





TIMBER NOTICE OF SALE

SALE NAME: EWOK

AGREEMENT NO: 30-87396

AUCTION: August 27, 2020 starting at 10:00 a.m., COUNTY: Pacific Pacific Cascade Region Office, Castle Rock, WA

SALE LOCATION: Sale located approximately 9 miles South of Raymond, WA

PRODUCTS SOLD AND SALE AREA:

All timber, except trees marked with blue paint, trees bound out by yellow "Leave Tree Area" tags and all down timber existing 5 years prior to the day of sale, bounded by the following; white "Timber Sale Boundary" tags and pink flagging in Unit 1. Units 2, 3 and 4 are all bounded with white "Timber Sale Boundary" tags, pink flagging and the A-Line road. Unit 5 ROW is bounded with orange "Right of Way" tags and orange flagging.

All forest products above located on part(s) of Sections 17, 18, 19 and 20 all in Township 13 North, Range 8 West, W.M., containing 69 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 Hemlock, Douglas fir, Red cedar, Spruce, Red alder, and Sale Total.

MINIMUM BID: \$539,000.00 BID METHOD: Sealed Bids

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

EXPIRATION DATE: October 31, 2022 ALLOCATION: Export Restricted

BID DEPOSIT: \$53,900.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

HARVEST METHOD: 100% ground based harvesting. Ground Based Yarding will not be permitted from October 1 to April 30 unless authorized in writing by the Contract Administrator.

ROADS: 5.04 stations of required construction. 47.35 stations of required reconstruction. 2.15 stations of optional construction. 2.70 stations of optional reconstruction. 229.07 stations of required prehaul maintenance. 19.60 stations of optional prehaul maintenance. 19.60 stations of abandonment. 4.85 stations of abandonment, if built. Rock used in accordance with the quantities on the ROCK LIST may be obtained from the Browning Boot Quarry located in Sec 18, T13N, R08W, W.M. and Boot Stockpile located at B-Line 3+00 Right, for 3" minus, crushed approximately 250 cy. Rock source development required, in Browning Boot Quarry see Road Plan, Rock Source Development Plan for



## TIMBER NOTICE OF SALE

additional details. 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. This road activity restriction applies to all road construction and reconstruction work. Road construction will not be permitted from October 1 to April 30 unless authorized in writing by the Contract Administrator. The hauling of forest products will not be permitted from October 1 to April 30 unless authorized in writing by the Contract Administrator.

### **ACREAGE DETERMINATION**

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

**FEES:** \$42,296.00 is due on day of sale. \$9.00 per MBF is due upon removal. These are in addition to the bid price.

**SPECIAL REMARKS:** See cruise for species information.

See clause H-140 for addition harvest requirements.

See Road Plan 1-27 and H-142 for Marbled Murrelet timing restrictions applied to road construction. Restrictions apply to Browning Boot Quarry, all stations of: B-Line, Mallis M-Line and drilling and shooting in the Browning Boot Quarry.

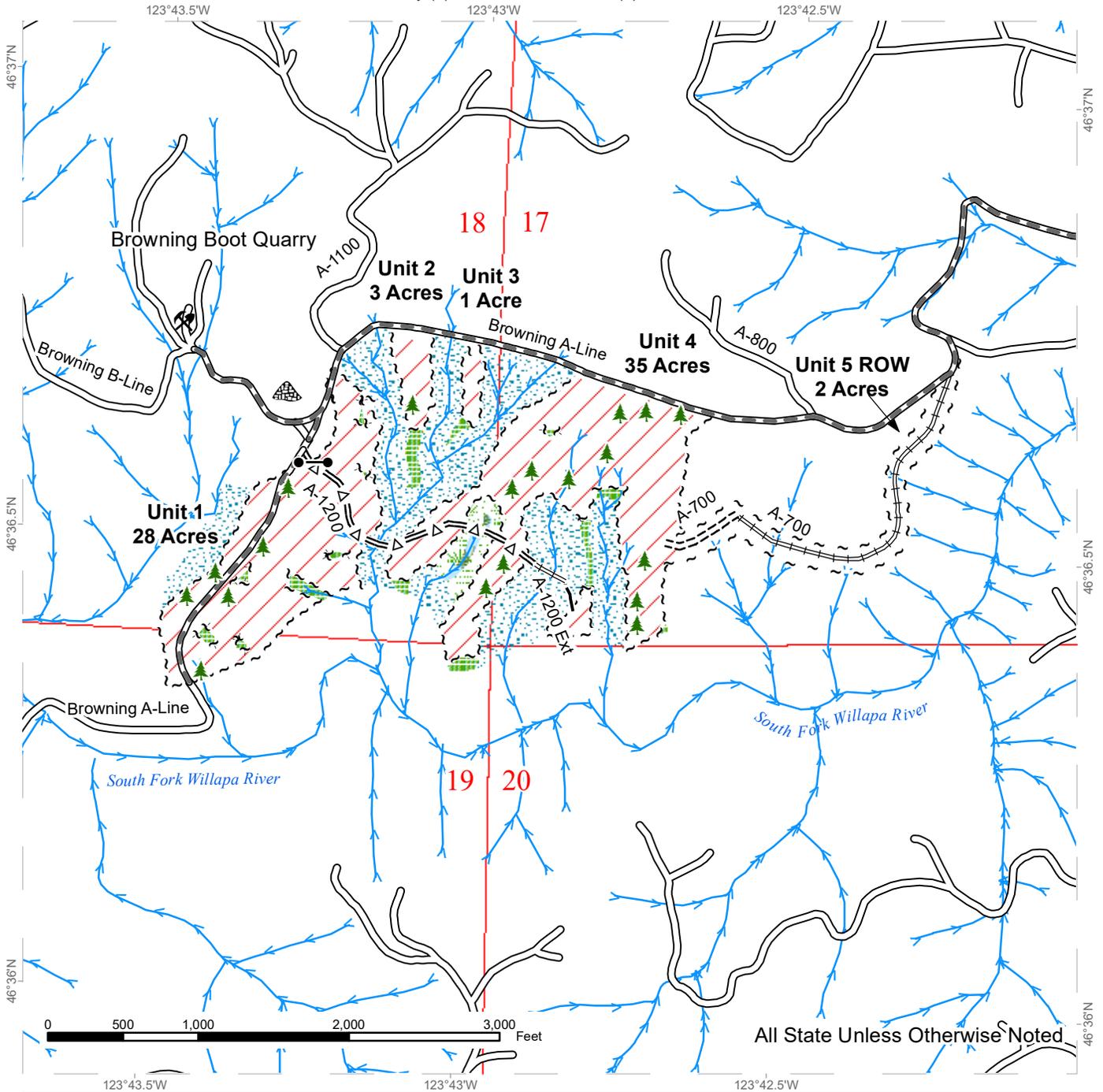
Purchaser's responsibility to identify any utilities not listed. Purchaser shall work in accordance with all applicable laws or rules concerning utilities. Purchaser is responsible for all notification, including "call before you dig", and liabilities associated with the Utilities and their rights of way.

Purchaser shall provide and install 2 steel gates, see Road Plan for additional information. PCP 1-1 gate keys may be obtained from the Pacific Cascade Region office.

# TIMBER SALE MAP

**SALE NAME:** EWOK  
**AGREEMENT #:** 30-087396  
**TOWNSHIP(S):** T13R8W  
**TRUST(S):** Common School and Indemnity (3), State Forest Transfer (1)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Pacific  
**ELEVATION RGE:** 353-598



All State Unless Otherwise Noted

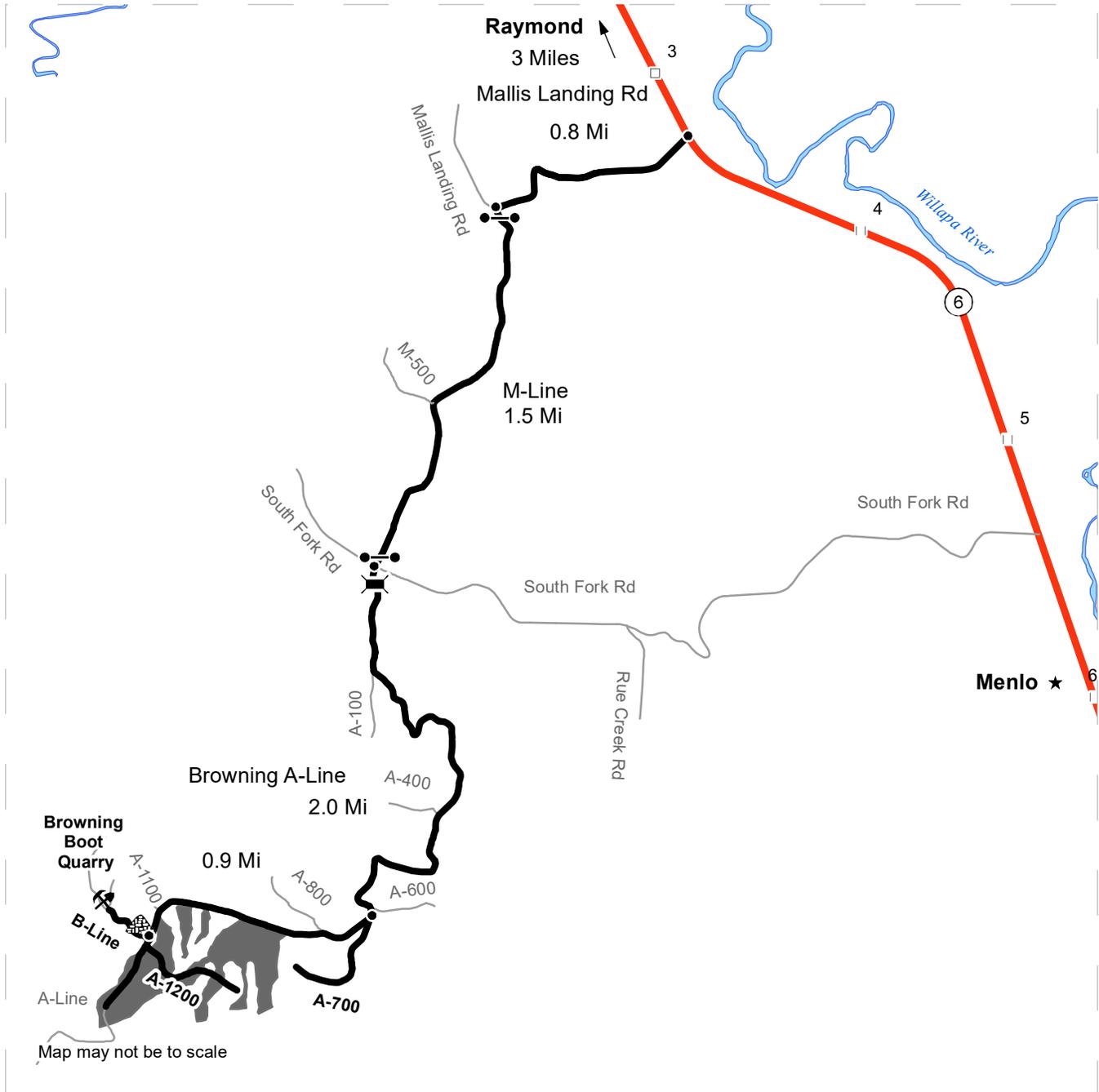
Variable Retention Harvest	Existing Roads	Streams
Leave Tree Area	Required Pre-Haul Maintenance	Stream Type
Riparian Mgt Zone	Required Construction	Stream Type Break
Forested Wetland	Required Reconstruction	Gate
Wetland Mgt Zone	Optional Pre-Haul Maintenance	Leave Tree Area <1/4-acre
Sale Boundary Tags	Optional Construction	Rock Pit
Leave Tree Tags		Stockpile
Right of Way Tags		



# DRIVING MAP

**SALE NAME:** EWOK  
**AGREEMENT#:** 30-087396  
**TOWNSHIP(S):** T13R8W  
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**REGION:** Pacific Cascade Region  
**COUNTY(S):** Pacific  
**ELEVATION RGE:** 353-598



- Timber Sale Unit
- Haul Route
- Other Road
- Milepost Markers
- Bridge
- Gate (PCP1-1)
- Rock Pit
- Stockpile

**DRIVING DIRECTIONS:**

From State route 6 between mile post 3 and 4 turn West onto the Mallis Landing Road. Continue 0.8 Miles to the M-Line. Turn South (left) and continue 1.5 Miles to the Browning A-Line. Continue straight across the South Fork County Road for 2.0 miles on the A-line to the A-700. From the A-700 continue on the A-line for 0.9 miles to the B-Line Junction. Units are located south of the A-Line.

The Browning Boot Quarry is located up the B-line 0.2 miles on the north side of the road.



**STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES**

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

**Export Restricted Lump Sum AGREEMENT NO. 30-087396**

**SALE NAME: EWOK**

**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 August 27, 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 trees marked with blue paint, trees bound out by yellow "Leave Tree Area" tags and all down timber existing 5 years prior to the day of sale, bounded by the following; white "Timber Sale Boundary" tags and pink flagging in Unit 1. Units 2, 3 and 4 are all bounded with white "Timber Sale Boundary" tags, pink flagging and the A-Line road. Unit 5 ROW is bounded with orange "Right of Way" tags and orange flagging.

All forest products above located on approximately 69 acres on part(s) of Sections 17, 18, 19, and 20 all in Township 13 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, 2022.

## G-040 Contract Term Adjustment - No Payment

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

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

## G-051 Contract Term Extension - Payment

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

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

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

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

- d. Payment of an amount based on 12 percent interest per annum on the unpaid portion of the total contract price.

All payments, except the initial deposit, will be deducted from the total contract price to determine the unpaid portion of the contract.

- e. Payment of \$997.00 per acre per annum for the acres on which an operating release has not been issued for all harvest 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. TE812521-1 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, ITP TE812521-1 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: PwC-SFIFM-513.

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

**G-120 Responsibility for Work**

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

## G-121 Exceptions

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

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

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

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

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

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

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

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

## G-140 Indemnity

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

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; Browning A-Line, A-700, A-1200, A-1200 ext, Browning B-Line for Rock Haul and Mallis M-Line.. 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-380 Road Easement and Road Use Permit Requirements

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

Road use easement between the State and Edmund and Marie Pehl, Dated 04/28/1960.

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 \$64,688.00. The total contract price consists of a \$0.00 contract bid price plus \$64,688.00 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-010 Cutting and Yarding Schedule

Ground Based Yarding will not be permitted from October 1 to April 30 unless authorized in writing by the Contract Administrator.

H-013 Reserve Tree Damage Definition

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

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

- a. A reserve tree has one or more scars on its trunk exposing the cambium layer, which in total exceeds 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 assist logging methods and ground based equipment including shovel and tracked skidder. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

## H-130 Hauling Schedule

The hauling of forest products will not be permitted on all roads from October 1 to April 30 unless authorized in writing by the Contract Administrator.

## H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

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

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

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

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

## 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 for all harvest units are described as operation of heavy equipment within the critical nesting season (April 1 to September 23) is not allowed from two hours before official sunrise to two hours after official sunrise; and one hour before official sunset to two hours after official sunset. Heavy equipment is identified as felling, yarding, and loading equipment for logging, and road maintenance and construction equipment. This area includes Browning Boot Quarry. This restriction does not apply to hauling timber, rock or equipment.

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.

H-250 Additional Falling Requirements

Within all units, all non-merchantable hardwood stems 2 inches DBH or 10 feet tall, shall be felled concurrently with felling operations. Areas of young or immature timber may be excluded from this requirement by the Contract Administrator.

Section C: Construction and Maintenance

C-040 Road Plan

Road construction and associated work provisions of the Road Plan for this sale, dated 6/2/2020 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on Browning B-Line, A-700, A-1200, A-1200 ext., Mallis M-Line. 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 all roads not listed in Clause C-050. 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-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 or other releases of hazardous material/waste during operations conducted under this contract.

## b. Hazardous Materials Spill Prevention

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

## c. Hazardous Materials Spill Containment, Control and Cleanup

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 (DOE). It is the responsibility of the Purchaser to have all emergency contact information readily available and a means of remote communication for purposes of quick notification. In the event of a spill covered in part a., the Purchaser is responsible for immediately notifying all the following:

- Department of Emergency Management (contact information below).
- National Response Center (contact information below).
- Appropriate Department of Ecology (DOE) regional office (contact information below).

-DNR Contract Administrator

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

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

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

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

Department of Emergency Management 24-hour Number: 1-800-258-5990

National Response Center: 1-800-424-8802

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 all harvest units.

SIGNATURES

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

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

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

\_\_\_\_\_  
Purchaser

\_\_\_\_\_  
Eric Wisch  
Pacific Cascade Region Manager

\_\_\_\_\_  
Print Name

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Address: \_\_\_\_\_

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

STATE OF \_\_\_\_\_ )

COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally  
appeared \_\_\_\_\_

\_\_\_\_\_ to me known to be the  
\_\_\_\_\_ of the corporation  
that executed the within and foregoing instrument and acknowledged said instrument to be the  
free and voluntary act and deed of the corporation, for the uses and purposes therein mentioned,  
and on oath stated that (he/she was) (they were) authorized to execute said instrument.

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

\_\_\_\_\_  
Notary Public in and for the State of

\_\_\_\_\_

My appointment expires \_\_\_\_\_

## PRE-CRUISE NARRATIVE

Sale Name: <b>EWOK</b>	Region: <b>Pacific Cascade</b>
Agreement #: <b>30-087396</b>	District: <b>St. Helens District; Naselle Unit</b>
Contact Forester: <b>Mike Henrie</b> Phone / Location: <b>360-751-0075</b>	County(s): Choose a county, <b>Pacific</b>
Alternate Contact: <b>Lisa Kaino</b> Phone / Location: <b>360-749-0154</b>	Other information: <a href="#">Click here to enter text.</a>

Type of Sale: <b>Lump Sum</b>	
Harvest System: <b>Ground based</b> <a href="#">Click here to enter text.</a>	100%
Harvest System: <b>Downhill Cable</b> <a href="#">Click here to enter text.</a>	0%
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 18/19 T13 R 08 W	01	39	8	2	1	0	28	GPS (Trimble)
2	Sec 18 T13 R 08 W	01	11	7	1	0	0	3	GPS (Garmin)
3	Sec 18 T13 R 08 W	01	7	5	1	0	0	1	GPS (Garmin)
4	Sec 17/18/19//20 T13 N R 08 W	01/ 03	66	28	2	1	0	35	GPS
5 ROW	Sec 17 T13 R 08 W	01/ 03	10	0	0	8	0	2	EST
<b>TOTAL ACRES</b>			<b>133</b>	<b>48</b>	<b>6</b>	<b>10</b>	<b>0</b>	<b>69</b>	

### HARVEST PLAN AND SPECIAL CONDITIONS:

Unit #	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)

1	Unit 1 is bound by White Timber Sale Tags with Pink Flagging.	NONE	240 Leave trees are both clumped and scattered.
2	Unit 2 is bound by White Timber Sale Tags with Pink Flagging and the Browning A-Line to the North	NONE	32 Leave trees are clumped in bottom of unit.
3	Unit 3 is bound by White Timber Sale Tags with Pink Flagging and the Browning A-Line to the North.	NONE	16 Leave trees are clumped in bottom of unit.
4	Unit 4 is bound by White Timber Sale Tags with Pink Flagging and the Browning A-Line to the North.	NONE	296 Leave trees are both clumped and scattered.
5	Unit 5 is bound by Orange ROW Tags with Orange Flagging	NONE	No Leave Trees.

**OTHER PRE-CRUISE INFORMATION:**

Unit #	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	WH, DF, WRC, SS, RA.	South Fork County Rd to Browning A-Line	See Logging Plan Map
2	WH, DF, WRC, SS, RA.	South Fork County Rd to Browning A-Line	See Logging Plan Map
3	WH, DF, WRC, SS, RA.	South Fork County Rd to Browning A-Line	See Logging Plan Map
4	WH, DF, WRC, SS, RA.	South Fork County Rd to Browning A-Line	See Logging Plan Map
5	WH, DF, WRC, SS, RA.	South Fork County Rd to Browning A-Line To A-700.	See Logging Plan Map
TOTAL MBF	2000 MBF EST		

**REMARKS:**

<p>Unit 1-4: Mixed mature stand predominately WH, with some DF, WRC, SS and RA. Some oversized. Unit was commercially thinned in the 1990's. A-1200 and A-1200ext. will be abandoned post harvest.</p> <p>Unit 5 is ROW unit along A-700. Not much volume. But some small sawlogs are present.</p>
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Prepared By: Mike Henrie Date: 07/29/2019	Title: Forester, Naselle Unit	CC:
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# Cruise Narrative

<b>Sale Name:</b> EWOK	<b>Region:</b> Pacific Cascade
<b>App. #:</b> 30-087396	<b>District:</b> St. Helens District; Naselle Unit
<b>Lead Cruiser:</b> Alex Chaney	<b>Completion date:</b> 10/03/2019
<b>Other Cruisers:</b> Dan Clark	

**Unit acreage specifications:**

Unit #	Cruised acres	Cruised acres agree with sale acres? Yes/No	If acres do not agree explain why.
1	28	Yes	
2	3	Yes	
3	1	Yes	
4	35	Yes	
5	2	Yes	
Total acre	69	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
1	VP	40/27.78	16'	190'x190'	1:1	34
2	VP	40/27.78	16'	125'x125'	1:1	9
3	VP	40/20	16'	100'x100'	Cruised all	5
4	VP	40/27.78	16'	190'x190'	1:1	40
5	ITS	NA	NA	NA	NA	NA

**Sale/Cruise Description:**

<b>Minor species cruise intensity:</b>	Cruised on appropriate plots.						
<b>Minimum cruise spec:</b>	40% Of Form- Factor at 16 feet D.O.B or 5 inch Top, and merchantable top.						
<b>Avg. ring count by sp:</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>DF =</b></td> <td style="width: 25%;">6</td> <td style="width: 15%;"><b>WH =</b></td> <td style="width: 15%;">NA</td> <td style="width: 15%;"><b>SS =</b></td> <td style="width: 15%;">NA</td> </tr> </table>	<b>DF =</b>	6	<b>WH =</b>	NA	<b>SS =</b>	NA
<b>DF =</b>	6	<b>WH =</b>	NA	<b>SS =</b>	NA		
<b>Leave/take tree description:</b>	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.						
<b>Sort Description:</b>	<p><b>HA</b>– 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><b>HB</b> – 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><b>R</b> – Logs meeting the following criteria: Gross diameter of 12 inches or greater, excessive knots greater than 2 ½ inches with recovery less than 65%</p>						

	of the net scale. <b>D-</b> Domestic logs
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**Field observations:**

Ewok

This sale consist of 4 units and 1 right of way adding up to 69 acres which you can access off of Hwy 6.

Units 1, 2, 3 and 4 are 55 year old dominant Western hemlock stands. The minor species in this sale were Douglas fir, Sitka spruce, Red cedar and Red alder. The average DBH for Western hemlock is 18" with a bole height of 81ft and the average DBH for Douglas fir is 24" with a bole height of 93ft. Evenly stocked Western hemlock and was commercially thinned approximately 25 years ago.

Unit 5 is a 2 acre right of way of 30 year old timber. This ROW is dominant Douglas fir with some Western hemlock and Red alder. The average DBH for Douglas fir is 12" with a bole height of 59ft.

All logs in this sale are domestic. Some damages observed throughout the sale were sweep, forks, crooks, light storm damage but no bear damage. This sale is 100% ground based cable and all roads are drivable but Pre-Haul maintenance is required. No keys are needed to access this sale.

**Grants: 01, 03**

**Prepared by: Alex Chaney**

**Title: Timber Cruiser**

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																			
T13N R08W S18 Ty00U1 THRU T13N R08W S18 TyROW5				Project: <b>EWOK</b>										Page <b>1</b>									
				Acres <b>69.00</b>										Date <b>10/3/2019</b>			Time <b>12:44:01PM</b>						
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							
WH	CU	CU																1	7		0.00	18.4	
WH	D	2S		60	3.2	19,749	19,124	1,320				68	32				9	91	37	14	281	1.83	68.0
WH	D	3S		31	2.5	10,023	9,773	674	21	79				1	1	34	65	37	8	98	0.75	99.5	
WH	D	4S		8	.3	2,569	2,561	177	95	5				23	37	10	31	26	5	29	0.34	88.2	
WH	D	UT		1		102	102	7				100		100				16	21	300	4.17	.3	
<b>WH Totals</b>				88	2.7	32,443	31,560	2,178	14	25	41	20		2	3	16	78	31	9	115	0.96	274.4	
DF	CU	CU																3	14		0.00	.4	
DF	D	2S		79	3.8	2,441	2,348	162			37	63				8	92	37	16	383	2.36	6.1	
DF	D	3S		14	.2	424	423	29	0	100				2	12	34	52	34	9	99	0.76	4.3	
DF	D	4S		6	1.6	177	174	12	68	32				45	45	1	9	22	6	29	0.36	6.1	
DF	D	UT		1		17	17	1		100					100			24	9	60	0.76	.3	
<b>DF Totals</b>				8	3.2	3,060	2,962	204	4	17	29	50		3	5	11	81	30	11	173	1.35	17.1	
RA	CU	CU			100.0		38											12	9		0.00	1.3	
RA	D	UT		61		199	199	14	52	33	14			67		33		17	6	27	0.40	7.4	
RA	D	2S		13	10.0	47	43	3			100			100				16	13	90	1.45	.5	
RA	D	4S		14	11.9	52	46	3		100					68		32	31	8	60	0.65	.8	
RA	D	4S		12		38	38	3	100					40	10	50		25	5	29	0.37	1.3	
<b>RA Totals</b>				1	13.0	374	325	22	44	34	22			59	11	26	5	18	7	29	0.43	11.2	
SS	D	2S		22	13.1	92	80	6				100					100	40	22	730	5.47	.1	
SS	D	3S		32	6.5	123	115	8		100							100	36	9	89	0.94	1.3	
SS	D	4S		4		14	14	1	100						100			21	5	20	0.24	.7	
SS	D	UT		42		147	147	10	3	3		93		7			93	19	10	186	2.40	.8	
<b>SS Totals</b>				1	5.3	377	356	25	5	34		61		3	4		93	28	9	124	1.34	2.9	
RC	CU	CU			100.0		46											13	9		0.00	2.2	
RC	D	3S		80	5.8	727	685	47	10	52	29	9			24	11	65	34	9	109	1.25	6.3	
RC	D	4S		20		171	171	12	96	4				45	24		30	23	5	25	0.34	6.7	
<b>RC Totals</b>				2	9.3	945	857	59	27	43	23	7		9	24	9	58	26	8	56	0.81	15.2	
<b>Totals</b>					3.1	37,198	36,061	2,488	14	25	39	22		3	4	16	77		30	9	112	0.97	320.9

TC PSTATS		<b>PROJECT STATISTICS</b>							PAGE	1	
		<b>PROJECT</b>			<b>EWOK</b>				DATE	10/3/2019	
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt	
13N	08	18	EWOK	00U1	THR	69.00	89	423	S	W	
13N	08W	18	EWOK	ROW5							
				TREES		ESTIMATED	PERCENT				
		PLOTS	TREES	PER PLOT		TOTAL	SAMPLE				
						TREES	TREES				
TOTAL		89	423	4.8							
CRUISE		49	231	4.7		9,688	2.4				
DBH COUNT											
REFOREST											
COUNT		40	192	4.8							
BLANKS											
100 %											
<b>STAND SUMMARY</b>											
SAMPLE		TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET	
TREES		/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC	
WHEMLOCK		169	116.5	18.4	80	50.0	214.2	32,443	31,560	8,224	
DOUG FIR		31	6.9	21.6	84	3.8	17.5	3,060	2,962	699	
WR CEDAR		17	7.9	16.7	58	3.0	12.1	945	857	335	
R ALDER		10	7.7	10.5	55	1.4	4.6	374	325	99	
S SPRUCE		4	1.4	20.4	70	0.7	3.2	377	356	108	
<b>TOTAL</b>		<i>231</i>	<i>140.4</i>	<i>18.1</i>	<i>78</i>	<i>59.1</i>	<i>251.7</i>	<i>37,198</i>	<i>36,061</i>	<i>9,465</i>	
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		
WHEMLOCK		52.2	4.1	340	354	369					
DOUG FIR		78.8	14.6	437	512	587					
WR CEDAR		73.0	18.2	122	149	176					
R ALDER		95.0	31.6	47	69	91					
S SPRUCE		103.5	59.1	258	633	1,007					
<b>TOTAL</b>		72.2	4.8	335	352	369	208	52	23		
CL	68.1	COEFF	SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK		44.2	3.5	88	91	94					
DOUG FIR		72.6	13.5	104	121	137					
WR CEDAR		72.5	18.1	46	56	66					
R ALDER		99.0	32.9	13	20	27					
S SPRUCE		92.6	52.9	83	176	270					
<b>TOTAL</b>		62.7	4.2	87	91	95	157	39	17		
CL	68.1	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK		61.2	6.5	109	116	124					
DOUG FIR		323.1	34.2	5	7	9					
WR CEDAR		269.9	28.6	6	8	10					
R ALDER		574.8	60.9	3	8	12					
S SPRUCE		439.4	46.5	1	1	2					
<b>TOTAL</b>		59.9	6.3	131	140	149	143	36	16		
CL	68.1	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK		59.1	6.3	201	214	228					
DOUG FIR		223.6	23.7	13	18	22					
WR CEDAR		274.0	29.0	9	12	16					
R ALDER		373.7	39.6	3	5	6					
S SPRUCE		374.5	39.7	2	3	4					
<b>TOTAL</b>		48.4	5.1	239	252	265	94	23	10		

