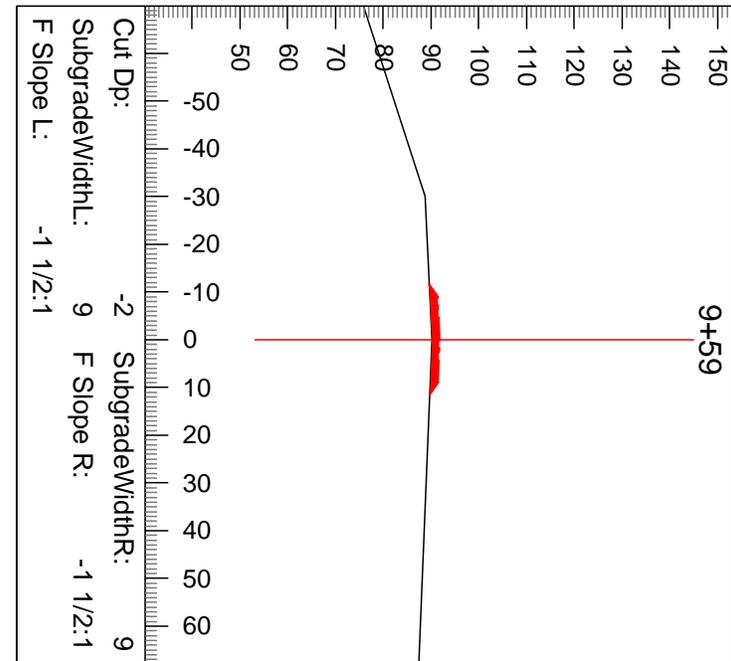
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SubgradeWidthL: 8 F Slope R: -1 1/2:1
F Slope L: 0



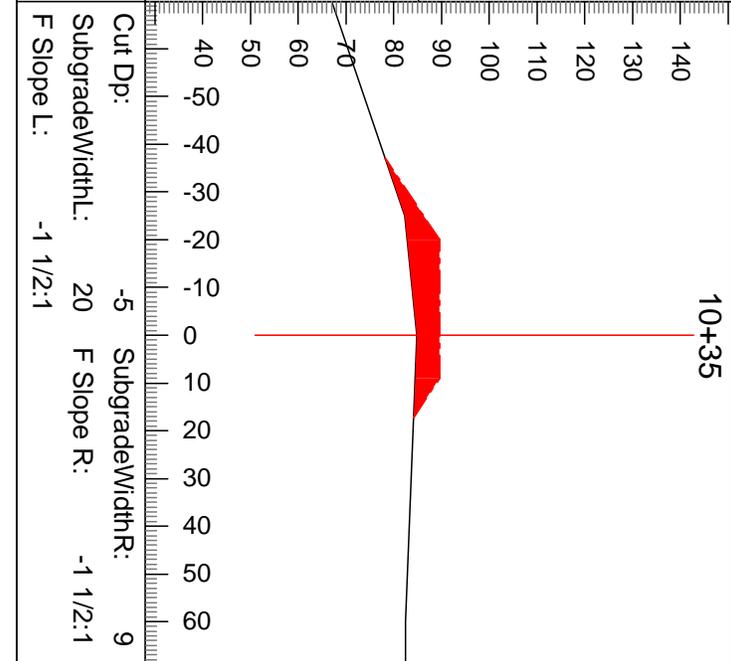
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F Slope L: -1 1/2:1



