



TIMBER NOTICE OF SALE

SALE NAME: M HORNET

AGREEMENT NO: 30-104741

AUCTION: January 25, 2024 starting at 10:00 a.m., COUNTY: Lewis
Pacific Cascade Region Office, Castle Rock, WA

SALE LOCATION: Sale located approximately 5 miles south of Mossyrock, WA

PRODUCTS SOLD AND SALE AREA:

All timber, except leave trees bound by yellow "Leave Tree Area" tags, leave trees marked with blue paint, and all down timber existing 5 years prior to the day of sale, downed timber greater than 48 inches diameter, and snags bounded by the following:

Unit 1 and 2, white "Timber Sale Boundary" tags, pink flagging and private property line marked with white carsonite posts and pink flagging;

Unit 3, white "Timber Sale Boundary" tags and pink flagging;

Unit 4, white "Timber Sale Boundary" tags, pink flagging, the 7000, 7300 roads and private property line marked with white carsonite posts and pink flagging;

Unit 5 and 6 (ROW), orange "Right of Way" tags with orange flagging;

All forest products above located on part(s) of Sections 2, 11, 12 and 14 all in Township 11 North, Range 2 East, Sections 35 and 36 all in Township 12 North, Range 2 East, W.M., containing 229 acres, more or less.

CERTIFICATION: This sale is certified under the Sustainable Forestry Initiative® program Standard (cert no: BVC-SFIFM-018227)

ESTIMATED SALE VOLUMES AND QUALITY:

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

MINIMUM BID: \$1,851,000.00 BID METHOD: Sealed Bids

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

EXPIRATION DATE: October 31, 2025 ALLOCATION: Export Restricted

BID DEPOSIT: \$185,100.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.



## TIMBER NOTICE OF SALE

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**HARVEST METHOD:** Cable, Cable-Assist, and Shovel. This sale is estimated to be 10 percent cable, 90 percent ground based harvesting. Ground based equipment is restricted to sustained slopes of 45 percent and less, Self-Leveling equipment is restricted to sustained slopes of 60 percent or less and shall operate only during dry soil conditions. See Clause H-140 for further harvest requirements. Falling and Yarding will not be permitted from November 1 to April 30 unless authorized in writing by the Contract Administrator.

**ROADS:** 18.73 stations of required construction. 75.67 stations of required reconstruction. 18.19 stations of optional construction. 40.60 stations of optional reconstruction. 277.20 stations of required prehaul maintenance. 15.80 stations of abandonment. Rock used in accordance with the quantities on the ROCK LIST may be obtained from the W-2020 Pit located in Section 3, T11N, R2E W.M. or the Beehive Pit located in Section 12, T11N, R2E W.M., on state land at no charge to the Purchaser.

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the W-2020 Stockpile in Section 3, T11N, R2E, W.M., on state land at no charge to the Purchaser. See Road Plan for further details. All road work 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 November 1 to April 30 unless authorized in writing by the Contract Administrator.

### ACREAGE DETERMINATION

**CRUISE METHOD:** The sale acres were determined by GPS. The sale area was cruised using a variable plot cruise method.

**FEES:** \$95,081.00 is due on day of sale. \$9.00 per MBF is due upon removal. These are in addition to the bid price.

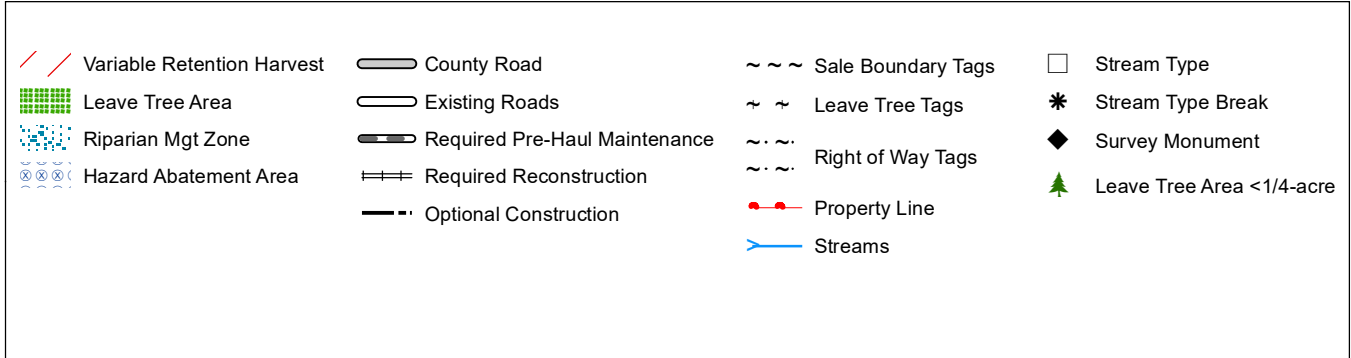
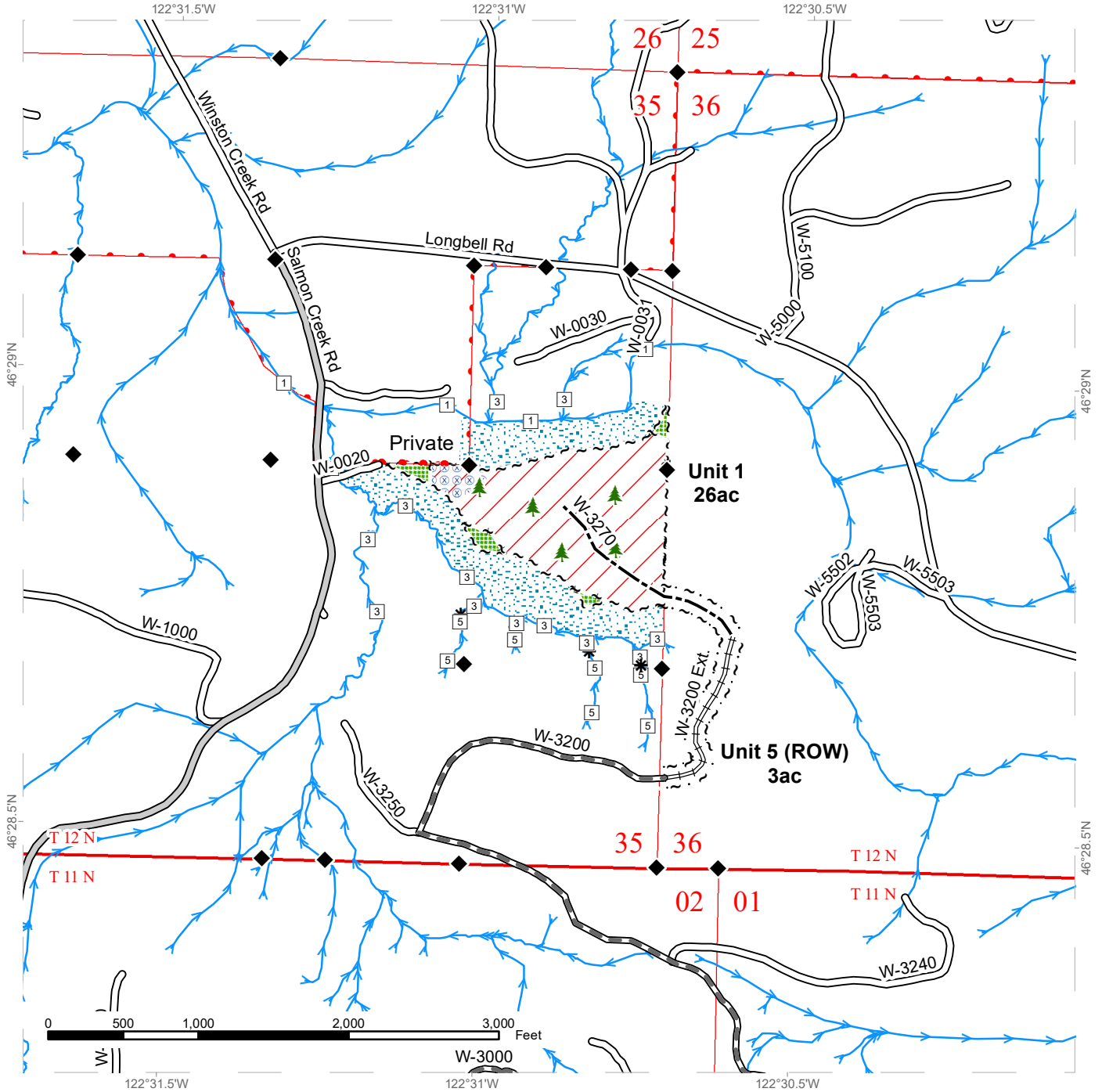
**SPECIAL REMARKS:** This sale contains approximately 103 MBF high quality 2 Saw DF, 200 MBF high quality 3 saw DF and 77 MBF of Poles. See Cruise for additional information.

Extreme Hazard Abatement required along the property line in Unit 1 and 2. See Timber Sale map and Clause S-020 for further details.

# TIMBER SALE MAP

**SALE NAME:** M HORNET  
**AGREEMENT #:** 30-104741  
**TOWNSHIP(S):** T12R2E  
**TRUST(S):** Capitol Grant (7), Common School and Indemnity (3), State Forest Purchase (2), State Forest Transfer (1)

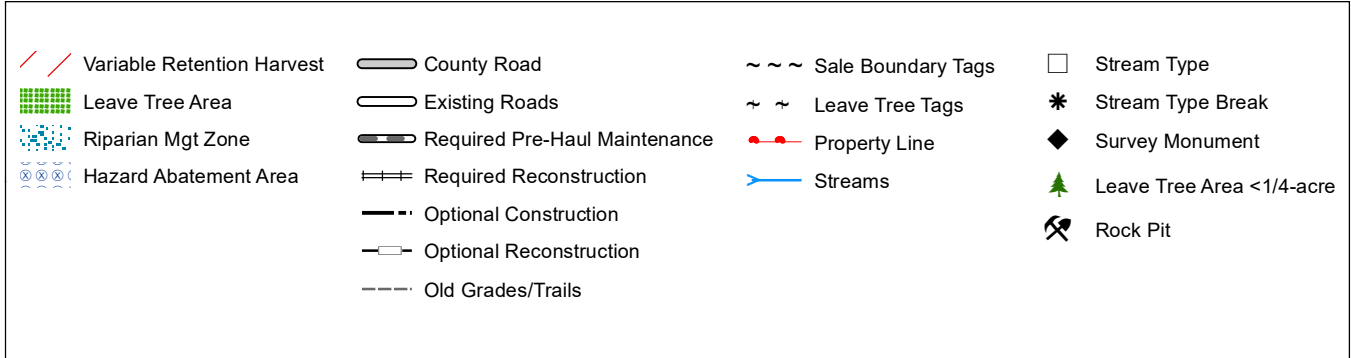
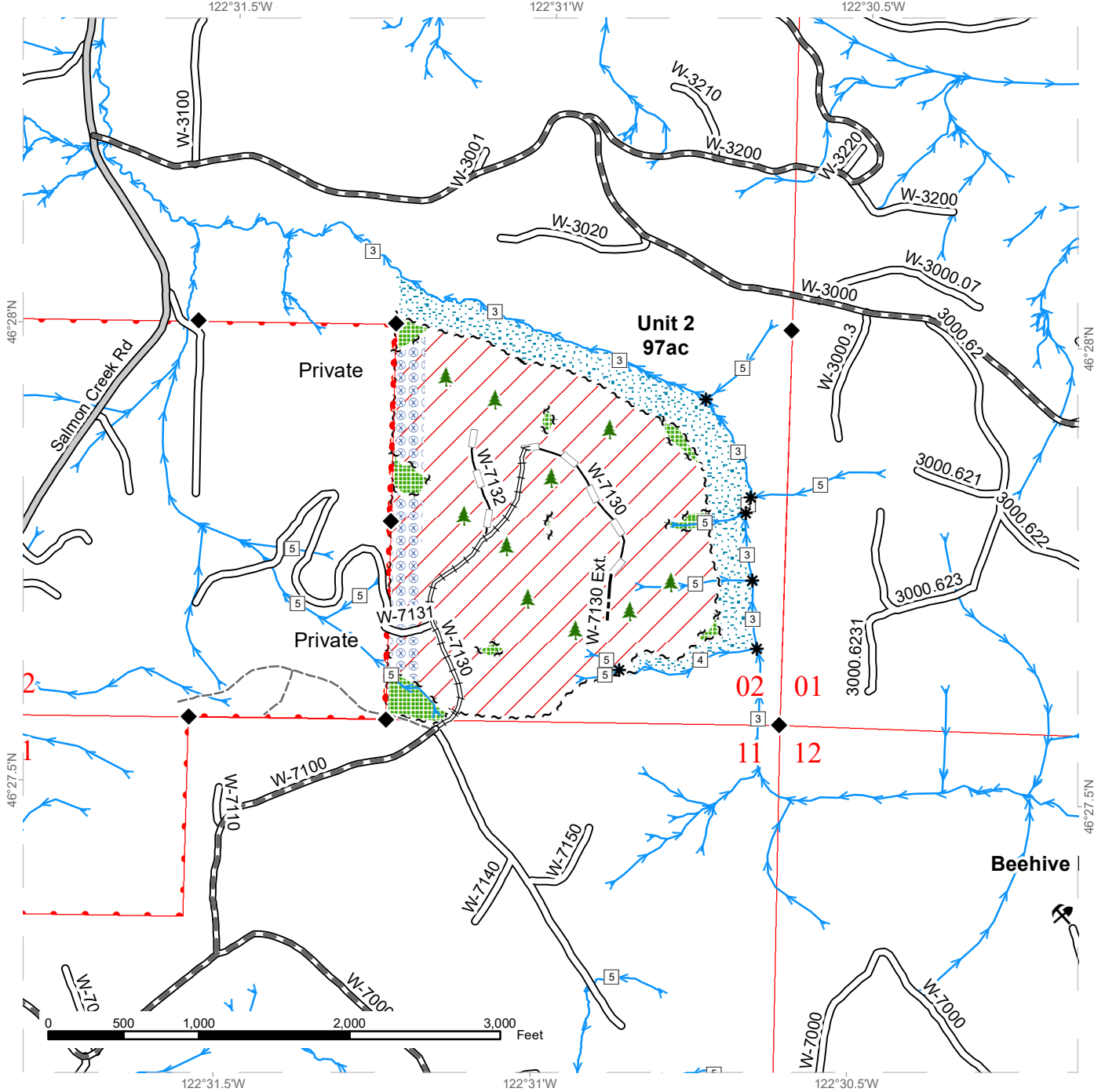
**REGION:** Pacific Cascade Region  
**COUNTY(S):** Lewis  
**ELEVATION RGE:** 640-1520



# TIMBER SALE MAP

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**AGREEMENT #:** 30-104741  
**TOWNSHIP(S):** T11R2E  
**TRUST(S):** Capitol Grant (7), Common School and Indemnity (3), State Forest Purchase (2), State Forest Transfer (1)

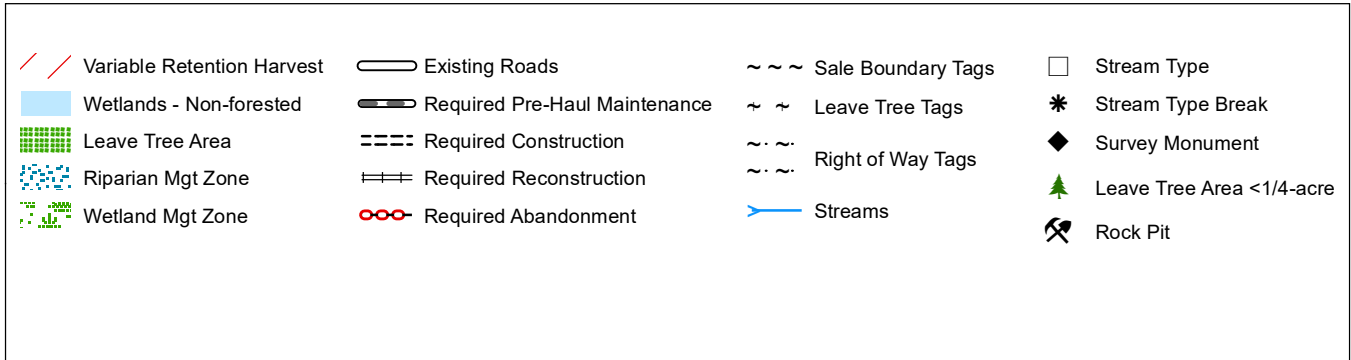
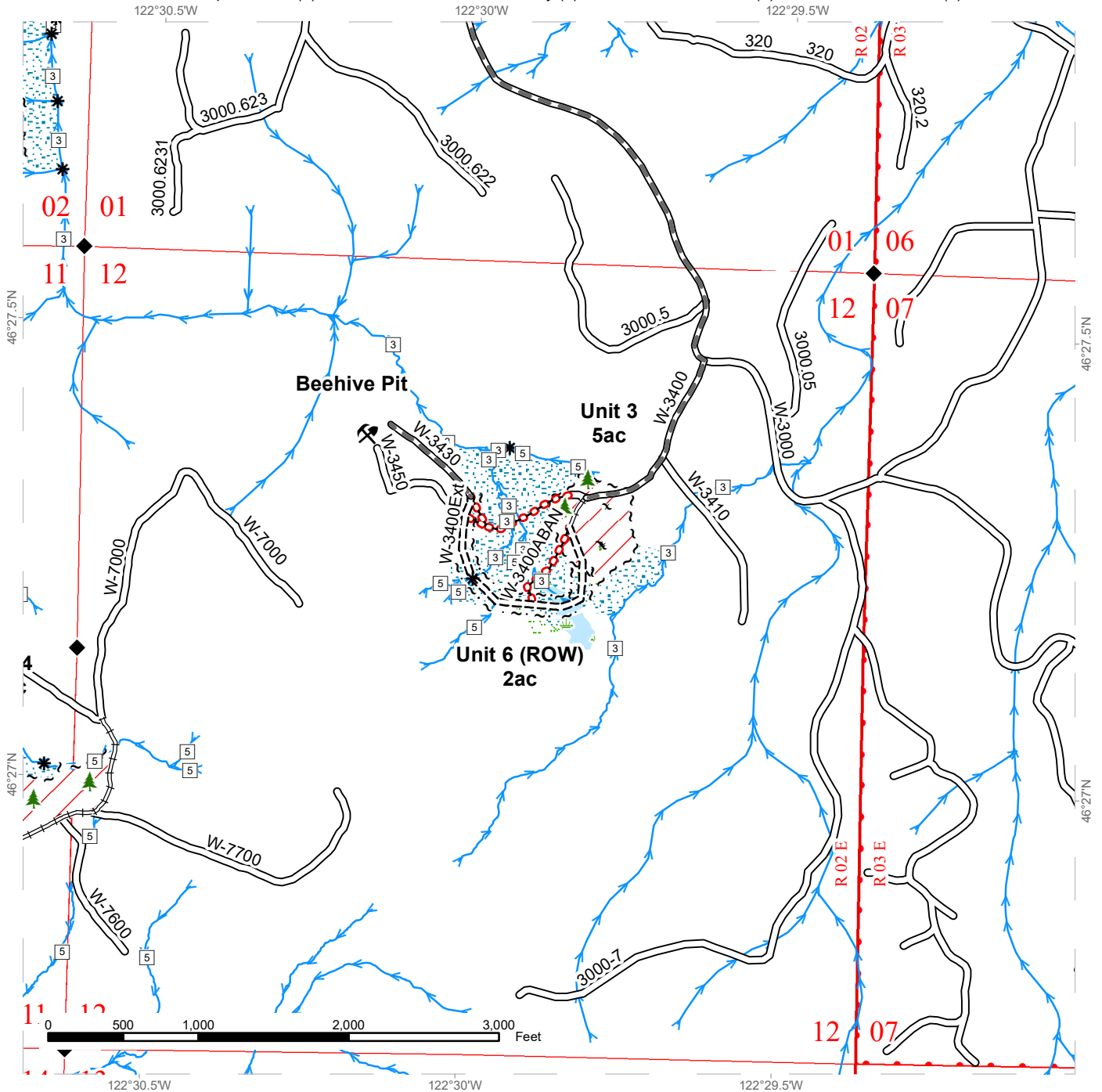
**REGION:** Pacific Cascade Region  
**COUNTY(S):** Lewis  
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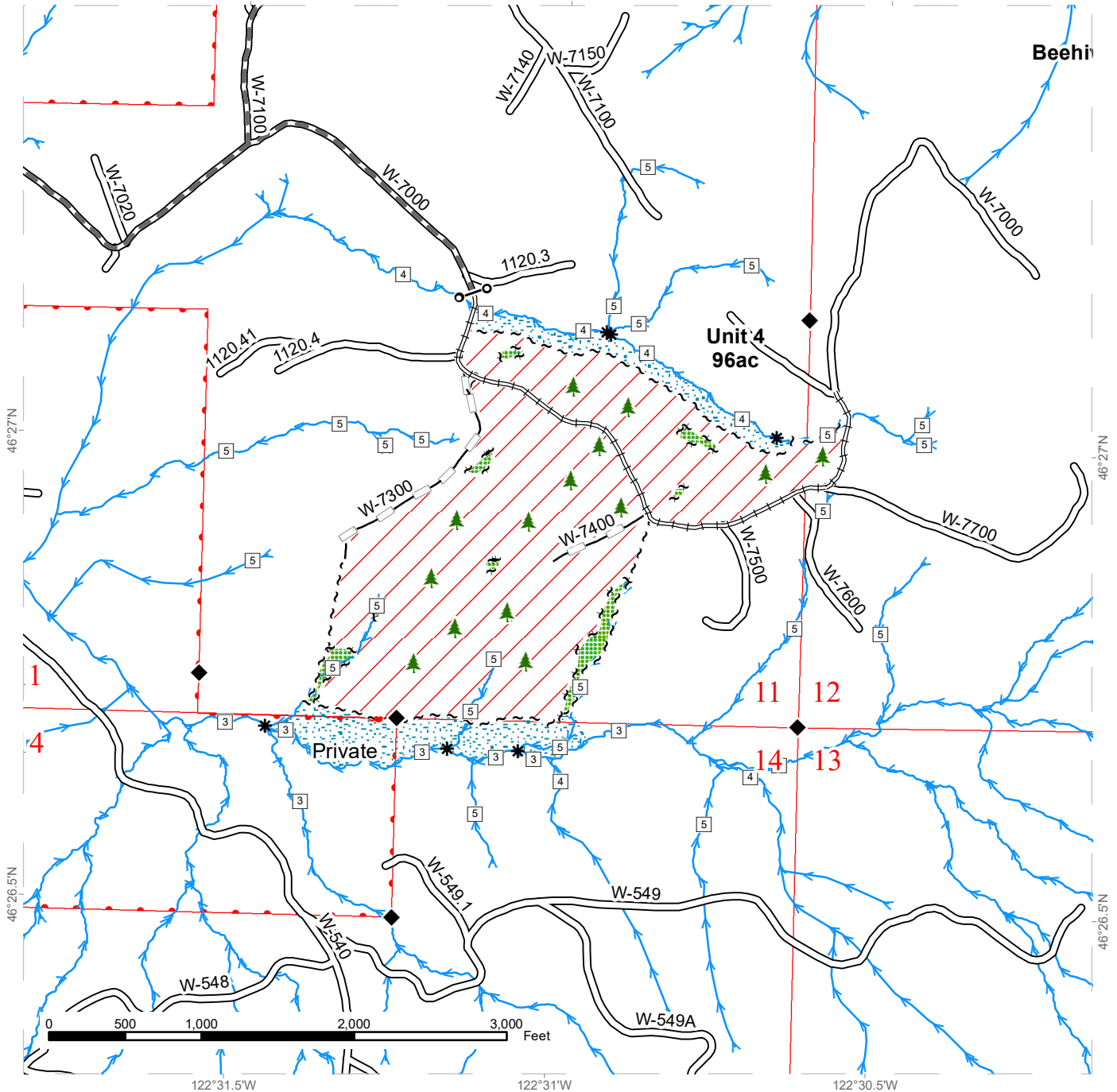


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**SALE NAME:** M HORNET  
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**COUNTY(S):** Lewis  
**ELEVATION RGE:** 640-1520

122°31.5'W 122°31'W 122°30.5'W



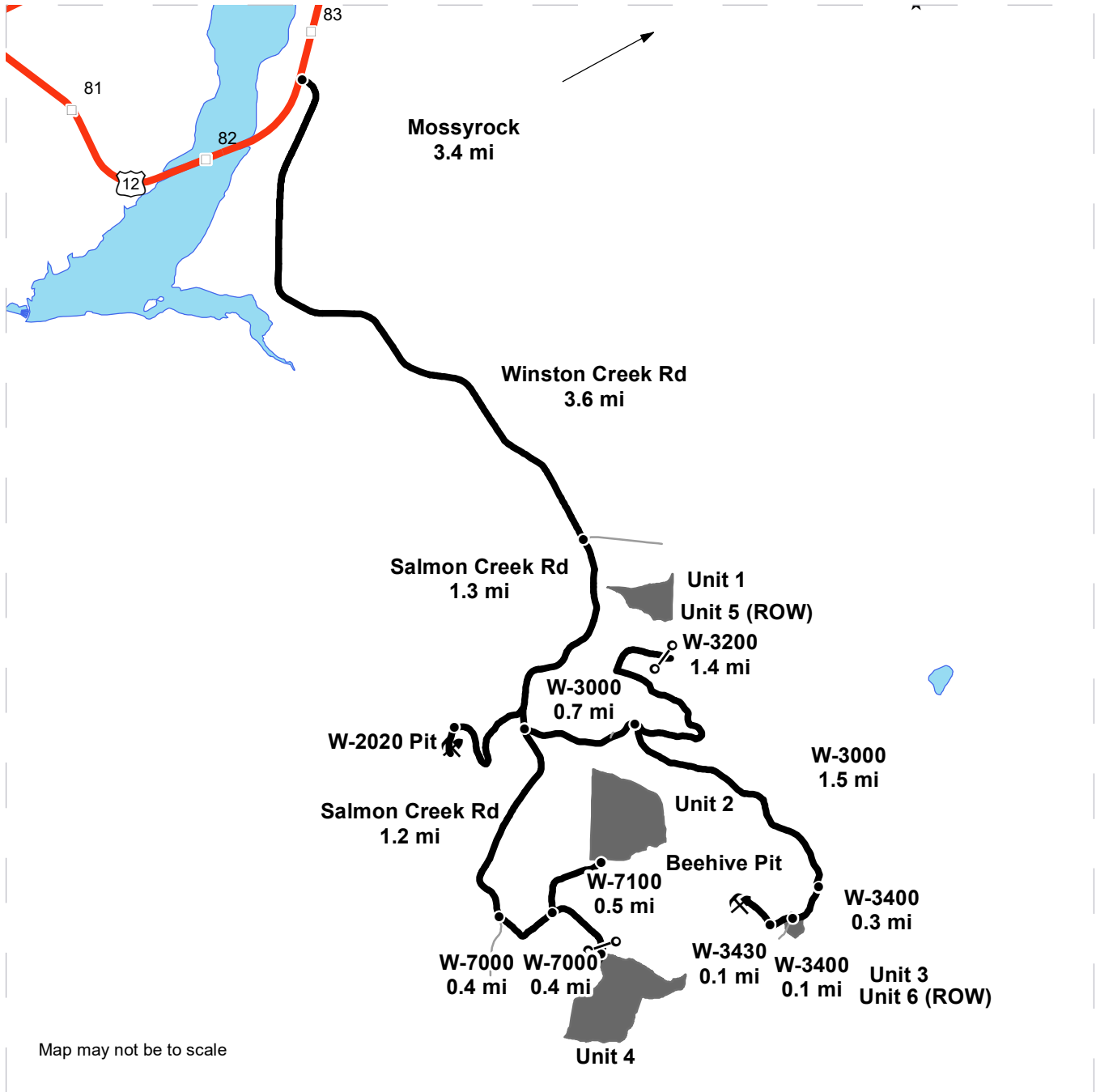
Variable Retention Harvest	Existing Roads	Sale Boundary Tags	Stream Type
Leave Tree Area	Required Pre-Haul Maintenance	Leave Tree Tags	Stream Type Break
Riparian Mgt Zone	Required Reconstruction	Property Line	Survey Monument
	Optional Reconstruction	Streams	Gate Installation
			Leave Tree Area <1/4-acre











# DRIVING MAP

SALE NAME: M HORNET  
 AGREEMENT#: 30-104741  
 TOWNSHIP(S): T11R2E, T12R2E  
 TRUST(S): Capitol Grant (7), Common School and Indemnity (3), State Forest Purchase (2), State Forest Transfer (1)

REGION: Pacific Cascade Region  
 COUNTY(S): Lewis  
 ELEVATION RGE: 640-1520



Map may not be to scale

-  Timber Sale Unit
-  Haul Route
-  Other Road
-  Milepost Markers
-  HWY 12
-  Distance Indicator
-  Gate Installation
-  Rock Pit

**DRIVING DIRECTIONS:**

Between MP 82 and 83 on Highway 12, turn east onto Winston Creek Rd. Follow Winston Creek Rd. for 3.6 miles. Continue along Salmon Creek Rd. for 1.3 miles. To reach Unit 1 and Unit 5 (ROW), turn left onto the W-3000 for 0.7 miles. Turn left onto the W-3200 for 1.4 miles. Unit 5 is the ROW to Unit 1. To reach Unit 3 and Unit 6 (ROW), continue along the W-3000 for 1.5 miles. Turn right onto the W-3400 for 0.3 miles. To reach Unit 2, continue along Salmon Creek Rd. for 1.2 miles. Turn left onto the W-7000 for 0.4 miles. Turn left onto the W-7100 for 0.5 miles. To reach Unit 4, continue along the W-7000 for 0.4 miles



**STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES**

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

**Export Restricted Lump Sum AGREEMENT NO. 30-0104741**

**SALE NAME: M HORNET**

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

Section G: General Terms

G-001 Definitions

The following definitions apply throughout this contract;

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

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

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

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



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

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

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

G-011 Right to Remove Forest Products and Contract Area

Purchaser was the successful bidder on January 25, 2024 and the sale was confirmed on \_\_\_\_\_. The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase as much of the following forest products as can be cut and removed during the term of this contract: All timber, except leave trees bound by yellow "Leave Tree Area" tags, leave trees marked with blue paint, and all down timber existing 5 years prior to the day of sale, downed timber greater than 48 inches diameter, and snags bounded by the following:

Unit 1 and 2, white "Timber Sale Boundary" tags, pink flagging and private property line marked with white carsonite posts and pink flagging;

Unit 3, white "Timber Sale Boundary" tags and pink flagging;

Unit 4, white "Timber Sale Boundary" tags, pink flagging, the 7000, 7300 roads and private property line marked with white carsonite posts and pink flagging;

Unit 5 and 6 (ROW), orange "Right of Way" tags with orange flagging;

All forest products above located on approximately 229 acres on part(s) of Sections 2, 11, 12, and 14 all in Township 11 North, Range 2 East, Sections 35, and 36 all in Township 12 North, Range 2 East W.M. in Lewis 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, 2025.

**G-040 Contract Term Adjustment - No Payment**

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

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

**G-051 Contract Term Extension - Payment**

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

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

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

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

- 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 \$1,099.00 per acre per annum for the acres on which an operating release has not been issued .
- f. In no event will the extension charge be less than \$200.00.
- g. Extension payments are non-refundable.

#### G-053 Surveys - Sensitive, Threatened, Endangered Species

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

#### G-060 Exclusion of Warranties

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

- a. The MERCHANTABILITY of the forest products. The use of the term "merchantable" in any document is not intended to vary the foregoing.
- b. The CONDITION of the forest products. The forest products will be conveyed "AS IS."
- c. The ACREAGE contained within any sale area. Any acreage descriptions appearing in the timber notice of sale, timber sale contract, or other documents are estimates only, provided solely for administrative and identification purposes.
- d. The VOLUME, QUALITY, OR GRADE of the forest products. The State neither warrants nor limits the amount of timber to be harvested. The descriptions of the forest products to be conveyed are estimates only, made solely for administrative and identification purposes.

- e. The CORRECTNESS OF ANY SOIL OR SURFACE CONDITIONS, PRE-SALE CONSTRUCTION APPRAISALS, INVESTIGATIONS, AND ALL OTHER PRE-BID DOCUMENTS PREPARED BY OR FOR THE STATE. These documents have been prepared for the State's appraisal purposes only.
- f. THAT THE SALE AREA IS FREE FROM THREATENED OR ENDANGERED SPECIES or their habitat. The State is not responsible for any interference with forestry operations that result from the presence of any threatened or endangered species, or the presence of their habitat, within the sale area.
- g. THAT THE FORESTRY OPERATIONS to be performed under this contract WILL BE FREE FROM REGULATORY ACTIONS by governmental agencies. The State is not responsible for actions to enforce regulatory laws, such as the Washington Forest Practices Act (chapter 76.09 RCW), taken by the Department of Natural Resources or any other agency that may affect the operability of this timber sale.
- h. Items contained in any other documents prepared for or by the State.

G-061 Inadvertent Discovery of Cultural Resources

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

G-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-106 Adding Naturally Damaged Forest Products

Any forest products not designated for removal that are seriously damaged by disease, insects or wind, or that may contribute seriously to the spread of insect or disease damage may be added to this sale by the State's Contract Administrator. Additions must be in unlogged areas of the sale and added volume shall not exceed an amount equal to 10 percent of the original advertised volume. Added forest products become a

part of this contract and shall be paid for at the rate set forth in clause G-101, G-102 or G-103.

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 2022 Forest Management Standard under certificate number: BVC-SFIFM-018227.

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 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 Operations

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

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

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

If it reasonably appears that the damage that the State is suffering, or can reasonably be expected to suffer if the operation is allowed to continue, will prevent harvest for a period that will exceed 6 months, and Purchaser has complied with this contract, the

provisions of clause G-066 shall govern just as if the harvest was prevented by an applicable foreign or domestic governmental regulation or order.