**PROJECT STATISTICS****PROJECT EWOK**

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
13N	08	18	EWOK	00U1	THR	69.00	89	423	S	W
13N	08W	18	EWOK	ROW5						
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			62.5	6.6	29,470	31,560	33,650			
DOUG FIR			220.2	23.3	2,272	2,962	3,653			
WR CEDAR			289.5	30.7	594	857	1,119			
R ALDER			374.2	39.6	196	325	454			
S SPRUCE			393.8	41.7	208	356	505			
<b>TOTAL</b>			52.2	5.5	34,068	36,061	38,054	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
WHEMLOCK			60.6	6.4	7,696	8,224	8,752			
DOUG FIR			219.0	23.2	537	699	861			
WR CEDAR			290.8	30.8	221	320	418			
R ALDER			371.4	39.3	54	89	125			
S SPRUCE			380.2	40.3	65	108	152			
<b>TOTAL</b>			50.3	5.3	8,938	9,441	9,943	101	25	11
CL	68.1		COEFF	V_BAR/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.0		VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK					138	147	157			
DOUG FIR			234.7	24.9	129	169	208			
WR CEDAR			269.4	28.5	49	71	92			
R ALDER			352.3	37.3	42	70	98			
S SPRUCE			318.0	33.7	66	113	160			
<b>TOTAL</b>			55.6	5.9	135	143	151	124	31	14









<b>T13N R08W S18 TROW5</b>	<b>T13N R08W S18 TROW5</b>
<b>Twp Rge Sec Tract Type Acres Plots Sample Trees CuFt</b>	<b>BdFt</b>
<b>13N 08W 18 EWOK ROW5 2.00 1 21 S</b>	<b>W</b>

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		DM	2S	6	6.1	245	230	0	100				100				40	13	230	1.79	1.0		
DF		DM	3S	23		795	795	2	8	92							96	4	34	8	69	0.77	11.5
DF		DM	4S	53	5.0	1,985	1,885	4	79	21	27	48	4	21	23	5	26	0.32				73.0	
DF		DM	UT	18		600	600	1	100				100				24	9	60	0.76			10.0
<b>DF</b>	<b>Totals</b>			60	3.2	3,625	3,510	7	44	49	7				15	43	24	19	25	6	37	0.46	95.5
WH		DM	2S	5	4.2	120	115	0	100				100				40	13	230	1.90			.5
WH		DM	3S	17	9.0	390	355	1	100				100				40	9	118	0.93			3.0
WH		DM	4S	78		1,580	1,580	3	100				25	24	25	25	28	5	30	0.29			53.5
<b>WH</b>	<b>Totals</b>			35	1.9	2,090	2,050	4	77	17	6				20	19	20	42	28	5	36	0.36	57.0
RA		DM	UT	10		25	25	0	100				100				12	5	10	0.20			2.5
RA		DM	4S	90		225	225	0	100				44	56					23	6	30	0.37	7.5
<b>RA</b>	<b>Totals</b>			4		250	250	1	100				50	50					20	6	25	0.35	10.0
<b>Type</b>	<b>Totals</b>				2.6	5,965	5,810	12	58	36	6				18	35	21	26	26	6	36	0.42	162.5

TC TSTATS				STATISTICS						PAGE	1
				PROJECT	EWOK				DATE	10/3/2019	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
13N	08W	18	EWOK	00U1	28.00	34	151	S	W		
				TREES	ESTIMATED	PERCENT					
				PER PLOT	TOTAL	SAMPLE					
				PLOTS	TREES	TREES	TREES				
TOTAL		34	151	4.4							
CRUISE		18	81	4.5	3,610		2.2				
DBH COUNT											
REFOREST											
COUNT		16	70	4.4							
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	
WHEMLOCK	57	103.7	18.5	81	45.0	193.5	28,734	27,523	7,371	7,371	
WR CEDAR	11	12.4	17.4	58	4.9	20.5	1,601	1,498	581	581	
DOUG FIR	6	4.1	27.7	101	3.2	16.9	3,372	3,192	744	744	
S SPRUCE	4	3.4	20.4	70	1.7	7.8	928	878	267	267	
R ALDER	3	5.4	15.3	46	1.8	6.9	575	470	159	136	
<b>TOTAL</b>	<i>81</i>	<i>128.9</i>	<i>18.7</i>	<i>78</i>	<i>56.8</i>	<i>245.6</i>	<i>35,209</i>	<i>33,562</i>	<i>9,121</i>	<i>9,098</i>	
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		
WHEMLOCK	56.0	7.4		350	378	406					
WR CEDAR	67.0	21.2		141	179	217					
DOUG FIR	41.0	18.2		736	900	1,064					
S SPRUCE	103.5	59.1		258	633	1,007					
R ALDER	73.6	50.9		61	123	186					
<b>TOTAL</b>	<i>76.1</i>	<i>8.4</i>		<i>360</i>	<i>393</i>	<i>426</i>	<i>231</i>	<i>58</i>	<i>26</i>		
CL:	68.1 %	COEFF	SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	48.8	6.5		92	98	105					
WR CEDAR	62.8	19.8		56	69	83					
DOUG FIR	38.2	17.0		173	208	244					
S SPRUCE	92.6	52.9		83	176	270					
R ALDER	73.5	50.8		18	36	54					
<b>TOTAL</b>	<i>65.9</i>	<i>7.3</i>		<i>97</i>	<i>104</i>	<i>112</i>	<i>173</i>	<i>43</i>	<i>19</i>		
CL:	68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	50.0	8.6		95	104	113					
WR CEDAR	222.5	38.1		8	12	17					
DOUG FIR	165.4	28.3		3	4	5					
S SPRUCE	262.3	44.9		2	3	5					
R ALDER	313.5	53.7		3	5	8					
<b>TOTAL</b>	<i>35.6</i>	<i>6.1</i>		<i>121</i>	<i>129</i>	<i>137</i>	<i>51</i>	<i>13</i>	<i>6</i>		
CL:	68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	44.6	7.6		179	193	208					
WR CEDAR	218.8	37.5		13	20	28					
DOUG FIR	157.3	26.9		12	17	22					
S SPRUCE	219.6	37.6		5	8	11					
R ALDER	296.4	50.8		3	7	10					
<b>TOTAL</b>	<i>31.7</i>	<i>5.4</i>		<i>232</i>	<i>246</i>	<i>259</i>	<i>40</i>	<i>10</i>	<i>4</i>		
CL:	68.1 %	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		

TC TSTATS				STATISTICS				PAGE	2	
				PROJECT	EWOK			DATE	10/3/2019	
TWP	RGE	SECT	TRACT	TYPE	ACRES		PLOTS	TREES	CuFt	BdFt
13N	08W	18	EWOK	00U1	28.00		34	151	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		46.3	7.9	25,340	27,523	29,706				
WR CEDAR		224.5	38.5	922	1,498	2,074				
DOUG FIR		157.7	27.0	2,330	3,192	4,055				
S SPRUCE		232.4	39.8	529	878	1,228				
R ALDER		309.6	53.1	221	470	720				
<b>TOTAL</b>		33.3	5.7	31,650	33,562	35,474	44	11	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	
WHEMLOCK		46.0	7.9	6,790	7,371	7,951				
WR CEDAR		220.3	37.7	362	581	801				
DOUG FIR		157.4	27.0	543	744	944				
S SPRUCE		223.4	38.3	165	267	369				
R ALDER		310.0	53.1	64	136	209				
<b>TOTAL</b>		32.8	5.6	8,588	9,098	9,609	43	11	5	
CL:	68.1 %	COEFF		V-BAR/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK				131	142	154				
WR CEDAR		201.6	34.5	45	73	101				
DOUG FIR		104.1	17.8	138	188	239				
S SPRUCE		181.6	31.1	68	113	158				
R ALDER		201.9	34.6	32	68	104				
<b>TOTAL</b>		175.4	30.1	129	137	144	1,228	307	136	

TC TSTATS				STATISTICS						PAGE	1
				PROJECT	EWOK		DATE 10/3/2019				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
13N	08W	18	EWOK	00U2	3.00	9	39	S	W		
				TREES	ESTIMATED	PERCENT					
				PER PLOT	TOTAL	SAMPLE					
				PLOTS	TREES	TREES	TREES				
TOTAL		9	39	4.3							
CRUISE		6	23	3.8	391		5.9				
DBH COUNT											
REFOREST											
COUNT		3	16	5.3							
BLANKS											
100 %											
<b>STAND SUMMARY</b>											
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET	
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC	
WHEMLOCK	21	125.6	18.5	84	54.4	233.9	35,214	33,929	9,096	9,096	
DOUG FIR	1	1.3	30.0	93	1.1	6.3	1,245	1,193	266	266	
R ALDER	1	3.4	15.5	54	1.1	4.5	410	410	128	128	
<b>TOTAL</b>	<b>23</b>	<b>130.3</b>	<b>18.6</b>	<b>84</b>	<b>56.8</b>	<b>244.7</b>	<b>36,869</b>	<b>35,533</b>	<b>9,490</b>	<b>9,490</b>	
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL:	68.1 %	COEFF	<b>SAMPLE TREES - BF</b>				# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	45.6	10.2		288	321	354					
DOUG FIR											
R ALDER											
<b>TOTAL</b>	<b>57.4</b>	<b>12.2</b>		<b>297</b>	<b>339</b>	<b>380</b>	<b>138</b>	<b>34</b>	<b>15</b>		
CL:	68.1 %	COEFF	<b>SAMPLE TREES - CF</b>				# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	40.1	9.0		77	85	92					
DOUG FIR											
R ALDER											
<b>TOTAL</b>	<b>48.5</b>	<b>10.3</b>		<b>79</b>	<b>88</b>	<b>97</b>	<b>98</b>	<b>25</b>	<b>11</b>		
CL:	68.1 %	COEFF	<b>TREES/ACRE</b>				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	70.8	25.0		94	126	157					
DOUG FIR	300.0	105.9			1	3					
R ALDER	300.0	105.9			3	7					
<b>TOTAL</b>	<b>64.8</b>	<b>22.9</b>		<b>100</b>	<b>130</b>	<b>160</b>	<b>188</b>	<b>47</b>	<b>21</b>		
CL:	68.1 %	COEFF	<b>BASAL AREA/ACRE</b>				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	56.4	19.9		187	234	280					
DOUG FIR	300.0	105.9			6	13					
R ALDER	300.0	105.9			4	9					
<b>TOTAL</b>	<b>49.9</b>	<b>17.6</b>		<b>202</b>	<b>245</b>	<b>288</b>	<b>112</b>	<b>28</b>	<b>12</b>		
CL:	68.1 %	COEFF	<b>NET BF/ACRE</b>				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	54.5	19.2		27,408	33,929	40,451					
DOUG FIR	300.0	105.9			1,193	2,457					
R ALDER	300.0	105.9			410	845					
<b>TOTAL</b>	<b>47.9</b>	<b>16.9</b>		<b>29,521</b>	<b>35,533</b>	<b>41,545</b>	<b>103</b>	<b>26</b>	<b>11</b>		
CL:	68.1 %	COEFF	<b>NET CUFT FT/ACRE</b>				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	55.4	19.5		7,319	9,096	10,874					
DOUG FIR	300.0	105.9			266	548					
R ALDER	300.0	105.9			128	263					
<b>TOTAL</b>	<b>49.3</b>	<b>17.4</b>		<b>7,838</b>	<b>9,490</b>	<b>11,143</b>	<b>109</b>	<b>27</b>	<b>12</b>		

TC TSTATS				STATISTICS				PAGE	2	
				PROJECT	EWOK			DATE	10/3/2019	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
13N	08W	18	EWOK	00U2	3.00	9	39	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	
WHEMLOCK				117	145	173				
DOUG FIR					189	390				
R ALDER					92	189				
<b>TOTAL</b>				<i>121</i>	<i>145</i>	<i>170</i>	<i>1,239</i>	<i>310</i>	<i>138</i>	

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	EWOK		DATE	10/3/2019		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
13N	08W	18	EWOK	00U3	1.00	5	19	S	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
PLOTS		TREES		TREES		TREES				
TOTAL	5	19	3.8							
CRUISE	5	19	3.8	120	15.8					
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
WHEMLOCK	16	109.3	17.3	80	43.0	178.8	25,959	25,329	6,734	6,734
DOUG FIR	3	10.9	16.6	90	4.0	16.4	2,846	2,779	643	643
<b>TOTAL</b>	<b>19</b>	<b>120.2</b>	<b>17.2</b>	<b>81</b>	<b>47.0</b>	<b>195.1</b>	<b>28,806</b>	<b>28,108</b>	<b>7,377</b>	<b>7,377</b>
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	
WHEMLOCK				345	345	345				
DOUG FIR				530	530	530				
<b>TOTAL</b>				<b>371</b>	<b>371</b>	<b>371</b>				
CL:	68.1 %	COEFF	SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK				90	90	90				
DOUG FIR				121	121	121				
<b>TOTAL</b>				<b>94</b>	<b>94</b>	<b>94</b>				
CL:	68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK	46.7	23.2		84	109	135				
DOUG FIR	142.9	71.0		3	11	19				
<b>TOTAL</b>	<b>52.6</b>	<b>26.1</b>		<b>89</b>	<b>120</b>	<b>152</b>	<b>136</b>	<b>34</b>	<b>15</b>	
CL:	68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK	59.7	29.6		126	179	232				
DOUG FIR	150.5	74.8		4	16	29				
<b>TOTAL</b>	<b>56.9</b>	<b>28.3</b>		<b>140</b>	<b>195</b>	<b>250</b>	<b>160</b>	<b>40</b>	<b>18</b>	
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	78.1	38.8		15,499	25,329	35,159				
DOUG FIR	155.7	77.4		629	2,779	4,928				
<b>TOTAL</b>	<b>69.8</b>	<b>34.7</b>		<b>18,361</b>	<b>28,108</b>	<b>37,855</b>	<b>241</b>	<b>60</b>	<b>27</b>	
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	
WHEMLOCK	68.5	34.0		4,441	6,734	9,027				
DOUG FIR	152.9	76.0		155	643	1,131				
<b>TOTAL</b>	<b>62.5</b>	<b>31.1</b>		<b>5,085</b>	<b>7,377</b>	<b>9,669</b>	<b>193</b>	<b>48</b>	<b>21</b>	
CL:	68.1 %	COEFF	V-BAR/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK	78.2	38.8		87	142	197				
DOUG FIR	154.1	76.6		38	170	301				
<b>TOTAL</b>	<b>66.1</b>	<b>32.8</b>		<b>94</b>	<b>144</b>	<b>194</b>	<b>216</b>	<b>54</b>	<b>24</b>	

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	EWOK		DATE	10/3/2019		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
13N	08W	18	EWOK	00U4	35.00	40	193	S	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		40	193	4.8						
CRUISE		19	87	4.6	5,316	1.6				
DBH COUNT										
REFOREST										
COUNT		21	106	5.0						
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
WHEMLOCK	67	129.7	18.5	80	56.1	241.0	37,093	36,451	9,312	9,312
DOUG FIR	11	6.2	22.5	89	3.6	17.2	2,940	2,904	679	679
WR CEDAR	6	5.7	15.5	57	1.9	7.5	581	491	195	165
R ALDER	3	10.2	7.4	59	1.1	3.0	228	216	52	52
<b>TOTAL</b>	87	151.9	18.0	78	63.3	268.7	40,842	40,062	10,239	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	
WHEMLOCK	47.0	5.9		356	379	401				
DOUG FIR	52.9	16.7		527	633	738				
WR CEDAR	61.2	27.3		68	93	119				
R ALDER	96.4	66.7		11	33	56				
<b>TOTAL</b>	62.7	6.8		353	379	405	157	39	17	
CL:	68.1 %	COEFF	SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK	37.9	4.7		90	95	99				
DOUG FIR	47.3	14.9		124	145	167				
WR CEDAR	59.6	26.5		23	31	40				
R ALDER	116.6	80.7		2	9	17				
<b>TOTAL</b>	53.0	5.8		88	94	99	112	28	12	
CL:	68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK	51.6	8.1		119	130	140				
DOUG FIR	288.1	45.5		3	6	9				
WR CEDAR	249.5	39.4		3	6	8				
R ALDER	559.7	88.4		1	10	19				
<b>TOTAL</b>	54.2	8.6		139	152	165	117	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	
WHEMLOCK	48.9	7.7		222	241	260				
DOUG FIR	251.7	39.8		10	17	24				
WR CEDAR	242.3	38.3		5	8	10				
R ALDER	470.7	74.4		1	3	5				
<b>TOTAL</b>	39.1	6.2		252	269	285	61	15	7	
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	51.3	8.1		33,499	36,451	39,403				
DOUG FIR	251.6	39.7		1,750	2,904	4,058				
WR CEDAR	269.8	42.6		281	491	700				
R ALDER	451.2	71.3		62	216	370				
<b>TOTAL</b>	42.1	6.7		37,396	40,062	42,728	71	18	8	

TC TSTATS				STATISTICS				PAGE	2	
				PROJECT	EWOK			DATE	10/3/2019	
TWP	RGE	SECT	TRACT	TYPE	ACRES		PLOTS	TREES	CuFt	BdFt
13N	08W	18	EWOK	00U4	35.00		40	193	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	
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	
WHEMLOCK		50.0	7.9	8,576	9,312	10,048				
DOUG FIR		251.0	39.6	410	679	949				
WR CEDAR		268.3	42.4	95	165	235				
R ALDER		441.4	69.7	16	52	89				
<b>TOTAL</b>		<i>41.1</i>	<i>6.5</i>	<i>9,547</i>	<i>10,209</i>	<i>10,871</i>	<i>67</i>	<i>17</i>	<i>7</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	
WHEMLOCK				139	151	164				
DOUG FIR		246.8	39.0	102	169	236				
WR CEDAR		273.4	43.2	37	65	93				
R ALDER		448.1	70.8	21	72	123				
<b>TOTAL</b>		<i>228.5</i>	<i>36.1</i>	<i>139</i>	<i>149</i>	<i>159</i>	<i>2,084</i>	<i>521</i>	<i>232</i>	

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	EWOK			DATE	10/3/2019	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
13N	08W	18	EWOK	ROW5	2.00	1	21	S	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
				TREES	TREES	TREES				
TOTAL		1	21	21.0						
CRUISE		1	21	21.0	250		8.4			
DBH COUNT										
REFOREST										
COUNT										
BLANKS										
100 %										
<b>STAND SUMMARY</b>										
	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	10	64.0	11.8	59	14.2	48.9	3,625	3,510	1,095	1,095
WHEMLOCK	8	53.5	9.3	57	8.3	25.2	2,090	2,050	579	579
R ALDER	3	7.5	9.4	51	1.2	3.6	250	250	70	70
<b>TOTAL</b>	<b>21</b>	<b>125.0</b>	<b>10.7</b>	<b>58</b>	<b>23.8</b>	<b>77.8</b>	<b>5,965</b>	<b>5,810</b>	<b>1,745</b>	<b>1,745</b>
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL:	68.1 %	COEFF	<b>SAMPLE TREES - BF</b>				# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DOUG FIR	104.1	34.6		66	101	136				
WHEMLOCK	101.9	38.4		56	91	126				
R ALDER	69.3	47.9		17	33	49				
<b>TOTAL</b>	<b>105.8</b>	<b>23.6</b>		<b>67</b>	<b>88</b>	<b>108</b>	<b>469</b>	<b>117</b>	<b>52</b>	
CL:	68.1 %	COEFF	<b>SAMPLE TREES - CF</b>				# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DOUG FIR	107.1	35.6		21	32	44				
WHEMLOCK	112.4	42.4		17	30	42				
R ALDER	100.5	69.5		3	9	16				
<b>TOTAL</b>	<b>112.8</b>	<b>25.2</b>		<b>21</b>	<b>28</b>	<b>35</b>	<b>533</b>	<b>133</b>	<b>59</b>	

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

T13N R08W S18 Ty00U	28.0
T13N R08W S18 Ty00U	3.0
T13N R08W S18 TyROW	2.0

**Project EWOK**  
**Acres 69.00**

**Page No 1**  
**Date: 10/3/2019**  
**Time 12:44:03PM**

Species	Total	Total	Total	Net Cubic Ft/		CF/	Total CCF		Total MBF	
	Trees	Logs	Tons	Tree	Log	LF	Gross	Net	Gross	Net
WHEMLOCK	8,036	17,663	18,159	70.62	32.13	0.97	5,675	5,675	2,239	2,178
DOUG FIR	475	1,159	1,375	101.53	41.63	1.37	482	482	211	204
WR CEDAR	547	897	543	40.33	24.58	0.87	231	221	65	59
S SPRUCE	96	199	194	77.65	37.50	1.34	75	75	26	25
R ALDER	533	689	187	11.57	8.95	0.45	68	62	26	22
<b>Totals</b>	<b>9,688</b>	<b>20,607</b>	<b>20,458</b>	<b>67.24</b>	<b>31.61</b>	<b>0.98</b>	<b>6,531</b>	<b>6,514</b>	<b>2,567</b>	<b>2,488</b>

Wood Type Species	Total	Total	Total	Net Cubic Ft/		CF/	Total CCF		Total MBF	
	Trees	Logs	Tons	Tree	Log	LF	Gross	Net	Gross	Net
C	9,154	19,918	20,271	70.48	32.39	0.99	6,463	6,452	2,541	2,466
H	533	689	187	11.57	8.95	0.45	68	62	26	22
<b>Totals</b>	<b>9,688</b>	<b>20,607</b>	<b>20,458</b>	<b>67.24</b>	<b>31.61</b>	<b>0.98</b>	<b>6,531</b>	<b>6,514</b>	<b>2,567</b>	<b>2,488</b>



Forest Practices Application/Notification
Notice of Decision

FPA/N No: 2937653

Effective Date: 5/22/2020

Expiration Date: 5/22/2023

Shut Down Zone 651 N

EARR Tax Credit: [X] Eligible [ ] Non-eligible
17,18,19,20-13-08W

Reference: Ewok

Decision

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

FPA/N Classification

Number of Years Granted on Multi-Year Request

- [ ] Class II [X] Class III [ ] Class IVG [ ] Class IVS [ ] 4 years [ ] 5 years

Conditions on Approval/Reasons for Disapproval

Timing Limitations on Type S and F water(s): All work below the ordinary high water mark shall only occur between July 1st and September 30th.

Notify the Department of Natural Resources two business days before commencement of actual operations in Type S or F water(s). 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: Bruce Hazen

Region: Pacific Cascade Region

Title: Forest Practices Forester

Date: 5/22/2020

Copies to: [ ] Landowner, Timber Owner and Operator

Issued in person: [X] Landowner [X] Timber Owner [X] Operator

By: Tonya Johnston

Handwritten signature of Tonya Johnston

**Appeal Information**

You have thirty (30) days to *file* (i.e., *actually deliver*) an appeal in writing of this Decision and any related State Environmental Policy Act (SEPA) determinations to the Pollution Control Hearings Board, the Attorney General's Office, and the Department of Natural Resources' region office. See RCW 76.09.205. The appeal period starts when the applicant receives this decision, which usually happens electronically on the date indicated below.

You must file your appeal at all three addresses below:

<b>Pollution Control Hearings Board</b>	<b>Office of the Attorney General Natural Resources Division</b>	<b>Department Of Natural Resources Pacific Cascade Region</b>
<u>Physical Address</u> 1111 Israel Road, SW Suite 301 Tumwater, WA 98501	<u>Physical Address</u> 1125 Washington Street, SE Olympia, WA 98504	<u>Physical Address</u> 601 Bond Rd Castle Rock WA 98611
<u>Mailing address</u> PO Box 40903 Olympia, WA 98504-0903	<u>Mailing Address</u> PO Box 40100 Olympia, WA 98504-0100	<u>Mailing Address</u> PO Box 280 Castle Rock WA 98611

Information regarding the Pollution Control Hearings Board can be found at: <http://www.eluho.wa.gov/>

**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 Forestland 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 forestland 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 and 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 forestland obligation, the seller must pay the buyer's costs related to continuing forestland obligations, including all legal costs and reasonable attorneys' fees incurred by the buyer in enforcing the continuing forestland obligation against the seller.

Failure by the seller to send the required notice to 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 forestland obligation prior to sale.

**DNR affidavit of mailing:**

On this day Click here to enter a date., I placed in the United States mail at Castle Rock, WA, postage paid, a true and accurate copy of this document. Notice of Decision FPA #Click or tap here to enter text.