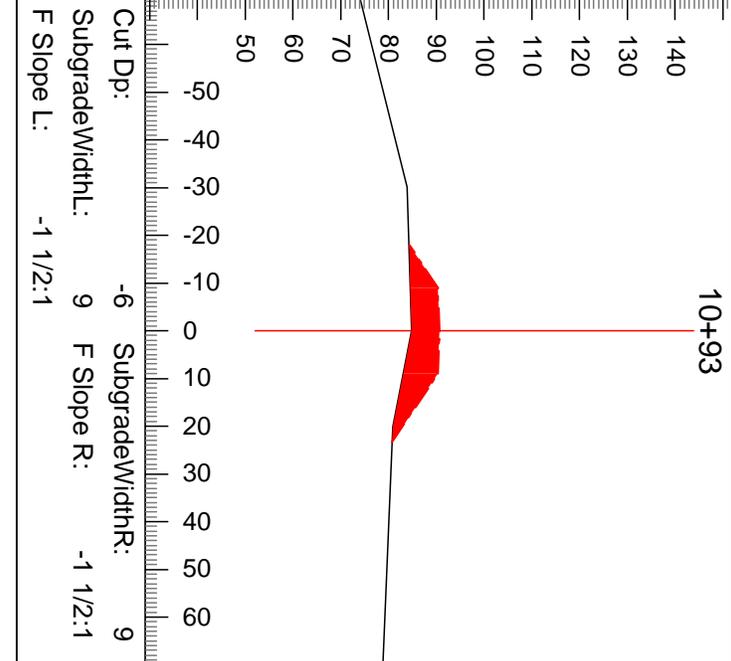
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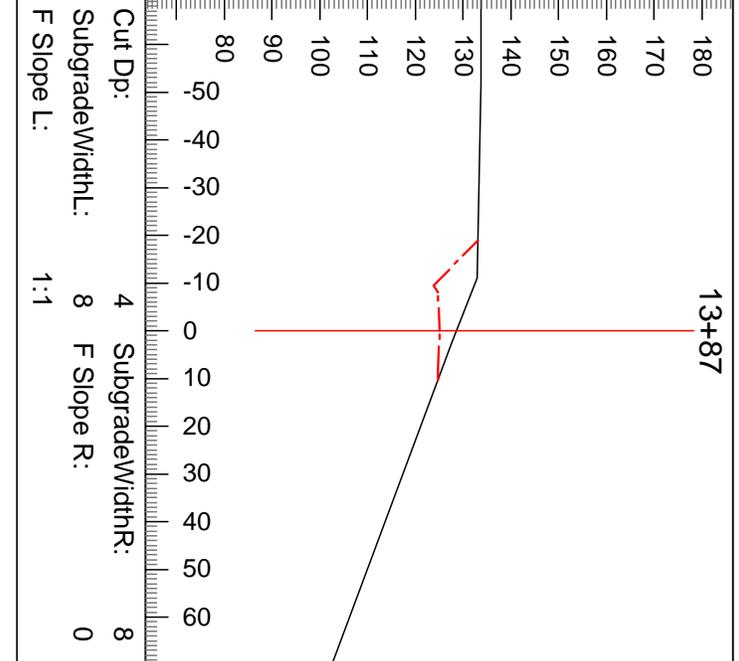
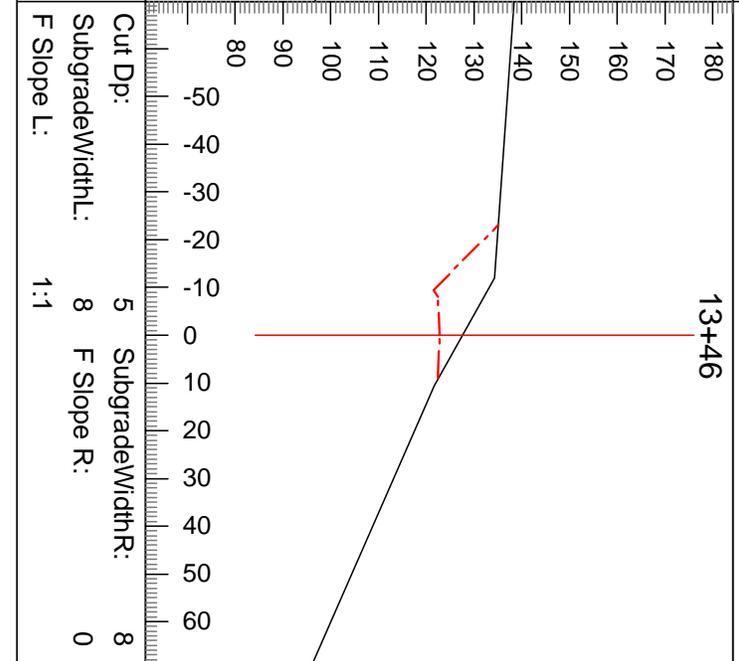
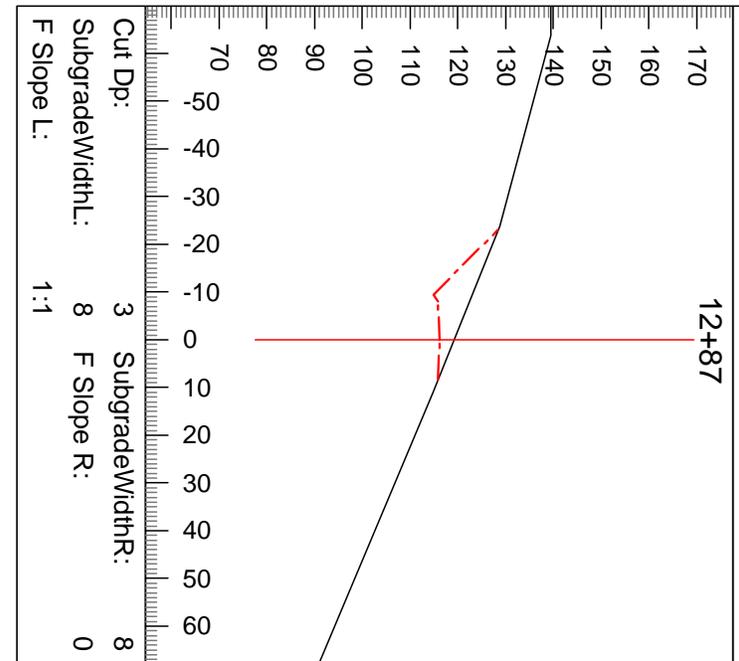
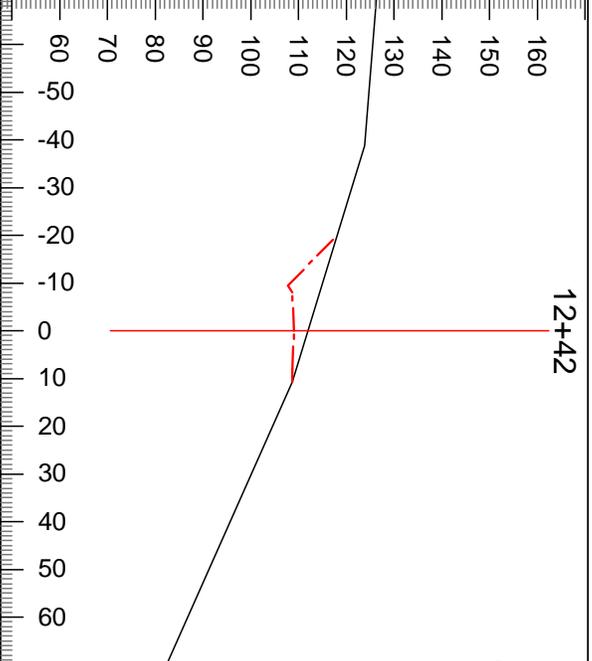
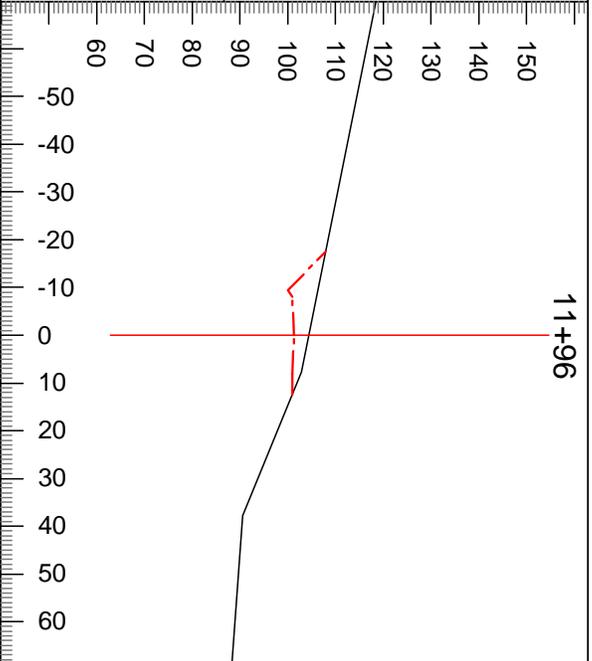
