



TIMBER NOTICE OF SALE

SALE NAME: LYRE LYRE

AGREEMENT NO: 30-104811

AUCTION: January 24, 2024 starting at 10:00 a.m., Olympic Region Office, Forks, WA

COUNTY: Clallam

SALE LOCATION: Sale located approximately 5 miles west of Joyce, WA

PRODUCTS SOLD AND SALE AREA:

All timber, except trees marked with a band of blue paint or bounded out by leave tree area tags; bounded by timber sale boundary tags, red paint ringed take trees(fence line), PA-J-3010 in Unit 1; timber sale boundary tags, timber type change, PA-J-3000, PA-J-3100 in Unit 2; timber sale boundary tags, red paint ringed take trees, PA-J-3100 Unit 5, timber sale boundary tags, Joyce-Piedmont Rd. Unit 6; timber sale boundary tags, red ringed take trees, Joyce-Piedmont Rd. Unit 7; timber sale boundary tags, PA-J-3000 Unit 8; timber sale boundary tags, red ringed take trees Unit 9.

All timber bounded by right of way boundary tags in Unit 10.

All forest products above located on part(s) of Sections 1 all in Township 30 North, Range 9 West, Sections 34 and 35 all in Township 31 North, Range 9 West, W.M., containing 110 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 Ring DBH Count, Total MBF, and MBF by Grade (1P, 2P, 3P, SM, 1S, 2S, 3S, 4S, UT). Rows include Douglas fir, Red alder, Spruce, Redcedar, Grand fir, Hemlock, Maple, and Sale Total.

MINIMUM BID: \$541,000.00

BID METHOD: Sealed Bids

PERFORMANCE SECURITY:

\$100,000.00

SALE TYPE: Lump Sum

EXPIRATION DATE: October 31, 2026

ALLOCATION: Export Restricted

BID DEPOSIT: \$54,100.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

HARVEST METHOD: 100% Ground Based equipment. 30' Equipment Limitation Zone on all typed water unless approved by the Contract Administrator. Forest products sold under this contract shall be harvested and removed using ground based equipment. Non-tethered self-leveling tracked equipment is limited to sustained slopes of 65 percent and less. Other



## TIMBER NOTICE OF SALE

ground based equipment is limited to tracked equipment on sustained slopes that are 45 percent and less. Rubber tired skidders are restricted unless approved by the Contract Administrator. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

No equipment will be allowed in the areas that are shown on the maps as Equipment Exclusion Zones (ELZ) and marked in the field with pink and red flagging in Unit 2. Trees within the ELZ shall be felled in a manner approved by the Contract Administrator. Falling and Yarding will not be permitted from October 1 to May 31 unless authorized in writing by the Contract Administrator or on weekends, State recognized holidays, or from 8:00pm to 6:00am.

**ROADS:** 46.81 stations of required construction. 7.30 stations of required reconstruction. 5.00 stations of optional construction. 185.75 stations of required prehaul maintenance. 7.30 stations of decommissioning. Timber haul, rock haul, pre-haul maintenance, reconstruction, pit development, and Road construction will not be permitted from November 1 to April 30 unless authorized in writing by the Contract Administrator on weekends, State recognized holidays, or from 8:00pm to 6:00am

Purchaser shall provide an excavator with operator for up to 12 hours of exploration of rock and other related work as directed by the Contract Administrator.

Marbled Murrelet Timing Restriction - PA-I-2600 (Stations 0+00 to 14+00) Timber felling, road work or operation of heavy equipment performed during the marbled murrelet nesting season (April 1st through September 23rd), is restricted to, two hours after sunrise to two hours before sunset. This does not apply to hauling timber, rock, or equipment. The hauling of forest products will not be permitted from October 1 to May 31 unless authorized in writing by the Contract Administrator.

### **ACREAGE DETERMINATION**

**CRUISE METHOD:** Sale acreage was 100% GPS'd. Sale units were cruised using a variable plot sample.

**FEES:** There will be a \$360.00 reimbursement fee required of the purchaser of this sale paid to the state for the obtainment of two Clallam County Road Approach Permits already acquired by DNR. \$36,839.00 is due on day of sale. \$9.00 per MBF is due upon removal. These are in addition to the bid price.

**SPECIAL REMARKS:** There are locked bollards on the PA-J-3100 on the entrances from the PA-J-3000 and Gossett Road, and a locked gate on the PA-J-3000 Road-contact the Olympic Region Dispatch Center at 360-374-2800 to obtain a AA1 key.

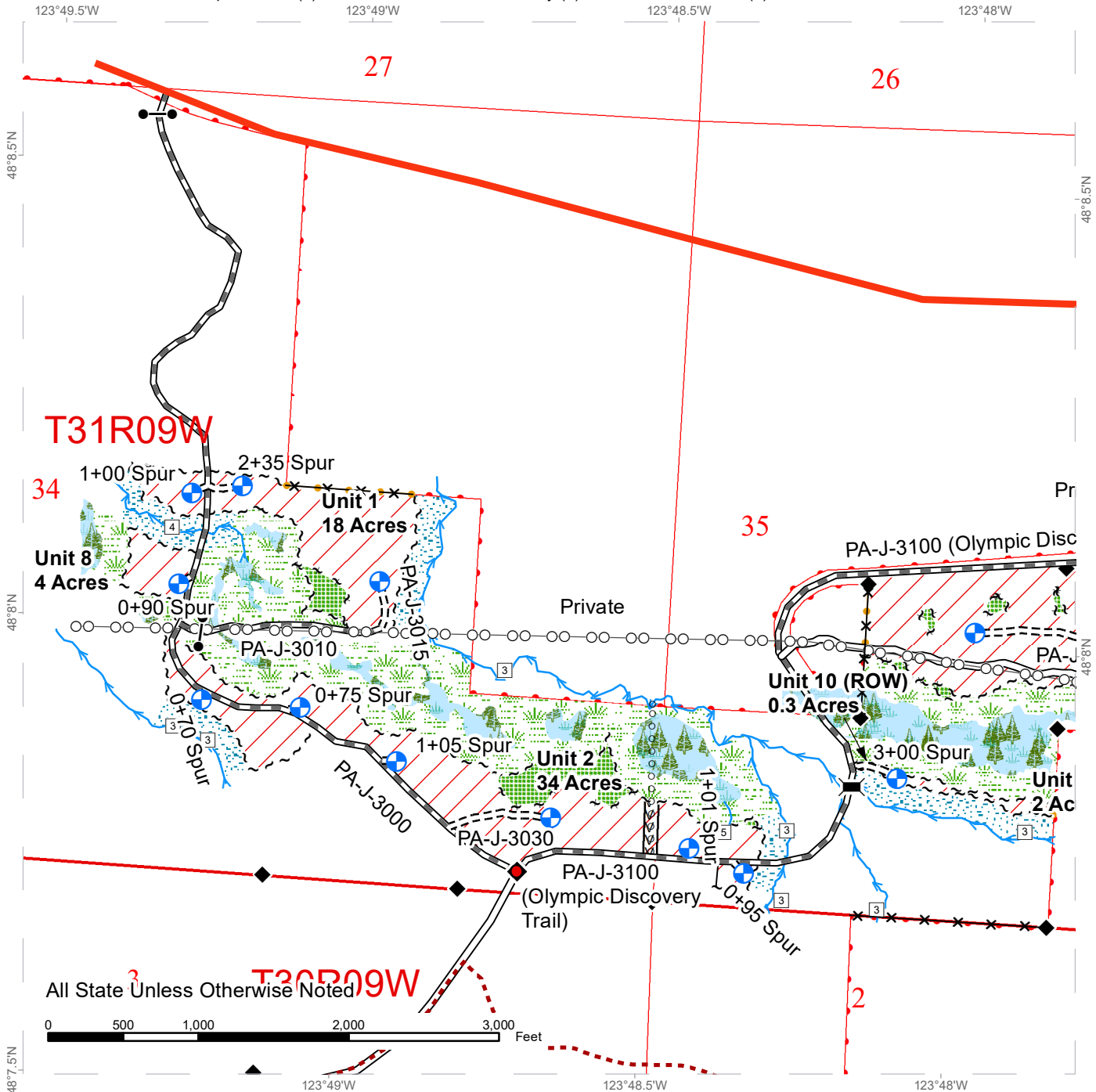
Purchaser shall immediately repair all fence damage resulting from operations on this sale to an equal or better condition than existed at the time of sale.

There are Extreme Hazard Abatement requirements for this sale-see contract for details.

# TIMBER SALE MAP

**SALE NAME:** LYRE LYRE  
**AGREEMENT #:** 30-104811  
**TOWNSHIP(S):** T30R9W, T31R9W  
**TRUST(S):** Capitol Grant (7), Common School and Indemnity (3), State Forest Transfer (1)

**REGION:** Olympic Region  
**COUNTY(S):** Clallam  
**ELEVATION RGE:** 280-700'



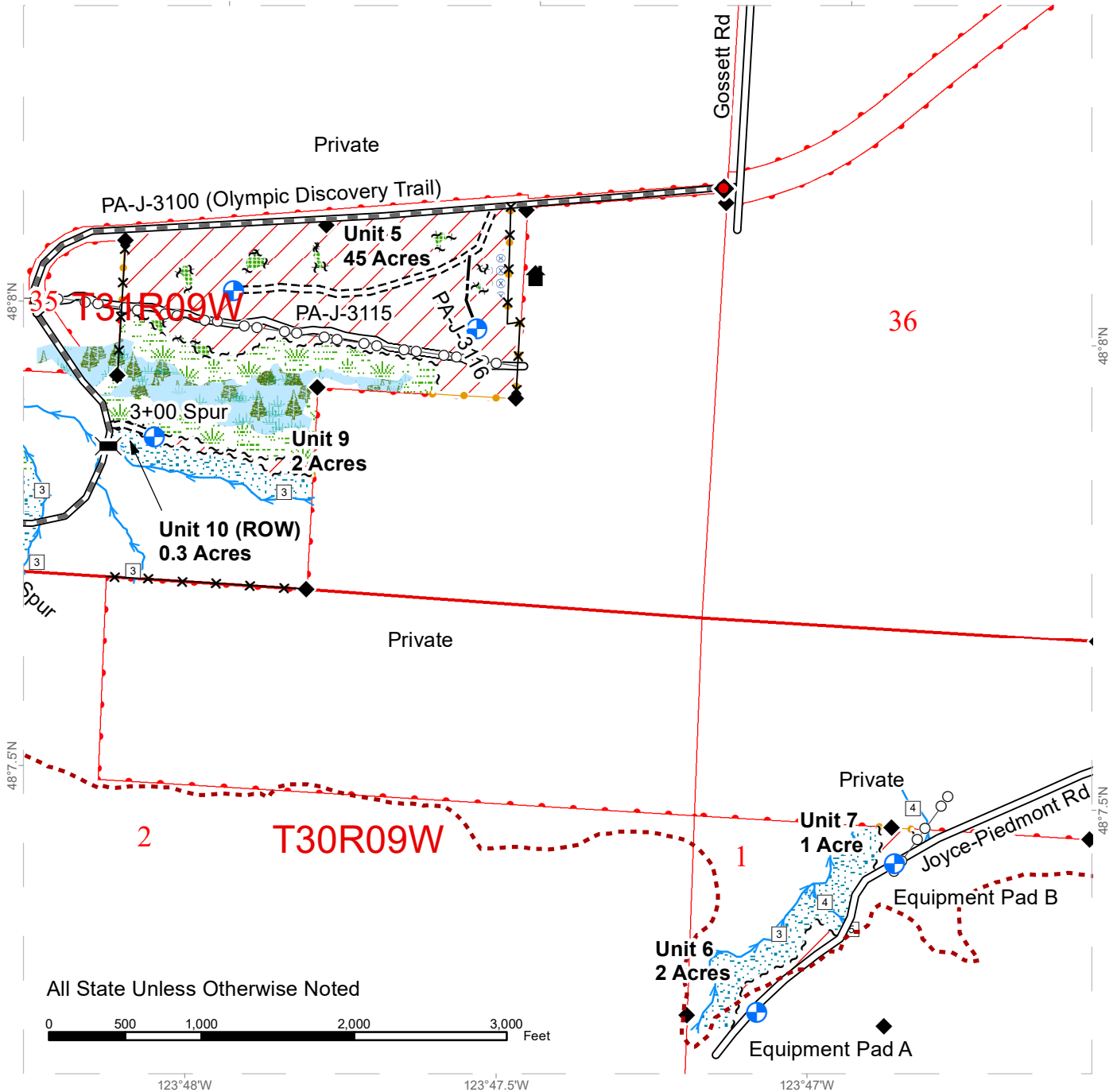
~ ~ ~ Sale Boundary Tags	✕ ✕ Fence	— Stream	□ DNR Managed Lands
— Timber Type Change	○ ○ Power Lines	□ Stream Type	Variable Retention Harvest
— Designated Equipment Trail	○ ○ Waterline	* Stream Type Break	Leave Tree Area
~ ~ ~ Leave Tree Tags	— Existing Road	◆ Survey Monument	Riparian Mgt Zone
~ ~ ~ Right of Way Tags	— Highway 112	● Gate (AA1)	Forested Wetland
Take / Removal Trees	= Δ = Optional Pre-Haul Maintenance	◆ Bollard (AA1)	Wetland Mgt Zone
Property Line	— Optional Construction	Structure	Equipment Exclusion Zone
— Olympic Discovery Trail	— Required Pre-Haul Maintenance	Bridge	
	— Required Construction	Proposed Landing	
	— Required Reconstruction		

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**SALE NAME:** LYRE LYRE  
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**TOWNSHIP(S):** T30R9W, T31R9W  
**TRUST(S):** Capitol Grant (7), Common School and Indemnity (3), State Forest Transfer (1)

**REGION:** Olympic Region  
**COUNTY(S):** Clallam  
**ELEVATION RGE:** 280-700'

123°48'W      123°47.5'W      123°47'W



All State Unless Otherwise Noted

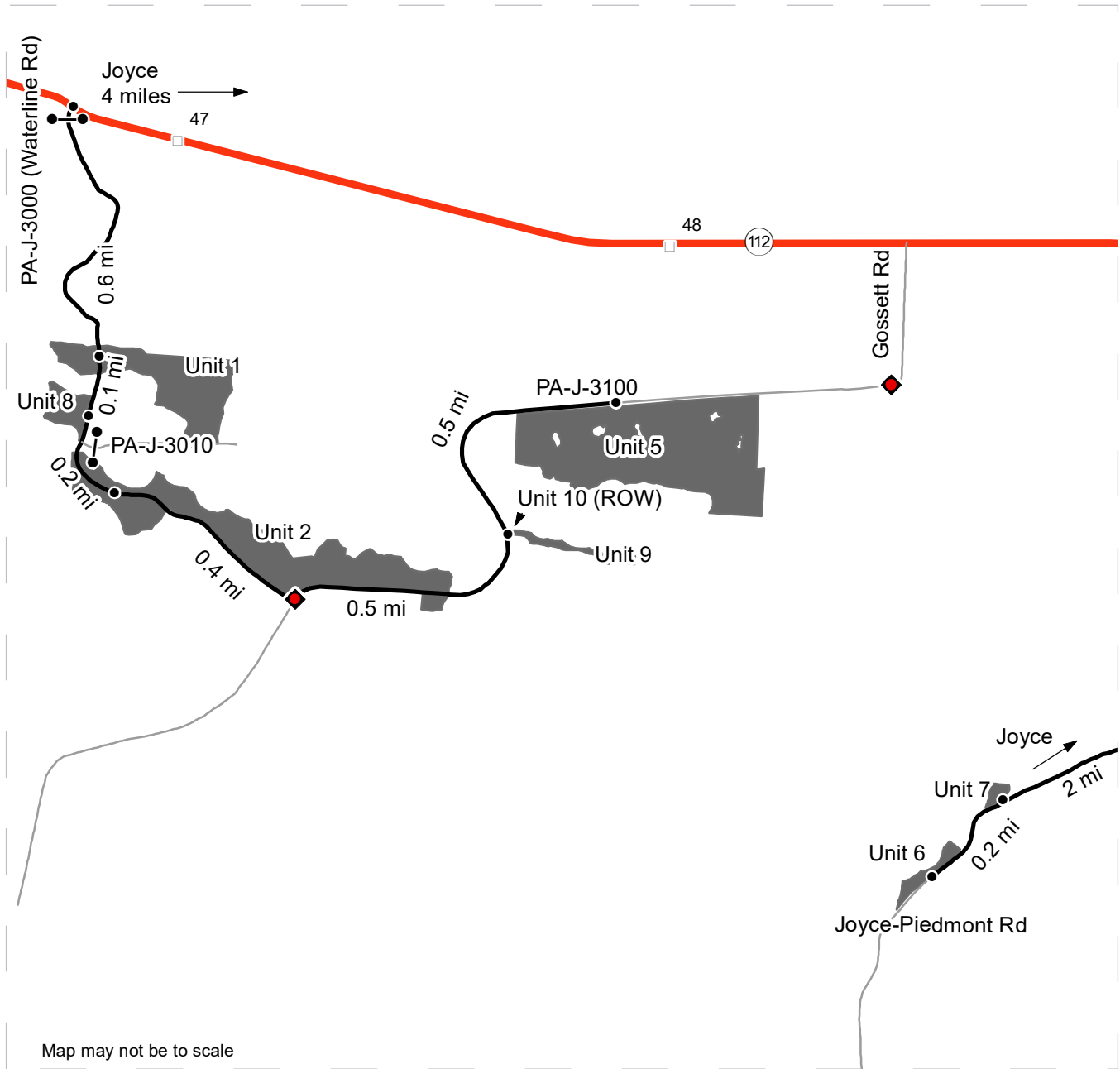
~ ~ ~ Sale Boundary Tags	✕✕ Fence	Stream	DNR Managed Lands
— Timber Type Change	○ ○ Power Lines	□ Stream Type	/ / Variable Retention Harvest
— Designated Equipment Trail	○ ○ Waterline	* Stream Type Break	Leave Tree Area
~ ~ ~ Leave Tree Tags	Existing Road	◆ Survey Monument	Riparian Mgt Zone
~ ~ ~ Right of Way Tags	Highway 112	● Gate (AA1)	Forested Wetland
Take / Removal Trees	Optional Pre-Haul Maintenance	◆ Bollard (AA1)	Wetland Mgt Zone
Property Line	Optional Construction	Structure	Hazard Abatement Area
Olympic Discovery Trail	Required Pre-Haul Maintenance	Bridge	
	Required Construction	Proposed Landing	
	Required Reconstruction		



# DRIVING MAP

SALE NAME: LYRE LYRE  
 AGREEMENT#: 30-104811  
 TOWNSHIP(S): T30R9W, T31R9W  
 TRUST(S): Capitol Grant (7), Common School and Indemnity (3), State Forest Transfer (1)

REGION: Olympic Region  
 COUNTY(S): Clallam  
 ELEVATION RGE: 280-700'



Map may not be to scale

<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: gray; margin-right: 5px;"></span> Timber Sale Unit</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid gray; margin-right: 5px;"></span> Milepost Markers</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; border-radius: 50%; margin-right: 5px;"></span> Distance Indicator</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; border-radius: 50%; margin-right: 5px;"></span> Gate (AA1)</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; border-radius: 50%; margin-right: 5px;"></span> Bollard (AA1)</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: red; margin-right: 5px;"></span> Highway</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; margin-right: 5px;"></span> Haul Route</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid gray; margin-right: 5px;"></span> Other Road</li> </ul>	<p><b>DRIVING DIRECTIONS</b></p> <p>Units 1, 2, 5, and 8-10: From Joyce, head west 4 miles and turn south onto Waterline Rd (PA-J-3000), proceed through the gate (AA1).</p> <p>Unit 1, 2 and 8: Drive south on Waterline Rd for 0.6 miles to reach unit 1. From unit 1, continue driving for 0.1 miles to reach unit 8. Drive for 0.2 more miles from unit 8 to reach Unit 2.</p> <p>Units 5, 9 and 10 : From the Waterline Rd gate, drive south for 1.3 miles and turn left onto PA-J-3100, unlock the bollard with an AA1.</p> <p>Unit 9 &amp; 10: From the bollard, drive east on the PA-J-3100 for 0.5 miles. Unit 10 is on the right. Walk through unit 10 to reach unit 9.</p> <p>Unit 5: From unit 10, continue 0.5 miles northeast on the PA-J-3100 to reach Unit 5.</p> <p>Units 6 &amp; 7: From Joyce, head southwest on Joyce Piedmont Rd for 2 miles. Unit 7 is on the right. From unit 7, continue 0.2 miles to reach Unit 6 on the right.</p>
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**STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES**

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

**Export Restricted Lump Sum AGREEMENT NO. 30-0104811**

**SALE NAME: LYRE LYRE**

**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 24, 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 trees marked with a band of blue paint or bounded out by leave tree area tags; bounded by timber sale boundary tags, red paint ringed take trees(fence line), PA-J-3010 in Unit 1; timber sale boundary tags, timber type change, PA-J-3000, PA-J-3100 in Unit 2; timber sale boundary tags, red paint ringed take trees, PA-J-3100 Unit 5, timber sale boundary tags, Joyce-Piedmont Rd. Unit 6; timber sale boundary tags, red ringed take trees, Joyce-Piedmont Rd. Unit 7; timber sale boundary tags, PA-J-3000 Unit 8; timber sale boundary tags, red ringed take trees Unit 9.

All timber bounded by right of way boundary tags in Unit 10.

All forest products above located on approximately 110 acres on part(s) of Section 1 in Township 30 North, Range 9 West, Sections 34, and 35 all in Township 31 North, Range 9 West W.M. in Clallam 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-025 Schedules

The following attached schedules are hereby incorporated by reference:

Schedule	Title
A	Slash Piling Specifications
B	Green Tree Retention Plan
U	BPA Checklist

G-031 Contract Term

Purchaser shall complete all work required by this contract prior to October 31, 2026.

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 \$839.00 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-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 Forks, 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; PA-J-3000, PA-J-3010, PA-J-3100, 1+00 Spur, 2+35 Spur, 0+90 Spur, PA-J-3015, 0+75 Spur, 0+70 Spur, 1+50 Spur, PA-J-3030, 1+01 Spur, 0+95 Spur, 3+00 Spur, PA-J-3115, PA-J-3116, PA-I-2600, PA-I-2610, PA-I-2620, Equipment Pad A, Equipment Pad B. 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 PA-J-3000, PA-J-3100, Gossett Rd., or Joyce-Piedmont Rd., unless authority is granted in writing by the Contract Administrator.

## G-390 Road Approach Permit Requirements

Purchaser agrees to comply with the attached terms and conditions of the road approach permit entered into between the State and Clallam County.

## G-396 Public Hauling Permit

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

## G-430 Open Fires

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

## 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 \$56,342.00. The total contract price consists of a \$0.00 contract bid price plus \$56,342.00 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**

Felling and Yarding will not be permitted from October 1 to May 31 All units unless authorized in writing by the Contract Administrator.

**H-013 Reserve Tree Damage Definition**

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

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

- a. A reserve tree has one or more scars on its trunk exposing the cambium layer, which in total exceeds 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-080 Snags Not to be Felled

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

H-090 Designated Trees Felled

All red ringed trees along Units 1,5,7, and 9 shall be felled and removed concurrently with surrounding timber.

H-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using 100% Ground Based Equipment. Non-tethered self-leveling tracked equipment is limited to sustained slopes of 65 percent and less. Other ground based equipment is limited to tracked equipment on sustained slopes that are 45 percent and less. Rubber tired skidders are restricted unless approved by the Contract Administrator. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

H-130 Hauling Schedule

The hauling of forest products will not be permitted from October 1 to May 31 all units unless authorized in writing by the Contract Administrator.