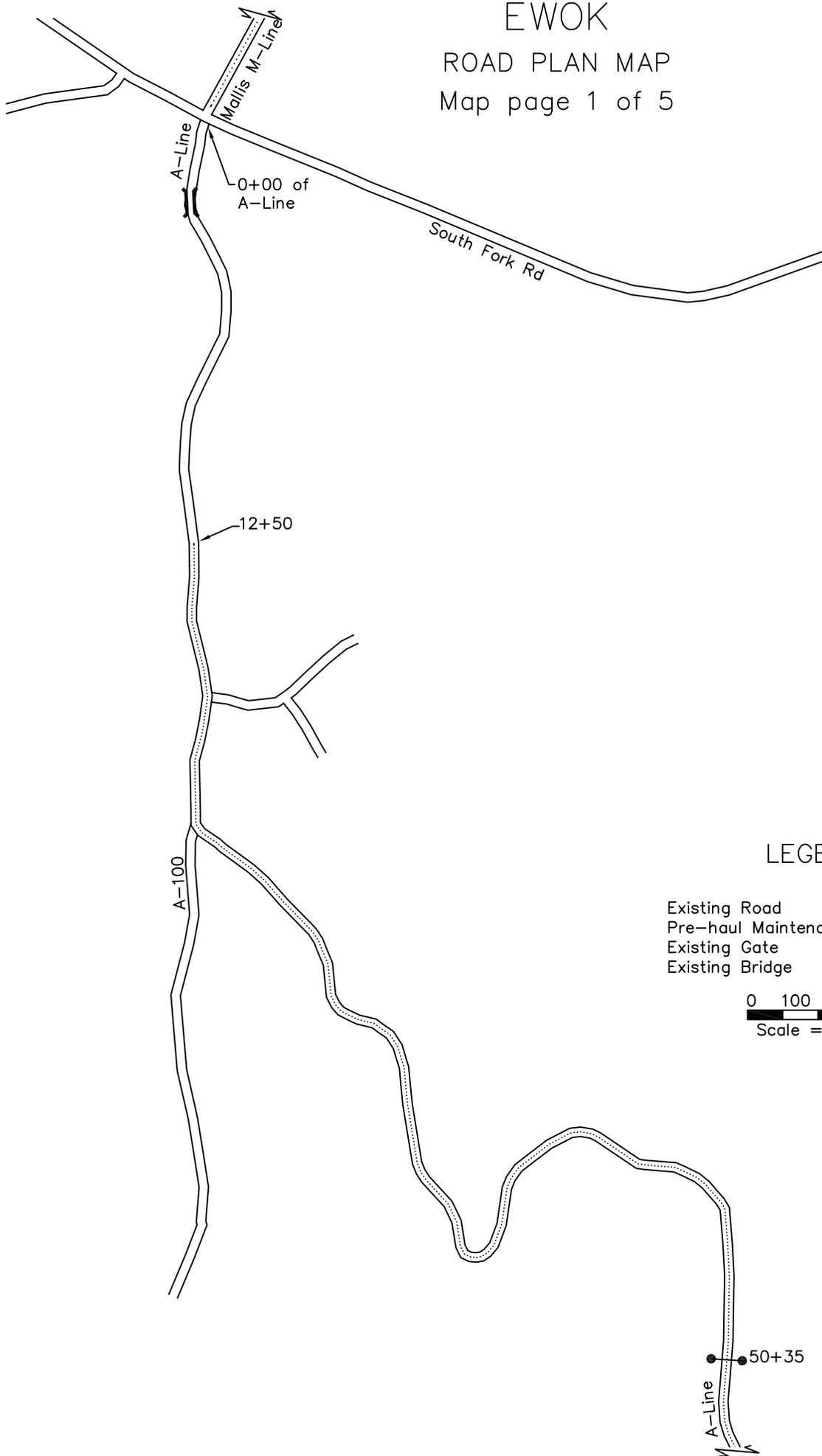
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(Printed Name)

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(Signature)

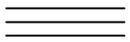
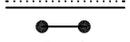
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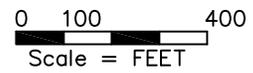
## ROAD PLAN MAP

Map page 1 of 5



### LEGEND

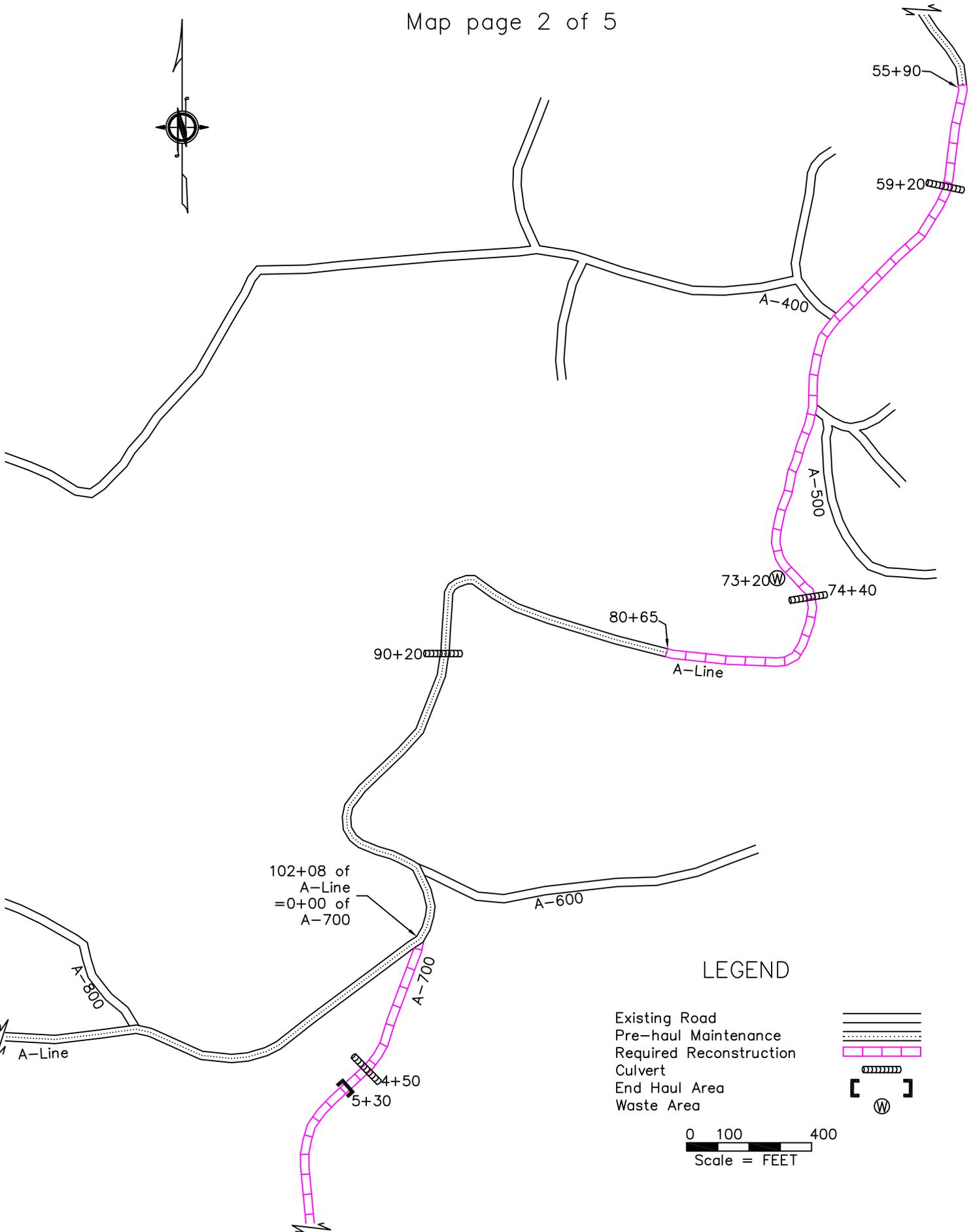
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- Pre-haul Maintenance 
- Existing Gate 
- Existing Bridge 



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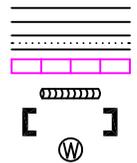
## ROAD PLAN MAP

Map page 2 of 5



### LEGEND

- Existing Road
- Pre-haul Maintenance
- Required Reconstruction
- Culvert
- End Haul Area
- Waste Area

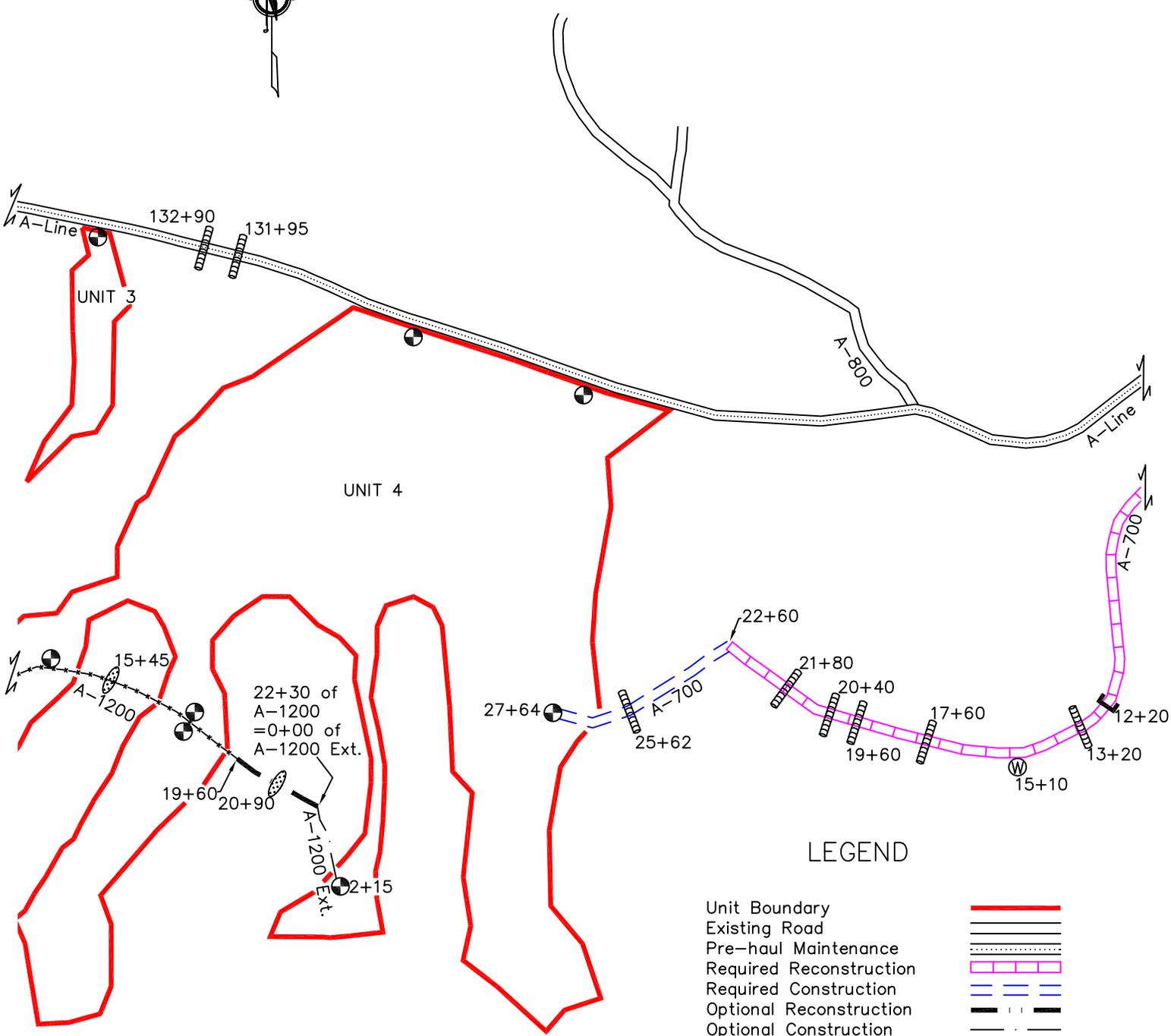


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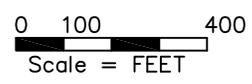
## ROAD PLAN MAP

Map page 3 of 5



### LEGEND

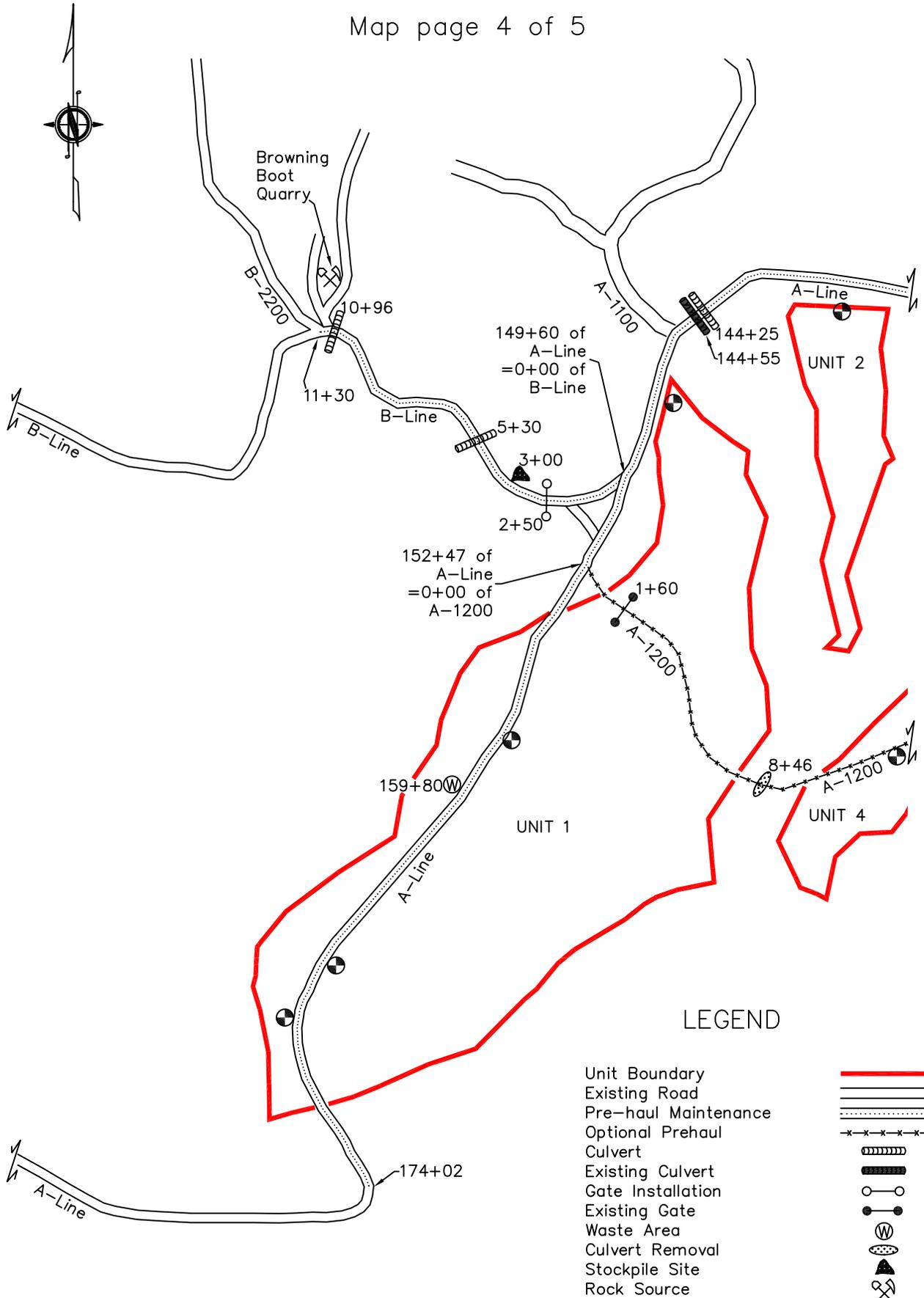
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|-------------------------|--|
| Unit Boundary           |  |
| Existing Road           |  |
| Pre-haul Maintenance    |  |
| Required Reconstruction |  |
| Required Construction   |  |
| Optional Reconstruction |  |
| Optional Construction   |  |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



# EWOK

## ROAD PLAN MAP

Map page 4 of 5



### LEGEND

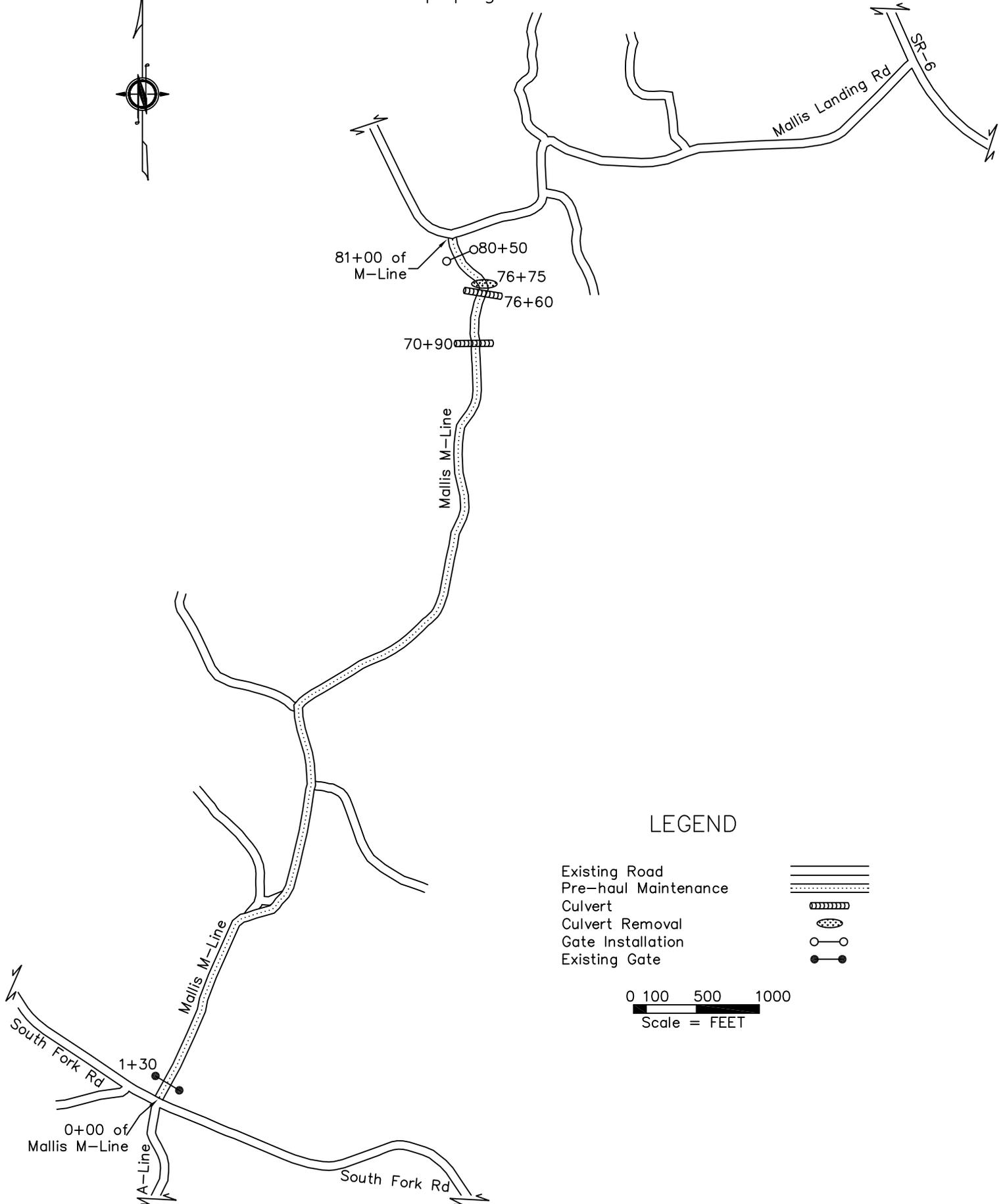
- |                      |  |
|----------------------|--|
| Unit Boundary        |  |
| Existing Road        |  |
| Pre-haul Maintenance |  |
| Optional Prehaul     |  |
| Culvert              |  |
| Existing Culvert     |  |
| Gate Installation    |  |
| Existing Gate        |  |
| Waste Area           |  |
| Culvert Removal      |  |
| Stockpile Site       |  |
| Rock Source          |  |

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 Scale = FEET

# EWOK

## ROAD PLAN MAP

Map page 5 of 5



ETSTATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

EWOK TIMBER SALE ROAD PLAN  
PACIFIC COUNTY  
ST HELENS DISTRICT  
PACIFIC CASCADE REGION

AGREEMENT NO.: 30-087396

STAFF ENGINEER: LAURA CUMMINGS

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	12+50 to 55+90	Pre-haul Maintenance
	55+90 to 80+65	Reconstruction
	80+65 to 174+02	Pre-haul Maintenance
A-700	0+00 to 22+60	Reconstruction
	22+60 to 27+64	Construction
B-Line	0+00 to 11+30	Pre-haul Maintenance
Mallis M-Line	0+00 to 81+00	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-1200	0+00 to 19+60	Pre-haul Maintenance
	19+60 to 22+30	Reconstruction
A-1200 Ext	0+00 to 2+15	Construction

**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; turnaround and landing construction; acquisition and installation of drainage structures; compaction of subgrade and embankment; acquisition, manufacture, and application of rock; acquisition and application of 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-Line	55+90 to 80+65	Grade, apply spot rock, clear and grub, reconstruct ditches and cutslopes in accordance with the DITCH RECONSTRUCTION DETAIL
A-700	0+00 to 22+60	Clear and grub, reshape subgrade according to the TYPICAL SECTION SHEET, reconstruct ditches and cutslopes in accordance with the DITCH RECONSTRUCTION DETAIL, rock according to the ROCK LIST, install culverts according to the CULVERT LIST.
A-1200	19+60 to 22+30	Clear and grub, reshape subgrade according to the TYPICAL SECTION SHEET, rock according to the ROCK LIST, install culverts according to the CULVERT LIST.
	15+45	Clean culvert

**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	12+50 to 55+90, 80+65 to 174+02	Grade, apply spot rock, install culverts
	50+35	Gate maintenance
	76+20, 115+30, 152+75	Clean culverts
B-Line	0+00 to 11+30	Desod, install culvert
	2+50	Install gate
A-1200	0+00 to 19+60	Apply rock
	7+90, 8+90	Install sediment traps
	12+30 to 19+60	Clean ditches
Mallis M-Line	0+00 to 81+00	Grade, brush, maintain gate, replace gate, install culverts

**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.

**0-12 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.

**0-13 STRUCTURES**

Purchaser shall provide and install a gate. Requirements for these structures are listed in Section 7 STRUCTURES.

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.

**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.

**1-7 TEMPORARY ROAD CLOSURE**

Purchaser shall notify the Contract Administrator a minimum of 3 business days before the closure of any road.

**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 paint and stakes for pre-haul maintenance and reconstruction
- Orange paint, centerline stakes and reference points for construction
- Stakes and reference points for stream crossings

**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:

- Drainage installation
- Subgrade compaction
- Rock compaction
- Abandonment

**1-25 ACTIVITY TIMING RESTRICTION**

On the following road(s), the operation of road construction equipment is not allowed on weekends or state recognized holidays, unless authorized in writing by the Contract Administrator.

<u>Road</u>	<u>Stations</u>
A-1200	Abandonment
A-Line	90+20 & 132+90 culvert installs

The specified activities are not allowed during the listed closure period(s) unless authorized in writing by the Contract Administrator.

<u>Road</u>	<u>Activity</u>	<u>Closure Period</u>
All	Road Work	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 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 two hours before official sunset to two hours after official sunrise from April 1 through September 23. This restriction does not apply to hauling timber, rock, or equipment.

<u>Road</u>	<u>Stations</u>
B-Line, Mallis M-Line	All
Drilling and shooting in Browning Boot Quarry	

**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 or native surface roads.
- 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 AND ASPHALT SURFACE RESTRICTION**

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

If tracked equipment is used on bridge or asphalt surfaces, Purchaser shall immediately cease all road construction and hauling operations. Purchaser shall remove any dirt, rock, or other material tracked or spilled on the bridge or asphalt surface(s) and have surface(s) evaluated by the Region 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.

**1-33 SNOW PLOWING RESTRICTION**

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

**1-43 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>
A-Line	0+00 to 20+70

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 timber haul or rock placement. 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	12+50 to 174+02	Grade and shape
B-Line	0+00 to 11+30	Desod
A-1200	0+00 to 19+60	Desod
Mallis M-Line	0+00 to 81+00	Grade and shape

**2-6 CLEANING CULVERTS**

On the following road(s), Purchaser shall clean the inlets and outlets of all culverts before timber haul or rock placement.

<u>Road</u>	<u>Stations</u>
A-Line	76+20, 115+30, 152+75
A-1200	15+45
Mallis M-Line	70+90

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

On the following road(s), Purchaser shall clean ditches, headwalls, and catchbasins. 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-1200	12+30 to 19+60
Mallis M-Line	48+80 to 49+55

**SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL**

**3-1 BRUSHING**

On the following road(s), Purchaser shall cut vegetative material up to 6 inches in diameter, including limbs, as shown on the ROADSIDE BRUSHING DETAIL. Brushing must be achieved by 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>
Mallis M-Line	0+00 to 81+00

**3-5 CLEARING**

Purchaser shall fall all vegetative material larger than 2 inches DBH or over 5 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 50 feet of any stream.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- On slopes greater than 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. Stumps over 24 inches diameter must be split. Grubbing must be completed before starting excavation and embankment.

**3-12 STUMP PLACEMENT**

Purchaser shall place grubbed stumps outside of the grubbing limits 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 as shown on the TYPICAL SECTION SHEET.

**3-21 DISPOSAL COMPLETION**

Purchaser shall remove organic debris from the road surface, ditchlines, and culvert inlets and outlets. Purchaser shall complete all disposal of organic debris before timber haul.

**3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS**

Waste areas for organic debris are located as listed below.

<u>Road</u>	<u>Disposal Location</u>	<u>Requirements</u>
A-Line	159+80 right	Pile organic debris no closer than 10 feet from standing timber or earthen waste and no higher than 10 feet

**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, unless used to comply with the specifications detailed in the 20+90 CULVERT REMOVAL DETAIL.
- 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 unless otherwise detailed in this road plan. Where natural openings are unavailable or restrictive, alternate debris disposal methods are subject to the written approval of the Contract Administrator.

**3-30 EXCLUSION OF DOZER BLADES**

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

**3-32 END HAULING ORGANIC DEBRIS**

On the following road(s), and on slopes greater than 45%, 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-700	5+30 to 12+20

**SECTION 4 – EXCAVATION**

**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 prior to embankment.

**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 14 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.

<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.

**4-21 TURNOUTS**

Purchaser shall construct turnouts as designated on the ROCK LIST. Minimum dimensions are shown on the TYPICAL SECTION SHEET.

**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.

**4-25 DITCH CONSTRUCTION AND RECONSTRUCTION**

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

**4-28 DITCH DRAINAGE**

Ditches must drain to cross-drain culverts or ditchouts.

**4-29 DITCHOUTS**

Purchaser shall construct ditchouts as identified on the CULVERT LIST and as needed. 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 as listed.

<u>Road</u>	<u>Waste Area Location</u>	<u>Comments</u>	<u>Volume</u>
A-Line	73+20 right	In accordance with the ROAD PRISM WASTE DETAIL	500 cy
A-Line	159+80 right		1500 cy
A-700	15+10 left		1500 cy
A-1200 Abandonment	-	In accordance with the ROAD PRISM WASTE DETAIL	-

#### **4-38 PROHIBITED WASTE DISPOSAL AREAS**

Purchaser shall not deposit waste material in the following areas, except as otherwise specified in this plan:

- Within 50 feet of a cross drain culvert.
- Within 100 feet of a live stream or wetland.
- 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 segments too narrow to accommodate 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. Purchaser shall obtain written approval from the Contract Administrator for subgrade compaction before timber haul or rock placement.

#### **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.

## 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**

Purchaser shall install culverts made of plastic in accordance with Clauses 10-17 through 10-22.

### **5-7 USED CULVERT MATERIAL**

On temporary roads, Purchaser may install used culverts. All other roads must have new culverts installed. Purchaser shall obtain approval from the Contract Administrator for the quality of the used culverts before installation.

### **5-10 CULVERT MARKER INSTALLATION**

At all new, permanent culverts, Purchaser shall provide and install culvert markers at the inlet in accordance with the CULVERT AND DRAINAGE SPECIFICATION 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. Corrugated Polyethylene pipe must be installed in a manner consistent with the manufacturer's recommendations. Culverts shall be banded using lengths of no less than 10 feet, and no more than one length less than 15 feet.

### **5-16 APPROVAL FOR LARGER CULVERT INSTALLATION**

Purchaser shall obtain written approval from the Contract Administrator for the installation of culverts 24 inches in diameter and over before backfilling.

### **5-17 CROSS DRAIN SKEW AND SLOPE**

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

**5-18 CULVERT DEPTH OF COVER**

All culverts 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.

The type of energy dissipater and the amount of material must be consistent with the specifications listed on the CULVERT LIST. No placement by end dumping or dropping of rock is allowed.

**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 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. No placement by end dumping or dropping of rock is allowed.

**5-27 ARMORING FOR STREAM CROSSING CULVERTS**

At the following culvert(s), Purchaser shall place LIGHT LOOSE RIP RAP in conjunction with construction of the embankment. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets as designated on the ROCK LIST and attached culvert design(s). Rock may not restrict the flow of water into culvert inlets or catch basins. Rock must be set in place by machine.

<u>Road</u>	<u>Stations</u>
A-Line	90+20, 132+90, 144+55

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(s) 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(s), a joint operating plan must be developed. All parties shall follow this plan. Purchaser shall notify the Contract Administrator a minimum of 3 business days before starting any operations in the listed locations.

<u>Source</u>	<u>Location</u>
Browning Boot Quarry	NW ¼ SE ¼ 18 T13N R8W

**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. Other stockpiles may not be used.

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>	<u>Quantity</u>
Boot Stockpile	B-Line 3+00 Right	3-INCH MINUS CRUSHED	~250 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 DEVELOPMENT PLAN, and approved in writing by the Contract Administrator.

<u>Source</u>
Browning Boot Quarry

**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.

**6-33 3-INCH MINUS CRUSHED ROCK**

% Passing 3" square sieve	100%
% Passing 1½" square sieve	55 - 75%
% Passing U.S. #4 sieve	15 - 45%

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

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

**6-41 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 organic debris, dirt, and trash. Rock may require processing to meet this specification.

**6-50 LIGHT LOOSE RIP RAP**

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

<u>Quantity</u>	<u>Approximate Size Range</u>
20% to 90%	18" - 28"
15% to 80%	8" - 18"
10% to 20%	3" - 8"

**6-55 ROCK APPLICATION MEASURED BY COMPACTED DEPTH**

Measurement of specified rock depths, are defined as the compacted depth(s) using the compaction methods required in this road plan. Estimated quantities specified in the ROCK LIST are 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 landing rock, backfill rock, energy dissipater rock and spot rock is on a cubic yard truck measure basis. Purchaser shall 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.

**6-72 ROCK APPLICATION AFTER HAULING**

On the following road(s), upon completion of all hauling operations, Purchaser shall apply 3 INCH MINUS CRUSHED rock in accordance with the quantities shown on the ROCK LIST.