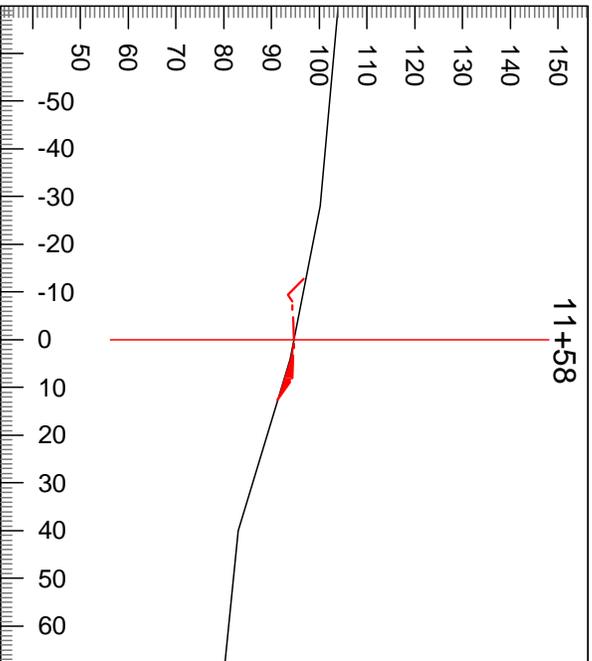
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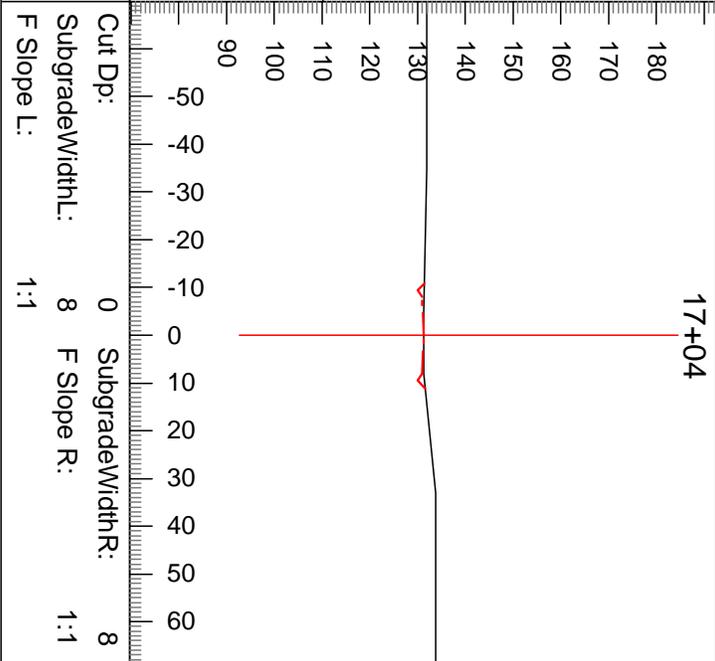
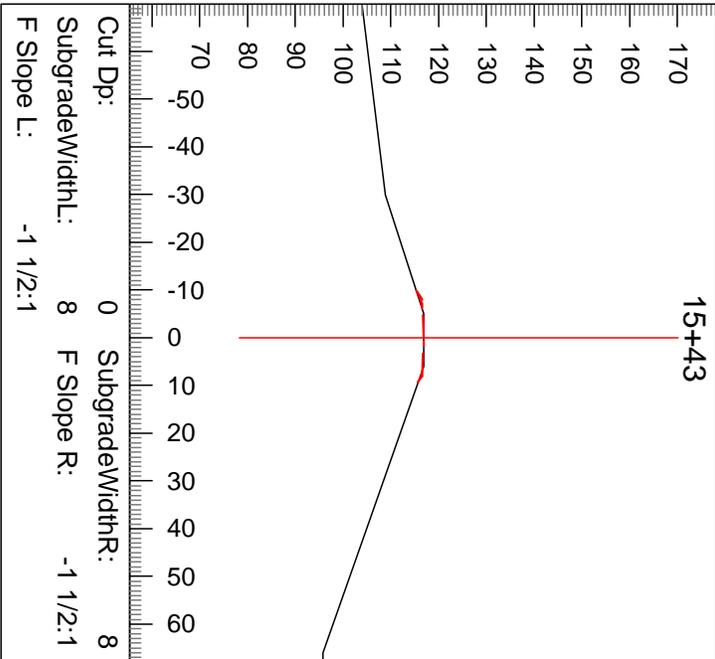
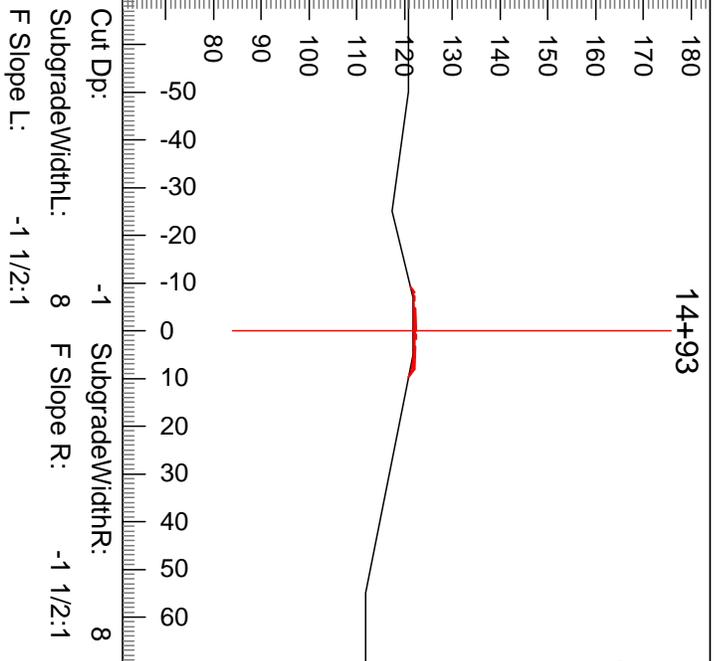
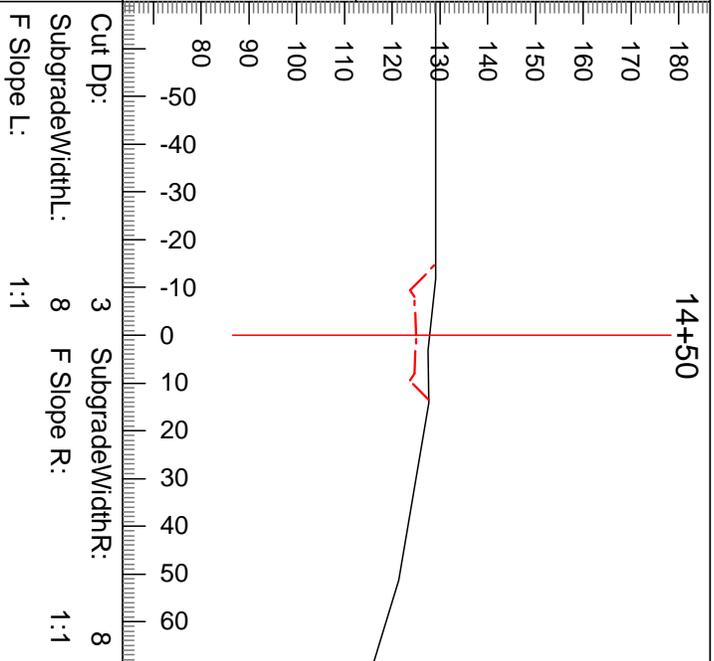
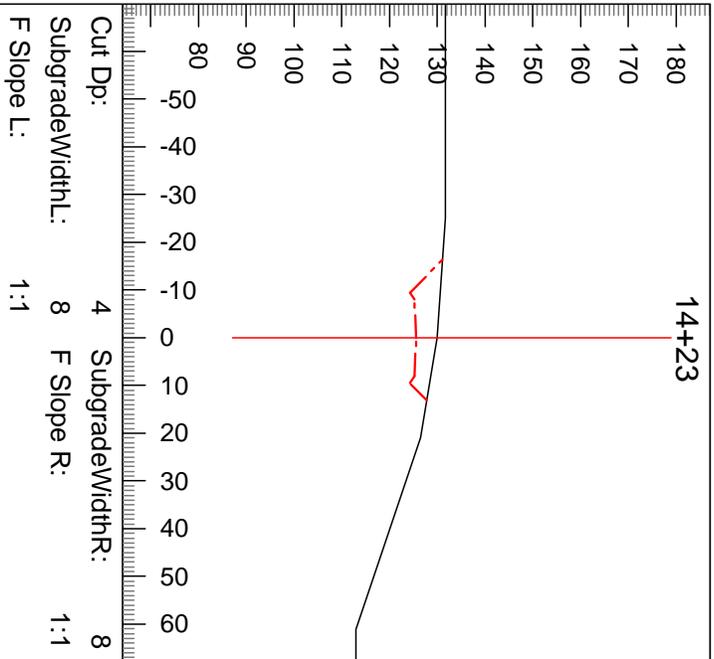


