TIMBER NOTICE OF SALE

SALE NAME: MT PLEASANT

AGREEMENT NO: 30-102027

AUCTION: May 25, 2022 starting at 10:00 a.m., COUNTY: Clallam
Olympic Region Office, Forks, WA

SALE LOCATION: Sale located approximately 13 miles south of Port Angeles

PRODUCTS SOLD AND SALE AREA: All timber except trees marked with a ring of blue paint, bounded out by Leave Tree Area tags, downed red cedar, or timber that has been on the ground for five years or more (five years is defined by more than 1.5 inches of sap rot); bounded by Timber Sale Boundary tags, the PA-F-1100 Road, and red painted Take trees in Unit 2; Timber Sale Boundary tags and red painted Take trees in Unit 5; Timber Sale Boundary Tags, the PA-F-1000 Road, a distinct timber type change, and a pink flagging line in Unit 7.

All timber bounded by Right Of Way tags.

All forest products above located on part(s) of Sections 25, 35 and 36 all in Township 30 North, Range 6 West, W.M., containing 88 acres, more or less.

CERTIFICATION: This sale is certified under the Sustainable Forestry Initiative® program Standard (cert no: PwC-SFIFM-513)

ESTIMATED SALE VOLUMES AND QUALITY:

<table>
<thead>
<tr>
<th>Species</th>
<th>Avg DBH</th>
<th>Ring Count</th>
<th>Total MBF</th>
<th>1P</th>
<th>2P</th>
<th>3P</th>
<th>SM</th>
<th>1S</th>
<th>2S</th>
<th>3S</th>
<th>4S</th>
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<tbody>
<tr>
<td>Douglas fir</td>
<td>12.4</td>
<td>7</td>
<td>425</td>
<td>71</td>
<td>175</td>
<td>174</td>
<td>5</td>
<td></td>
<td></td>
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<tr>
<td>Hemlock</td>
<td>14.2</td>
<td>7</td>
<td>375</td>
<td>100</td>
<td>170</td>
<td>93</td>
<td>12</td>
<td></td>
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<tr>
<td>Red alder</td>
<td>11.7</td>
<td>117</td>
<td></td>
<td>6</td>
<td>110</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Red cedar</td>
<td>13.2</td>
<td></td>
<td>94</td>
<td>46</td>
<td>49</td>
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<tr>
<td>Maple</td>
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<td>53</td>
<td>1</td>
<td></td>
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<tr>
<td>Spruce</td>
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<td>52</td>
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<td>17</td>
<td>32</td>
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<tr>
<td>Grand fir</td>
<td>25</td>
<td>15</td>
<td></td>
<td>5</td>
<td>11</td>
<td></td>
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<tr>
<td>Sale Total</td>
<td></td>
<td>1,138</td>
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</table>

MINIMUM BID: $308,000.00

BID METHOD: Sealed Bids

PERFORMANCE SECURITY: $61,600.00

SALE TYPE: Lump Sum

EXPIRATION DATE: October 31, 2023

ALLOCATION: Export Restricted

BID DEPOSIT: $30,800.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

HARVEST METHOD: Cable, and Ground based equipment. 100% Ground Based.

Forest products sold under this contract shall be harvested and removed using ground based equipment.
TIMBER NOTICE OF SALE

Self-leveling tracked equipment is allowed throughout the sale. Other ground based equipment is limited to tracked equipment on sustained slopes that are 45 percent and less. Rubber tired skidders are prohibited unless the conditions of H-017 can be met and a Purchaser Harvest Plan is submitted. The Purchaser Harvest Plan must be approved in writing 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.

A 30’ equipment limitation zone applies to all typed waters unless approved by the Contract Administrator.

Falling and Yarding will not be permitted from November 1 to April 30, on weekends, State recognized Holidays or from 8:00 pm to 6:00 am unless authorized in writing by the Contract Administrator.

ROADS:

24.10 stations of required reconstruction. 4.10 stations of optional construction. 13.60 stations of optional reconstruction. 146.75 stations of required prehaul maintenance.

All road activities, including timber and rock hauling will not be permitted from November 1 to April 30, on weekends, State recognized Holidays, or from 8:00 pm to 6:00 am 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: $19,346.00 is due on day of sale. $9.00 per MBF is due upon removal. These are in addition to the bid price.

SPECIAL REMARKS: Units 1, 3, 4, and 6 where removed from this proposal. All documents have been updated to reflect this change.

There is a locked gate on the PA-F-1000 Road. Contact the Olympic Region Dispatch Center at 360-374-2800 to obtain an AA-1 key.

There are Hazard Abatement requirements in Units 2 & 5 as shown on the Timber Sale Maps.

Purchaser may develop an existing rock source called Barnes Barrow Pit, in accordance with the written Rock Source Development and Plan included in the road plan.

Rock identified to be used out of a State lands rock pit shall meet specifications as identified within the Road Plan, as determined by the Contract Administrator. If the rock does not meet required specifications, a commercial source shall be used at the Purchaser’s expense.

All trees 60 inches in Diameter at Breast Height (DBH) and greater shall not be felled unless for safety reasons, which must be approved by the Contract Administrator. If trees 60 inches DBH or greater needs to be felled for safety reasons, trees will be left where felled.
Optional Pre-Haul Maintenance

Stream Type Break

Leave Tree Tags

Forested Wetland

Wetland Management Zone

Hazard Abatement Area

Sale Boundary Tags

Right of Way Tags

Take / Removal Trees

Flag Line

Timber Type Change

Streams

Stream Type

Stream Type Break

Variable Retention Harvest

Leave Tree Area

Riparian Managment Zone

Forest Management Zone

All State Unless Otherwise Noted

Region: Olympic Region

County(s): Clallam

Elevation Range: 1320' - 2520'

Sale Name: MT. PLEASANT

Agreement #: 30-102027

Township(s): T29R5W, T30R6W

Common School and Indemnity (3), State Forest Transfer (1)

Unit 2

12 Acres

Unit 7

65 Acres

Unit 8 (ROW)

0.2 Acres

Private Timber

Barnes Borrow

PA-F-1000

Baker Farm Rd

PA-F-1100

PA-F-1120

Morse Rd

PA-F-1000

1 Year Old State Reprod

Pit

Waste Area

Culvert

Structure

Gate (AA1)

Proposed Landing

Distance Units: Feet

Prepared By: jstz490

Modification Date: cpag490 3/25/2022
Barnes Borrow: From Hwy 101 turn south onto Mt. Pleasant Rd. for 4 miles and turn right onto the PA-F-1000. Drive west on the PA-F-1000 for 0.4 miles and veer right onto the PA-F-1100. Drive west on the PA-F-1100 for 0.25 miles to Barnes Borrow.