<u>Road</u>	<u>Stations</u>
A-Line	12+50 to 50+35

**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, 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-700	Landing
A-1200 Ext.	0+00 to 2+15

SECTION 7 – STRUCTURES

**7-5 STRUCTURE DEBRIS**

Purchaser shall not allow debris from the installation or removal of structures to enter any stream. Purchaser shall maintain a clean jobsite, with all materials stored away from the high water mark or other area presenting a risk of the materials entering a stream. Debris entering any stream must be removed immediately, and placed in the site(s) designated for stockpiling or disposal. Purchaser shall retrieve all material carried downstream from the jobsite.

**7-6 STREAM CROSSING INSTALLATION**

Purchaser shall install stream crossing structures in accordance with the manufacturer's requirements, 90+20 STREAM CROSSING DETAIL and FPA.

**7-70 GATE CLOSURE**

On the following road(s), Purchaser shall keep gates closed and locked except during periods of haul. All gates must be closed at termination of use.

<u>Road</u>	<u>Station</u>
Mallis M-Line	1+30
Mallis M-Line	80+50

**7-75 GATE MAINTENANCE**

Purchaser shall conduct gate maintenance as listed. Purchaser shall remove all old gate material from state land before the termination of the contract.

<u>Road</u>	<u>Station</u>	<u>Requirements</u>
A-Line	50+35	Clear brush and excavate road shoulder as needed to enable gate to close
A-1200	1+60	Remove gate
Mallis M-Line	1+30	Fill hole on west side of gate, then block trail around gate with four 2' x 2' x 6' concrete blocks provided by Purchaser. Blocks must have any lifting lugs removed.
Mallis M-Line	80+80	Remove gate

**7-76 GATE INSTALLATION**

Purchaser shall install the listed gate(s).

<u>Road</u>	<u>Station</u>	<u>Type*</u>
B-Line	2+50	Steel
Mallis M-Line	80+50	Steel

\* Steel gate installation(s) must be in accordance with the GATE DETAIL and the GATE INSTALLATION DETAIL.

The gate and lock box must be installed plumb and aligned to ensure all mating components match with precision. The gate must be installed with a post and locking device to allow the gate to be locked in an open position. Each post must be filled with concrete, capped, and set in a minimum of 1.5 cubic yards of poured-in-place concrete. The Contract Administrator will provide Purchaser with a padlock.

The gate must be primed and painted in accordance with the GATE DETAIL.

If Purchaser wishes to install an alternate design, detailed plans for the construction of the gate must be submitted to the Contract Administrator. Purchaser shall obtain written approval for the plans from the Contract Administrator or their designee, before gate installation begins.

**7-78 GATE SUPPLIED BY PURCHASER**

Purchaser shall provide all gates specified for installation in Clause 7-76 GATE INSTALLATION. Purchaser shall obtain written approval for the gates from the Contract Administrator before installation.

**SECTION 8 – EROSION CONTROL**

**8-1 SEDIMENT CONTROL STRUCTURES**

On the following road(s), Purchaser shall install sediment traps in accordance with the SEDIMENT TRAP DETAIL.

<u>Road</u>	<u>Stations</u>
A-1200	7+90, 8+90

**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 may not sit exposed during any rain event.

**8-15 REVEGETATION**

On the following road(s), Purchaser shall spread grass seed on all exposed soils resulting from road work activities using manual dispersion. Other methods of covering must be approved in writing by the Contract Administrator. Required seed not spread by the termination of this contract will become the property of the state.

<u>Road</u>	<u>Location</u>	<u>Qty (lbs)*</u>
A-Line	55+90 to 80+65	25
A-700	0+00 to 22+60	30
A-1200	Ditch Cleaning	5
A-1200	Abandonment	80
A-1200 Ext	Abandonment	10
Pit Access Rd		15
	Waste Areas	20

\*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 50% coverage) of 3-inch tall grass. Purchaser shall reapply the grass 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 grass 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.

<u>Kind and Variety of Seed in Mixture</u>	<u>% by Weight</u>
Ryegrass	35-45
Fescue	30-45
Highland Bent	5-15
White Clover	8-20
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-1200	1+60

**9-2 CULVERT REMOVAL FROM LIVE STREAM**

On the following road(s), Purchaser shall remove existing culverts and puncheons from live streams and leave the resulting channel open with excavation slope and excavated channel width as specified. Place excavated material in a waste area designated in Clause 4-37 WASTE AREA LOCATION. Culvert removal from live streams must be in accordance with the STREAM DIVERSION PROCEDURE and the FPA.

<u>Road</u>	<u>Stations</u>	<u>Excavated Channel Width</u>	<u>Slope Ratio</u>	<u>Comments</u>
A-1200	8+46	8 ft	2:1	Construct channel of constant grade between RP'd points
	15+45	10 ft	2:1	Construct channel of constant grade
	20+90	8 ft	3:1	Abandon in accordance with the 20+90 CULVERT REMOVAL DETAIL. Construct channel of constant grade between RP'd points.

**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	12+50 to 50+35	Grade and shape, post haul spot rock

**9-10 LANDING DRAINAGE**

Purchaser shall provide for drainage of the landing surface.

**9-21 ROAD ABANDONMENT**

Purchaser shall abandon the following roads before the termination of this contract.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
A-1200	1+60 to 22+30	Light
A-1200 Ext	0+00 to 2+15	Light

## **9-22 LIGHT ABANDONMENT**

- Rip the surface to a minimum depth of 10 inches.
- Construct non-drivable waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical drop of no more than 10 feet between waterbars or between natural drainage paths and with a maximum spacing of 200 feet, or as marked in the field.
- Skew waterbars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3 percent grade.
- Key waterbars into the cut-slope to intercept the ditch. Waterbars must be outsloped to provide positive drainage. Outlets must be on stable locations.
- Remove ditch cross drain culverts and leave the resulting trench open.
- Slope all trench walls and approach embankments no steeper than 2:1.
- Apply grass seed concurrently with abandonment and in accordance with Section 8 EROSION CONTROL.
- Cover, concurrently with abandonment, all exposed soils within 50 feet of any live stream, with a 3-inch deep layer of straw.

## SECTION 10 MATERIALS

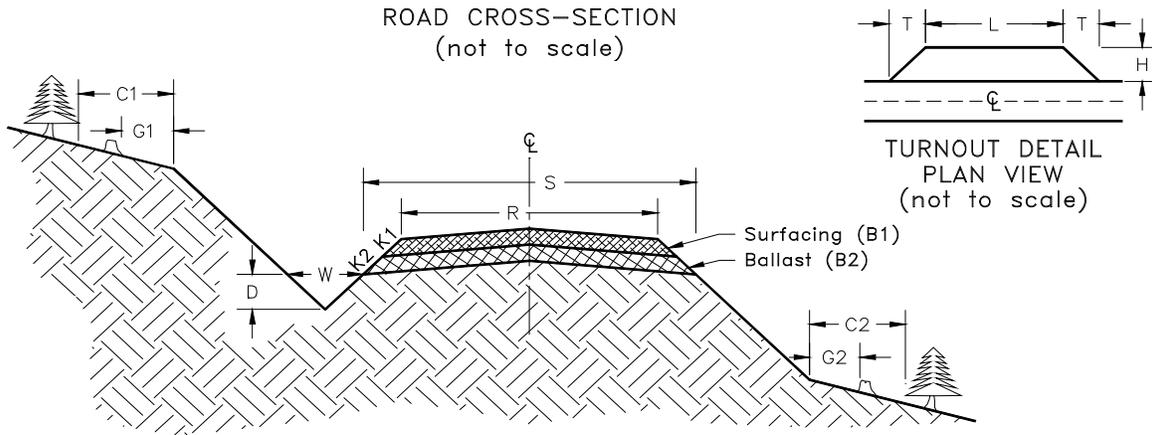
### **10-17 CORRUGATED PLASTIC CULVERT**

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**

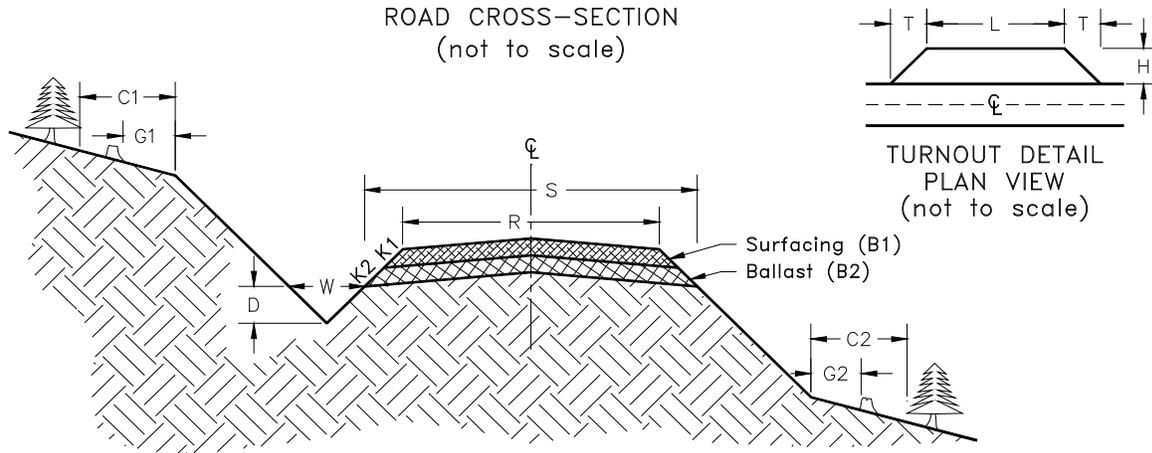
Plastic coupling and end bands must meet the AASHTO specification designated for the culvert. Only fittings supplied or recommended by the culvert manufacturer may be used. Couplings must be split coupling band. Split coupling bands must have a minimum of four corrugations, two on each side of the pipe 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	12+50	55+90	A	-	12	-	-	4	-	-	-	-
A-Line	55+90	80+65	A	-	12	3	1	4	2	-	2	-
A-Line	80+65	174+02	A	-	12	-	-	4	-	-	-	-
A-700	0+00	22+60	C	15	12	3	1	4	2	2	5	10
A-700	22+60	27+64	C	16	12	3	1	4	2	2	10	10
B-Line	0+00	11+30	A	-	12	-	-	4	-	-	-	-
A-1200	0+00	19+60	C	-	12	-	-	4	-	-	-	-
A-1200	19+60	22+30	C	14	12	0.5	1.5	4	-	-	-	-
A-1200 Ext	0+00	2+15	C	16	12	0.5	1.5	4	1	1	5	5
Mallis M-Line	0+00	81+00	A	-	12	3	1	4	-	-	-	-

# ROCK LIST



## BALLAST

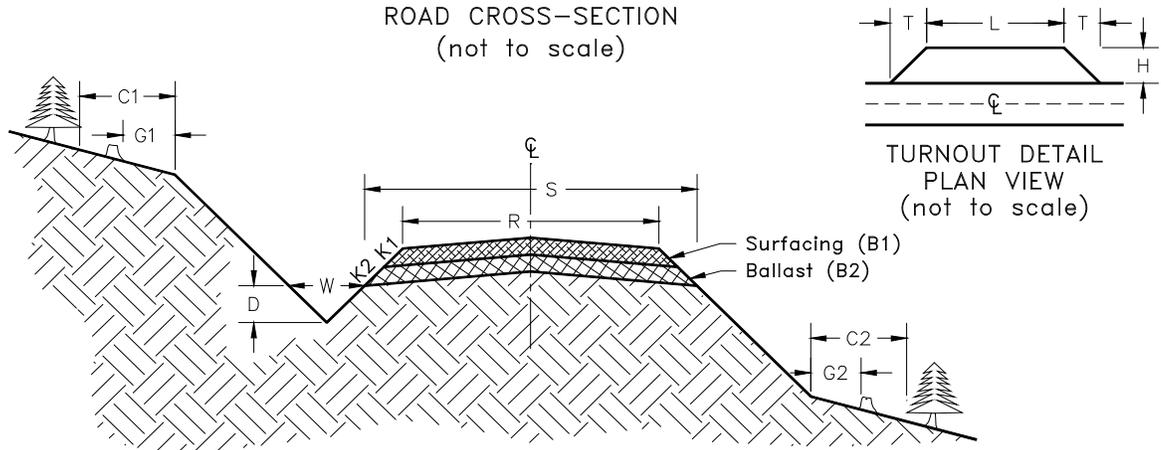
Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth (in)	C.Y. per Station or Unit	# of Stations or Units	C.Y. Subtotal	Rock Source	Turnout		
									Length	Width	Taper
			K2	B2					L	H	T
A-Line	90+20 Backfill						200				
	132+90 Backfill						190				
	Energy Dissipater Landings						4				
					50	5	250				
A-700	0+00 22+60		1 1/2:1	9	46	22.60	1040		40	10	25
	14+00 Turnout				14	1	14				
	Curve Widening Junctions				9	1	9				
	22+60 27+64		1 1/2:1	15	81	5.04	408				
	Turnarounds				43	1	43				
	Energy Dissipater Landings						7				
					50	1	50				
B-Line	Energy Dissipater Rock Berm						2				
							120				
A-1200 Ext	0+00 2+15		1 1/2:1	12	63	2.15	135				
	Turnarounds				34	1	34				
Mallis M-Line	Energy Dissipater						2				
	76+60 Backfill						150				

\*Optional Rock in accordance with 6-75

REQUIRED BALLAST: 2475 CY

OPTIONAL BALLAST: 219 CY

# ROCK LIST



3 INCH MINUS CRUSHED

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
A-Line	25+46	Spot Rock					10	Boot Stockpile or Commercial " " " " " " " " " " " " " " "
	42+14	Spot Rock					10	
	44+57	Spot Rock					10	
	67+72	Spot Rock					10	
	79+46	Spot Rock					10	
	90+20	Spot Rock					10	
	115+30	Spot Rock					10	
	121+00	Spot Rock					10	
	140+57	Spot Rock					10	
	167+44	Spot Rock					10	
	59+20	Backfill					20	
	74+40	Backfill					30	
	131+95	Backfill					20	
	144+25	Backfill					20	
	90+20	Surfacing					20	
	90+20	Bedding					20	
	12+50 to 50+35	Post-Haul Rock					40	
A-700		Culvert Backfill					30	"
A-1200	7+90	8+90	1 1/2:1	6	30	1.00	30	"
	15+45	Spot Rock					20	"
	* 19+60	22+30	1 1/2:1	6	30	2.70	81	"
Mallis M-Line		Spot Rock					100	"

REQUIRED 3 INCH MINUS CRUSHED: 450 CY

OPTIONAL 3 INCH MINUS CRUSHED: 81 CY

# ROCK LIST

## LIGHT LOOSE RIP RAP

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
								Commercial
A-Line		90+20 132+90 144+55					7 1 2	

REQUIRED LIGHT LOOSE RIP RAP: 10 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-Line	59+20	18	30	PD	0.5	0.5	SP	CR	NT	Y	See 90+20 STREAM CROSSING DETAIL  Place rock in plunge pool
A-Line	74+40	18	40	PD	0.5	0.5	SP	CR	NT	Y	
A-Line	90+20	36	55	PD	2.0	5.0	LL	SP	CR	Y	
A-Line	131+95	18	30	PD	0.5	0.5	SP	CR	NT	Y	
A-Line	132+90	24	45	PD	0.5	0.5	LL	SP	NT	Y	
A-Line	144+25	18	30	PD	0.5	0.5	SP	CR	NT	Y	
A-Line	144+55	-	-	-	-	2.0	LL	-	-	-	
A-700	4+50	18	30	PD	0.5	0.5	SP	NT	NT	Y	
A-700	13+20	18	30	PD	0.5	0.5	SP	NT	NT	Y	
A-700	17+60	18	30	PD	0.5	0.5	SP	NT	NT	Y	
A-700	19+60	18	30	PD	0.5	0.5	SP	NT	NT	Y	
A-700	20+40	24	40	PD	0.5	0.5	SP	CR	NT	Y	
A-700	21+80	18	30	PD	0.5	0.5	SP	NT	NT	Y	
A-700	25+62	18	40	PD	0.5	0.5	SP	NT	NT	Y	
B-Line	5+30	18	30	PD	0.5	0.5	SP	NT	NT	Y	
B-Line	10+96	18	80	PD	0.5	0.5	SP	NT	NT	Y	
Mallis M-Line	70+90	18	40	PD	0.5	0.5	SP	NT	NT	Y	
Mallis M-Line	76+60	18	50	D	0.5	0.5	SP	SP	NT	Y	
Mallis M-Line	76+75	-	-	-	-	-	-	-	-	-	

**Key:**

- SP - Select Pit Run
- NT - Native (bank run)
- CR - 3 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	1
All Roads			Fill	12	Vibratory Smooth Drum	14,000	4	3	1
All Roads			Waste Area	24	Excavation	28,000	-	-	4
All Roads			Pre-haul Surface	6	Vibratory Smooth Drum	14,000	5	3	0
All Roads			Rock	12	Vibratory Smooth Drum	14,000	3	3	0

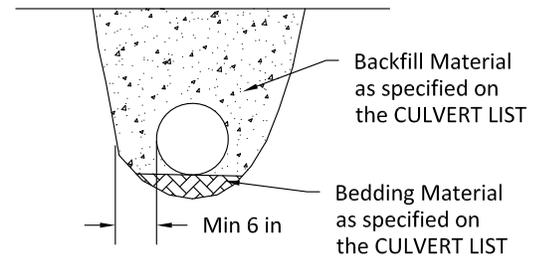
**CULVERT AND DRAINAGE SPECIFICATION DETAIL**  
PAGE 1 OF 2

**INSTALLATION REQUIREMENTS:**

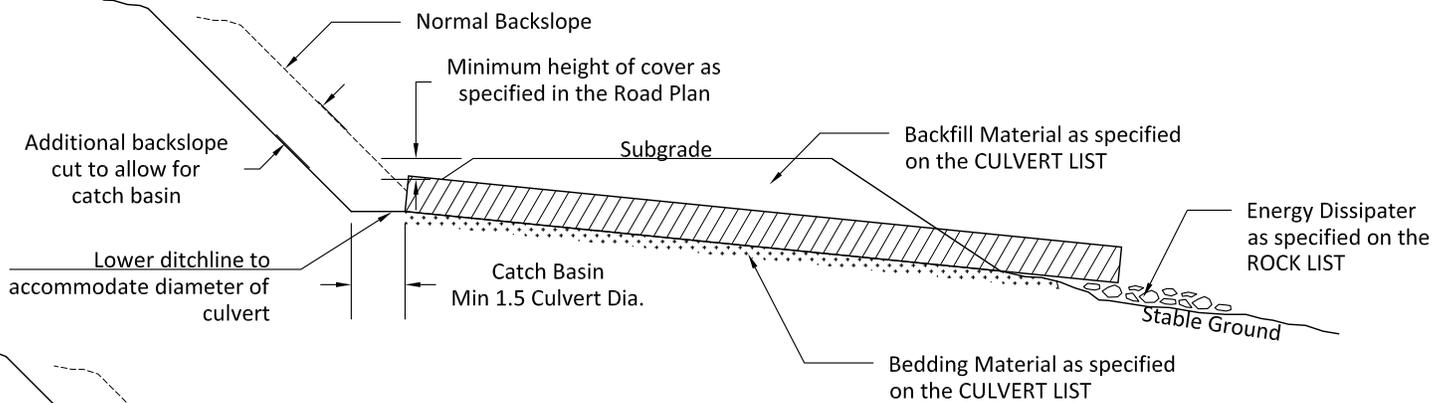
1. Proper preparation of foundation and placement of any required bedding material shall precede the installation of all culverts. This includes necessary leveling of the native trench bottom and compaction of required bedding material to form a uniform, dense, unyielding base. The pipe must be uniformly 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

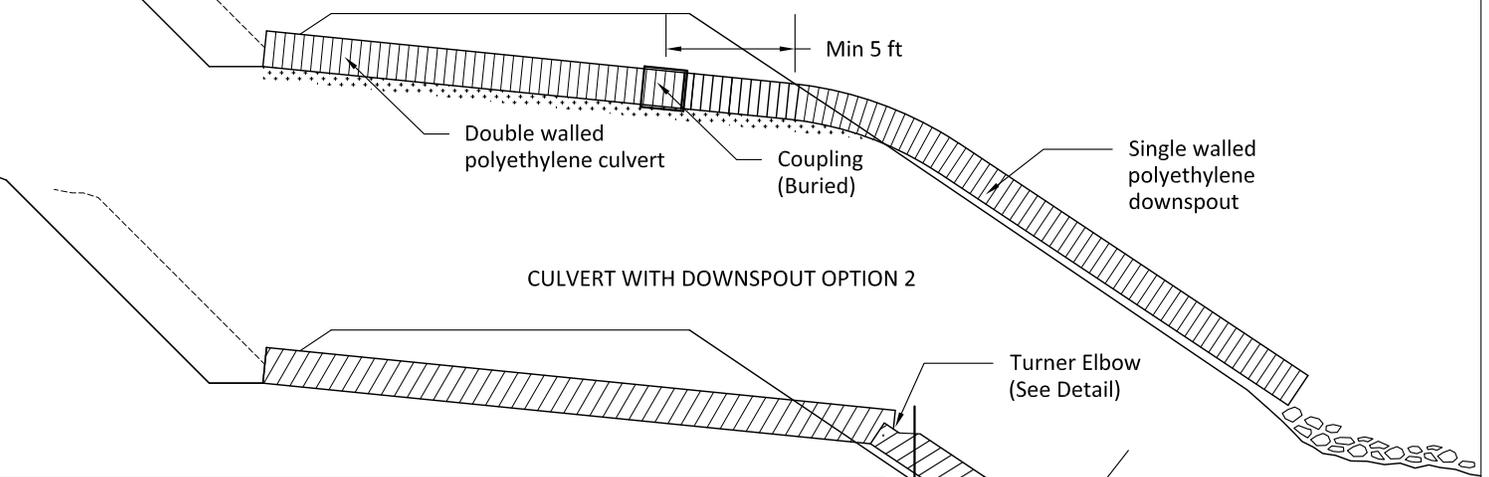
**CROSS SECTION**



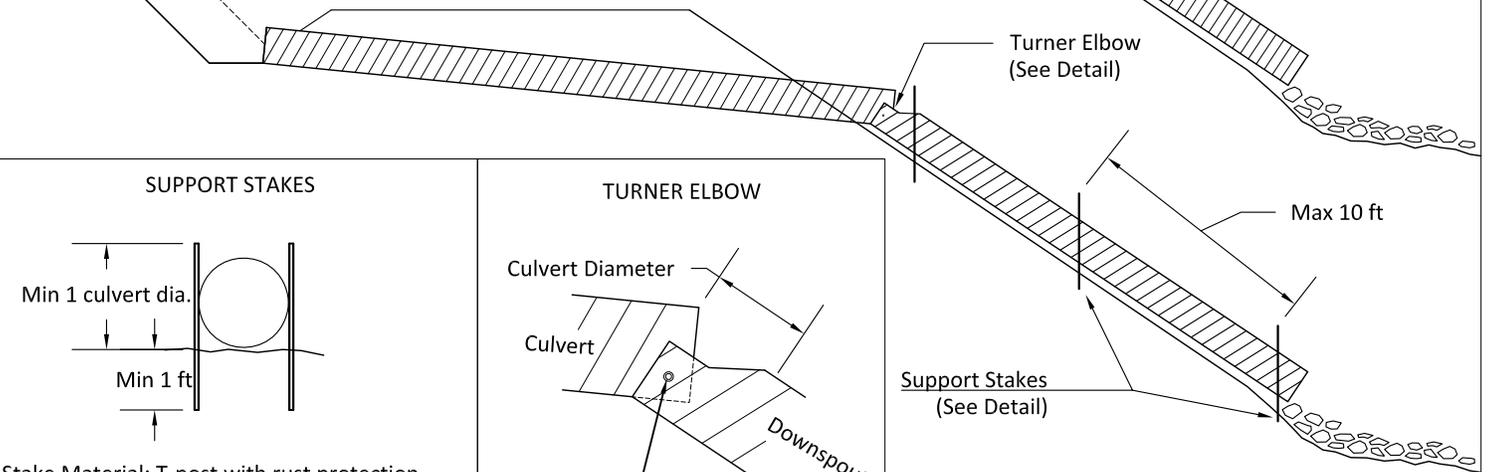
**CULVERT PROFILE (TYPICAL)**



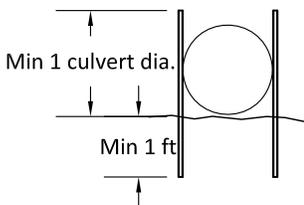
**CULVERT WITH DOWNSPOUT OPTION 1**



**CULVERT WITH DOWNSPOUT OPTION 2**

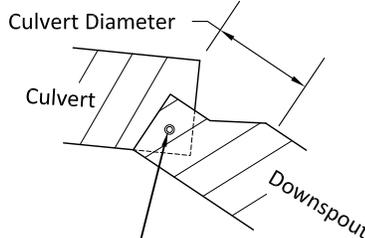


**SUPPORT STAKES**



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.

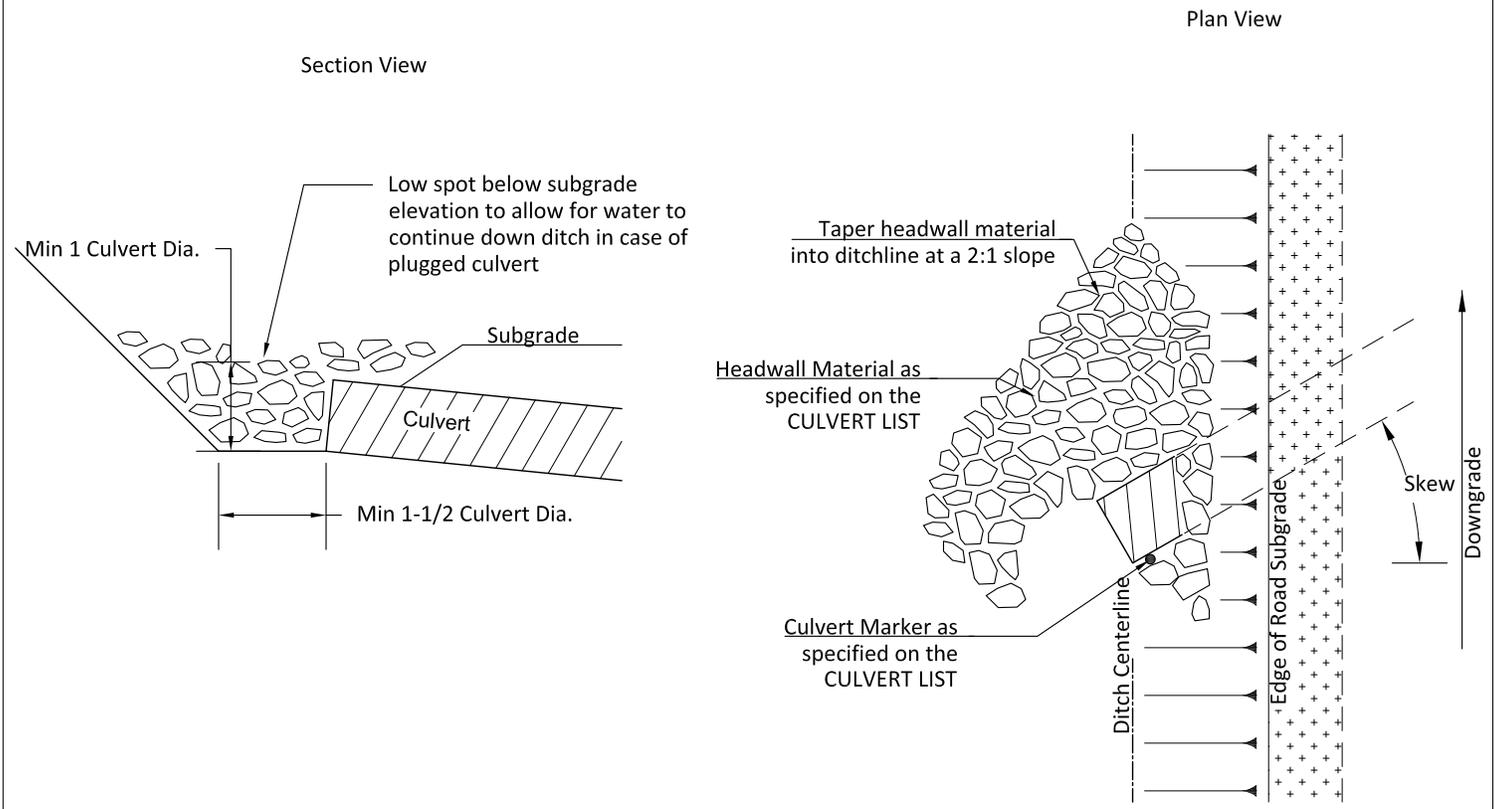
**TURNER ELBOW**



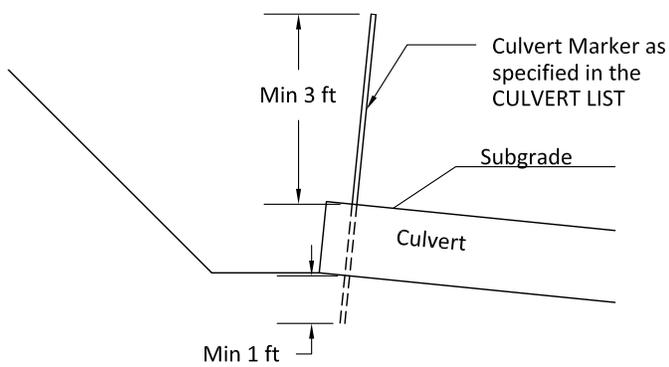
Bolted with  $\frac{5}{8}$ " galvanized bolts and washers (both sides)  
Downspout must be 6 inches larger in diameter than the culvert.