G-230 Unauthorized Activity

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

G-240 Dispute Resolution

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

- a. In the event of a dispute, Purchaser must make a written request to the Region Manager for resolution prior to seeking other relief.
- b. The Region Manager will issue a written decision on Purchaser's request within ten business days.
- c. Within ten business days of receipt of the Region Manager's decision, Purchaser may make a written request for resolution to the Deputy Supervisor - Uplands of the Department of Natural Resources.
- 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; W-3000, W-3200, W-3200 Ext, W-3270, W-3400, W-3400 Ext, W-3430, W-3450, W-7000, W-7050, W-7100, W-7130, W-7130 Ext, W-7131, W-7132, W-7300 and W-7400 roads. The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

G-330 Pre-work Conference

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

G-340 Preservation of Markers

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

G-360 Road Use Reservation

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

G-370 Blocking Roads

Purchaser shall not block the W-3000, unless authority is granted in writing by the Contract Administrator.

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 \$145,418.00. The total contract price consists of a \$0.00 contract bid price plus \$145,418.00 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

Falling and Yarding will not be permitted from November 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 'Unauthorized Activity' clause. Purchaser is required to leave all cut or damaged reserve trees on site.

#### H-017 Preventing Excessive Soil Disturbance

Operations may be suspended when soil rutting exceeds 12 inches as measured from the natural ground line. To reduce soil damage, the Contract Administrator may require water bars to be constructed, grass seed to be placed on exposed soils, or other mitigation measures. Suspended operations shall not resume unless approval to do so has been given, in writing, by the Contract Administrator.

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

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

#### H-051 Branding and Painting

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

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

#### H-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using Cable, Cable-Assist, Shovel and 6 Wheeled Skidder similar to Eco Tracks. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

## H-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities.

## H-126 Tailholds on State Land

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

## H-130 Hauling Schedule

The hauling of forest products will not be permitted from November 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:

A. Active Haul Routes will be posted with CB channels by Purchaser.

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

C. Ground based yarding equipment will not be permitted on sustained slopes over 45 percent.

D. Self-Leveling ground based yarding equipment will not be permitted on sustained slopes over 60 percent.

E. 6 Wheeled skidder with tracks similar to ECO-TRACKS™, will not be permitted for use in UNITS 1, 2, 3 and 5.

F. 6 Wheeled skidder with tracks similar to ECO-TRACKS™, will not be permitted on sustained slopes over 45 percent.

G. Cable assist operations will not be permitted on slopes over 75 percent.

H. Cable-assist will only be allowed in areas where a written harvest plan has been provided to the CA and the CA has provided written approval for cable-assist logging to occur.

I. Sediment delivery from roads will not be allowed. Hauling operations will be shut down as needed until conditions improve or work can be completed that eliminates the delivery of sediment.

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

K. Any and all snags cut because of safety concerns cannot be removed and must remain where they were felled.

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

H-141 Additional Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

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

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-230 Tops and Limbs Outside the Sale Boundary

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

H-250 Additional Falling Requirements

Within all units, all non-merchantable 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 6/26/2023 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on W-3200, W-3400, W-3430, W-3450, W-7000, W-7050, W-7100, W-7130, W-7131, W-7132, W-7300 and W-7400 roads. 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.

Section S: Site Preparation and Protection

S-001 Emergency Response Plan

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

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

S-010 Fire Hazardous Conditions

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

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

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

S-020 Extreme Hazard Abatement

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

Required along the private property lines in Units 1 and 2.

S-030 Landing Debris Clean Up

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

S-035 Logging Debris Clean Up

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

S-050 Cessation of Operations for Low Humidity

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

S-060 Pump Truck or Pump Trailer

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

S-070 Water Supply

Purchaser shall provide, during the "closed season", a water supply with a minimum capacity of 300 gallons for rapid filling of pump trucks or trailers at a location designated by the Contract Administrator.

S-110 Resource Protection

No Ground-based equipment may operate within 30 feet of Type 5 streams unless authority is granted in writing by the Contract Administrator.

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

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

S-131 Refuse Disposal

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

S-140 Fence Repair

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

Section D: Damages

D-013 Liquidated Damages or Failure to Perform

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

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

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

D-041 Reserve Tree Excessive Damage

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

\_\_\_\_\_  
Scott Sargent

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

Pacific Cascade Region Manager

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

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

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



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

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

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

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

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

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

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

\_\_\_\_\_

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

## PRE-CRUISE NARRATIVE

Sale Name: <b>M Hornet</b>	Region: <b>Pacific Cascade</b>
Agreement #: <b>30-0104741</b>	District: <b>Lewis</b>
Contact Forester: <b>Greg Deyoe</b> Phone / Location: <b>360 669 3835</b>	County(s): Choose a county, <b>Lewis</b>
Alternate Contact: <b>Jacob Vaughn</b> Phone / Location: <b>360 880 5801</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>	90
Harvest System: <b>Uphill Cable</b> <a href="#">Click here to enter text.</a>	10

### UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit # Harvest R/W or RMZ WMZ	Legal Description (Enter only one legal for each unit) Sec/Twp/Rng	Grant or Trust	Gross Proposal Acres	Deductions from Gross Acres (No harvest acres)				Net Harvest Acres	Acreage Determination  (List method and error of closure if applicable)
				RMZ/WMZ Acres	Leave Tree Acres	Existing Road Acres	Other Acres (describe)		
1	Sec 35 T12 R02 E	01, 02	50	22	2	0	0	26	GPS (Trimble)
2	Sec 02 T11 R02 E	07	126	22	6	1	0	97	GPS (Garmin)
3	Sec 12 T11 R02 E	03	29	22	1	1	0	5	GPS (Trimble)
4	Sec 11,12,14 T11 R02 E	03, 07	122	18	4	4	0	96	GPS (Trimble)
5	Sec 35,36 T12 R02 E	01, 03	3	0	0	0	0	3	GPS (Trimble)
6	Sec 12 T11 R02 E	03	2	0	0	0	0	2	GPS (Trimble)
<b>TOTAL ACRES</b>			<b>332</b>	<b>84</b>	<b>13</b>	<b>6</b>	<b>0</b>	<b>229</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	<b>Variable Retention Harvest:</b> Boundaries are marked with white		224 Leave Trees left in clumps marked with yellow "Leave Tree

	"Timber Sale Boundary" tags and pink flagging.		Area" tags, and pink flagging. Individual trees marked with blue paint at DBH and Blue butt spots.
2	<b>Variable Retention Harvest:</b> Boundaries are marked with white "Timber Sale Boundary" tags and pink flagging.		824 Leave Trees left in clumps marked with yellow "Leave Tree Area" tags, and pink flagging. Individual trees marked with blue paint at DBH and Blue butt spots.
3	<b>Variable Retention Harvest:</b> Boundaries are marked with white "Timber Sale Boundary" tags and pink flagging.		48 Leave Trees left in clumps marked with yellow "Leave Tree Area" tags, and pink flagging. Individual trees marked with blue paint at DBH and Blue butt spots.
4	<b>Variable Retention Harvest:</b> Boundaries are marked with white "Timber Sale Boundary" tags and pink flagging. The W-7000 and W-7300 are a boundary.		800 Leave Trees left in clumps marked with yellow "Leave Tree Area" tags, and pink flagging. Individual trees marked with blue paint at DBH and Blue butt spots.
5	<b>Right of Way:</b> Boundaries are marked with orange "Right of Way" tags and orange flagging.		N/A
6	<b>Right of Way:</b> Boundaries are marked with orange "Right of Way" tags and orange flagging.		N/A

**OTHER PRE-CRUISE INFORMATION:**

Unit #	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	Df, WH (500)		
2	Df, WH (2300)		
3	Df (100)		

4	Df (1700)		
5	Df, RA (20)		
6	Df, RA (20)		
TOTAL MBF	4640		

**REMARKS:**

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<b>Prepared By: Greg Deyoe</b> <b>Date: 8-23-22</b>	<b>Title: Forester</b>	<b>CC: Rich Wallmow</b>
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## Timber Sale Cruise Report M Hornet

**Sale Name:** M HORNET

**Sale Type:** LUMP SUM

**Region:** PACIFIC CASC

**District:** LEWIS

**Lead Cruiser:** Dylan Buchanan

**Other Cruisers:** B. Warnstadt, A. Herman

**Cruise Narrative:**

Location:

- Between MP 82 and 83 on Highway 12, turn east onto Winston Creek Rd.
- Follow Winston Creek Rd. for 3.6 miles. Continue along Salmon Creek Rd. for 1.3 miles.
- To reach Unit 1 and 5, turn left onto the W-3000 for 0.7 miles. Turn left onto the W-3200 for 1.4 miles.
- Unit 5 is the ROW to Unit 1.
- To Reach Unit 3 and Unit 6 ROW, continue along the W-3000 for 1.5 miles.
- Turn right onto the W-3400 for 0.3 miles.
- To reach Unit 2, continue along Salmon Creek. Rd for 1.2 miles
- Turn left onto the W-7000 for 0.4 miles. Turn left onto the W-7100 for 0.5 miles
- To reach unit 4, continue along the W-7000 for 0.4 miles.

Cruise Design:

The "M Hornet" Sale consists of 4 units and 2 ROW's. Diameters recorded to the nearest whole inch. Bole heights were measured to a 5' top or estimated break point. Log segments were scaled to a 40' preference for conifers and 30' for hardwoods.

Timber Quality:

This sale consists of mostly DF with some RA, WH and MA. There is a trace amount of RC and BC. The DF on this sale averages 13"-15" at DBH and consists of mostly domestic sorts with some HQ B in units 1, 2 and 3. They are pretty straight with small branches but the spike knots are plentiful. Observed a small amount of old bear damage. There is a small opportunity to get poles here. RA average DBH- 10" and clean. WH average DBH- 16" and looks good. There are a couple big RC in U6 ROW average DBH 35"

Logging and Stand Conditions:

M Hornet is estimated to be 90% ground based logging and 10% Uphill Cable.

General Remarks:

**Timber Sale Notice Volume (MBF)**

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	13.9	6.7		5,217	684	3,387	1,094	52
RA	10.3			271		26	236	9
WH	16.1			81	26	37	18	1
MA	18.2			21	5	6	8	2
RC	49.0			3		3		
ALL	13.4	6.7		5,592	715	3,458	1,356	63

**Timber Sale Notice Weight (tons)**

Sp	Tons by Grade				
	All	2 Saw	3 Saw	4 Saw	Utility
DF	44,353	5,383	29,150	9,470	351
RA	2,157		190	1,918	50
WH	766	224	350	186	5
MA	255	59	46	112	39
RC	18		18		
ALL	47,549	5,666	29,753	11,685	444

**Timber Sale Overall Cruise Statistics**

BA (sq ft/acre)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR SE (%)	Net Vol (bf/acre)	Vol SE (%)
211.0	2.3	115.1	1.0	24,418	2.5

**Timber Sale Unit Cruise Design**

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
M HORNET U1	B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	26.0	27.9	25	9	0
M HORNET U2	B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	97.0	103.6	100	33	0
M HORNET U3	B1: VR, 1 BAF (46.94) Measure All, Sighting Ht = 4.5 ft	5.0	6.6	7	7	0
M HORNET U4	B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	96.0	103.9	99	37	0
M HORNET U5 ROW	FX: FR plots (20 tree / acre expansion)	3.0	2.5	4	4	0

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
M HORNET U6 ROW	B1: VR, 1 BAF (46.94) Measure All, Sighting Ht = 4.5 ft	2.0	2.1	5	5	0
All		229.0	246.5	240	95	0

### Timber Sale Log Grade x Sort Summary

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
DF	LIVE	2 SAW	Domestic	13.0	40	2,670	2,539	4.9	4,588.9	581.3
DF	LIVE	2 SAW	HQ-B	12.7	40	458	448	2.2	794.0	102.6
DF	LIVE	3 SAW	Domestic	8.5	40	14,430	13,580	5.9	26,975.5	3,109.9
DF	LIVE	3 SAW	HQ-B	10.2	40	900	872	3.1	1,572.5	199.6
DF	LIVE	3 SAW	Pole	10.0	40	337	337	0.0	601.5	77.2
DF	LIVE	4 SAW	Domestic	5.2	29	4,965	4,770	3.9	9,459.1	1,092.4
DF	LIVE	4 SAW	Pole	5.8	40	5	5	0.0	11.0	1.0
DF	LIVE	CULL	Cull	5.2	5	193	0	100.0	0.0	0.0
DF	LIVE	UTILITY	Pulp	5.3	16	230	228	0.9	350.7	52.2
MA	LIVE	2 SAW	Domestic	12.9	30	25	21	16.8	58.7	4.8
MA	LIVE	3 SAW	Domestic	11.5	30	27	26	4.2	45.7	6.0
MA	LIVE	4 SAW	Domestic	5.9	31	40	36	12.1	111.8	8.1
MA	LIVE	CULL	Cull	8.5	13	52	0	100.0	0.0	0.0
MA	LIVE	UTILITY	Pulp	5.2	27	7	7	0.0	38.7	1.6
RA	LIVE	3 SAW	Domestic	10.8	30	119	114	3.5	189.6	26.2
RA	LIVE	4 SAW	Domestic	6.0	31	1,075	1,031	4.1	1,917.5	236.1
RA	LIVE	CULL	Cull	5.1	3	14	0	100.0	0.0	0.0
RA	LIVE	UTILITY	Pulp	5.0	18	37	37	0.0	49.4	8.5
RC	LIVE	3 SAW	Domestic	22.4	40	12	12	0.0	18.2	2.7
RC	LIVE	CULL	Cull	14.0	2	0	0	100.0	0.0	0.0
WH	LIVE	2 SAW	Domestic	15.8	40	119	113	5.1	224.3	26.0
WH	LIVE	3 SAW	Domestic	8.1	40	166	160	3.2	350.4	36.7
WH	LIVE	4 SAW	Domestic	5.4	33	84	79	5.7	186.0	18.1
WH	LIVE	CULL	Cull	6.3	5	14	0	100.0	0.0	0.0
WH	LIVE	UTILITY	Pulp	5.0	12	3	3	6.5	5.4	0.6

### Timber Sale Log Sort x Diameter Bin Summary

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 7	LIVE	Cull	5.2	5	0	100.0	0.0	0.0
DF	5 - 7	LIVE	Pulp	5.2	16	195	1.0	313.3	44.7

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 7	LIVE	Domestic	5.7	33	9,051	4.6	18,341.1	2,072.6
DF	5 - 7	LIVE	Pole	5.8	40	5	0.0	11.0	1.0
DF	8 - 11	LIVE	Domestic	9.6	40	9,300	6.1	18,093.4	2,129.7
DF	8 - 11	LIVE	HQ-B	9.9	40	872	3.1	1,572.5	199.6
DF	8 - 11	LIVE	Pole	10.2	40	337	0.0	601.5	77.2
DF	12 - 15	LIVE	HQ-B	12.9	40	386	2.5	692.5	88.4
DF	12 - 15	LIVE	Domestic	13.0	40	2,486	5.0	4,520.1	569.4
DF	16+	LIVE	Domestic	16.2	40	52	2.5	68.8	11.9
DF	16+	LIVE	HQ-B	16.8	40	62	0.0	101.6	14.3
DF	16+	LIVE	Pulp	21.4	13	33	0.0	37.5	7.5
MA	5 - 7	LIVE	Cull	5.0	13	0	100.0	0.0	0.0
MA	5 - 7	LIVE	Domestic	5.2	31	24	13.3	88.4	5.4
MA	5 - 7	LIVE	Pulp	5.2	27	7	0.0	38.7	1.6
MA	8 - 11	LIVE	Domestic	10.4	30	38	6.0	69.1	8.7
MA	12 - 15	LIVE	Cull	12.5	2	0	100.0	0.0	0.0
MA	12 - 15	LIVE	Domestic	13.8	30	21	16.8	58.7	4.8
MA	16+	LIVE	Cull	29.7	20	0	100.0	0.0	0.0
RA	5 - 7	LIVE	Pulp	5.0	19	37	0.0	49.4	8.5
RA	5 - 7	LIVE	Cull	5.1	4	0	100.0	0.0	0.0
RA	5 - 7	LIVE	Domestic	5.7	31	848	3.9	1,546.0	194.2
RA	8 - 11	LIVE	Domestic	9.2	30	297	4.2	561.1	68.1
RC	12 - 15	LIVE	Cull	14.0	2	0	100.0	0.0	0.0
RC	12 - 15	LIVE	Domestic	15.4	40	2	0.0	4.0	0.5
RC	16+	LIVE	Domestic	29.4	40	10	0.0	14.1	2.2
WH	5 - 7	LIVE	Pulp	5.0	12	2	7.7	4.0	0.5
WH	5 - 7	LIVE	Domestic	5.7	33	141	4.0	315.4	32.4
WH	5 - 7	LIVE	Cull	5.9	5	0	100.0	0.0	0.0
WH	8 - 11	LIVE	Pulp	8.9	14	0	0.0	1.4	0.1
WH	8 - 11	LIVE	Cull	9.3	8	0	100.0	0.0	0.0
WH	8 - 11	LIVE	Domestic	9.8	40	98	4.2	220.9	22.4
WH	12 - 15	LIVE	Domestic	14.2	40	73	4.7	165.2	16.8
WH	16+	LIVE	Domestic	20.1	40	40	5.7	59.1	9.2
WH	16+	LIVE	Cull	20.2	10	0	100.0	0.0	0.0



## Cruise Unit Report M HORNET U1

### Unit Sale Notice Volume (MBF): M HORNET U1

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	15.1			597	230	285	65	17
WH	23.7			14	11	3	1	
MA	17.5			5	2		1	2
ALL	15.6			616	243	288	67	19

### Unit Cruise Design: M HORNET U1

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	26.0	27.9	25	9	0

### Unit Cruise Summary: M HORNET U1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	38	111	4.4	0
WH	3	3	0.1	0
MA	4	4	0.2	0
ALL	45	118	4.7	0

### Unit Cruise Statistics: M HORNET U1

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	177.6	44.1	8.8	129.3	18.7	3.0	22,968	47.9	9.3
WH	4.8	366.4	73.3	114.8	69.6	40.2	551	373.0	83.6
MA	6.4	390.3	78.1	29.0	64.6	32.3	185	395.6	84.5
ALL	188.8	38.4	7.7	125.6	32.2	4.8	23,704	50.2	9.1

### Unit Summary: M HORNET U1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	38	ALL	15.1	69	94	23,814	22,968	3.6	142.8	177.6	45.7	597.2
MA	LIVE	CUT	4	ALL	17.5	33	38	204	185	9.3	3.8	6.4	1.5	4.8

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	CUT	3	ALL	23.7	70	87	680	551	19.0	1.6	4.8	1.0	14.3
ALL	LIVE	CUT	45	ALL	15.3	68	92	24,699	23,704	4.0	148.2	188.8	48.2	616.3
ALL	ALL	ALL	45	ALL	15.3	68	92	24,699	23,704	4.0	148.2	188.8	48.2	616.3

## Cruise Unit Report M HORNET U2

### Unit Sale Notice Volume (MBF): M HORNET U2

Sp	DBH	Rings/In	Age	MBF Volume by Grade				Utility
				All	2 Saw	3 Saw	4 Saw	
DF	14.2	8.0		2,450	334	1,602	493	21
RA	10.6			96		16	80	
WH	11.9			20		10	9	1
MA	14.9			13		6	7	
ALL	13.5	8.0		2,578	334	1,634	589	22

### Unit Cruise Design: M HORNET U2

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	97.0	103.5	100	33	0

### Unit Cruise Summary: M HORNET U2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	167	513	5.1	1
RA	23	26	0.3	0
WH	6	6	0.1	0
MA	5	5	0.1	0
ALL	201	550	5.5	1

### Unit Cruise Statistics: M HORNET U2

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	205.2	39.4	3.9	123.1	16.5	1.3	25,253	42.8	4.1
RA	10.4	297.5	29.8	94.7	19.7	4.1	985	298.2	30.0
WH	2.4	703.5	70.4	85.5	28.0	11.4	205	704.1	71.3
MA	2.0	1,000.0	100.0	68.4	58.3	26.1	137	1,001.7	103.3
ALL	220.0	30.8	3.1	120.8	20.3	1.4	26,580	37.0	3.4

**Unit Summary: M HORNET U2**

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	167	ALL	14.2	72	93	26,544	25,253	4.9	186.6	205.2	54.5	2,449.6
MA	LIVE	CUT	5	ALL	14.9	50	62	150	137	9.0	1.7	2.0	0.5	13.3
RA	LIVE	CUT	23	ALL	10.6	55	68	1,056	985	6.8	17.0	10.4	3.2	95.5
WH	LIVE	CUT	6	ALL	11.9	52	64	225	205	8.9	3.1	2.4	0.7	19.9
ALL	LIVE	CUT	201	ALL	13.9	71	90	27,976	26,580	5.0	208.4	220.0	58.9	2,578.2
ALL	ALL	ALL	201	ALL	13.9	71	90	27,976	26,580	5.0	208.4	220.0	58.9	2,578.2

## Cruise Unit Report M HORNET U3

### Unit Sale Notice Volume (MBF): M HORNET U3

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	13.6	7.0		161	17	109	33	3
WH	16.7			24	8	13	3	
RA	10.0			4			4	
ALL	13.7	7.0		188	25	122	39	3

### Unit Cruise Design: M HORNET U3

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1: VR, 1 BAF (46.94) Measure All, Sighting Ht = 4.5 ft	5.0	6.6	7	7	0

### Unit Cruise Summary: M HORNET U3

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	37	37	5.3	1
WH	5	5	0.7	0
RA	1	1	0.1	0
ALL	43	43	6.1	1

### Unit Cruise Statistics: M HORNET U3

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	248.1	46.0	17.4	129.6	13.9	2.3	32,152	48.0	17.5
WH	33.5	175.5	66.3	142.0	11.1	5.0	4,761	175.8	66.5
RA	6.7	264.6	100.0	113.7	0.0	0.0	762	264.6	100.0
ALL	288.3	21.9	8.3	130.7	13.8	2.1	37,676	25.9	8.5

### Unit Summary: M HORNET U3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	37	ALL	13.6	77	97	34,348	32,152	6.4	246.0	248.1	67.3	160.8
RA	LIVE	CUT	1	ALL	10.0	63	77	848	762	10.1	12.3	6.7	2.1	3.8

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	CUT	5	ALL	16.7	76	95	4,908	4,761	3.0	22.0	33.5	8.2	23.8
ALL	LIVE	CUT	43	ALL	13.7	76	96	40,105	37,676	6.1	280.3	288.3	77.6	188.4
ALL	ALL	ALL	43	ALL	13.7	76	96	40,105	37,676	6.1	280.3	288.3	77.6	188.4

## Cruise Unit Report M HORNET U4

### Unit Sale Notice Volume (MBF): M HORNET U4

Sp	DBH	Rings/In	Age	MBF Volume by Grade				Utility
				All	2 Saw	3 Saw	4 Saw	
DF	13.2	5.0		1,968	104	1,369	485	11
RA	10.0			161		9	144	8
WH	11.0			12		9	3	
ALL	12.5	5.0		2,141	104	1,387	632	19

### Unit Cruise Design: M HORNET U4

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	96.0	103.8	99	37	0

### Unit Cruise Summary: M HORNET U4

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	169	470	4.7	1
RA	30	39	0.4	0
WH	1	2	0.0	0
ALL	200	511	5.2	1

### Unit Cruise Statistics: M HORNET U4

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	189.9	45.9	4.6	108.0	22.0	1.7	20,503	50.9	4.9
RA	15.8	225.9	22.7	106.6	18.8	3.4	1,679	226.7	23.0
WH	0.8	700.0	70.3	153.0	0.0	0.0	124	700.0	70.3
ALL	206.5	37.4	3.8	108.0	21.6	1.5	22,306	43.2	4.1

### Unit Summary: M HORNET U4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	169	ALL	13.2	63	86	22,184	20,503	7.6	199.8	189.9	52.3	1,968.3
RA	LIVE	CUT	30	ALL	10.0	51	74	1,743	1,679	3.7	28.9	15.8	5.0	161.2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	CUT	1	ALL	11.0	69	98	124	124	0.0	1.2	0.8	0.2	11.9
ALL	LIVE	CUT	200	ALL	12.8	61	84	24,051	22,306	7.3	229.9	206.5	57.5	2,141.4
ALL	ALL	ALL	200	ALL	12.8	61	84	24,051	22,306	7.3	229.9	206.5	57.5	2,141.4



## Cruise Unit Report M HORNET U5 ROW

### Unit Sale Notice Volume (MBF): M HORNET U5 ROW

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	10.6			8		1	6	0
WH	28.0			4	4			
MA	38.0			2	2			
RA	9.1			1			1	0
ALL	14.9			15	6	1	7	1

### Unit Cruise Design: M HORNET U5 ROW

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
FX: FR plots (20 tree / acre expansion)	3.0	2.5	4	4	0

### Unit Cruise Summary: M HORNET U5 ROW

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	14	14	3.5	0
WH	1	1	0.3	0
MA	1	1	0.3	0
RA	2	2	0.5	0
ALL	18	18	4.5	0

### Unit Cruise Statistics: M HORNET U5 ROW

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	43.0	165.2	82.6	59.4	18.1	4.8	2,555	166.2	82.8
WH	21.4	200.0	100.0	60.1	0.0	0.0	1,285	200.0	100.0
MA	39.4	200.0	100.0	20.4	0.0	0.0	805	200.0	100.0
RA	4.5	200.0	100.0	64.8	17.2	12.2	290	200.7	100.7
ALL	108.3	100.6	50.3	45.6	30.8	7.3	4,935	105.2	50.8

**Unit Summary: M HORNET U5 ROW**

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	14	ALL	10.6	35	51	2,645	2,555	3.4	70.2	43.0	13.2	7.7
MA	LIVE	CUT	1	ALL	38.0	55	67	4,925	805	83.7	5.0	39.4	6.4	2.4
RA	LIVE	CUT	2	ALL	9.1	26	37	315	290	7.9	9.9	4.5	1.5	0.9
WH	LIVE	CUT	1	ALL	28.0	52	63	1,535	1,285	16.3	5.0	21.4	4.0	3.9
ALL	LIVE	CUT	18	ALL	14.8	36	51	9,420	4,935	47.6	90.1	108.3	25.1	14.8
ALL	ALL	ALL	18	ALL	14.8	36	51	9,420	4,935	47.6	90.1	108.3	25.1	14.8

## Cruise Unit Report M HORNET U6 ROW

### Unit Sale Notice Volume (MBF): M HORNET U6 ROW

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	12.7			33		21	12	
RA	11.5			9		2	8	
WH	12.4			8	4	2	2	0
RC	49.0			3		3		
ALL	12.6			53	4	27	22	0

### Unit Cruise Design: M HORNET U6 ROW

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1: VR, 1 BAF (46.94) Measure All, Sighting Ht = 4.5 ft	2.0	2.1	5	5	0

### Unit Cruise Summary: M HORNET U6 ROW

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	16	16	3.2	0
RA	5	5	1.0	0
WH	3	3	0.6	0
RC	1	1	0.2	0
ALL	25	25	5.0	0

### Unit Cruise Statistics: M HORNET U6 ROW

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	150.2	67.7	30.3	109.4	16.4	4.1	16,435	69.7	30.6
RA	46.9	100.0	44.7	99.6	16.5	7.4	4,676	101.3	45.3
WH	28.2	91.3	40.8	134.9	49.0	28.3	3,798	103.6	49.7
RC	9.4	223.6	100.0	143.2	0.0	0.0	1,344	223.6	100.0
ALL	234.7	24.5	11.0	111.9	24.5	4.9	26,253	34.7	12.0

**Unit Summary: M HORNET U6 ROW**

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	16	ALL	12.7	69	86	17,746	16,435	7.4	170.8	150.2	42.1	32.9
RA	LIVE	CUT	5	ALL	11.5	57	69	4,964	4,676	5.8	65.1	46.9	13.8	9.4
RC	LIVE	CUT	1	ALL	49.0	85	109	1,354	1,344	0.7	0.7	9.4	1.3	2.7
WH	LIVE	CUT	3	ALL	12.4	61	75	3,919	3,798	3.1	33.6	28.2	8.0	7.6
ALL	LIVE	CUT	25	ALL	12.6	65	81	27,982	26,253	6.2	270.2	234.7	65.3	52.5
ALL	ALL	ALL	25	ALL	12.6	65	81	27,982	26,253	6.2	270.2	234.7	65.3	52.5



# Forest Practices Application/Notification Notice of Decision

FPA/N No: 2941941

Effective Date: 10/26/2023

Expiration Date: 10/26/2026

Shut Down Zone: 655 ; .

EARR Tax Credit:  Eligible  Non-eligible

Reference: M Hornet TBS

30-104741

### Decision

- Notification Accepted** Operations shall not begin before the effective date.
- Approved** This Forest Practices Application is subject to the conditions listed below.
- Disapproved** This Forest Practices Application is disapproved for the reasons listed below.
- Withdrawn** Applicant has withdrawn the Forest Practices Application/Notification (FPA/N).
- Closed** All forest practices obligations are met.

### FPA/N Classification

Class II  Class III  Class IVG  Class IVS

### Number of Years Granted on Multi-Year Request

4 years  5 years

### Conditions on Approval/Reasons for Disapproval

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

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](mailto:pcforestpractices@dnr.wa.gov) and the Forest Practices Forester) and provide the application number and legal description for your activity.

Issued By: Pat Coleman

Region: Pacific Cascade Region

Title: Forest Practices Forester

Date: 10/26/2023

Copies to:  Landowner, Timber Owner, and Operator

Issued in person:  LO  TO  OP

By: *Jacqui Spahr*

Date: *Jacqui Spahr 10/26-23*

**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> Post Office Box 40903 Olympia, WA 98504-0903	<u>Mailing Address</u> Post Office Box 40100 Olympia, WA 98504-0100	<u>Mailing Address</u> Post Office Box 280 Castle Rock, WA 98611-0280

Information regarding the Pollution Control Hearings Board can be found at: <https://eluh0.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 <https://www.dnr.wa.gov/programs-and-services/forest-practices/review-applications-fpars/forest-practices-forms-and>. 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)**

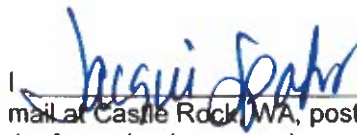
Obligations include reforestation, road maintenance and abandonment plans, conversions of forestland to non- forestry use and/or harvest strategies on perennial non-fish habitat (Type Np) waters in Eastern Washington.

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 Declaration of Mailing**

I,  caused the Notice of Decision for FPA/N No. \_\_\_\_\_ to be placed in the United States mail at Castle Rock, WA, postage paid. I declare under penalty of perjury of the laws of the State of Washington, that the foregoing is true and correct.