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

1. Purchaser must have utility lines located before beginning operations or digging next to the Joyce-Piedmont Rd, PA-J-3010, PA-J-3100, and PA-J-3000, as well as any power line corridors as shown on the Logging Plan Map.
2. Purchaser shall immediately repair all gate damage resulting from operations to an equal or better condition than existed at the time of the sale.
3. While felling timber, 2 Warning signs must be posted on the PA-J-3000, PA-J-3100, Joyce Piedmont Rd road(s).
4. The Purchaser shall notify all employees and contractors working on this sale that any danger tree, marked or unmarked, may be felled. Any felled marked danger tree shall be replaced with a suitable tree of similar size and species as approved by the Contract Administrator.
5. There will be no equipment allowed in the equipment exclusion zone which is located in Unit 2 and marked with pink and red flagging. Trees within it shall be felled in a manner approved by the Contract Administrator.

6. The BPA Safety Checklist shall be done prior to harvest or road building activities within or adjacent to the BPA power lines.

7. No cutting of trees 60” or greater shall occur unless approved by the Contract Administrator.

8. Purchaser shall perform abandonment of all skid trails in the sale area, at the discretion of the Contract Administrator. Abandonment shall consist of re-establishing natural drainage and natural slopes, fluffing compacted soil to an 18 inch depth using shovel grapples, placing stumps and debris back into the trail, and installing water bars as directed by the Contract Administrator

9. Yarding equipment shall not cross live streams without an FPHP.

10. There is a 30’ equipment limitation zone protecting all streams. Limitations will be determined by the Contract Administrator.

11. Purchaser must give the Contract Administrator at least two weeks notice prior to beginning any work on the sale. This will allow recreation staff time to provide redirection or closure of the Olympic Discovery Trail. The Olympic Discovery Trail is both the PA-J-3100 and shown on the map through unit 6 with a red dashed line. See S-150 clause for further details in regard to the trail.

12. All power line corridors must remain open for access and shall be returned to equal or better condition within 10 days of completion of ground-based logging activities, as determined by the Contract Administrator. See BPA Checklist for further details.

13. Slash shall be placed in skid roads or ahead of machinery. Slash which accumulates on landings and/or roads shall be lopped and scattered within the harvest area in accordance with Schedule A and as designated by the Contract Administrator.

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

#### H-190 Completion of Settings

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

#### H-220 Protection of Residual or Adjacent Trees

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

#### H-230 Tops and Limbs Outside the Sale Boundary

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

**H-240 Lop and Scatter**

The tops of all felled trees shall be lopped and slash scattered away from leave trees .

**Section C: Construction and Maintenance****C-040 Road Plan**

Road construction and associated work provisions of the Road Plan for this sale, dated 9/7/2023 are hereby made a part of this contract.

**C-050 Purchaser Road Maintenance and Repair**

Purchaser shall perform work at their own expense on onthe PA-J-3010, PA-J-3100, 1+00 Spur, 2+35 Spur, 0+90 Spur, PA-J-3015, 0+75 Spur, 0+70 Spur, 1+05 Spur, PA-J-3030, 1+01 Spur, 0+95 Spur, 3+00 Spur, PA-J-3115, PA-J-3116, PA-I-2600, PA-I-2610, PA-I-2620, Equipment Pad A, Equipment Pad B.. 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 PA-J-3000. Purchaser shall furnish a statement in a form satisfactory to the State showing the costs incurred while performing this work. Costs shall be based on the rates set forth in the equipment rate schedule on file at the Region office or Engineering Division in Olympia. The State shall reimburse Purchaser for said costs within 30 days of receipt and approval of the statement.

**C-130 Dust Abatement**

Purchaser shall abate dust on the PA-J-3000, Equipment Pad A, and Equipment Pad B.

**C-140 Water Bars**

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

**Section S: Site Preparation and Protection****S-001 Emergency Response Plan**

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

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

S-010 Fire Hazardous Conditions

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

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

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

S-020 Extreme Hazard Abatement

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

S-100 Stream Cleanout

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

S-110 Resource Protection

No equipment may operate within 30' of live water unless authority is granted in writing by the Contract Administrator.

S-120 Stream Protection

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

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.

## S-150 Recreation Trail Cleanout

At the completion of logging operations Purchaser shall repair any damage and remove all logging debris from recreation trail(s), as identified on the maps, concurrently with logging operations on each unit. Failure to do so within 30 days of the completion of yarding operations within a 100 feet of the identified trail(s) will result in a shutdown of all operations until completed., Purchaser shall repair any damage to and clean out all logging debris from recreational trail(s).

## 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 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

\_\_\_\_\_  
William Wells

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

Olympic 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 \_\_\_\_\_



**Schedule A**  
**Slash Piling Specifications**

The areas shall be piled by creating circular piles of slash and brush conforming to the following specifications:

- A. Piles shall be a minimum of 12 feet tall by 8 feet wide to a maximum of 30 feet tall and 16 feet wide. Piles shall be cone shaped and stable.
- B. Piles shall be free of topsoil, large rotten logs and large stumps. No material larger than 8 inches in diameter shall be piled. Any unburnable material shall be well scattered.
- C. Piles shall not be placed on large stumps or logs.
- D. Piles shall be stacked a minimum of 50 feet from all unit boundaries, Riparian Management Zones, leave trees, any standing timber; a minimum of 100 feet from any public roads and highways; and a minimum of 200 feet from any structures.
- E. Piling shall be completed using an approved hydraulic shovel and grapples.
- F. Slash and displaced soil shall be removed from swales and natural drainage channels concurrent with yarding.
- G. Slash may be placed in skid roads, ahead of machinery, or lopped and scattered throughout the harvest area. Slash which accumulates on landings, roads, and "hazard abatement areas" shall be piled per this schedule. Any change to the above must be approved by the Contract Administrator.
- H. Purchaser may remove slash as biofuel.

**Schedule B**  
**Green Tree Retention Plan**

Leave the following as directed by the Contract Administrator:

1. All trees marked with a blue band of paint and all leave tree area clumps shall remain standing. The perimeter of the leave tree clumps are designated by Leave Tree Area tags. The tags face outward from the leave tree clumps.

Unit #	# of Individually Marked Trees	# of Clumps	# of Trees Clumped	Total # of Leave Trees
1	44	1	117	161
2	63	2	220	283
5	47	7	320	367
6	14	0	0	14
7	7	0	0	7
8	28	0	0	28
9	13	0	0	13
10	0	0	0	0

**DRAFT**

**DRAFT**

**DRAFT**

**Schedule U**  
**BPA Checklist**

will fill in later



## 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 (specifically required by the contract) prior to haul*

#### EXCISE TAX EXEMPT ACTIVITIES

**Temporary Optional Construction:** **linear feet**  
*Optional roads to be constructed and then abandoned*

**Temporary Optional Reconstruction:** **linear feet**  
*Optional roads to be reconstructed and then abandoned*

**New Abandonment:** **linear feet**  
*Abandonment of roads constructed or reconstructed under the contract*

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 1/17)

## PRE-CRUISE NARRATIVE

Sale Name: <b>Lyre Lyre</b>	Region: <b>Olympic</b>
Agreement #: <b>30-104811</b>	District: Straits
Contact Forester: Cody Pagel Phone / Location: 360-640-9996	County(s): Choose a county, Clallam
Alternate Contact: Haley Weir Phone / Location: 360-640-3308	Other information: <a href="#">Click here to enter text.</a>

Type of Sale: Lump Sum	
Harvest System: Ground based <a href="#">Click here to enter text.</a>	100%

### UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit #  Harvest R/W or RMZ WMZ	Legal Description (Enter only one legal for each unit) <b>Sec/Twp/Rng</b>	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	Wetland Acres		
1	Sec 34 T31R09W	01	36.4	16.7	1.5	0.2	2	18	GPS (Garmin)
2	Sec 34 & 35 T31R09W	01	75.4	36.5	4.1	0.8	10.5	34	GPS (Garmin)
3	Sec 35 T31R09W	01	5.25	4.75	0	0	0	0.5	GPS (Garmin)
4	Sec 35 T31R09W	01	10.7	9.7	0	0	8	1	GPS (Garmin)
5	Sec 35 T31R09W	03	60.3	8.9	1.6	4.8	12.4	45	GPS (Garmin)
6	Sec 1 T30R09W	03	7.4	5.6	0	0	0	2	GPS (Garmin)
7	Sec 1 T30R09W	03/07	3.8	2.8	0	0	0	1	GPS (Garmin)
8	Sec 34 T31R09W	01	6	2.5	0	0	1.4	4	GPS (Garmin)
9	Sec 35 T31R09W	01	13.4	11.7	0	0	0	2	GPS (Garmin)
10 ROW	Sec 35 T31R09W	01	0.3	0	0	0	0	0.3	GPS (Garmin)
11	Sec 35 T31R09W	01	5.6	5.2	0	0	0	0.4	GPS (Garmin)
12 ROW	Sec 35 T31R09W	01	1.7	1.5	0	0	0	0.2	GPS (Garmin)

13 ROW	Sec 35 T31R09W	01	0.2	0	0	0	0	0.2	GPS (Garmin)
14 ROW	Sec 35 T31R09W	01	0.8	0	0	0	0	0.8	GPS (Garmin)
<b>TOTAL ACRES</b>			254.4	104.3	6	1.1	34.7	109.4	

### HARVEST PLAN AND SPECIAL CONDITIONS:

Unit #	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
1 VRH	<u>Unit Boundaries</u> are marked with white Timber Sale Boundary tags, pink flagging, pink flashers and blue paint; or red paint ringed take trees; or PA-J-3010 <u>Leave Tree Areas</u> are marked with yellow Leave Tree Area Tags, pink flagging, pink flashers, blue paint.		Scattered LT's: 44 Clumped LT's:117 Total LT's: 161
2 VRH	<u>Unit Boundaries</u> are marked with white Timber Sale Boundary tags, pink flagging, pink flashers and blue paint; or the PA-J-3000; or PA-J-3010; pink and red flagging lines represent equipment restriction <u>Leave Tree Areas</u> are marked with yellow Leave Tree Area Tags, pink flagging, pink flashers, blue paint.		Scattered LT's: 63 Clumped LT's: 220 Total LT's: 283
3 VRH	<u>Unit Boundaries</u> are marked with white Timber Sale Boundary tags, pink flagging, pink flashers and blue paint		Scattered LT's: 4 Clumped LT's: 0 Total LT's:4
4 VRH	<u>Unit Boundaries</u> are marked with white Timber Sale Boundary tags, pink flagging, pink flashers and blue paint; or red paint ringed take trees		Scattered LT's:10 Clumped LT's: 0 Total LT's:10
5 VRH	<u>Unit Boundaries</u> are marked with white Timber Sale Boundary tags, pink flagging, pink flashers and blue paint; or red paint ringed take trees; or the PA-J-3100		Scattered LT's: 47 Clumped LT's: 320 Total LT's: 367

	<u>Leave Tree Areas</u> are marked with yellow Leave Tree Area Tags, pink flagging, pink flashers, blue paint.		
6 VRH	<u>Unit Boundaries</u> are marked with white timber sale boundary tags, pink flashers pink flagging, blue paint; or Joyce-Piedmont Rd		Scattered LT's: 14 Clumped LT's: 0 Total LT's: 14
7 VRH	<u>Unit Boundaries</u> are marked with white timber sale boundary tags, pink flashers pink flagging, blue paint; or red-ringed take trees; or Joyce-Piedmont Rd		Scattered LT's: 7 Clumped LT's: 0 Total LT's: 7
8 VRH	<u>Unit Boundaries</u> are marked with white Timber Sale Boundary tags, pink flagging, pink flashers and blue paint; or the PA-J-3000		Scattered LTs: 28 Clumped LTs: 0 Total LTs: 28
9 VRH	<u>Unit Boundaries</u> are marked with white Timber Sale Boundary tags, pink flagging, pink flashers and blue paint; or red paint ringed take trees		Scattered LTs: 13 Clumped LTs: 0 Total LTs: 13
10 ROW	<u>Unit Boundaries</u> are marked with Orange Timber Sale boundary tags, pink flagging, pink flashers, blue paint; or the PA-J-3100.		0 leave trees
11 VRH	<u>Unit Boundaries</u> are marked with white Timber Sale Boundary tags, pink flagging, pink flashers and blue paint		Scattered LTs: 4 Clumped LTs: 0 Total LTs: 4
12 ROW	<u>Unit Boundaries</u> are marked with Orange Timber Sale boundary tags, pink flagging, pink flashers, blue paint; or the PA-J-3100.		0 leave trees
13 ROW	<u>Unit Boundaries</u> are marked with Orange Timber Sale boundary tags, pink flagging, pink flashers, blue paint; or the PA-J-3100		0 leave trees
14 ROW	<u>Unit Boundaries</u> are marked with Orange Timber Sale boundary tags, pink flagging, pink flashers, blue paint; or the PA-J-3100		0 leave trees

**OTHER PRE-CRUISE INFORMATION:**

Unit #	Primary, secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
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1	Sitka spruce/Douglas-fir: 686 MBF	Access via PA-J-3000	
2	Douglas-fir/Sitka Spruce: 1323 MBF	Access via PA-J-3000.	
3	Alder/Douglas-fir: 10 MBF	Access via PA-J-3100.	
4	Alder/Douglas-fir: 36 MBF	Access via PA-J-3100, it is easiest to walk through U3 and then along the property line to get to this unit.	
5	Douglas-fir/Alder: 1820 MBF	Access via PA-J-3100	
6	Douglas-fir: 63 MBF	Access via Joyce-Piedmont Road	
7	Douglas-fir: 35 MBF	Access via Joyce Piedmont Road	
8	Douglas-fir/Sitka Spruce:123 MBF	Access via PA-J-3000	
9	Douglas-fir/Alder: 60 MBF	Access via Unit 10	
10 ROW	Douglas-fir: 8 MBF	Access via PA-J-3100	
11	Douglas-fir: 30 MBF	Access via unit 12	
12 ROW	Western redcedar: 2 MBF	Access via PA-J-3100	
13 ROW	Douglas-fir/ alder: 5 MBF	Access via PA-J-3100	
14 ROW	Douglas-fir: 5 MBF	Access via PA-J-3100	
TOTAL MBF	4,255	You will need an AA1 for the Waterline (or PA-J-3000) and if you want to drive along the PA-J-3100, instead of walking, let me know and I can get you a key for the bollard	

**REMARKS:**

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<b>Prepared By:</b> Haley Weir	<b>Title:</b>	<b>CC:</b>
<b>Date:</b> 3/21/23	Forester	



## Timber Sale Cruise Report Lyre Lyre

**Sale Name:** LYRE LYRE

**Sale Type:** LUMP SUM

**Region:** OLYMPIC

**District:** STRAITS

**Lead Cruiser:** Kevin Peterson

**Other Cruisers:**

**Cruise Narrative:**

**Location:**

This sale is located off of the PA-J-3000 just west of Joyce. An AA1 key may be need to access some units.

**Cruise Design:**

Please refer to the cruise design table for BAFs used in this sale.

Merch height was determined at 40% of the diameter at 16'. All logs were cruised in 40' lengths.

**Timber Quality:**

This sale is mostly well spaced 50-60 year old DF with a good component of RA throughout. Some of the units have been previously thinned leaving only DF in them.

**Logging and Stand Conditions:**

This sale will be 100% ground based harvest. Some of the units are extremely brushy making travel difficult.

### Timber Sale Notice Volume (MBF)

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	16.9			1,287	489	637	158	2
RA	13.7			440	39	85	263	53
SS	19.2			196	127	52	6	11
RC	20.3			112		101	11	
GF	23.4			51	36	14	1	
WH	16.2			26	7	18	1	
MA	13.9			9			4	5
ALL	16.3			2,120	698	908	444	71

### Timber Sale Notice Weight (tons)

Sp	Tons by Grade				
	All	2 Saw	3 Saw	4 Saw	Utility
DF	12,094	4,435	6,203	1,440	16
RA	4,622	395	795	3,003	428
SS	1,633	995	510	47	82

Sp	Tons by Grade				
	All	2 Saw	3 Saw	4 Saw	Utility
RC	1,161		1,053	108	
GF	392	273	110	9	
WH	291	96	182	13	
MA	92			58	34
ALL	20,285	6,195	8,852	4,678	561

### 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 (%)
197.2	4.2	103.3	1.9	19,948	4.9

### Timber Sale Unit Cruise Design

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
LYRE LYRE U1	B2: VR, 2 BAF (54.44, 40 for some species) Measure All, Sighting Ht = 4.5 ft	18.0	20.0	10	10	0
LYRE LYRE U2	B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	34.0	38.5	17	10	2
LYRE LYRE U5	B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	45.0	51.9	22	10	0
LYRE LYRE U6	B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	2.0	2.0	1	1	0
LYRE LYRE U7	B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	1.0	0.9	1	1	0
LYRE LYRE U8	B2: VR, 2 BAF (54.44, 40 for some species) Measure All, Sighting Ht = 4.5 ft	4.0	3.5	2	2	0
LYRE LYRE U9	B1: VR, 1 BAF (40) Measure All, Sighting Ht = 4.5 ft	2.0	1.6	1	1	0
LYRE LYRE U10	B1: VR, 1 BAF (40) Measure All, Sighting Ht = 4.5 ft	0.3	0.2	1	1	0
All		106.3	118.7	55	36	2

### Timber Sale Log Grade x Sort Summary

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
DF	LIVE	2 SAW	Domestic	13.6	40	5,073	4,603	9.3	4,434.9	489.3

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
DF	LIVE	3 SAW	Domestic	8.6	40	6,320	5,996	5.1	6,202.6	637.3
DF	LIVE	4 SAW	Domestic	5.2	28	1,534	1,487	3.0	1,439.8	158.1
DF	LIVE	UTILITY	Pulp	5.0	16	18	18	0.0	16.3	1.9
GF	LIVE	2 SAW	Domestic	15.7	40	337	337	0.0	273.4	35.9
GF	LIVE	3 SAW	Domestic	10.1	40	135	130	3.1	109.7	13.9
GF	LIVE	4 SAW	Domestic	7.4	19	10	10	0.0	9.1	1.1
MA	LIVE	4 SAW	Domestic	5.9	40	42	38	9.3	58.0	4.1
MA	LIVE	UTILITY	Pulp	12.2	20	48	48	0.0	34.4	5.1
RA	LIVE	2 SAW	Domestic	12.4	35	418	364	13.0	395.5	38.7
RA	LIVE	3 SAW	Domestic	10.6	38	921	798	13.4	795.0	84.8
RA	LIVE	4 SAW	Domestic	7.3	34	2,766	2,477	10.4	3,003.0	263.3
RA	LIVE	UTILITY	Pulp	5.2	22	502	502	0.0	428.0	53.3
RC	LIVE	3 SAW	Domestic	10.5	35	1,162	953	17.9	1,052.9	101.3
RC	LIVE	4 SAW	Domestic	5.6	24	102	99	3.1	108.1	10.5
SS	LIVE	2 SAW	Domestic	15.2	40	1,275	1,199	6.0	994.8	127.4
SS	LIVE	3 SAW	Domestic	8.4	38	502	491	2.2	509.9	52.2
SS	LIVE	4 SAW	Domestic	5.4	27	52	52	0.0	46.7	5.5
SS	LIVE	UTILITY	Pulp	5.3	19	102	102	0.0	81.8	10.9
WH	LIVE	2 SAW	Domestic	13.7	40	84	63	25.2	96.2	6.7
WH	LIVE	3 SAW	Domestic	6.5	40	170	170	0.0	181.9	18.0
WH	LIVE	4 SAW	Domestic	5.3	30	10	10	0.0	13.3	1.1

### Timber Sale Log Sort x Diameter Bin Summary

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 8	LIVE	Pulp	5.0	16	18	0.0	16.3	1.9
DF	5 - 8	LIVE	Domestic	6.2	33	4,266	5.1	4,550.2	453.5
DF	9 - 11	LIVE	Domestic	10.6	40	3,139	4.0	3,001.2	333.6
DF	12 - 14	LIVE	Domestic	13.2	40	4,082	7.9	3,964.3	433.9
DF	15 - 19	LIVE	Domestic	16.1	40	599	18.4	561.7	63.7
GF	5 - 8	LIVE	Domestic	7.4	19	10	0.0	9.1	1.1
GF	9 - 11	LIVE	Domestic	9.7	40	130	3.1	109.7	13.9
GF	12 - 14	LIVE	Domestic	14.6	40	100	0.0	87.2	10.6
GF	15 - 19	LIVE	Domestic	16.0	40	238	0.0	186.2	25.3
MA	5 - 8	LIVE	Domestic	5.9	40	38	9.3	58.0	4.1
MA	12 - 14	LIVE	Pulp	12.2	20	48	0.0	34.4	5.1
RA	5 - 8	LIVE	Pulp	5.3	22	502	0.0	428.0	53.3
RA	5 - 8	LIVE	Domestic	6.8	34	1,663	9.9	2,059.4	176.8

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
RA	9 - 11	LIVE	Domestic	10.1	36	1,612	12.5	1,738.6	171.4
RA	12 - 14	LIVE	Domestic	12.5	36	364	13.0	395.5	38.7
RC	5 - 8	LIVE	Domestic	6.2	29	337	0.9	351.2	35.8
RC	9 - 11	LIVE	Domestic	9.5	36	65	4.9	50.9	7.0
RC	12 - 14	LIVE	Domestic	13.5	36	550	23.8	651.5	58.4
RC	15 - 19	LIVE	Domestic	15.3	36	100	25.0	107.4	10.7
SS	5 - 8	LIVE	Pulp	5.2	20	102	0.0	81.8	10.9
SS	5 - 8	LIVE	Domestic	6.2	34	197	0.0	212.3	20.9
SS	9 - 11	LIVE	Domestic	10.0	38	346	3.1	344.3	36.8
SS	12 - 14	LIVE	Domestic	13.2	40	370	2.3	335.6	39.3
SS	15 - 19	LIVE	Domestic	17.2	40	729	5.6	578.4	77.4
SS	20+	LIVE	Domestic	21.1	40	100	20.0	80.8	10.7
WH	5 - 8	LIVE	Domestic	6.2	37	130	0.0	143.2	13.9
WH	9 - 11	LIVE	Domestic	10.7	40	50	0.0	51.9	5.3
WH	12 - 14	LIVE	Domestic	13.7	40	63	25.2	96.2	6.7

## Cruise Unit Report LYRE LYRE U1

### Unit Sale Notice Volume (MBF): LYRE LYRE U1

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	17.4			236	93	122	21	
SS	20.3			104	70	27	3	5
RA	13.7			77	5	18	47	8
GF	22.9			29	22	7		
WH	22.0			9	7	2		
RC	14.0			2			2	
ALL	16.9			457	196	176	73	12

### Unit Cruise Design: LYRE LYRE U1

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B2: VR, 2 BAF (54.44, 40 for some species) Measure All, Sighting Ht = 4.5 ft	18.0	20.0	10	10	0

### Unit Cruise Summary: LYRE LYRE U1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	21	22	2.2	0
SS	9	9	0.9	0
RA	13	13	1.3	0
GF	2	2	0.2	0
WH	1	1	0.1	0
RC	1	1	0.1	0
ALL	47	48	4.8	0

### Unit Cruise Statistics: LYRE LYRE 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	119.8	106.7	33.7	109.3	22.6	4.9	13,092	109.1	34.1
SS	49.0	169.3	53.5	117.8	34.9	11.6	5,773	172.9	54.8
RA	52.0	115.0	36.4	82.8	17.0	4.7	4,304	116.2	36.7
GF	10.9	316.2	100.0	148.8	1.0	0.7	1,620	316.2	100.0
WH	5.4	316.2	100.0	90.1	0.0	0.0	491	316.2	100.0

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
RC	4.0	316.2	100.0	31.8	0.0	0.0	127	316.2	100.0
ALL	241.1	40.4	12.8	105.4	29.9	4.4	25,407	50.3	13.5