**CULVERT AND DRAINAGE SPECIFICATION DETAIL**  
**PAGE 2 OF 2**

**HEADWALLS**

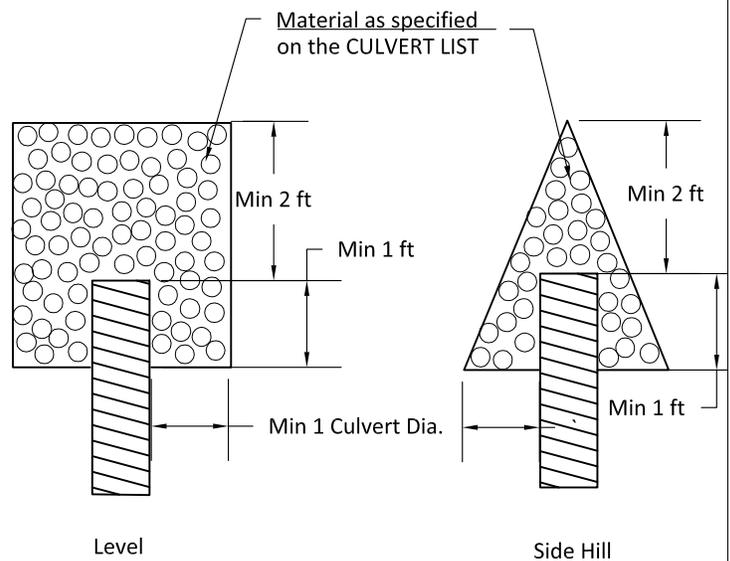


**CULVERT MARKERS**



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**



## 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

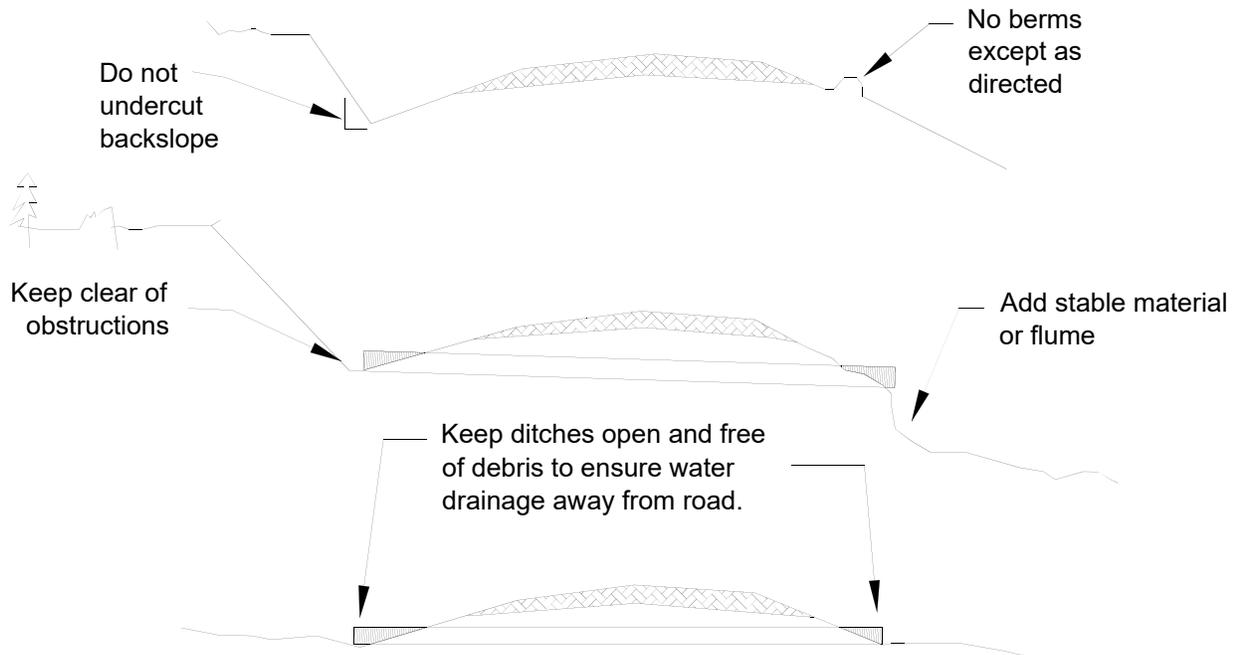
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

### 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.



## **STREAM DIVERSION PROCEDURE**

Order of work is as follows, deviations shall be approved, in writing, by the Contract Administrator.

- 1) Purchaser shall notify the Contract Administrator of intent to install or remove each live stream culvert.
- 2) Assemble the items on the Materials List onsite before proceeding.
- 3) Culvert installation/removal may not start during rain or forecast of rain.
- 4) Manage stream water according to the DEWATERING DETAIL. Stream must be diverted prior to any work below the high water line and continue until all work below the ordinary high water line has been completed.
- 5) Install/remove stream crossing structure, including installation of any energy dissipater rock and fill armor.
- 6) Backfill sumps.
- 7) Apply erosion control in accordance with Section 8 EROSION CONTROL.

### Materials List:

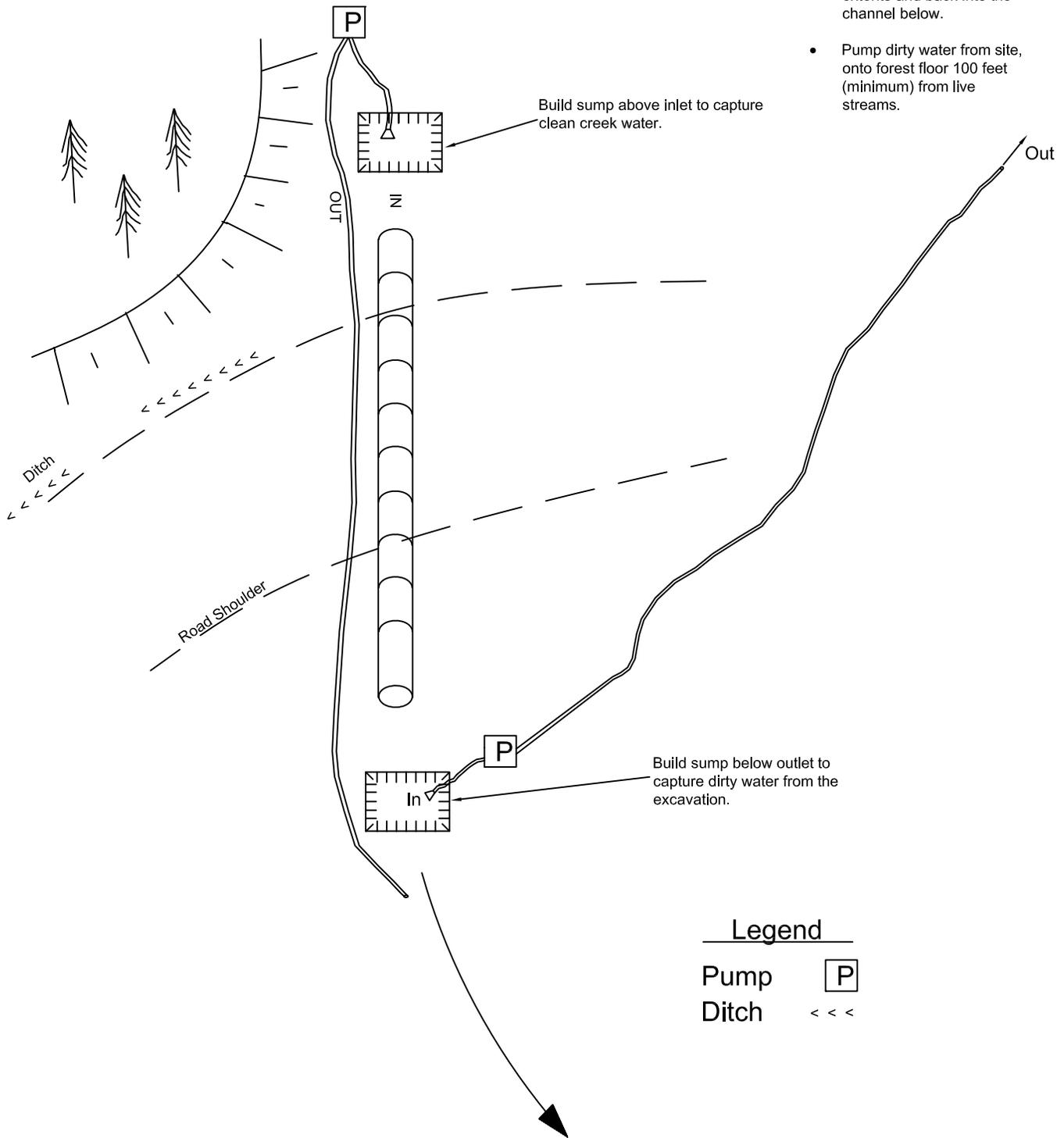
- pumps
- grass seed
- straw bales
- Culvert (Installations only)
- Fill Material (Installations only)
- Armor Rock (Installations only)
- Energy Dissipater Rock (Installations only)

# DEWATERING DETAIL

NOT TO SCALE

**Notes:**

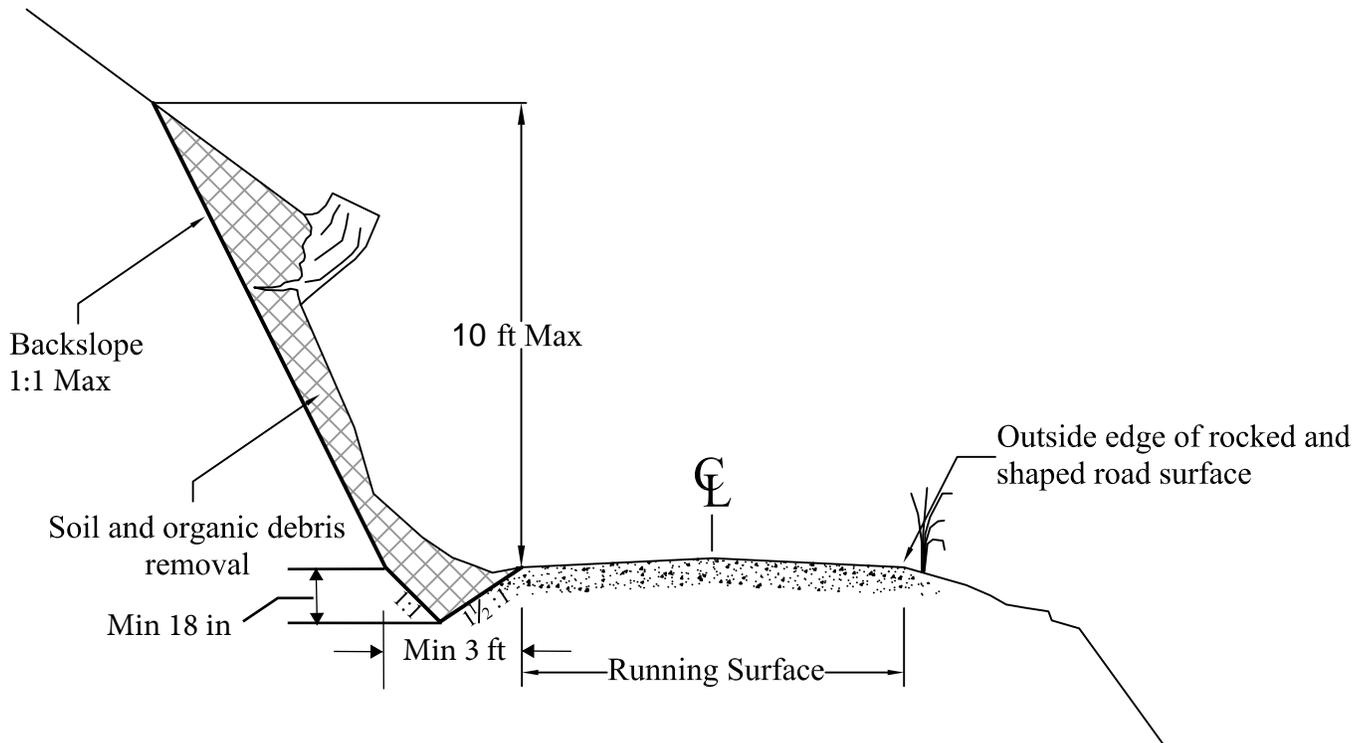
- Pump clean creek water around the excavation extents and back into the channel below.
- Pump dirty water from site, onto forest floor 100 feet (minimum) from live streams.



Legend

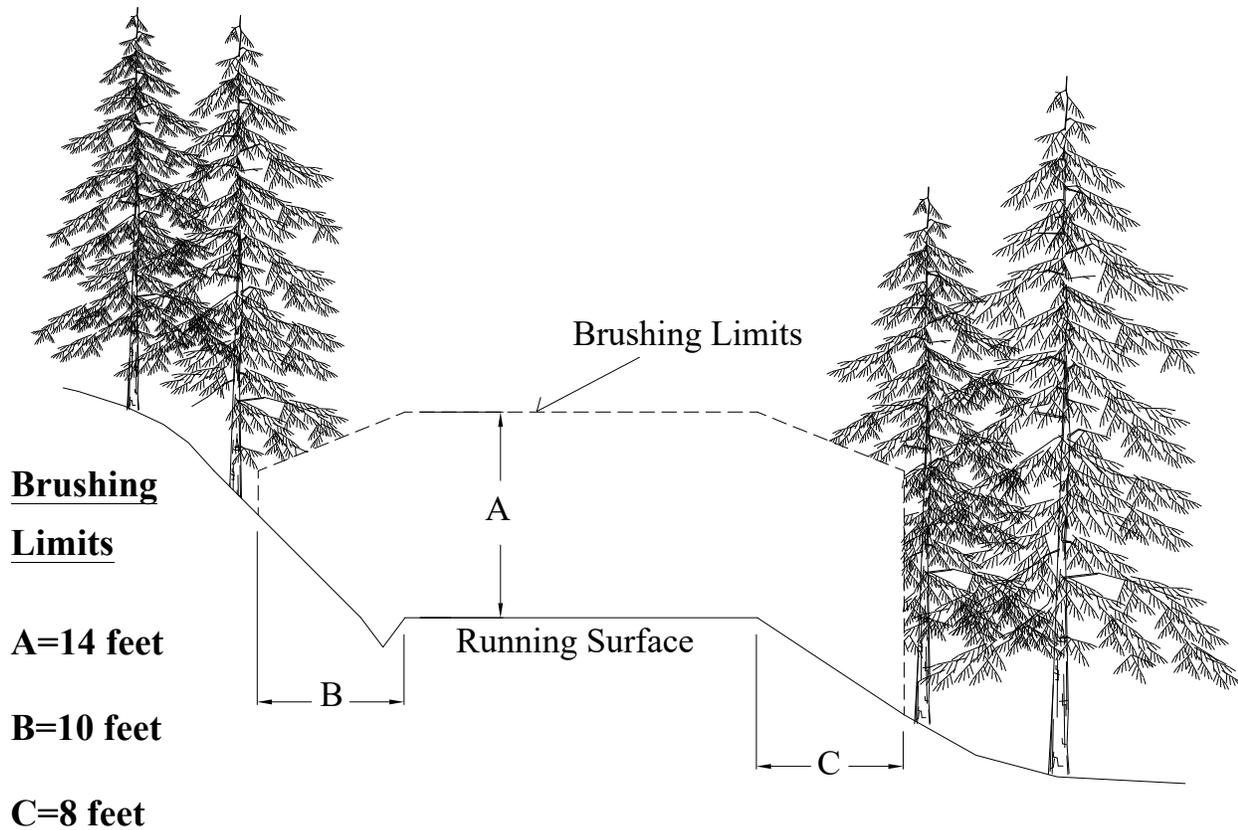
- Pump P  
 Ditch <<<

## DITCH RECONSTRUCTION DETAIL



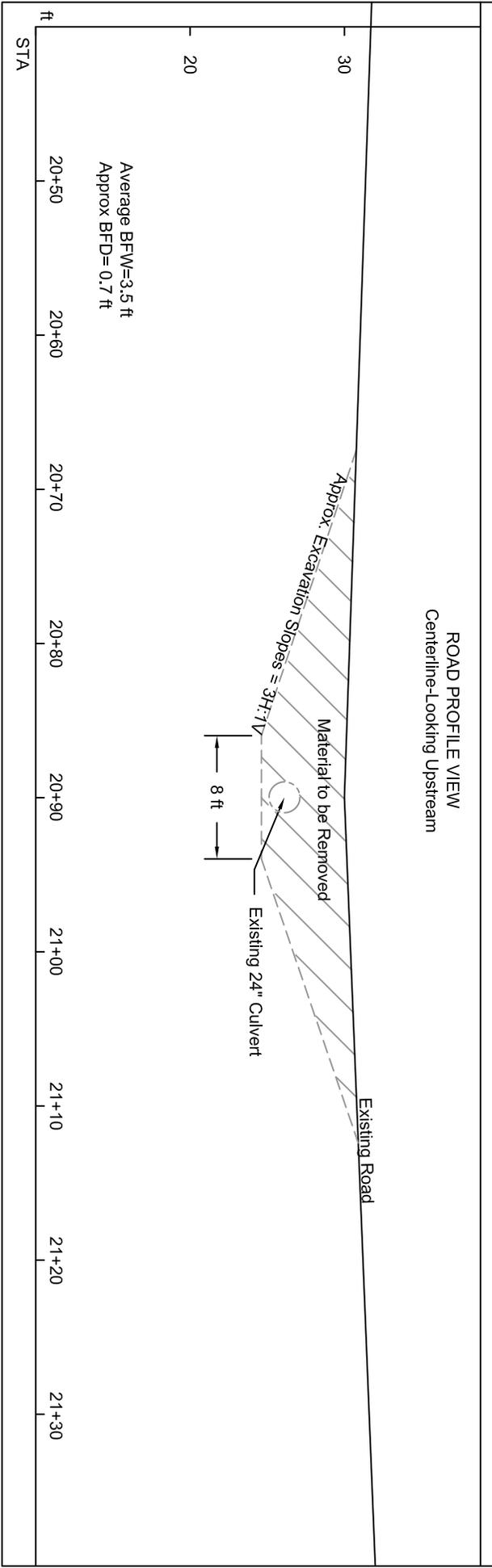
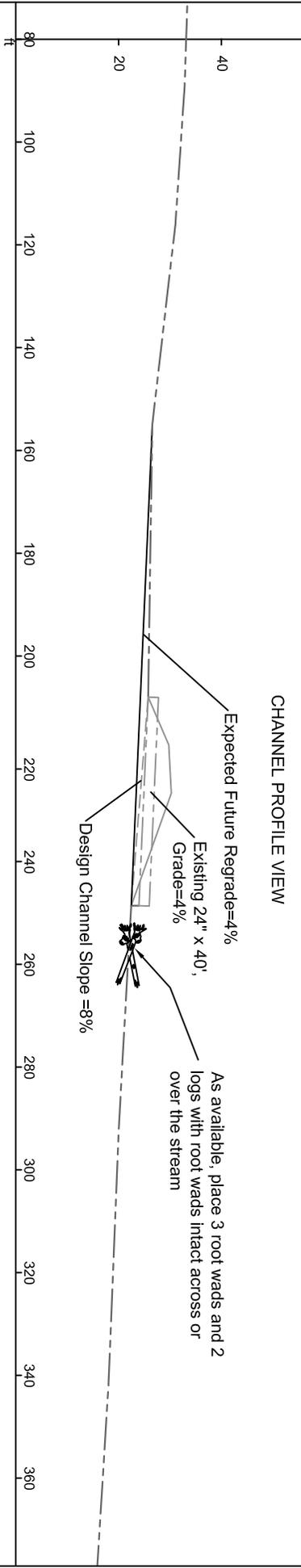
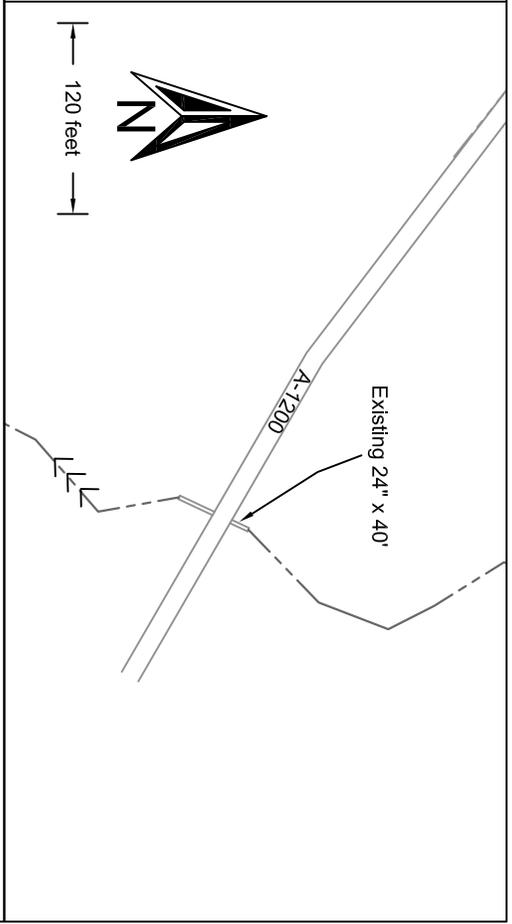
- 1) Ditch reconstruction must not shrink the running surface width of the road.
- 2) If there is insufficient width to reconstruct a ditch without disturbing more than 10 vertical feet of bank, adjust ditching dimensions in consultation with the Contract Administrator.
- 3) Around stream crossings, do not reconstruct ditches between the ditch relief culvert and the stream crossing. If there is no relief culvert, do not reconstruct ditches within 75 ft of the stream crossing.
- 4) Grass seed all reconstructed ditches and cutslopes.
- 5) Ditch reconstruction is not required on sections of road where the ditch is already deeper than 18 inches.

# ROADSIDE BRUSHING DETAIL



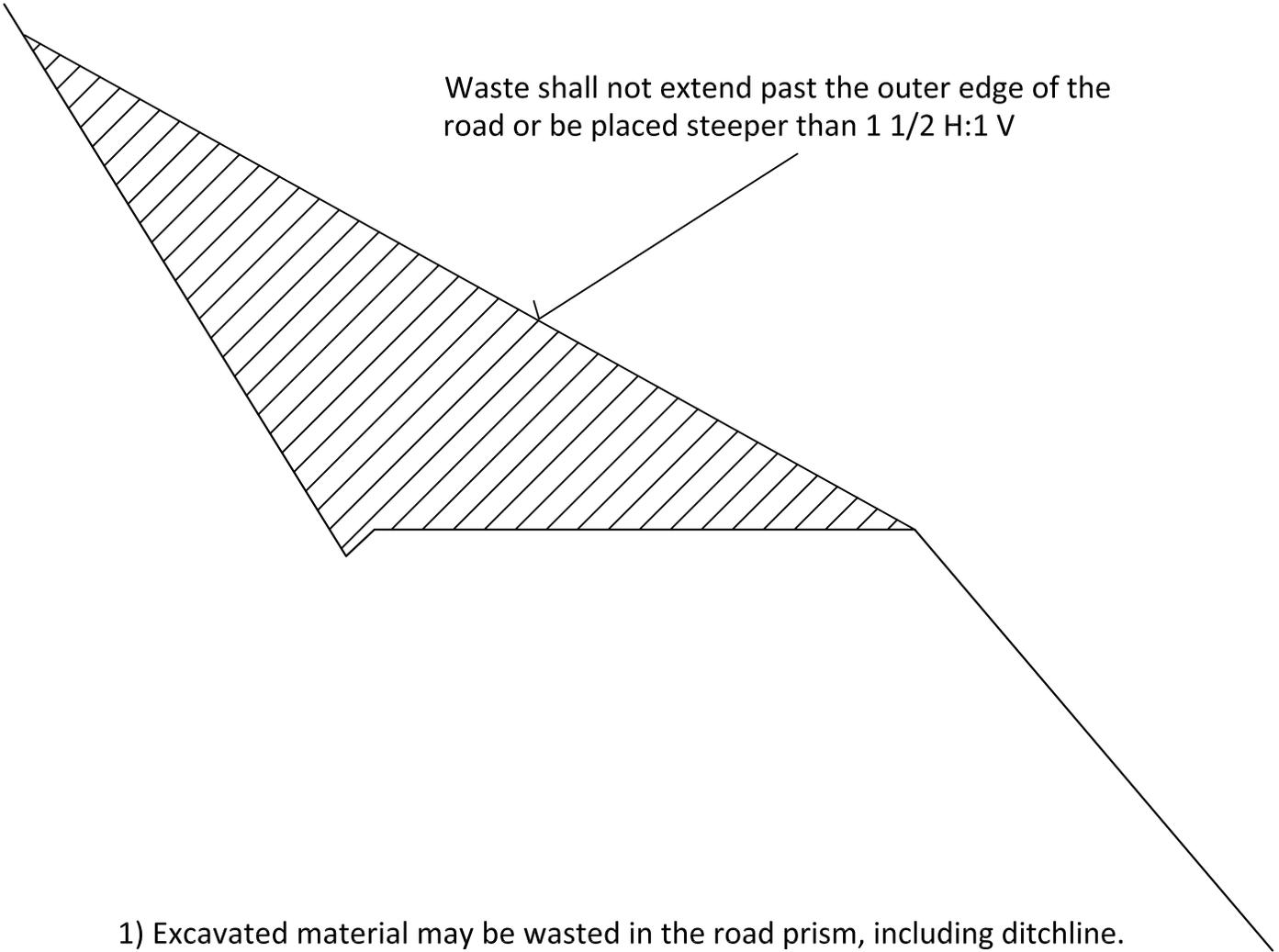
## GENERAL NOTES

- 1) Vegetative material, including limbs, up to 4 inches in diameter shall be cut within the brushing limits shown on the drawing above. This includes vegetative material growing on the running surface.
- 2) Vegetative material shall be cut as near flush with the ground as possible, but shall not extend more than 6 inches above the ground.
- 3) Brushing Limit C shall be increased to 12 feet on the inside of switchbacks and tight curves.
- 4) On truck turnouts or turnarounds, brush shall be cut 8 feet back from outside edge of running surface.