Unit 5: From Barnes Borrow, continue west on the PA-F-1000 for 0.5 miles to Unit 5.

Unit 2: From unit 5 walk west on the old PA-F-1100 road grade for approximately 550 feet to Unit 2.

Unit 8 (ROW): From Unit 2, continue walking west on the PA-F-1100 for 1,100 feet. Unit 8 will be on your left.

Unit 7: From Hwy 101, head south on Monroe Rd. for 2.6 miles and turn right on Baker Farm Rd. Continue on Baker Farm Rd. for 0.4 miles before turning right onto the PA-F-1000. Head south on the PA-F-1000 for 1.3 miles to reach Unit 7.
STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

BILL OF SALE AND CONTRACT FOR
FOREST PRODUCTS

Export Restricted Lump Sum AGREEMENT NO. 30-0102027

SALE NAME: MT PLEASANT

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

Section G: General Terms

G-001 Definitions

The following definitions apply throughout this contract;

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

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

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

Purchaser: The company or individual that has entered into a Bill of Sale and Contract for Forest Products with the State for the right to harvest and remove forest products from the timber sale area.
Road Construction: Includes building new and maintaining existing forest roads and associated work that may be optional or required as described in the Road Plan.

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

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

G-011 Right to Remove Forest Products and Contract Area

Purchaser was the successful bidder on May 25, 2022 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 ring of blue paint, bounded out by Leave Tree Area tags, downed red cedar, or timber that has been on the ground for five years or more (five years is defined by more than 1.5 inches of sap rot); bounded by Timber Sale Boundary tags, the PA-F-1100 Road, and red painted Take trees in Unit 2; Timber Sale Boundary tags and red painted Take trees in Unit 5; Timber Sale Boundary Tags, the PA-F-1000 Road, a distinct timber type change, and a pink flagging line in Unit 7.

All timber bounded by Right Of Way tags.

All forest products above located on approximately 88 acres on part(s) of Sections 25, 35, and 36 all in Township 30 North, Range 6 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 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:

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Slash Piling Specifications -Straits</td>
</tr>
<tr>
<td>B</td>
<td>Green Tree Retention Plan</td>
</tr>
</tbody>
</table>

G-031 Contract Term

Purchaser shall complete all work required by this contract prior to October 31, 2023.

G-040 Contract Term Adjustment - No Payment

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

a. Road and bridge failures which deny access.

b. Access road closures imposed by road owner.

c. Excessive suspensions as provided in clause G-220.

d. Regulatory actions not arising from Purchaser's failure to comply with this contract which will prevent timber harvest for a period less than 6 months.

G-051 Contract Term Extension - Payment

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

a. A written request for extension of the contract term must be received prior to the expiration date of the contract.

b. Completion of all required roads and compliance with all contract and regulatory requirements.

c. For the first extension, not to exceed 1 year, payment of at least 25 percent of the total contract price.
For the second extension, not to exceed 1 year, payment of at least 90 percent of the total contract price.

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

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

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

e. Payment of $1,079.00 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-062 Habitat Conservation Plan

The State has entered into a Habitat Conservation Plan (HCP) with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (the Services) to address state trust land management issues relating to compliance with the Federal Endangered Species Act. The activities to be carried out under this contract are located within the State’s HCP area and are subject to the terms and conditions of the HCP, and the Services’ Incidental Take Permit Nos. TE812521-1 and 1168 (collectively referred to as ITP), or as amended hereafter by the Services. The ITP authorizes the incidental take of certain federally listed threatened and endangered species, as specified in the ITP conditions. All HCP materials, including the ITP, are available for review at the State’s Regional Offices and the administrative headquarters in Olympia, Washington.

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

Any modifications to the contract shall be proposed in writing by Purchaser, shall continue to meet the terms and conditions of the HCP and ITP, and shall require the prior written approval of the Region Manager before taking effect.
G-063 Incidental Take Permit Notification Requirements

a. Purchaser shall immediately notify the Contract Administrator of new locations of permit species covered by the Incidental Take Permits (ITP) that are discovered within the area covered by the State’s Habitat Conservation Plan (HCP), including, but not limited to: locations of occupied murrelet habitat; spotted owl nest sites; wolves; grizzly bears; nests, communal roosts, or feeding concentrations of bald eagles; peregrine falcon nests; Columbian white-tailed deer; Aleutian Canada geese; Oregon silverspot butterflies; and additional stream reaches found to contain bull trout. Purchaser is required to notify the Contract Administrator upon discovery of any fish species found in streams or bodies of water classified as non-fish bearing. In all circumstances, notification must occur within a 24 hour time period.

b. Upon locating any live, dead, injured, or sick specimens of any permit species covered by the ITP, Purchaser shall immediately notify the Contract Administrator. Purchaser shall notify the Contract Administrator if there is any doubt as to the identification of a discovered permit species. Purchaser may be required to take certain actions to help the Contract Administrator safeguard the well-being of any live, injured or sick specimens of any permit species discovered, until the proper disposition of such specimens can be determined by the Contract Administrator. Any such requirements will be explained to Purchaser by the Contract Administrator during the Pre-Work Conference. In all circumstances, notification must occur within a 24 hour time period.

c. Purchaser shall refer to a specific ITP number, ITP TE812521-1 or ITP 1168 (copies which are located in the region office) in all correspondence and reports concerning permit activities.

d. Provisions and requirements of the ITP shall be clearly presented and explained to Purchaser by Contract Administrator during the Pre-Work Conference as per contract clause G-330. All applicable provisions of the ITP and this schedule must be presented and clearly explained by Purchaser to all authorized officers, employees, contractors, or agents of Purchaser conducting authorized activities in the timber sale area. Any questions Purchaser may have about the ITP should be directed to the Contract Administrator.