**Unit Summary: LYRE LYRE U1**

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	21	ALL	17.4	72	90	14,210	13,092	7.9	72.5	119.8	28.7	235.7
GF	LIVE	CUT	2	ALL	22.9	92	118	1,645	1,620	1.5	3.8	10.9	2.3	29.2
RA	LIVE	CUT	13	ALL	13.7	59	72	5,037	4,304	14.6	50.8	52.0	14.0	77.5
RC	LIVE	CUT	1	ALL	14.0	40	48	146	127	12.8	3.7	4.0	1.1	2.3
SS	LIVE	CUT	9	ALL	20.3	61	76	6,172	5,773	6.5	21.8	49.0	10.9	103.9
WH	LIVE	CUT	1	ALL	22.0	78	97	617	491	20.4	2.1	5.4	1.2	8.8
ALL	LIVE	CUT	47	ALL	16.9	66	82	27,827	25,407	8.7	154.7	241.1	58.1	457.3
ALL	ALL	ALL	47	ALL	16.9	66	82	27,827	25,407	8.7	154.7	241.1	58.1	457.3

## Cruise Unit Report LYRE LYRE U2

### Unit Sale Notice Volume (MBF): LYRE LYRE U2

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	18.8			441	228	178	32	2
SS	20.0			72	46	23	3	
RA	15.9			16		13	2	2
ALL	18.8			529	275	213	37	3

### Unit Cruise Design: LYRE LYRE 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	34.0	38.5	17	10	2

### Unit Cruise Summary: LYRE LYRE U2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	21	47	2.8	0
SS	6	7	0.4	0
RA	2	2	0.1	0
ALL	29	56	3.3	0

### Unit Cruise Statistics: LYRE LYRE 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	110.6	62.0	15.0	117.3	8.8	1.9	12,967	62.7	15.2
SS	16.5	298.2	72.3	128.8	12.9	5.3	2,121	298.4	72.5
RA	4.7	412.3	100.0	100.5	1.5	1.0	473	412.3	100.0
ALL	131.8	43.9	10.7	118.1	11.1	2.1	15,561	45.3	10.9

### Unit Summary: LYRE LYRE U2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	21	ALL	18.8	79	100	13,723	12,967	5.5	57.4	110.6	25.5	440.9
RA	LIVE	CUT	2	ALL	15.9	67	83	534	473	11.5	3.4	4.7	1.2	16.1
SS	LIVE	CUT	6	ALL	20.0	79	100	2,148	2,121	1.3	7.5	16.5	3.7	72.1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	LIVE	CUT	29	ALL	18.8	79	99	16,406	15,561	5.1	68.3	131.8	30.4	529.1
ALL	ALL	ALL	29	ALL	18.8	79	99	16,406	15,561	5.1	68.3	131.8	30.4	529.1



## Cruise Unit Report LYRE LYRE U5

### Unit Sale Notice Volume (MBF): LYRE LYRE U5

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	14.8			415	112	222	82	
RA	13.4			322	34	41	207	41
RC	20.6			89		83	7	
GF	24.0			22	14	6	1	
SS	10.7			20	11	3		6
WH	11.0			11		11		
MA	13.9			9			4	5
ALL	14.3			888	171	364	301	52

### Unit Cruise Design: LYRE LYRE U5

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	45.0	51.9	22	10	0

### Unit Cruise Summary: LYRE LYRE U5

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	19	35	1.6	0
RA	19	51	2.3	0
RC	7	14	0.6	0
GF	1	1	0.0	0
SS	2	2	0.1	0
WH	1	1	0.0	0
MA	2	2	0.1	0
ALL	51	106	4.8	0

### Unit Cruise Statistics: LYRE LYRE U5

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	86.6	102.0	21.8	106.5	16.2	3.7	9,223	103.3	22.1
RA	92.7	70.9	15.1	77.2	28.1	6.4	7,157	76.3	16.4
RC	25.5	249.9	53.3	77.9	10.2	3.9	1,982	250.1	53.4

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
GF	2.5	469.0	100.0	194.5	0.0	0.0	481	469.0	100.0
SS	4.9	323.7	69.0	89.6	55.5	39.3	443	328.4	79.4
WH	2.5	469.0	100.0	95.5	0.0	0.0	236	469.0	100.0
MA	3.6	323.7	69.0	55.9	15.8	11.2	203	324.1	69.9
ALL	218.3	23.3	5.0	90.4	31.1	4.3	19,727	38.8	6.6

### Unit Summary: LYRE LYRE U5

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	19	ALL	14.8	66	83	9,933	9,223	7.1	72.5	86.6	22.5	415.0
GF	LIVE	CUT	1	ALL	24.0	102	131	481	481	0.0	0.8	2.5	0.5	21.7
MA	LIVE	CUT	2	ALL	13.9	47	56	213	203	4.4	3.5	3.6	1.0	9.2
RA	LIVE	CUT	19	ALL	13.4	52	63	7,859	7,157	8.9	94.7	92.7	25.3	322.1
RC	LIVE	CUT	7	ALL	20.6	65	82	2,376	1,982	16.6	11.0	25.5	5.6	89.2
SS	LIVE	CUT	2	ALL	10.7	30	35	471	443	5.9	7.9	4.9	1.5	20.0
WH	LIVE	CUT	1	ALL	11.0	62	76	236	236	0.0	3.7	2.5	0.7	10.6
ALL	LIVE	CUT	51	ALL	14.4	58	71	21,568	19,727	8.5	194.1	218.3	57.2	887.7
ALL	ALL	ALL	51	ALL	14.4	58	71	21,568	19,727	8.5	194.1	218.3	57.2	887.7

## Cruise Unit Report LYRE LYRE U6

### Unit Sale Notice Volume (MBF): LYRE LYRE U6

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	14.7			25	10	13	2	
RA	17.5			17		14		3
RC	22.4			12		12		
ALL	17.1			54	10	39	2	3

### Unit Cruise Design: LYRE LYRE U6

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	2.0	2.0	1	1	0

### Unit Cruise Summary: LYRE LYRE U6

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	2	2	2.0	0
RA	2	2	2.0	0
RC	2	2	2.0	0
ALL	6	6	6.0	0

### Unit Cruise Statistics: LYRE LYRE U6

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	108.9	0.0	0.0	116.1	1.9	1.3	12,643	1.9	1.3
RA	80.0	0.0	0.0	104.1	0.8	0.5	8,331	0.8	0.5
RC	80.0	0.0	0.0	73.7	3.4	2.4	5,894	3.4	2.4
ALL	268.9	0.0	0.0	99.9	19.6	8.0	26,868	19.6	8.0

### Unit Summary: LYRE LYRE U6

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	2	ALL	14.7	72	91	13,345	12,643	5.3	92.4	108.9	28.4	25.3
RA	LIVE	CUT	2	ALL	17.5	69	85	9,348	8,331	10.9	47.9	80.0	19.1	16.7
RC	LIVE	CUT	2	ALL	22.4	74	93	7,941	5,894	25.8	29.2	80.0	16.9	11.8

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	LIVE	CUT	6	ALL	17.1	72	90	30,633	26,868	12.3	169.5	268.9	64.4	53.7
ALL	ALL	ALL	6	ALL	17.1	72	90	30,633	26,868	12.3	169.5	268.9	64.4	53.7

## Cruise Unit Report LYRE LYRE U7

### Unit Sale Notice Volume (MBF): LYRE LYRE U7

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	3 Saw	4 Saw	Utility
RC	15.5			9	7	2	
RA	15.5			8		7	1
WH	17.0			6	5	1	
ALL	15.8			23	12	10	1

### Unit Cruise Design: LYRE LYRE U7

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	1.0	0.9	1	1	0

### Unit Cruise Summary: LYRE LYRE U7

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
RC	2	2	2.0	0
RA	2	2	2.0	0
WH	1	1	1.0	0
ALL	5	5	5.0	0

### Unit Cruise Statistics: LYRE LYRE U7

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
RC	80.0	0.0	0.0	107.1	15.5	11.0	8,570	15.5	11.0
RA	80.0	0.0	0.0	98.6	5.8	4.1	7,889	5.8	4.1
WH	54.4	0.0	0.0	117.4	0.0	0.0	6,390	0.0	0.0
ALL	214.4	0.0	0.0	106.6	11.0	4.9	22,849	11.0	4.9

### Unit Summary: LYRE LYRE U7

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
RA	LIVE	CUT	2	ALL	15.5	66	82	8,624	7,889	8.5	61.1	80.0	20.3	7.9
RC	LIVE	CUT	2	ALL	15.5	63	80	8,929	8,570	4.0	61.1	80.0	20.3	8.6
WH	LIVE	CUT	1	ALL	17.0	72	89	6,390	6,390	0.0	34.5	54.4	13.2	6.4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	LIVE	CUT	5	ALL	15.8	66	83	23,943	22,849	4.6	156.7	214.4	53.8	22.8
ALL	ALL	ALL	5	ALL	15.8	66	83	23,943	22,849	4.6	156.7	214.4	53.8	22.8

## Cruise Unit Report LYRE LYRE U8

### Unit Sale Notice Volume (MBF): LYRE LYRE U8

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	2 Saw	3 Saw	4 Saw
DF	16.3			127	30	81	17
ALL	16.3			127	30	81	17

### Unit Cruise Design: LYRE LYRE U8

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B2: VR, 2 BAF (54.44, 40 for some species) Measure All, Sighting Ht = 4.5 ft	4.0	3.5	2	2	0

### Unit Cruise Summary: LYRE LYRE U8

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	11	11	5.5	0
ALL	11	11	5.5	0

### Unit Cruise Statistics: LYRE LYRE U8

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	299.4	12.9	9.1	106.1	17.0	5.1	31,767	21.3	10.4
ALL	299.4	12.9	9.1	106.1	17.0	5.1	31,767	21.3	10.4

### Unit Summary: LYRE LYRE U8

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	11	ALL	16.3	72	90	33,897	31,767	6.3	206.6	299.4	74.2	127.1
ALL	LIVE	CUT	11	ALL	16.3	72	90	33,897	31,767	6.3	206.6	299.4	74.2	127.1
ALL	ALL	ALL	11	ALL	16.3	72	90	33,897	31,767	6.3	206.6	299.4	74.2	127.1

## Cruise Unit Report LYRE LYRE U9

### Unit Sale Notice Volume (MBF): LYRE LYRE U9

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	2 Saw	3 Saw	4 Saw
DF	19.4			37	15	19	3
ALL	19.4			37	15	19	3

### Unit Cruise Design: LYRE LYRE U9

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1: VR, 1 BAF (40) Measure All, Sighting Ht = 4.5 ft	2.0	1.6	1	1	0

### Unit Cruise Summary: LYRE LYRE U9

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	4	4	4.0	0
ALL	4	4	4.0	0

### Unit Cruise Statistics: LYRE LYRE U9

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	160.0	0.0	0.0	115.8	11.0	5.5	18,522	11.0	5.5
ALL	160.0	0.0	0.0	115.8	11.0	5.5	18,522	11.0	5.5

### Unit Summary: LYRE LYRE U9

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	4	ALL	19.4	80	101	19,296	18,522	4.0	77.9	160.0	36.3	37.0
ALL	LIVE	CUT	4	ALL	19.4	80	101	19,296	18,522	4.0	77.9	160.0	36.3	37.0
ALL	ALL	ALL	4	ALL	19.4	80	101	19,296	18,522	4.0	77.9	160.0	36.3	37.0



## Cruise Unit Report LYRE LYRE U10

### Unit Sale Notice Volume (MBF): LYRE LYRE U10

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	2 Saw	3 Saw	4 Saw
DF	18.9			6	2	3	0
ALL	18.9			6	2	3	0

### Unit Cruise Design: LYRE LYRE U10

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1: VR, 1 BAF (40) Measure All, Sighting Ht = 4.5 ft	0.3	0.2	1	1	0

### Unit Cruise Summary: LYRE LYRE U10

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	2	4	4.0	0
ALL	2	4	4.0	0

### Unit Cruise Statistics: LYRE LYRE U10

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	160.0	0.0	0.0	118.0	0.9	0.7	18,873	0.9	0.7
ALL	160.0	0.0	0.0	118.0	0.9	0.7	18,873	0.9	0.7

### Unit Summary: LYRE LYRE U10

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	2	ALL	18.9	82	104	19,507	18,873	3.2	82.1	160.0	36.8	5.7
ALL	LIVE	CUT	2	ALL	18.9	82	104	19,507	18,873	3.2	82.1	160.0	36.8	5.7
ALL	ALL	ALL	2	ALL	18.9	82	104	19,507	18,873	3.2	82.1	160.0	36.8	5.7



# Forest Practices Application/Notification Notice of Decision

FPA/N No: 2618037

Effective Date: 8/25/2023

Expiration Date: 8/25/2026

Shut Down Zone: 653 S

EARR Tax Credit:  Eligible  Non-eligible

Reference: WA DNR

Lyre Lyre

### 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 line shall only occur between July 1 and September 30.

#### Condition(s) required for approval/disapproval:

- Other

Other Conditions: Skid trail construction, road construction and road re-construction associated with units 3, 4, 11 and 12 shall be limited to the dates between June 1 and September 30th of the same year. It is recommended that any commercial haul associated with units 3, 4, 11 and 12 occurs during dry conditions. Note: Amending the above mentioned dates through the Forest Practices amendment process may be applicable if conditions allow.

Issued By: Erik Dukes

Region: Olympic

Title: Forest Practices Forester

Date: 8/25/2023

Copies to:  Landowner, Timber Owner and Operator

Issued in person:  LO  TO  OP By: \_\_\_\_\_ Date: \_\_\_\_\_

**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 Olympic Region</b>
<u>Physical Address</u> 1111 Israel Road, SW Suite 301 Tumwater, WA 98501  <u>Mailing address</u> Post Office Box 40903 Olympia, WA 98504-0903	<u>Physical Address</u> 1125 Washington Street, SE Olympia, WA 98504  <u>Mailing Address</u> Post Office Box 40100 Olympia, WA 98504-0100	<u>Physical &amp; Mailing Address</u> 411 Tillicum Lane Forks, WA 98331

Information regarding the Pollution Control Hearings Board can be found at: <http://elaho.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.

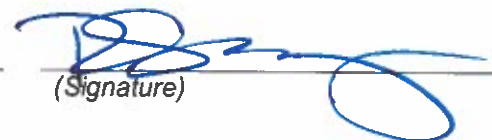
Failure by the seller to send the required notice to DNR at the time of sale will be prima facie evidence in an action by the buyer against the seller for costs related to the continuing forestland obligation prior to sale.

**DNR Declaration of Mailing**

I, Rosielly Sanchez, caused the Notice of Decision for FPA/N No. 2618037 to be placed in the United States mail at Forks, WA, postage paid. I declare under penalty of perjury of the laws of the State of Washington, that the foregoing is true and correct.

8/25/2023  
(Date)

Forks, Washington  
(City & State where signed)

  
(Signature)

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

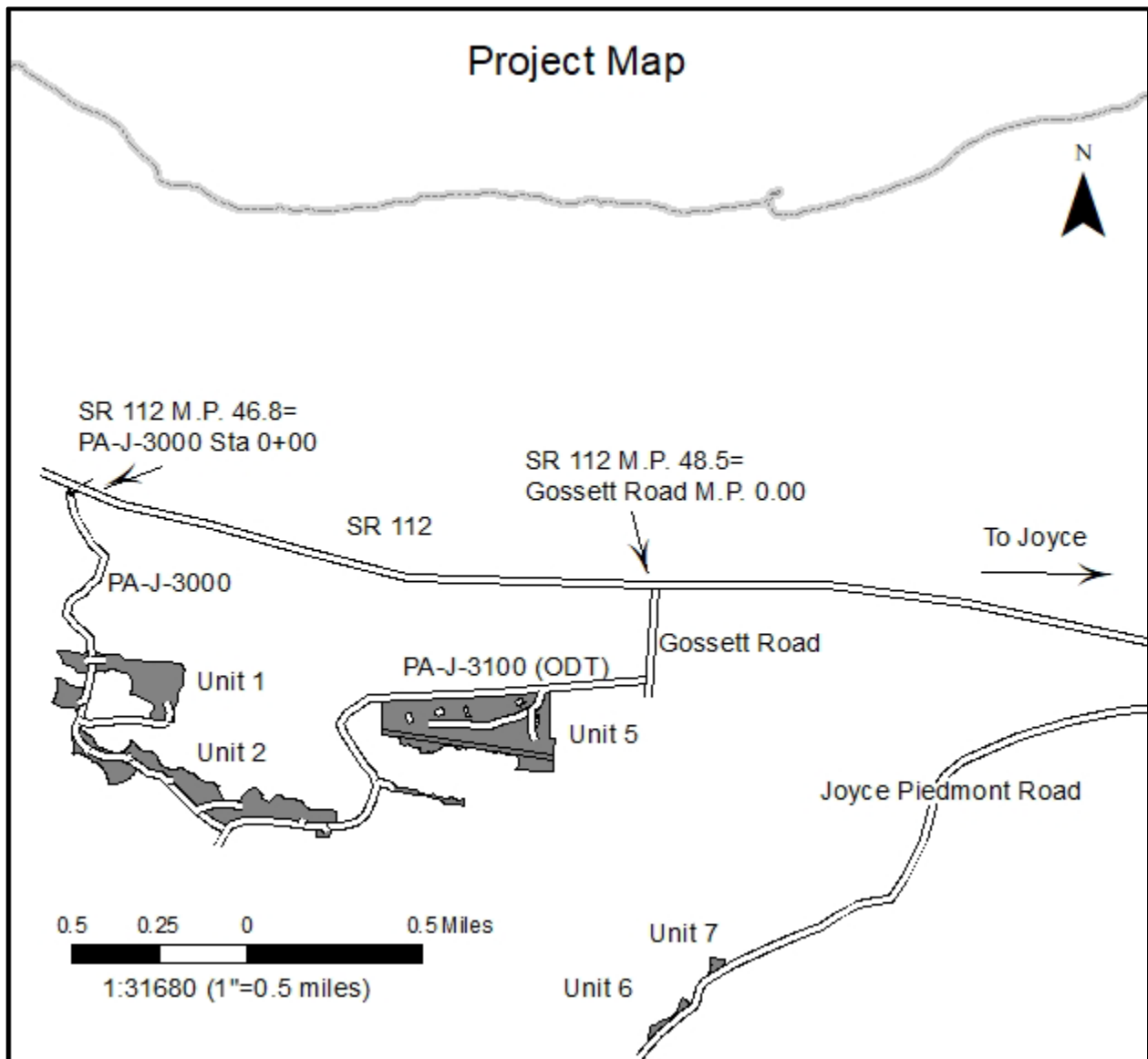
LYRE LYRE TIMBER SALE ROAD PLAN  
CLALLAM COUNTY  
STRAITS DISTRICT  
OLYMPIC REGION