## ROAD PRISM WASTE DETAIL

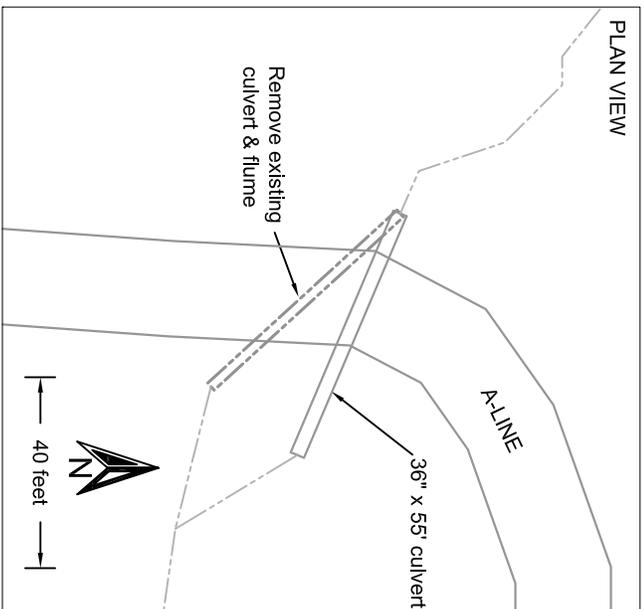
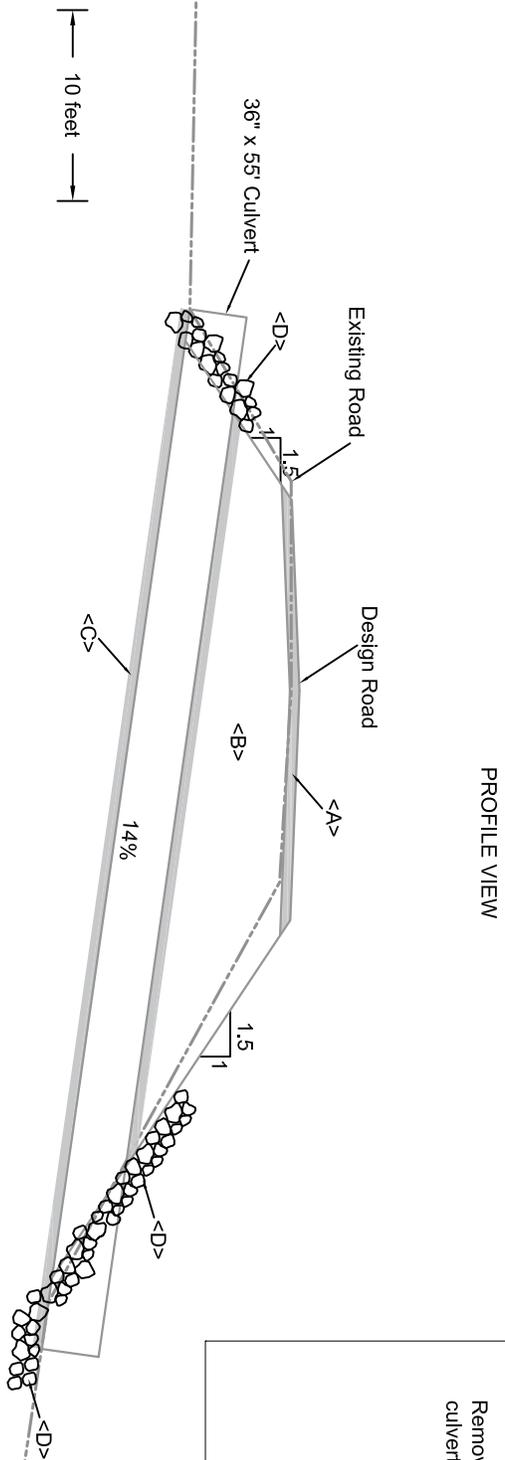
Waste shall not extend past the outer edge of the road or be placed steeper than 1 1/2 H:1 V



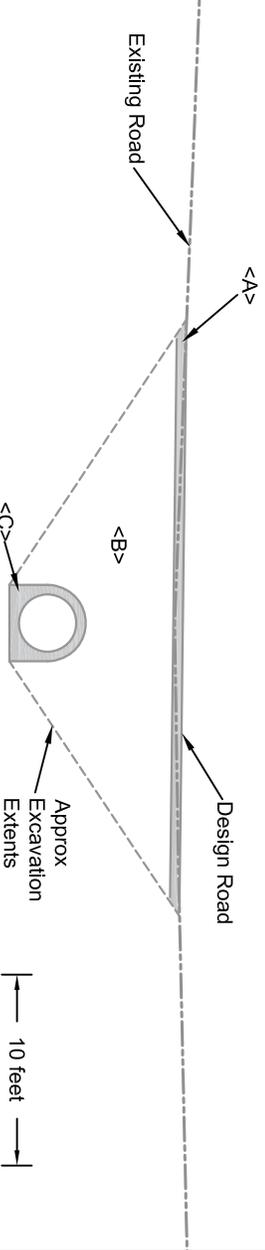
- 1) Excavated material may be wasted in the road prism, including ditchline.
- 2) Waste shall be sloped no steeper than 1 1/2 H : 1 V and placed a minimum of 10 feet from the edge of excavation limits.
- 3) Waste material shall not impede the natural drainage of water.
- 4) Waste shall be placed in 2 foot lifts and compacted by routing tracked excavation equipment over it.
- 5) A water bar shall be constructed immediately above the waste area.
- 6) Woody debris shall not be buried in waste areas. Available woody debris shall be scattered across the top of the waste area.

# 90+20 STREAM CROSSING DETAIL

- <A> 3 Inch Minus Crushed Rock applied to a minimum compacted of depth of 6 inches.
- <B> Select Pit Run fill.
- <C> 3 Inch Minus Crushed Rock applied to a loose depth of 6 inches below the culvert, and a compacted thickness of 6 inches along the sides and top.
- <D> Light Loose Riprap armoring and energy dissipater

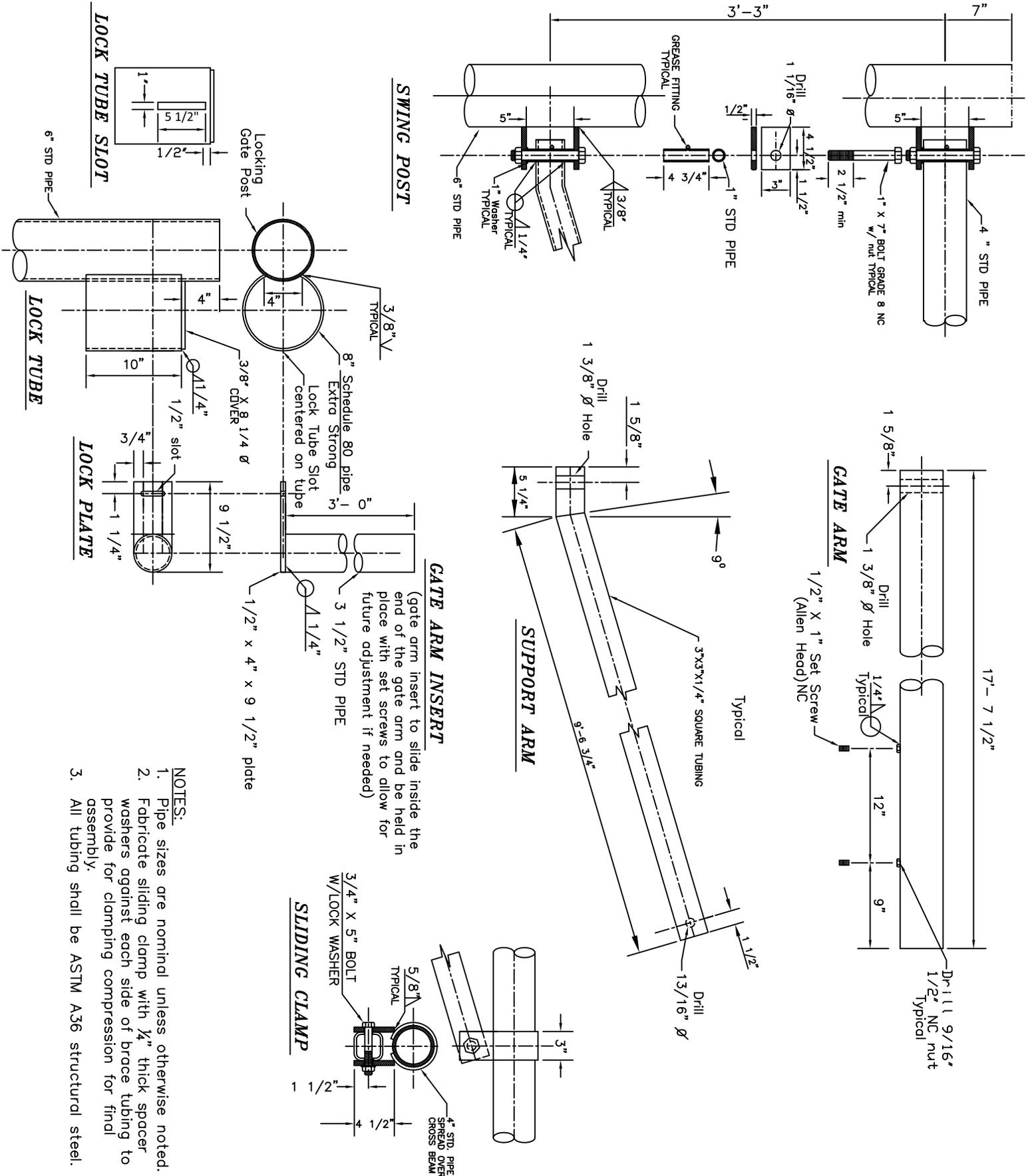


CROSS SECTION VIEW



# GATE DETAIL

Page 1 of 2  
Not to Scale

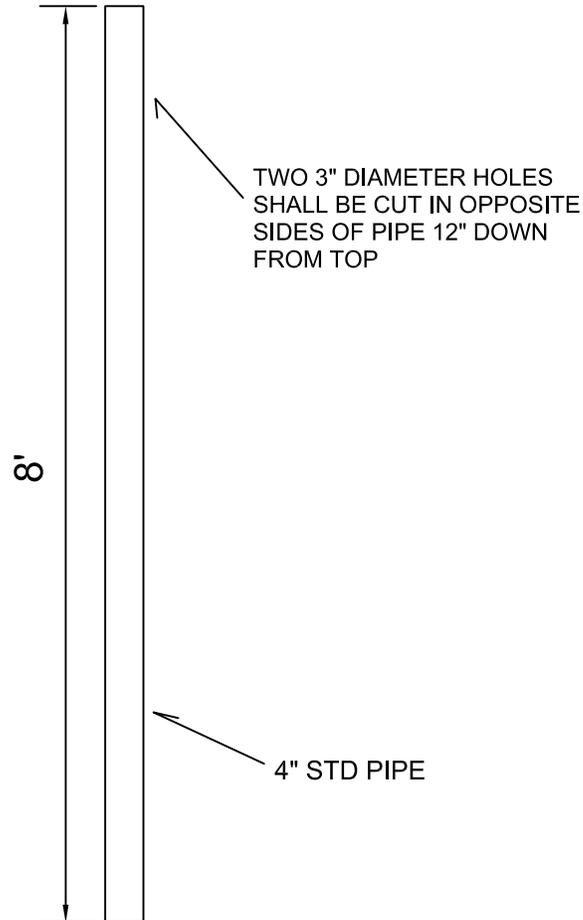


- NOTES:**
1. Pipe sizes are nominal unless otherwise noted.
  2. Fabricate sliding clamp with 1/4" thick spacer washers against each side of brace tubing to provide for clamping compression for final assembly.
  3. All tubing shall be ASTM A36 structural steel.

# GATE DETAIL

Page 2 of 2

Not to Scale



LOCK OPEN POST

## NOTES:

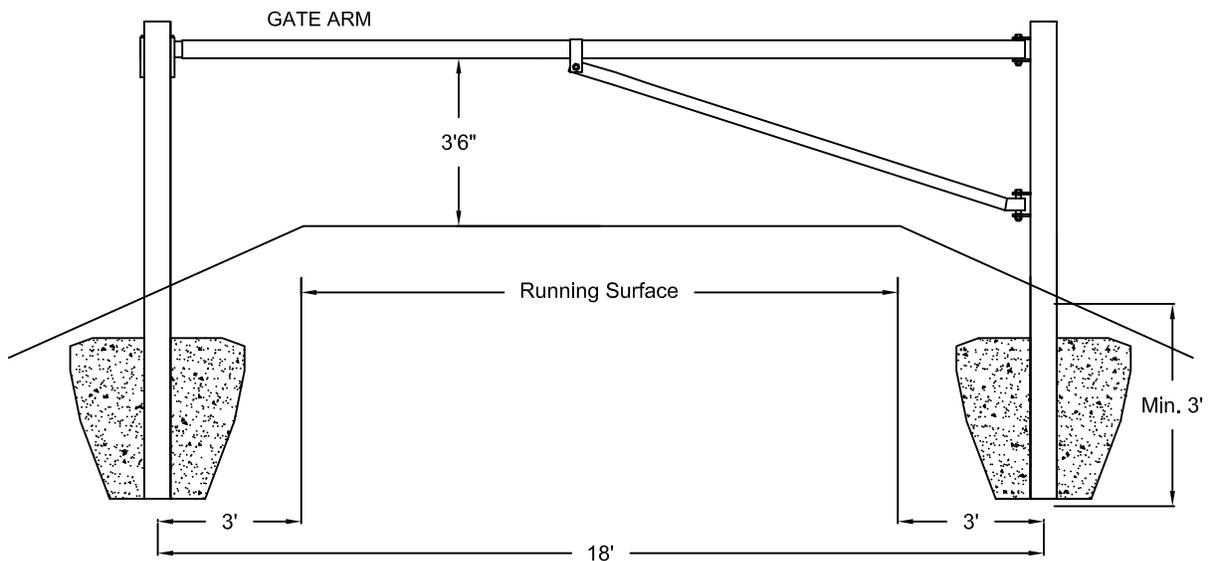
1. After fabrication, all gate components including lock open posts shall be sanded to remove all rust, scale and oily substances and painted .
2. Primer shall be Sherwin Williams Pro Industrial Pro-cryl Universal Primer or an equivalent approved by the Contract Administrator.
3. Top coat shall be Safety Yellow in color and be Sherwin Williams Pro Industrial Acrylic or an equivalent approved by the Contact Administrator.
4. Plans available in larger format upon request to the Contract Administrator.

# GATE INSTALLATION DETAIL

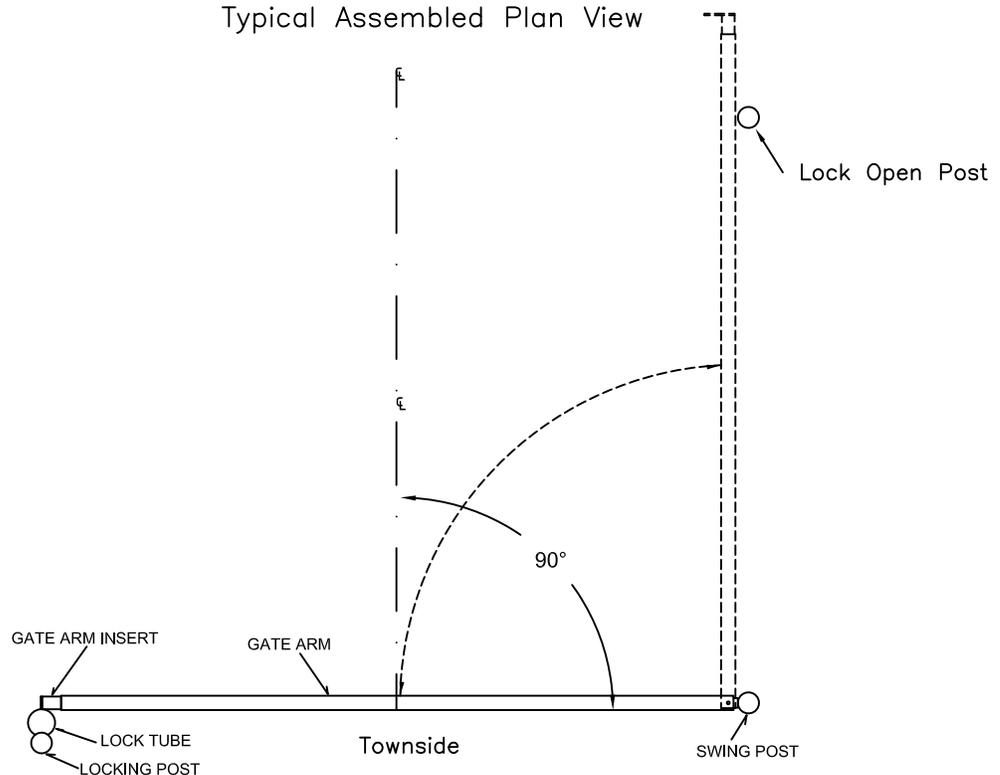
Not to Scale

- 1) Gate shall be installed perpendicular to the road.
- 2) Gate posts shall be installed plumb and at the same elevation.
- 3) Posts, including lock open post, shall be set in at least 1.5 cubic yards of concrete.
- 4) All posts, including lock open post, shall be filled with concrete.
- 5) Reflectors shall be mounted to gate.
- 6) At the B-Line gate, a minimum of three 2' x 2' x 5' concrete ecology blocks, with lifting lugs removed, shall be placed to prevent vehicles from driving around gate. If Purchaser wishes to use an alternate plan for blocking access around the gate, a detailed plan must be submitted to the Contract Administrator. Purchaser shall obtain written approval for the plan from the Contract Administrator before installation.
- 7) Site Specific gate installation requirements shall be as directed by the Contract Administrator.

Typical Assembled Profile View



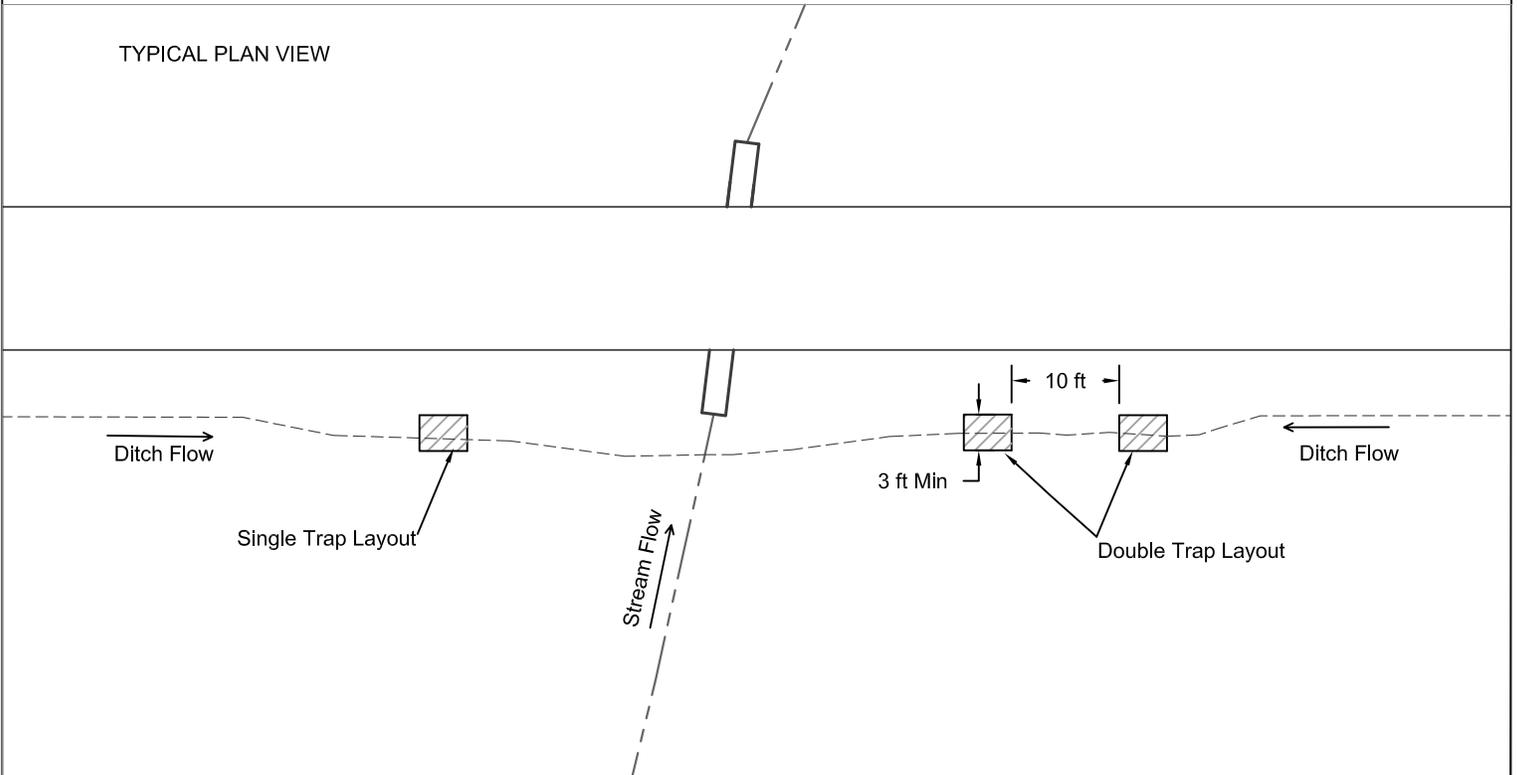
Typical Assembled Plan View



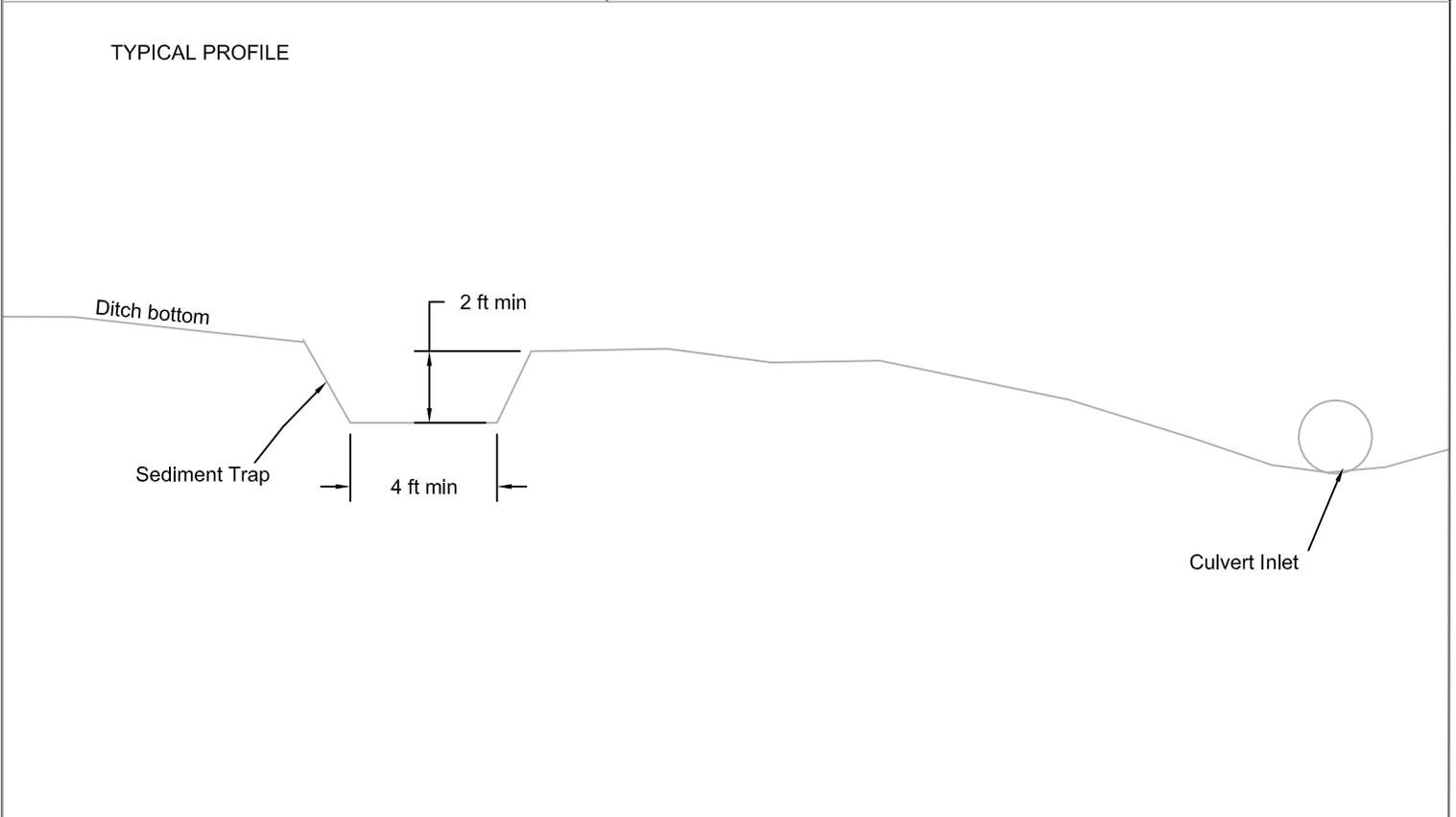
# SEDIMENT TRAP DETAIL

No Scale

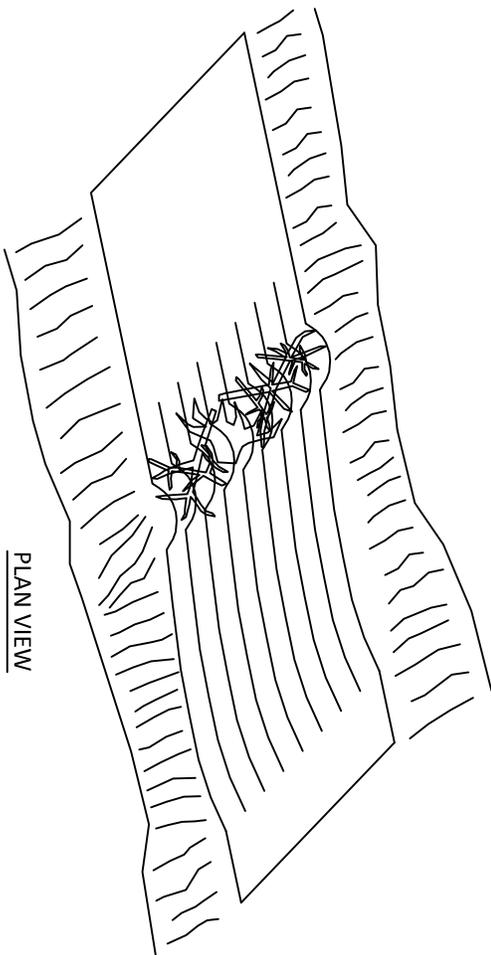
## TYPICAL PLAN VIEW



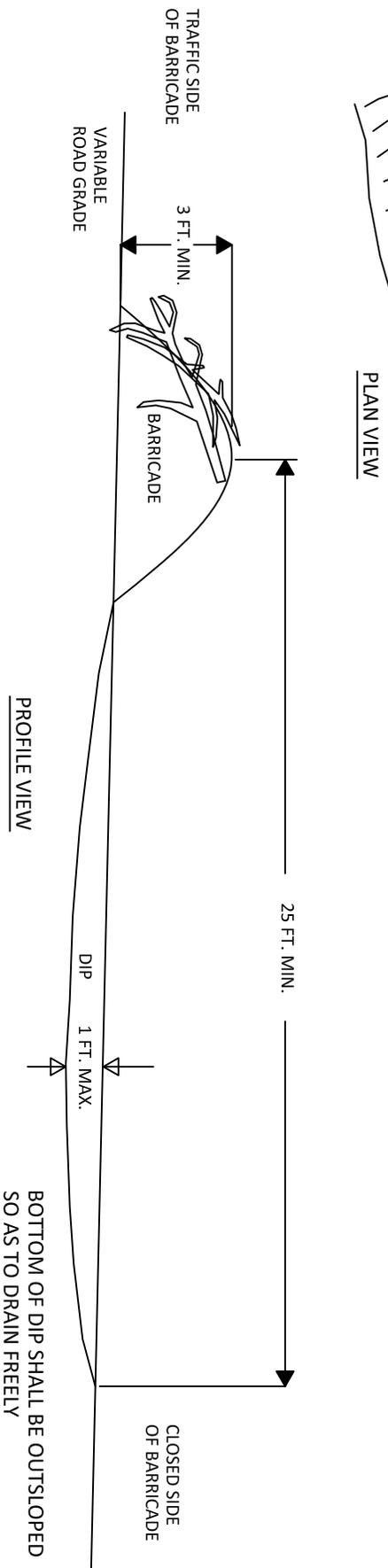
## TYPICAL PROFILE



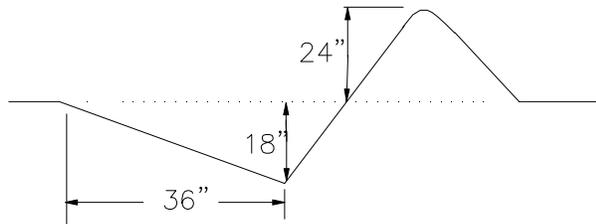
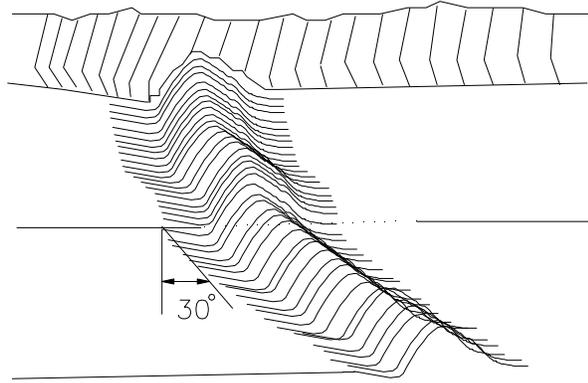
# EARTHEN BARRICADE DETAIL



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



# NON-DRIVABLE WATER BAR DETAIL



## **BROWNING BOOT QUARRY DEVELOPMENT PLAN**

NW¼ SE ¼ Sec 18 T13N R8W W.M.