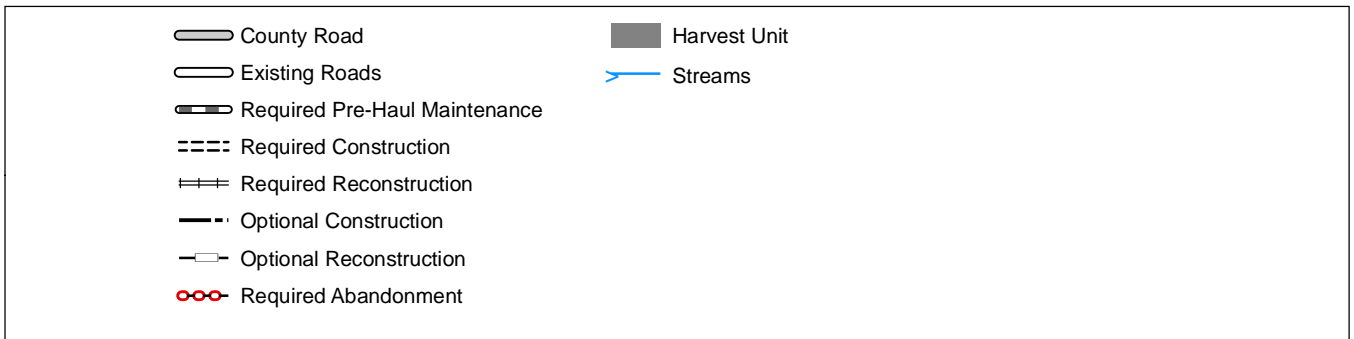
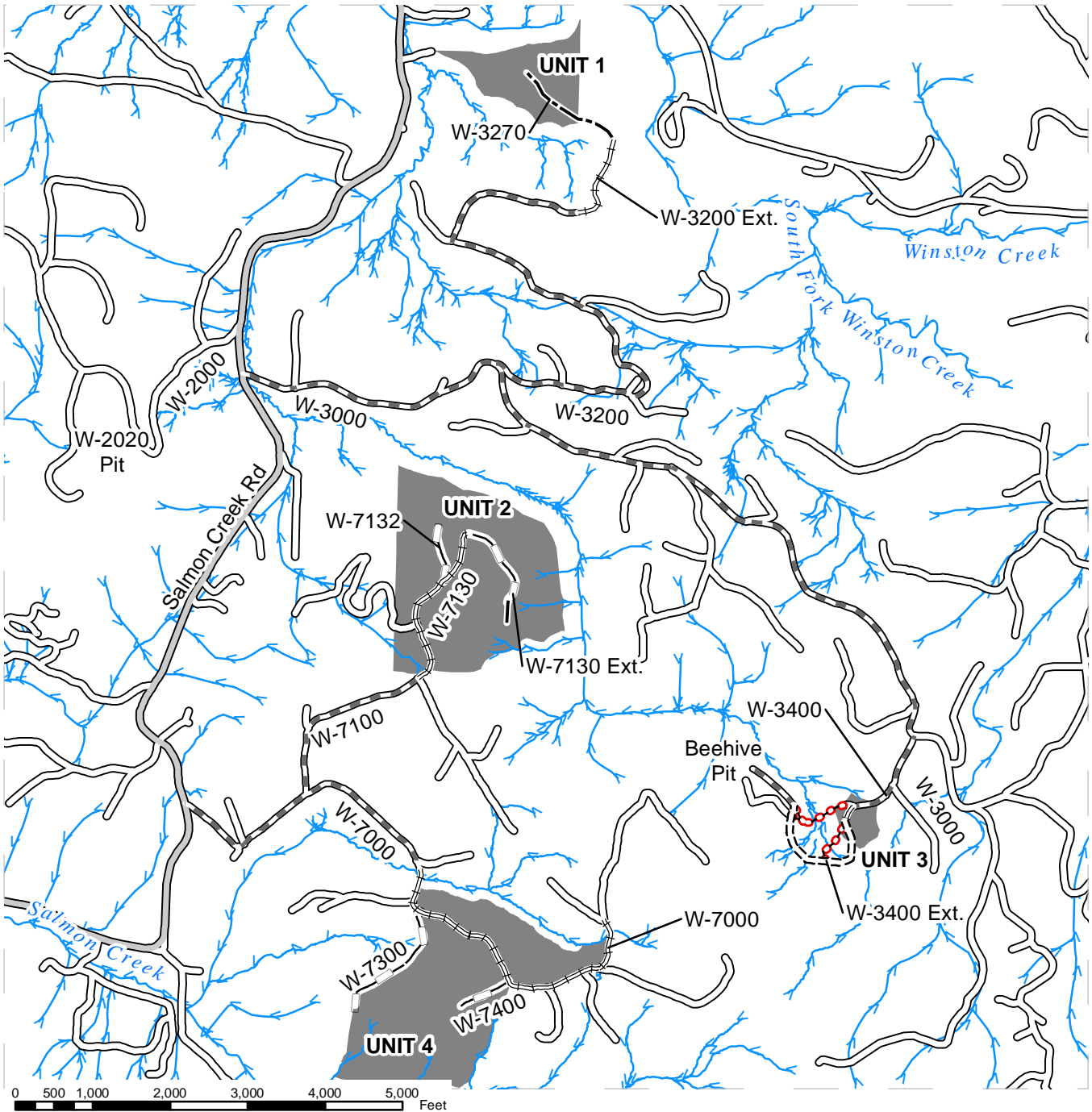
\_\_\_\_\_  
(Date)                      Castle Rock, WA  
(City & State where signed)

  
(Signature)

# ROAD PLAN MAP

**SALE NAME:** M HORNET  
**AGREEMENT#:** 30-104741  
**TOWNSHIP(S):** T11R2E  
**TRUST(S):** Capitol Grant (7), Common School and Indemnity(3), State Forest Purchase (2), State Forest Transfer(1),

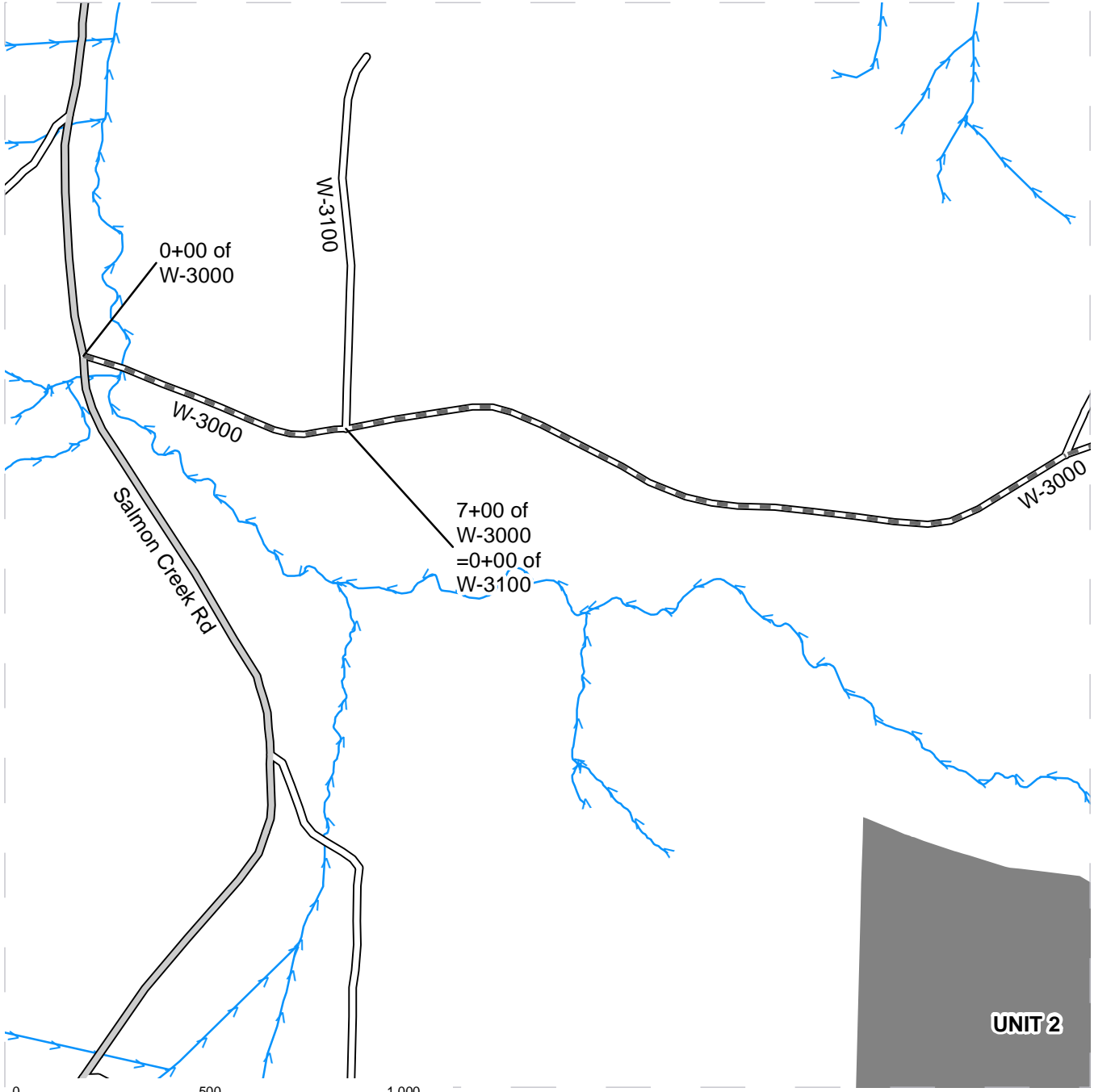
**REGION:** Pacific Cascade Region  
**COUNTY(S):** Lewis  
**ELEVATION RGE:** 640-1520



# ROAD PLAN MAP

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**REGION:** Pacific Cascade Region  
**COUNTY(S):** Lewis  
**ELEVATION RGE:** 640-1520



County Road	Harvest Unit
Existing Roads	Streams
Required Pre-Haul Maintenance	

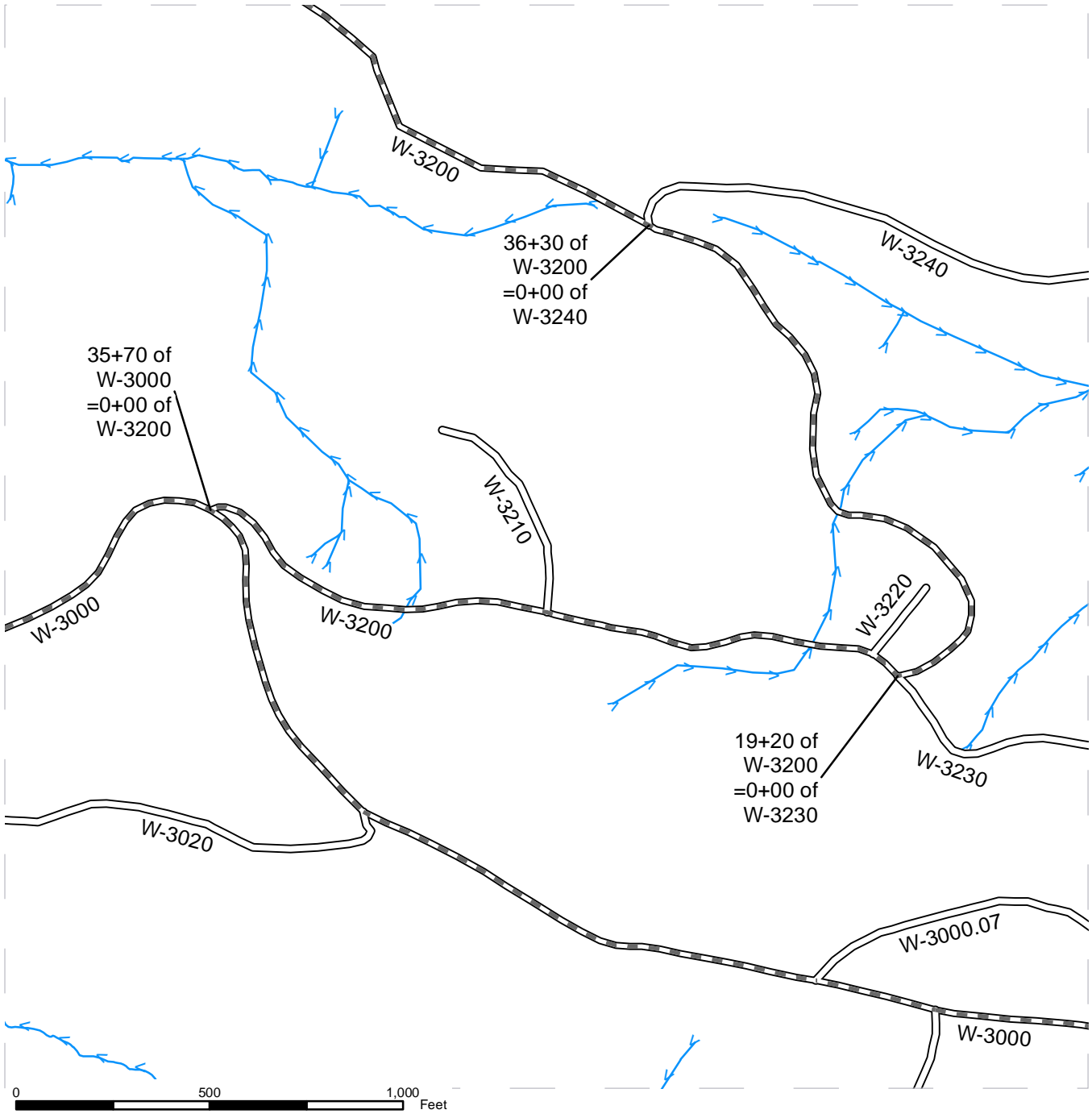




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**ELEVATION RGE:** 640-1520



Legend:

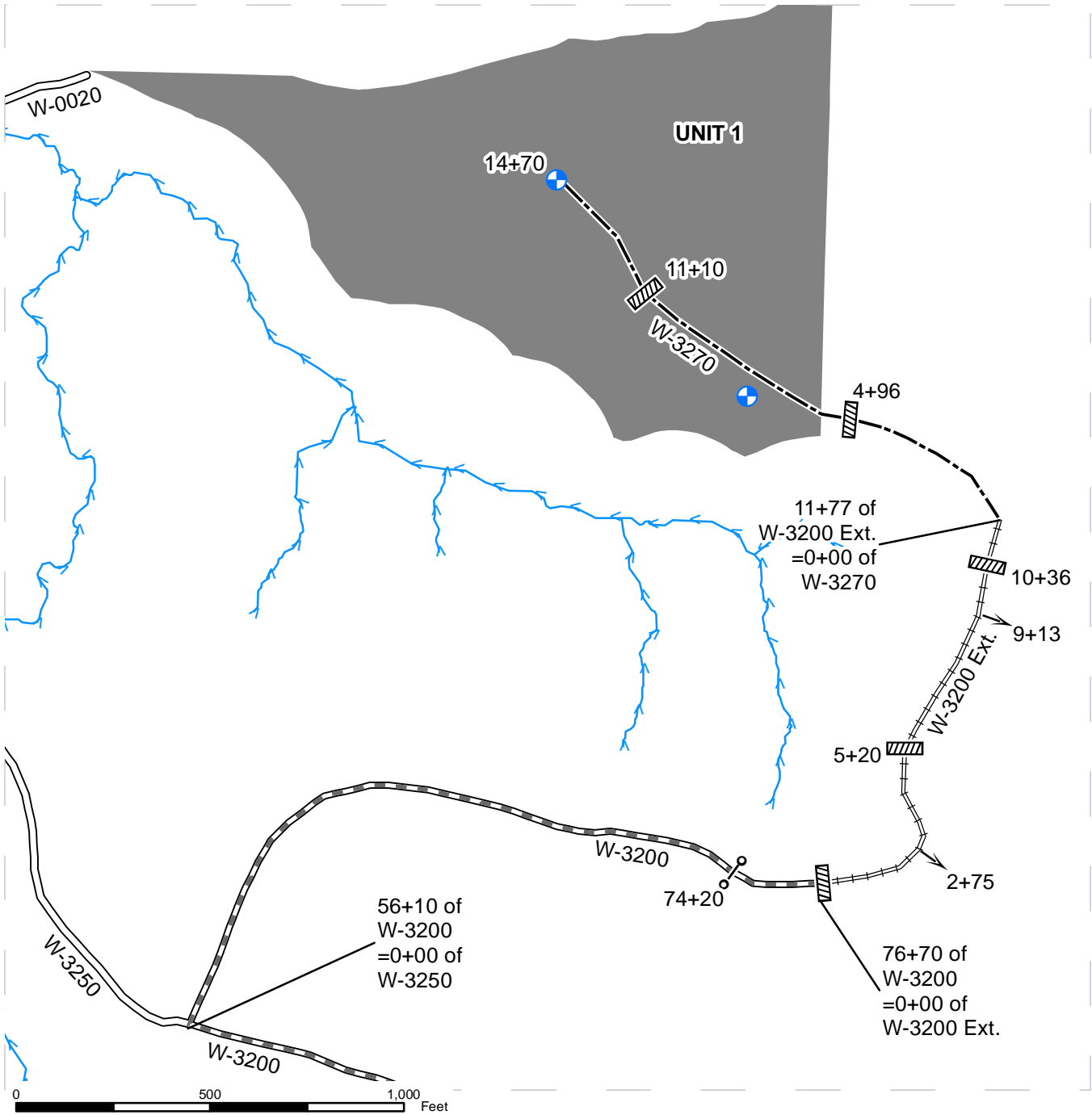
- Existing Roads
- Required Pre-Haul Maintenance
- Streams

North Arrow

# ROAD PLAN MAP

SALE NAME: M HORNET  
 AGREEMENT#: 30-104741  
 TOWNSHIP(S): T11R2E  
 TRUST(S): Capitol Grant (7), Common School and Indemnity(3), State Forest Purchase (2), State Forest Transfer(1),

REGION: Pacific Cascade Region  
 COUNTY(S): Lewis  
 ELEVATION RGE: 640-1520



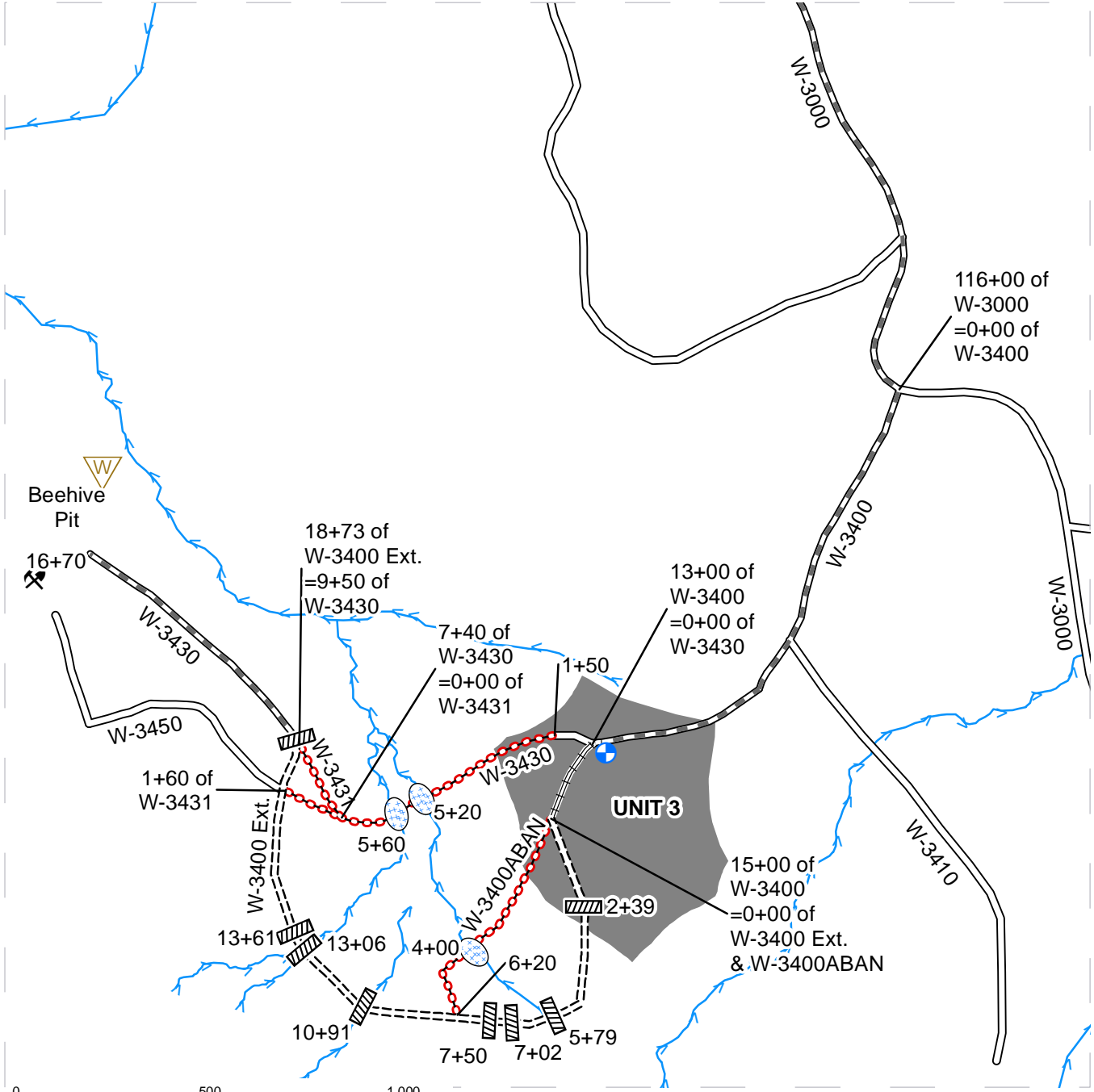
Existing Roads	Ditchout	Harvest Unit
Required Pre-Haul Maintenance	Culvert	Streams
Required Reconstruction	Gate Installation	
Optional Construction	Landing - Proposed	



# ROAD PLAN MAP

**SALE NAME:** M HORNET  
**AGREEMENT#:** 30-104741  
**TOWNSHIP(S):** T11R2E  
**TRUST(S):** Capitol Grant (7), Common School and Indemnity(3), State Forest Purchase (2), State Forest Transfer(1),

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Lewis  
**ELEVATION RGE:** 640-1520



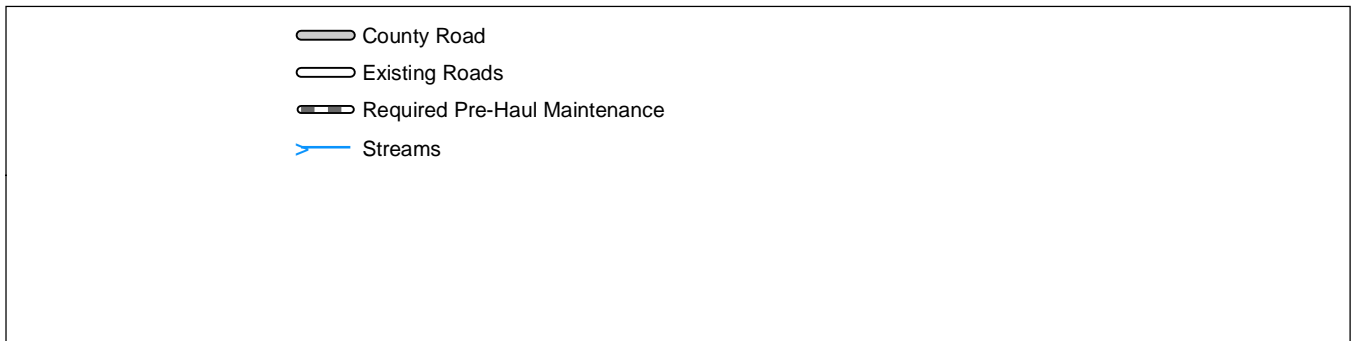
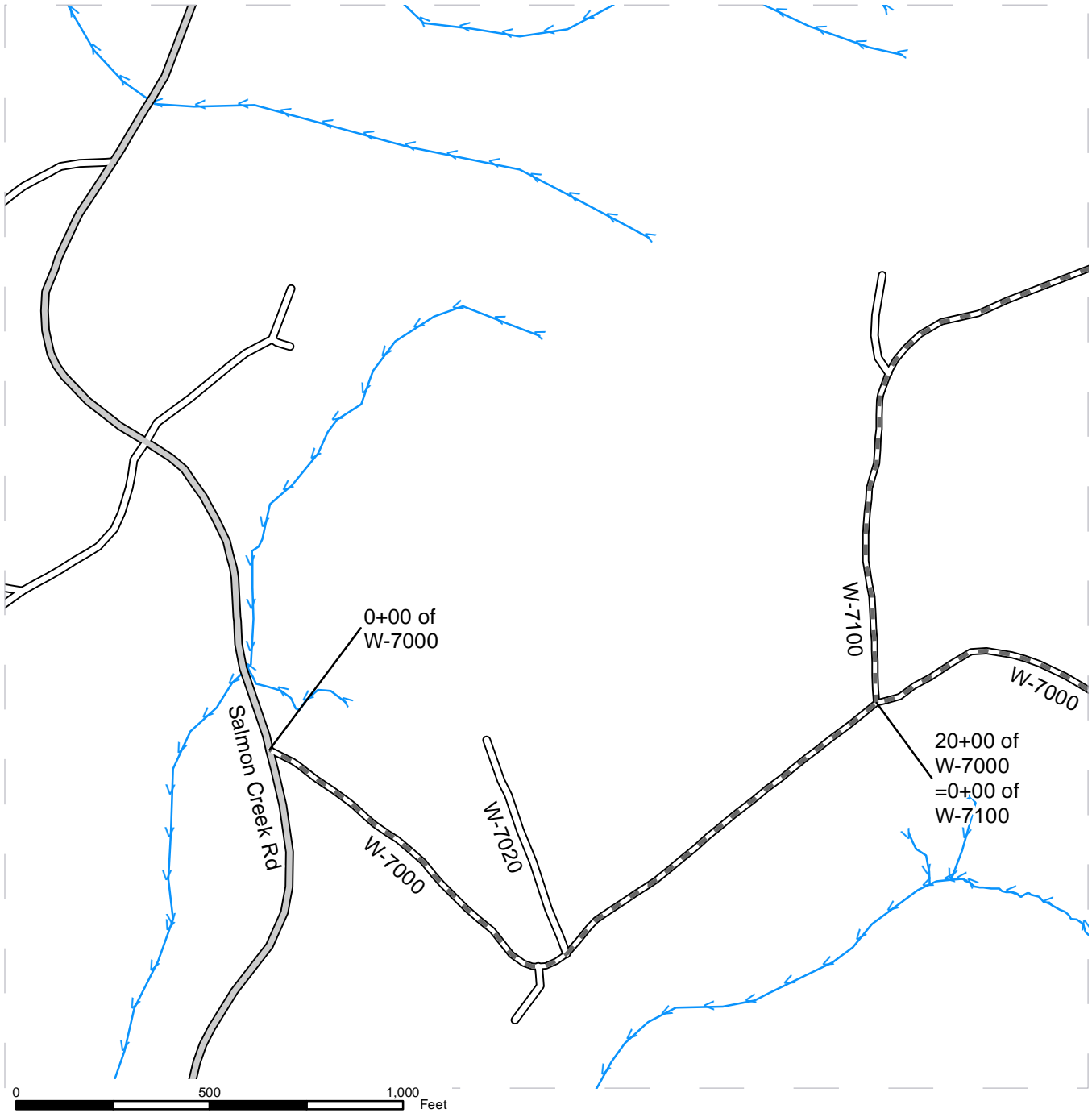
Existing Roads	Culvert	Harvest Unit
Required Pre-Haul Maintenance	Landing - Proposed	Streams
Required Construction	Culvert Removal	
Required Reconstruction	Rock Pit	
Required Abandonment	Waste Area	



# ROAD PLAN MAP

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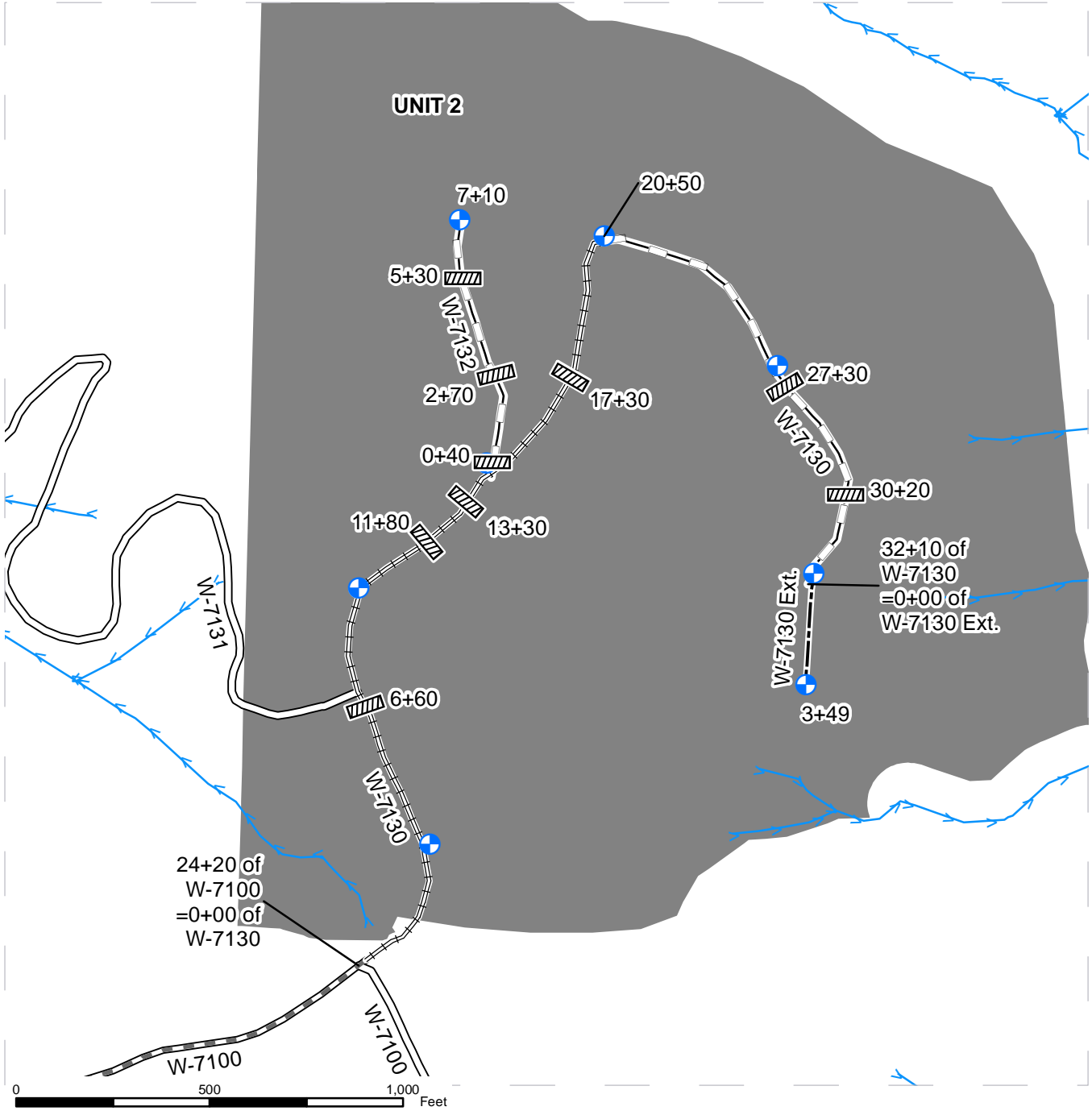
**REGION:** Pacific Cascade Region  
**COUNTY(S):** Lewis  
**ELEVATION RGE:** 640-1520



# ROAD PLAN MAP

SALE NAME: M HORNET  
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 TRUST(S): Capitol Grant (7), Common School and Indemnity(3), State Forest Purchase (2), State Forest Transfer(1),

REGION: Pacific Cascade Region  
 COUNTY(S): Lewis  
 ELEVATION RGE: 640-1520



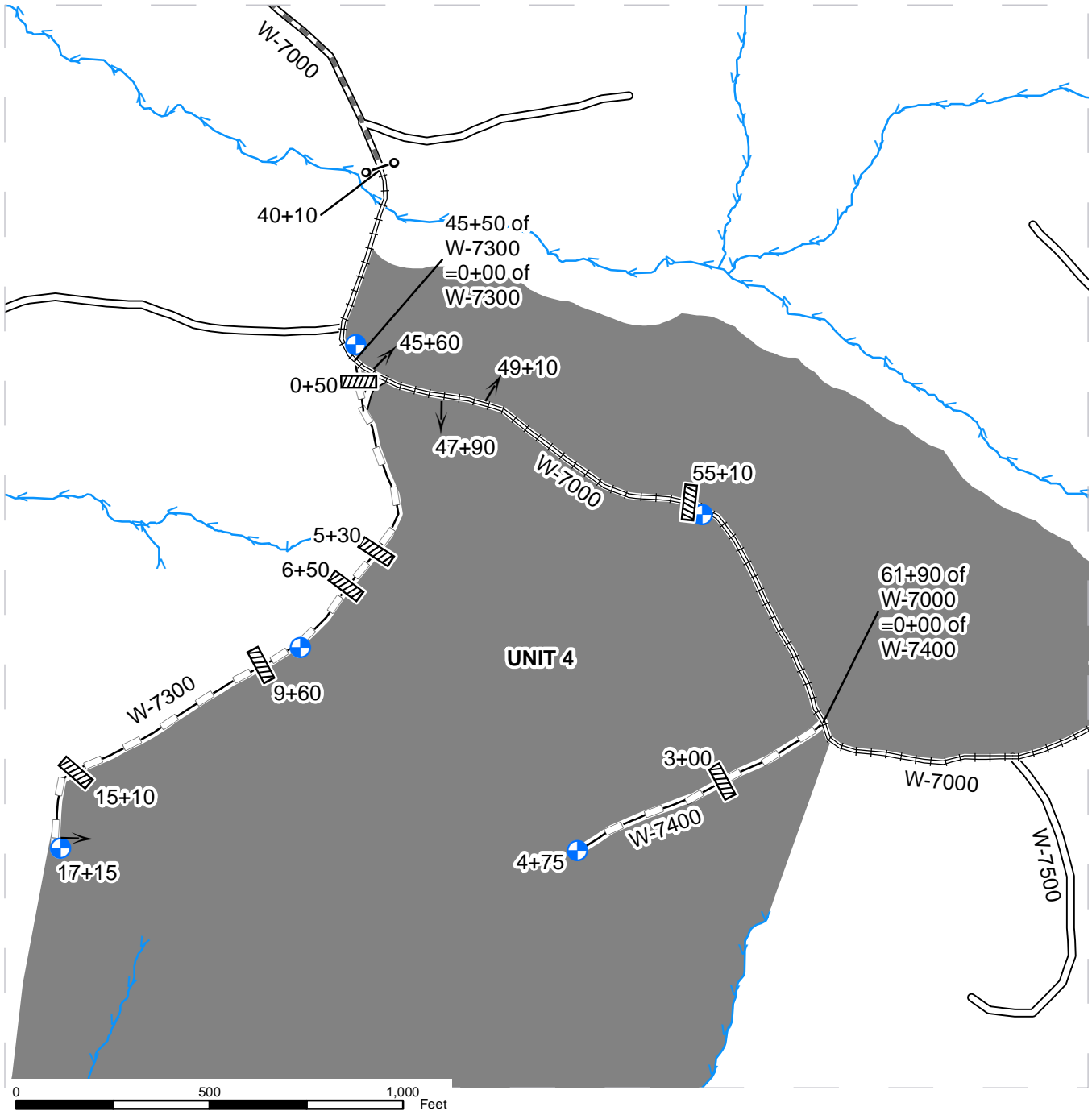
Existing Roads	Culvert	Harvest Unit
Required Pre-Haul Maintenance	Landing - Proposed	Streams
Required Reconstruction		
Optional Construction		
Optional Reconstruction		



# ROAD PLAN MAP

SALE NAME: M HORNET  
 AGREEMENT#: 30-104741  
 TOWNSHIP(S): T11R2E  
 TRUST(S): Capitol Grant (7), Common School and Indemnity(3), State Forest Purchase (2), State Forest Transfer(1),