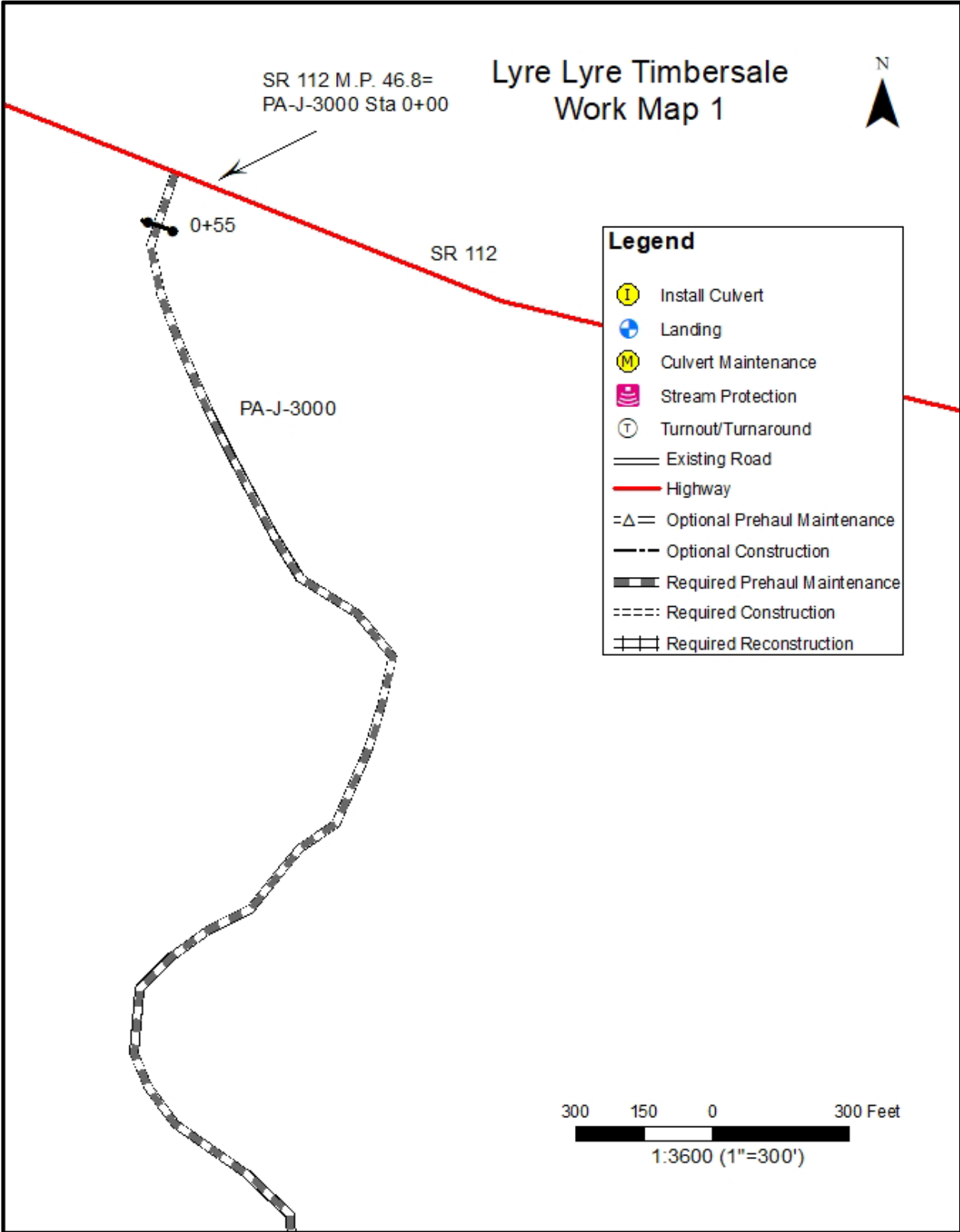
AGREEMENT NO.: 30-104811

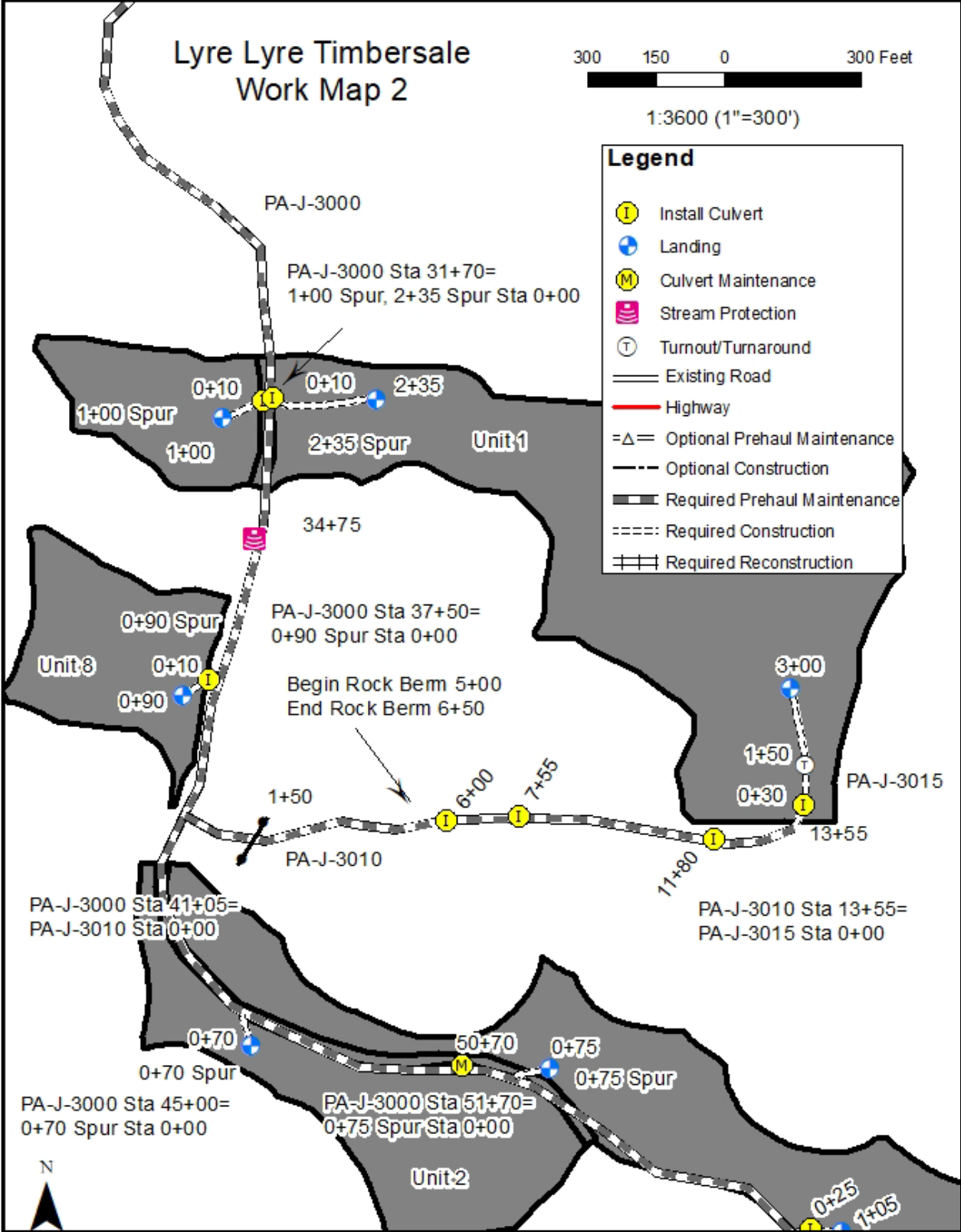
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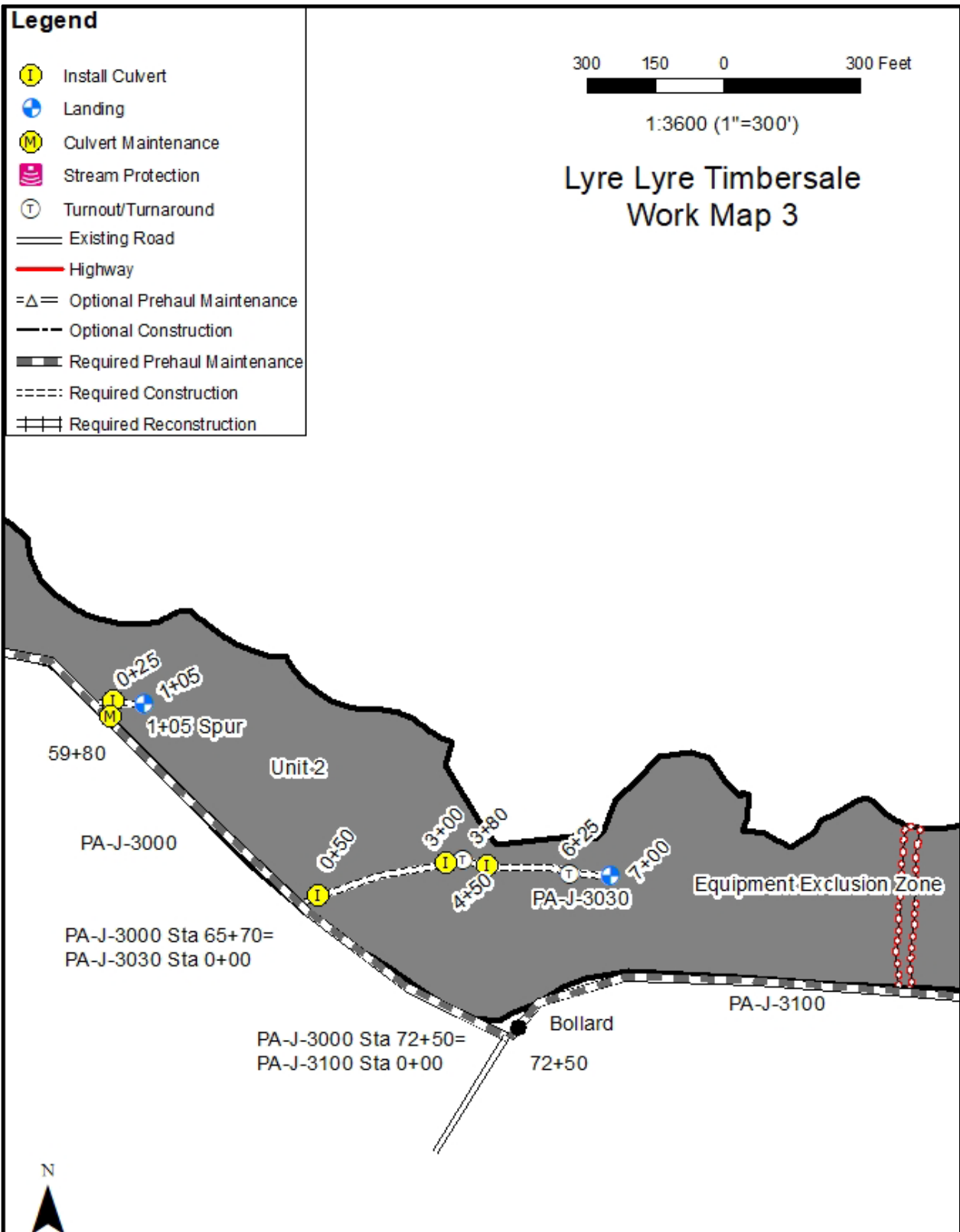
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DRAWN & COMPILED BY: SCOTT ROSE





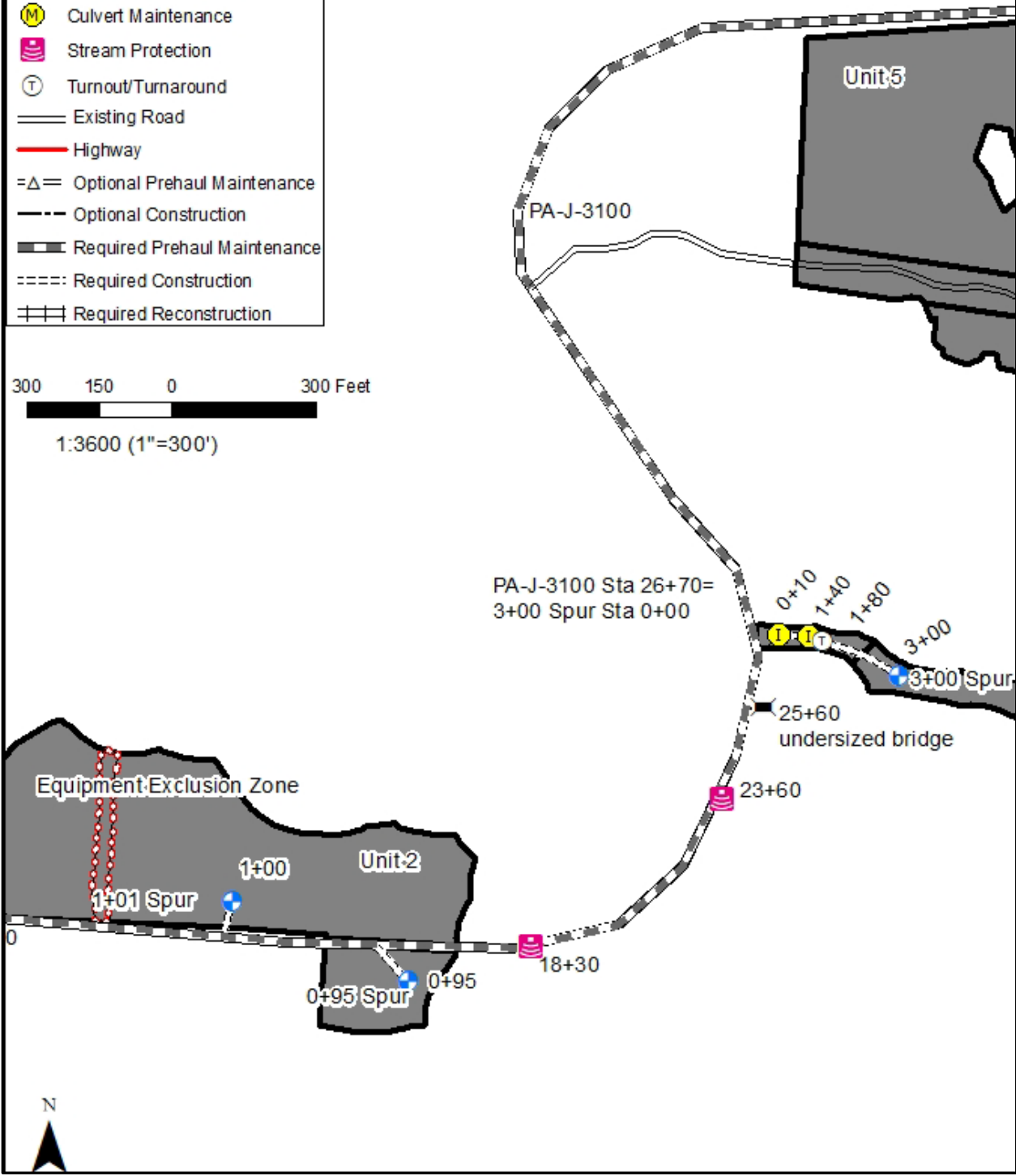
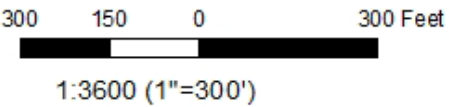




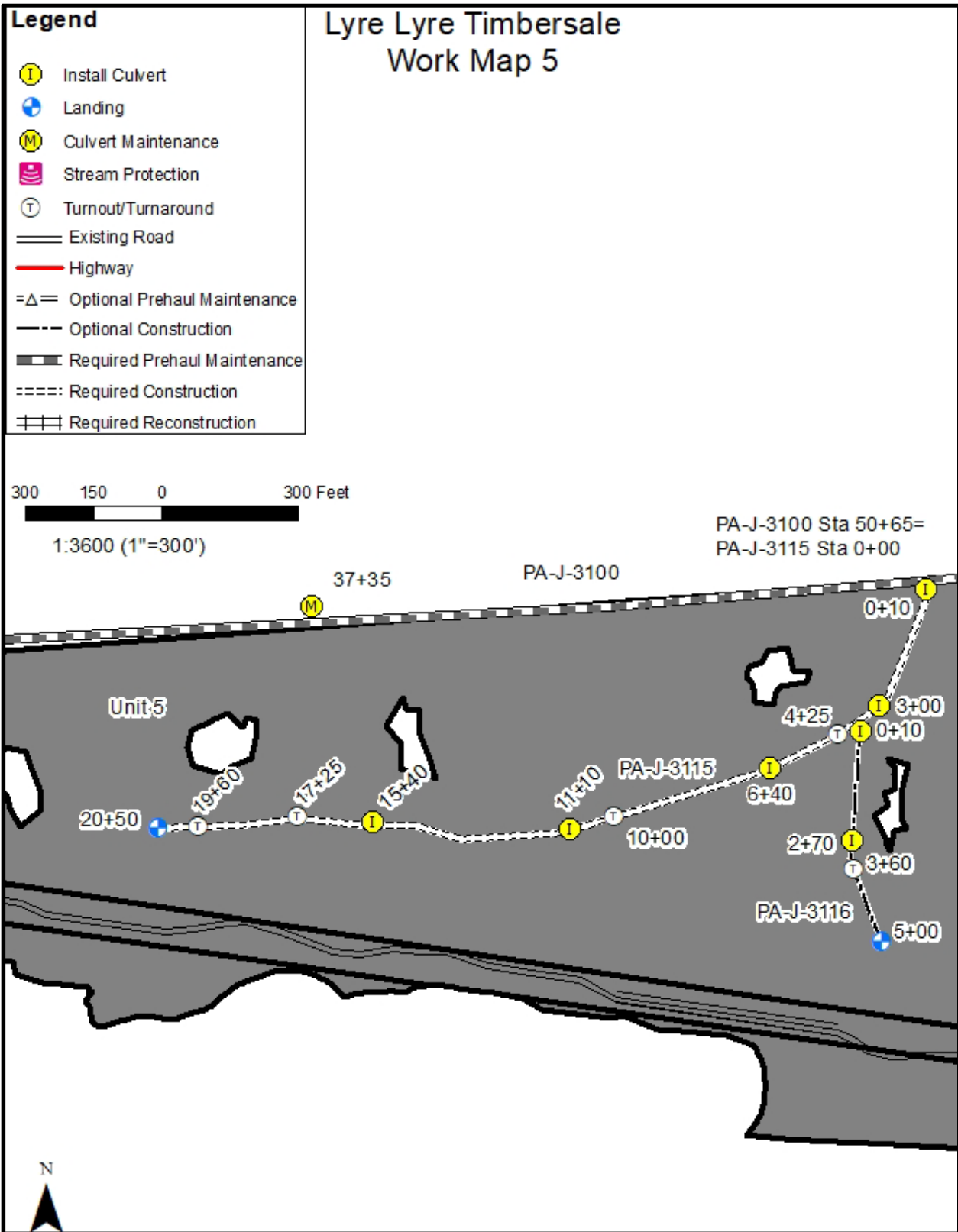
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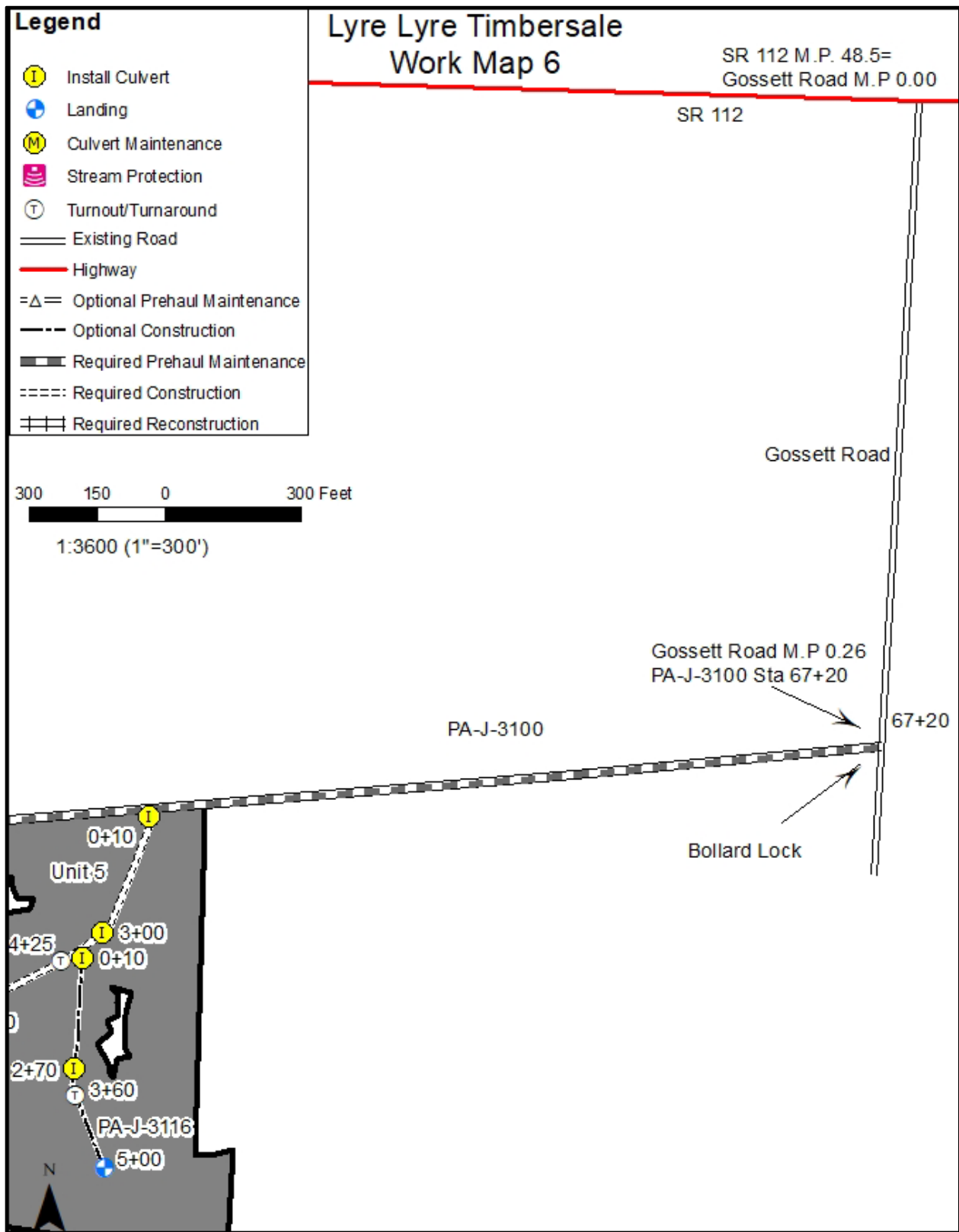
- Install Culvert
- Landing
- Culvert Maintenance
- Stream Protection
- Turnout/Turnaround
- Existing Road
- Highway
- Optional Prehaul Maintenance
- Optional Construction
- Required Prehaul Maintenance
- Required Construction
- Required Reconstruction

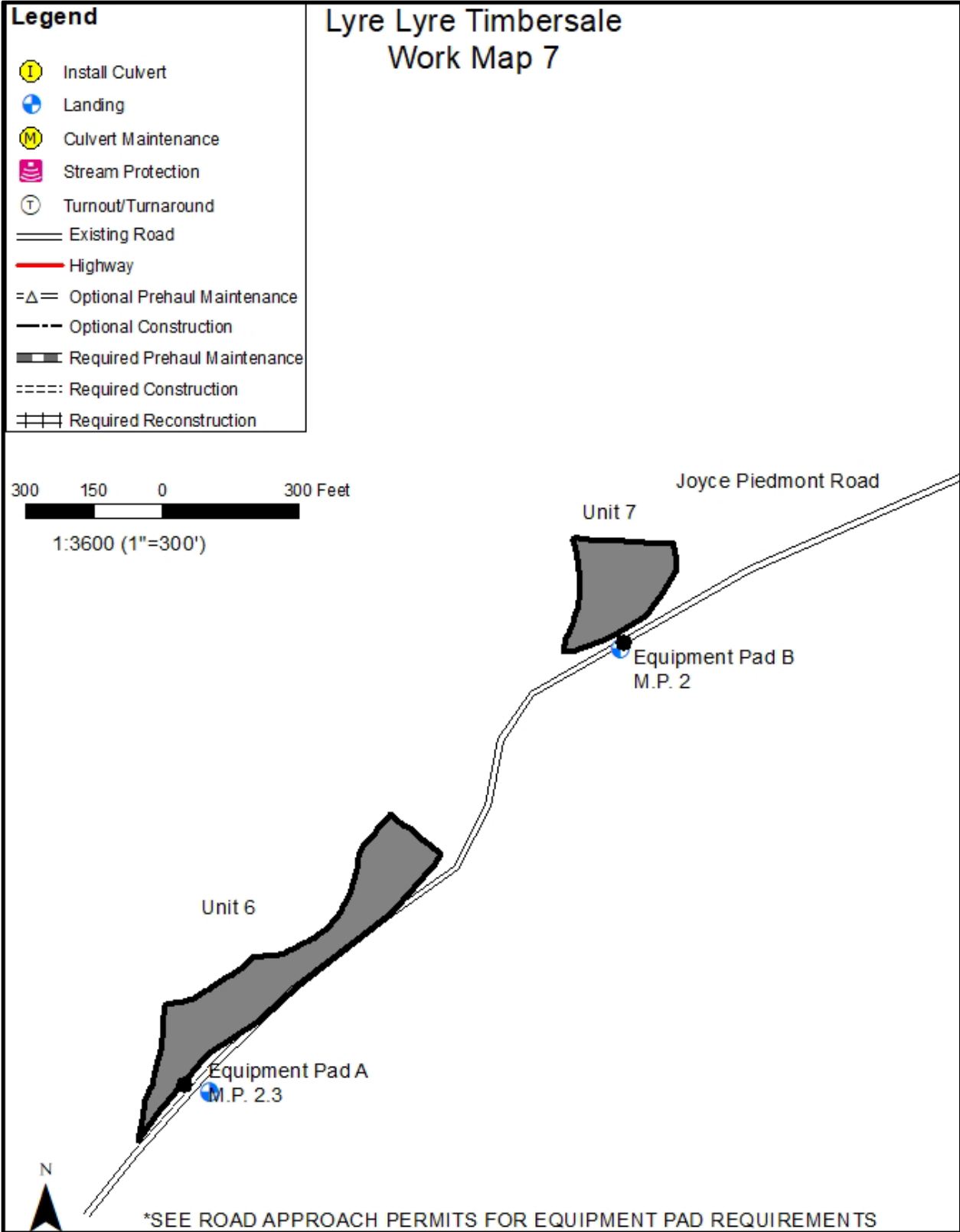
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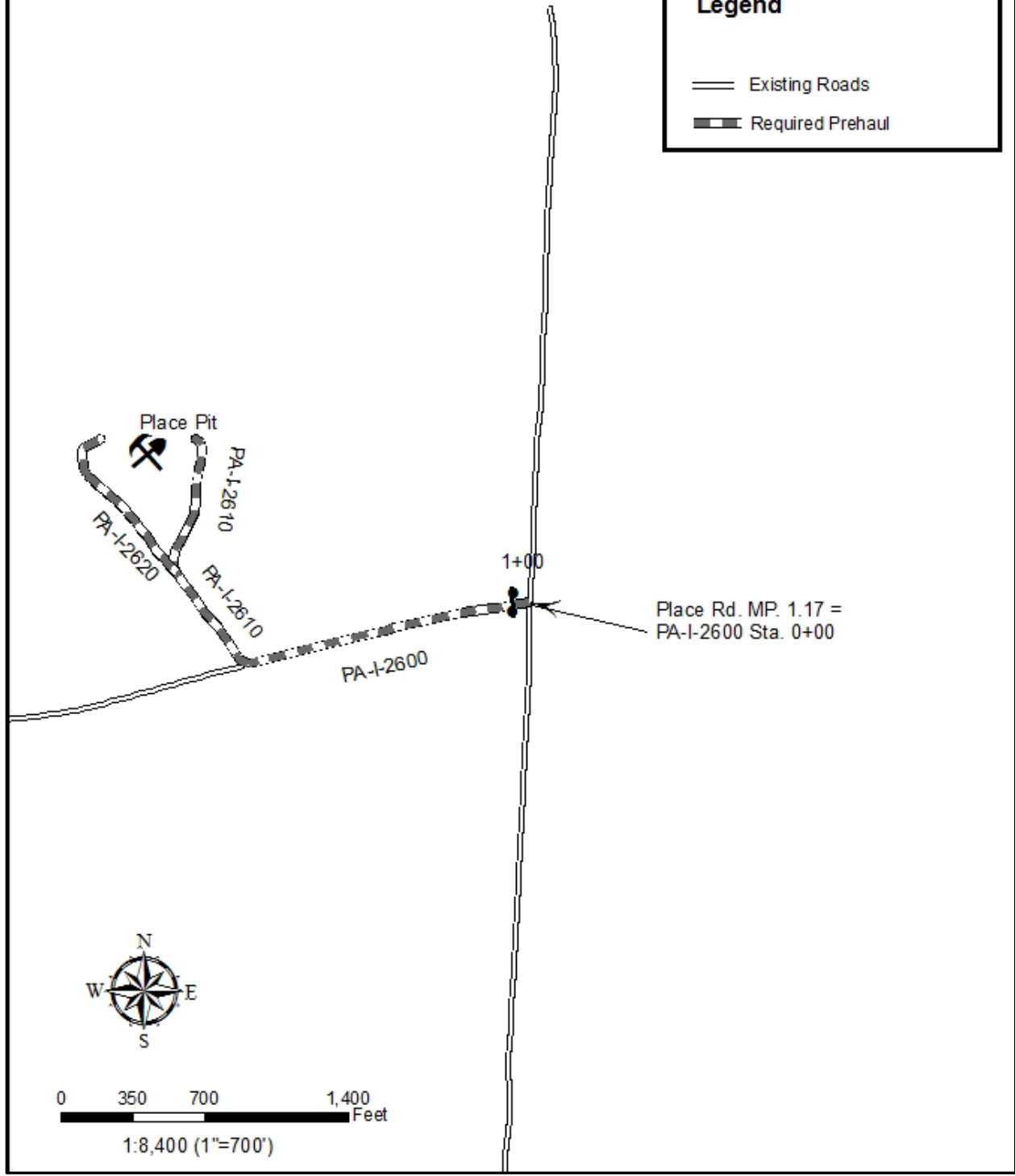