(Page 1 of 3)

1. All operations must 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 must be in the area shown. Development in any other area must be approved in writing by the Contract Administrator.
3. No trees greater than 6 inches DBH may be removed without written approval by the Contract Administrator.
4. Construct ditch and rock berm as shown.
5. All vegetation including stumps must be cleared a minimum of 15 feet beyond the top of all working faces. Purchaser must maintain a minimum of 10 foot wide stripped area from the pit face at all times.
6. Overburden must be end hauled or pushed to the designated waste areas and compacted in accordance with the COMPACTION LIST.
7. The Purchaser must submit an informational drilling and shooting plan 3 business days prior to any drilling.
8. Drilling and rock extraction may begin when the Contract Administrator has approved the clearing and grubbing, overburden removal, and informational drilling and shooting plan.
9. Upon request by the Contract Administrator, the Purchaser will submit an informational drilling and shooting report after blasting has occurred.
10. Oversize material remaining in the pit at the conclusion of use must not exceed 5 percent of the total volume mined during that operation. Oversize material is defined as rock fragments larger than two feet in any direction. At the conclusion of operations, all remaining oversize material must be located as directed by the Contract Administrator.
11. Pit faces must not exceed 20 feet in height and must be sloped no steeper than ¼:1.
12. Working bench width must be a minimum of 15 feet.

## **BROWNING BOOT QUARRY DEVELOPMENT PLAN**

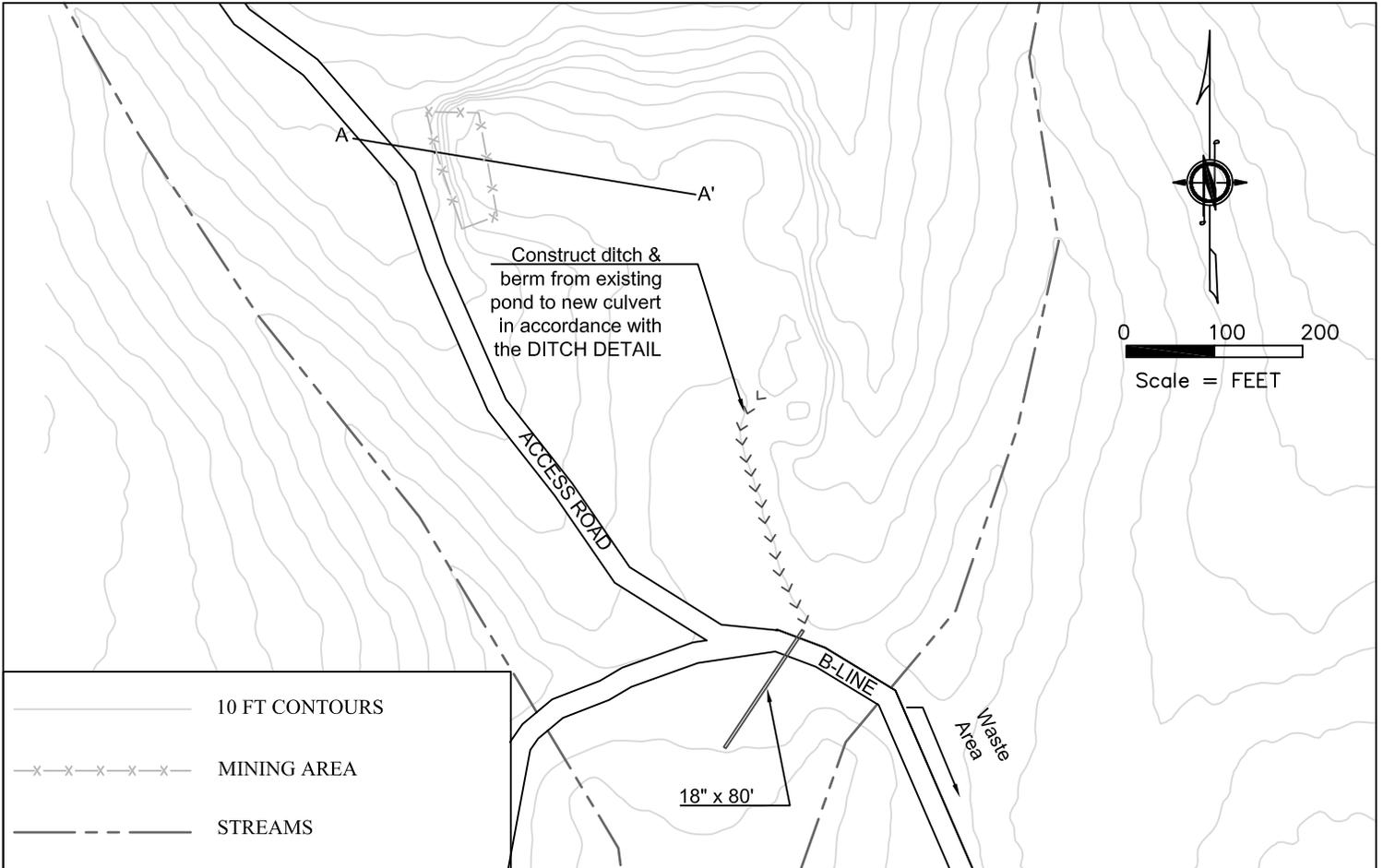
NW¼ SE ¼ Sec 18 T13N R8W W.M.

(Page 2 of 3)

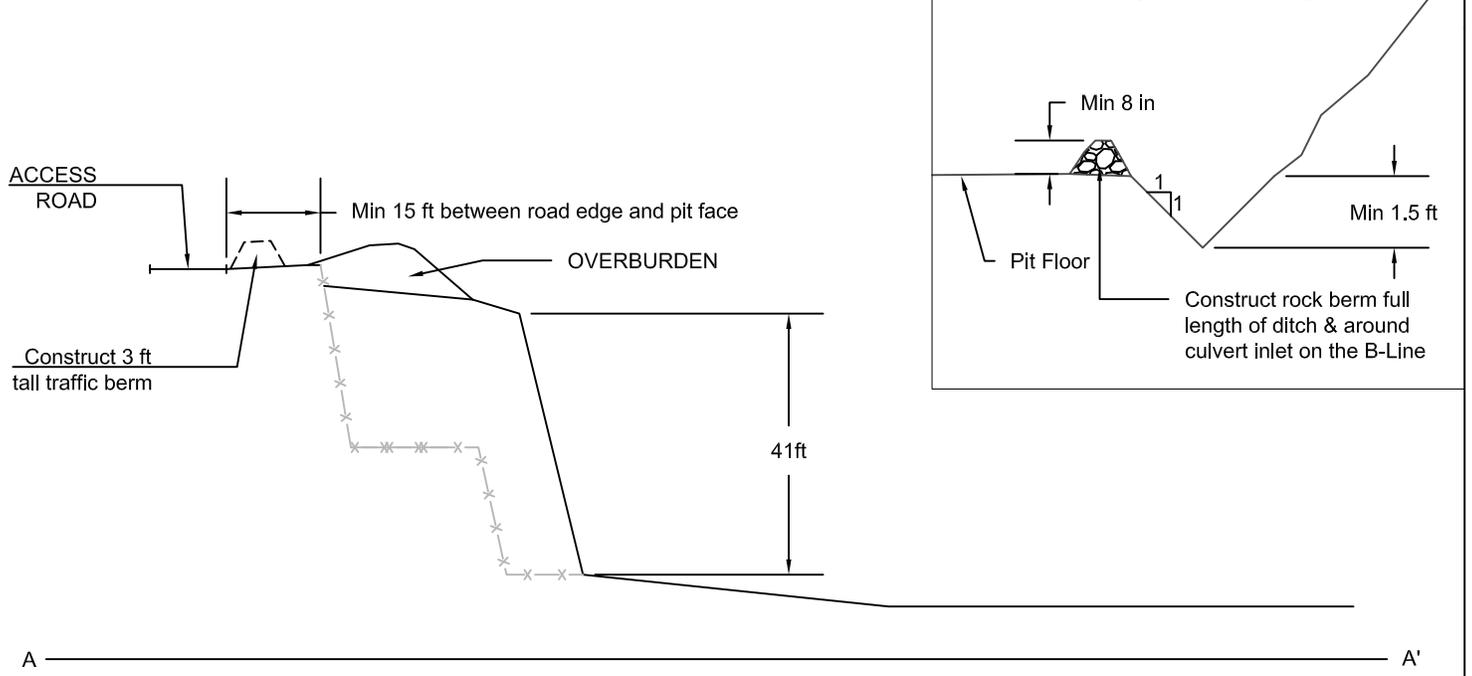
12. Upon completion of pit operations:
  - a A minimum 3 ft tall traffic berm must be constructed above the working face.
  - b Non-drivable waterbars must be constructed on the Access Road according to the NON-DRIVABLE WATERBAR DETAIL at a maximum spacing of 50 ft.
  - c The pit floor must be left in a smooth and neat condition that provides drainage at a minimum of 2 percent.
  - d All exposed soil on the access road and in the waste area must be grass seeded in accordance with Road Plan Clauses 8-15 REVEGETATION and 8-25 GRASS SEED.
  - e Pit faces and walls must be scaled and cleared of loose and overhanging material and benches must have safety berms constructed or access blocked to highway vehicles.
  - f The area will be left in a condition that will not endanger public safety, damage property, or be hazardous to human life. The site must be cleared of all temporary structures, equipment and rubbish, and must be left in a neat and presentable condition.
  - g Purchaser must ask Contract Administrator for written approval of final rock source condition and compliance with the terms of this plan.

**BROWNING BOOT QUARRY  
ROCK SOURCE DEVELOPMENT PLAN  
NW 1/4 SE 1/4 SEC 18 T13N R08W W.M.**

Page 3 of 3



**TYPICAL CROSS SECTION PROFILE**



Cummings  
05/13/19

## SUMMARY - Road Development Costs

REGION: Pacific Cascade

DISTRICT: St. Helens

SALE/PROJECT NAME: Ewok

AGREEMENT #: 30-087396

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ROAD NUMBERS:	Optional: A-1200, A-1200 Ext		
	Required: A-Line, A-700, B-Line, Mallis M-Line		
ROAD STANDARD:	Construction	Reconstruction	Maintenance
NUMBER OF STATIONS:	7.19	50.05	248.67
CLEARING & GRUBBING, EXCAVATION AND FILL, MISC.:	\$3,551.75	\$14,988.43	\$10,817.36
ROAD ROCK:			
	Optional:	\$1,406.08	\$0.00
	Required:	\$5,050.08	\$11,167.09
	Total:	\$6,456.16	\$11,167.09
STOCKPILE:	-	-	\$0.00
CULVERTS AND FLUMES:	\$0.00	\$4,555.60	\$12,185.15
STRUCTURES:	-	-	\$13,663.04
MOBILIZATION:	\$495.84	\$2,092.45	\$1,510.15
TOTAL COSTS:	\$10,503.75	\$32,803.57	\$54,369.26
COST PER STATION:	\$1,461	\$655	\$219
ROAD DEACTIVATION & ABANDONMENT COSTS:	\$194.39		\$7,145
	<b>10% OVERHEAD AND GENERAL EXPENSE =</b>		<b>\$9,767.66</b>
	<b>TOTAL (All Roads) =</b>		<b>\$114,783.63</b>
	<b>TOTAL (Minus Optional Rock) =</b>		<b>\$113,377.55</b>
	<b>SALE VOLUME MBF =</b>		<b>2,488</b>
	<b>TOTAL \$/MBF =</b>		<b>\$46.13</b>
	<b>TOTAL \$/MBF (Minus Optional Rock) =</b>		<b>\$45.57</b>

Profit and Risk costs are accounted on an individual basis.

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## SUMMARY OF ROAD

Sale:	<b>Ewok</b>		Road:	<b>A-Line</b>	
Required Pre-Haul Maintenance-	136+77 <hr style="width: 50%; margin: 0 auto;"/> 2.59	stations miles	Required Reconstruction -	24+75 <hr style="width: 50%; margin: 0 auto;"/> 0.47	stations miles
Required Abandonment-	0.00	stations miles	Optional Reconstruction -	0.00	stations miles
			Required Construction -	0.00	stations miles
			Optional Construction -	0.00	stations miles

### PRE-HAUL MAINTENANCE

<b>EXCAVATION</b>					
Remove culverts from state lands -	2.00	@	\$252.80	total	\$252.80
Fill roadway @ area of 90+20 & 132+90 -	20.00	hours @	\$204.00	per hour	\$4,080.00
<b>MISC.</b>					
Grade and shape existing road surface -	136.77	stations @	\$13.75	per station	\$1,880.59
Maintain Gate	1.00	@	\$172.00	each	\$172.00
Clean culverts	3.00	@	\$64.00	each	\$192.00
			<b>TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.</b>		<b>\$6,577.39</b>

### RECONSTRUCTION

<b>CLEARING/GRUBBING</b>					
Scattering Organic Debris	24.75	sta @	\$57.50	per sta	\$1,423.13
<b>EXCAVATION</b>					
Widening/Full Bench	600	cy. @	\$2.00	per c.y.=	\$1,200.00
<b>MISC.</b>					
Grade and shape existing road surface -	24.75	stations @	\$13.75	per station	\$340.31
Grass seed and fertilize -	22.80	lbs @	\$2.80	per lbs	\$63.84
<b>ENDHAUL</b>					
Pull and clean ditch-	300	cy. @	\$2.47	per c.y.	\$741.00
			<b>TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.</b>		<b>\$3,768.28</b>

### CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>					
	130	LF of 18"	\$2,917.20		45 LF of 24" \$1,284.30
	0	LF of 30"	\$0.00		55 LF of 36" \$2,558.05
<u>Culvert Stakes &amp; Markers</u>					
	6	markers	\$48.00		
				<b>TOTAL CULVERTS</b>	<b>\$6,759.55</b>

### ROCK

Culvert Backfill	0+00	90 cy. of	Crushed	@	\$5.50 per c.y.= \$495.00
90+20 Bedding	0+00	20 cy. of	Crushed	@	\$23.63 per c.y.= \$472.60
Spot Rock	0+00	100 cy. of	Crushed	@	\$18.63 per c.y.= \$1,863.00
90+20 Surfacing	0+00	20 cy. of	Crushed	@	\$18.63 per c.y.= \$372.60
Energy Dissipator	0+00	10 cy. of	Riprap	@	\$30.63 per c.y.= \$306.30
12+50 to	174+02	250 cy. of	Ballast	@	\$9.68 per c.y.= \$2,420.00
Energy Dissipator	0+00	4 cy. of	Pit-Run	@	\$14.68 per c.y.= \$58.72
Backfill	0+00	390 cy. of	Pit-Run	@	\$9.68 per c.y.= \$3,775.20
Post-Haul Rock	0+00	40 cy. of	Crushed	@	\$18.63 per c.y.= \$745.20
					<b>TOTAL ROCK</b>
					<b>\$10,508.62</b>

### ADDITIONAL REQUIREMENTS

Stream diversion installation-	4.00	hrs @	\$204.00	per hr	\$816.00
Stream pumping	2.00	days @	\$164.00	per day	\$328.00
			<b>TOTAL ADDITIONAL REQUIREMENTS</b>		<b>\$1,144.00</b>

SUBTOTAL **\$28,757.84**

**TOTAL \$28,757.84**

Optional Rock? NO

**COST PER STATION \$178.05**



## SUMMARY OF ROAD

Sale: Ewok

Road: A-1200

Optional Pre-Haul Maintenance-	19+60 <hr/> 0.37	stations miles
Required Abandonment-	22+30 <hr/> 1800.00	stations miles

Required Reconstruction -	 0.00	stations miles
Optional Reconstruction -	2+70 <hr/> 0.05	stations miles

Required Construction -	 	stations miles
Optional Construction -	 0.00	stations miles

### PRE-HAUL MAINTENANCE

#### EXCAVATION

Construct settling ponds at stations 7+90 and 8+90 -	2.00	@	\$43.00	each	\$86.00	
Pull and clean ditch-	7.30	stations @	\$53.75	per station	\$392.38	
				TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.		<b>\$478.38</b>

### RECONSTRUCTION

#### CLEARING/GRUBBING

Scattering Organic Debris	2.70	sta @	\$115.00	per sta	\$310.50	
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#### EXCAVATION

Pull and clean ditch-	2.70	stations @	\$53.75	per station	\$145.13	
Grade and shape subgrade -	2.70	stations @	\$11.00	per station	\$29.70	

#### MISC.

Roll subgrade w/ vibratory roller prior to rocking -	2.70	stations @	\$9.09	per station	\$24.54	
Grass seed and fertilize -	2.40	lbs @	\$2.80	per lbs	\$6.72	
				TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.		<b>\$516.59</b>

### ROCK

7+90 to 8+90	30	cy. of	Crushed	@	\$3.62	per c.y.=	\$108.60	
Spot Rock 0+00	20	cy. of	Crushed	@	\$3.62	per c.y.=	\$72.40	
19+60 to 22+30	81	cy. of	Crushed	@	\$4.03	per c.y.=	\$326.43	
						TOTAL ROCK		<b>\$507.43</b>

### ABANDONMENT

Construct waterbar -	23.00	@	\$57.33	each	\$1,318.59	
Construct Spoil Berm -	1.00	@	\$172.00	each	\$172.00	
Remove Fill	16.00	hrs @	\$230.00	per hr	\$3,680.00	
Grass seed and fertilize -	82.00	lbs @	\$2.80	per lbs	\$229.60	
Mulching -	36.00	bales @	\$9.67	per bale	\$348.12	
Remove culverts from state lands -	3.00	@	\$252.80	total	\$252.80	
Stream diversion installation-	4.00	hrs @	\$204.00	per hr	\$816.00	
Stream pumping	2.00	days @	\$164.00	per day	\$328.00	
				TOTAL ADDITIONAL REQUIREMENTS		<b>\$7,145.11</b>

SUBTOTAL **\$8,647.51**

Optional Rock?

**TOTAL \$8,647.51**

**COST PER STATION \$387.78**



## SUMMARY OF ROAD

Sale:	<b>Ewok</b>		Road:	<b>B-Line</b>	
Required Pre-Haul Maintenance-	11+30 <hr style="width: 100%;"/> 0.21	stations miles	Required Reconstruction -	0.00 <hr style="width: 100%;"/> 0.00	stations miles
Required Abandonment-	0.00 <hr style="width: 100%;"/> 0.00	stations miles	Optional Reconstruction -	0.00 <hr style="width: 100%;"/> 0.00	stations miles
			Required Construction -	0.00 <hr style="width: 100%;"/> 0.00	stations miles
			Optional Construction -	0.00 <hr style="width: 100%;"/> 0.00	stations miles

### PRE-HAUL MAINTENANCE

<b>MISC.</b> Grade and shape existing road surface -	11.30	stations @	\$13.75	per station	\$155.38	
					\$155.38	<b>\$155.38</b>
						TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.

### CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>	110	LF of 18"	\$2,468.40		0	LF of 24"	\$0.00	
<u>Culvert Stakes &amp; Markers</u>								
2 markers			\$16.00					
			\$16.00					
							TOTAL CULVERTS	<b>\$2,484.40</b>

### ROCK

Energy Dissipator	0+00	2	cy. of	Pit-Run	@	\$12.07	per c.y.=	\$24.14	
Rock Berm	0+00	120	cy. of	Pit-Run	@	\$12.07	per c.y.=	\$1,448.40	
								TOTAL ROCK	<b>\$1,472.54</b>

### ADDITIONAL REQUIREMENTS

Purchase gate -	1.00	@	\$5,000.00	each	\$5,000.00	
Install gate-	5.00	hrs @	\$236.00	per hr	\$1,180.00	
Construct ditch in pit-	1.40	stations @	\$86.00	per station	\$120.40	
Construct waterbars on Pit Access Rd -	8.00	@	\$57.33	each	\$458.64	
Grass seed and fertilize -	15.00	lbs @	\$2.80	per lbs	\$42.00	
					TOTAL ADDITIONAL REQUIREMENTS	<b>\$6,801.04</b>

SUBTOTAL **\$10,913.36**

Optional Rock?	NO								
								<b>TOTAL</b>	<b>\$10,913.36</b>
								<b>COST PER STATION</b>	<b>\$965.78</b>

## SUMMARY OF ROAD

Sale: Ewok

Road: Mallis M-Line

Required  
Pre-Haul Maintenance- 81+00 stations  
1.53 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 1.53 miles @ \$855.00 per mile = \$1,308.15

#### EXCAVATION

Construct settling ponds at stations 22+12 and 50+44 -	0.00	@	\$43.00	each	\$0.00
Construct ditchouts -	0.00	@	\$57.33	each	\$0.00
Pull and clean ditch-	0.75	stations @	\$53.75	per station	\$40.31
Remove outside berm	0	cy. @	\$2.00	per c.y.	\$0.00
Remove culverts from state lands -	0.00	@	\$0.00	total	\$0.00

#### MISC.

Grade and shape existing road surface -	81.00	stations @	\$13.75	per station	\$1,113.75
Roll shaped road surface w/ vibratory roller prior to rocking -	0.00	stations @	\$7.27	per station	\$0.00
Construct/Install rubber water diverter -	0.00	@	\$360.00	each	\$0.00
Re-shape dented culvert inlet -	0.00	@	\$32.00	each	\$0.00

#### ENDHAUL

Pull and clean ditch-	0	cy. @	\$2.52	per c.y.	\$0.00
Remove outside berm	0	cy. @	\$1.29	per c.y.	\$0.00

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.

**\$2,462.21**

### CULVERTS - MATERIALS & INSTALLATION

#### Culverts

90 LF of 18"	\$2,019.60		0 LF of 24"		\$0.00
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#### Culvert Stakes & Markers

2 markers	\$16.00
	\$16.00

TOTAL CULVERTS

**\$2,035.60**

### ROCK

Spot Rock	0+00	100	cy. of	Crushed	@	\$18.63	per c.y.=	\$1,863.00
Energy Dissipator	0+00	2	cy. of	Pit-Run	@	\$19.20	per c.y.=	\$38.40
Backfill	0+00	150	cy. of	Pit-Run	@	\$14.20	per c.y.=	\$2,130.00

TOTAL ROCK

**\$4,031.40**

### ADDITIONAL REQUIREMENTS

Remove gate	6.00	hrs @	\$204.00	per hr	\$1,224.00
Purchase gate	1.00	@	\$2,500.00	each	\$2,500.00
Install gate	8.00	hrs @	\$205.00	per hr	\$1,640.00
Purchase concrete blocks	4.00	@	\$40.00	each	\$160.00
Block gate	3.00	hrs @	\$310.00	per hr	\$930.00
Remove culvert -	1.00	@	\$408.00	each	\$408.00

TOTAL ADDITIONAL REQUIREMENTS

**\$6,862.00**

SUBTOTAL

**\$15,391.21**

**TOTAL**

**\$15,391.21**

Optional Rock? NO

**COST PER STATION**

**\$190.01**

## ROCK DEVELOPMENT COST SUMMARY

Pit:	<u>Browning Boot Quarry</u>	Location:	<u>NW 1/4 SE 1/4 S18 T13N R8W</u>
Sale:	<u><b>Ewok</b></u>	Road:	<u>2694 c.y.</u>
Swell:	<u>1.40</u>	Stockpile:	<u>c.y.</u>
Shrinkage	<u>1.16</u>	Total Truck Loads:	<u>2694 c.y.</u>
Drill Pct.:	<u>80%</u>	In Place Total:	<u>1924 c.y.</u>

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden

in Waste Area, spread and compact.	\$4.60	/cu.yd x	500 cu.yds.		\$2,300.00
Drill & Shoot:	\$3.00	/cu.yd x	1539 cu.yds.		\$4,617.00
Rip Rock:	\$2.50	/cu.yd x	385 cu.yds.		\$962.50
Push Rock:	\$0.67	/cu.yd x	2694 cu.yds.		\$1,804.98
Load Dump Truck:	\$0.56	/cu.yd x	2694 cu.yds.		\$1,508.64
			Subtotal		\$11,193.12

Move In and set up Drill and Compressor	1	@	\$328.89	=	\$328.89
Move in Loader	1	@	\$439.67	=	\$439.67
Move in Excavator	1	@	\$574.32	=	\$574.32
Move in Trucks	2	@	\$122.09	=	\$244.18
			Subtotal		\$1,587.06

TOTAL PRODUCTION COSTS \$12,780.18

Base Cost= \$4.74 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Application Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	Speed (Mi/hr.)	One-Way Dist (ft)	ROCK COST
A-Line Energy Dissipator	\$3.94	\$6.00	\$4.74	\$14.68	0	10	7200	\$0.00
A-Line	\$3.94	\$1.00	\$4.74	\$9.68	250	10	7200	\$2,420.00
A-Line Backfill	\$3.94	\$1.00	\$4.74	\$9.68	390	10	7200	\$3,775.20
A-700	\$3.87	\$1.00	\$4.74	\$9.61	1099	10	7000	\$10,561.39
A-700 Energy Dissipator	\$3.87	\$6.00	\$4.74	\$14.61	7	10	7000	\$102.27
A-700	\$4.34	\$1.00	\$4.74	\$10.08	501	10	8300	\$5,050.08
B-Line Energy Dissipator	\$1.33	\$6.00	\$4.74	\$12.07	2	10	100	\$24.14
B-Line Rock Berm	\$1.33	\$6.00	\$4.74	\$12.07	120	10	100	\$1,448.40
A-1200 Ext	\$2.58	\$1.00	\$4.74	\$8.32	169	10	3500	\$1,406.08
Mallis M-Line Energy Dissipator	\$8.46	\$6.00	\$4.74	\$19.20	2	10	19500	\$38.40
Mallis M-Line Backfill	\$8.46	\$1.00	\$4.74	\$14.20	150	10	19500	\$2,130.00
				Total C.Y.	2694		Sub Total	\$27,014.68

TOTAL ROCKING COSTS \$27,014.68

## ROCK DEVELOPMENT COST SUMMARY

Pit:	Boot Stockpile	Location:	B-Line 3+00 on right
Sale:	<b>Ewok</b>	Road:	251 c.y.
Swell:		Stockpile:	c.y.
Shrinkage		Total Truck Loads:	251 c.y.
Drill Pct.:		In Place Total:	c.y.

Load Dump Truck:	\$0.56	/cu.yd x	251 cu.yds.	\$140.56
			Subtotal	\$140.56

TOTAL PRODUCTION COSTS \$140.56

Base Cost= \$0.56 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Application Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	Speed (Mi/hr.)	One-way Dist (ft)	ROCK COST
A-Line Culvert Backfill	\$3.94	\$1.00	\$0.56	\$5.50	90	10	7200	\$495.00
A-1200	\$2.06	\$1.00	\$0.56	\$3.62	30	10	2100	\$108.60
A-1200 Spot Rock	\$2.06	\$1.00	\$0.56	\$3.62	20	10	2100	\$72.40
A-1200	\$2.47	\$1.00	\$0.56	\$4.03	81	10	3200	\$326.43
				Total C.Y.	251		Sub Total	\$1,179.43

## ROCK DEVELOPMENT COST SUMMARY

Pit:	Commercial	Location:	
Sale:	<b>Ewok</b>	Road:	290 c.y.
Swell:		Stockpile:	c.y.
Shrinkage		Total Truck Loads:	290 c.y.
Drill Pct.:		In Place Total:	c.y.