REGION: Pacific Cascade Region  
 COUNTY(S): Lewis  
 ELEVATION RGE: 640-1520



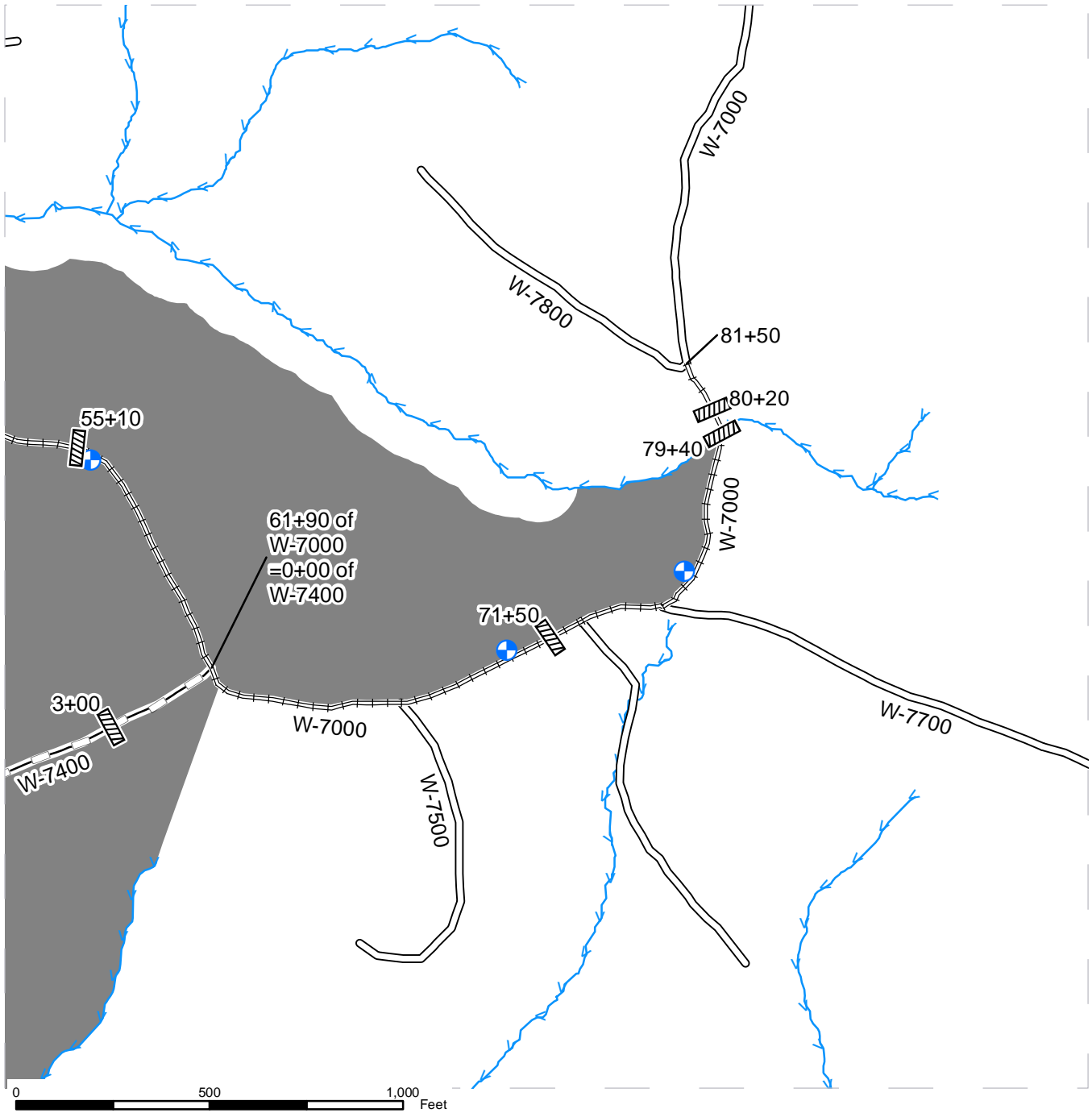
Existing Roads	Ditchout	Harvest Unit
Required Pre-Haul Maintenance	Culvert	Streams
Required Reconstruction	Gate Installation	
Optional Reconstruction	Landing - Proposed	



# ROAD PLAN MAP

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**AGREEMENT#:** 30-104741  
**TOWNSHIP(S):** T11R2E  
**TRUST(S):** Capitol Grant (7), Common School and Indemnity(3), State Forest Purchase (2), State Forest Transfer(1),

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Lewis  
**ELEVATION RGE:** 640-1520



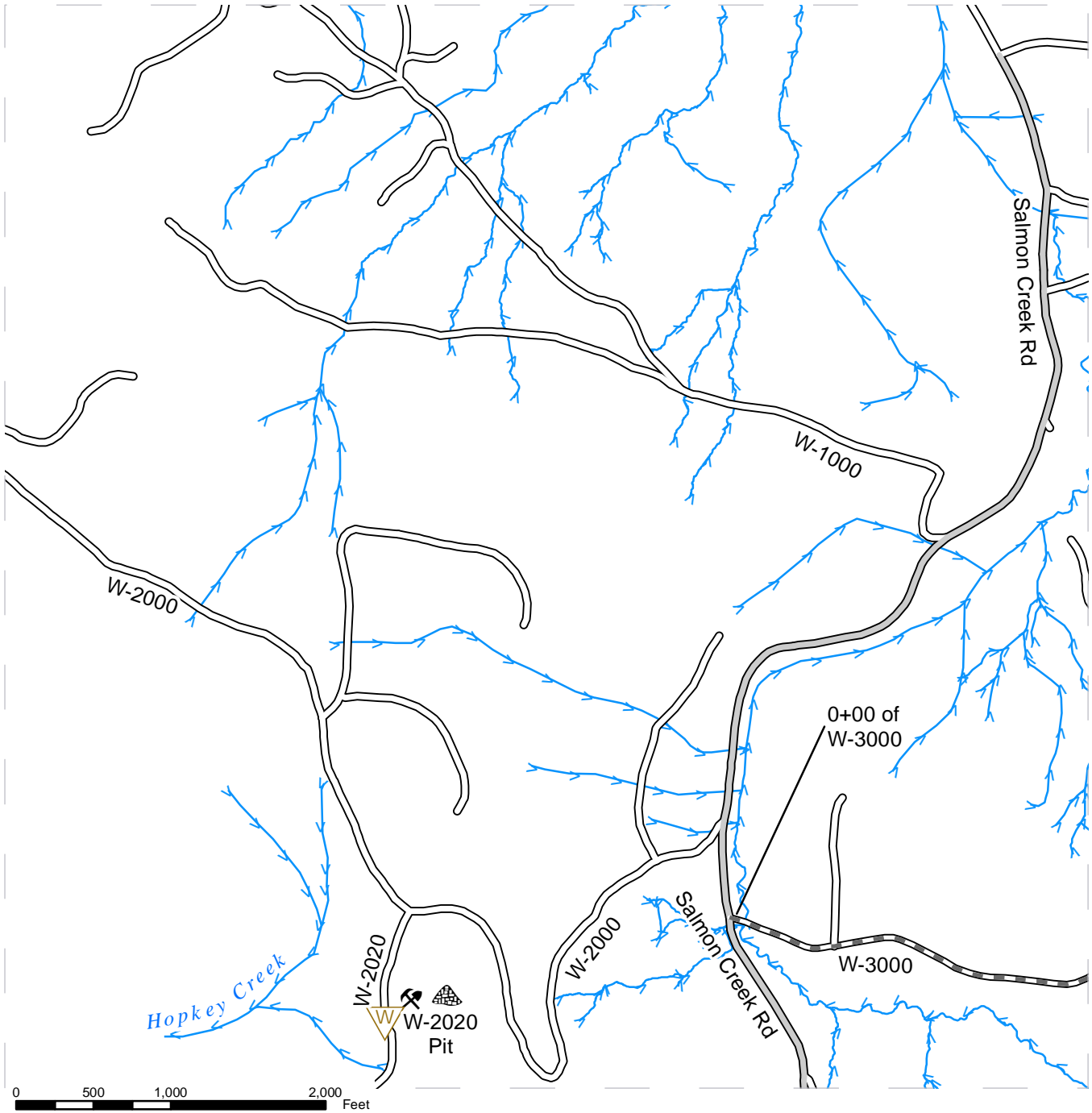
Existing Roads	Culvert	Harvest Unit
Required Reconstruction	Landing - Proposed	Streams
Optional Reconstruction		



# ROAD PLAN MAP

**SALE NAME:** M HORNET  
**AGREEMENT#:** 30-104741  
**TOWNSHIP(S):** T11R2E  
**TRUST(S):** Capitol Grant (7), Common School and Indemnity(3), State Forest Purchase (2), State Forest Transfer(1),

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Lewis  
**ELEVATION RGE:** 640-1520



County Road	Rock Pit
Existing Roads	Stockpile
Required Pre-Haul Maintenance	Waste Area
	Streams





STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES  
M HORNET TIMBER SALE ROAD PLAN  
LEWIS COUNTY  
LEWIS DISTRICT  
PACIFIC CASCADE REGION

AGREEMENT NO.: 30-104741

STAFF ENGINEER: RICH WALLMOW

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>
W-3000	0+00 to 116+00	Pre-haul Maintenance
W-3200	0+00 to 76+70	Pre-haul Maintenance
W-3200 Ext.	0+00 to 11+77	Reconstruction
W-3400	0+00 to 13+00	Pre-haul Maintenance
	13+00 to 15+00	Reconstruction
W-3400 Ext.	0+00 to 18+73	Construction
W-3400ABAN	0+00 to 6+20	Abandonment
W-3430	1+50 to 9+50	Abandonment
	9+50 to 16+70	Pre-haul Maintenance
W-3431	0+00 to 1+60	Abandonment
W-7000	0+00 to 40+10	Pre-haul Maintenance
	40+10 to 81+50	Reconstruction
W-7100	0+00 to 24+20	Pre-haul Maintenance
W-7130	0+00 to 20+50	Reconstruction

**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>
W-3270	0+00 to 14+70	Construction
W-7130	20+50 to 32+10	Reconstruction
W-7130 Ext.	0+00 to 3+49	Construction
W-7132	0+00 to 7+10	Reconstruction
W-7300	0+00 to 17+15	Reconstruction
W-7400	0+00 to 4+75	Reconstruction

**0-4 CONSTRUCTION**

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

**0-5 RECONSTRUCTION**

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
W-3200 Ext.	0+00 to 11+77	Clear and grub, widen road in accordance with Typical Section Sheet and install culverts. Grade, shape and compact prior to rock application; apply rock as shown on the Rock List; grade, shape and compact the applied rock.
W-3400	13+00 to 15+00	Clear and grub, widen road in accordance with Typical Section Sheet. Grade, shape and compact prior to rock application; apply rock as shown on the Rock List; grade, shape and compact the applied rock.
W-7000	40+10 to 81+50	Clear and grub, widen road in accordance with Typical Section Sheet and install culverts. Grade, shape and compact prior to rock application; apply rock as shown on the Rock List; grade, shape and compact the applied rock.
W-7130	0+00 to 32+10	
W-7132	0+00 to 7+10	
W-7300	0+00 to 17+15	
W-7400	0+00 to 4+75	

**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>
W-3000	0+00 to 116+00	Grade and shape existing road surface prior to application of rock; apply rock in accordance with the Rock List; grade, shape and compact after rock application.
W-3200	0+00 to 76+70	Clean ditches in accordance with Clause 2-7. Brush in accordance with Clause 3-1. Grade and shape existing road surface prior to application of rock; apply rock in accordance with the Rock List; grade, shape and compact after rock application.
W-3400	0+00 to 13+00	Grade and shape existing road surface prior to application of rock; apply rock in accordance with the Rock List; grade, shape and compact after rock application.
W-3430	9+50 to 16+70	Spot grade, shape and compact existing road.
W-7000	0+00 to 40+10	Grade, shape and compact existing road.
W-7100	0+00 to 24+20	

**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 shall develop an existing rock source. Rock source development will involve clearing, grubbing, stripping, drilling, shooting and manufacturing rock. Work for developing rock sources is listed in Section 6 ROCK AND SURFACING.

**0-13 STRUCTURES**

Purchaser shall provide and install two gates. 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, unless controlled by construction stakes or design data (plan, profile, and cross-sections).

### 1-4 ROAD TOLERANCES

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

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

### 1-6 ORDER OF PRECEDENCE

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

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

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

**1-8 REPAIR OR REPLACEMENT OF DAMAGED MATERIALS**

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

**1-9 DAMAGED METALLIC COATING**

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

**1-15 ROAD MARKING**

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

- Centerline construction stakes, orange paint and orange flagging for new construction and RP’s.
- Orange painted trees, flagging or construction for reconstruction.
- Orange painted trees or construction stakes for pre-haul maintenance.
- Excavation limit stakes, orange paint and flagging for abandonment.
- Right of way tags for units 5 and 6.

**1-18 REFERENCE POINT DAMAGE**

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

**1-21 HAUL APPROVAL**

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

**1-22 WORK NOTIFICATIONS**

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

**1-23 ROAD WORK PHASE APPROVAL**

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

- Subgrade construction, subgrade compaction and drainage installation
- Rock application and compaction
- Rock Pit Completion
- Abandonment
- Final Road Maintenance

**1-25 ACTIVITY TIMING RESTRICTION**

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

<u>Road</u>	<u>Activity</u>	<u>Closure Period</u>
All Roads, except W-3400ABAN, W-3430	Construction, Reconstruction, Pre-haul Maintenance	October 1 to April 30
W-3400ABAN, W-3430	Abandonment	See FPA Approval Conditions.

**1-26 OPERATING DURING CLOSURE PERIOD**

If permission is granted to operate during a closure period listed in Clause 1-25 ACTIVITY TIMING RESTRICTION, 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.

**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, jaw run, or native surface roads.
- Wheel track rutting exceeds 2 inches on crushed rock roads.
- Surface or base stability problems persist.
- 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.

**1-33 SNOW PLOWING RESTRICTION**

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

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

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

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

**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 all roads in a condition that will allow the passage of light administrative vehicles.

**2-5 MAINTENANCE GRADING – EXISTING ROAD**

On the following roads, Purchaser shall use a grader to shape the existing surface before rock application.

<u>Road</u>	<u>Stations</u>
W-3000	0+00 to 116+00
W-3200	0+00 to 76+70
W-3400	0+00 to 13+00
W-3430	9+50 to 16+70
W-7000	0+00 to 40+10
W-7100	0+00 to 24+20

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

On the following roads, Purchaser shall clean ditches, headwalls, and catchbasins. Work must be completed before grading and rocking 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>
W-3200	74+70 to 76+70

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

**3-1 BRUSHING**

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

<u>Road</u>	<u>Stations</u>
W-3200	0+00 to 45+30

**3-5 CLEARING**

Purchaser shall fall all vegetative material larger than 2 inches DBH or over 4 feet high between the marked right-of-way boundaries and within waste and debris areas, or if not marked in the field, between the clearing limits specified on the TYPICAL SECTION SHEET. Clearing must be completed before starting excavation and embankment.

**3-8 PROHIBITED DECKING AREAS**

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

- Within the grubbing limits.
- Within 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, unless approved by the Contract Administrator.

**3-10 GRUBBING**

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

**3-12 STUMP PLACEMENT**

Purchaser shall place grubbed stumps adjacent to the road shoulder and in compliance with all other clauses in this road plan.



**3-14 STUMPS WITHIN DESIGNATED WASTE AREAS**

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

**3-20 ORGANIC DEBRIS DEFINITION**

Organic debris is defined as all vegetative material not eligible for removal by Contract 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 grubbing and brushing limits.

**3-21 DISPOSAL COMPLETION**

Purchaser shall remove organic debris from the road surface, ditch lines, and culvert inlets and outlets. Purchaser shall complete all disposal of organic debris, before subgrade compaction, the application of rock, and timber haul.

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

Waste areas for organic debris are located within the cleared right-of-way or in natural openings as designated by the Contract Administrator.

**3-23 PROHIBITED DISPOSAL AREAS**

Purchaser shall not place organic debris in the following areas:

- Within 25 feet of a cross drain culvert.
- Within 50 feet of a live stream, or wetland.
- On road subgrades, or excavation and embankment slopes.
- On slopes greater than 45%.
- Within the operational area for cable landings where debris may shift or roll.
- On locations where brush can fall into the ditch or onto the road surface.
- Against standing timber.

**3-24 BURYING ORGANIC DEBRIS RESTRICTED**

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

**3-25 SCATTERING ORGANIC DEBRIS**

Purchaser shall scatter organic debris outside of the grubbing limits and in natural openings. Where natural openings are unavailable or restrictive, alternate debris disposal methods are subject to the written approval of the Contract Administrator.

## 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, except as designed:

- Grade and alignment must have smooth continuity, without abrupt changes in direction.
- Maximum grades may not exceed 15 percent favorable and 12 percent adverse.
- Minimum curve radius is 60 feet at centerline.
- Maximum grade change for sag vertical curves is 5% in 100 feet.
- Maximum grade change for crest vertical curves is 4% in 100 feet.

### 4-5 CUT SLOPE RATIO

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

<u>Material Type</u>	<u>Excavation Slope Ratio</u>	<u>Excavation Slope Percent</u>
Common Earth (on side slopes up to 55%)	1:1	100
Common Earth (on slopes over 70%)	¾:1	133
Fractured or loose rock	½:1	200
Hardpan or solid rock	¼:1	400

### 4-6 EMBANKMENT SLOPE RATIO

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

<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. Locations changes are subject to written approval by the Contract Administrator. Minimum dimensions are shown on the ROCK LIST.

**4-22 TURNAROUNDS**

Purchaser shall construct turnarounds as designated on the ROCK LIST. Turnarounds must be no larger than 30 feet long and 30 feet wide.

**4-25 DITCH CONSTRUCTION AND RECONSTRUCTION**

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

**4-28 DITCH DRAINAGE**

Ditches must drain to cross-drain culverts or ditchouts.

**4-29 DITCHOUTS**

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

<u>Road</u>	<u>Stations</u>	<u>Comments</u>
W-3200 Ext.	2+75, 9+13	Right
W-7000	45+60, 49+10	Left
	47+90	Right
W-7300	17+15	Left

**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 areas identified or approved by the Contract Administrator. The amount of material allowed in a waste area is at the discretion of the Contract Administrator.

<u>Road</u>	<u>Waste Area Location</u>	<u>Comments</u>
W-2020	See W-2020 Pit Development Plan	
W-3430	Adjacent to Beehive	As approved by CA

**4-38 PROHIBITED WASTE DISPOSAL AREAS**

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

- Within 25 feet of a cross drain culvert.
- Within 50 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.
- 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 4 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.

**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. Waste material may be placed by end-dumping or sidecasting until sufficiently wide enough to support the equipment.

**4-61 SUBGRADE COMPACTION**

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

**4-63 EXISTING SURFACE COMPACTION**

Purchaser shall compact maintained road surfaces in accordance with the COMPACTION LIST by routing equipment over the entire width.

SECTION 5 – DRAINAGE

**5-5 CULVERTS**

Purchaser shall install culverts as part of this contract. Culverts must be installed concurrently with subgrade work and must be installed before subgrade compaction and rock application. Culvert locations and the minimum requirements for culvert length and diameter are designated on the CULVERT LIST. Culvert, downspout, and flume lengths may be adjusted to fit as-built conditions and may not terminate directly on unprotected soil. Culverts must be new material and meet the specifications in Clauses 10-17 through 10-22.

**5-10 CULVERT MARKER INSTALLATION**

At all new 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 and the Corrugated Polyethylene Pipe Association’s “Recommended Installation Practices for Corrugated Polyethylene Pipe and Fittings”. Corrugated Polyethylene pipe must be installed in a manner consistent with the manufacturer’s recommendations. Culverts shall be banded using lengths of no less than 10 feet, and no more than one length less than 16 feet. Shorter sections of banded culvert shall be installed at the inlet end.

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

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

**5-18 CULVERT DEPTH OF COVER**

Cross drain culverts must be installed with a depth of cover of not less than 1 foot of compacted subgrade over the top of the culvert at the shallowest point. Stream crossing culverts must be installed with a depth of cover recommended by the culvert manufacturer for the type and size of the pipe.

**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 and must be consistent with the specifications on the CULVERT LIST, except for temporary culverts. Placement must be by zero drop-height method only. Energy dissipater installation is subject to approval by the Contract Administrator.

**5-25 CATCH BASINS**

Purchaser shall construct catch basins in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL. Minimum dimensions of catch basins are 3 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 placement of rock, except for temporary culverts. Rock may not restrict the flow of water into culvert inlets or catch basins. 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.

**5-33 NATIVE SURFACE ROADS**

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

**SECTION 6 – ROCK AND SURFACING**

**6-2 ROCK SOURCE ON STATE LAND**

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

<u>Source</u>	<u>Location</u>
W-2020 Pit	Sec. 3, T11N R2E
Beehive Pit	Sec. 12, T11N R2E

**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 on state land at no charge to the Purchaser. Purchaser shall not remove additional yardage without prior written approval from the Contract Administrator. Other stockpiles may not be used.

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>	<u>Quantity</u>
W-2020 Stockpile	W-2020 Pit	1 ½" Minus Crushed	653

**6-5 ROCK FROM COMMERCIAL SOURCE**

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

**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. Purchaser shall notify the Contract Administrator a minimum of 3 business days before starting any operations in the rock source.

<u>Source</u>
W-2020 Pit

**6-11 ROCK SOURCE DEVELOPMENT PLAN BY PURCHASER**

Purchaser shall conduct rock source development and use at the following sources, in accordance with a written ROCK SOURCE DEVELOPMENT PLAN to be prepared by the Purchaser. The plan is subject to written approval by the Contract Administrator before any rock source operations. 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. Purchaser shall notify the Contract Administrator a minimum of 5 business days before starting any operations in the rock source.

<u>Source</u>
Beehive Pit

Rock source development plans prepared by the Purchaser must show the following information:

- Rock source location.
- Rock source overview showing access roads, development areas, stockpile locations, waste areas, and floor drainage.
- Rock source profiles showing development areas, bench locations including widths, and wall faces including heights.
- Must follow written pit development plan clauses for the W-2020 Pit, unless otherwise approved in writing by Contract Administrator.

**6-13 ROCK EXPLORATION**

Purchaser shall provide an excavator and rock drill with operator for up to a total of 16 hours of exploration of rock and other related work as directed by the Contract Administrator at the following site(s).

<u>Site</u>	<u>Location</u>
Beehive Pit	Sec. 12, T11N R2E
W-2020 Pit	Sec. 3, T11N R2E

**6-22 FRACTURE REQUIREMENT FOR ROCK**

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

**6-23 ROCK GRADATION TYPES**

Purchaser shall 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. Purchaser shall provide a sieve analysis upon request from the Contract Administrator.

**6-32 2 ½-INCH MINUS CRUSHED ROCK**

- % Passing 2 ½" square sieve            100%
- % Passing 1 ¼" square sieve            55 - 75%
- % Passing U.S. #4 sieve                20 - 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 8 inches in any dimension and no rock may be larger than 12 inches in any dimension. Pit Run rock may not contain more than 5 percent by weight of organic debris, dirt, and trash. Rock may require processing to meet this specification.

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

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



**6-65 ROCK STOCKPILE LOCATION**

Purchaser shall stockpile rock as directed by the Contract Administrator in accordance with the ROCK LIST and Clause 6-67 ROCK STOCKPILE SPECIFICATIONS.

<u>Rock Source</u>	<u>Rock Type</u>	<u>Quantity (c.y.)</u>	<u>Stockpile Location</u>
W-2020 Pit	2 ½" Minus Crushed	500	W-2020 Pit

**6-67 ROCK STOCKPILE SPECIFICATIONS**

Rock stockpiles listed in Clause **6-65 ROCK STOCKPILE LOCATION** must meet the following specifications:

Before placing aggregates upon the stockpile site, the site must be cleared of vegetation, trees, stumps, brush, rocks, or other debris and the ground leveled to a smooth, firm, uniform surface.

When completed, the stockpile must be neat and regular in shape. The stockpile height is limited to a maximum of 20 feet. Stockpiles in excess of 200 cubic yards must be built up in layers of not more than 5 feet deep. Stockpile layers must be constructed by trucks, clamshells, or other methods approved in writing by the Contract Administrator. Each layer must be completed over the entire area of the pile before depositing aggregates in the next layer. The aggregates may not be dumped so that they run down and over the lower layers in the stockpile. The method of dropping from a bucket or spout in one location to form a cone shaped pile is not allowed.

Stockpiles of different types or sizes of aggregate must be spaced far enough apart, or separated by suitable walls or partitions, to prevent the mixing of the aggregates.

**6-70 APPROVAL BEFORE ROCK APPLICATION**

Purchaser shall obtain written approval from the Contract Administrator for subgrade construction 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. Road surfaces must be compacted in accordance with the COMPACTION LIST by routing equipment over the entire width.

**6-73 ROCK FOR WIDENED PORTIONS**

Purchaser shall apply rock to turnarounds, turnouts, and areas with curve widening to the same depth and specifications as the traveled way, unless otherwise specified in the ROCK LIST.

**6-75 OPTIONAL ROCK EXCEPTION**

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

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

<u>Road</u>	<u>Stations</u>
W-3270	0+00 to 14+70
W-7130 Ext.	0+0 to 3+49
W-7132	0+00 to 7+10
W-7400	0+00 to 4+75

**SECTION 7 – STRUCTURES**

**7-76 GATE INSTALLATION**

Purchaser shall install the listed gate. Gate installation must be completed within 30 days of start of rock haul.

<u>Road</u>	<u>Station</u>	<u>Type*</u>	<u>Provided by</u>
W-3200	74+20	Tubular	Purchaser
W-7000	40+10	Tubular	Purchaser

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

The gate and lock box must be installed plumb and aligned to ensure all mating components match with precision. Each post must be filled with concrete and set in a minimum of 3 cubic yards of poured-in-place concrete. The gate must be installed with a post and locking device to allow the gate to be locked in an open position. The Contract Administrator will provide Purchaser with a padlock.

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.

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

**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**

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

On the following road, Purchaser shall install a sediment pond in accordance with the SETTLING POND DETAIL.

<u>Road</u>	<u>Stations</u>	<u>Comments</u>
W-3400 Ext.	5+50, 10+65, 11+20, 12+90, 13+25	On left.
W-7000	79+15, 79+70	On right.

**8-2 PROTECTION FOR EXPOSED SOIL**

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

**8-15 REVEGETATION**

On the following roads, Purchaser shall spread 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>	<u>Type</u>	<u>Remarks</u>
W-3200 Ext.	0+00 to 11+77	23	Seed	
W-3270	0+00 to 14+70	44	Seed	
W-3400	13+00 to 15+00	4	Seed	
W-3400 Ext.	0+00 to 18+73	56	Seed	
W-3400ABAN	0+00 to 6+20	20	Seed	Abandonment only.
W-3430	1+50 to 9+50	24	Seed	
W-3431	0+00 to 1+60	40	Seed	
W-7000	40+10 to 81+50	83	Seed	
W-7130	0+00 to 32+10	90	Seed	
W-7130 Ext.	0+00 to 3+49	10	Seed	
W-7132	0+00 to 7+10	14	Seed	
W-7300	0+00 to 17+15	34	Seed	
W-7400	0+00 to 4+75	13	Seed	
W-2020 Pit		10	Seed	Waste area
Beehive Pit		10	Seed	Waste area.

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

**8-16 REVEGETATION SUPPLY**

The Purchaser shall provide the seed.

**8-17 REVEGETATION TIMING**

Purchaser shall revegetate after road work is completed and between March 15 and September 30, unless otherwise approved by Contract Administrator.

**8-18 PROTECTION FOR SEED**

Purchaser shall provide a protective cover for seed on all exposed soils within 25 feet of streams or wetlands. The protective cover may consist of straw or hay. Seed may not be allowed to sit exposed during any rain event.

**8-19 ASSURANCE FOR SEEDED AREA**

Purchaser shall ensure the growth of a uniform and dense crop (at least 50% coverage) of 2-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 addition cost to the state.

**8-25 GRASS SEED**

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

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

<u>Kind and Variety of Seed in Mixture</u>	<u>% by Weight</u>
Perennial Rye	35-45
Red Fescue	30-40
Highland Bent	5-15
White Clover	10-20
Inert and Other Crop	0.5

**SECTION 9 – POST-HAUL ROAD WORK**

**9-1 EARTHEN BARRICADES**

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

<u>Road</u>	<u>Stations</u>
W-3400ABAN	0+00, 6+20
W-3430	1+50, 9+50
W-3431	1+60
W-3450	6+10

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

On the following road(s), Purchaser shall remove existing culverts 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 FPA Approval, STREAM DIVERSION PROCEDURE, LIVE STREAM FILL REMOVAL DETAIL and ROAD PRISM WASTE DETAIL.

<u>Road</u>	<u>Stations</u>	<u>Comments</u>
W-3400ABAN	4+00	Excavation limits as staked and described in Live Stream Fill Removal Detail
W-3430	5+20	
	5+60	

**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.

**9-10 LANDING DRAINAGE**

Purchaser shall provide for drainage of the landing surface.

**9-11 LANDING EMBANKMENT**

Purchaser shall slope landing embankments to the original construction specifications.

**9-21 ROAD ABANDONMENT**

Purchaser shall abandon the following roads. Work must be in accordance with the ROAD ABANDONMENT CROSS SECTIONS DETAIL.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
W-3400ABAN	0+00 to 6+20	Medium
W-3430	1+50 to 9+50	Medium
W-3431	0+00 to 1+60	Medium

### **9-23 MEDIUM ABANDONMENT**

- Fill in ditches.
- Rip the surface to a minimum depth of 10 inches.
- Construct non-drivable waterbars in accordance with the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical drop of no more than 10 feet between waterbars or between natural drainage paths and with a maximum spacing of 100 feet, or as marked in the field.
- Skew waterbars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3 percent grade.
- Key waterbars into the cut-slope to intercept the ditch. Waterbars must be outsloped to provide positive drainage. Outlets must be on stable locations.
- Block roads with earthen barricades in accordance with the attached EARTHEN BARRICADE DETAIL.
- Remove stream and ditch cross drain culverts and leave the resulting trench open in accordance with LIVE STREAM FILL REMOVAL DETAIL, STREAM DIVERSION PROCEDURE, CROSS DRAIN REMOVAL DETAIL and ROAD PRISM WASTE DETAIL.
- Remove ditch cross drain culverts and leave the resulting trench open.
- Slope all trench walls and approach embankments no steeper than 1.5:1.
- Apply grass seed concurrently with abandonment and in accordance with Section 8 EROSION CONTROL.
- Provide and evenly spread a 4-inch layer of straw to all exposed soils associated with stream culvert and puncheon removals, as well as all waste material generated by fill removal that is within 50 feet of excavation limits.
- Scatter woody debris onto abandoned road surfaces.

## **SECTION 10 MATERIALS**

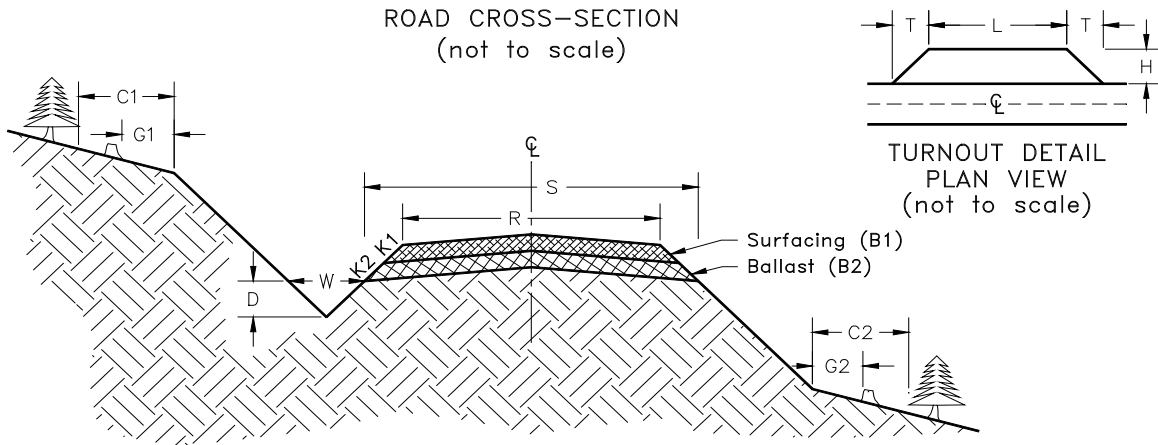
### **10-17 CORRUGATED PLASTIC CULVERT**

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.