G-064 Permits

Purchaser is responsible for obtaining any permits not already obtained by the State that relate to Purchaser's operation. Forest Practice Application / Hydraulic Project Approval permits obtained by the State shall be transferred to Purchaser. Purchaser is responsible for all permits, amendments and renewals.
G-065  Regulatory Disclaimer

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

G-066  Governmental Regulatory Actions

a.  Risk

Purchaser shall be responsible for any increased operational costs arising from any applicable foreign or domestic governmental regulation or order that does not cause contract performance to become commercially impracticable or that does not substantially frustrate the purpose of the contract. If impracticability or frustration results from Purchaser's failure to comply with this contract, Purchaser shall remain responsible for payment of the total contract price notwithstanding the impracticability or frustration.

b.  Sale Area

When portions of the sale area become subject to a foreign or domestic governmental regulation or order that will likely prevent timber harvest for a period that will exceed the expiration date of this contract, and Purchaser has complied with this contract, the following shall apply:

i.  RCW 79.15.140 shall govern all adjustments to the contract area.

c.  Adjustment of Price

The State shall adjust the total contract price by subtracting from the total contract price an amount determined in the following manner: The State shall cause the timber sale area subject to governmental regulation or order to be measured. The State shall calculate the percentage of the total sale area subject to the governmental regulation or order. The State shall reduce the total contract price by that calculated percentage. However, variations in species, value, costs, or other items pertaining to the affected sale area will be analyzed and included in the adjustment if deemed appropriate by the State. The State will further reduce the total contract price by the reasonable cost of unamortized roads Purchaser constructed but was unable to fully use for removing timber. A reduction in total contract price terminates all of the Purchaser's rights to purchase and remove the timber and all other interest in the affected sale area.

G-070  Limitation on Damage

In the event of a breach of any provision of this contract by the State, the exclusive remedy available to Purchaser will be limited to a return of the initial deposit, unapplied payments, and credit for unamortized improvements made by Purchaser.
The State shall not be liable for any damages, whether direct, incidental or consequential.

G-080 Scope of State Advice

No advice by any agent, employee, or representative of the State regarding the method or manner of performing shall constitute a representation or warranty that said method, manner or result thereof will conform to the contract or be suitable for Purchaser's purposes under the contract. Purchaser's reliance on any State advice regarding the method or manner of performance shall not relieve Purchaser of any risk or obligation under the contract. Purchaser retains the final responsibility for its operations under this contract and State shall not be liable for any injuries resulting from Purchaser's reliance on any State advice regarding the method or manner of performance.

G-091 Sale Area Adjustment

The Parties may agree to adjustments in the sale area boundary. The cumulative changes to the sale area during the term of the contract shall not exceed more than four percent of the original sale area. If the sale area is increased, the added forest products become a part of this contract. The State shall determine the volume added and shall calculate the increase to the total contract price using the rates set forth in clause G-101, G-102, or G-103. If the sale area is reduced, the State shall determine the volume to be reduced. The State shall calculate the reduction to the total contract price using the rates set forth in clause G-101, G-102, or G-103.

G-101 Forest Products Not Designated

Any forest products not designated for removal, which must be removed in the course of operations authorized by the State, shall be approved and designated by the Contract Administrator. Added forest products become a part of this contract and the Scribner log scale volume, as defined by the Northwest Log Rules Advisory Group, shall be determined by the Contract Administrator. Added forest products shall be paid for at the following contract payment rates per Mbf Scribner log scale.

The pricing schedule has not been set for the sale.

G-106 Adding Naturally Damaged Forest Products

Any forest products not designated for removal that are seriously damaged by disease, insects or wind, or that may contribute seriously to the spread of insect or disease damage may be added to this sale by the State's Contract Administrator. Additions must be in unlogged areas of the sale and added volume shall not exceed an amount equal to 10 percent of the original advertised volume. Added forest products become a part of this contract and shall be paid for at the rate set forth in clause G-101, G-102 or G-103.

G-111 Title and Risk of Loss

Title to the forest products under this contract passes to the Purchaser after they are removed from the sale area, if adequate advance payment or payment security has been provided to the State under this contract. Purchaser bears all risk of loss of, or damage to, and has an insurable interest in, the forest products described in this contract from
the time the sale is confirmed under RCW 79.15.120. Breach of this contract shall have no effect on this provision.

G-116 Sustainable Forestry Initiative® (SFI) Certification

Forest products purchased under this contract are certified as being in conformance with the Sustainable Forestry Initiative program Standard under certificate number: PwC-SFIFM-513.

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

G-120 Responsibility for Work

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

G-121 Exceptions

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

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

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

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

1. Failure of (a) required improvements or roads designated in clause C-050, or (b) required or optional construction completed to the point that authorization to haul has been issued;

2. Caused by a single event from forces beyond the control of Purchaser, its employees, agents, or invitees, including independent contractors; and

3. Includes, but is not limited to natural disasters such as earthquakes, volcanic eruptions, landslides, and floods.

The repair work identified by the State shall be promptly completed by Purchaser at an agreed price. The State may elect to accomplish repairs by means of State-provided resources.
For each event, Purchaser shall be solely responsible for the initial $5,000 in repairs. For repairs in excess of $5,000, the parties shall share equally the portion of costs between $5,000 and $15,000. The State shall be solely responsible for the portion of the cost of repairs that exceed $15,000.

Nothing contained in clauses G-120 and G-121 shall be construed as relieving Purchaser of responsibility for, or damage resulting from, Purchaser's operations or negligence, nor shall Purchaser be relieved from full responsibility for making good any defective work or materials. Authorization to haul does not warrant that Purchaser built roads are free from material defect and the State may require additional work, at Purchaser's 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. Purchaser's obligations to indemnify, defend, and hold harmless includes any claim by Purchaser's 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 Purchaser's or any subcontractors' performance or failure to perform the contract. Purchaser's 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.