# Place Pit Work Map

## Legend

- Existing Roads
- Required Prehaul



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>
PA-J-3000	0+00 to 72+50	Pre-Haul Maintenance
1+00 Spur	0+00 to 1+00	Construction
2+35 Spur	0+00 to 2+35	Construction
0+90 Spur	0+00 to 0+90	Construction
PA-J-3010	0+00 to 13+55	Pre-Haul Maintenance
PA-J-3015	0+00 to 3+00	Construction
0+75 Spur	0+00 to 0+75	Construction
0+70 Spur	0+00 to 0+70	Construction
1+05 Spur	0+00 to 1+05	Construction
PA-J-3030	0+00 to 7+00	Construction
PA-J-3100	0+00 to 67+20	Pre-Haul Maintenance
1+01 Spur	0+00 to 1+01	Construction
0+95 Spur	0+00 to 0+95	Construction
3+00 Spur	0+00 to 3+00	Construction
PA-J-3115	0+00 to 20+50	Construction
Equipment Pad A, B	See Permit	Construction
PA-I-2600	0+00 to 14+00	Pre-Haul Maintenance
PA-I-2610	0+00 to 12+00	Pre-Haul Maintenance
PA-I-2620	0+00 to 6+50	Pre-Haul Maintenance

**0-3 OPTIONAL ROADS**

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

<u>Road</u>	<u>Stations</u>	<u>Type</u>
PA-J-3116	0+00 to 5+00	Construction

**0-4 CONSTRUCTION**

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
1+00 Spur	0+00 to 1+00	Construction
2+35 Spur	0+00 to 2+35	Construction
0+90 Spur	0+00 to 0+90	Construction
PA-J-3015	0+00 to 3+00	Construction
0+75 Spur	0+00 to 0+75	Construction
0+70 Spur	0+00 to 0+70	Construction
1+05 Spur	0+00 to 1+05	Construction
PA-J-3030	0+00 to 7+00	Construction
1+01 Spur	0+00 to 1+01	Construction
0+95 Spur	0+00 to 0+95	Construction
3+00 Spur	0+00 to 3+00	Construction
PA-J-3115	0+00 to 20+50	Construction
PA-J-3116	0+00 to 5+00	Construction
Equipment Pad A, B	See Permit	Construction
Total Stations	48.21 Stations	

Construction includes, but is not limited to: Clearing, grubbing, right-of-way debris disposal, excavation and/or embankment to subgrade, end hauling material for construction, compacting road surfaces, constructing ditchlines, constructing ditchouts, constructing turnouts and turnarounds, curve widening, acquisition and installation of drainage structures, application of rock, spreading grass seed and hay.

#### **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>
PA-J-3000	0+00 to 72+50	Grade, shape and compact existing running surface in accordance to Clause 2-5, clean culverts in accordance to Clause 2-6, maintain erosion control structures in accordance to Clause 2-8, apply rock in accordance with Rock list and brush road in accordance to Clause 3-1.
PA-J-3010	0+00 to 13+55	Grade, shape and compact existing running surface in accordance to Clause 2-5, apply rock in accordance with Rock list and brush road in

		accordance to Clause 3-1, install sediment control structures in accordance with Clause 8-1, and install culverts in accordance with culvert list
PA-J-3100	0+00 to 67+20	Clean culverts in accordance to Clause 2-6 Apply rock in accordance with Rock list and brush road in accordance to Clause 3-1, install sediment control structures in accordance with Clause 8-1
PA-I-2600	0+00 to 14+00	Grade, shape and compact existing running surface in accordance to Clause 2-5 and brush road in accordance to Clause 3-1.
PA-I-2610	0+00 to 12+00	Grade, shape and compact existing running surface in accordance to Clause 2-5 and brush road in accordance to Clause 3-1.
PA-I-2620	0+00 to 6+50	Grade, shape and compact existing running surface in accordance to Clause 2-5 and brush road in accordance to Clause 3-1.
Total Stations	185.75 Stations	

Pre-haul maintenance includes, but is not limited to: Brushing right-of-way, right-of-way debris disposal, cleaning ditches, constructing ditches, installing additional culverts, widening road segments, constructing headwalls, cleaning culvert inlets and outlets, cross drain culvert replacements, installing erosion control materials and sediment removal structures, spot rocking, grading and shaping existing road surface and turnouts, constructing additional turnouts, compaction of road surface, application of rock, acquisition and application of grass seed and hay.

**0-7 POST-HAUL MAINTENANCE**

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

**0-9 DECOMMISSIONING**

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

**0-12 DEVELOP ROCK SOURCE**

Purchaser shall develop an existing rock source called Place Pit. Rock source

development will involve digging and loading useable rock as determined by the Contract Administrator out of the active pit face to obtain ballast material and loading 590 cubic yards of 1 ¼" minus crushed rock. Work for developing rock sources is listed in Section 6 ROCK AND SURFACING.

All rock manufactured out of rock sources listed above shall meet specifications as listed in Section 6 ROCK AND SURFACING. In the event that rock does not meet specifications, which will be determined by the Contact Administrator, a commercial source shall be used at the purchaser's expense meeting listed specifications.

## 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.

**1-12 SURVEY MONUMENTS**

At no time during construction, reconstruction, or maintenance shall survey monuments, witness trees, or bearing trees be disturbed or damaged. If damaged or disturbed, Purchaser shall hire a licensed land surveyor to repair, replace, and/or reset them.

**1-13 LOG LOADING**

At no time shall the loading of logs occur on the PA-J-3100 or PA-J-3000 road. In addition, no debris from harvesting operations shall be allowed on this road. Loading on the Joyce-Piedmont road shall follow the Clallam County permit. No loading equipment shall be parked on the pavement and no debris from harvesting operations or loading shall be allowed on this road.

**SUBSECTION ROAD MARKING**

**1-15 ROAD MARKING**

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

- Orange ribbon and paint for construction centerlines.
- Construction stakes for everything else.

**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.

SUBSECTION TIMING

**1-20 COMPLETE BY DATE**

Purchaser shall complete reconstruction, construction, and pre-haul road work before the start of timber haul or as specified below.

<u>Road</u>	<u>Stations</u>	<u>Comments</u>
Joyce-Piedmont Road	N/A	See County Permit
PA-J-3100	ALL	15 days notification to county

**1-21 HAUL APPROVAL**

Purchaser shall not use roads under this road plan without written approval from the Contract Administrator.

**1-22 WORK NOTIFICATIONS**

Purchaser shall notify the Contract Administrator a minimum of 14 calendar days before work begins. Purchaser shall comply with County Permit for County Roads Notification.

<u>Road</u>	<u>Stations</u>	<u>Comments</u>
Joyce-Piedmont Road	N/A	See County Permit

**1-23 ROAD WORK PHASE APPROVAL**

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

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

SUBSECTION RESTRICTIONS

**1-25 ACTIVITY TIMING RESTRICTION**

On the following road(s), are not allowed during the listed closure period(s) unless authorized in writing by the Contract Administrator.

<u>Road</u>	<u>Stations</u>	<u>Activity</u>	<u>Closure Period</u>
All	All	All	Weekends and State Recognized Holidays
All	All	All roadwork activities including Timber Haul and rock pit development.	October 1st to May 30
All	All	All	8:00 PM – 6:00 AM (Year Round)
Joyce-Piedmont Road	N/A	All	See County Permit

**1-26 OPERATING DURING CLOSURE PERIOD**

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

**1-27 TIMING RESTRICTION FOR MARBLED MURRELET**

On the following road(s), timber felling, road work or operation of heavy equipment performed during the marbled murrelet nesting season (April 1 through September 23), is restricted to two hours after sunrise to two hours before sunset. This does not apply to hauling timber, rock or equipment.

<u>Road</u>	<u>Stations</u>
PA-I-2600	0+00 to 14+00

**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 jaw run, pit run roads.
- Wheel track rutting exceeds 4 inches on crushed rock roads.
- Wheel track rutting exceeds 4 inches on native surface roads.
- Surface or base stability problems persist.
- Weather is such that satisfactory results cannot be obtained in an area of operations.
- Damage to pavement, in the opinion of the Contract Administrator, would continue without mitigation
- When, in the opinion of the Contract Administrator excessive road damage or rutting may occur.

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

### **1-32 BRIDGE AND ASPHALT SURFACE RESTRICTION**

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

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

### **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. Purchaser shall request a SNOW PLOWING AGREEMENT each time plowing occurs. If damage occurs while plowing, further permission to plow may be revoked by the Contract Administrator.

SUBSECTION OTHER INFRASTRUCTURE

**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.

The following county roads and state highways are affected by this sale:

<u>Road Name</u>
Joyce-Piedmont
Gossett Road
HWY 112

**1-41 REQUIREMENTS FOR PAVED ROAD APPROACHES**

Requirements for the paved road approaches:

Purchaser shall build up approaches to allow a smooth grade transition between the non-paved roads and paved roads. The top of the non-paved road surfacing must be kept level with the surface of the paved road at all times. The surface of the non-paved road approach must slope from the edge of the paved road at the rate of 2%, unless otherwise directed by the Contract Administrator.

**1-42 UTILITY ACCESS ROAD**

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

<u>Road</u>	<u>Stations</u>
PA-J-3000	41+00 to 42+00

**1-43 ROAD WORK AROUND UTILITIES**

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

<u>Road</u>	<u>Stations</u>	<u>Utility</u>	<u>Utility Contact</u>
PA-J-3030	All	BPA	<b>811</b>
PA-J-3000	40+00 to 42+00	BPA	<b>811</b>
PA-J-3100	0+00 to 9+55	Crescent Water and BPA	<b>811</b>
Joyce- Piedmont Road		BPA	<b>811</b>

## SECTION 2 – MAINTENANCE

### 2-1 GENERAL ROAD MAINTENANCE

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

### 2-2 ROAD MAINTENANCE – PURCHASER MAINTENANCE

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

### 2-3 ROAD MAINTENANCE – DESIGNATED MAINTAINER

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

### 2-4 PASSAGE OF LIGHT VEHICLES

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

### 2-5 MAINTENANCE GRADING – EXISTING ROAD

On the following road(s), Purchaser shall use a grader to shape the existing surface.

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
PA-J-3000	0+00 to 72+50	Grade, shape, compact and remove shoulder vegetation.
PA-J-3010	0+00 to 13+55	Grade, shape, compact and remove shoulder vegetation.
PA-I-2600	0+00 to 14+00	Grade, shape, compact and remove shoulder vegetation.

PA-I-2610	0+00 to 12+00	Grade, shape, compact and remove shoulder vegetation.
PA-I-2620	0+00 to 6+50	Grade, shape, compact and remove shoulder vegetation.

**2-6 CLEANING CULVERTS**

On the following road(s), Purchaser shall clean the inlets and outlets of all culverts and shall obtain written approval from the Contract Administrator before start of timber haul.

<u>Road</u>	<u>Stations</u>
PA-J-3000	50+70, 59+80
PA-J-3100	37+35

**2-8 MAINTAINING EROSION CONTROL STRUCTURES**

On the following road(s), Purchaser shall clean and maintain all erosion control structures. Work must be completed before the start timber haul and must be done in accordance with the pertaining clauses contained in this Road Plan. Excavated material must disposed of as specified in Clauses 4-35 through 4-38.

<u>Road</u>	<u>Stations</u>	<u>Comments</u>
PA-J-3000	34+75	Roadside Silt Fence Left and Right

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

**SUBSECTION BRUSHING**

**3-1 BRUSHING**

On the following road(s), Purchaser shall cut vegetative material up to 5 inches in diameter, including limbs, as shown on the BRUSHING DETAIL. Brushing must be achieved by 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>
PA-J-3000	0+00 to 72+50
PA-J-3010	0+00 to 13+55
PA-J-3100	0+00 to 67+20
PA-I-2600	0+00 to 14+00
PA-I-2610	0+00 to 12+00
PA-I-2620	0+00 to 6+50

**3-2 BRUSHING RESTRICTION**

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

**3-3 BRUSH REMOVAL**

Remove brushing debris from the road surface, ditchlines, and culvert inlets and outlets. Brush should be disposed of so that it will not fall back onto the road prism.

SUBSECTION CLEARING

**3-5 CLEARING**

Purchaser shall fall all vegetative material larger than 5 inches DBH or over 15 feet high between the marked right-of-way boundaries, or as approved by Contract Administrator. Clearing must be completed before starting excavation and embankment.

**3-7 RIGHT-OF-WAY DECKING**

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

**3-8 PROHIBITED DECKING AREAS**

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

- Within the grubbing limits.
- Within 50 feet of any stream.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- On slopes greater than 40%.
- Against standing trees.



## SUBSECTION GRUBBING

### **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. Purchaser shall remove stumps using a hydraulic mounted excavator unless authorized in writing by the Contract Administrator. Grubbing must be completed before starting excavation and embankment.

### **3-12 STUMP PLACEMENT**

Purchaser shall place grubbed stumps outside of the clearing limits, as directed by the Contract Administrator and in compliance with all other clauses in this road plan. Stumps must be positioned upright, with root wads in contact with the forest floor and on stable locations.

### **3-13 STUMPS FOR PUNCHEON MATERIAL**

Stumps from within the grubbing limits may be overturned and driven flush with the ground surface for use as subgrade puncheon material.

### **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.

## SUBSECTION ORGANIC DEBRIS

### **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 limits as shown on the TYPICAL SECTION SHEET.

### **3-21 DISPOSAL COMPLETION**

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

### **3-23 PROHIBITED DISPOSAL AREAS**

Purchaser shall not place organic debris in the following areas:

- Within 50 feet of a cross drain culvert.
- Within 100 feet of a live stream or wetland.
- On road subgrades, or excavation and embankment slopes.
- On slopes greater than 45%.

- Within the operational area for cable landings where debris may shift or roll.
- On locations where brush can fall into the ditch or onto the road surface.
- Against standing timber.

**3-24 BURYING ORGANIC DEBRIS RESTRICTED**

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

**3-25 SCATTERING ORGANIC DEBRIS**

Purchaser shall scatter organic debris outside of the grubbing limits in accordance with Clause 3-23 unless otherwise detailed in this road plan and as directed by the Contract Administrator.

SUBSECTION PILE

**3-31 PILING**

Purchaser shall pile organic debris no closer than 20 feet from standing timber and no higher than 20 feet in areas specified. Piles must be free of rock and soil.

SECTION 4 – EXCAVATION

**4-1 EXCAVATOR CONSTRUCTION**

Purchaser shall use a track mounted hydraulic excavator for construction, reconstruction and maintenance work unless stated otherwise within this Road Plan or authorized in writing by the Contract Administrator.

**4-2 PIONEERING**

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

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

**4-3 ROAD GRADE AND ALIGNMENT STANDARDS**

Purchaser shall follow these standards for road grade and alignment:

- Grade and alignment must have smooth continuity, without abrupt changes in direction.
- Maximum grades may not exceed 18 percent favorable and 16 percent adverse.

- Minimum curve radius is 60 feet at centerline.
- Maximum grade change for sag vertical curves is 5% in 100 feet.
- Maximum grade change for crest vertical curves is 4% in 100 feet.

**4-4 SWITCHBACK STANDARDS**

A switchback is defined as a curved segment of road between a beginning and end of the same curve, where the change of traffic travel direction is greater than 90 degrees.

Purchaser shall follow these standards for switchbacks:

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

**4-5 CUT SLOPE RATIO**

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

<u>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 (56% to 70% side slopes)	¾:1	133
Common Earth (on slopes over 70%)	½:1	200
Fractured or loose rock	½:1	200
Hardpan or solid rock	¼:1	400

**4-6 EMBANKMENT SLOPE RATIO**

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

<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. Embankment widening is modified as follows:

### SUBSECTION INTERSECTIONS, TURNOUTS AND TURNAROUNDS

#### **4-20 SUBGRADE DIMENSIONS FOR INTERSECTIONS**

Purchaser shall construct the subgrade to the dimensions shown on the INTERSECTION DETAIL.

#### **4-21 TURNOUTS**

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

#### **4-22 TURNAROUNDS**

Turnarounds must be no larger than 50 feet long and 30 feet wide. Locations are subject to written approval by the Contract Administrator.

#### **4-23 SUBGRADE FLARE FOR INTERSECTIONS**

Intersections shall be constructed/reconstructed to include additional intersection flare.

### SUBSECTION DITCH CONSTRUCTION

#### **4-25 DITCH CONSTRUCTION AND RECONSTRUCTION**

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

#### **4-27 DITCH WORK – MATERIAL USE PROHIBITED**

Purchaser shall not pull ditch material across the road or mix in with the road surface. Excavated material must be end hauled to the location specified in Clauses 4-36 through 4-38.

#### **4-28 DITCH DRAINAGE**

Ditches must drain to cross-drain culverts or ditchouts.

### SUBSECTION WASTE MATERIAL (DIRT)

#### **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.

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

Purchaser shall not deposit waste material in the following areas:

- Within 50 feet of a cross drain culvert.
- Within 100 feet of a live stream or wetland.
- Within a riparian management zone.
- On side slopes steeper than 45%.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- Within the operational area for cable landings.
- Against standing timber.

#### **4-39 WASTE AREA COMPACTION**

Excavated material may be deposited adjacent to the road prism on side slopes up to 45% if the waste material is compacted and free of debris. On side slopes of 45% or more, all excavation shall be end hauled or pushed to designated waste areas. All waste material shall be compacted. The minimum acceptable compaction is achieved by placing embankments in 2 foot or shallower lifts and routing excavation equipment over the entire width of the lifts, with the exception of side hill embankments too narrow to accommodate excavation equipment which may be placed by end-dumping or sidecasting until sufficiently wide to support the equipment.

### SUBSECTION BORROW

#### **4-45 SELECT BORROW**

Select borrow consists of granular material, either naturally occurring or processed, and contains no more than 5% clay, organic debris, or trash by volume.

**4-47 NATIVE MATERIAL**

Native material consists of naturally occurring material that is free of organic debris, trash, and rocks greater than 12 inches in any dimension.

SUBSECTION SHAPING

**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.

**4-56 DRY WEATHER SHAPING**

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

SUBSECTION COMPACTION

**4-60 FILL COMPACTION**

Purchaser shall compact all embankment and waste material in accordance with the COMPACTION LIST by routing equipment over the entire width of each lift. A plate compactor must be used for areas specifically requiring keyed embankment construction and for embankment segments too narrow to accommodate equipment.

**4-61 SUBGRADE COMPACTION**

Purchaser shall compact constructed and reconstructed subgrades in accordance with the COMPACTION LIST by routing equipment over the entire width, except ditch. Purchaser shall obtain written approval from the Contract Administrator for subgrade compaction before placement of rock.

**4-62 DRY WEATHER COMPACTION**

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

**4-63 EXISTING SURFACE COMPACTION**

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

**4-64 WASTE MATERIAL COMPACTION**

All waste material shall be compacted by running equipment over it or bucket tamping.

**4-65 CULVERT BACKFILL COMPACTION**

Culvert backfills shall be accomplished by using a jumping jack compactor, performing at least 2 passes per lift, in lifts not to exceed 8 inches.

**4-66 COMPACTION BY METHOD**

Compaction shall consist of three complete passes over the entire width of each lift with a vibratory drum roller weighing a minimum of 6,000 pounds at a maximum operating speed of 3 mph. For embankment segments too narrow to accommodate a drum roller, a plate compactor shall be used.

SECTION 5 – DRAINAGE

**5-1 REMOVAL OF SHOULDER BERMS**

Purchaser shall remove berms from road shoulders, except as specified in Clause 8-1. The construction of ditchouts is required where ponding could result from the effects of sidecast debris.

**5-4 PUNCHEON RESTRICTED**

At no time shall puncheon be used in the subgrade, unless approved by the Contract Administrator.

SUBSECTION CULVERTS

**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 10-15 through 10-23.

**5-6 CULVERT TYPE**

Purchaser may install culverts made of steel or plastic in accordance with Clauses 10-15 through 10-23.

**5-12 UNUSED MATERIALS STATE PROPERTY**

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

**5-13 CONTINGENCY CULVERTS**

The following culverts will be supplied by the Purchaser and are available for installation as directed by the Contract Administrator. In the event that culverts are not used, culverts shall be stockpiled at Place Pit.

<u>Road</u>	<u>Size</u>
On any portion of road used for timber or rock haul.	18" x 30' culvert
	18" x 30' culvert
	18" x 30' culvert
	18" culvert band

**SUBSECTION CULVERT INSTALLATION**

**5-15 CULVERT INSTALLATION**

Culvert installation must be in accordance with the TYPICAL CROSS DRAIN CULVERT INSTALLATION DETAIL SHEET, TYPICAL TYPE NS NP CULVERT INSTALLATION DETAIL SHEET, the National Corrugated Metal Pipe Association's "Installation Manual for Corrugated Steel Drainage Structures" 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 over 15 inches diameter shall be banded using lengths of no less than 10 feet, and no more than one length less than 16 feet. Shorter section 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 12 inches of compacted subgrade over the top of the culvert at the shallowest point. Stream crossing culverts must be installed with a depth of cover specified in the Engineer's design, TYPICAL TYPE NS NP DETAIL SHEET, or recommended by the culvert manufacturer for the type and size of the pipe, whichever is greater.



## SUBSECTION ENERGY DISSIPATERS

### **5-20 ENERGY DISSIPATERS**

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

Rock used for energy dissipaters must weigh at least 10 pounds. Energy dissipaters must extend a minimum of 1 foot to each side of the culvert at the outlet and a minimum of 2 feet beyond the outlet. Placement must be with a zero-drop-height method only.

### **5-22 ABOVE GROUND CULVERT ENERGY DISSIPATORS**

At the end of the culvert, approximately 1 yd<sup>3</sup> of oversize material shall be placed. The extents of placement shall be in accordance with TYPICAL CULVERT INTALLATION DETAIL SHEET.

## SUBSECTION CATCH BASINS, HEADWALLS, AND ARMORING

### **5-25 CATCH BASINS**

Purchaser shall construct catch basins to resist erosion. Minimum dimensions of catch basins are 1-2 feet wide, 1-2 feet deep and 2-4 feet long.