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F Slope L: -1 1/2:1



Cut Dp: -6 SubgradeWidthR: 9
SubgradeWidthL: 9 F Slope R: -1 1/2:1
F Slope L: -1 1/2:1





SUMMARY - Road Development Costs

REGION: Pacific Cascade

DISTRICT: St. Helens

SALE/PROJECT NAME: TRAPPER KEEPPER

AGREEMENT #: 30-099119

ROAD NUMBERS: Optional: A-200, A-221, A-222, A-223B, A-223C, A-223D, A-230, A-250

Required: A-Line, A-220JCT, A-200, A-220, A-223, M-Line

ROAD STANDARD:	Construction	Reconstruction	Maintenance
NUMBER OF STATIONS:	23.32	84.33	196.70
CLEARING & GRUBBING, EXCAVATION AND FILL, MISC.:	\$17,761.88	\$16,489.98	\$7,609.68
ROAD ROCK:			
Optional:	\$9,776.38	\$24,340.44	\$0.00
Required:	\$12,943.06	\$21,808.37	\$451.80
Total:	\$22,719.44	\$46,148.81	\$451.80
STOCKPILE:	-	-	\$0.00
CULVERTS AND FLUMES:	\$1,021.80	\$1,021.80	\$681.20
STRUCTURES:	-	-	-
MOBILIZATION:	\$2,188.08	\$2,031.40	\$937.44
TOTAL COSTS:	\$43,691.20	\$65,691.99	\$9,680.12
COST PER STATION:	\$1,874	\$779	\$49
ROAD DEACTIVATION & ABANDONMENT COSTS:	\$0.00	\$0.00	\$0
10% OVERHEAD AND GENERAL EXPENSE =			\$11,906.33
TOTAL (All Roads) =			\$130,969.64
TOTAL (Minus Optional Rock) =			\$96,852.82
SALE VOLUME MBF =			2,409
TOTAL \$/MBF =			\$54.37
TOTAL \$/MBF (Minus Optional Rock) =			\$40.20

Profit and Risk costs are accounted on an individual basis.

SUMMARY OF ROAD

Sale:

TRAPPER KEEPPER

Road:

A-Line

Required
Pre-Haul Maintenance- 85+94 stations
1.63 miles

Required
Reconstruction - 0.00 stations
0.00 miles

Required
Construction - 0.00 stations
0.00 miles

Required Abandonment- 0.00 stations
0.00 miles

Optional
Reconstruction - 0.00 stations
0.00 miles

Optional
Construction - 0.00 stations
0.00 miles

PRE-HAUL MAINTENANCE

CLEARING

Roadside Brushing	1.63	miles @	\$855.00 per mile =	\$1,393.65	
Grade and shape existing road surface -	85.94	stations @	\$13.75 per station	\$1,181.68	
Roll shaped road surface w/ vibratory roller prior to rocking -	85.94	stations @	\$7.27 per station	<u>\$624.78</u>	
TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.					\$3,200.11

ROCK

Spot Rock	0+00	50	cy. of	Crushed	@	\$5.61	per c.y. =	<u>\$280.50</u>	
TOTAL ROCK									\$280.50
SUBTOTAL									\$3,480.61