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-F-1000, PA-F-1030, PA-F-1100, PA-F-1111, and PA-F-1120. 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-F-1000, unless authority is granted in writing by the Contract Administrator.

G-380 Road Easement and Road Use Permit Requirements

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

Easement # 55-000408 – K.L. Siebel
G-396  Public Hauling Permit

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

G-430  Open Fires

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

G-450  Encumbrances

This contract and Purchaser's activities are subject to the following:

DATA MISSING

Section P: Payments and Securities

P-011  Initial Deposit

Purchaser paid DATA MISSING initial deposit, which will be maintained pursuant to RCW 79.15.100(3). If the operating authority on this contract expires without Purchaser's payment of the full amount specified in Clause P-020, the initial deposit will be immediately forfeited to the State, and will be offset against Purchaser's remaining balance due. Any excess initial deposit funds not needed to ensure full payment of the contract price, or not needed to complete any remaining obligations of the Purchaser existing after contract expiration, will be refunded to the Purchaser.

P-020  Payment for Forest Products

Purchaser agrees to pay the total, lump sum contract price of $29,588.00. The total contract price consists of a $0.00 contract bid price plus $29,588.00 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 $61,600.00. The Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by operations under this contract or resulting from Purchaser's noncompliance with any rule or law. Acceptable performance security may be in the form of a performance bond, irrevocable letter of credit, cash, savings or certificate of deposit account assignments, and must name the State as the obligee or beneficiary. A letter of credit must comply with Title 62A RCW, Article 5. Performance security must remain in full force over the duration of the contract length. Surety bonds issued shall conform to the issuance and rating requirements in clause G-150. The State shall retain the performance security pursuant to RCW 79.15.100. Purchaser shall not operate unless the performance security has been accepted by the State. If at any time the State decides that the security document or amount has become unsatisfactory, Purchaser agrees to suspend operations and, within 30 days of notification, to replace the security with one acceptable to the State or to supplement the amount of the existing security.

P-100 Performance Security Reduction

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

Section H: Harvesting Operations

H-001 Operations Outside the Sale Boundaries

No operations shall occur outside the sale boundaries, as described within the contract, unless approved in writing by the State.

H-010 Cutting and Yarding Schedule

Falling and Yarding will not be permitted from November 1 to April 30, on weekends or State recognized holidays, or between the hours of 8:00pm and 6:00am 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-040 Purchaser Harvest Plan

Purchaser shall, as part of the plan of operations, prepare an acceptable harvest plan for utilizing rubber tired skidders in the sale area. The plan shall address the location and timing of desired use, which are part(s) of this contract. The harvest plan shall be approved by the Contract Administrator prior to beginning the harvest operation. Purchaser shall not deviate from the harvest plan without prior written approval 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 ring trees along boundary of Units 2 & 5 shall be felled concurrently with the falling operation. Red ringed take trees are included with designated products sold.

H-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using Self-leveling tracked equipment is allowed throughout the sale. Other ground based equipment is limited to tracked equipment on sustained slopes that are 45 percent and less.

Rubber tired skidders are prohibited unless the conditions of H-017 can be met and a Purchaser Harvest Plan is submitted. The Purchaser Harvest Plan must be approved in writing by the Contract Administrator.

A 30’ equipment limitation zone applies to all typed waters 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-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities. Purchaser shall fully suspend log over streams during logging operations. See approved FPA to possible alternatives.

H-126 Tailholds on State Land

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

H-130 Hauling Schedule

The hauling of forest products will not be permitted on all roads from November 1 to April 30, on weekends or State recognized holidays, or between the hours of 8:00pm to 6:00am, 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, beginning road construction/reconstruction or digging next to the PA-F-1000 and PA-F-1100 roads.

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 and/or hauling timber, 2 Warning signs must be posted on the PA-H-1000 and PA-F-1100 roads.

4. Yarding equipment shall not cross live streams without an FPA/FPHP.

5. For ground-based logging activities, temporary crossings across Type 5 streams shall adhere to the approved FPA and must be pre-approved in writing by the Contract Administrator.

6. 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.

7. All trees 60 inches in Diameter at Breast Height (DBH) and greater shall not be felled unless for safety reasons, which must be approved by the Contract Administrator. If trees 60 inches DBH or greater needs to be felled for safety reasons, trees will be left where felled.

8. Rock identified to be used out of a State lands rock pit shall meet specifications as identified within the Road Plan, which will be determined by the Contract Administrator. If the rock does not meet the specifications, a commercial source shall be used that does and at the Purchaser’s expense.

9. Contractor 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.

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 2/15/2022 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair
Purchaser shall perform work at their own expense on all roads listed in the Road Plan, authorized in clause G-310, and not listed in clause C-060. 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-F-1000. 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-F-1000, as directed by the Contract Administrator.

C-140 Water Bars
Purchaser shall, as directed by the Contract Administrator, construct water bars across haul roads, skid trails and fire trails as necessary to control soil erosion and water pollution.

Section S: Site Preparation and Protection
S-001 Emergency Response Plan
An Emergency Response Plan (ERP) shall be provided to the Contract Administrator containing but not limited to, valid contact numbers and procedures for medical emergencies, fire, hazardous spills, forest practice violations and any unauthorized or unlawful activity on or in the vicinity of the sale area. The Contract Administrator and
the State shall be promptly notified whenever an incident occurs requiring an
emergency response.

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

S-010 Fire Hazardous Conditions

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

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

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

S-020 Extreme Hazard Abatement

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

S-030 Landing Debris Clean Up

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

S-035 Logging Debris Clean Up

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

S-050 Cessation of Operations for Low Humidity

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

S-060 Pump Truck or Pump Trailer

Purchaser shall provide a fully functional pump truck or pump trailer equipped to meet
the specifications of WAC 332-24-005 and WAC 332-24-405 during the "closed
season" or as extended by the State and shall provide trained personnel to operate this
equipment on the sale area during all operating periods.
S-100 Stream Cleanout
Slash or debris which enters any live water 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 feet of any live water unless authority is granted in writing by the Contract Administrator.