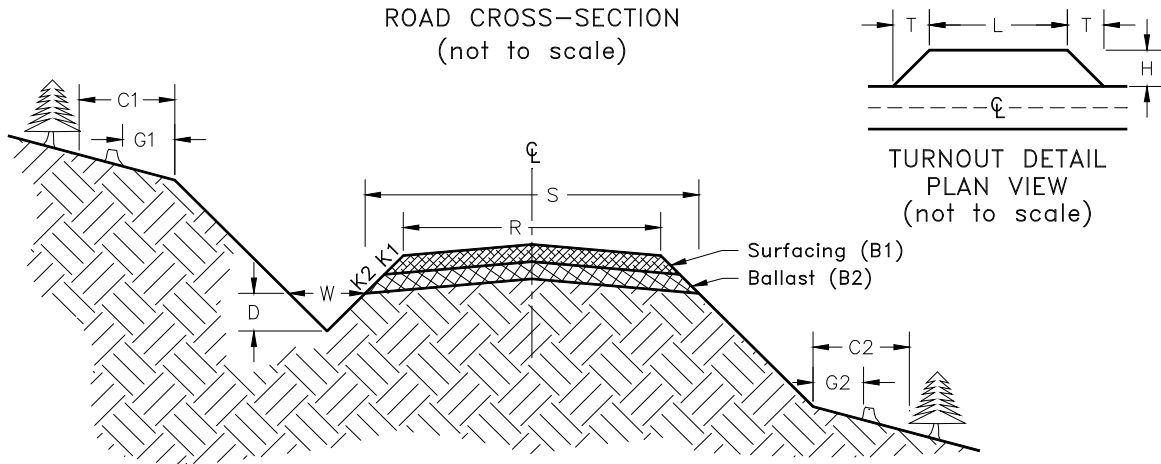
# TYPICAL SECTION SHEET



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	
W-3000	0+00	116+00	A	-	13	-	-	4	-	-	-	-	
W-3200	0+00	76+70	A	-	12	3	1	4	-	-	-	-	
W-3200 Ext.	0+00	11+77	C	14	12	3	1	4	2	2	ROW		
W-3270	0+00	14+70	C	16	12	3	1	4	5	5	10	10	
W-3400	0+00	13+00	C	-	12	-	-	4	-	-	-	-	
		13+00	15+00	C	16	12	3	1	4	2	2	10	10
W-3400 Ext.	0+00	3+00	C	16	12	3	1	4	5	5	10	10	
		3+00	18+73	C	16	12	3	1	4	5	ROW		
W-3430	1+00	16+70	A	-	12	3	1	4	-	-	-	-	
W-7000	0+00	40+10	A	-	12	-	-	4	-	-	-	-	
		40+10	81+50	B	14	12	3	1	4	2	2	5	5
W-7100	0+00	24+20	A	-	12	-	-	4	-	-	-	-	
W-7130	0+00	32+10	C	16	12	3	1	4	2	2	10	10	
W-7132	0+00	7+10	C	16	12	3	1	4	2	2	10	10	
W-7130 Ext.	0+00	3+49	C	16	12	3	1	4	2	2	10	10	
W-7300	0+00	17+15	C	14	12	3	1	4	2	2	10	10	
W-7400	0+00	4+75	C	14	12	3	1	4	2	2	10	10	



# ROCK LIST



## SELECT PIT RUN

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				W-2020 Pit or Beehive Pit	L (ft)	H (ft)	T (ft)
W-3200 Ext.	Energy Dissipater						3				
W-3270	* 0+00 14+70		1 1/2:1	15	81	14.70	1191				
	* Turnarounds (9+99)				43	1	43				
	* Turnouts (6+82)				23	1	23		40	10	25
	* Curve Widening						42				
	* Energy Dissipater						2				
	* Landings				50	1	50				
W-3400	13+00 15+00		1 1/2:1	12	68	2.00	136				
	Turnaround (15+00)				34	1	34				
	Curve Widening						5				
	Junctions				12	1	12				
W-3400 Ext.	0+00 18+73		1 1/2:1	15	87	18.73	1630				
	Turnarounds (8+68, 15+19)				43.5	2	87				
	Turnouts (18+50)				23.5	2	47		40	10	25
	Curve Widening						57				
	Energy Dissipater						15				
W-7000	Energy Dissipater						6				
W-7130	20+50 32+10		1 1/2:1	12	63	11.60	731				
	Turnarounds				34	1	34				
	Turnouts				19	1	19		40	10	25
	Curve Widening						26				
	Landings				60	4	240				
	Energy Dissipater						30				

# ROCK LIST

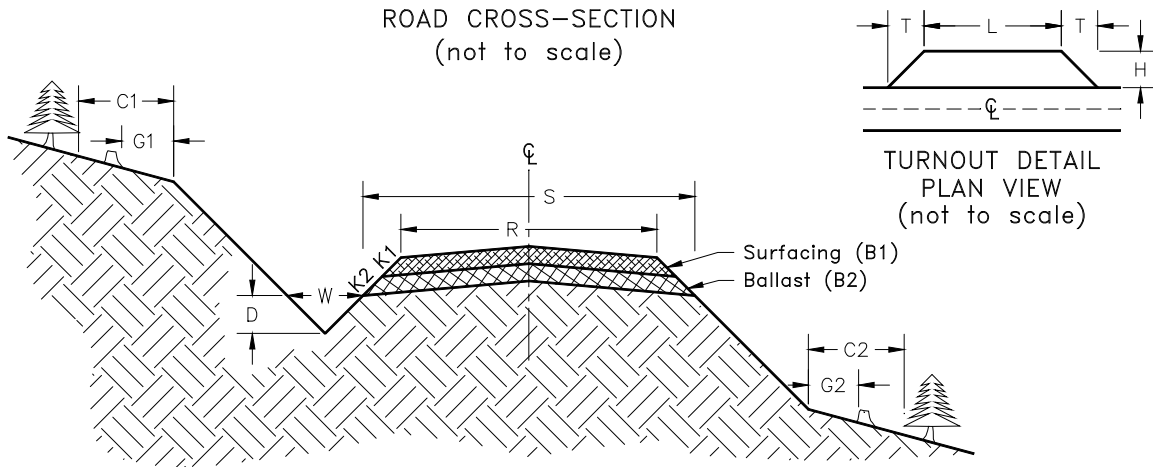
## SELECT PIT RUN

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				W-2020 Pit or Beehive Pit	L (ft)	H (ft)	T (ft)
W-7132	*	0+00	7+10	1 1/2:1	12	63	7.10	447		40	10	25
	*	Turnouts				19	1	19				
	*	Curve Widening						16				
	*	Junctions				12	1	12				
	*	Landings				70	1	70				
		Energy Dissipater						3				
W-7130 Ext.	*	0+00	3+49	1 1/2:1	15	81	3.49	283				
	*	Curve Widening						10				
	*	Landings				50	1	50				
W-7300		5+30	17+15	1 1/2:1	12	63	11.85	747				
		Turnarounds				34	2	68				
		Curve Widening						26				
		Landings				70	1	70				
		Energy Dissipater						5				
W-7400	*	Landings				70	1	70				
	*	Energy Dissipater						1				

\*Optional Rock in accordance with 6-75

REQUIRED SELECT PIT RUN: 4031 CY  
 OPTIONAL SELECT PIT RUN: 2329 CY  
 TOTAL SELECT PIT RUN: 6360 CY

# ROCK LIST



## 2 1/2" 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	Turnout		
									Length L (ft)	Width H (ft)	Taper T (ft)
			K2	B2				W-2020 Pit			
W-3200	74+70	76+70	1 1/2:1	8	41	2.00	82				
W-3200 Ext.	0+00	11+77	1 1/2:1	8	41	11.77	483				
	Turnarounds (3+00, 11+77)				22	2	44				
	Turnouts (6+82)				12	1	12		40	10	25
	Curve Widening						17				
W-7000	40+10	81+50	1 1/2:1	8	41	41.40	1697				
	Turnarounds				22	3	66				
	Turnouts				12	3	36		40	10	25
	Curve Widening						59				
W-7130	0+00	20+50	1 1/2:1	8	41	20.50	841				
	Turnarounds (19+50, 29+80)				22	1	22				
	Turnouts (7+00, 24+80)				12	1	12		40	10	25
	Curve Widening						29				
W-7300	0+00	5+30	1 1/2:1	8	41	5.30	217				
	Curve Widening						8				
	Junctions				8	1	8				
	Culvert Backfill				0	1	0				
W-7400	* 0+00	4+75	1 1/2:1	8	41	4.75	195				
	* Turnouts				12	1	12		40	10	25
	* Curve Widening						7				
	* Junctions				8	1	8				
Stockpile							500				

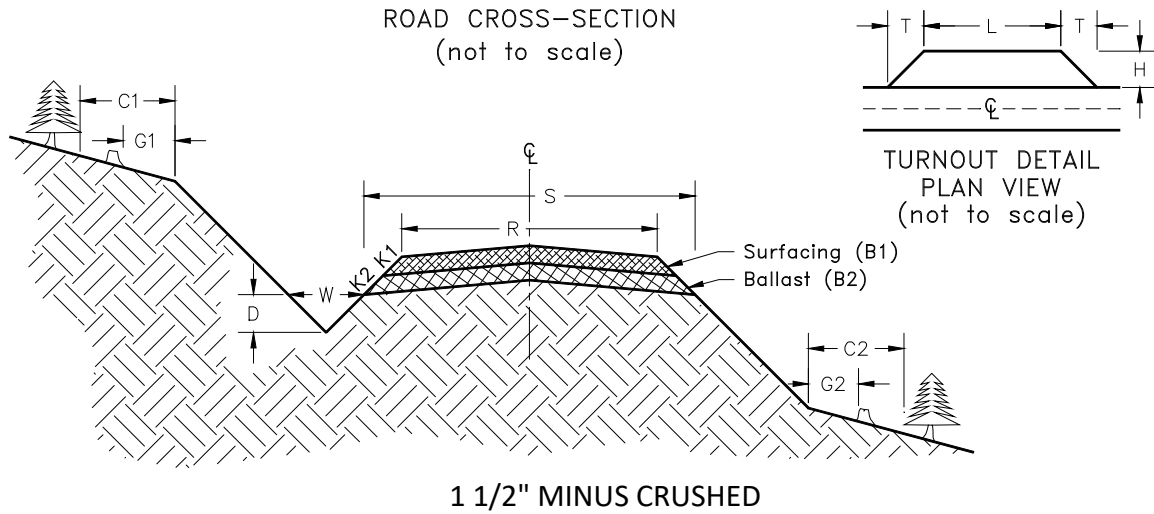
\*Optional Rock in accordance with 6-75

REQUIRED 2 1/2" MINUS CRUSHED: 4133 CY

OPTIONAL 2 1/2" MINUS CRUSHED: 222 CY

TOTAL 2 1/2" MINUS CRUSHED: 4355

# ROCK LIST



Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth (in)	C.Y. per Station or Unit	# of Stations or Units	C.Y. Subtotal	Rock Source	Turnout		
									Length L (ft)	Width H (ft)	Taper T (ft)
			K1	B1				W-2020 Stock Pile			
W-3000	Spot Rock (26+00, 60+60, 81+70, 93+70, 114+00)				10	5	50				
	Spot Rock (45+10, 55+40, 64+10, 76+50, 79+60, 97+00, 111+80)				20	7	140				
	Spot Rock (33+70, 38+10)				30	2	60				
W-3200	34+10	45+30		4	20	11.20	224				
	Spot Rock (54+10, 56+10, 62+10, 67+70)				4	10	40				
	Curve Widening						7				
W-3400	0+00	6+00	1 1/2:1	4	20	6.00	120				
	Curve Widening Junctions						4				
					8	1	8				
W-3400 Ext.	Culvert Backfill				20	3	60				
W-7000	Culvert Backfill				20	4	80				
W-7130	Culvert Backfill				20	6	120				
W-7400	*	Culvert Backfill			20	1	20				

REQUIRED 1 1/2" MINUS CRUSHED: 913 CY  
 OPTIONAL 1 1/2" MINUS CRUSHED: 20 CY  
 TOTAL 1 1/2" MINUS CRUSHED: 933 CY

## CULVERT LIST

Road Number	Location	Culvert			Armoring (C.Y.)			Backfill	Bedding	Inlet	Remarks
		Dia (In)	Length	Type	Inlet	Outlet	Type	Material	Material	Marker	
W-3200 Ext.	0+00	18	40	PD	0.5	0.5	SP	NT	NT	Y	Replace
	5+20	18	30	PD	0.5	0.5	SP	NT	NT	Y	Replace
	10+36	18	30	PD	0.5	0.5	SP	NT	NT	Y	May not be needed.
W-3270	4+96	18	30	PD	0.5	0.5	SP	NT	NT	Y	
	11+10	18	30	PD	0.5	0.5	SP	NT	NT	Y	
W-3400 Ext.	2+39	18	30	PD	0.5	0.5	SP	NT	NT	Y	
	5+79	24	40	PD	0.5	0.5	SP	CR	CR	Y	Type 5/Ns
	7+02	18	30	PD	0.5	0.5	SP	NT	NT	Y	
W-7000	7+50	18	30	PD	0.5	0.5	SP	NT	NT	Y	
	10+91	24	40	PD	1.0	2.0	SP	CR	CR	Y	Type 5/Np
	13+06	24	40	PD	2.0	4.0	SP	CR	CR	Y	Type 5/Np
	13+61	18	30	PD	0.5	0.5	SP	NT	NT	Y	
	18+73	18	40	PD	0.5	0.5	SP	NT	NT	Y	
	55+10	18	30	PD	0.5	0.5	SP	CR	CR	Y	
W-7130	71+50	18	30	PD	0.5	0.5	SP	CR	CR	Y	
	79+40	24	40	PD	1.0	2.0	SP	CR	CR	Y	Replace, Type 5/Np
	80+20	18	30	PD	0.5	0.5	SP	CR	CR	Y	
	6+60	18	30	PD	0.5	0.5	SP	CR	CR	Y	
W-7132	11+80	18	30	PD	0.5	0.5	SP	CR	CR	Y	
	13+30	18	40	PD	0.5	0.5	SP	CR	CR	Y	
	17+30	18	30	PD	0.5	0.5	SP	CR	CR	Y	
	27+30	18	30	PD	0.5	0.5	SP	NT	NT	Y	
W-7300	30+20	18	40	PD	0.5	0.5	SP	NT	NT	Y	
	0+40	18	30	PD	0.5	0.5	SP	NT	NT	Y	
	2+70	18	30	PD	0.5	0.5	SP	NT	NT	Y	
W-7400	5+30	18	30	PD	0.5	0.5	SP	NT	NT	Y	
	0+50	18	30	PD	0.5	0.5	SP	CR	CR	Y	
	5+30	18	30	PD	0.5	0.5	SP	NT	NT	Y	
	6+50	18	40	PD	0.5	0.5	SP	NT	NT	Y	Replace
	9+60	18	30	PD	0.5	0.5	SP	NT	NT	Y	
	15+10	18	40	PD	0.5	0.5	SP	NT	NT	Y	
	3+00	18	30	PD	0.5	0.5	SP	NT	NT	Y	

**Key:**

- SP - Select Pit Run
- NT - Native (bank run)
- CR - 2.5 Inch Minus Crushed
- LL - Light Loose Riprap
- PD - Polyethylene Pipe Double Wall
- PSDS - Polyethylene Downspout Single Wall

## COMPACTION LIST

Road	Type	Max Depth Per Lift (inches)	Equipment Type	Equipment Weight (lbs)	Minimum Number of Passes
All Roads	Subgrade	12	Vibratory Smooth Drum	14,000	4
All Roads	Fill	18	Vibratory Smooth Drum	14,000	4
All Roads	Waste Area	24	Excavation	28,000	-
All Roads	Pre-haul Surface	6	Vibratory Smooth Drum	14,000	5
All Roads	Rock	12	Vibratory Smooth Drum	14,000	3

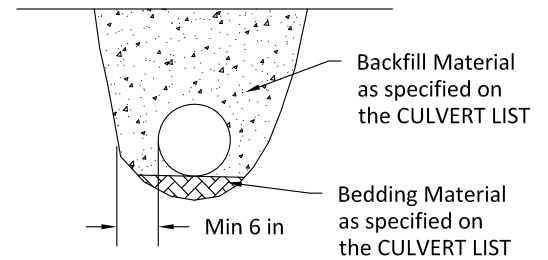
**CULVERT AND DRAINAGE SPECIFICATION DETAIL**  
PAGE 1 OF 2

**INSTALLATION REQUIREMENTS:**

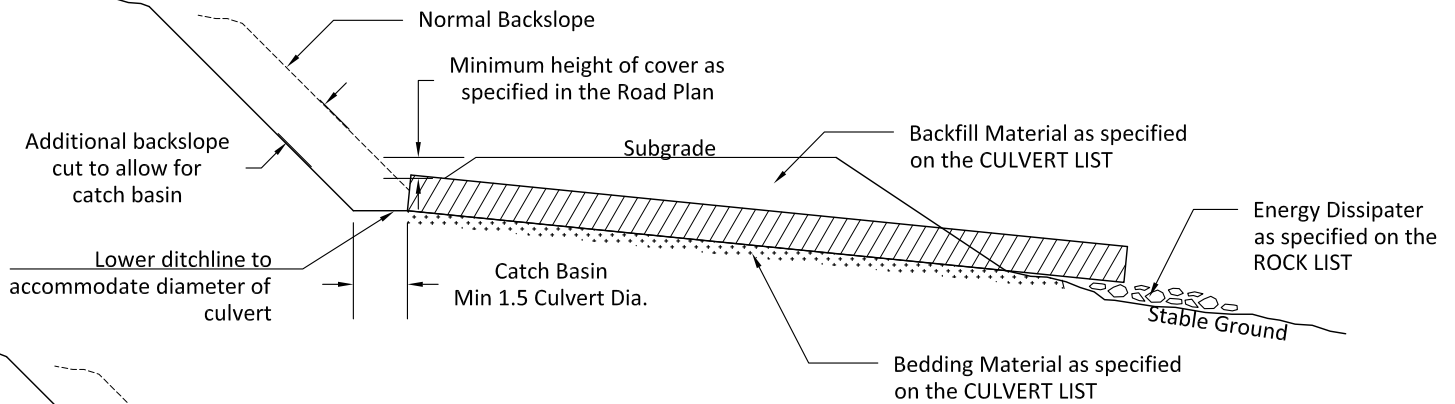
1. Proper preparation of foundation and placement of any required bedding material shall precede the installation of all culverts. This includes necessary leveling of the native trench bottom and compaction of required bedding material to form a uniform, dense, unyielding base. The pipe must be uniformly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

ALL DRAWINGS ARE NOT TO SCALE

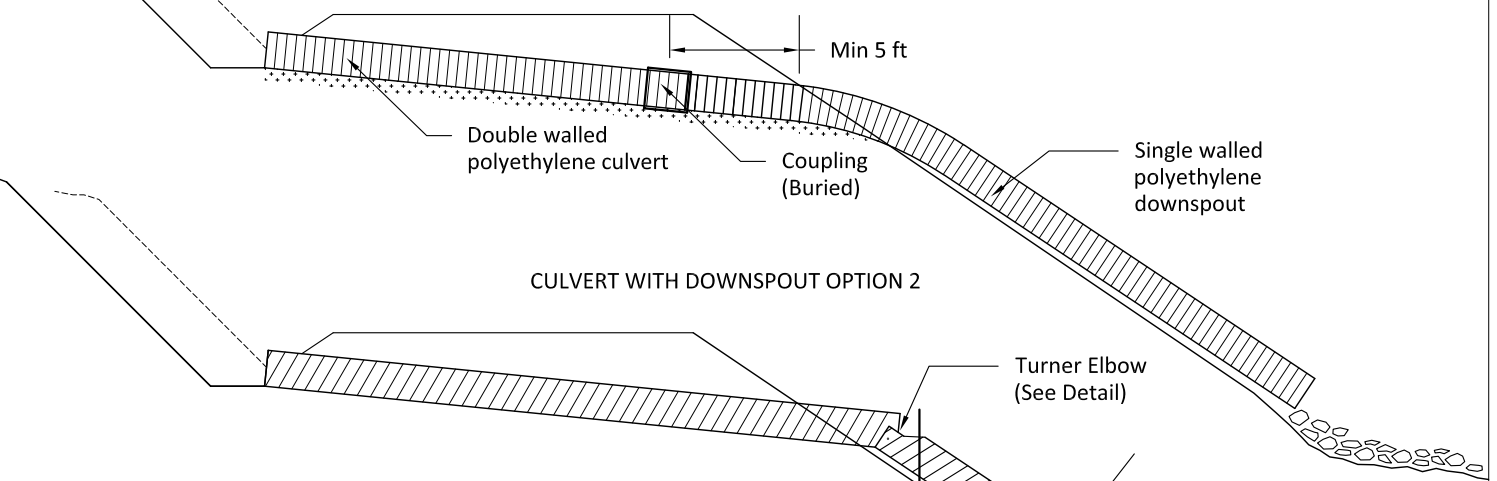
**CROSS SECTION**



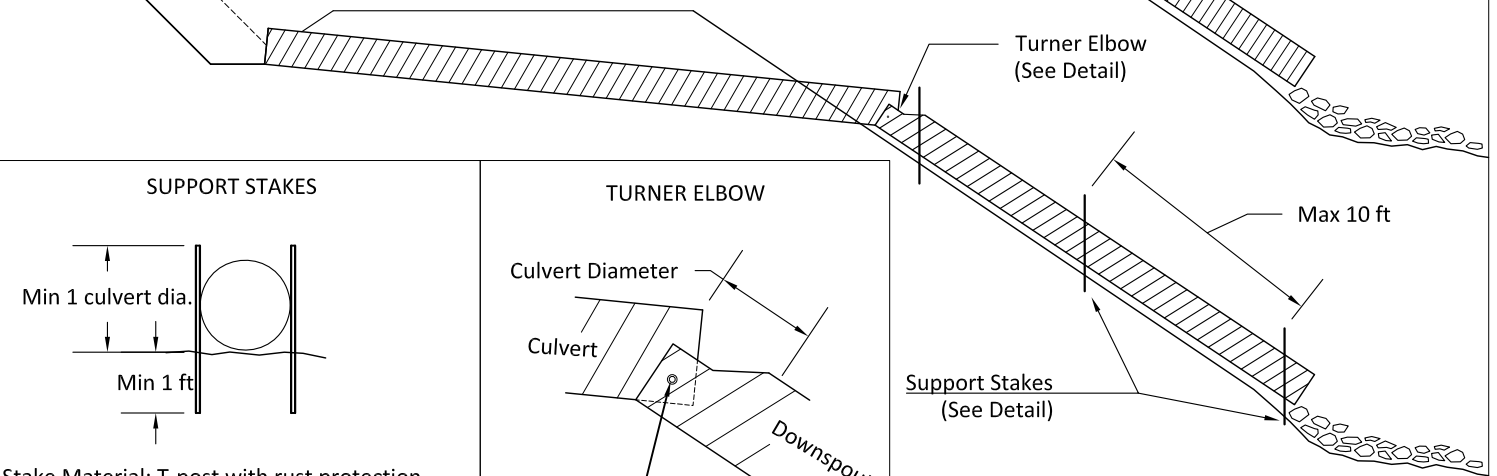
**CULVERT PROFILE (TYPICAL)**



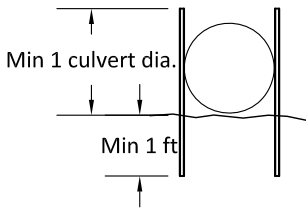
**CULVERT WITH DOWNSPOUT OPTION 1**



**CULVERT WITH DOWNSPOUT OPTION 2**

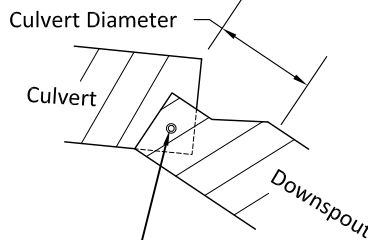


**SUPPORT STAKES**



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

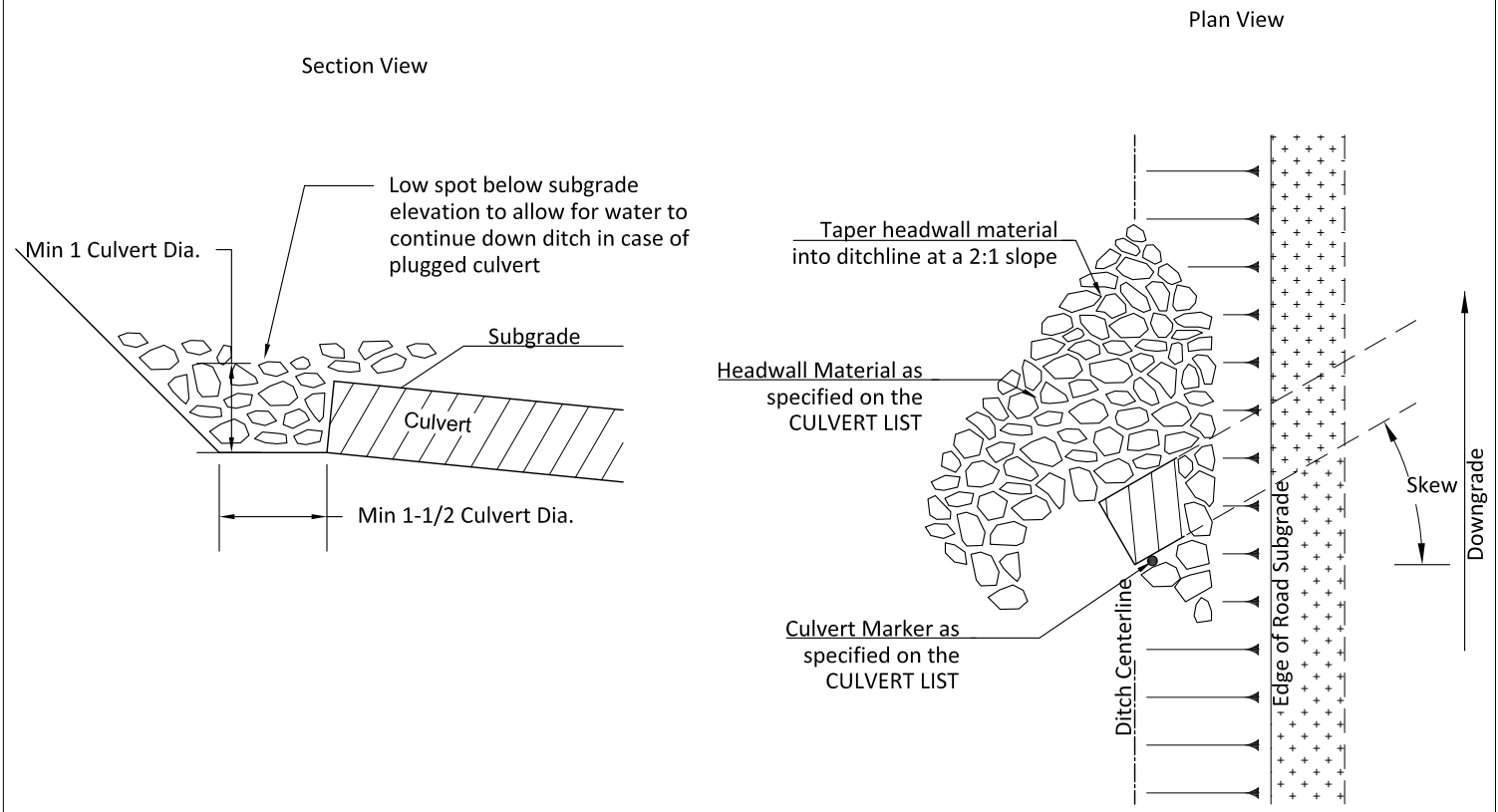
**TURNER ELBOW**



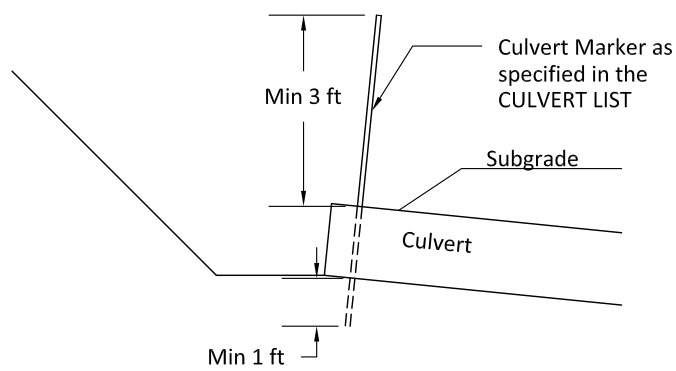
Bolted with  $\frac{5}{8}$ " galvanized bolts and washers (both sides)  
Downspout must be 6 inches larger in diameter than the culvert.

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

**HEADWALLS**

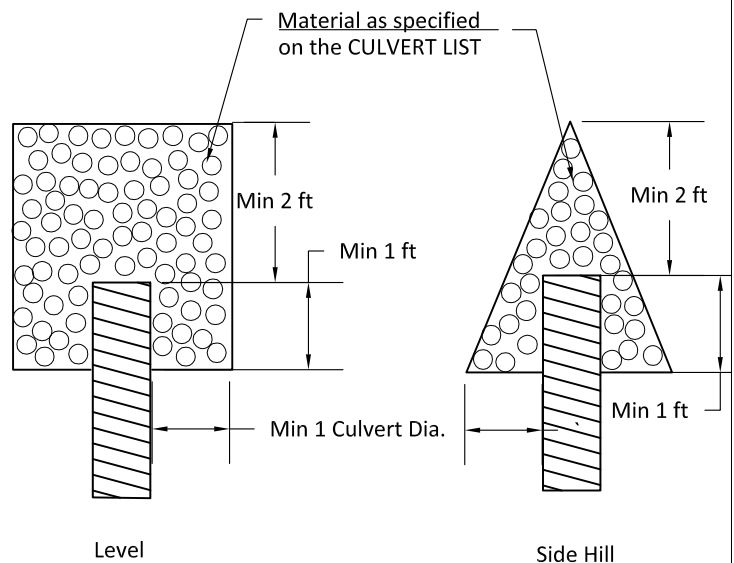


**CULVERT MARKERS**



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

**ENERGY DISSIPATORS**



Min Energy Dissipater Depth: 1 Culvert Dia.



# FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Page 1 of 2

## Cuts and Fills

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

## Surface

- Grade 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

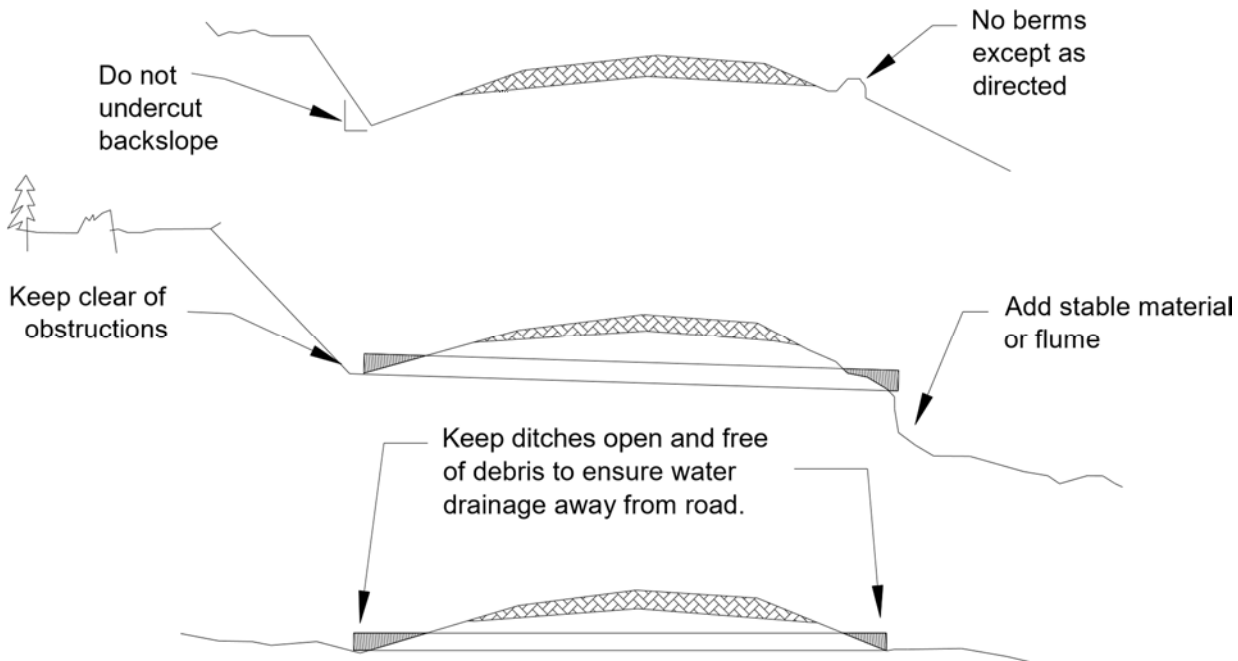
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

## Termination of Use or End of Season

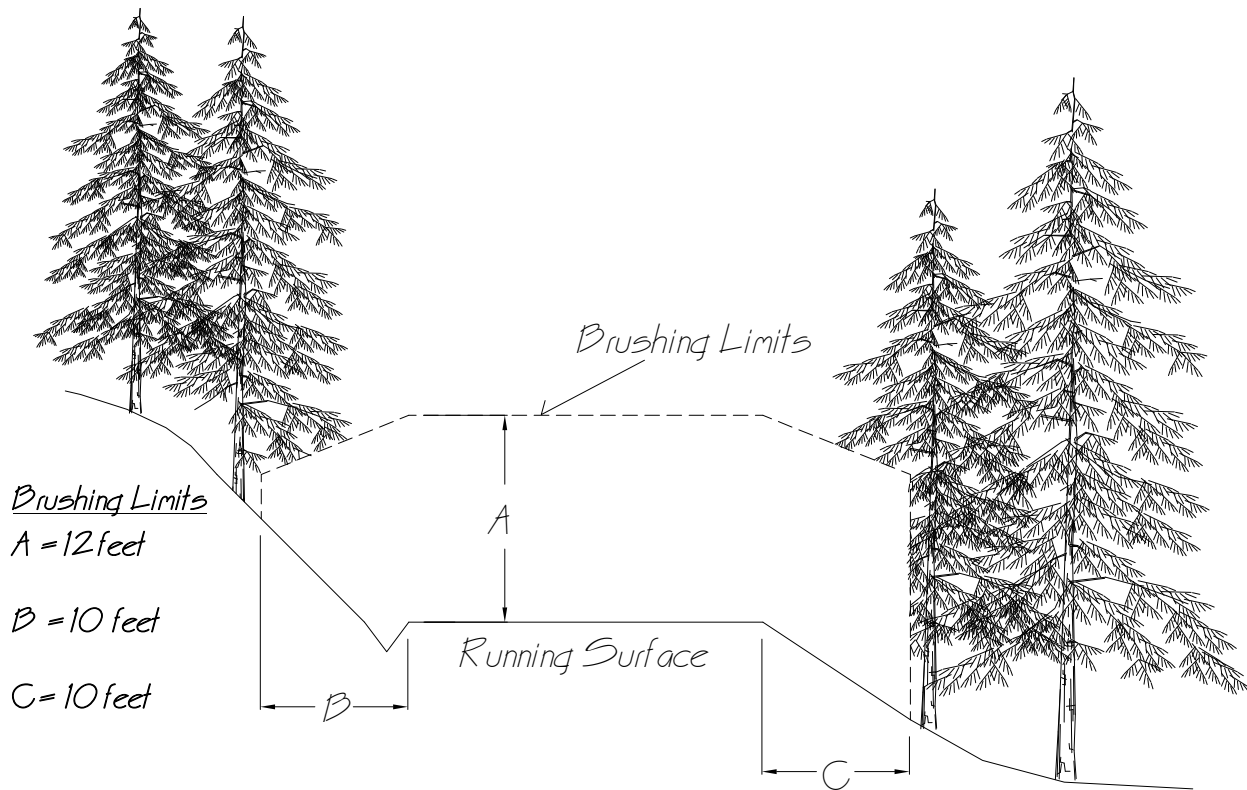
- At the conclusion of logging operations, ensure all conditions of these specifications have been met.