Optional Rock? NO

TOTAL **\$3,480.61**
COST PER STATION **\$40.50**

SUMMARY OF ROAD

Sale:	TRAPPER KEEPPER		Road:	A-200	
Required Pre-Haul Maintenance-	12+73 0.24	stations miles	Required Reconstruction -	0.00	stations miles
Required Abandonment-	0.00	stations miles	Optional Reconstruction -	24+13 0.46	stations miles
			Required Construction -	0.00	stations miles
			Optional Construction -	0.00	stations miles

PRE-HAUL MAINTENANCE

CLEARING					
Roadside Brushing	0.24	miles @	\$855.00	per mile =	\$205.20
EXCAVATION					
Pull and clean ditch-	12.73	stations @	\$53.75	per station	\$684.24
MISC.					
Grade and shape existing road surface -	12.73	stations @	\$13.75	per station	\$175.04
Roll shaped road surface w/ vibratory roller prior to rocking -	12.73	stations @	\$7.27	per station	\$92.55
			TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.		\$1,157.03

RECONSTRUCTION

CLEARING/GRUBBING					
Scattering Organic Debris	24.13	sta @	\$115.00	per sta	\$2,774.95
EXCAVATION					
Pull and clean ditch-	24.13	stations @	\$53.75	per station	\$1,296.99
Grade and shape subgrade -	24.13	stations @	\$11.00	per station	\$265.43
MISC.					
Roll subgrade w/ vibratory roller prior to rocking -	24.13	stations @	\$9.09	per station	\$219.34
Reconstruct turnouts @ sta. -	1.00	@	\$96.93	each	\$96.93
Grass seed and fertilize -	22.00	lbs @	\$2.80	per lbs	\$61.60
			TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.		\$4,715.24

ROCK					
Spot Rock	0+00	10	cy. of	Crushed	\$5.55
12+73 to	36+86	1,128	cy. of	PitRun	\$11.26
					per c.y.=
					\$55.50
					per c.y.=
					\$12,701.28
				TOTAL ROCK	
					\$12,756.78
				SUBTOTAL	
					\$19,310.25

Optional Rock?	YES		TOTAL	\$19,310.25
			COST PER STATION	\$523.88

SUMMARY OF ROAD

Sale: TRAPPER KEEPPER

Road: A-220

Required
Pre-Haul Maintenance- 50+12 stations
0.95 miles

Required Abandonment- stations
0.00 miles

Required
Reconstruction - stations
0.00 miles

Optional
Reconstruction - stations
0.00 miles

Required
Construction - stations
0.00 miles

Optional
Construction - stations
0.00 miles

PRE-HAUL MAINTENANCE

CLEARING

Roadside Brushing 0.64 miles @ \$855.00 per mile = \$547.20

EXCAVATION

Pull and clean ditch- 11.40 stations @ \$53.75 per station \$612.75

MISC.

Grade and shape existing road surface - 50.12 stations @ \$13.75 per station \$689.15

Roll shaped road surface w/ vibratory roller prior to rocking - 50.12 stations @ \$7.27 per station \$364.37

Re-shape dented culvert inlet - 1.00 @ \$32.00 each \$32.00

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$2,245.47**

CULVERTS - MATERIALS & INSTALLATION

Culverts
30 LF of 18" \$673.20
\$673.20

Culvert Stakes & Markers
1 markers \$8.00
\$8.00

TOTAL CULVERTS **\$681.20**

ROCK

Spot Rock 0+00 20 cy. of Crushed @ \$5.79 per c.y. = \$115.80
TOTAL ROCK **\$115.80**

SUBTOTAL **\$3,042.47**

Optional Rock? NO

TOTAL **\$3,042.47**

COST PER STATION **\$60.70**

SUMMARY OF ROAD

Sale: TRAPPER KEEPPER

Road: A-223

Required Pre-Haul Maintenance-	[]	stations miles
	0.00	
Required Abandonment-	[]	stations miles
	0.00	

Required Reconstruction -	36+91	stations miles
	0.70	
Optional Reconstruction -	[]	stations miles
	0.00	

Required Construction -	12+23	stations miles
	0.23	
Optional Construction -	[]	stations miles
	0.00	

RECONSTRUCTION

CLEARING/GRUBBING

Scatter Organic Debris	36.91	sta @	\$115.00	per sta	\$4,244.65
Remove large stumps -	1.00	@	\$252.00	each	\$252.00

EXCAVATION

Pull and clean ditch-	36.91	stations @	\$53.75	per station	\$1,983.91
Grade and shape subgrade -	36.91	stations @	\$11.00	per station	\$406.01

MISC.

Roll subgrade w/ vibratory roller prior to rocking -	36.91	stations @	\$9.09	per station	\$335.51
Grass seed and fertilize -	34.00	lbs @	\$2.80	per lbs	\$95.20
TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.					\$7,317.28

CONSTRUCTION

CLEARING/GRUBBING

Scatter Organic Debris	12.23	sta @	\$230.00	per sta	\$2,812.90
Remove large stumps -	6.00	@	\$252.00	each	\$1,512.00
Construct waste areas -	2.00	hours @	\$252.00	per hour	\$504.00

EXCAVATION

Road Construction Earthwork	12.23	sta. @	\$109.57	per sta. =	\$1,340.04
Grade and shape subgrade -	12.23	stations @	\$11.00	per station	\$134.53
Full Bench	1770	cy. @	\$2.00	per c.y.=	\$3,540.00

MISC.