S-120 Stream Protection
No timber shall be felled into, across, or yared 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.

Section D: Damages

D-013 Liquidated Damages or Failure to Perform

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

Clause P-020 governs Purchaser’s liability in the event Purchaser fails to perform any of the contract requirements other than the below liquidated damage clauses without written approval by the State. Purchaser’s failure to pay for all or part of the forest products sold in this contract prior to expiration of the contract term results in substantial injury to the State. Therefore, Purchaser agrees to pay the State the full lump sum contract price in P-020 in the event of failure to perform.
D-041 Reserve Tree Excessive Damage

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

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 Mona Griswold
_____________________________  Olympic Region Manager
Print Name

Date: ________________  Date: _________________
Address:
CORPORATE ACKNOWLEDGEMENT  
(Required for both LLC and Inc. Entities)

STATE OF ____________________________)  
COUNTY OF ____________________________)  

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

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

____________________________________
Notary Public in and for the State of

____________________________________
My appointment expires ______________
Schedule A
Slash Piling Specifications - Straits

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 burnable 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, and 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 may be placed in skid roads or ahead of machinery. Slash which accumulates on landings and/or roads may be lopped and scattered within the harvest area or as designated by the Contract Administrator.

G. Slash generated during cable yarding shall be stacked in dirt free piles and shall not block roads or interfere with functioning of drainage structures, ditches, or stream channels.

H. Slash generated during felling and yarding within 100 feet of county roads and 200 feet of structures must be pulled back to reduce the residual volume to less than 9 tons per acre of material 3 inches and less in diameter in accordance with WAC 332-24-650, extreme fire hazard requiring abatement, and approved by the Contract Administrator.

I. Slash and displaced soil shall be removed from swales, irrigation ditches, natural drainage channels, and access roads concurrent with yarding.

J. Purchaser may remove slash as biofuel.
Schedule B
Green Tree Retention Plan

Leave the following:

1. All trees banded with blue 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.

<table>
<thead>
<tr>
<th>Unit #</th>
<th># of Individually Marked Trees</th>
<th># of Clumps</th>
<th># of Trees Clumped</th>
<th>Total # of Leave Trees</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>40</td>
<td>1</td>
<td>24</td>
<td>64</td>
</tr>
<tr>
<td>5</td>
<td>20</td>
<td>2</td>
<td>76</td>
<td>96</td>
</tr>
<tr>
<td>7</td>
<td>93</td>
<td>4</td>
<td>435</td>
<td>528</td>
</tr>
</tbody>
</table>

Permission to substitute leave trees must be granted by the Contract Administrator.
**PRE-CRUISE NARRATIVE**

**Sale Name:** Mt. Pleasant  
**Region:** Olympic

**Agreement #:** 30-102027  
**District:** Straits

**Contact Forester:** John Schmeltz  
**Phone / Location:** 360-640-3308

**Alternate Contact:** Cody Pagel  
**Phone / Location:** 360-640-9996

<table>
<thead>
<tr>
<th>Unit #</th>
<th>Legal Description</th>
<th>Gross Proposal Acres</th>
<th>Deductions from Gross Acres</th>
<th>Net Harvest Acres</th>
<th>Acreage Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>RMZ/WMZ Acres</td>
<td>Leave Tree Acres</td>
<td>Existing Road Acres</td>
<td>Other Acres</td>
</tr>
<tr>
<td>1</td>
<td>Sec35/Town30/Ra ng06W</td>
<td>16.03 0 0 0 0</td>
<td>16</td>
<td>GPS (Garmin)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sec36/Town30/Ra ng06W</td>
<td>16.85 4 0.25 0.2 0.4</td>
<td>12</td>
<td>GPS (Garmin)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sec36/Town30/Ra ng06W</td>
<td>81.5 1 3 0.5 0</td>
<td>77</td>
<td>GPS (Garmin)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sec36/Town30/Ra ng06W</td>
<td>17 0 1 0 0</td>
<td>16</td>
<td>GPS (Garmin)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Sec36/Town30/Ra ng06W</td>
<td>18.4 6 1 0.4 0</td>
<td>11</td>
<td>GPS (Garmin)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Sec6/Town29/Ra ng05W</td>
<td>19 0 1 0 0</td>
<td>18</td>
<td>GPS (Garmin)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Sec36/Town30/Ra ng06W</td>
<td>76.5 2.2 3 4 2.7</td>
<td>65</td>
<td>GPS (Garmin)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Sec36/Town30/Ra ng06W</td>
<td>0.2 0 0 0 0</td>
<td>0.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL ACRES</strong></td>
<td></td>
<td>245.48 13 9.25 5.1 3.1</td>
<td>215</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Type of Sale:** Lump Sum  
**Harvest System:** Ground based Click here to enter text.  
85%  
**Harvest System:** Uphill Cable Click here to enter text.  
15%  
**Harvest System:** Select harvest system Click here to enter text.  
Click here to enter percent sale acres.
HARVEST PLAN AND SPECIAL CONDITIONS:

<table>
<thead>
<tr>
<th>Unit #</th>
<th>Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)</th>
<th>Special Management areas:</th>
<th>Other conditions (# leave trees, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>White Timber Sale boundary tags, pink flagging, pink flashers, blue butt marks.</td>
<td>None</td>
<td>Leave tree groups are marked with yellow leave tree tags, pink ribbon and blue paint. Individual trees are marked with a single blue band around the tree at eye level and blue dots at the base of the tree.</td>
</tr>
<tr>
<td>2</td>
<td>White Timber Sale boundary tags, pink flagging, pink flashers, blue butt marks. Take trees on the north management line are marked with red paint at eye eight and red butt marks.</td>
<td>None</td>
<td>Leave tree groups are marked with yellow leave tree tags, pink ribbon and blue paint. Individual trees are marked with a single blue band around the tree at eye level and blue dots at the base of the tree.</td>
</tr>
<tr>
<td>3</td>
<td>White Timber Sale boundary tags, pink flagging, pink flashers, blue butt marks.</td>
<td>None</td>
<td>Leave tree groups are marked with yellow leave tree tags, pink ribbon and blue paint. Individual trees are marked with a single blue band around the tree at eye level and blue dots at the base of the tree.</td>
</tr>
<tr>
<td>4</td>
<td>White Timber Sale boundary tags, pink flagging, pink flashers, blue butt marks.</td>
<td>None</td>
<td>Leave tree groups are marked with yellow leave tree tags, pink ribbon and blue paint. Individual trees are marked with a single blue band around the tree at eye level and blue dots at the base of the tree.</td>
</tr>
<tr>
<td>5</td>
<td>White Timber Sale boundary tags, pink flagging, pink flashers, blue butt marks. Take trees on the north management line are marked with red paint at eye eight and red butt marks.</td>
<td>None</td>
<td>Leave tree groups are marked with yellow leave tree tags, pink ribbon and blue paint. Individual trees are marked with a single blue band around the tree at eye level and blue dots at the base of the tree.</td>
</tr>
<tr>
<td>6</td>
<td>White Timber Sale boundary tags, pink flagging, pink flashers, blue butt marks.</td>
<td>None</td>
<td>Leave tree groups are marked with yellow leave tree tags, pink ribbon and blue paint. Individual trees are marked with a single blue band around the tree at eye level and blue dots at the base of the tree.</td>
</tr>
<tr>
<td>7</td>
<td>White Timber Sale boundary tags, pink flagging, pink flashers, blue butt marks.</td>
<td>None</td>
<td>Leave tree groups are marked with yellow leave tree tags, pink ribbon and blue paint. Individual trees are marked with a single blue band around the tree at eye level and blue dots at the base of the tree.</td>
</tr>
<tr>
<td>8</td>
<td>Orange Timber Sale boundary tags, pink flagging, pink flashers, blue butt marks.</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Revised 03/15/2010 (FRCD)
OTHER PRE-CRUISE INFORMATION:

<table>
<thead>
<tr>
<th>Unit #</th>
<th>Primary,secondary Species / Estimated Volume (MBF)</th>
<th>Access information (Gates, locks, etc.)</th>
<th>Photos, traverse maps required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>51 Take Mt. Pleasant Rd to the PA-F-1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>30 Take Mt. Pleasant Rd to the PA-F-1000 to the PA-F-1100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>193 Take Mt. Pleasant Rd to the PA-F-1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>45 Take Mt. Pleasant Rd to the PA-F-1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>30 Take Mt. Pleasant Rd to the PA-F-1000 to the PA-F-1100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>45 Take Mt. Pleasant Rd to the PA-F-1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>145 Take Mt. Pleasant Rd to the PA-F-1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL MBF</td>
<td>Click here to enter total mbf.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

REMARKS:
Will need an AA1 key for the PA-F-1000. Can also access the PA-F-1000 off Monroe Rd. to Baker Farm Rd.

Prepared By: John Schmeltz  
Date:            
Title: Forester  
CC:
Timber Sale Cruise Report  
Mt. Pleasant

Sale Name: MT PLEASANT  
Sale Type: LUMP SUM  
Region: OLYMPIC  
District: STRAITS  
Lead Cruiser: Kevin Peterson  
Other Cruisers: 

Cruise Narrative:  
Location:  
This sale is located off the PA-F-1000 on Mt Pleasant. The access is good to most of the units and a AA1 key is needed to open gate.

Cruise Design:  
I used a few different BAF combinations on this sale due to the variety of age classes. Please look at the report for what was used in each unit. Merch height was measured at 40% of the diameter at 16'. All logs were cruised in 40' lengths, except HQ DF@ 34' and RC @ 36'

Timber Quality:  
Unit 7: This stand was pretty variable. It contains DF, WH, and RA. Some of the areas in the stand are under productive and have big patches of sparse growth. Units 2 and 5 are all smaller units and contain a mixture of DF, WH and RC.

Timber Sale Notice Volume (MBF)

<table>
<thead>
<tr>
<th>Sp</th>
<th>DBH</th>
<th>Rings/In</th>
<th>Age</th>
<th>All</th>
<th>2 Saw</th>
<th>3 Saw</th>
<th>4 Saw</th>
<th>Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td>12.5</td>
<td>6.7</td>
<td>425</td>
<td>71</td>
<td>175</td>
<td>174</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>WH</td>
<td>14.2</td>
<td>7.0</td>
<td>375</td>
<td>100</td>
<td>170</td>
<td>93</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>RA</td>
<td>11.7</td>
<td></td>
<td>117</td>
<td>6</td>
<td>110</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>RC</td>
<td>13.2</td>
<td></td>
<td>94</td>
<td>46</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td>11.8</td>
<td></td>
<td>60</td>
<td>5</td>
<td>53</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>16.7</td>
<td></td>
<td>52</td>
<td>17</td>
<td>32</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GF</td>
<td>25.0</td>
<td></td>
<td>15</td>
<td>5</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALL</td>
<td>13.1</td>
<td>6.8</td>
<td>1,138</td>
<td>191</td>
<td>434</td>
<td>483</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Timber Sale Notice Weight (tons)

<table>
<thead>
<tr>
<th>Sp</th>
<th>All</th>
<th>2 Saw</th>
<th>3 Saw</th>
<th>4 Saw</th>
<th>Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td>4,186</td>
<td>702</td>
<td>1,741</td>
<td>1,712</td>
<td>31</td>
</tr>
<tr>
<td>WH</td>
<td>4,032</td>
<td>1,011</td>
<td>1,881</td>
<td>1,043</td>
<td>97</td>
</tr>
<tr>
<td>RA</td>
<td>1,292</td>
<td>48</td>
<td>1,238</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

1 of 11
<table>
<thead>
<tr>
<th>Sp</th>
<th>All</th>
<th>2 Saw</th>
<th>3 Saw</th>
<th>4 Saw</th>
<th>Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC</td>
<td>878</td>
<td>465</td>
<td>413</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td>582</td>
<td>45</td>
<td>522</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>483</td>
<td>164</td>
<td>276</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>GF</td>
<td>109</td>
<td>37</td>
<td></td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>ALL</td>
<td>11,561</td>
<td>1,921</td>
<td>4,447</td>
<td>4,972</td>
<td>221</td>
</tr>
</tbody>
</table>