## Debris

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



# ROADSIDE BRUSHING DETAIL

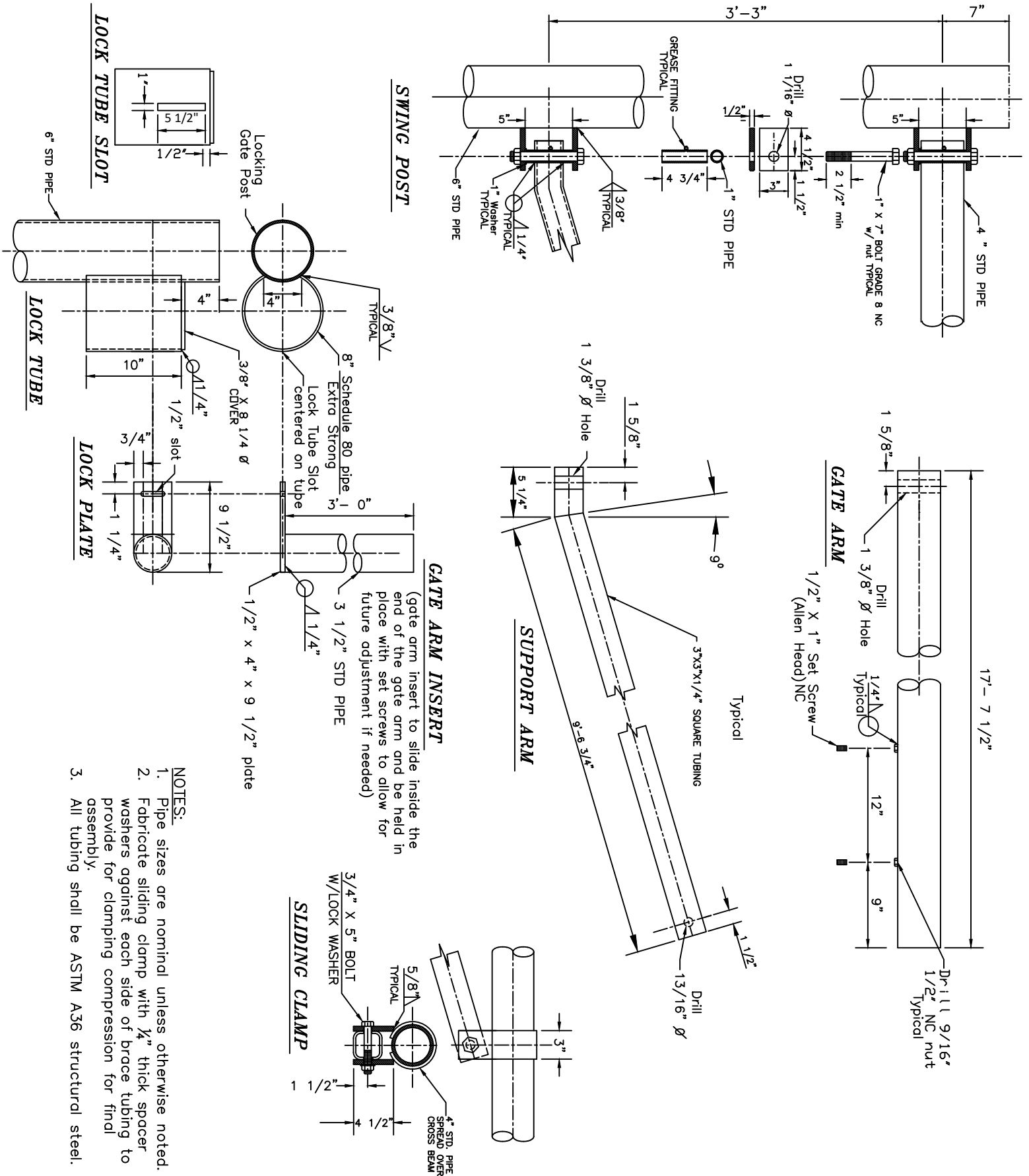


## GENERAL NOTES

- 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 may be increased on the inside of curves to improve sight distance if approved by the Contract Administrator

# GATE FABRICATION DETAIL

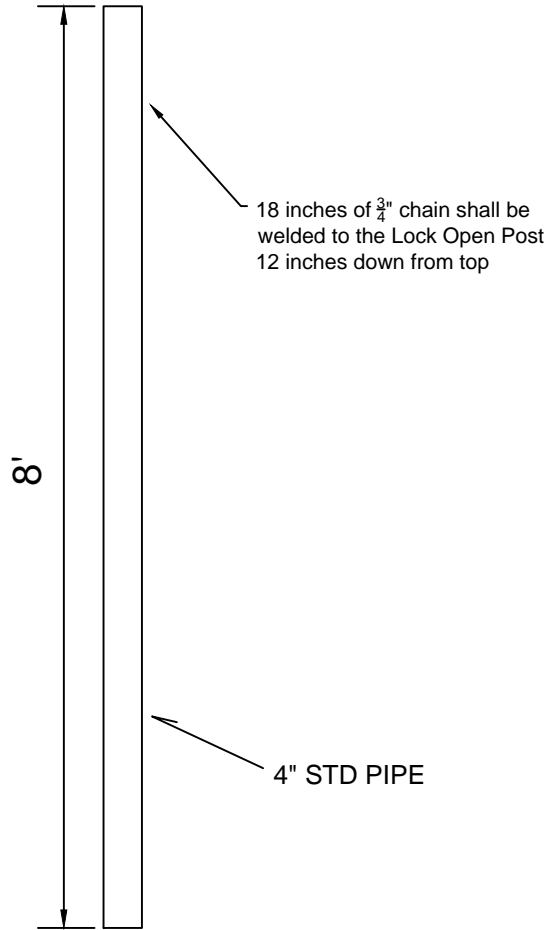
Page 1 of 2  
Not to Scale



- 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 FABRICATION DETAIL

Page 2 of 2  
Not to Scale



*LOCK OPEN POST*

## NOTES:

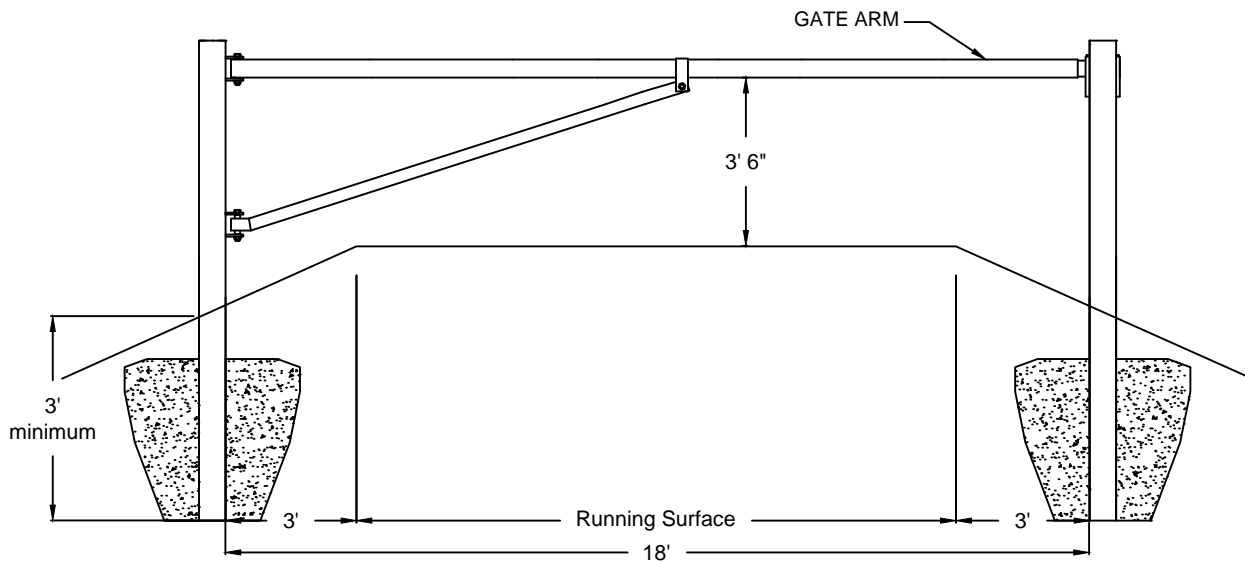
1. After fabrication, all gate components including lock open posts shall be sanded to remove all rust, scale and oily substances and painted .
2. Primer shall be Sherwin Williams Pro Industrial Pro-cryl Universal Primer or an equivalent approved by the Contract Administrator.
3. Top coat shall be Safety 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

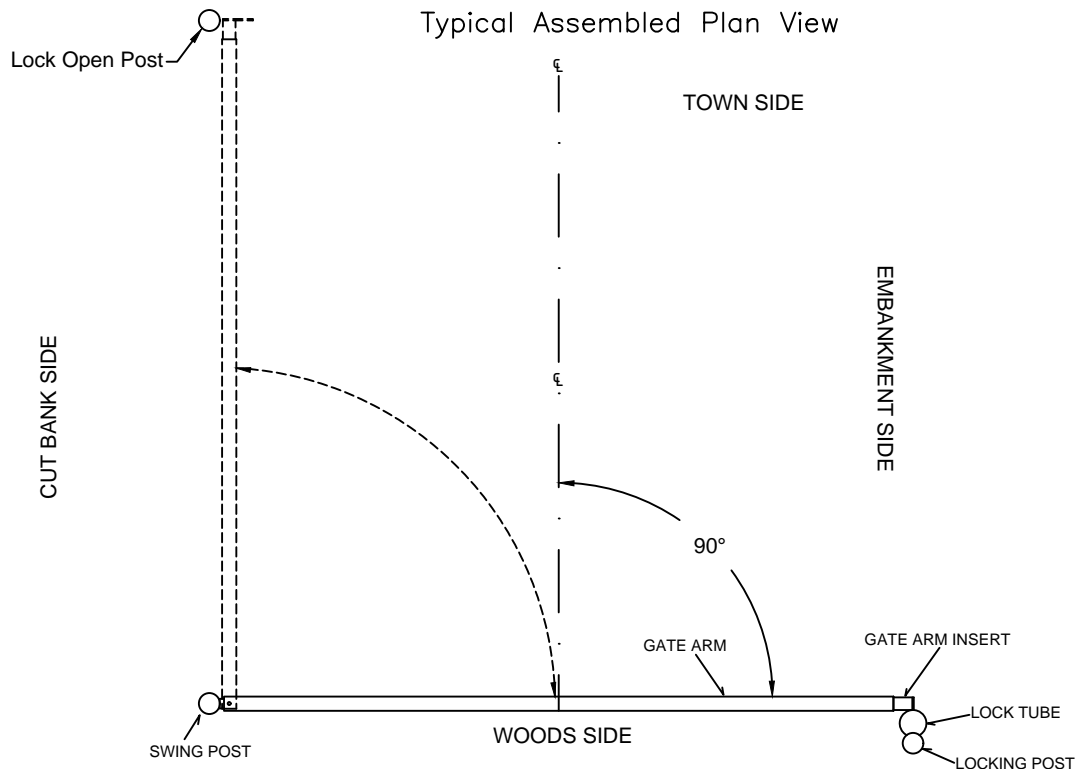
Not to Scale

- 1) Gate shall be installed perpendicular to the road centerline.
- 2) All gate posts, including lock-open post shall be installed plumb and at the same elevation.
- 3) Each gate post including lock-open post, shall be set in at least 3 cubic yards of 3000psi concrete.
- 4) Each gate post, including lock open post, shall be filled with concrete.
- 5) Lock-open post shall be set so that the chain may be locked to the lock plate.
- 6) Site specific gate installation requirements shall be as directed by the Contract Administrator.
- 7) Signs and reflectors to be mounted to gate.

Typical Assembled Profile View



Typical Assembled Plan View

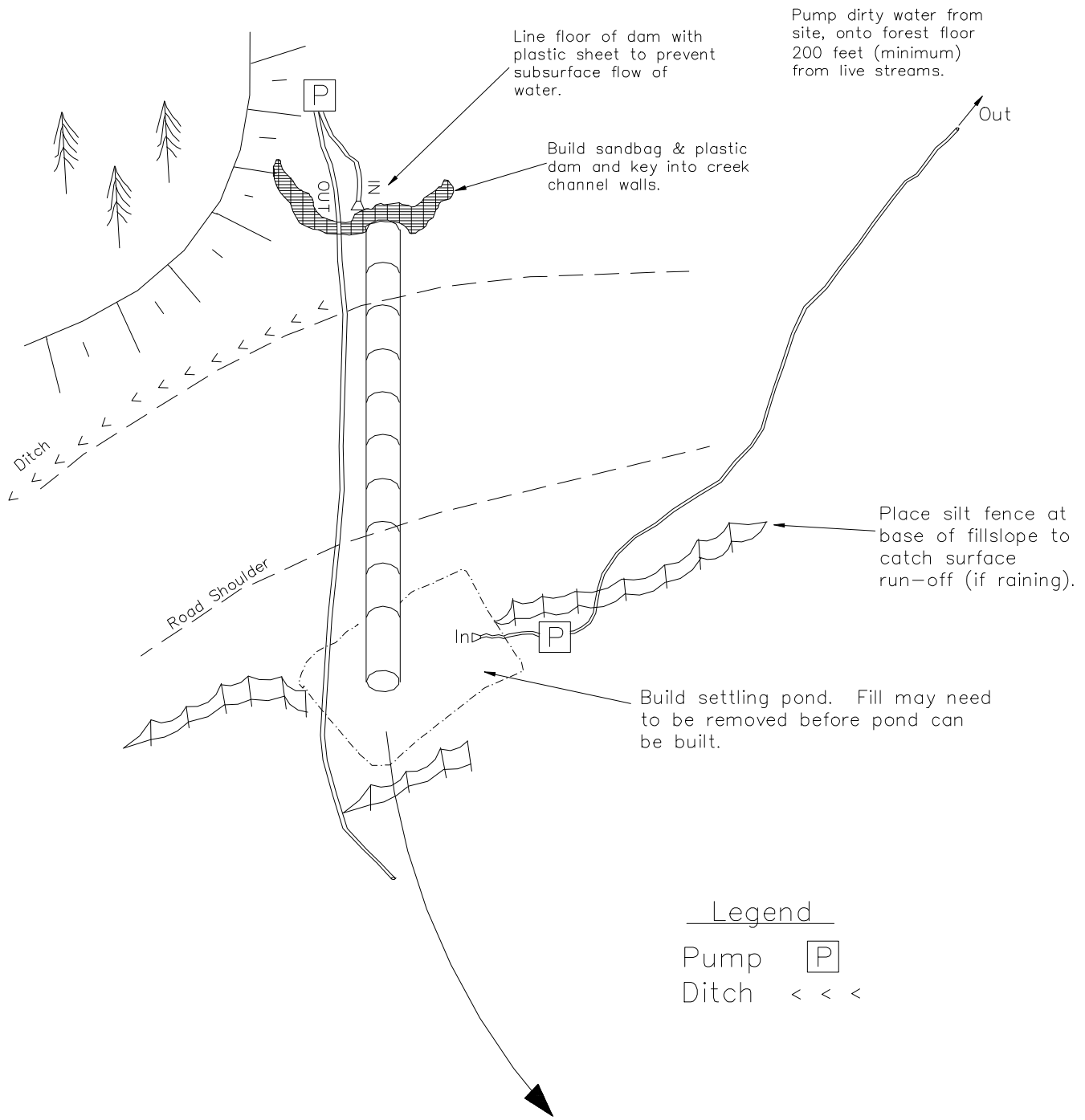


## STREAM DIVERSION PROCEDURE

For culvert installation or removal in live waters, sites shall be dewatered within the area of direct influence of the stream. Stream culvert installations or removals will occur as follows, any deviations shall be approved, in writing, by the Contract Administrator.

1. Prior to any work within the high waterline, Purchaser shall contact the Contract Administrator for an on-site pre-work to submit a plan for pumping and/or diverting all stream flow around the work area and pumping and/or diverting any groundwater flow from out of the work area, as approved, in writing, by the Contract Administrator. The SETTLING POND AND PUMP DETAIL, included herein, is an example of a pre-approved dewatering plan.
2. Once the stream has been pumped and/or diverted, stream flow shall not be allowed through the work area until all work below the ordinary high water line has been completed and approved, in writing, by the Contract Administrator.
3. Sedimentation shall be avoided during culvert installation or removal in accordance with Road Plan Clause 1-29 SEDIMENT RESTRICTION.
4. Per Road Plan Clause 8-1 SEDIMENT CONTROL STRUCTURES, Purchaser shall install silt fences or other suitable sediment control methods as approved by the Contract Administrator.
5. Backfill any settling ponds and remove any diversion culverts.
6. Maintain a clean jobsite in accordance with Road Plan Clause 7-5 STRUCTURE DEBRIS.

# SETTLING POND AND PUMP DETAIL

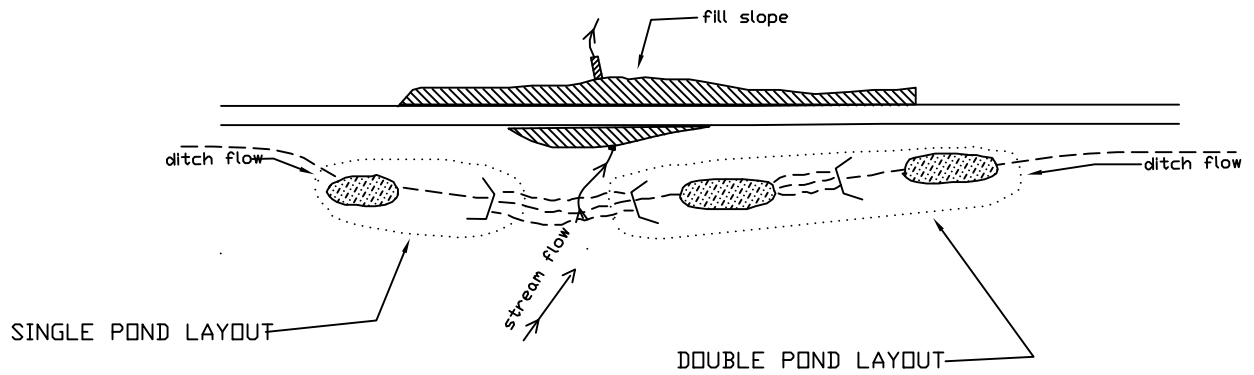




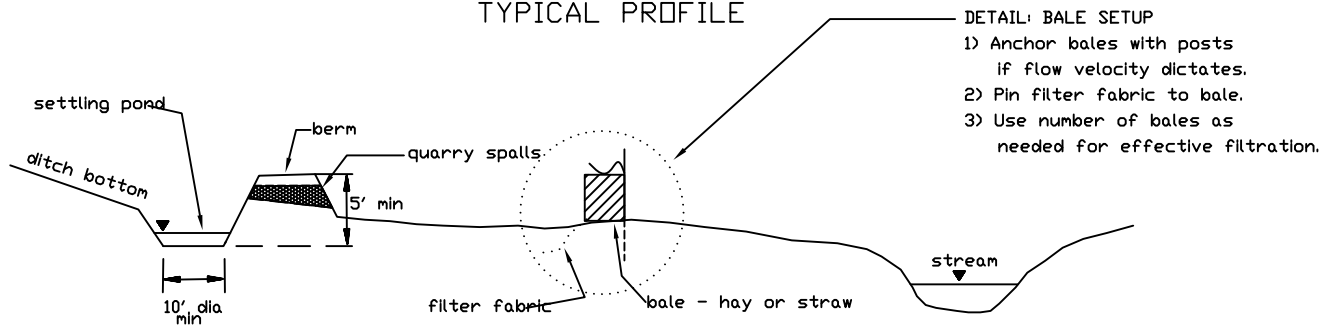
# SETTLING POND DETAIL

NO SCALE

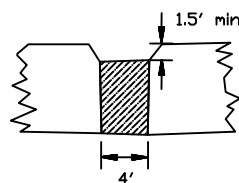
## TYPICAL PLAN VIEW



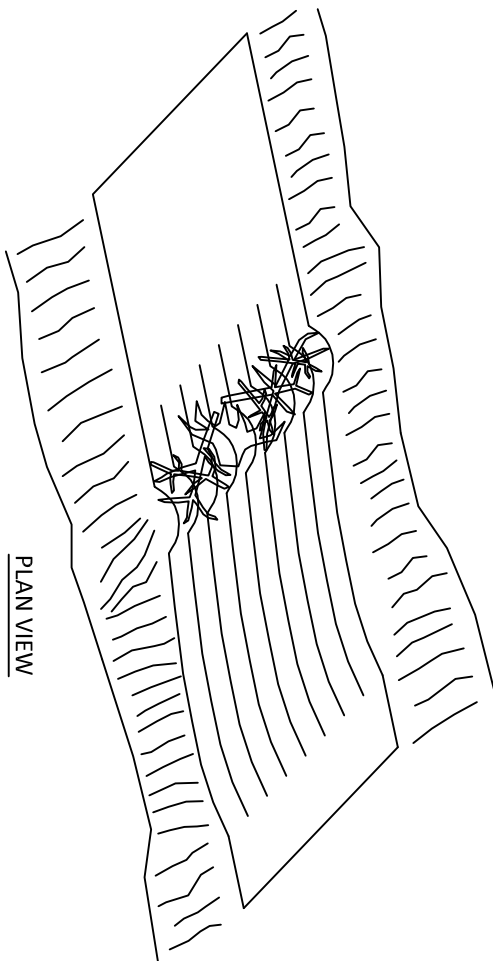
## TYPICAL PROFILE



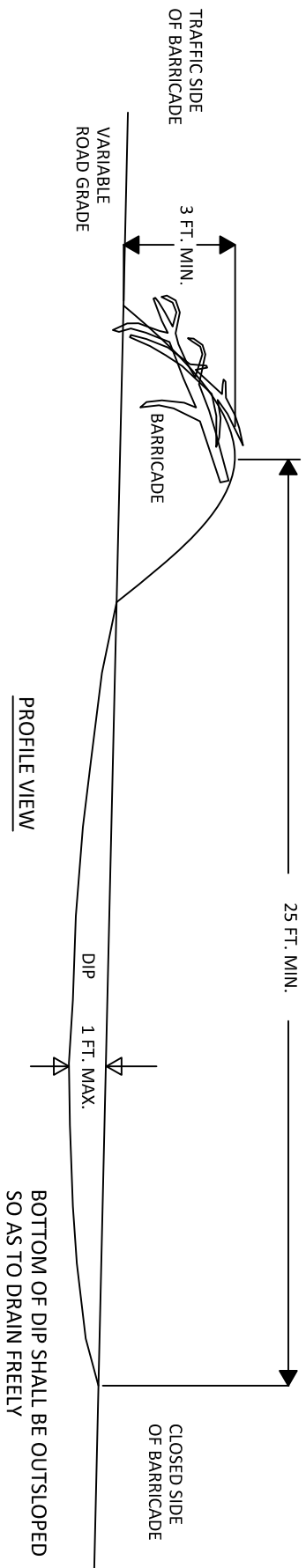
## TYPICAL END VIEW OF OUTLET



# EARTHEN BARRICADE DETAIL



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

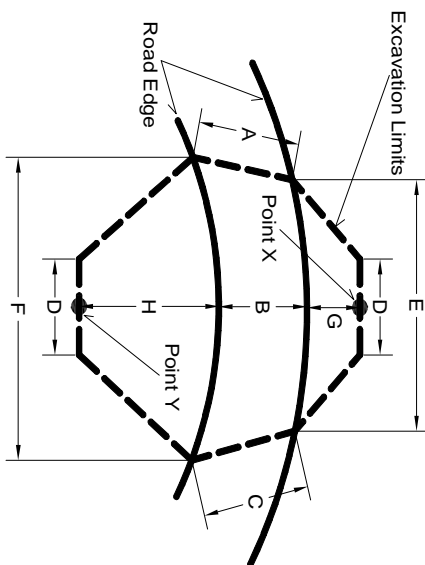


# LIVE STREAM FILL REMOVAL DETAIL

LIVE STREAM FILL REMOVAL TABLE

Road	Station	Average BFW	A	B	C	D	E	F	G	H
W-3400ABAN	4+00	1.8	12.5	12	12.5	3	15.5	16	3.5	4
W-3430	5+20	1.8	17	14	14	3	14	14	2	3.5
	5+60	3.2	20	14	26	4	26	29	6	7.5

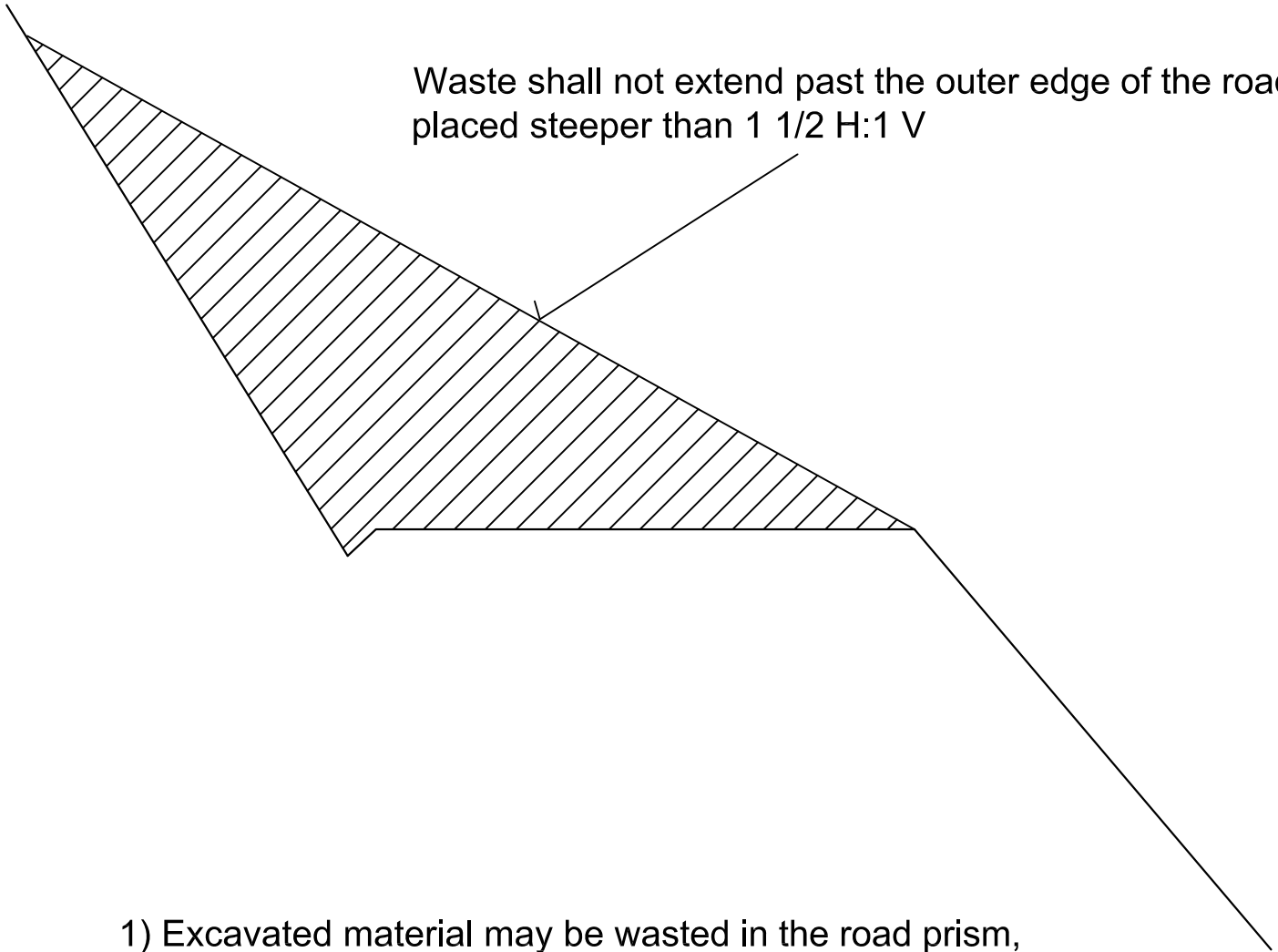
LIVE STREAM FILL REMOVAL DETAIL



- A B C = Road widths
  - D = Excavated stream width
  - E = Horizontal distance of upstream road edge excavation
  - F = Horizontal distance of downstream road edge excavation
  - G = Approximate vertical distance from road edge to bottom of excavation at inlet
  - H = Approximate vertical distance from road edge to bottom of excavation at outlet
  - Horizontal and vertical locations of Points X and Y are controlled by RPs marked in the field.
- 1) The stream channel shall be excavated to the width D and shall be a consistent grade between Points X and Y.
  - 2) All excavated slopes shall be a consistent grade between the excavated stream channel and the excavation limits shown on the drawing.

# ROAD PRISM WASTE DETAIL

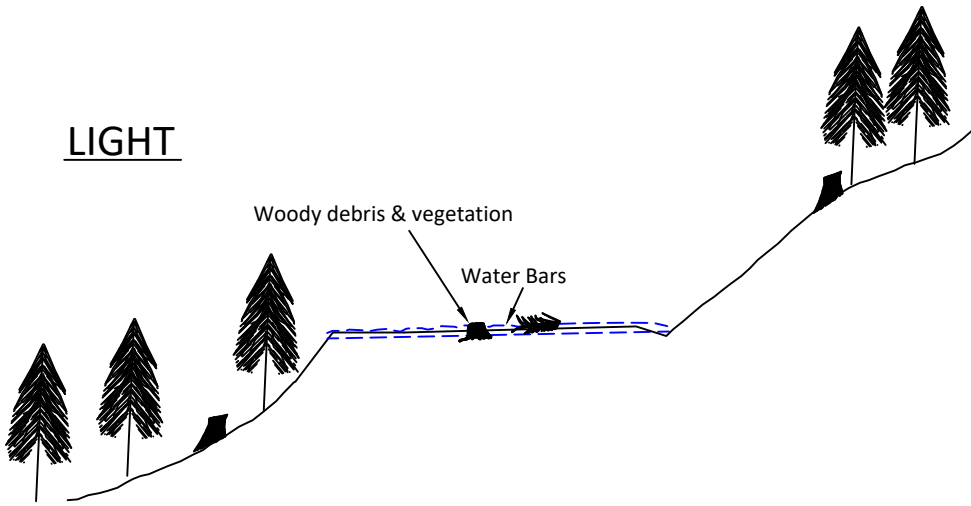
Waste shall not extend past the outer edge of the road or be placed steeper than 1 1/2 H:1 V



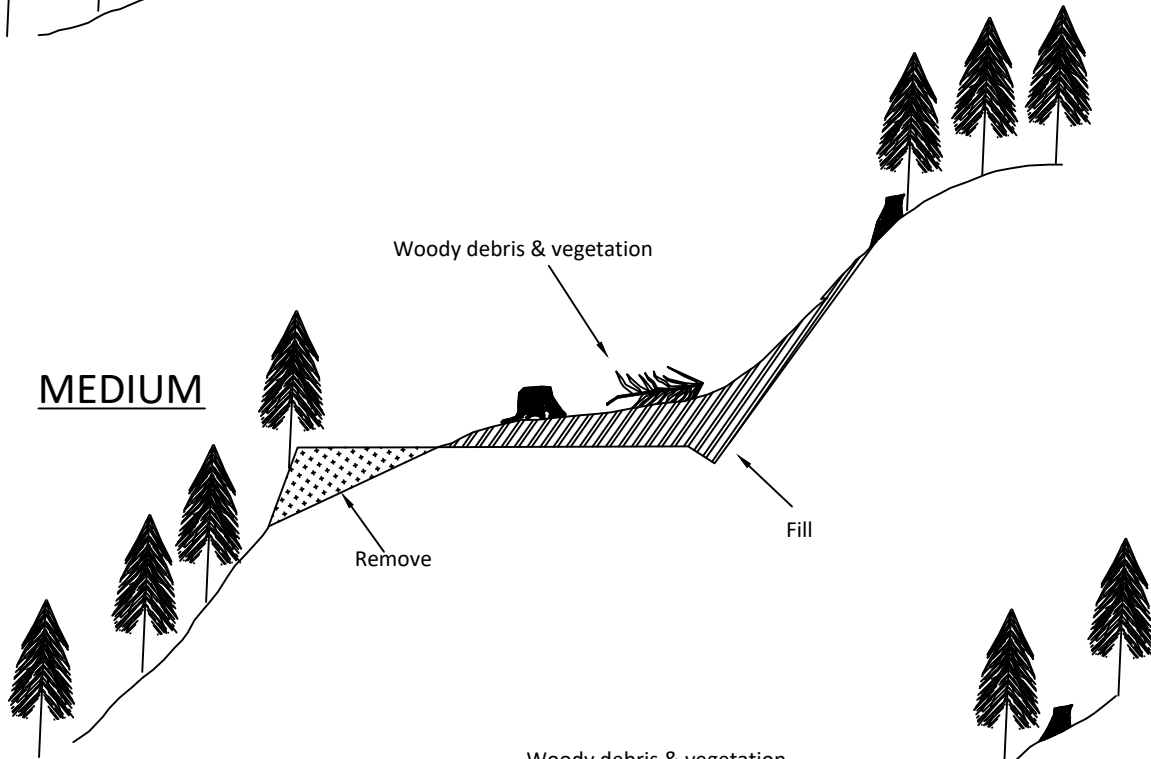
- 1) Excavated material may be wasted in the road prism, including ditchline.
- 2) Waste shall be sloped no steeper than 1 1/2 H : 1 V and placed a minimum of 10 feet from the edge of excavation limits.
- 3) Waste material shall not impede the natural drainage of water.
- 4) Waste shall be placed in 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.