### **5-26 HEADWALLS FOR CROSS DRAIN CULVERTS**

Purchaser shall construct headwalls in accordance with the TYPICAL CROSS DRAIN CULVERT INSTALLATION DETAIL at all cross drain culverts that specify the placement of rock. Rock used for headwalls must consist of oversize or quarry spall material. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets. Minimum specifications require that rock be placed at a width of one culvert diameter on each side of the culvert opening, and to a height of one culvert diameter above the top of the culvert. Rock may not restrict the flow of water into culvert inlets or catch basins. No placement by end dumping or dropping of rock is allowed.

## SECTION 6 – ROCK AND SURFACING

### SUBSECTION ROCK SOURCE

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

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the following source(s) on state land at no charge to the Purchaser. Purchaser shall obtain

written approval from the Contract Administrator for the use of material from any other source. If other operators are using, or desire to use the rock source(s), a joint operating plan must be developed. All parties shall follow this plan. Purchaser shall notify the Contract Administrator a minimum of 5 calendar days before starting any operations in the listed locations.

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>
Place Pit	T31R07W Sec 33	Pit Run, 1 1/4" minus

**6-3 ROCK SOURCE STATE LAND, EXISTING STOCKPILE**

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the following existing stockpile(s) on state land at no charge to the Purchaser. Purchaser shall not remove more than 600 cubic yards of 1 1/4 rock. Purchaser shall not remove additional yardage without prior written approval from the Contract Administrator. Other stockpiles may not be used.

<u>Source</u>	<u>Rock Type</u>	<u>Quantity</u>
Place Pit	1 1/4" minus crushed	590 yd <sup>3</sup>

**6-5 ROCK FROM COMMERCIAL SOURCE**

Rock designated as commercial source used in accordance with the quantities on the ROCK LIST shall be obtained from any commercial source at the Purchaser's expense. Rock sources are subject to written approval by the Contract Administrator before their use. Rock source(s) must be a WSDOT certified source. Prior to approval, purchaser shall submit a passing sieve test performed by procedure described in WSDOT FOP for WAQTC T 27/11.

SUBSECTION ROCK SOURCE DEVELOPMENT

**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 5 calendar days before starting any operations in the rock source.

<u>Source</u>	<u>Rock Type</u>
Place Pit	Pit Run, 1 1/4" minus

**6-12 ROCK SOURCE SPECIFICATIONS**

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

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

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

- Pit walls must be maintained in a condition to minimize the possibility of the walls sliding or failing.
- The width of pit benches must be a minimum of 1.5 times the maximum length of the largest machine used.
- The surface of pit floors and benches must be uniform and free-draining at a minimum 2% outslope gradient.
- All operations must be carried out in compliance with all regulations of the Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations (30 CFR) U.S. Department of Labor, Mine Safety and Health Administration and Safety Standards for Construction Work (296-155 WAC), Washington Department of Labor and Industries.
- All vehicle access to the top of the pit faces must be blocked.

**6-13 ROCK EXPLORATION**

Purchaser shall provide an excavator with operator for up to 12 hours of exploration of rock and other related work as directed by the Contract Administrator.

**SUBSECTION ROCK GRADATIONS**

**6-23 ROCK GRADATION TYPES**

Purchaser shall provide rock in accordance with the types and amounts listed in the Manufacturing list below. Rock must meet the following specifications for gradation and uniform quality during manufacture and placement into a stockpile. Purchaser shall provide a sieve analysis upon request from the Contract Administrator.

<u>Rock Type</u>	<u>Amount in cubic yards</u>
Pit Run or Commercial 4"jaw run	4305
Commercial 4"jaw run	1860
1 1/4 inch minus crushed	590
Light Loose Rip Rap	20

**6-28 1 ¼-INCH MINUS CRUSHED ROCK**

- % Passing 1 ¼" square sieve 100%
  - % Passing 5/8" square sieve 55 - 75%
  - % Passing U.S. #4 sieve 20 - 50%
- Of the fraction passing the No. 4 sieve, 40% to 60% must pass the No. 10 sieve.

**6-37 4-INCH JAW RUN ROCK**

- % Passing 4" square sieve 95%
- % Passing U.S. #40 sieve 16% maximum
- % Passing U.S. #200 sieve 5% maximum

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 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. Select Pit Run rock may not contain more than 5 percent by weight of organic debris, dirt, and trash. Rock may require processing to meet this specification.

**6-50 LIGHT LOOSE RIP RAP**

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

<u>Quantity</u>	<u>Approximate Size Range</u>
20% to 90%	500 lbs. to 1 ton (18" - 28")
15% to 80%	50 lbs. to 500 lbs. (8" - 18")
10% to 20%	3 inch to 50 lbs. (3" - 8")

SUBSECTION ROCK MEASUREMENT

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

Measurement of specified rock depths, are defined as the compacted depth(s) using the compaction methods required in this road plan. Estimated quantities specified in the ROCK LIST are estimated truck 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.

SUBSECTION ROCK APPLICATION

**6-70 APPROVAL BEFORE ROCK APPLICATION**

Purchaser shall obtain written approval from the Contract Administrator for subgrade drainage installation included grading and compaction before rock application.

**6-71 ROCK APPLICATION**

Purchaser shall apply rock in accordance with the specifications and quantities shown on the ROCK LIST. Rock must be spread, shaped, and compacted full width concurrent with rock hauling operations. The Contract Administrator will direct locations for rock that is to be applied as spot patching. Road surfaces must be compacted in accordance with the COMPACTION LIST by routing equipment over the entire width and in lifts not to exceed 6 inches.

**6-72 ROCK APPLICATION AFTER HAULING**

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

<u>Road</u>	<u>Stations</u>	<u>Rock Type</u>	<u>Amount</u>
PA-J-3000	0+00 to 72+50	1 1/4 inch minus crushed rock	200 yd <sup>3</sup>
PA-J-3010	0+00 to 13+55	4 inch jaw run	50 yd <sup>3</sup>

**6-73 ROCK FOR WIDENED PORTIONS**

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

**6-74 ROCK ON SHOULDER TO BITUMINOUS SURFACE**

On the following road(s), Purchaser shall apply rock on the road shoulder in accordance with the quantities shown on the ROCK LIST. Rock must be applied, shaped, and compacted to insure a smooth transition from the bituminous surface treatment to the shoulder of the road.

<u>Road</u>	<u>Stations</u>	<u>Rock Type</u>
PA-J-3100	67+20 Road Approach	1 1/4 inch minus crushed rock

**6-76 DRY WEATHER ROCK COMPACTION**

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

**6-77 ROCK OVER GEOTEXTILE**

On the following road(s), rock shall be applied over geotextiles in accordance with manufacturer's specifications.

**6-78 ROCK FOR SPOT PATCHING**

Rock for spot patching shall be applied before any grading is done and before any rock lifts are applied. Once applied, spot patches shall be graded into the existing running surface.

SUBSECTION DUST ABATEMENT

**6-80 WATERING FOR DUST ABATEMENT**

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

SUBSECTION ASPHALT

**6-93 ASPHALT REPAIR**

If hauled upon, asphalt could deteriorate. Any damage or wear, including but not limited to depressions, sags, cracks, and alligating, must be replaced with new material. All pavement repair areas must be saw-cut before removal. The cutting line must be a minimum of 6 inches beyond the damaged area. Damaged areas exceeding 25 square feet must have asphalt placed with an approved paving machine. The replacement asphalt must be Hot Mix Asphalt or equivalent and installed per Clause 5-04.3(5)E of the WSDOT Standard Specifications. Purchaser shall notify the Contract Administrator at least 5 working days before starting any asphalt road repairs. Purchaser shall obtain written approval from the Contract Administrator for all completed repairs.

**6-94 HMA WEATHER LIMITATIONS (WSDOT 5-04.3(16))**

HMA may not be placed on any wet surface, or when the average surface temperatures are less than 45°F, or when weather conditions otherwise prevent the proper handling or finishing of the HMA.

When in the opinion of the Contract Administrator the weather is such that satisfactory results cannot be obtained in any phase of operations, the Purchaser shall suspend operations until the weather is favorable.

SECTION 7 – STRUCTURES

SUBSECTION SIGNS

**7-1 SIGN INSTALLATION**

Purchaser shall purchase, install, and maintain the following road signs. Signs must be installed a minimum of 7 days before road closure. Signs must comply with the Federal Highway Administration’s Manual on Uniform Traffic Control Devices.

<u>Road</u>	<u>Sign</u>
Joyce-Piedmont	See County Requirements

**7-2 SIGN INSTALLATION (NON-HIGHWAY)**

The Purchaser shall be responsible for the purchase, installation, and maintenance of the following road signs. Signs shall be installed a minimum of 7 days before road closure. Signs shall be at least 2 feet in any direction, and shall be orange with black lettering.

<u>Road</u>	<u>Station</u>	<u>Sign</u>
PA-J-3100	0+00, 67+20	Two temporary “ROAD WORK AHEAD” signs. One sign shall be installed at each of the stations listed for the Olympic Discovery Trail System.

SUBSECTION STREAM CROSSING STRUCTURES GENERAL

**7-5 STRUCTURE DEBRIS**

Purchaser shall not allow debris from the installation or removal of structures to enter any stream. Components removed from existing structure(s) must be removed from state land or, as directed in writing, by the Contract Administrator. Purchaser shall maintain a clean jobsite, with all materials stored away from the high water mark or other area presenting a risk of the materials entering a stream. Debris entering any stream must be removed immediately, and placed in the site(s) designated for

stockpiling or disposal. Purchaser shall retrieve all material carried downstream from the jobsite.

**7-6 STREAM CROSSING INSTALLATION**

Purchaser shall install stream crossing structures in accordance with the manufacturer's requirements, and as directed by the District Engineer or their designee.

**7-7 BANK PROTECTION FOR STREAM CROSSING STRUCTURES**

Purchaser shall design and construct bank protection to prevent the undermining of the structure.

SUBSECTION ACCEPTANCE

**7-14 PRE-DESIGN WORK MEETING**

Prior to any design work occurring a pre-work conference call shall occur to review the Road Plan requirements for the design and manufacture of the structure Associated.

**7-17 INSTALLATION PRODUCTION SCHEDULE**

Purchaser shall provide the Contract Administrator or their designee, with a production schedule showing projected completion dates for the following items before starting construction of the structure(s). Production schedule must include:

- dewatering
- placement of temporary pipe
- log fill placement
- silt fence placement
- pit run placement and compaction

**7-18 INSTALLATION STAGE ACCEPTANCE**

Purchaser shall ensure that all materials and procedures used during construction comply with the design. Purchaser shall obtain written approval from the Contract Administrator or their designee, for each stage of construction, listed in Clause 7-17. Purchaser shall notify the Contract Administrator in writing when each construction stage is complete.

SUBSECTION GATE CLOSURE

**7-70 GATE CLOSURE**

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

<u>Road</u>	<u>Station</u>
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PA-J-3000	0+50
PA-J-3100	0+00
PA-J-3100	67+20
PA-J-3010	1+50

**SUBSECTION GATES AND FENCES**

**7-75 GATE MAINTENANCE**

Purchaser shall conduct gate maintenance as listed.

<u>Road</u>	<u>Station</u>	<u>Requirements</u>
PA-J-3000	0+55	Gate shall be painted Safety Yellow color using high gloss alkyd enamel paint. Prior to painting, surfaces shall be prepared by cleaning, sanding and removing all loose rust and paint. All surfaces shall be dry at the time of painting. Two coats of paint shall be applied, using the procedures described in the product instructions, with a minimum of eight hours drying time between coats.
PA-J-3010	1+50	Gate shall be painted Safety Yellow color using high gloss alkyd enamel paint. Prior to painting, surfaces shall be prepared by cleaning, sanding and removing all loose rust and paint. All surfaces shall be dry at the time of painting. Two coats of paint shall be applied, using the procedures described in the product instructions, with a minimum of eight hours drying time between coats.

**SECTION 8 – EROSION CONTROL**

**8-1 SEDIMENT CONTROL STRUCTURES**

On the following road(s), Sediment control shall be accomplished as listed below or other methods as approved in writing by the Contract Administrator.

<u>Road</u>	<u>Stations</u>	<u>Left and/or Right</u>	<u>Comments</u>
PA-J-3010	5+00 to 6+50	Left and Right	Install Roadside silt fence or rock berm
PA-J-3100	18+30, 23+60	Left and Right	Install Roadside Silt Fence 25 feet on Left and Right

**8-2 PROTECTION FOR EXPOSED SOIL**

Purchaser shall provide and evenly spread a 3-inch layer of straw or hay to all exposed soils at culvert installations within 100 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.

SUBSECTION REVEGETATION

**8-15 REVEGETATION**

Purchaser shall spread grass seed and straw and/or hay mulch on all exposed soils including, but not limited to, stream culverts, waste areas, sidecast pullback areas, stream crossing removals, and other areas directed by the Contract Administrator. Revegetation of exposed soils shall be accomplished by manual dispersal of grass seed unless otherwise detailed in this Road Plan. Other methods of covering must be approved in writing by the Contract Administrator.

**8-16 REVEGETATION SUPPLY**

The Purchaser shall provide the all seed, mulch, straw and/or hay, matting etc..

**8-17 REVEGETATION TIMING**

Purchaser shall revegetate during the first available opportunity.

**8-18 PROTECTION FOR SEED**

Purchaser shall provide a protective cover over the revegetated area. The protective cover may consist of but not be limited to, such items as dispersed hay mulch 3” thick or jute matting. Seed must be covered before the first anticipated storm event.

**8-19 ASSURANCE FOR SEEDED AREA**

Purchaser shall ensure the growth of a uniform and dense crop at least 50% coverage of 3-inch tall grass. Purchaser shall reapply the grass seed and/or straw and/or hay 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 and/or straw and/or hay at no addition cost to the state.

SUBSECTION SEED, FERTILIZER, AND MULCH

**8-25 GRASS SEED**

Purchaser shall evenly spread the seed mixture listed below on all exposed soil at a rate of 60 pounds per acre of exposed soil. Grass seed must meet the following specifications:

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

<u>Kind and Variety of Seed in Mixture</u>	<u>% by Weight</u>	<u>Minimum % germination</u>
Perennial Rye	35-45	90
Red Fescue	30-40	90
Highland Bent	5-15	85
White Clover	10-20	90
Inert and Other Crop	0.5	

SECTION 9 – POST-HAUL ROAD WORK

SUBSECTION STRUCTURES

**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.

SUBSECTION POST-HAUL MAINTENANCE

**9-5 POST-HAUL MAINTENANCE**

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

<u>Road</u>	<u>Stations</u>	<u>Additional Requirements</u>
All	All	Clean culverts, clean ditches, grade road shape and compact as directed by the Contract Administrator.
PA-J-3000	0+00 to 72+50	Apply post haul rock per Clause 6-72.
PA-J-3010	0+00 to 13+55	Apply post haul rock per Clause 6-72.
PA-J-3100	0+00 to 67+20	Asphalt surfacing shall be swept clean by means approved by Contract Administrator. Asphalt surfacing shall be repaired.

SUBSECTION POST-HAUL LANDING MAINTENANCE

**9-10 LANDING DRAINAGE**

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

**9-11 LANDING EMBANKMENT**

Purchaser shall slope landing embankments to the original construction specifications.

SUBSECTION DECOMMISSIONING AND ABANDONMENT

**9-20 ROAD DECOMMISSIONING**

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

<u>Road</u>	<u>Comment</u>
Equipment Pad A, B	See County Road Approach Permit, or as per Contract Administrator

SECTION 10 MATERIALS

SUBSECTION GEOTEXTILES

### 10-3 GEOTEXTILE FOR STABILIZATION

Geotextiles must meet the following minimum requirements for strength and property qualities, and must be designed by the manufacturer to be used for stabilization or reinforcement, and filtration. Material must be free of defects, cuts, and tears.

	<u>ASTM Test</u>	<u>Requirements</u>
Type	--	Woven
Apparent opening size	D 4751	No. 40 max
Water permittivity	D 4491	0.10 sec <sup>-1</sup>
Grab tensile strength	D 4632	315 lb
Grab tensile elongation	D 4632	50%
Puncture strength	D 6241	620 lb
Tear strength	D 4533	112 lb
Ultraviolet stability	D 4355	50% retained after 500 hours of exposure

### 10-6 GEOTEXTILE FOR TEMPORARY SILT FENCE

Geotextiles must meet the following minimum requirements for strength and property qualities, and must be designed by the manufacturer to be used for filtration. Woven slit-film geotextiles are not allowed. Material must be free of defects, cuts, and tears.

	<u>ASTM Test</u>	<u>Requirements</u>
Type	--	Unsupported between posts
Apparent opening size	D 4751	No. 30 max., No. 100 min.
Water permittivity	D 4491	0.02 sec <sup>-1</sup>
Grab tensile strength	D 4632	180 lb in machine direction, 100lb in cross-machine direction
Grab tensile elongation	D 4632	30% max. at 180 lb or more
Ultraviolet stability	D 4355	70% retained after 500 hours of exposure

## SUBSECTION CULVERTS

### 10-15 CORRUGATED STEEL CULVERT

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

### 10-17 CORRUGATED PLASTIC CULVERT

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

**10-22 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.

**10-24 GAUGE AND CORRUGATION**

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

<u>Diameter</u>	<u>Gauge</u>	<u>Corrugation</u>
18"	16 (0.064")	2 2/3" X 1/2"
24" to 48"	14 (0.079")	2 2/3" X 1/2"
54" to 96"	12 (0.109")	5" X 1"

**SUBSECTION ASPHALT**

**10-35 HOT MIX ASPHALT (HMA)**

HMA must be CL 1/2", PG 58-22 or PG 58H-22. The materials that HMA is composed of must be of such sizes, grading, and quantity that, when proportioned and mixed, they will produce a well-graded mixture within the requirements listed below. The aggregate percentage refers to completed dry mix, and includes mineral filler when used.

% Passing 3/4" square sieve	100%
% Passing 1/2" square sieve	90 - 100%
% Passing 3/8" square sieve	90% max
% Passing U.S. #8 sieve	28 - 58%
% Passing U.S. #200 sieve	2 - 7% max

Emulsified Asphalt: Asphalt binder for the tack coat and must be emulsified asphalt, CSS-1 grade meeting the requirements of Section 9-02.1(6) Cationic Emulsified Asphalt of the WSDOT Standard Specifications.

HMA must conform to Sections 5-04 of the WSDOT Standard Specifications, except 5-04.5.

- Asphalt mixing plants must be capable of meeting the requirements of Section 5-04.3(1) – HMA Mixing Plant.
- Subgrade preparation must meet the requirements of Section 2-06.3(2) – Subgrade for Pavement.
- The placement of HMA must be applied in accordance with Section 5-04.3(3) – Asphalt Pavers.
- The compaction of the HMA must meet the requirements of Section 5-04.3(10) – Compaction.

## SECTION 11 SPECIAL NOTES

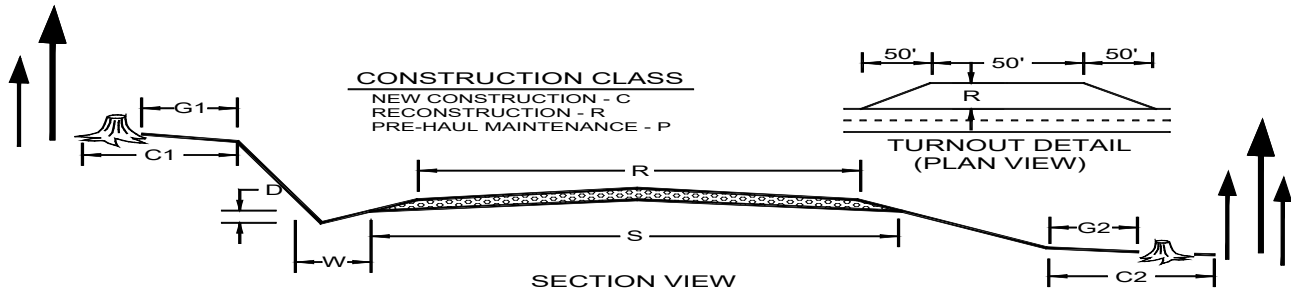
### **11-7 COUNTY ROAD APPROACH PERMITS**

All county road approach permit(s) must be followed. This includes posting, correspondence with the County Public works department and construction/decommissioning requirements.

### **11-10 ASPHALT CLEANING**

All portions of the PA-J-3100 shall be swept at Contract Administrators direction to keep asphalt surface clean.