Timber Sale Overall Cruise Statistics (Cut + Leave Trees)

<table>
<thead>
<tr>
<th>BA (sq ft/acre)</th>
<th>BA SE (%)</th>
<th>V-BAR (bf/sq ft)</th>
<th>V-BAR SE (%)</th>
<th>Net Vol (bf/acre)</th>
<th>Vol SE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>175.3</td>
<td>5.4</td>
<td>73.1</td>
<td>3.1</td>
<td>13,110</td>
<td>5.9</td>
</tr>
</tbody>
</table>

Timber Sale Unit Cruise Design

<table>
<thead>
<tr>
<th>Unit</th>
<th>Design</th>
<th>Cruise Acres</th>
<th>FMA Acres</th>
<th>N Plots</th>
<th>N Cruise Plots</th>
<th>N Void Plots</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT PLEASANT</td>
<td>B2C: VR, 2 BAF (40, 40 for some species) Measure/Count Plots, Sighting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U2</td>
<td>Ht = 0 ft</td>
<td>12.0</td>
<td>11.7</td>
<td>6</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>MT PLEASANT</td>
<td>B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U5</td>
<td>Ht = 0 ft</td>
<td>11.0</td>
<td>10.8</td>
<td>6</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>MT PLEASANT</td>
<td>B2C: VR, 2 BAF (40, 40 for some species) Measure/Count Plots, Sighting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U7</td>
<td>Ht = 0 ft</td>
<td>65.0</td>
<td>64.9</td>
<td>33</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>MT PLEASANT</td>
<td>B2C: VR, 2 BAF (54.44, 20 for some species) Measure/Count Plots, Sighting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U8</td>
<td>Ht = 0 ft</td>
<td>0.2</td>
<td>0.2</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>All</td>
<td></td>
<td>88.2</td>
<td>87.6</td>
<td>46</td>
<td>31</td>
<td>0</td>
</tr>
</tbody>
</table>

Timber Sale Log Grade x Sort Summary

<table>
<thead>
<tr>
<th>Sp</th>
<th>Status</th>
<th>Grade</th>
<th>Sort</th>
<th>Dia</th>
<th>Len</th>
<th>BF Gross</th>
<th>BF Net</th>
<th>Defect %</th>
<th>Tons</th>
<th>MBF Net</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td>LIVE</td>
<td>2 SAW</td>
<td>Domestic</td>
<td>12.8</td>
<td>40</td>
<td>880</td>
<td>799</td>
<td>9.3</td>
<td>701.7</td>
<td>70.4</td>
</tr>
<tr>
<td>DF</td>
<td>LIVE</td>
<td>3 SAW</td>
<td>Domestic</td>
<td>8.1</td>
<td>39</td>
<td>2,079</td>
<td>1,987</td>
<td>4.4</td>
<td>1,740.7</td>
<td>175.3</td>
</tr>
<tr>
<td>DF</td>
<td>LIVE</td>
<td>4 SAW</td>
<td>Domestic</td>
<td>5.4</td>
<td>27</td>
<td>2,038</td>
<td>1,976</td>
<td>3.0</td>
<td>1,712.0</td>
<td>174.3</td>
</tr>
<tr>
<td>DF</td>
<td>LIVE</td>
<td>Utility</td>
<td>Pulp</td>
<td>5.0</td>
<td>16</td>
<td>53</td>
<td>53</td>
<td>0.0</td>
<td>31.2</td>
<td>4.7</td>
</tr>
<tr>
<td>GF</td>
<td>LIVE</td>
<td>3 SAW</td>
<td>Domestic</td>
<td>10.2</td>
<td>40</td>
<td>51</td>
<td>51</td>
<td>0.0</td>
<td>36.9</td>
<td>4.5</td>
</tr>
<tr>
<td>GF</td>
<td>LIVE</td>
<td>Utility</td>
<td>Pulp</td>
<td>17.3</td>
<td>32</td>
<td>122</td>
<td>122</td>
<td>0.0</td>
<td>72.1</td>
<td>10.8</td>
</tr>
<tr>
<td>MA</td>
<td>LIVE</td>
<td>2 SAW</td>
<td>Domestic</td>
<td>13.5</td>
<td>30</td>
<td>69</td>
<td>55</td>
<td>19.9</td>
<td>45.4</td>
<td>4.9</td>
</tr>
<tr>
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Cruise Unit Report
MT PLEASANT U2

Unit Sale Notice Volume (MBF): MT PLEASANT U2

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Unit Cruise Summary: MT PLEASANT U2

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Unit Cruise Statistics (Cut + Leave Trees): MT PLEASANT U2

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Cruise Unit Report
MT PLEASANT U5

Unit Sale Notice Volume (MBF): MT PLEASANT U5

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Unit Cruise Design: MT PLEASANT U5

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Measure/Count Plots, Sighting Ht = 0 ft

Unit Cruise Summary: MT PLEASANT U5

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Unit Cruise Statistics (Cut + Leave Trees): MT PLEASANT U5

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<th>V-BAR CV (%)</th>
<th>V-BAR SE (%)</th>
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**Unit Summary: MT PLEASANT U5**

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# Cruise Unit Report

MT PLEASANT U7

## Unit Sale Notice Volume (MBF): MT PLEASANT U7

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<th>Utility</th>
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## Unit Cruise Design: MT PLEASANT U7

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<th>FMA Acres</th>
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<th>N Cruise Plots</th>
<th>N Void Plots</th>
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## Unit Cruise Summary: MT PLEASANT U7

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<th>Ring-Count Trees</th>
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## Unit Cruise Statistics (Cut + Leave Trees): MT PLEASANT U7

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<th>V-BAR (bf/sq ft)</th>
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## Unit Summary: MT PLEASANT U7