# ROAD ABANDONMENT CROSS SECTIONS

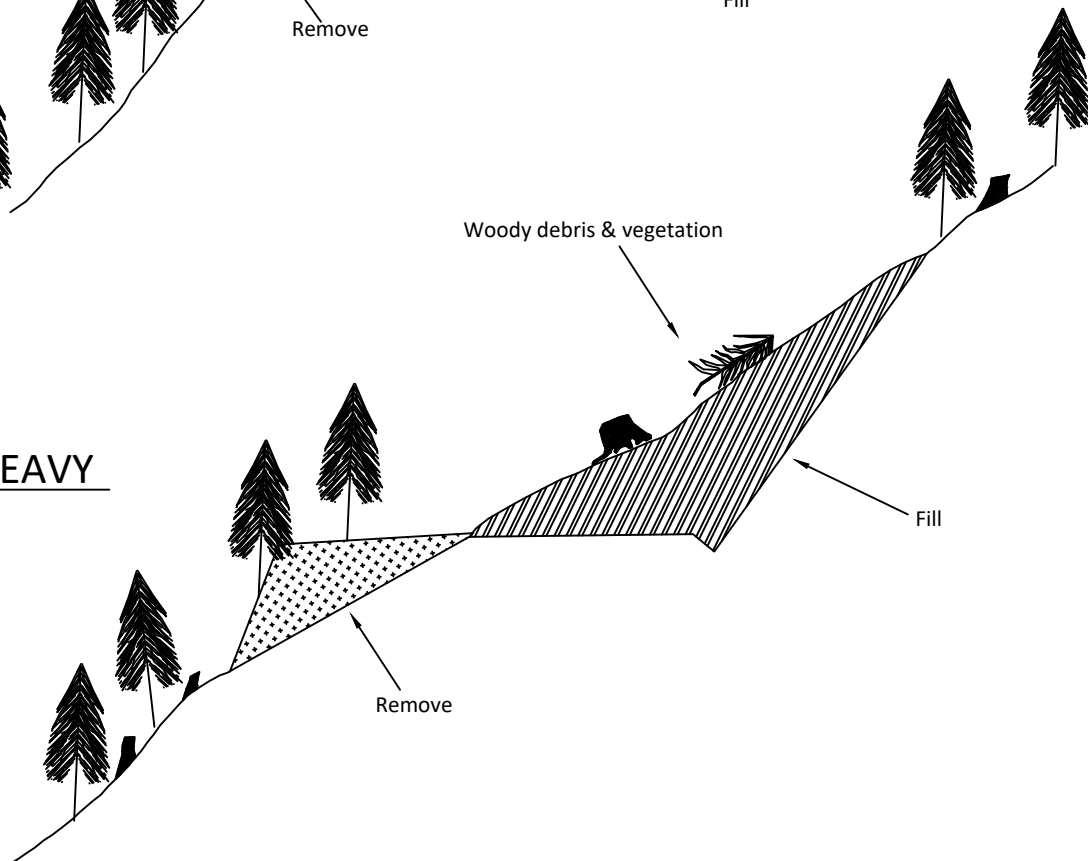
LIGHT



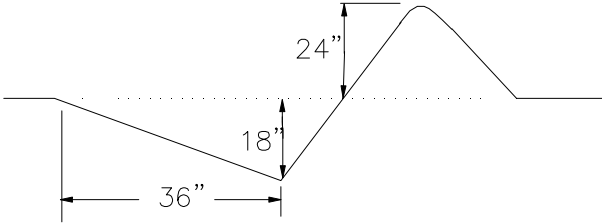
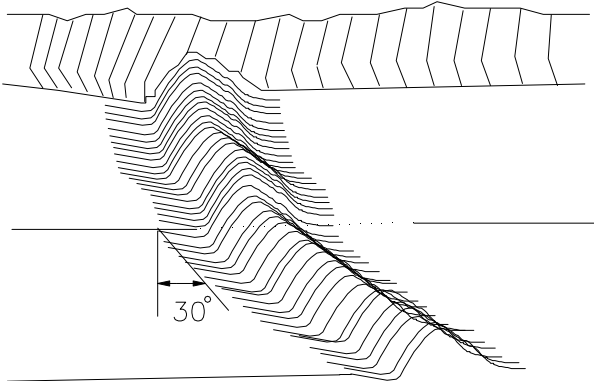
MEDIUM



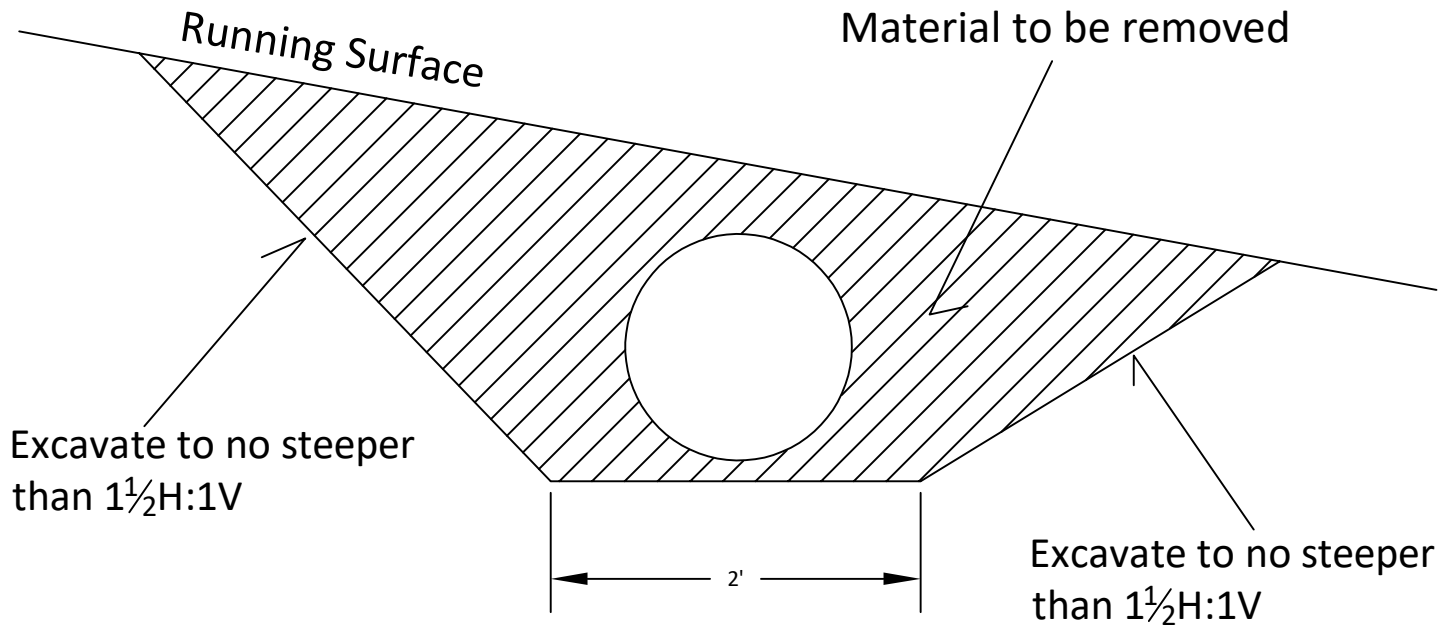
HEAVY



NON-DRIVABLE WATER BAR DETAIL



# CROSSDRAIN REMOVAL DETAIL



1) Excavated material may be wasted on the road surface on the downhill side of the excavation. Waste material shall be sloped at no steeper than 1½ H:1V.

2) Resulting trench shall be keyed into the ditchline and sloped towards the outside edge of the road with a drop of at least 1 foot in 10 feet.

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES  
PACIFIC CASCADE REGION

**W-2020 PIT DEVELOPMENT PLAN**

SW 1/4, NE 1/4, Section 3, Township 11 North, Range 2 East, W.M.

Page 1 of 3

1. Development shall occur in Area A and proceed to Area B. Development in any other area must be approved in writing by Contract Administrator.
2. All vegetation including stumps shall be cleared a minimum of 20 feet beyond the top of all working faces. Trees shall be cleared to a minimum of 3/4 of the height of the tallest tree adjacent to the pit.
3. Overburden shall be pushed or end hauled to the designated waste area and compacted. Minimal acceptable compaction is achieved by placing waste material in 2 foot or shallower lifts and routing excavation equipment over entire width of the lifts.
4. Root wads and organic debris larger than one cubic foot in volume shall be separated from overburden material and piled in the designated waste area.
5. Pit faces shall not exceed 30 feet in height and shall be sloped no steeper than ¼:1.
6. Working bench width shall be a minimum of 20 feet.
7. The pit floor shall have continuity of slope, providing drainage to the Northwest towards the W-2020 road at a minimum of 2 percent, unless otherwise approved in writing by Contract Administrator.
8. The location and amount of material to be placed in a stockpile are subject to approval of the Contract Administrator.
9. Oversize material remaining in the rock source at the conclusion of use shall 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, oversize material shall be placed as directed by the Contract Administrator.
10. All operations shall be carried out in compliance with all 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.
11. The Operator shall submit an informational drilling and shooting plan to the Contract Administrator 10 working days prior to any drilling (Form # M-126PAC).



STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES  
PACIFIC CASCADE REGION

**W-2020 PIT DEVELOPMENT PLAN**

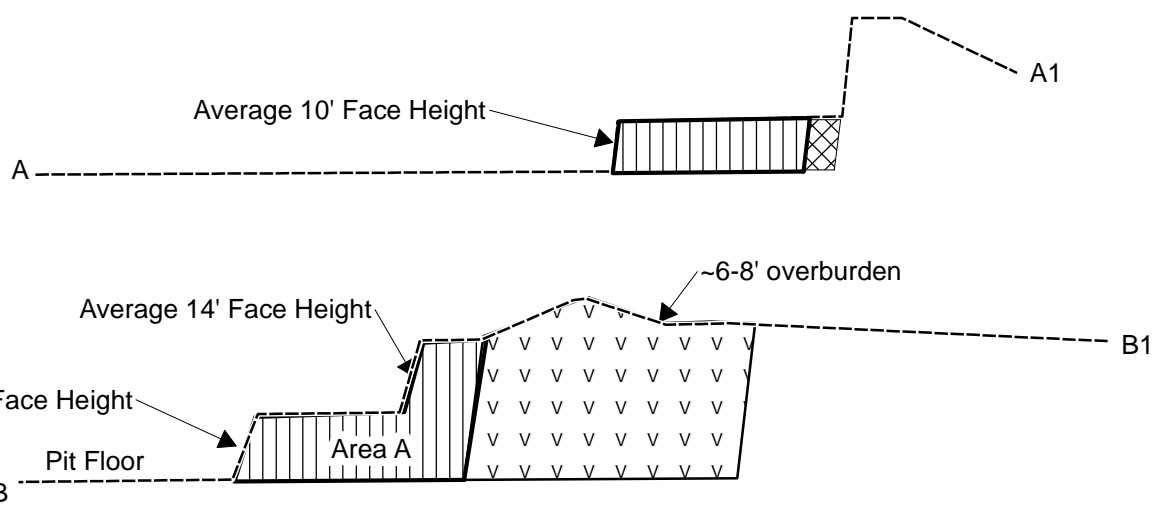
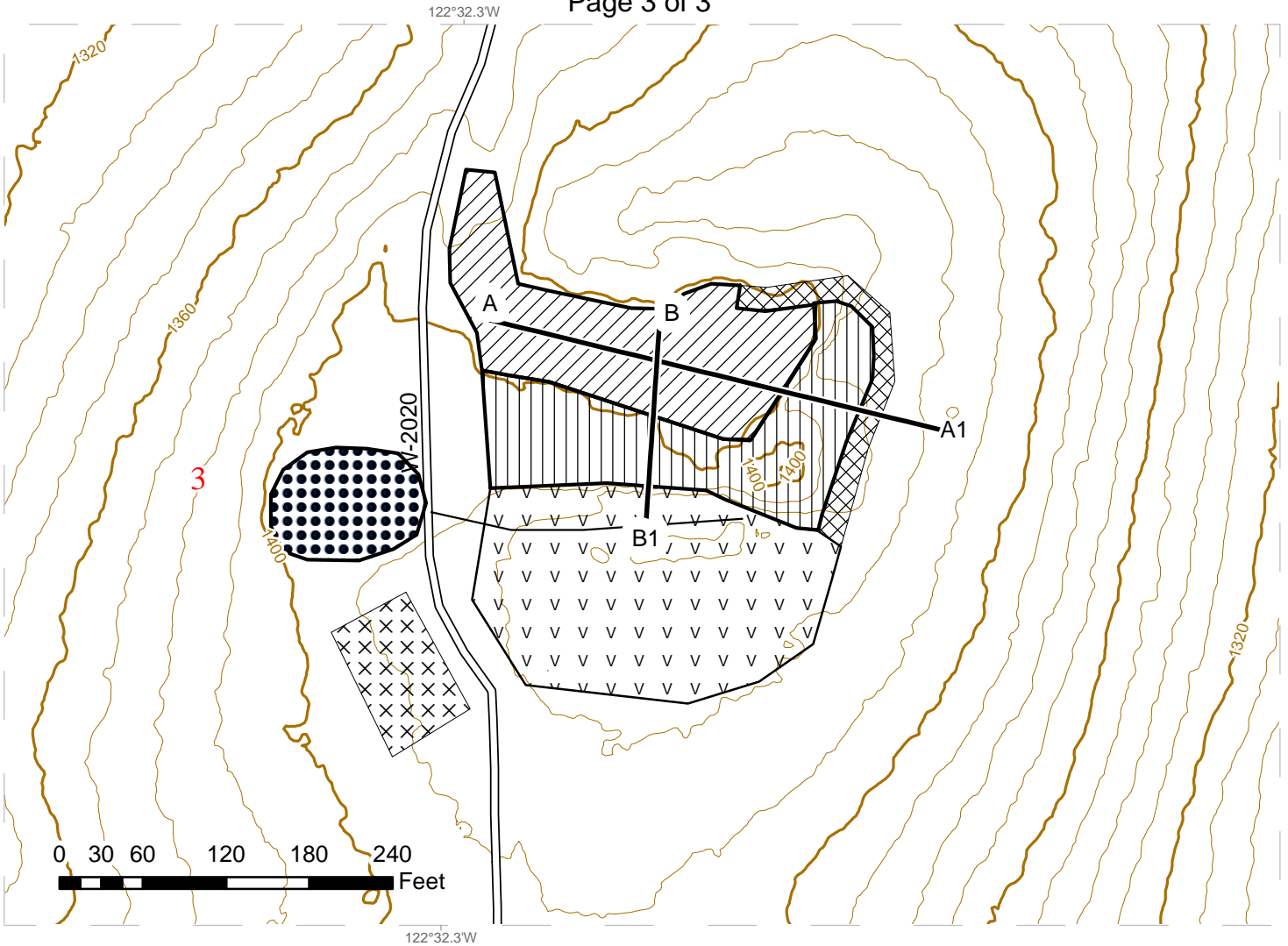
SW 1/4, NE 1/4, Section 3, Township 11 North, Range 2 East, W.M.

Page 2 of 3

12. Upon completion of pit operations:
- a. The pit floor shall be left in a smooth and neat condition. The surface of pit floors and benches must be uniform and free-draining at a minimum 2% outslope gradient.
  - b. All exposed soil in the waste area shall be grass seeded in accordance with Road Plan Clauses 8-15 REVEGETATION and 8-25 GRASS SEED.
  - c. Pit faces and walls shall be scaled and cleared of loose and overhanging material.
  - d. Benches and faces shall have safety berms constructed or access blocked to highway vehicles.
  - e. The area will be left in a condition that will not endanger public safety, damage property, or be hazardous to animal or human life. The site shall be cleared of all temporary structures, equipment and rubbish, and shall be left in a neat and presentable condition.
  - f. Prior to termination of the contract, quarry condition and compliance with all terms of the contract shall be approved in writing by the Contract Administrator.
13. Reclamation will not be required following use.

# W-2020 PIT DEVELOPMENT PLAN

## Sec.3, T11N, R2E, W.M.



Legend	
Pit Floor	Area B
Area A	Stockpile
Bench	Waste Area
Contours 10 ft	

## SUMMARY - Road Development Costs

REGION: Pacific Cascade

DISTRICT: Lewis

SALE/PROJECT NAME: M Hornet

AGREEMENT #: 30-104741

ROAD NUMBERS:           Optional: W-3270, W-7130 (20+50 to 32+10), W-7130 Ext., W-7132, W-7300, W-7400

Required: W-3000, W-3200, W-3200 Ext., W-3400, W-3400 Ext., W-3400ABAN, W-3430, W-3431, W-7000, W-7100, W-7130 (0+00 to 20+50)

ROAD STANDARD:	Construction	Reconstruction	Maintenance
NUMBER OF STATIONS:	36.92	116.27	277.20
GRUBBING, EXCAVATION AND FILL, MISC.:	\$25,939.13	\$33,721.23	\$8,930.26
ROAD ROCK:			
	Optional: \$19,871.87	\$23,461.95	\$0.00
	Required: \$22,317.48	\$92,300.97	\$6,044.96
	Total: \$42,189.35	\$115,762.92	\$6,044.96
STOCKPILE:	-	-	\$8,145.00
CULVERTS AND FLUMES:	\$10,825.60	\$22,261.20	\$0.00
STRUCTURES:	-	-	-
MOBILIZATION:	\$4,226.61	\$5,494.66	\$1,455.13
 TOTAL COSTS:	 \$83,180.69	 \$177,240.01	 \$24,575.35
 COST PER STATION:	 \$2,253	 \$1,524	 \$89
ROAD DEACTIVATION & ABANDONMENT COSTS:	\$0.00	\$0.00	\$5,281

<b>10% OVERHEAD AND GENERAL EXPENSE =</b>	<b>\$28,499.61</b>
<b>TOTAL (All Roads) =</b>	<b>\$318,776.66</b>
<b>TOTAL (Minus Optional Rock) =</b>	<b>\$275,442.84</b>
<b>SALE VOLUME MBF =</b>	<b>5,592</b>
<b>TOTAL \$/MBF =</b>	<b>\$57.01</b>
<b>TOTAL \$/MBF (Minus Optional Rock) =</b>	<b>\$49.26</b>

Profit and Risk costs are accounted on an individual basis.

## SUMMARY OF ROAD

Sale:	<u>M Hornet</u>		Road:	<u>W-3000</u>
Required Pre-Haul Maintenance- <span style="border: 1px solid black; padding: 2px 10px;">116+00</span> stations <div style="text-align: right; margin-right: 10px;"><u>2.20</u> miles</div>	Required Reconstruction - <span style="border: 1px solid black; padding: 2px 10px;">0+00</span> stations <div style="text-align: right; margin-right: 10px;"><u>0.00</u> miles</div>	Required Construction - <span style="border: 1px solid black; padding: 2px 10px;">0+00</span> stations <div style="text-align: right; margin-right: 10px;"><u>0.00</u> miles</div>	Optional Reconstruction - <span style="border: 1px solid black; padding: 2px 10px;">0+00</span> stations <div style="text-align: right; margin-right: 10px;"><u>0.00</u> miles</div>	Optional Construction - <span style="border: 1px solid black; padding: 2px 10px;">0+00</span> stations <div style="text-align: right; margin-right: 10px;"><u>0.00</u> miles</div>

### PRE-HAUL MAINTENANCE

#### MISC.

Grade and shape existing road surface -	116.00	stations @	\$18.25	per station	\$2,117.00
Roll shaped road surface w/ vibratory roller prior to rocking -	116.00	stations @	\$9.70	per station	<u>\$1,125.20</u>
TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.					<b>\$3,242.20</b>

#### ROCK

Spot Rock	See Rock List	250	cy. of	1.5" Crushed	@	\$6.47	per c.y.=	<u>\$1,617.50</u>
								<b>TOTAL ROCK \$1,617.50</b>

SUBTOTAL **\$4,859.70**

### MOBILIZATION

SUBTOTAL **\$528.30**

### OVERHEAD & GENERAL EXPENSES

10%

SUBTOTAL **\$538.80**

Optional Rock? NO

**TOTAL \$5,926.80**

**COST PER STATION \$51.09**

## SUMMARY OF ROAD

Sale:	<b>M Hornet</b>		Road:	<b>W-3200</b>	
Required Pre-Haul Maintenance-	76+70 <hr style="width: 50%; margin: 0 auto;"/> 1.45	stations miles	Required Reconstruction -	0+00 <hr style="width: 50%; margin: 0 auto;"/> 0.00	stations miles
Required Abandonment-	0+00 <hr style="width: 50%; margin: 0 auto;"/> 0.00	stations miles	Optional Reconstruction -	0+00 <hr style="width: 50%; margin: 0 auto;"/> 0.00	stations miles
			Required Construction -	0+00 <hr style="width: 50%; margin: 0 auto;"/> 0.00	stations miles
			Optional Construction -	0+00 <hr style="width: 50%; margin: 0 auto;"/> 0.00	stations miles

### PRE-HAUL MAINTENANCE

#### CLEARING

Roadside Brushing 0.86 miles @ \$1,170.00 per mile = \$1,006.20

#### EXCAVATION

Construct ditch- 74+70 to 76+70 2.00 stations @ \$67.19 per station \$134.38

#### MISC.

Grade and shape existing road surface - 76.70 stations @ \$18.25 per station \$1,399.78

Roll shaped road surface w/ vibratory roller prior to rocking - 76.70 stations @ \$9.70 per station \$743.99

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$3,284.35**

#### ROCK

34+10	to	45+30	231	cy. of	1.5" Crushed	@	\$6.86	per c.y.=	\$1,584.66
Spot Rock		See Rock List	40	cy. of	1.5" Crushed	@	\$7.01	per c.y.=	\$280.40
74+70	to	76+70	82	cy. of	2.5" Crushed	@	\$21.00	per c.y.=	\$1,722.00

TOTAL ROCK **\$3,587.06**

#### ADDITIONAL REQUIREMENTS

Gate Purchase & Install 1.00 @ \$8,000.00 each \$8,000.00

TOTAL ADDITIONAL REQUIREMENTS **\$8,000.00**

SUBTOTAL **\$14,871.41**

#### MOBILIZATION

SUBTOTAL **\$535.16**

#### OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$1,540.66**

TOTAL **\$16,947.23**

Optional Rock? NO

COST PER STATION **\$220.95**

## SUMMARY OF ROAD

Sale:	<u>M Hornet</u>		Road:	<u>W-3200 Ext.</u>	
Required Pre-Haul Maintenance-	0+00 0.00	stations miles	Required Reconstruction -	11+77 0.22	stations miles
Required Abandonment-	0+00 0.00	stations miles	Optional Reconstruction -	0+00 0.00	stations miles
			Required Construction -	0+00 0.00	stations miles
			Optional Construction -	0+00 0.00	stations miles

### RECONSTRUCTION

#### CLEARING/GRUBBING

Scattering Organic Debris	11.77	sta @	\$140.00	per sta	\$1,647.80
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#### EXCAVATION

Reconstruct ditch	11.77	stations @	\$67.19	per station	\$790.83
Construct ditchouts - 2+75, 9+13	2.00	@	\$60.00	each	\$120.00
Grade and shape subgrade -	11.77	stations @	\$14.60	per station	\$171.84

#### MISC.

Roll subgrade w/ vibratory roller prior to rocking -	11.77	stations @	\$12.12	per station	\$142.65
Reconstruct turnouts @ sta. - 6+82	1.00	@	\$134.62	each	\$134.62
Reconstruct turnaround @ sta. - 3+00, 11+77	2.00	@	\$134.62	each	\$269.24
Remove culverts from state lands -	2.00	@	\$309.10	total	\$309.10
Grass seed and fertilize -	23.00	lbs @	\$4.00	per lbs	\$92.00

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$3,678.08**

### CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>	100	LF of 18"	\$3,050.00
			\$3,050.00
<u>Culvert Stakes &amp; Markers</u>	3	markers	\$24.00
			\$24.00

TOTAL CULVERTS **\$3,074.00**

### ROCK

Energy Dissipator	See Rock List	3	cy. of	Pit Run	@	\$16.50	per c.y.=	\$49.50
0+00 to	11+77	556	cy. of	2.5" Crushed	@	\$21.38	per c.y.=	\$11,887.28

TOTAL ROCK **\$11,936.78**

SUBTOTAL **\$18,688.86**

### MOBILIZATION

SUBTOTAL **\$599.32**

### OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$1,928.82**

TOTAL **\$21,217.00**

Optional Rock? NO

COST PER STATION **\$1,802.63**

## SUMMARY OF ROAD

Sale:	<u>M Hornet</u>		Road:	<u>W-3270</u>	
Required Pre-Haul Maintenance-	0+00 <hr/> 0.00	stations miles	Required Reconstruction -	0+00 <hr/> 0.00	stations miles
Required Abandonment-	0+00 <hr/> 0.00	stations miles	Optional Reconstruction -	0+00 <hr/> 0.00	stations miles
			Required Construction -	0+00 <hr/> 0.00	stations miles
			Optional Construction -	14+70 <hr/> 0.28	stations miles

### CONSTRUCTION

#### CLEARING/GRUBBING

Scattering Organic Debris	14.70	sta @	\$280.00	per sta	\$4,116.00
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#### EXCAVATION

Road Construction Earthwork	14.70	sta. @	\$116.67	per sta. =	\$1,715.05
Grade and shape subgrade -	14.70	stations @	\$14.60	per station	\$214.62

#### MISC.

Roll subgrade w/ vibratory roller prior to rocking -	14.70	stations @	\$12.12	per station	\$178.16
Construct turnouts @ sta. - 12+80	1.00	@	\$134.62	each	\$134.62
Construct turnaround @ sta. - 9+99	1.00	@	\$134.62	each	\$134.62
Construct landing - 14+70	1.00	@	\$538.46	each	\$538.46
Grass seed and fertilize -	44.00	lbs @	\$4.00	per lbs	\$176.00
<b>TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.</b>					<b>\$7,207.53</b>

### CULVERTS - MATERIALS & INSTALLATION

#### Culverts

60	LF of 18"	\$1,830.00
		\$1,830.00

#### Culvert Stakes & Markers

2 markers	\$16.00
\$16.00	

**TOTAL CULVERTS    \$1,846.00**

### ROCK

0+54 to	14+70	1,349	cy. of	Pit Run	@	\$11.82	per c.y.=	\$15,945.18
Energy Dissipator	See Rock List	2	cy. of	Pit Run	@	\$16.82	per c.y.=	\$33.64
<b>TOTAL ROCK</b>								<b>\$15,978.82</b>

SUBTOTAL    **\$25,032.35**

### MOBILIZATION

SUBTOTAL    **\$1,174.42**

### OVERHEAD & GENERAL EXPENSES

10%

SUBTOTAL    **\$2,620.68**

**TOTAL    \$28,827.45**

Optional Rock?    YES

**COST PER STATION    \$1,961.05**

## SUMMARY OF ROAD

Sale:                     M Hornet                    

Road:                     W-3400                    

Required	13+00	stations	
Pre-Haul Maintenance-	0.25	miles	
Required Abandonment-	0+00	stations	
	0.00	miles	

Required	2+00	stations	
Reconstruction -	0.04	miles	
Optional	0+00	stations	
Reconstruction -	0.00	miles	

Required	0+00	stations	
Construction -	0.00	miles	
Optional	0+00	stations	
Construction -	0.00	miles	

### PRE-HAUL MAINTENANCE

<b>MISC.</b>					
Grade and shape existing road surface -	13.00	stations @	\$18.25	per station	\$237.25
Roll shaped road surface w/ vibratory roller prior to rocking -	13.00	stations @	\$9.70	per station	\$126.10
<b>TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.</b>					<b>\$363.35</b>

### RECONSTRUCTION

<b>CLEARING/GRUBBING</b>					
Scattering Organic Debris	2.00	sta @	\$140.00	per sta	\$280.00
<b>EXCAVATION</b>					
Side cast	0.050	acres @	\$140.00	per acre	\$7.00
Widening Road Prism	0.050	acres @	\$140.00	per acre	\$7.00
Construct Ditches	2.00	stations @	\$67.19	per station	\$134.38
Grade and shape subgrade -	2.00	stations @	\$14.60	per station	\$29.20
<b>MISC.</b>					
Roll subgrade w/ vibratory roller prior to rocking -	2.00	stations @	\$12.12	per station	\$24.24
Reconstruct turnaround @ sta. 15+00	1.00	@	\$134.62	each	\$134.62
Grass seed and fertilize -	4.00	lbs @	\$4.00	per lbs	\$16.00
<b>TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.</b>					<b>\$632.44</b>

### ROCK

0+00 to	6+00	132	cy. of	Crushed	@	\$8.01	per c.y.=	\$1,057.32
13+00 to	15+00	187	cy. of	Select Pit Rur	@	\$11.60	per c.y.=	\$2,169.20
<b>TOTAL ROCK</b>								<b>\$3,226.52</b>

SUBTOTAL **\$4,222.31**

### MOBILIZATION

SUBTOTAL **\$103.05**

### OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$432.54**

**TOTAL \$4,757.90**

Optional Rock? NO

**COST PER STATION \$317.19**



## SUMMARY OF ROAD

Sale:	<b>M Hornet</b>			Road:	<b>W-3400 Ext.</b>
Required Pre-Haul Maintenance-	0+00 0.00	stations miles	Required Reconstruction -	0+00 0.00	stations miles
Required Abandonment-	0+00 0.00	stations miles	Optional Reconstruction -	0+00 0.00	stations miles
			Required Construction -	18+73 0.35	stations miles
			Optional Construction -	0+00 0.00	stations miles

### CONSTRUCTION

#### CLEARING/GRUBBING

Scattering Organic Debris 18.73 sta @ \$280.00 per sta \$5,244.40

#### EXCAVATION

Road Construction Earthwork 18.73 sta. @ \$152.17 per sta. = \$2,850.14  
 Construct settling ponds at stations 5+50, 10+65, 11+20, 12+90, 13+25 5.00 @ \$53.75 each \$268.75  
 Grade and shape subgrade - 18.73 stations @ \$14.60 per station \$273.46

#### MISC.

Roll subgrade w/ vibratory roller prior to rocking - 18.73 stations @ \$12.12 per station \$227.01  
 Construct turnouts @ sta. - 18+50 1.00 @ \$134.62 each \$134.62  
 Construct turnaround @ sta. - 8+68, 15+19 2.00 @ \$134.62 each \$269.24  
 Grass seed and fertilize - 56.00 lbs @ \$4.00 per lbs \$224.00

**TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. \$9,491.62**

### CULVERTS - MATERIALS & INSTALLATION

#### Culverts

160	LF of 18"	\$4,880.00		120	LF of 24"	\$4,035.60
		\$4,880.00				\$4,035.60

#### Culvert Stakes & Markers

8 markers \$64.00  
\$64.00

**TOTAL CULVERTS \$8,979.60**

### ROCK

Culvert Backfill	79, 10+91, 13+	60	cy. of	Crushed	@	\$8.71	per c.y.=	\$522.60
Energy Dissipator	See Rock List	15	cy. of	Pit Run	@	\$16.83	per c.y.=	\$252.45
0+00 to	18+73	1,821	cy. of	Pit Run	@	\$11.83	per c.y.=	\$21,542.43

**TOTAL ROCK \$22,317.48**

SUBTOTAL **\$40,788.70**

### MOBILIZATION

SUBTOTAL **\$1,546.60**

### OVERHEAD & GENERAL EXPENSES

10%

SUBTOTAL **\$4,233.53**

**TOTAL \$46,568.83**

Optional Rock? NO

**COST PER STATION \$2,486.32**



## SUMMARY OF ROAD

Sale: M Hornet

Road: W-3430

Required  
Pre-Haul Maintenance - 7+20 stations  
0.14 miles

Required  
Reconstruction - 0+00 stations  
0.00 miles

Required  
Construction - 0+00 stations  
0.00 miles

Required Abandonment - 8+00 stations  
0.15 miles

Optional  
Reconstruction - 0+00 stations  
0.00 miles

Optional  
Construction - 0+00 stations  
0.00 miles

### PRE-HAUL MAINTENANCE

#### MISC.

Grade and shape existing road surface -	8.70	stations @	\$18.25	per station	\$158.78
Roll shaped road surface w/ vibratory roller prior to rocking -	8.70	stations @	\$9.70	per station	\$84.39
<b>TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.</b>					<b>\$243.17</b>

### ABANDONMENT

Construct waterbar -	4.00	@	\$60.00	each	\$240.00
Construct Earthen Barricade -	2.00	@	\$180.00	each	\$360.00
Grass seed and fertilize -	24.00	lbs @	\$4.00	per lbs	\$96.00
Mulching -	14.00	bales @	\$25.00	per bale	\$350.00
Remove culverts from state lands -	2.00	@	\$309.10	total	\$309.10
Stream diversion -	2.00	hrs @	\$256.60	per hr	\$513.20
Remove stream culverts -	6.00	hrs. @	\$215.00	per hr	<u>\$1,290.00</u>
<b>TOTAL ADDITIONAL REQUIREMENTS</b>					<b>\$3,158.30</b>

SUBTOTAL **\$3,401.47**

### OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$340.15**

**TOTAL \$3,741.62**

Optional Rock? NO

**COST PER STATION \$519.67**



## SUMMARY OF ROAD

Sale: M Hornet

Road: W-7000 (Required Pre-haul Maintenance)

Required  
Pre-Haul Maintenance - 40+10 stations  
0.76 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

**MISC.**

Grade and shape existing road surface -	40.10	stations @	\$18.25	per station	\$731.83	
Roll shaped road surface w/ vibratory roller prior to rocking -	40.10	stations @	\$9.70	per station	<u>\$388.97</u>	
				TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.		<b>\$1,120.80</b>

SUBTOTAL **\$1,120.80**

### MOBILIZATION

SUBTOTAL **\$182.63**

### OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$130.34**

Optional Rock? NO

**TOTAL \$1,433.77**

**COST PER STATION \$35.75**

## SUMMARY OF ROAD

Sale:	<b>M Hornet</b>		Road: <b>W-7000 (Required Reconstruction)</b>
Required Pre-Haul Maintenance-	0+00 0.00	stations miles	Required Reconstruction -
			41+40 0.78
			stations miles
Required Abandonment-	0+00 0.00	stations miles	Optional Reconstruction -
			0+00 0.00
			stations miles
			Optional Construction -
			0+00 0.00
			stations miles

### RECONSTRUCTION

#### CLEARING/GRUBBING

Scattering Organic Debris 41.40 sta @ \$140.00 per sta \$5,796.00

#### EXCAVATION

Construct settling ponds at stations 79+15, 79+70 - 2.00 @ \$53.75 each \$107.50  
 Construct and/or clean ditch 41.40 stations @ \$67.19 per station \$2,781.67  
 Construct ditchouts - 45+60, 47+90, 49+10 3.00 @ \$60.00 each \$180.00  
 Grade and shape subgrade - 41.40 stations @ \$14.60 per station \$604.44

#### MISC.

Roll subgrade w/ vibratory roller prior to rocking - 41.40 stations @ \$12.12 per station \$501.77  
 Reconstruct turnouts @ sta. - 44+70, 49+10, 65+20, 77+50 4.00 @ \$134.62 each \$538.48  
 Reconstruct turnaround @ sta. - 67+25, 72+40, 81+50 3.00 @ \$134.62 each \$403.86  
 Grass seed and fertilize - 83.00 lbs @ \$4.00 per lbs \$332.00