Roll subgrade w/ vibratory roller prior to rocking -	12.23	stations @	\$9.09	per station	\$111.17
Construct turnouts @ sta. -	1.00	@	\$96.93	each	\$96.93
Grass seed and fertilize -	31.60	lbs @	\$2.80	per lbs	\$88.48

ENDHAUL

Full Bench	1770	cy. @	\$1.29	per c.y.=	\$2,283.30
TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.					\$12,423.35

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>			
30	LF of 18"	\$673.20	
		\$673.20	
<u>Culvert Stakes & Markers</u>			
1	markers	\$8.00	
		\$8.00	

TOTAL CULVERTS \$681.20

ROCK

Culvert Backfill	22+65	2	cy. of	Crushed	@	\$5.46	per c.y.=	\$10.92
0+00 to	2+75	308	cy. of	Pit-Run	@	\$10.66	per c.y.=	\$3,283.28
2+75 to	14+98	1,013	cy. of	PitRun	@	\$10.96	per c.y.=	\$11,102.48
14+98 to	49+14	1,569	cy. of	PitRun	@	\$11.79	per c.y.=	\$18,498.51
Energy Dissipator	0+00	1	cy. of	Pit-Run	@	\$15.66	per c.y.=	\$15.66
TOTAL ROCK								\$32,910.85

SUBTOTAL \$53,332.68

TOTAL \$53,332.68

Optional Rock? NO

COST PER STATION \$1,444.94

SUMMARY OF ROAD

Sale: TRAPPER KEEPPER

Road: M-Line

Required Pre-Haul Maintenance- 47+91 stations 0.91 miles	Required Reconstruction - stations 0.00 miles	Required Construction - stations 0.00 miles
Required Abandonment- stations 0.00 miles	Optional Reconstruction - stations 0.00 miles	Optional Construction - stations 0.00 miles

PRE-HAUL MAINTENANCE

MISC.

Grade and shape existing road surface -	47.91	stations @	\$13.75	per station	\$658.76	
Roll shaped road surface w/ vibratory roller prior to rocking -	47.91	stations @	\$7.27	per station	\$348.31	
			TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.			\$1,007.07
					SUBTOTAL	\$1,007.07
					TOTAL	\$1,007.07
Optional Rock? NO					COST PER STATION	\$21.02



WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES
FOREST EXCISE TAX ROAD SUMMARY SHEET

Region:

Timber Sale Name:

Application Number:

EXCISE TAX APPLICABLE ACTIVITIES

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

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

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

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

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

EXCISE TAX EXEMPT ACTIVITIES

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

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

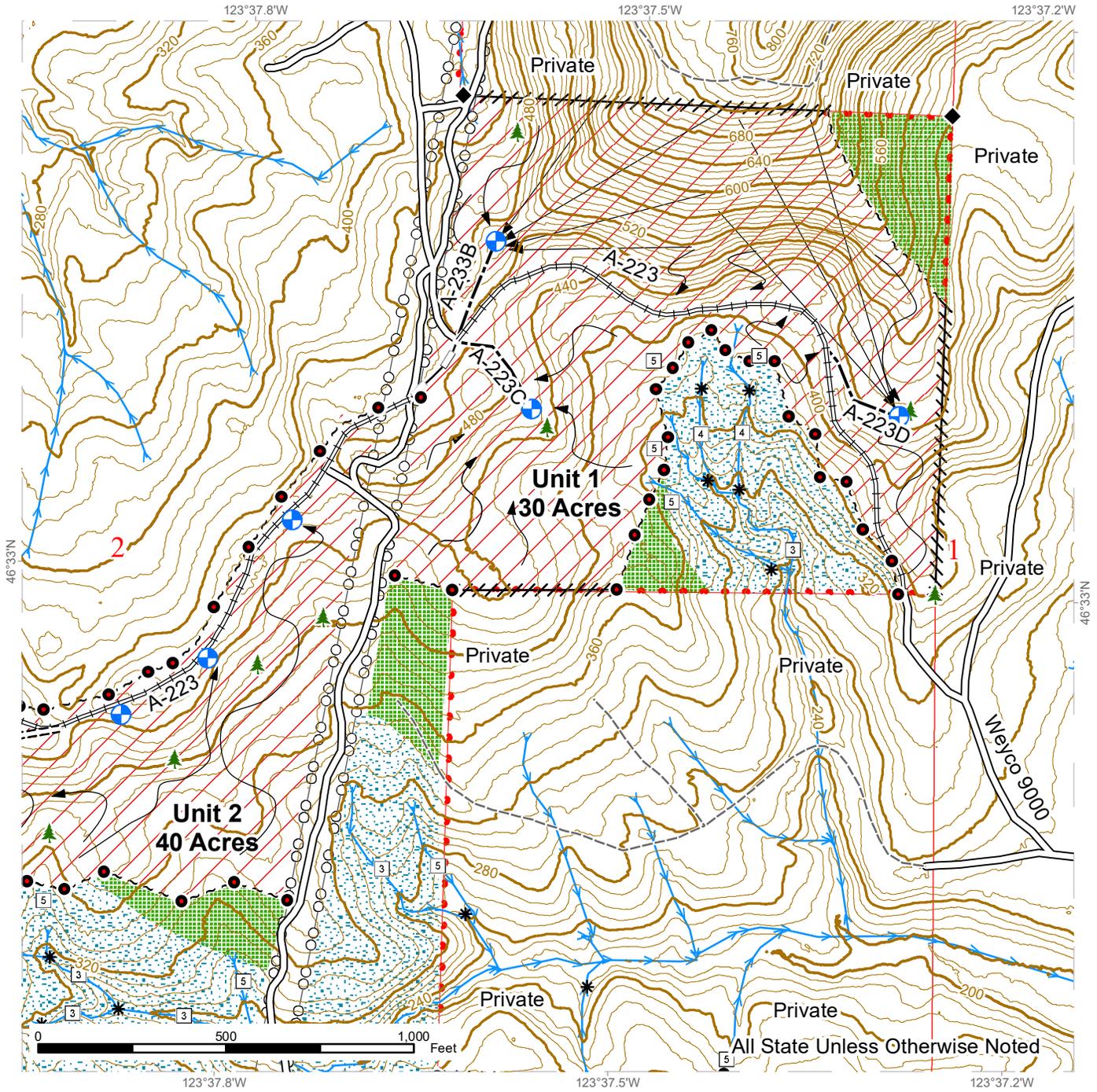
All parties must make their own assessment of the taxable or non-taxable status of any work performed under the timber sale contract. The Department of Revenue bears responsibility for determining forest road excise taxes. The Department of Natural Resources developed this form to help estimate the impact 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)

LOGGING PLAN MAP

SALE NAME: TRAPPER KEEPER
AGREEMENT#: 30-099119
TOWNSHIP(S): T12R08W
TRUST(S): State Forest Transfer(1), Common School and Indemnity(3)