Crushed Base Cost=	\$7.50	Per Cu.Yd.
Rip Rap Base Cost=	\$14.50	Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Application Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	Speed (Mi/hr.)	One-way Dist (ft)	ROCK COST
A-Line 90+20 Bedding	\$10.13	\$6.00	\$7.50	\$23.63	20	25	55700	\$472.60
A-Line Spot Rock	\$10.13	\$1.00	\$7.50	\$18.63	100	25	55700	\$1,863.00
A-Line 90+20 Surfacing	\$10.13	\$1.00	\$7.50	\$18.63	20	25	55700	\$372.60
A-Line Energy Dissipator	\$10.13	\$6.00	\$14.50	\$30.63	10	25	55700	\$306.30
A-Line Post-Haul Rock	\$10.13	\$1.00	\$7.50	\$18.63	40	25	55700	\$745.20
Mallis M-Line Spot Rock	\$10.13	\$1.00	\$7.50	\$18.63	100	25	55700	\$1,863.00
				Total C.Y.	290		Sub Total	\$5,622.70
TOTAL ROCKING COSTS								\$5,622.70

## Road Building Move-In Calculations

Sale: **Ewok**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
47.0	Highway	45
2.8	County/ Mainline	20
2.9	Steep Grades	10

No.	EQUIPMENT DESCRIPTION	Move in Cost	within Area			Total Miles	Within		
			Pilot Cars	Move (\$/mile)	Begin Mileage		End Mileage	Area Cost	Total Cost
1	Brush Cutter	\$430.43		\$10.90	0.00	0.00	0	\$0.00	\$430.43
1	Graders	\$533.10		\$13.50	0.00	0.00	0	\$0.00	\$533.10
1	Loader (Small)	\$533.10		\$13.50	0.00	0.00	0	\$0.00	\$533.10
1	Rollers & Compactors	\$533.10		\$13.50	0.00	0.00	0	\$0.00	\$533.10
2	Excavators (Med.)	\$533.10		\$13.50	0.00	0.00	0	\$0.00	\$1,066.20
1	Tractors (D6)	\$430.43		\$10.90	0.00	0.00	0	\$0.00	\$430.43
2	Dump Truck (10 cy +)	\$286.04		\$9.70	0.00	0.00	0	\$0.00	\$572.08

	<b>TOTAL MOVE-IN COSTS: \$4,098.44</b>
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## 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*

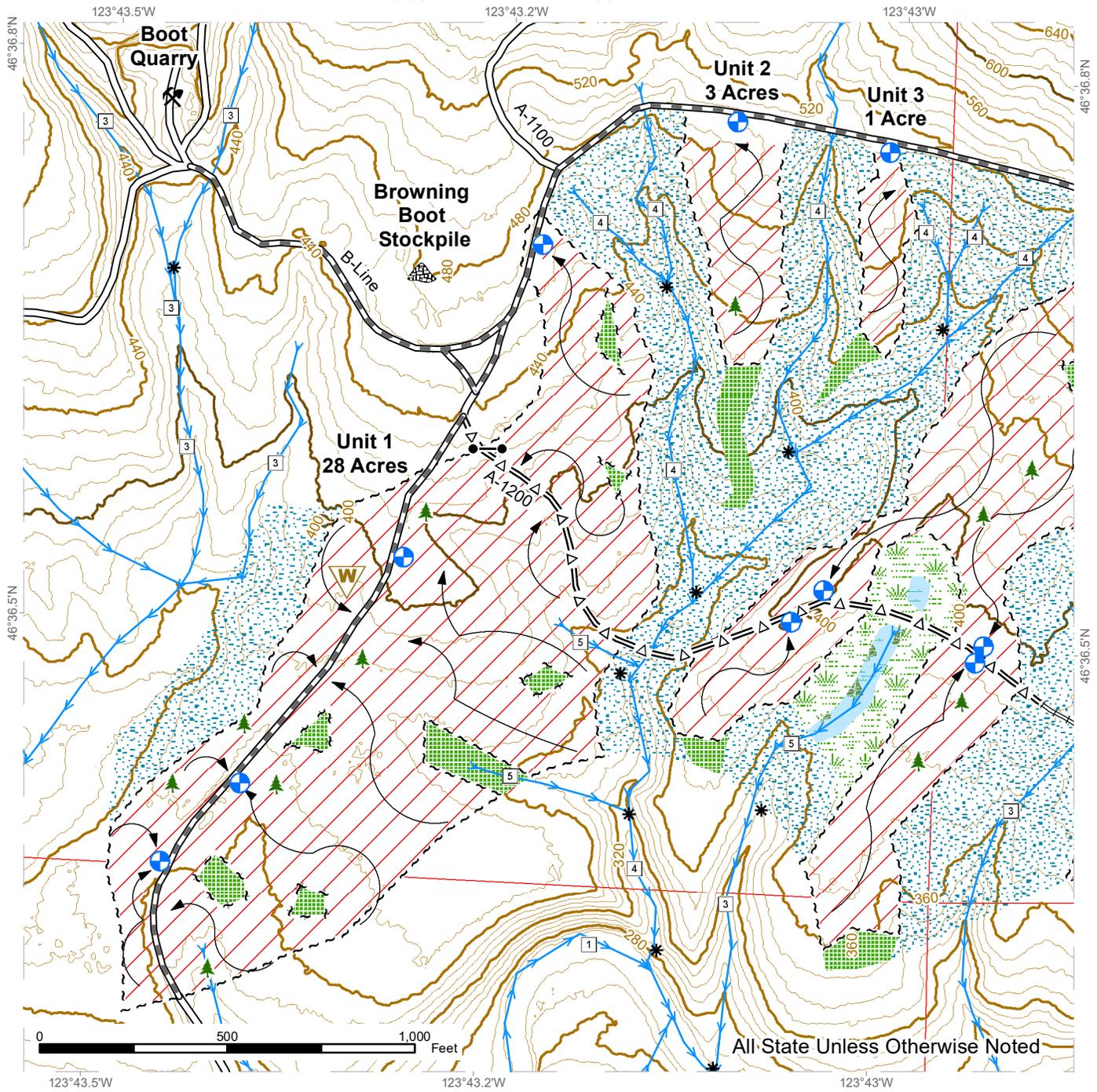
All parties must make their own assessment of the taxable or non-taxable status of any work performed under the timber sale contract. The Department of Revenue bears responsibility for determining forest road excise taxes. The Department of Natural Resources developed this form to help estimate the impact 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:** EWOK  
**AGREEMENT#:** 30-087396  
**TOWNSHIP(S):** T13R8W  
**TRUST(S):** Common School and Indemnity (3), State Forest Transfer (1)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Pacific  
**ELEVATION RGE:** 353-598



All State Unless Otherwise Noted

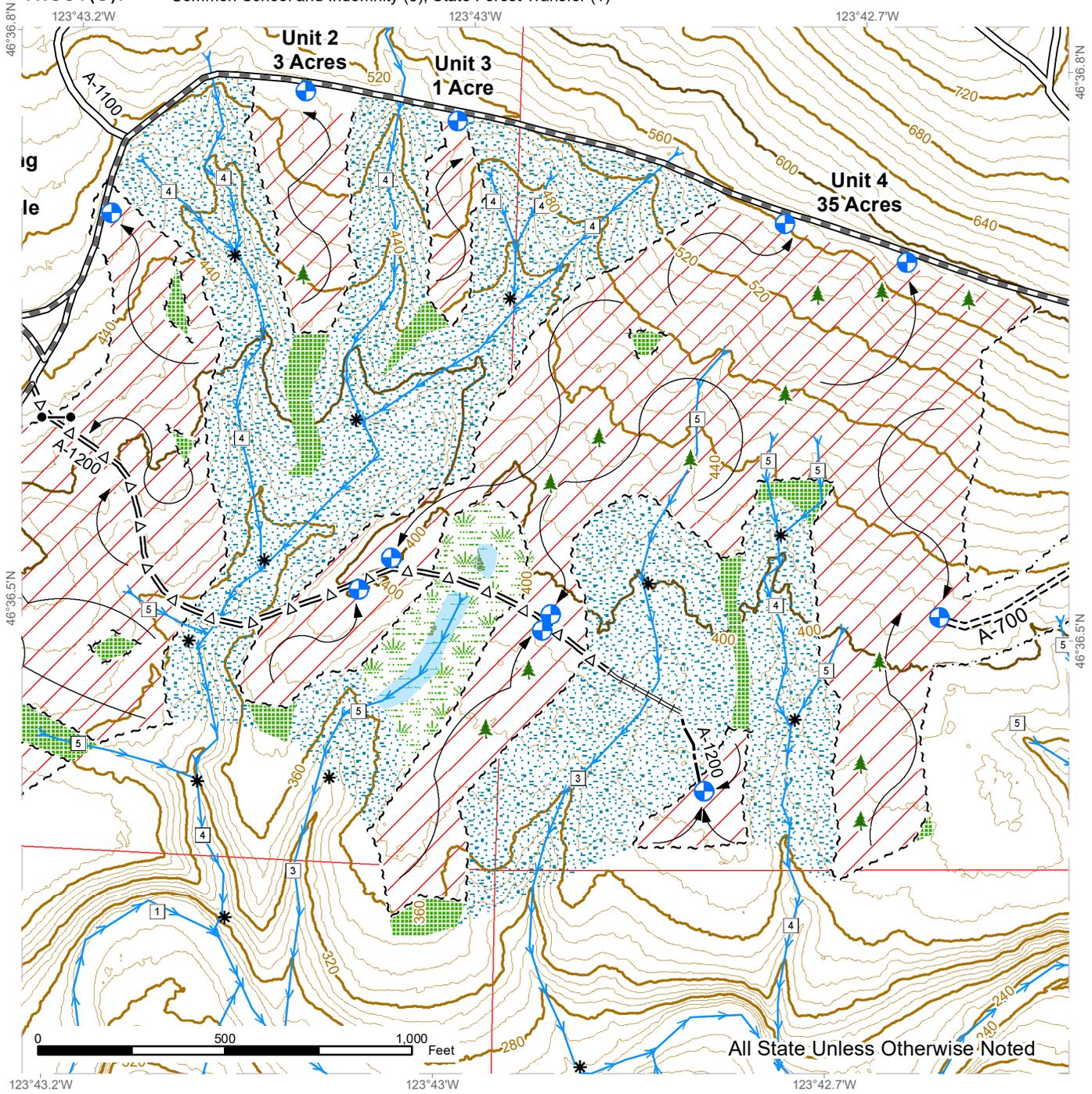
	Variable Retention Harvest		Sale Boundary Tags		Existing Roads		Streams
	Leave Tree Area		Leave Tree Tags		Required Pre-Haul Maintenance		Stream Type
	Riparian Mgt Zone				Required Reconstruction		Stream Type Break
	Forested Wetland				Optional Pre-Haul Maintenance		
	Wetland Mgt Zone						
	Ground Harvest						



# LOGGING PLAN MAP

**SALE NAME:** EWOK  
**AGREEMENT#:** 30-087396  
**TOWNSHIP(S):** T13R8W  
**TRUST(S):** Common School and Indemnity (3), State Forest Transfer (1)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Pacific  
**ELEVATION RGE:** 353-598



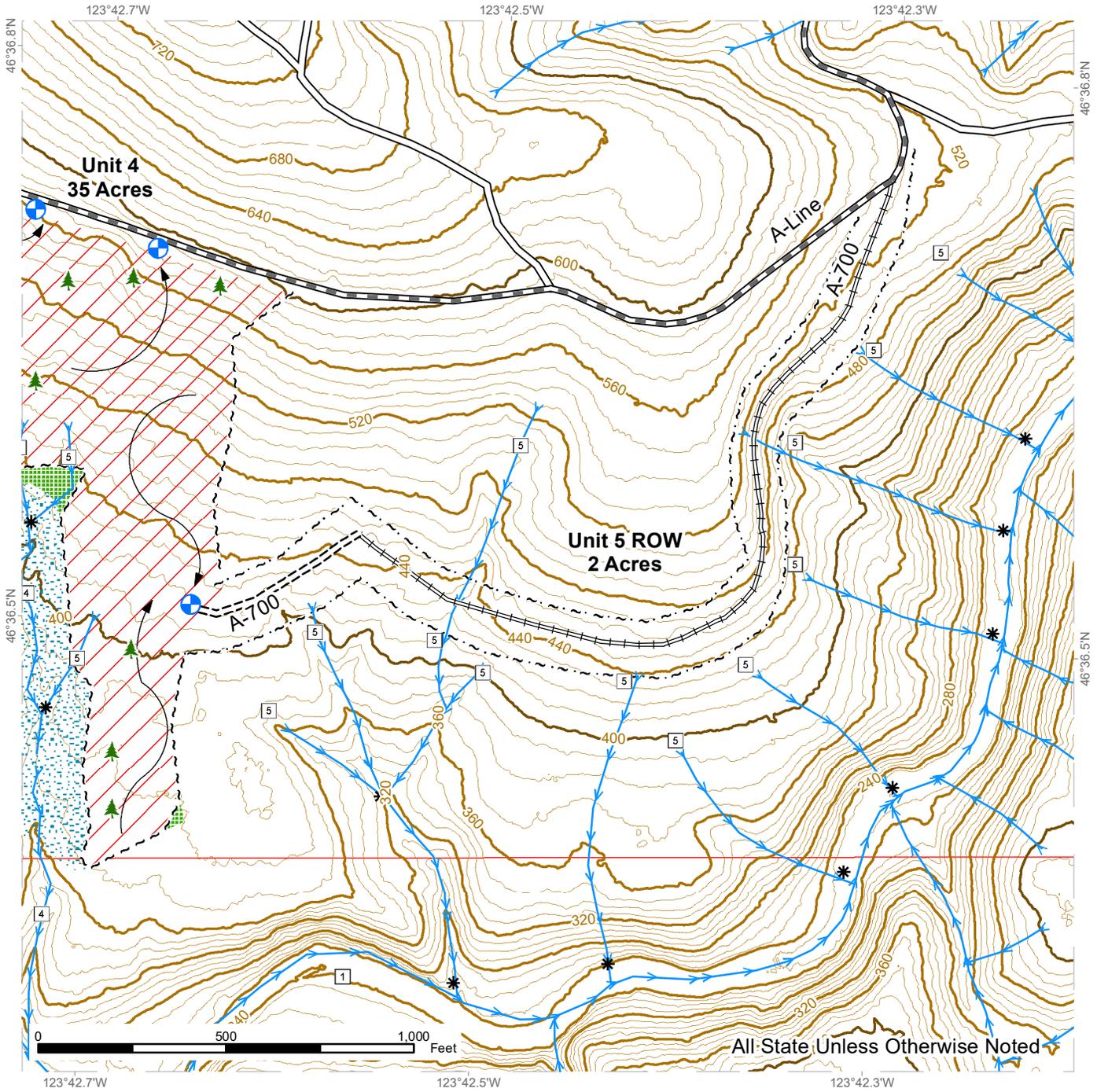
	Variable Retention Harvest		Sale Boundary Tags		Existing Roads		Streams
	Leave Tree Area		Leave Tree Tags		Required Pre-Haul Maintenance		Stream Type
	Riparian Mgt Zone		Right of Way Tags		Required Construction		Stream Type Break
	Forested Wetland				Required Reconstruction		
	Wetland Mgt Zone				Optional Pre-Haul Maintenance		
	Ground Harvest				Optional Construction		



# LOGGING PLAN MAP

**SALE NAME:** EWOK  
**AGREEMENT#:** 30-087396  
**TOWNSHIP(S):** T13R8W  
**TRUST(S):** Common School and Indemnity (3), State Forest Transfer (1)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Pacific  
**ELEVATION RGE:** 353-598



	Variable Retention Harvest		Sale Boundary Tags		Existing Roads		Streams
	Leave Tree Area		Right of Way Tags		Required Pre-Haul Maintenance		Stream Type
	Riparian Mgt Zone				Required Construction		Stream Type Break
	Ground Harvest				Required Reconstruction		



	A	B	C	D	E	F	G	H	I
1	<b>ATB Indexing Form</b>								
2	<i>Note: Please leave fields blank if not applicable</i>						<b>PAS Initials</b>		<b>BH</b>
3	<b>Prefix</b>	55							
4	<b>Agreement Number</b>	55-000449							
5	<b>Document Type</b>	contract							
6	<b>Agreement Name</b>								
7	<b>Transaction Type</b>	easement - road							
8	<b>Effective Date/Date Granted</b>	4/28/1960							
9	<b>Expiration Date</b>	Indef.							
10	<b>Grantee/Lessee/Buyer</b>	DNR							
11	<b>Grantor/Lessor/Seller</b>	Edmund & Marie Pehl							
12									
13	<b>Water Body (aquatics)</b>								
14	<b>Notes (Deed file # or Aquatic Plate Reference)</b>								
15	<b>Additional Parcel Information or special instructions</b>	recording #15070							
16									
17	<b>GIS Parcel ID Entries</b>	<b>County</b>	Pacific	<i>County,</i>					
18									
19		<b>Region</b>	Pacific Cascade						
20					<b>Sec</b>	<b>Tsp</b>	<b>Range</b>	<b>E/W</b>	<b>G. Lot</b>
21	<b>Parcel ID 1</b>		<b>Parcel ID 21</b>		8	13	8	W	
22	<b>Parcel ID 2</b>		<b>Parcel ID 22</b>						
23	<b>Parcel ID 3</b>		<b>Parcel ID 23</b>						
24	<b>Parcel ID 4</b>		<b>Parcel ID 24</b>						
25	<b>Parcel ID 5</b>		<b>Parcel ID 25</b>						
26	<b>Parcel ID 6</b>		<b>Parcel ID 26</b>						
27	<b>Parcel ID 7</b>		<b>Parcel ID 27</b>						
28	<b>Parcel ID 8</b>		<b>Parcel ID 28</b>						
29	<b>Parcel ID 9</b>		<b>Parcel ID 29</b>						
30	<b>Parcel ID 10</b>		<b>Parcel ID 30</b>						
31	<b>Parcel ID 11</b>		<b>Parcel ID 31</b>						
32	<b>Parcel ID 12</b>		<b>Parcel ID 32</b>						
33	<b>Parcel ID 13</b>		<b>Parcel ID 33</b>						
34	<b>Parcel ID 14</b>		<b>Parcel ID 34</b>						
35	<b>Parcel ID 15</b>		<b>Parcel ID 35</b>						
36	<b>Parcel ID 16</b>		<b>Parcel ID 36</b>						
37	<b>Parcel ID 17</b>		<b>Parcel ID 37</b>						
38	<b>Parcel ID 18</b>		<b>Parcel ID 38</b>						
39	<b>Parcel ID 19</b>		<b>Parcel ID 39</b>						
40	<b>Parcel ID 20</b>		<b>Parcel ID 40</b>						



STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

WA-SR-1200

RIGHT OF WAY PLAT

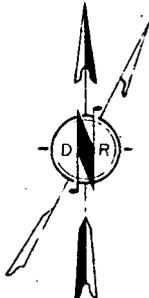
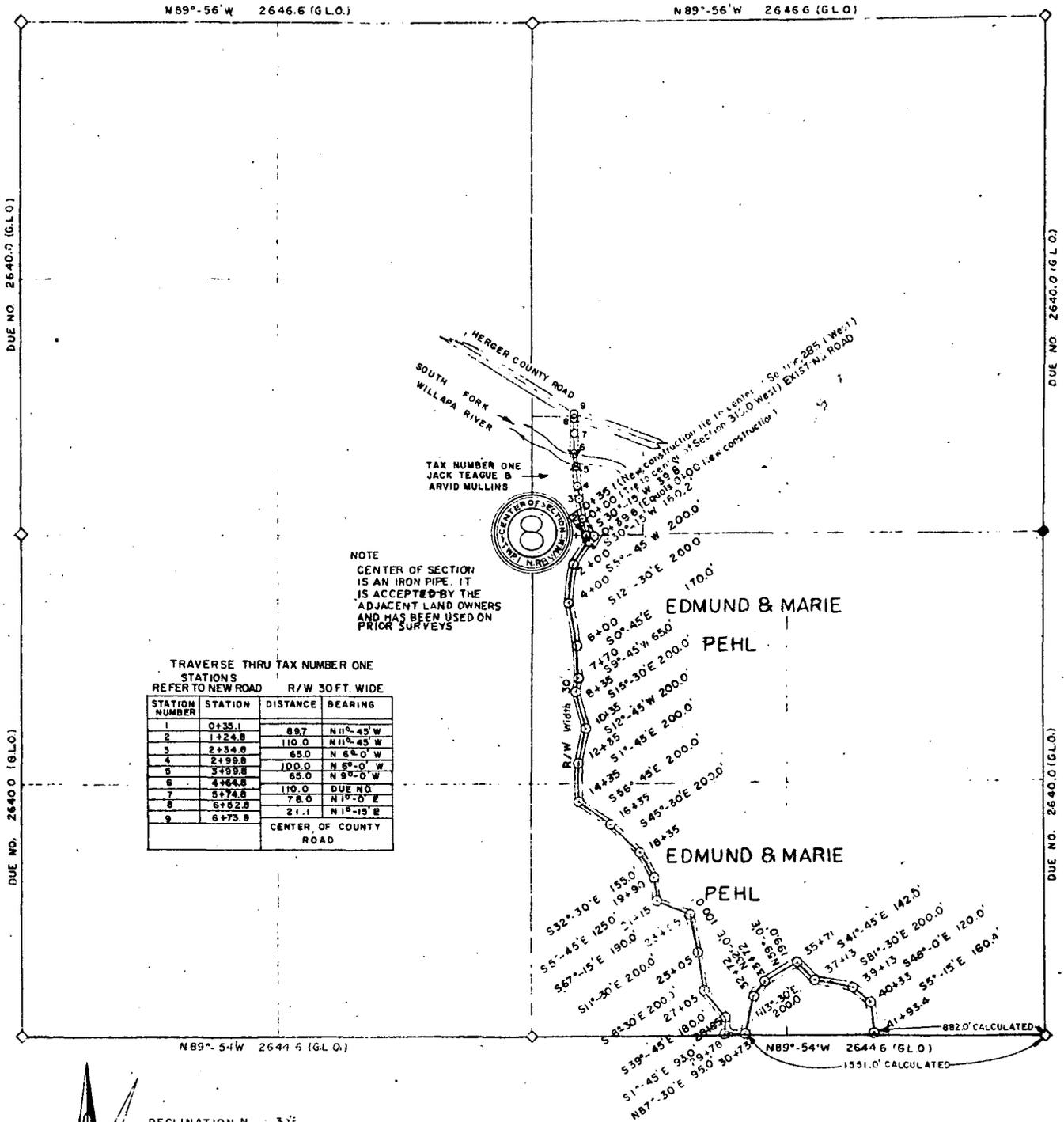
SHOWING LOCATION OF EXISTING ROAD & 35.1' OF NEW CONSTRUCTION CROSSING THE NW 1/4 SE 1/4, SW 1/4 SE 1/4, & NE 1/4 SE 1/4 IN SEC. 8, T.13N., R.8W. WM.

**MULLINS & PEHL ROAD**

SEC. 8 T.13N. R.8W. WM.

PACIFIC COUNTY WASH.

SCALE 1 IN. = 400 FT.



DECLINATION N 1° 30' E  
TRAVERSED BY: D.M. HUNTER  
DRAWN BY: D.M. HUNTER  
DATE: 1/4/60

I, WILLIAM C. GROSS, SUPERVISOR OF FOREST ENGINEERING, DO HEREBY CERTIFY THAT THIS MAP ACCURATELY REPRESENTS THE LOCATION OF SAID ACCESS ROAD ACROSS SECTION 8 TOWNSHIP 13 NORTH, RANGE 8W WILLAMETTE MERIDIAN

*W. C. Gross*  
SUPERVISOR OF FOREST ENGINEERING





STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

RIGHT OF WAY PLAT

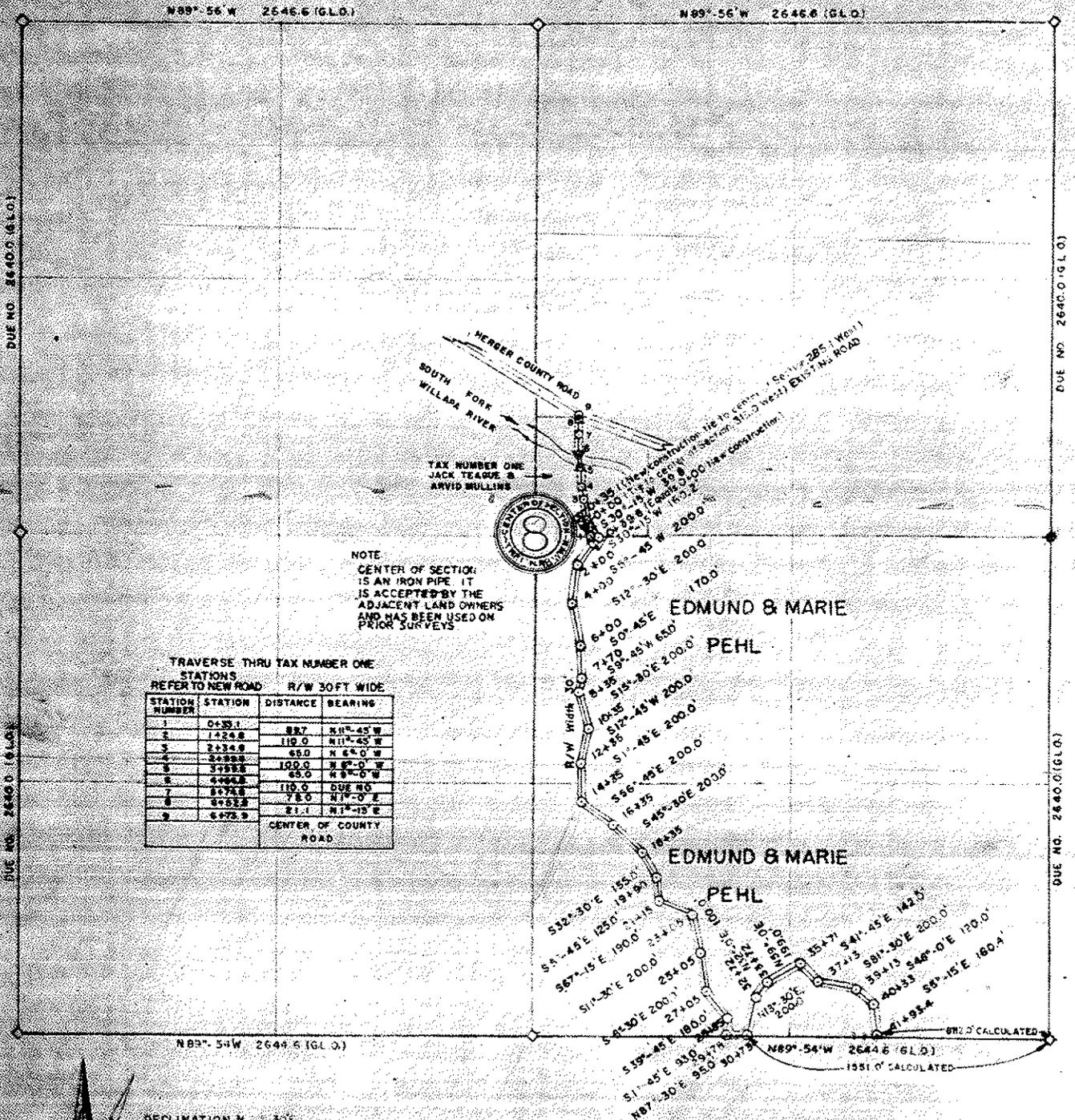
MULLINS & PEHL ROAD

SEC. 8 T. 13 N. R. 8 W. W.M.

PACIFIC COUNTY WASH.

SCALE 1 IN. = 400 FT.

SHOWING LOCATION OF EXISTING ROAD & 35' OF NEW CONSTRUCTION CROSSING THE WILLAMETTE, SWILAN, & NEVADAN IN SECTION 8, T. 13 N. R. 8 W.



NOTE  
CENTER OF SECTION:  
IS AN IRON PIPE. IT  
IS ACCEPTED BY THE  
ADJACENT LAND OWNERS  
AND HAS BEEN USED ON  
PRIOR SURVEYS

TRAVERSE THRU TAX NUMBER ONE  
STATIONS  
REFER TO NEW ROAD R/W 30 FT WIDE

STATION NUMBER	STATION	DISTANCE	BEARING
1	0+39.1	88.7	N 89° 45' W
2	1+22.8	119.0	N 11° 45' W
3	2+32.8	65.0	N 6° 0' W
4	3+97.8	100.0	N 8° 0' W
5	4+98.8	45.0	N 8° 0' W
6	5+74.8	115.0	DUE NO
7	6+52.8	75.0	N 1° 0' E
8	6+75.9	21.1	N 1° 15' E
9			CENTER OF COUNTY ROAD



DECLINATION N 30 E  
TRAVERSED BY D. H. MULLINSHEAD  
DRAWN BY D. H. MULLINSHEAD  
DATE 3/4/60

I, WILLIAM C. GROSS, SUPERVISOR OF FOREST ENGINEERING, DO  
HEREBY CERTIFY THAT THIS MAP ACCURATELY REPRESENTS THE  
LOCATION OF SAID ACCESS ROAD ACROSS SECTION 8 TOWNSHIP  
13 NORTH, RANGE 8W WILLANETTE MERIDIAN  
*W. C. Gross*  
SUPERVISOR OF FOREST ENGINEERING

E-449  
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