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$11,245.72**

### CULVERTS - MATERIALS & INSTALLATION

#### Culverts

90	LF of 18"	\$2,745.00		40	LF of 24"	\$1,345.20
		\$2,745.00				\$1,345.20

#### Culvert Stakes & Markers

4 markers	\$32.00
	\$32.00

TOTAL CULVERTS **\$4,122.20**

### ROCK

Culvert Backfill	See Rock List	80	cy. of	2.5" Crushed	@	\$7.83	per c.y. =	\$626.40
Energy Dissipator	See Rock List	6	cy. of	Pit Run	@	\$15.96	per c.y. =	\$95.76
40+10 to	81+50	1,858	cy. of	2.5" Crushed	@	\$20.63	per c.y. =	\$38,330.54
							TOTAL ROCK	<b>\$39,052.70</b>

### ADDITIONAL REQUIREMENTS

Gate Purchase & Install - 1.00 @ \$8,000.00 each \$8,000.00

TOTAL ADDITIONAL REQUIREMENTS **\$8,000.00**

SUBTOTAL **\$62,420.62**

### MOBILIZATION

SUBTOTAL **\$1,832.42**

### OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$6,425.30**

**TOTAL \$70,678.34**

Optional Rock? NO

**COST PER STATION \$1,707.21**

## SUMMARY OF ROAD

Sale: M Hornet

Road: W-7100

Required  
Pre-Haul Maintenance - 24+20 stations  
0.46 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

#### MISC.

Grade and shape existing road surface -	24.20	stations @	\$18.25	per station	\$441.65	
Roll shaped road surface w/ vibratory roller prior to rocking -	24.20	stations @	\$9.70	per station	<u>\$234.74</u>	
			TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.			<b>\$676.39</b>

SUBTOTAL **\$676.39**

### MOBILIZATION

SUBTOTAL **\$110.21**

### OVERHEAD & GENERAL EXPENSES

10%

SUBTOTAL **\$78.66**

Optional Rock? NO

**TOTAL \$865.26**

**COST PER STATION \$35.75**

## SUMMARY OF ROAD

Sale:	<b>M Hornet</b>		Road: <b>W-7130</b>
Required Pre-Haul Maintenance-	0+00 0.00	stations miles	Required Reconstruction -
			20+50 0.39
			stations miles
Required Abandonment-	0+00 0.00	stations miles	Optional Reconstruction -
			11+60 0.22
			stations miles
			Required Construction -
			0+00 0.00
			stations miles
			Optional Construction -
			0+00 0.00
			stations miles

### RECONSTRUCTION

#### CLEARING/GRUBBING

Scattering Organic Debris	32.10	sta @	\$140.00	per sta	\$4,494.00
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#### EXCAVATION

Side cast	0.400	acres @	\$140.00	per acre	\$56.00
Widening Road Prism	0.400	acres @	\$140.00	per acre	\$56.00
Construct/clean Ditch	32.10	stations @	\$67.19	per station	\$2,156.80
Grade and shape subgrade -	32.10	stations @	\$14.60	per station	\$468.66

#### MISC.

Roll subgrade w/ vibratory roller prior to rocking -	32.10	stations @	\$12.12	per station	\$389.05
Reconstruct turnouts @ sta. - 7+00, 24+80	2.00	@	\$134.62	each	\$269.24
Reconstruct turnaround @ sta. - 19+50, 29+80	2.00	@	\$134.62	each	\$269.24
Reconstruct landing - 9+90, 20+50, 26+30, 32+10	4.00	@	\$269.23	each	\$1,076.92
Remove culverts from state lands -	1.00	@	\$209.12	total	\$209.12
Grass seed and fertilize -	90.00	lbs @	\$4.00	per lbs	\$360.00

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.	<b>\$9,805.03</b>
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### CULVERTS - MATERIALS & INSTALLATION

#### Culverts

200	LF of 18"	\$6,100.00
		\$6,100.00

#### Culvert Stakes & Markers

6	markers	\$48.00
		\$48.00

TOTAL CULVERTS	<b>\$6,148.00</b>
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### ROCK

Culvert Backfill	See Rock List	120	cy. of	2.5" Crushed	@	\$20.61	per c.y.=	\$2,473.20
Energy Dissipator	See Rock List	6	cy. of	Pit Run	@	\$15.94	per c.y.=	\$95.64
0+00 to	20+50	904	cy. of	2.5" Crushed	@	\$20.49	per c.y.=	\$18,522.96
20+50 to	32+10	1,050	cy. of	Pit Run	@	\$11.12	per c.y.=	\$11,676.00

TOTAL ROCK	<b>\$32,871.28</b>
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SUBTOTAL	<b>\$48,824.31</b>
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### MOBILIZATION

SUBTOTAL	<b>\$1,597.67</b>
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### OVERHEAD & GENERAL EXPENSES

10%		SUBTOTAL	<b>\$5,042.20</b>
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Optional Rock?	NO
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TOTAL	<b>\$55,464.18</b>
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COST PER STATION	<b>\$1,727.86</b>
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## SUMMARY OF ROAD

Sale:	<b>M Hornet</b>		Road:	<b>W-7132</b>	
Required Pre-Haul Maintenance-	0+00 0.00	stations miles	Required Reconstruction -	0+00 0.00	stations miles
Required Abandonment-	0+00 0.00	stations miles	Optional Reconstruction -	7+10 0.13	stations miles
			Required Construction -	0+00 0.00	stations miles
			Optional Construction -	0+00 0.00	stations miles

### RECONSTRUCTION

#### CLEARING/GRUBBING

Scattering Organic Debris 7.10 sta @ \$140.00 per sta \$994.00

#### EXCAVATION

Construct Ditch 7.10 stations @ \$67.19 per station \$477.05  
 Grade and shape subgrade - 7.10 stations @ \$14.60 per station \$103.66

#### MISC.

Roll subgrade w/ vibratory roller prior to rocking - 7.10 stations @ \$12.12 per station \$86.05  
 Reconstruct turnouts @ sta. - 4+50 1.00 @ \$134.62 each \$134.62  
 Reconstruct landing - 7+10 1.00 @ \$269.23 each \$269.23  
 Grass seed and fertilize - 14.00 lbs @ \$4.00 per lbs \$56.00

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$2,120.61**

### CULVERTS - MATERIALS & INSTALLATION

#### Culverts

90	LF of 18"	\$2,745.00		0	LF of 24"	\$0.00
		\$2,745.00				\$0.00

#### Culvert Stakes & Markers

3	markers	\$24.00
		\$24.00

**TOTAL CULVERTS \$2,769.00**

### ROCK

Energy Dissipator	See Rock List	3	cy. of	Pit Run	@	\$16.22	per c.y.=	\$48.66
0+00 to	7+10	564	cy. of	Pit Run	@	\$11.22	per c.y.=	\$6,328.08
<b>TOTAL ROCK</b>								<b>\$6,376.74</b>

SUBTOTAL **\$11,266.35**

### MOBILIZATION

SUBTOTAL **\$345.54**

### OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$1,161.19**

Optional Rock? NO

**TOTAL \$12,773.08**

**COST PER STATION \$1,799.03**

## SUMMARY OF ROAD

Sale:	<b>M Hornet</b>		Road: <b>W-7130 Ext.</b>
Required Pre-Haul Maintenance-	0+00 0.00	stations miles	Required Reconstruction -
			0+00 0.00
			stations miles
Required Abandonment-	0+00 0.00	stations miles	Optional Reconstruction -
			0+00 0.00
			stations miles
			Required Construction -
			0+00 0.00
			stations miles
			Optional Construction -
			3+49 0.07
			stations miles

### CONSTRUCTION

#### CLEARING/GRUBBING

Scattering Organic Debris 3.49 sta @ \$280.00 per sta \$977.20

#### EXCAVATION

Road Construction Earthwork 3.49 sta. @ \$152.17 per sta. = \$531.07  
 Construct ditchouts - 1.00 @ \$60.00 each \$60.00  
 Grade and shape subgrade - 3.49 stations @ \$14.60 per station \$50.95

#### MISC.

Roll subgrade w/ vibratory roller prior to rocking - 3.49 stations @ \$12.12 per station \$42.30  
 Construct landing - 3+49 1.00 @ \$538.46 each \$538.46  
 Grass seed and fertilize - 10.00 lbs @ \$4.00 per lbs \$40.00

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$2,239.98**

### ROCK

0+00 to 3+49 343 cy. of Pit Run @ \$11.35 per c.y. = \$3,893.05  
**TOTAL ROCK \$3,893.05**

SUBTOTAL **\$6,133.03**

### MOBILIZATION

SUBTOTAL **\$364.99**

### OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$649.80**

**TOTAL \$7,147.82**

Optional Rock?

**COST PER STATION \$2,048.09**



## SUMMARY OF ROAD

Sale:	<b>M Hornet</b>		Road: <b>W-7400</b>
Required Pre-Haul Maintenance-	0+00 0.00	stations miles	Required Reconstruction -
			0+00 0.00
			stations miles
Required Abandonment-	0+00 0.00	stations miles	Optional Reconstruction -
			4+75 0.09
			stations miles
			Required Construction -
			0+00 0.00
			stations miles
			Optional Construction -
			0+00 0.00
			stations miles

### RECONSTRUCTION

#### CLEARING/GRUBBING

Scattering Organic Debris 4.75 sta @ \$140.00 per sta \$665.00

#### EXCAVATION

Construct/clean ditch- 4.75 stations @ \$67.19 per station \$319.15  
 Grade and shape subgrade - 4.75 stations @ \$14.60 per station \$69.35

#### MISC.

Roll subgrade w/ vibratory roller prior to rocking - 4.75 stations @ \$12.12 per station \$57.57  
 Reconstruct turnouts @ sta. - 1.00 @ \$134.62 each \$134.62  
 Reconstruct landing - 1.00 @ \$269.23 each \$269.23  
 Grass seed and fertilize - 13.00 lbs @ \$4.00 per lbs \$52.00

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$1,566.92**

### CULVERTS - MATERIALS & INSTALLATION

#### Culverts

30 LF of 18" \$915.00  
 \$915.00

#### Culvert Stakes & Markers

1 markers \$8.00  
 \$8.00

TOTAL CULVERTS **\$923.00**

### ROCK

Energy Dissipator	See Rock List	1	cy. of	Pit Run	@	\$16.04	per c.y.=	\$16.04
0+00 to	4+75	222	cy. of	2.5" Crushed	@	\$20.71	per c.y.=	\$4,597.62
Landing @	4+75	70	cy. of	Pit Run	@	\$52.78	per c.y.=	\$3,694.60

TOTAL ROCK **\$8,308.26**

SUBTOTAL **\$10,798.18**

### MOBILIZATION

SUBTOTAL **\$255.32**

### OVERHEAD & GENERAL EXPENSES

10% SUBTOTAL **\$1,105.35**

**TOTAL** **\$12,158.85**

Optional Rock? YES

**COST PER STATION** **\$2,559.76**

## SUMMARY OF ROAD

Sale:	<b>M Hornet</b>		Road: <b>Rock Pit Exploration</b>
Required Pre-Haul Maintenance-	0+00 <hr style="width: 50%; margin: 0 auto;"/> 0.00	stations miles	Required Construction -
			0+00 <hr style="width: 50%; margin: 0 auto;"/> 0.00
			stations miles
Required Abandonment-	0+00 <hr style="width: 50%; margin: 0 auto;"/> 0.00	stations miles	Optional Reconstruction -
			0+00 <hr style="width: 50%; margin: 0 auto;"/> 0.00
			stations miles
			Optional Construction -
			0+00 <hr style="width: 50%; margin: 0 auto;"/> 0.00
			stations miles

### ADDITIONAL REQUIREMENTS

Rock Pit Exploration - Rock Drill/Excavator & Mobilization	\$7,000.00	
	<b>TOTAL ADDITIONAL REQUIREMENTS</b>	<b>\$7,000.00</b>

### OVERHEAD & GENERAL EXPENSES

10%

	SUBTOTAL	<b>\$7,000.00</b>
	SUBTOTAL	<b>\$700.00</b>
	<b>TOTAL</b>	<b>\$7,700.00</b>



## 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*

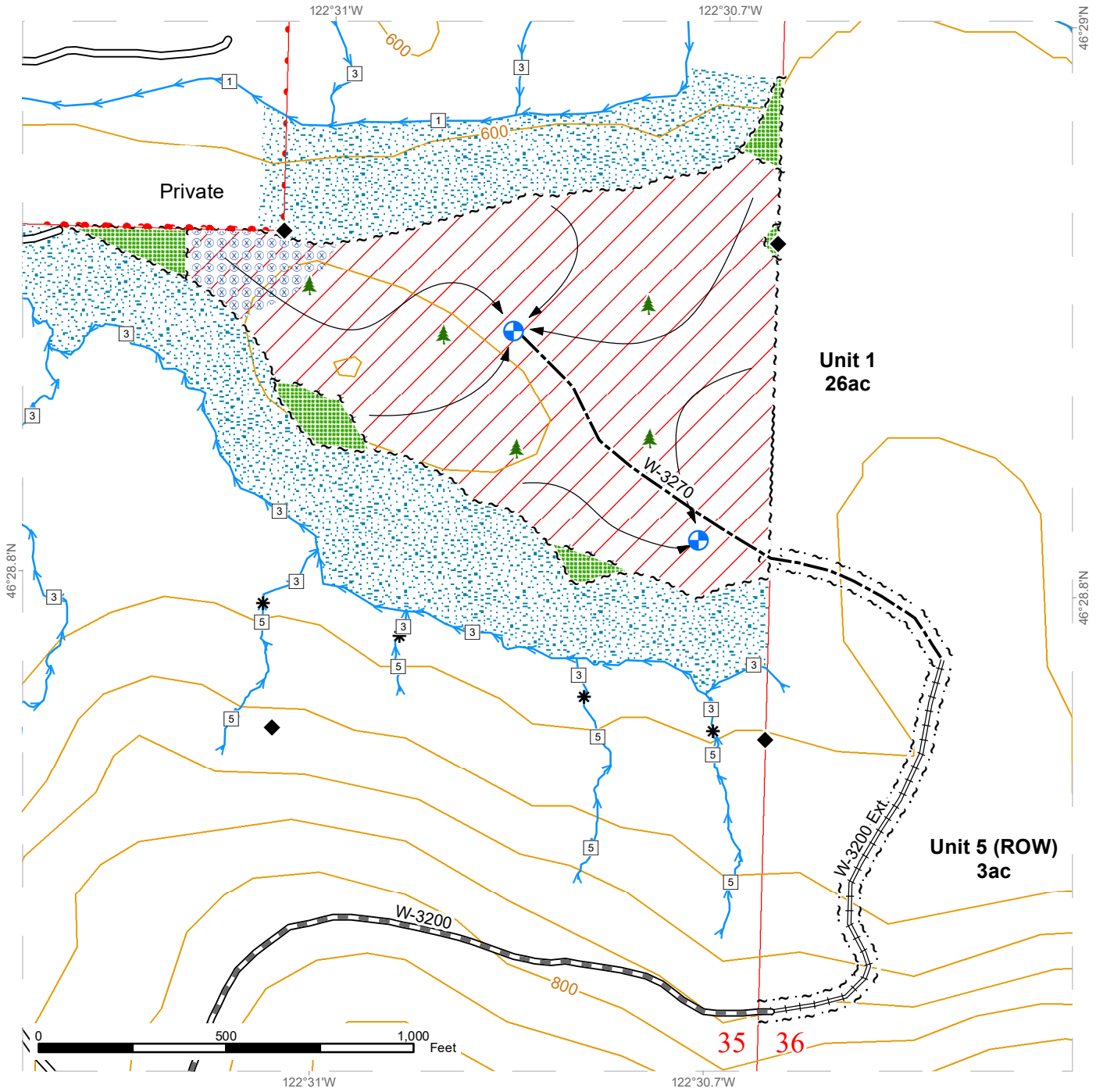
All parties must make their own assessment of the taxable or non-taxable status of any work performed under the timber sale contract. The Department of Revenue bears responsibility for determining forest road excise taxes. The Department of Natural Resources developed this form to help estimate the impact 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: M HORNET  
 AGREEMENT#: 30-104741  
 TOWNSHIP(S): T11R2E, T12R2E  
 TRUST(S): Capitol Grant (7), Common School and Indemnity (3), State Forest Purchase (2), State Forest Transfer (1)

REGION: Pacific Cascade Region  
 COUNTY(S): Lewis  
 ELEVATION RGE: 640-1520



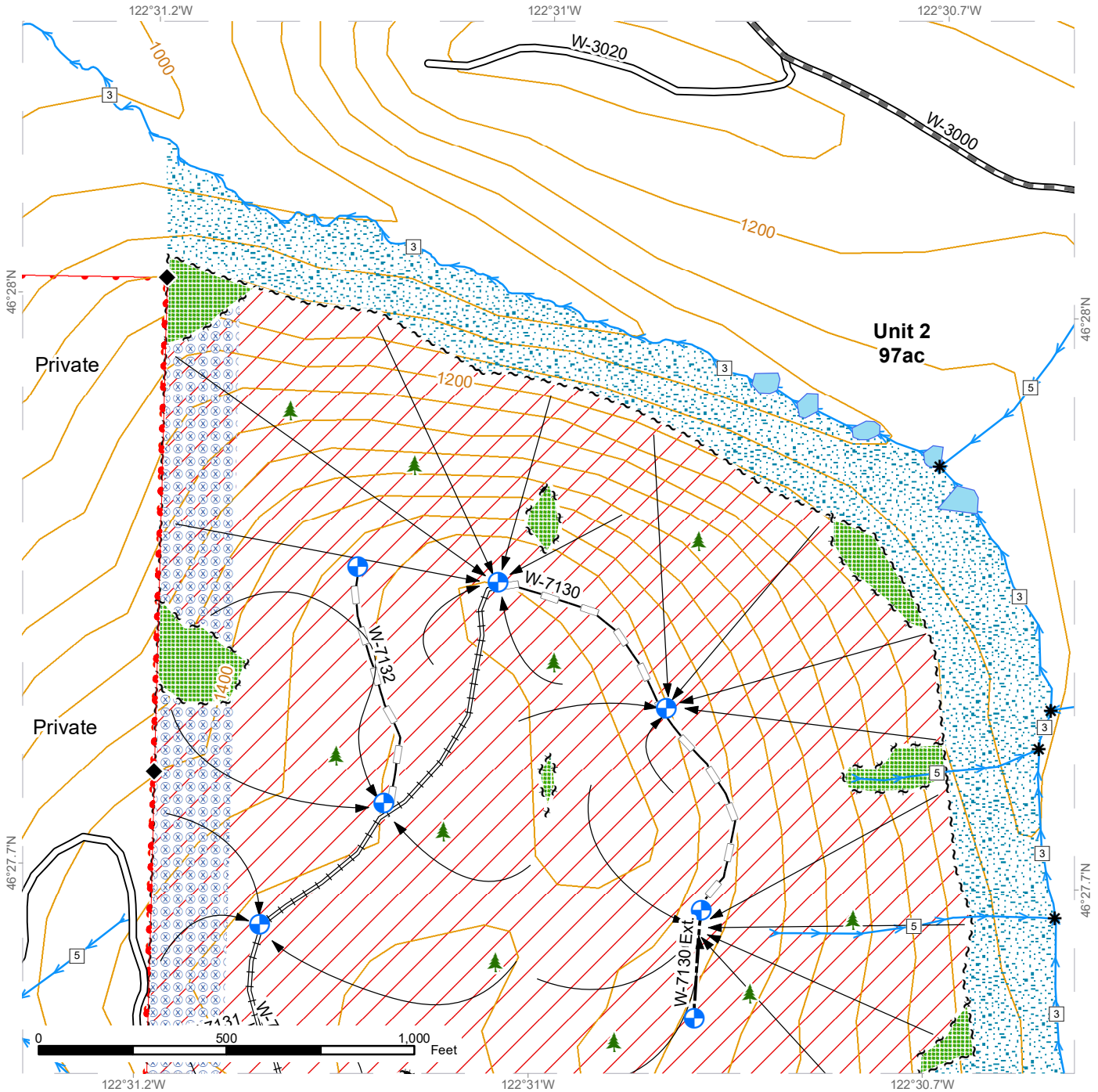
Variable Retention Harvest	Sale Boundary Tags	Existing Roads	Landing - Proposed
Leave Tree Area	Leave Tree Tags	Required Pre-Haul Maintenance	Leave Tree Area <1/4-acre
Riparian Mgt Zone	Right of Way Tags	Required Reconstruction	Stream Type
Hazard Abatement Area	Right of Way Tags	Optional Construction	Stream Type Break
Property Line	Property Line	Ground Harvest	Survey Monument
Streams			



# LOGGING PLAN MAP

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 COUNTY(S): Lewis  
 ELEVATION RGE: 640-1520



Variable Retention Harvest	Sale Boundary Tags	Existing Roads	Landing - Proposed
Leave Tree Area	Leave Tree Tags	Required Pre-Haul Maintenance	Leave Tree Area <1/4-acre
Riparian Mgt Zone	Property Line	Required Reconstruction	Stream Type
Hazard Abatement Area	Streams	Optional Construction	Stream Type Break
		Optional Reconstruction	Survey Monument
		Ground Harvest	
		Cable Harvest	

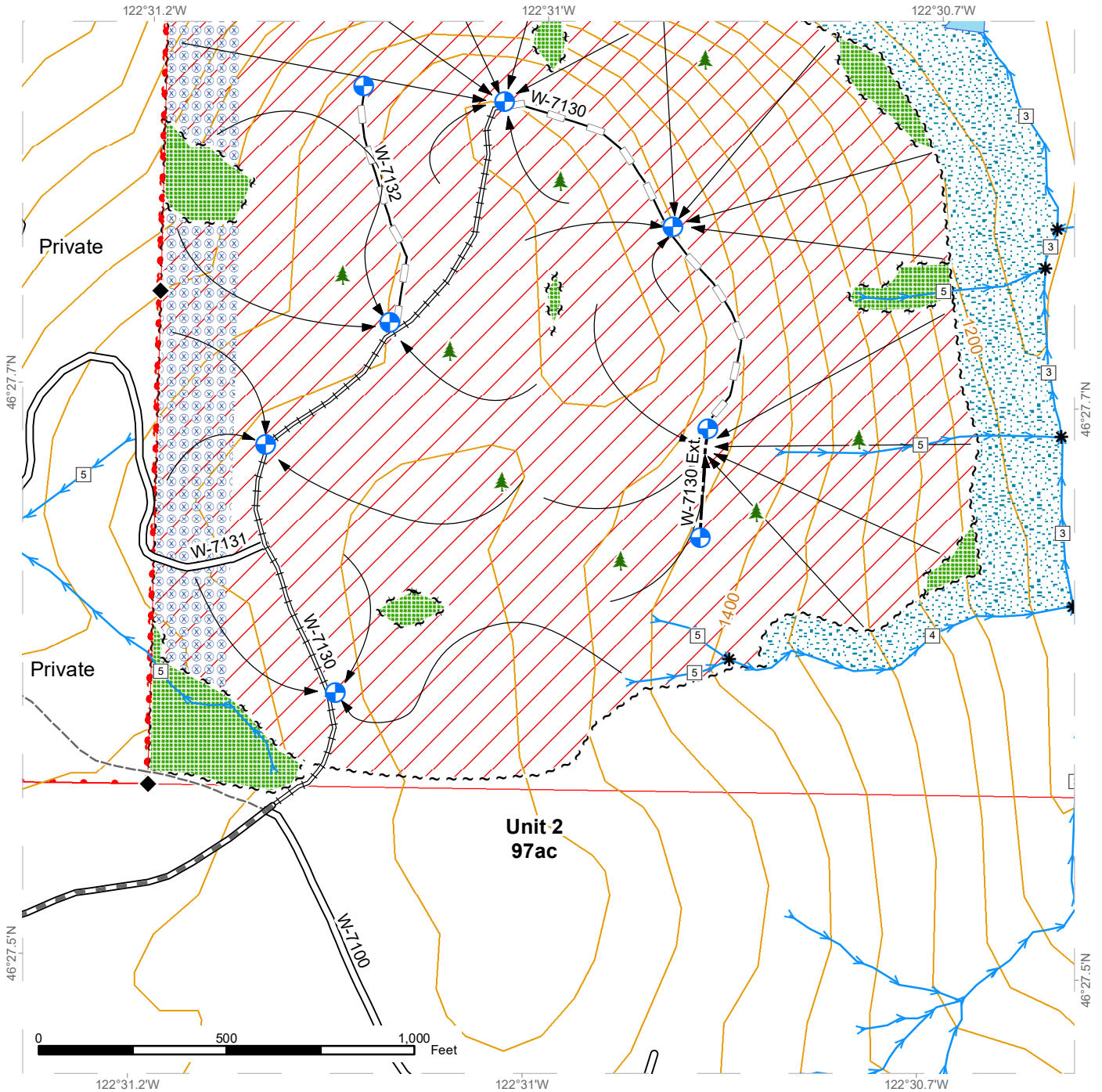




# LOGGING PLAN MAP

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Variable Retention Harvest	Sale Boundary Tags	Existing Roads	Landing - Proposed
Leave Tree Area	Leave Tree Tags	Required Pre-Haul Maintenance	Leave Tree Area <1/4-acre
Riparian Mgt Zone	Property Line	Required Reconstruction	Stream Type
Hazard Abatement Area	Streams	Optional Construction	Stream Type Break
		Optional Reconstruction	Survey Monument
		Old Grades/Trails	
		Ground Harvest	
		Cable Harvest	

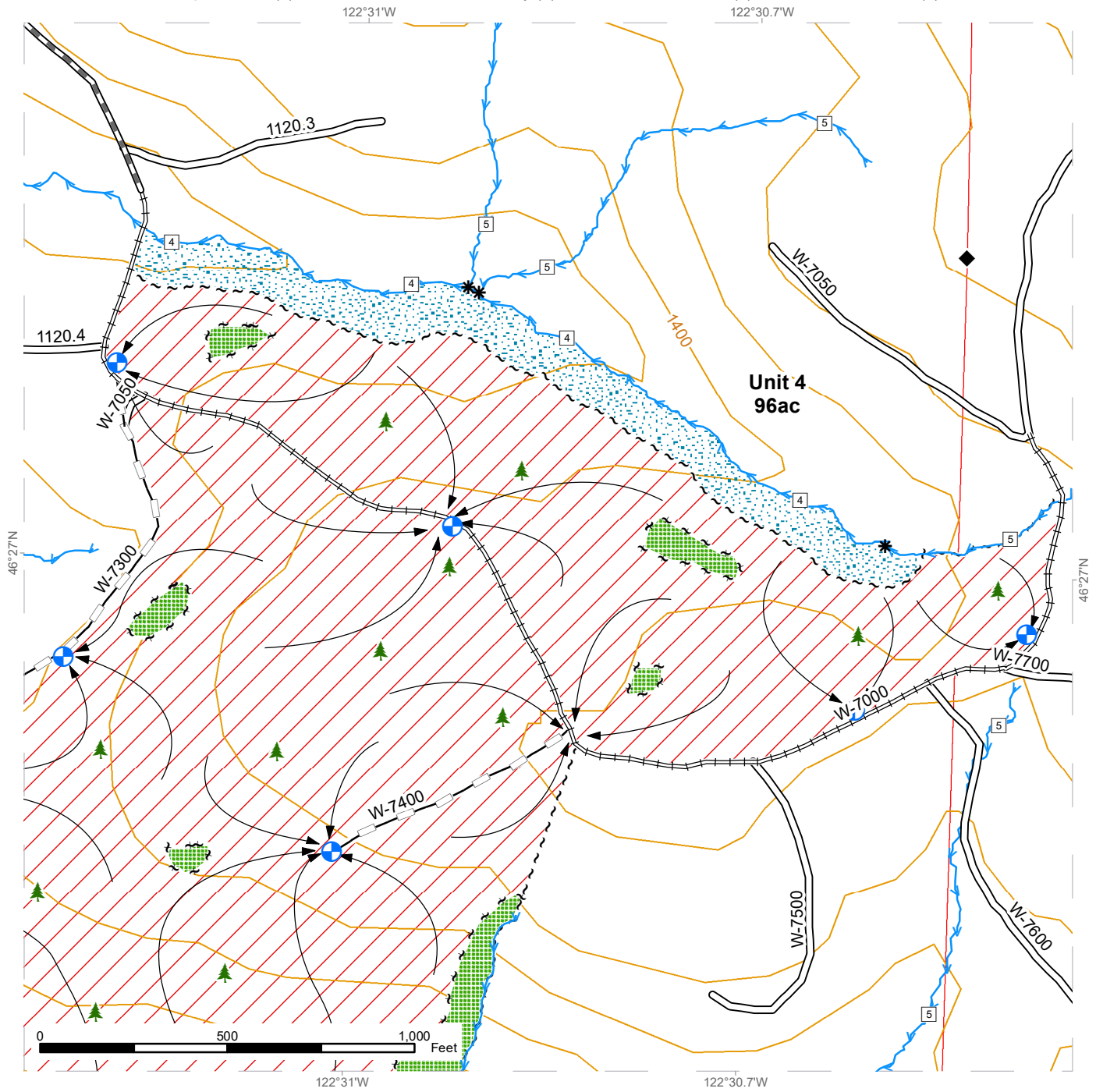




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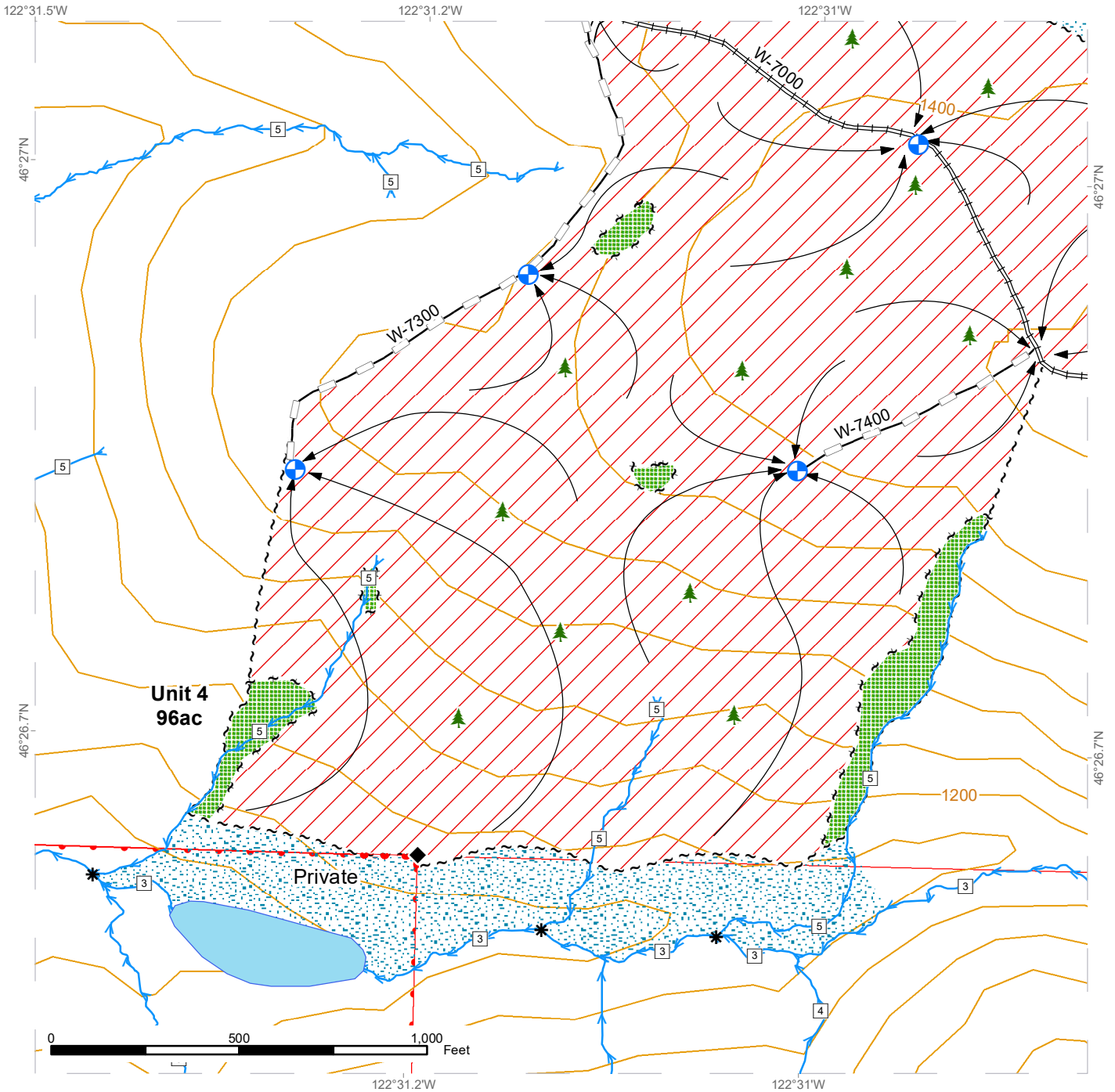
Variable Retention Harvest	Sale Boundary Tags	Existing Roads	Landing - Proposed
Leave Tree Area	Leave Tree Tags	Required Pre-Haul Maintenance	Leave Tree Area <1/4-acre
Riparian Mgt Zone	Streams	Required Reconstruction	Stream Type
		Optional Reconstruction	Stream Type Break
		Ground Harvest	Survey Monument



# LOGGING PLAN MAP

**SALE NAME:** M HORNET  
**AGREEMENT#:** 30-104741  
**TOWNSHIP(S):** T11R2E, T12R2E  
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**ELEVATION RGE:** 640-1520



Variable Retention Harvest	Sale Boundary Tags	Existing Roads	Landing - Proposed
Leave Tree Area	Leave Tree Tags	Required Reconstruction	Leave Tree Area <1/4-acre
Riparian Mgt Zone	Property Line	Optional Reconstruction	Stream Type
Streams	Ground Harvest	Stream Type Break	Survey Monument