REGION: Pacific Cascade Region
COUNTY(S): PACIFIC
ELEVATION RGE: 269-707



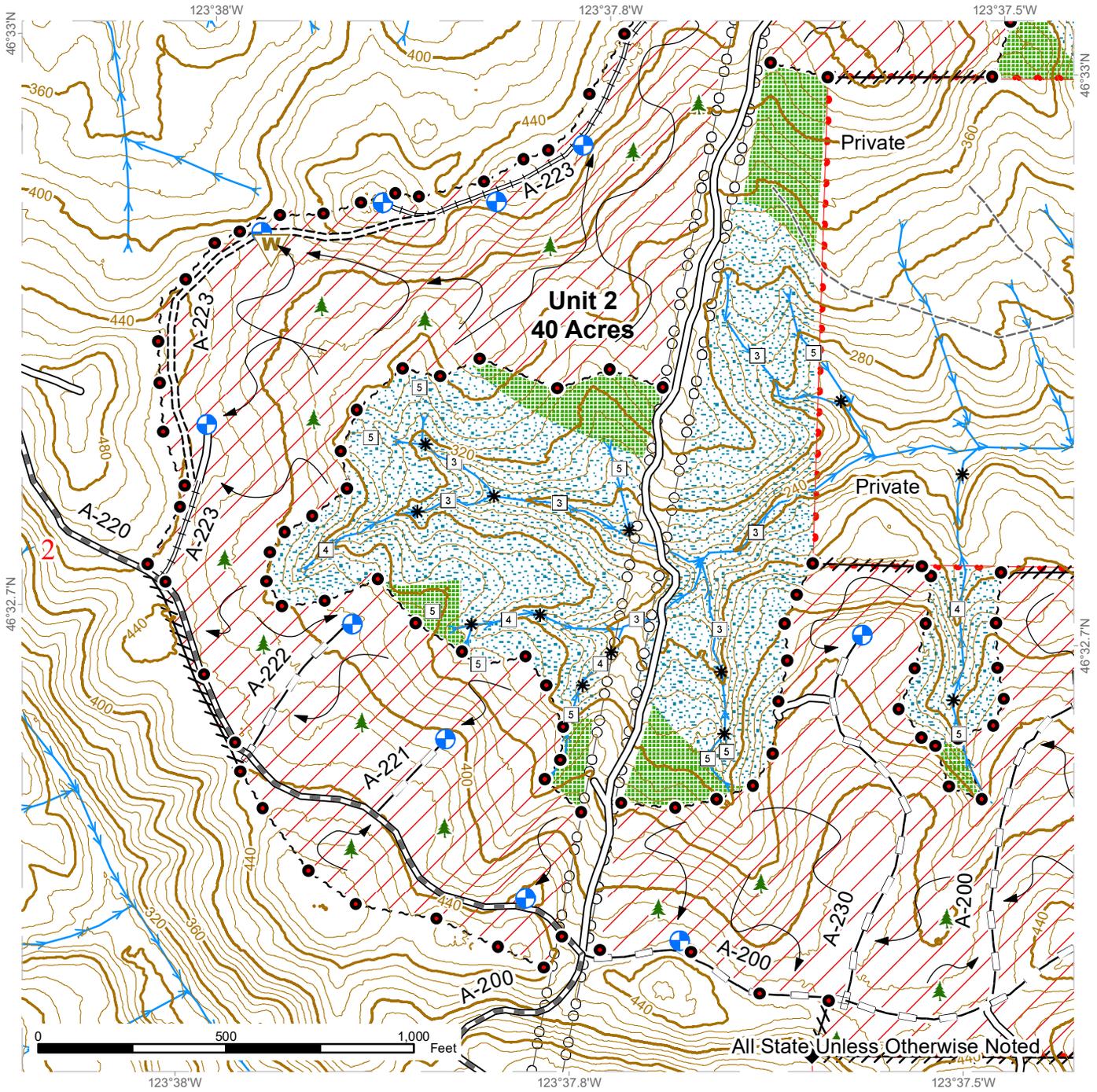
Variable Retention Harvest	Sale Boundary Tags	Existing Roads	Landing - Proposed
Riparian Mgt Zone	Right of Way Tags	Required Construction	Leave Tree Area <1/4-acre
Leave Tree Area	Property Line	Required Reconstruction	Survey Monument
Ground Harvest	Flag Line	Optional Construction	Traverse Point
Cable Harvest	Streams	Optional Reconstruction	Waste Area
		Old Grades/Trails	Stream Type
		Power Lines	Stream Type Break