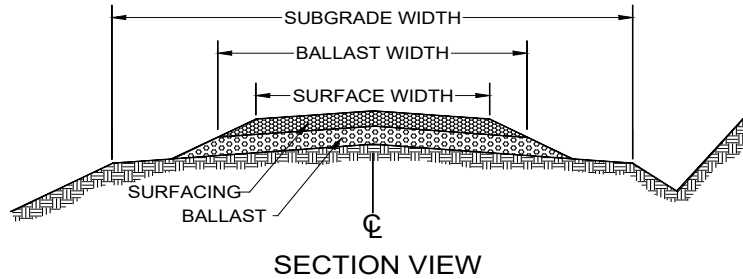
## TYPICAL SECTION SHEET



ROAD NAME	START STATION	END STATION	CONSTRUCTION CLASS	TOLERANCE CLASS	SUBGRADE WIDTH (S)	ROAD WIDTH (R)	CROWN AT CL (in)	DITCH WIDTH (W)	DITCH DEPTH (D)	GRUBBING CUT BANK (G1)	GRUBBING FILL TOE (G2)	ROAD CUT CLEARING (C1)	ROAD FILL CLEARING (C2)
PA-J-3000	0+00	72+50	P	A		12'	3"	3'	1'				
1+00 Spur	0+00	1+00	C	C	17'	12'	3"	3'	1'	5'	5'	10'	5'
2+35 Spur	0+00	2+35	C	C	17'	12'	3"	3'	1'	5'	5'	10'	5'
0+90 Spur	0+00	0+90	C	C	17'	12'	3"	3'	1'	5'	5'	10'	5'
PA-J-3010	0+00	13+55	P	A		12'	3"	3'	1'				
PA-J-3015	0+00	3+00	C	C	17'	12'	3"	3'	1'	5'	5'	10'	5'
0+75 Spur	0+00	0+75	C	C	17'	12'	3"	3'	1'	5'	5'	10'	5'
0+70 Spur	0+00	0+70	C	C	17'	12'	3"	3'	1'	5'	5'	10'	5'
1+05 Spur	0+00	1+05	C	C	17'	12'	3"	3'	1'	5'	5'	10'	5'
PA-J-3030	0+00	7+00	C	C	17'	12'	3"	3'	1'	5'	5'	10'	5'
PA-J-3100	0+00	67+20	P	A		12'	3"	3'	1'				
1+01 Spur	0+00	1+01	C	C	17'	12'	3"	3'	1'	5'	5'	10'	5'
0+95 Spur	0+00	0+95	C	C	17'	12'	3"	3'	1'	5'	5'	10'	5'
3+00 Spur	0+00	3+00	C	C	17'	12'	3"	3'	1'	5'	5'	10'	5'
PA-J-3115	0+00	20+50	C	C	17'	12'	3"	3'	1'	5'	5'	10'	5'
PA-J-3116	0+00	5+00	C	C	17'	12'	3"	3'	1'	5'	5'	10'	5'
PA-I-2600	0+00	14+00	P	C		12'	3"	3'	1'				
PA-I-2610	0+00	12+00	P	C		12'	3"	3'	1'				
PA-I-2620	0+00	6+50	P	C		12'	3"	3'	1'				



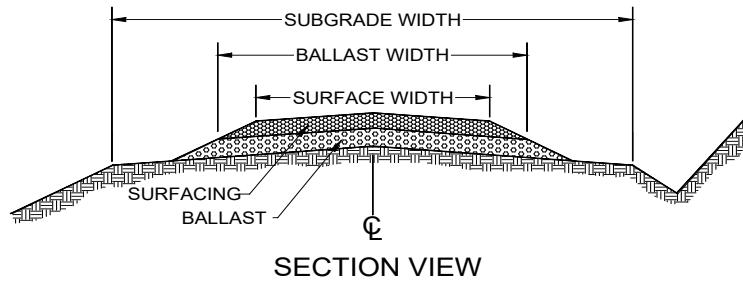
## ROCK LIST SHEET



1. Rock quantities, subtotals and totals are "truck measure" estimates. Rock shall be applied to at least the depths listed.
2. All depths are compacted depths.
3. Rock slopes shall be 1½ (H) : 1 (V).
4. All rock sources are subject to approval by the Contract Administrator.
5. Pitrun is defined as pitrun or ballast per Line 6. Crushed is defined as any crushed rock from ¼" minus to 4" minus per Line 6. Oversize is defined as oversize, quarry spalls, light loose rip rap, or heavy loose rip rap per Line 6.
6. Rock sources 1: Place Pit Pit Run, 2: Commercial 4"minus Jaw Run Rock 3: 1 1/4 "minus crushed 4: Place Pit or Commercial Light loose rip rap

ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	Pitrun SOURCE	Pitrun WIDTH (ft)	Pitrun DEPTH (in)	Pitrun Quantity(yd <sup>3</sup> /sta)	Pitrun SUBTOTAL(yd <sup>3</sup> )	Crushed SOURCE	Crushed WIDTH (ft)	Crushed DEPTH (in)	Crushed Quantity(yd <sup>3</sup> /sta)	Crushed Subtotal(yd <sup>3</sup> )	Oversize/ Rip rap Source	Oversize/Rip Rap Quantity(yd <sup>3</sup> )
<b>PA-J-3000</b>															
Prehaul Spot Rock	0+00	72+50							3				100		
Post Haul Rock									3				200		
<b>1+00 Spur</b>															
Lift	0+00	1+00	17	1,2	12	18	110	110							
Culvert Install	0+10								3				10	4	1
Landing	1+00			1,2				50							
<b>2+35 Spur</b>															
Lift	0+00	2+35	17	1,2	12	18	110	260							
Culvert Install	0+10								3				10	4	1
Landing	2+35			1,2				50							
<b>0+90 Spur</b>															
Lift	0+00	0+90	17	1,2	12	18	110	100							
Culvert Install	0+10								3				10	4	1
Landing	0+90			1,2				50							
<b>PA-J-3010</b>															
Lift	0+00	13+55		2	12	8	45	610							
Culvert Install	6+00								3				10	4	1
Rock Berm	5+00	6+50		2				20							
Culvert Install	7+55								3				10	4	1
Culvert Install	11+80								3				10	4	1
Post Haul Rock									2				50		
Totals:								1,2:620 2: 630					2:50; 3:360		6

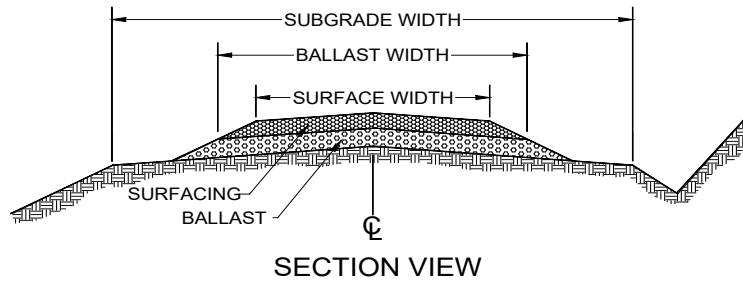
## ROCK LIST SHEET CONTINUED



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ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	Pitrun SOURCE	Pitrun WIDTH (ft)	Pitrun DEPTH (in)	Pitrun Quantity(yd <sup>3</sup> /sta)	Pitrun SUBTOTAL(yd <sup>3</sup> )	Crushed SOURCE	Crushed WIDTH (ft)	Crushed DEPTH (in)	Crushed Quantity(yd <sup>3</sup> /sta)	Crushed Subtotal(yd <sup>3</sup> )	Oversize/ Rip rap Source	Oversize/Rip Rap Quantity(yd <sup>3</sup> )
<b>PA-J-3015</b>															
Lift	0+00	3+00	17	1,2	12	18	110	330							
Culvert Install	0+30								3				10	4	1
Turnout	1+50			1,2				40							
Landing	3+00			1,2				50							
<b>0+75 Spur</b>															
Lift	0+00	0+75	17	1,2	12	18	110	80							
Landing				1,2				50							
<b>0+70 Spur</b>															
Lift	0+00	0+70	17	1,2	12	18	110	80							
Landing	0+70			1,2				50							
<b>1+05 Spur</b>															
Lift	0+00	1+05	17	1,2	12	18	110	120							
Culvert Install	0+25								3				10	4	1
Landing	1+05			1,2				50							
<b>PA-J-3030</b>															
Lift	0+00	7+00	17	1,2	12	18	110	770							
Culvert Install	0+50								3				10	4	1
Culvert Install	3+00								3				10	4	1
Turnout	3+80			1,2				40							
<b>Totals:</b>								1,2: 1660					3:40		4:4

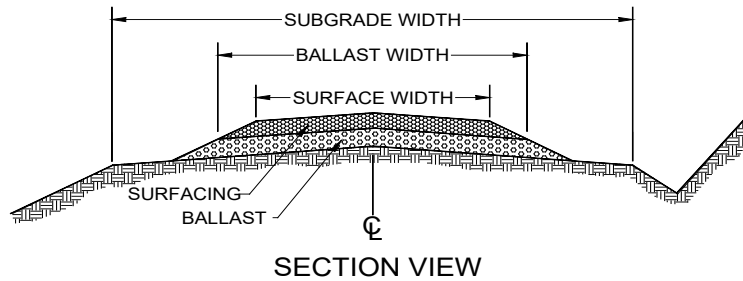
## ROCK LIST SHEET CONTINUED



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ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	Pitrun SOURCE	Pitrun WIDTH (ft)	Pitrun DEPTH (in)	Pitrun Quantity(yd <sup>3</sup> /sta)	Pitrun SUBTOTAL(yd <sup>3</sup> )	Crushed SOURCE	Crushed WIDTH (ft)	Crushed DEPTH (in)	Crushed Quantity(yd <sup>3</sup> /sta)	Crushed Subtotal(yd <sup>3</sup> )	Oversize/ Rip rap Source	Oversize/Rip Rap Quantity(yd <sup>3</sup> )
<b>PA-J-3030</b>															
Culvert Install	4+50								3				10	4	1
Turnout	6+25			1,2				40							
Landing	7+00			1,2				50							
<b>PA-J-3100</b>															
Approach Rock	67+20								3				30		
<b>1+01 Spur</b>															
Lift	0+00	1+00	17	2	12	16	100	100							
Landing	1+00			2				50							
<b>0+95 Spur</b>															
Lift	0+00	0+95	17	2	12	16	100	100							
Landing	0+95			2				50							
Totals:							1,2:90	2:300					3:40		4:1

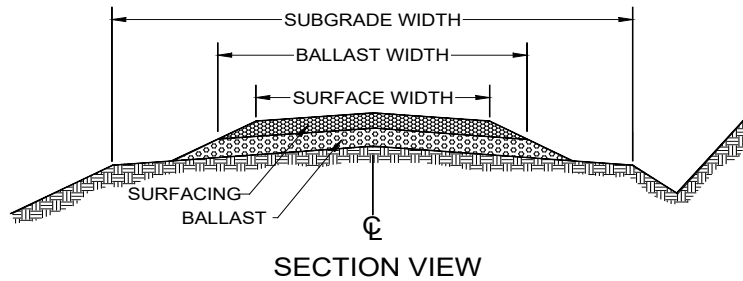
## ROCK LIST SHEET CONTINUED



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ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	Pitrun SOURCE	Pitrun WIDTH (ft)	Pitrun DEPTH (in)	Pitrun Quantity(yd <sup>3</sup> /sta)	Pitrun SUBTOTAL(yd <sup>3</sup> )	Crushed SOURCE	Crushed WIDTH (ft)	Crushed DEPTH (in)	Crushed Quantity(yd <sup>3</sup> /sta)	Crushed Subtotal(yd <sup>3</sup> )	Oversize/ Rip rap Source	Oversize/Rip Rap Quantity(yd <sup>3</sup> )
<b>3+00 Spur</b>															
Lift	0+00	3+00	17	2	12	12	70	210							
Culvert Install	0+10												10	4	1
Culvert Install	1+40												10	4	1
Turnout	1+80			2				30							
Landing	3+00			2				30							
<b>PA-J-3115</b>															
Lift	0+00	20+50	17	1,2	12	12	70	1435							
Lift	0+00	2+00		2	6	12	35	70							
Culvert Install	0+10												20	4	1
Culvert Install	3+00												10	4	1
Turnout	4+25			1,2				30							
Culvert Install	6+40												10	4	1
Turnout	10+00			1,2				30							
Culvert Install	11+10												10	4	1
Culvert Install	15+40												10	4	1
Turnout	17+25			2				30							
Turnout	19+60			2				30							
Landing	20+50			2				30							
<b>Totals:</b>							<b>1,2:1495 2:430</b>						<b>3:80</b>		<b>4:7</b>

## ROCK LIST SHEET CONTINUED



1. Rock quantities, subtotals and totals are "truck measure" estimates. Rock shall be applied to at least the depths listed.
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ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	Pitrun SOURCE	Pitrun WIDTH (ft)	Pitrun DEPTH (in)	Pitrun Quantity(yd <sup>3</sup> /sta)	Pitrun SUBTOTAL(yd <sup>3</sup> )	Crushed SOURCE	Crushed WIDTH (ft)	Crushed DEPTH (in)	Crushed Quantity(yd <sup>3</sup> /sta)	Crushed Subtotal(yd <sup>3</sup> )	Oversize/ Rip rap Source	Oversize/Rip Rap Quantity(yd <sup>3</sup> )
<b>PA-J-3116</b>															
Lift	0+00	5+00	17	1,2	12	12	70	350							
Culvert Install	0+10								3				10	4	1
Culvert Install	2+70								3				10	4	1
Turnout	3+60			1,2				40							
Landing	5+00			1,2				50							
<b>Misc Rock</b>				2				100							
<b>Equipment Pad A</b>				2				200							
<b>Equipment Pad B</b>				2				200							
Totals:								1,2:440 2:500					3:20		4:2
Grand Totals:								<b>1,2:4305 2:1860</b>					<b>3:590</b>		<b>4:20</b>

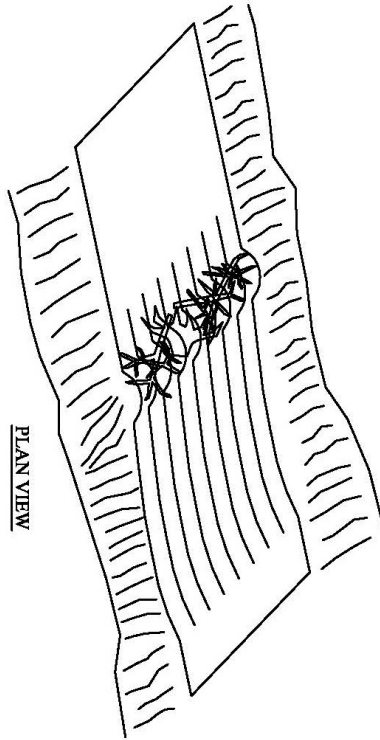
### CULVERT LIST

ROAD NAME	STATION	CULVERT DIAMETER (in)	CULVERT LENGTH (ft)	FLUME LENGTH (ft)	RIP RAP - INLET (cy)	RIP RAP - OUTLET (cy)	BACKFILL MATERIAL	NOTES
1+00 Spur	0+10	18	40		.5	.5	10	Culvert Install
2+35 Spur	0+10	18	40		.5	.5	10	Culvert Install
0+90 Spur	0+10	18	40		.5	.5	10	Culvert Install
PA-J-3010	6+00	18	35		.5	.5	10	Culvert Install
PA-J-3010	7+55	18	35		.5	.5	10	Culvert Install
PA-J-3010	11+80	18	35		.5	.5	10	Culvert Install
PA-J-3015	0+30	18	30		.5	.5	10	Culvert Install
1+05 Spur	0+25	18	40		.5	.5	10	Culvert Install
PA-J-3030	0+50	18	30		.5	.5	10	Culvert Install
PA-J-3030	3+00	18	30		.5	.5	10	Culvert Install
PA-J-3030	4+50	18	30		.5	.5	10	Culvert Install
3+00 Spur	0+10	18	40		.5	.5	10	Culvert Install
3+00 Spur	1+40	18	30		.5	.5	10	Culvert Install
PA-J-3115	0+10	18	50		.5	.5	20	Culvert Install
PA-J-3115	3+00	18	30		.5	.5	10	Culvert Install
PA-J-3115	6+40	18	30		.5	.5	10	Culvert Install
PA-J-3115	11+10	18	30		.5	.5	10	Culvert Install
PA-J-3115	15+40	18	30		.5	.5	10	Culvert Install
PA-J-3000	50+80							Clean inlet/outlet
PA-J-3100	37+35							Clean inlet/outlet
PA-J-3116	0+10	18	50					Culvert Install
PA-J-3116	2+70	18	30					Culvert Install
CONTINGENCY PIPE		18	30					
CONTINGENCY PIPE		18	30					
CONTINGENCY PIPE		18	30					

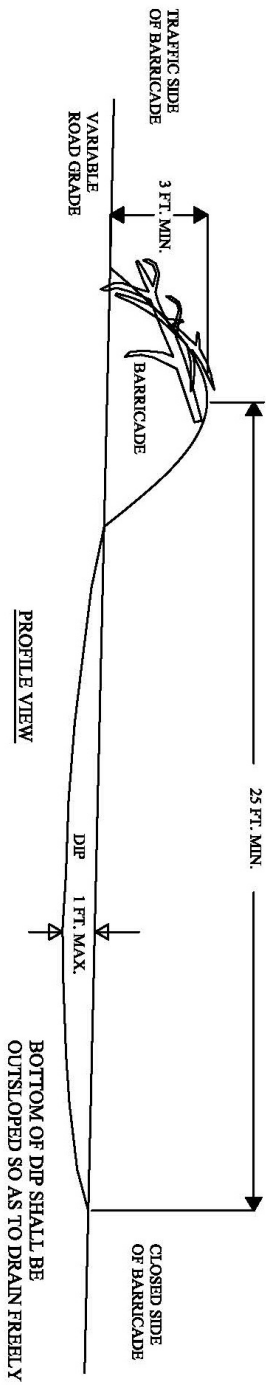
## COMPACTION LIST

Road	Stations	Type	Max Depth Per Lift (inches)	Equipment Type	Minimum Equipment Weight (lbs)	Minimum Number of Passes	Maximum Operating Speed (mph)
Pre-haul	All	Culvert Backfill	8"	Jumping Jack		3	
Pre-haul	All	Rock Lifts	6"	Vibratory Smooth Drum	6,000	3	3
Pre-haul	All	Pre-haul Surface		Vibratory Smooth Drum	6,000	3	3
Construction	All	Subgrade (Except Puncheon)	6"	Vibratory Smooth Drum	6,000	2	3
Construction	All	Culvert Backfill	8"	Jumping Jack		3	
Construction	All	Rock Placement	6"	Vibratory Smooth Drum	6,000	2	3
Reconstruction	All	Subgrade (Except Puncheon)	6"	Vibratory Smooth Drum	6,000	2	3
Reconstruction	All	Culvert Backfill	8"	Jumping Jack		3	
Reconstruction	All	Rock Placement	6"	Vibratory Smooth Drum	6,000	2	3
Post-haul Maintenance	All	Rock Placement	6"	Vibratory Smooth Drum	6,000	2	3

# EARTHEN BARRICADE DETAIL

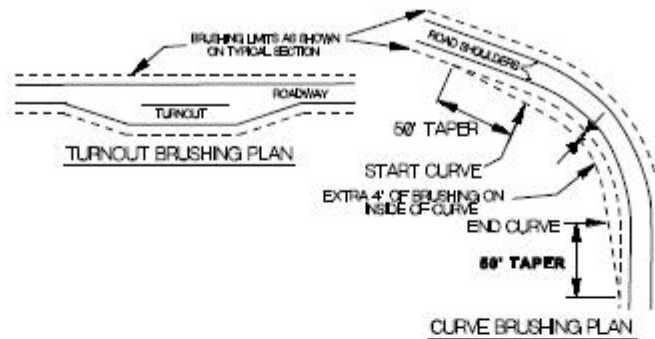
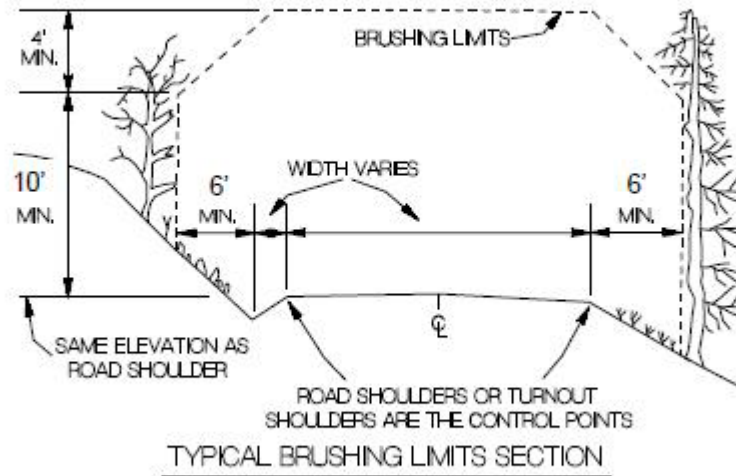


SLASH AND ROOT WADS SHALL BE INCORPORATED INTO THE TRAFFIC SIDE OF THE BARRICADE.

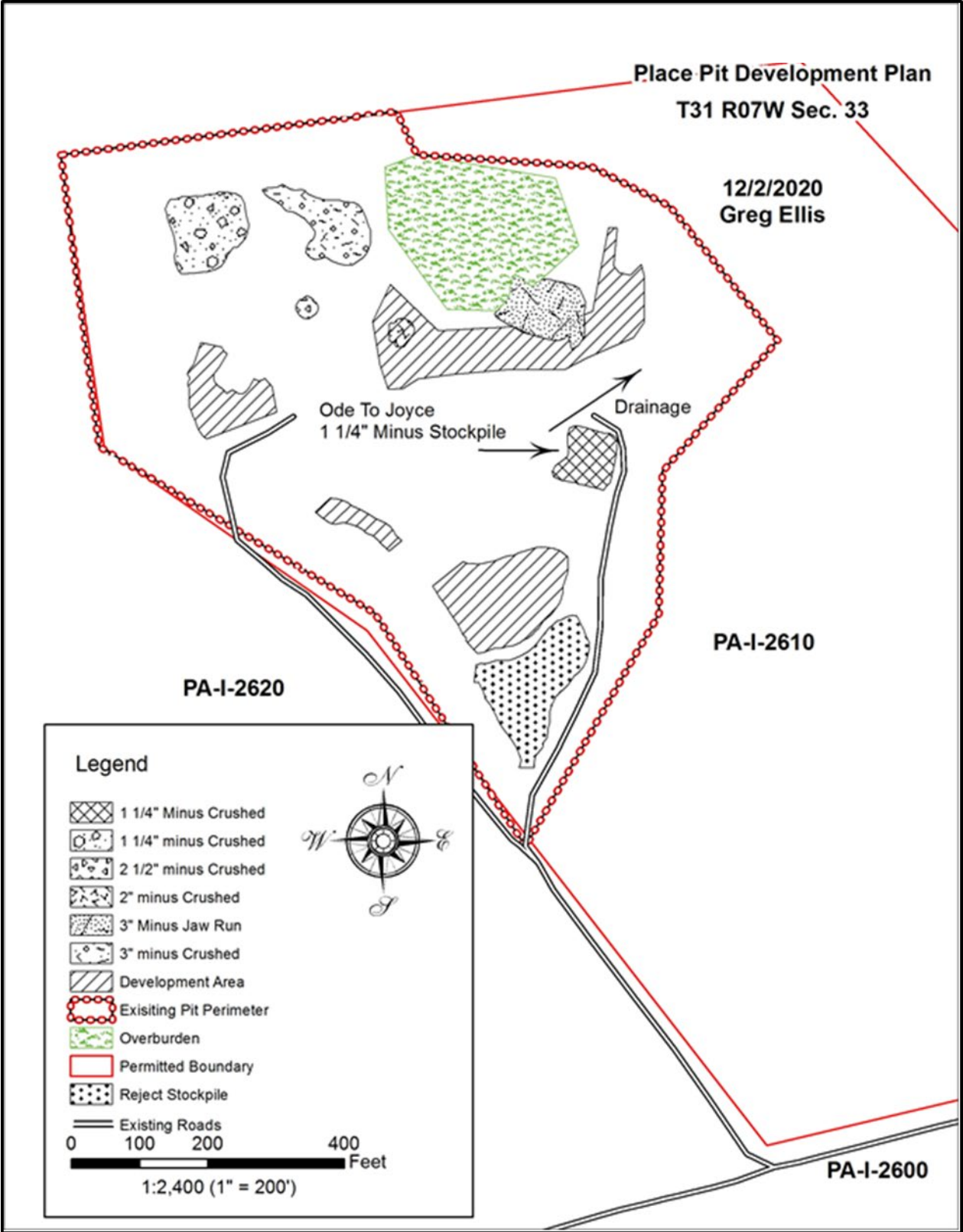




## BRUSHING DETAIL



1. All vegetation within the brushing limits shall be cut to within 3 inches of the ground, unless otherwise directed by the Contract Administrator
2. All brush, trees, limbs, etc. shall be removed from the road surface, cut banks, culvert inlets/outlets, and ditch lines
3. All debris that may roll or move into the ditch line shall be removed and placed in a stable location



## **PLACE PIT ROCK SOURCE DEVELOPMENT PLAN**

**Sec. 33, T.31N., R.07W.**

### **PIT USE REQUIREMENTS**

PIT USE REQUIREMENTS include but are not limited to the following:

1. Activity and Marbled Murrelet restrictions per Clause 1-25 and Clause 1-27
2. Purchaser shall give the Contract Administrator a minimum of 7 days' notice prior to commencing any operations, and prepare an approved ROCK SOURCE DEVELOPMENT PLAN as per Clause 6-10.
3. Only the quantities and sorts specified in this road plan for this sale may be used or manufactured, unless otherwise approved by the Contract Administrator in writing.
4. If Purchaser elects to use rock from a stockpile or from a pit face, Purchaser shall remove no more than the following volume of material (cubic yards truck measure) from the existing stockpile or pit face as shown on the PLAN VIEW and PROFILE VIEW, unless otherwise approved by the Contract Administrator in writing.
5. Maintain drainage of the pit floor and all drainage structures within the pit boundaries at all times to the designated settling ponds.
6. Excavated face height shall not exceed 15 feet.
7. All excavated slopes shall have a 1 1/2:1 backslope or less at the completion of operations.
8. A minimum 4 foot high berm shall be constructed and constantly maintained along the upper edge of excavated pit faces. No pit faces shall be left unblocked at any time.
9. All operations shall be completed prior to the end of each operating season, including but not limited to: drainage maintenance, sloping of the excavated face, and construction of berms, unless otherwise approved in writing by the Contract Administrator.
10. The quality and quantity of rock and materials are not guaranteed.
11. All material shall remain the property of the State.
12. At the conclusion of operations, Purchaser shall ask the Contract Administrator for written approval of the final rock source condition and compliance with the terms of this plan.
13. All operations shall be carried out in compliance with the regulation 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
14. All work shall be conducted according to relevant specifications in this Road Plan, and the Contract Administrator