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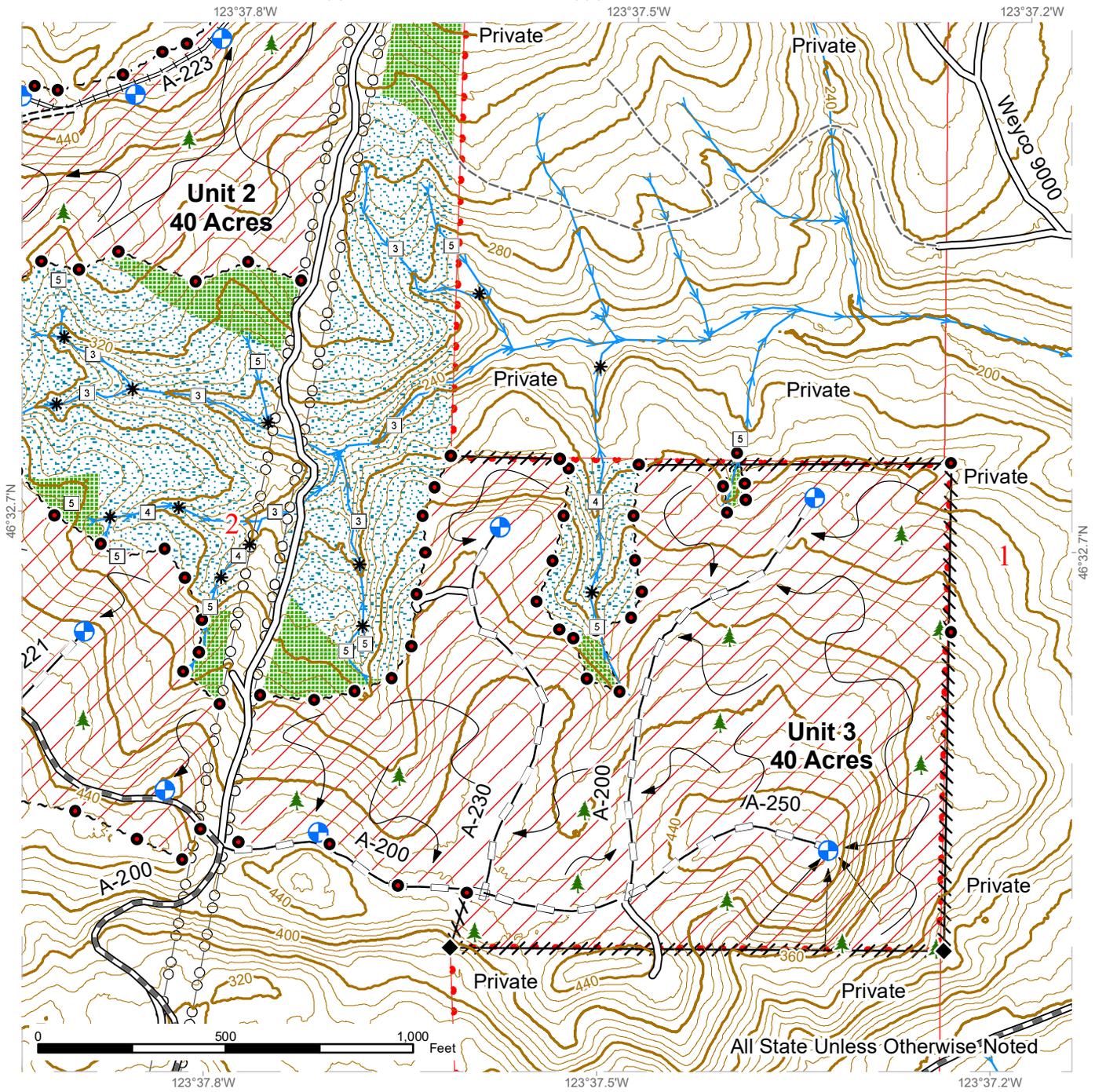
Variable Retention Harvest	Sale Boundary Tags	Existing Roads	Landing - Proposed
Riparian Mgt Zone	Right of Way Tags	Required Pre-Haul Maintenance	Leave Tree Area <1/4-acre
Leave Tree Area	Property Line	Required Construction	Survey Monument
Ground Harvest	Flag Line	Required Reconstruction	Traverse Point
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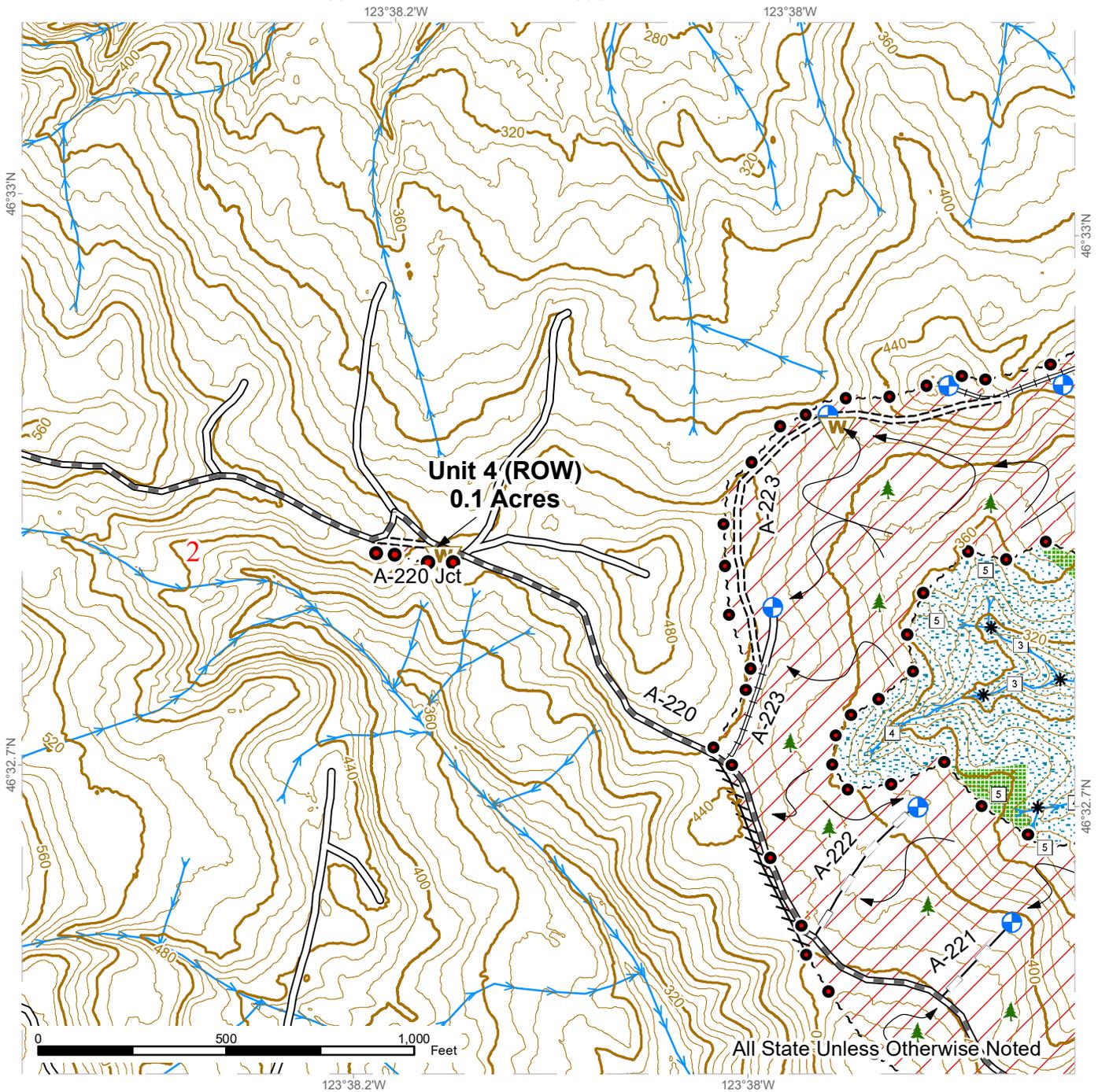
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