SUMMARY - Road Development Costs														
SALE NAME:	LYRE LYRE	CONTRACT#:	30-104811	REGION:	Olympic	DISTRICT:	Streets					TOTAL		
LEGAL DESCRIPTION:	0													
ROAD NAME:		1+00 Spur	2+35 Spur	0+90 Spur	PA-1-3015	0+75 Spur	0+70 Spur	1+05 Spur	PA-1-3030	1+01 Spur	0+95 Spur	TOTAL:	SHEET #2	
ROAD TYPE:		Construction	Construction	Construction	Construction	Construction	Construction	Construction	Construction	Construction	Construction			
NUMBER OF STATIONS:		1.00	2.35	0.90	3.00	0.75	0.70	1.05	7.00	1.01	0.95	18.71	449.25	
SIDE SLOPE:		20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20.0%	140%	
CLEARING AND GRUBBING:		\$139	\$327	\$125	\$417	\$104	\$97	\$146	\$974	\$140	\$132	\$2,602	\$4,293	
ROAD BRUSHING:												\$0	\$3,344	
EXCAVATION AND FILL:		\$226	\$531	\$203	\$678	\$170	\$158	\$237	\$1,582	\$228	\$215	\$4,228	\$7,176	
ROAD GRADING:												\$0	\$1,930	
DITCH CLEANING/CONSTRUCTION:												\$0	\$0	
ROCK TOTALS (Cu. Yds.)/ROCK COSTS:														
Ballast:	5995	6,165	160	310	150	420	130	130	170	900	150	150	2,670	3325
Surface:	760	590	10	10	10	10	0	0	10	30	0	0	80	680
Total	6755	6,755	\$161	\$161	\$161	\$161	\$0	\$0	\$161	\$484	\$0	\$0	8	13,462
Over-size:	20	20	1	1	1	1	0	0	1	3	0	0	8	9
CULVERTS AND FILLERS:			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0	0
STRUCTURES:			\$1,232	\$1,232	\$1,232	\$924	\$0	\$0	\$1,232	\$2,772	\$0	\$0	\$8,624	\$10,626
MISC. EXPENSES:			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OVERHEAD:			\$6	\$14	\$5	\$18	\$4	\$4	\$6	\$41	\$6	\$6	\$109	\$4,216
TOTAL COSTS:			\$351	\$581	\$335	\$726	\$193	\$204	\$382	\$1,738	\$357	\$355	\$5,221	\$8,891
COST PER STATION:			\$4,736	\$7,847	\$4,319	\$9,804	\$2,600	\$2,756	\$5,162	\$23,457	\$4,814	\$4,790	\$70,485	\$115,044
MOBILIZATION:			\$4,736	\$3,339	\$5,021	\$3,268	\$3,467	\$3,997	\$4,916	\$3,351	\$4,767	\$5,042	\$3,767	256079263
Pt Work				\$5,000										
NOTE: This appraisal has no allowance for profit and risk.														
Sheet 1 of 2														
Plans to be furnished by:														

SUMMARY - Road Development Costs												
SALENAME:	Lyre Lyre	CONTRACT#:	30-104811	REGION:	Olympic	DISTRICT:	Stratis					
LEGAL DESCRIPTION:	0											
ROAD NAME:	3-00 Spur	PA-J-3115	EquipPaddA	EquipPaddB	PA-J-3116	PA-J-3000	PA-J-3010	PA-J-3100	PA-J-2600	PA-J-2610	PA-J-2620	POSTHAUL
ROAD TYPE:	Construction	Construction	Construction	Construction	Construction	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Posthaul
NUMBER OF STATIONS:	2.00	20.50	1.00	1.00	5.00	72.50	13.55	67.20	14.00	12.00	6.50	234.00
SIDESLOPE:	20%	20%	40%	40%	20%	0%	0%	0%	0%	0%	0%	0%
CLEARING AND GRUBBING:	\$278	\$2,851	\$234	\$234	\$695	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ROAD BRUSHING:						\$1,305	\$244	\$1,210	\$252	\$216	\$117	\$0
EXCAVATION AND FILL:	\$452	\$4,633	\$480	\$480	\$1,130	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ROAD GRADING:						\$471	\$88	\$0	\$91	\$78	\$42	\$1,160
DITCH CLEANING/CONSTRUCTION:						\$0	\$0	\$0	\$0	\$0	\$0	\$0
ROCK TOTALS (Cr. Yds.)/ROCK COSTS:												
Ballast:	270	1885	200	200	440	0	630	0	0	0	0	0
	\$7,349	\$25,962	\$5,134	\$5,134	\$7,207	\$0	\$10,319	\$0	\$0	\$0	\$0	\$0
Surface:	20	230	0	0	20	300	80	30	0	0	0	0
	\$323	\$6,203	\$0	\$0	\$323	\$4,839	\$1,290	\$484	\$0	\$0	\$0	\$0
Oversize:	2	5	0	0	2	0	0	0	0	0	0	0
	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CULVERTS AND FLOWS:	\$2,156	\$5,236	\$0	\$0	\$0	\$0	\$3,234	\$0	\$0	\$0	\$0	\$0
STRUCTURES:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MISC. EXPENSES:	\$12	\$120	\$6	\$6	\$29	\$0	\$0	\$0	\$0	\$0	\$0	\$4,044
OVERHEAD:	\$946	\$3,600	\$468	\$468	\$751	\$595	\$1,366	\$152	\$31	\$26	\$14	\$572
TOTAL COSTS:	\$11,415	\$48,606	\$6,323	\$6,323	\$10,135	\$7,211	\$16,542	\$1,846	\$374	\$320	\$174	\$5,776
COST PER STATION:	\$5,707.72	\$2,371.02	\$6,322.72	\$6,322.72	\$2,027.04	\$99.46	\$1,220.78	\$27.47	\$26.71	\$26.71	\$26.71	\$24.68

## **Forest Access Road Maintenance Specifications**

### **Cuts and Fills**

- Maintain slope lines to a stable gradient compatible with the construction materials cut slope/fill slope ratios. Remove slides up to 100 cubic yards in volume from ditches and the roadway. Repair fill-failures, in accordance with Clause 4-6 EMBANKMENT SLOPE RATIO, with selected material or material approved by the Contract Administrator. Remove overhanging material from the top of cut slopes.
- Waste material from slides or other sources shall be placed and compacted in stable locations identified in the road plan or approved by the Contract Administrator, so that sediment will not deliver to any streams or wetlands.
- Slide material and debris shall not be mixed into the road surface materials, unless approved by the Contract Administrator.

### **Surface**

- Grade, shape, compact the road surface, turnouts, and shoulders to the original shape on the TYPICAL SECTION SHEET Inslope or outslope as directed, 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**

### Preventative Maintenance

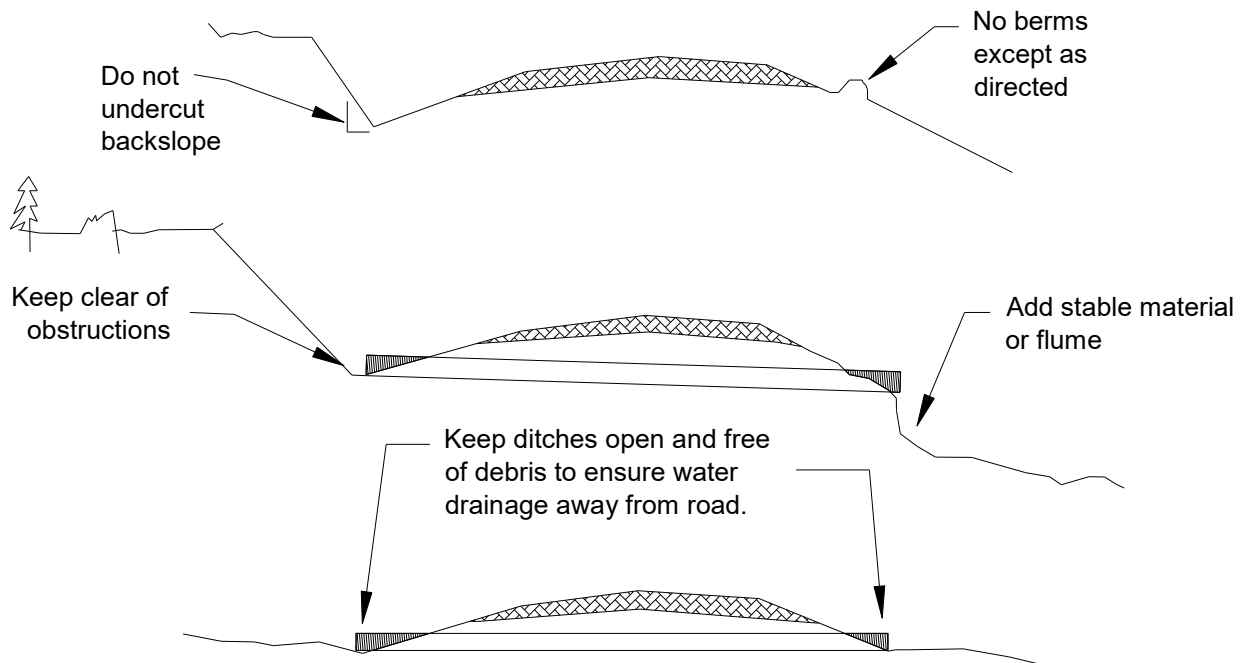
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

### Termination of Use or End of Season

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

### Debris

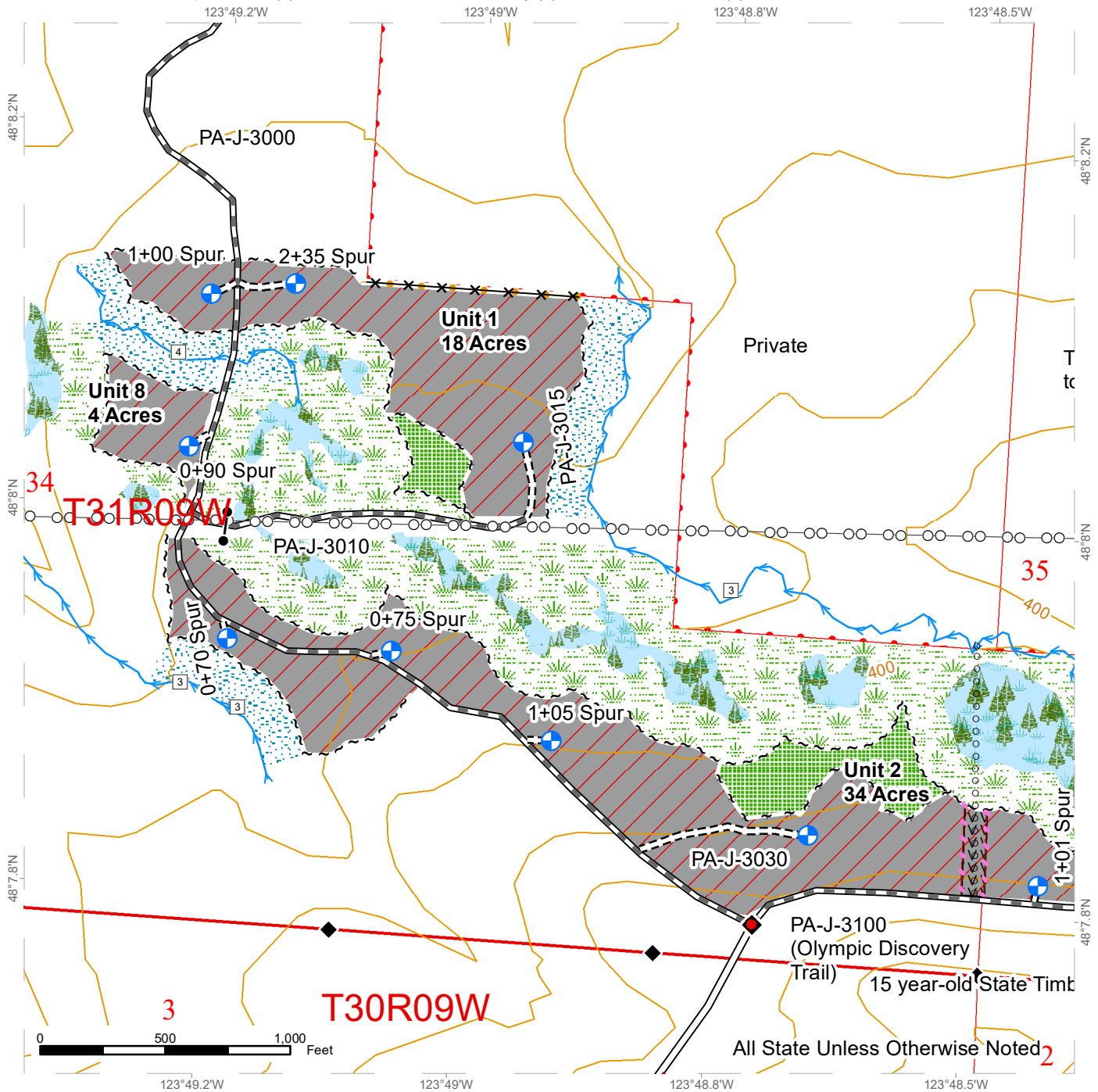
- Remove fallen timber, limbs, and stumps from the slopes, roadway, ditchlines, and culvert inlets.



# LOGGING PLAN MAP

SALE NAME: LYRE LYRE  
 AGREEMENT#: 30-104811  
 TOWNSHIP(S): T30R9W, T31R9W  
 TRUST(S): Capitol Grant (7), Common School and Indemnity (3), State Forest Transfer (1)

REGION: Olympic Region  
 COUNTY(S): Clallam  
 ELEVATION RGE: 280-700'



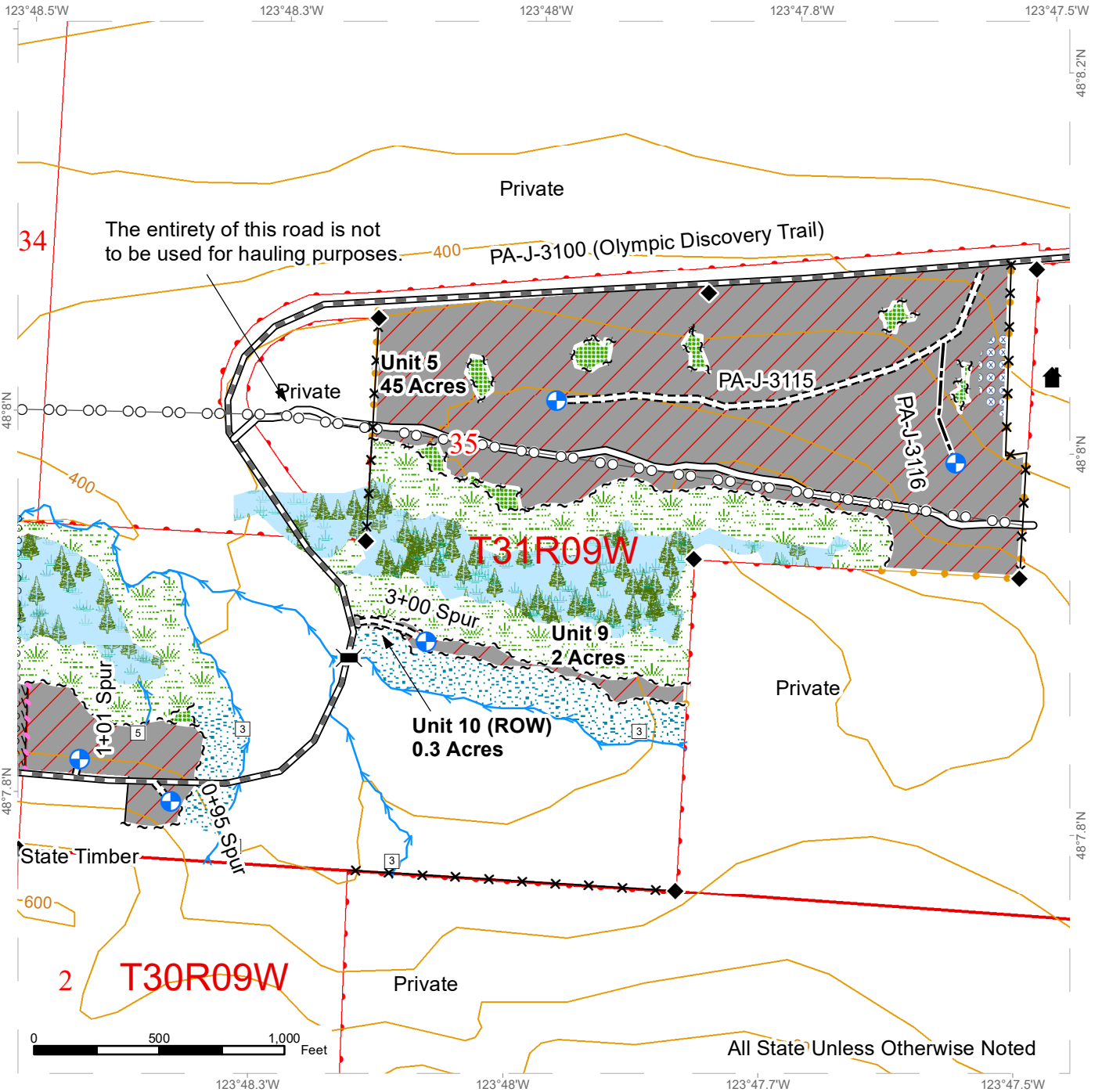
	Variable Retention Harvest		Gate (AA1)		Olympic Discovery Trail		Existing Road
	Ground		Landing - Proposed		Sale Boundary Tags		Optional Construction
	Leave Tree Area		Structure		Designated Equipment Trail		Required Pre-Haul Maintenance
	Riparian Mgt Zone		Bridge		Pink and Red Flag Line		Required Construction
	Forested Wetland		Bollard (AA1)		Leave Tree Tags		Required Reconstruction
	Wetland Mgt Zone		Stream Type		Right of Way Tags		Fence
	Equipment Exclusion Zone		Stream Type Break		Timber Type Change		Power Lines
	Hazard Abatement Area		Streams		Take / Removal Trees		Waterline
	Survey Monument				Contours 40-foot		



# LOGGING PLAN MAP

**SALE NAME:** LYRE LYRE  
**AGREEMENT#:** 30-104811  
**TOWNSHIP(S):** T30R9W, T31R9W  
**TRUST(S):** Capitol Grant (7), Common School and Indemnity (3), State Forest Transfer (1)

**REGION:** Olympic Region  
**COUNTY(S):** Clallam  
**ELEVATION RGE:** 280-700'



All State Unless Otherwise Noted

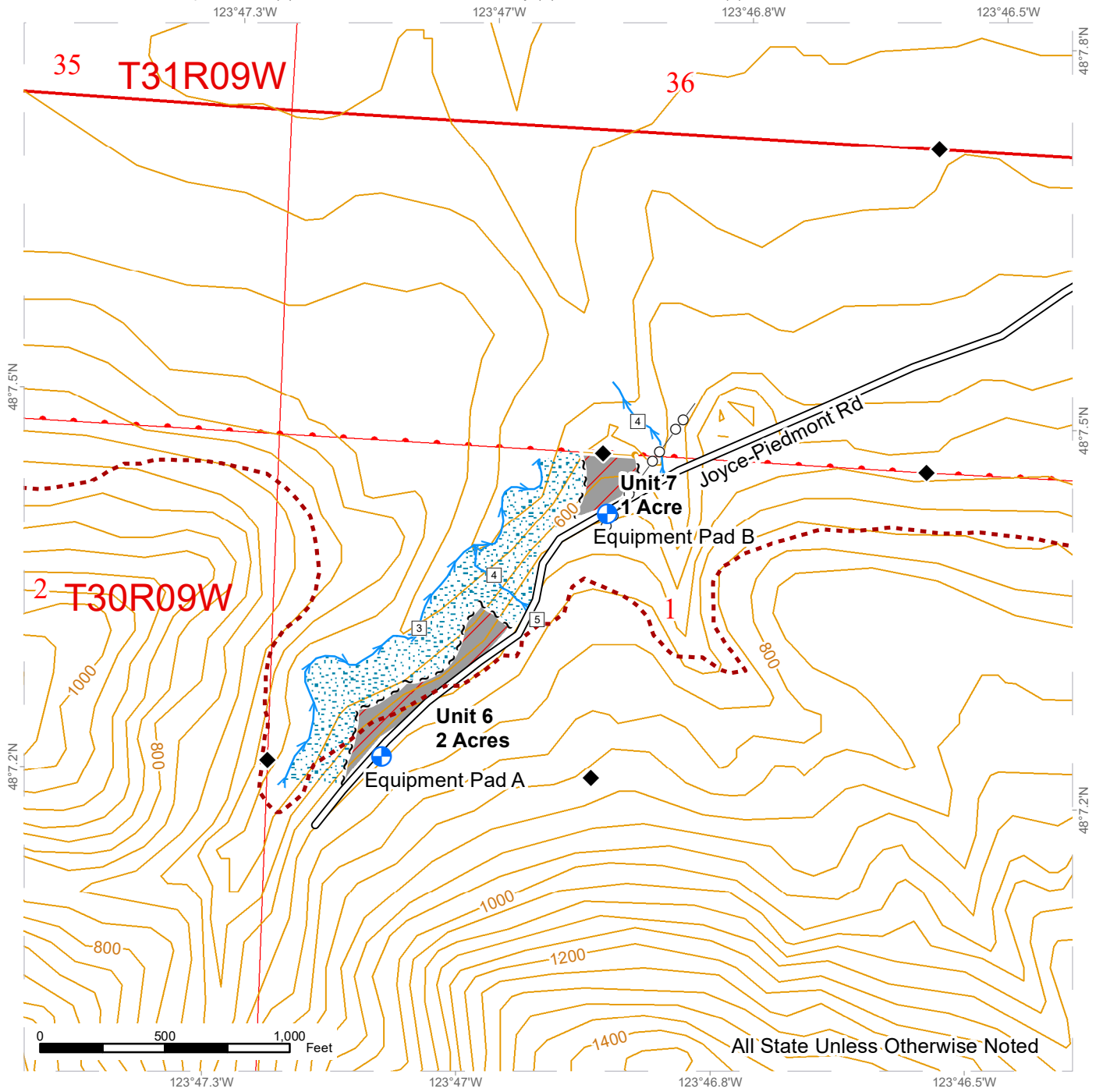
	Variable Retention Harvest		Gate (AA1)		Olympic Discovery Trail		Existing Road
	Ground		Landing - Proposed		Sale Boundary Tags		Optional Construction
	Leave Tree Area		Structure		Designated Equipment Trail		Required Pre-Haul Maintenance
	Riparian Mgt Zone		Bridge		Pink and Red Flag Line		Required Construction
	Forested Wetland		Bollard (AA1)		Leave Tree Tags		Required Reconstruction
	Wetland Mgt Zone		Stream Type		Right of Way Tags		Fence
	Equipment Exclusion Zone		Stream Type Break		Take / Removal Trees		Power Lines
	Hazard Abatement Area		Streams		Timber Type Change		Waterline
	Survey Monument				Contours 40-foot		



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SALE NAME: LYRE LYRE  
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Variable Retention Harvest	Gate (AA1)	Olympic Discovery Trail	Existing Road
Ground	Landing - Proposed	Sale Boundary Tags	Required Pre-Haul Maintenance
Leave Tree Area	Structure	Designated Equipment Trail	Required Construction
Riparian Mgt Zone	Bridge	Pink and Red Flag Line	Required Reconstruction
Forested Wetland	Bollard (AA1)	Leave Tree Tags	Fence
Wetland Mgt Zone	Stream Type	Right of Way Tags	Power Lines
Equipment Exclusion Zone	Stream Type Break	Take / Removal Trees	Waterline
Hazard Abatement Area	Streams	Timber Type Change	Contours 40-foot
Survey Monument			