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<td>51</td>
<td>11,287</td>
<td>10,791</td>
<td>4.4</td>
<td>208.7</td>
<td>160.0</td>
<td>46.4</td>
<td>701.4</td>
</tr>
</tbody>
</table>
### Cruise Unit Report

**MT PLEASANT U8**

#### Unit Sale Notice Volume (MBF): MT PLEASANT U8

<table>
<thead>
<tr>
<th>Sp</th>
<th>DBH</th>
<th>Rings/In</th>
<th>Age</th>
<th>All</th>
<th>3 Saw</th>
<th>4 Saw</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>8.8</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>DF</td>
<td>16.0</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>ALL</td>
<td>10.1</td>
<td>2</td>
<td></td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

#### Unit Cruise Design: MT PLEASANT U8

<table>
<thead>
<tr>
<th>Design</th>
<th>Cruise Acres</th>
<th>FMA Acres</th>
<th>N Plots</th>
<th>N Cruise Plots</th>
<th>N Void Plots</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2C: VR, 2 BAF (54.44, 20 for some species) Measure/Count Plots, Sighting Ht = 0 ft</td>
<td>0.2</td>
<td>0.2</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Unit Cruise Summary: MT PLEASANT U8

<table>
<thead>
<tr>
<th>Sp</th>
<th>Cruised Trees</th>
<th>All Trees</th>
<th>Trees/Plot</th>
<th>Ring-Count Trees</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>2</td>
<td>2</td>
<td>2.0</td>
<td>0</td>
</tr>
<tr>
<td>DF</td>
<td>1</td>
<td>1</td>
<td>1.0</td>
<td>0</td>
</tr>
<tr>
<td>ALL</td>
<td>3</td>
<td>3</td>
<td>3.0</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Unit Cruise Statistics (Cut + Leave Trees): MT PLEASANT U8

<table>
<thead>
<tr>
<th>Sp</th>
<th>BA (sq ft/acre)</th>
<th>BA CV (%)</th>
<th>BA SE (%)</th>
<th>V-BAR (bf/sq ft)</th>
<th>V-BAR CV (%)</th>
<th>V-BAR SE (%)</th>
<th>Net Vol (bf/acre)</th>
<th>Vol CV (%)</th>
<th>Vol SE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA</td>
<td>108.9</td>
<td>0.0</td>
<td>0.0</td>
<td>64.6</td>
<td>9.0</td>
<td>6.4</td>
<td>7,037</td>
<td>9.0</td>
<td>6.4</td>
</tr>
<tr>
<td>DF</td>
<td>54.4</td>
<td>0.0</td>
<td>0.0</td>
<td>75.9</td>
<td>0.0</td>
<td>0.0</td>
<td>4,133</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>ALL</td>
<td>163.3</td>
<td>0.0</td>
<td>0.0</td>
<td>68.4</td>
<td>11.3</td>
<td>6.5</td>
<td>11,170</td>
<td>11.3</td>
<td>6.5</td>
</tr>
</tbody>
</table>

#### Unit Summary: MT PLEASANT U8

| Sp  | Status | Rx | N  | D  | DBH | BL | THT | BF Gross | BF Net | Defect % | TPA | BA  | RD  | MBF Net |
|-----|--------|----|----|----|-----|----|-----|-----|--------|--------|-------|-----|-----|-----|---------|
| DF  | LIVE   | CUT| ALL| 16.0| 60  | 74 |     | 4,133   | 4,133  | 0.0     | 39.0  | 54.4| 13.6| 0.8     |
| RA  | LIVE   | CUT| ALL| 8.8 | 34  | 40 |     | 7,037   | 7,037  | 0.0     | 257.8 | 108.9| 36.7| 1.4     |
| ALL | LIVE   | CUT| ALL| 10.0| 38  | 45 |     | 11,170  | 11,170 | 0.0     | 296.8 | 163.3| 50.3| 2.2     |
| ALL | ALL    | ALL| ALL| 10.0| 38  | 45 |     | 11,170  | 11,170 | 0.0     | 296.8 | 163.3| 50.3| 2.2     |
Forest Practices Application/Notification
Notice of Decision

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

Issued By:  Ross Goodwin
Title:  Forest Practice Forester
Copies to:  ☐ Landowner  ☐ Timber Owner  ☐ Operator
Issued In person:  ☑ Landowner  ☑ Timber Owner  ☑ Operator
By:  Katelynn McGoff

FPA/N No:  2617180
Effective Date:  9/15/2021
Expiration Date:  9/15/2024
Shut Down Zone:  653S
EARR Tax Credit:  ☑ Eligible  ☐ Non-eligible
Reference:  DNR
Mt Pleasant

Region:  Olympic
Date:  9/15/2021
**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:

<table>
<thead>
<tr>
<th>Pollution Control Hearings Board</th>
<th>Office of the Attorney General Natural Resources Division</th>
<th>Department Of Natural Resources Olympic Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Address</td>
<td></td>
<td>Physical &amp; Mailing Address</td>
</tr>
<tr>
<td>1111 Israel Road, SW</td>
<td></td>
<td>411 Tillicum Lane</td>
</tr>
<tr>
<td>Suite 301</td>
<td></td>
<td>Forks, WA 98331</td>
</tr>
<tr>
<td>Tumwater, WA 98501</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mailing address</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Office Box 40903</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olympia, WA 98504-0903</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Information regarding the Pollution Control Hearings Board can be found at: [http://www.eluho.wa.gov/](http://www.eluho.wa.gov/)

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

**Transfer of Forest Practices Application/Notification (WAC 222-20-010)**
Use the "Notice of Transfer of Approved Forest Practices Application/Notification" form. This form is available at region offices and on the Forest Practices website [https://www.dnr.wa.gov/programs-and-services/forest-practices/review-applications-fpars/forest-practices-forms-and](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 Affidavit of Mailing**

On this day, I placed in the United States mail at [Forks, WA, postage paid, a true and accurate copy of this document. Notice of Decision FPA #2617180](Forks, WA, postage paid, a true and accurate copy of this document. Notice of Decision FPA #2617180)

Choose an item.  

(Printed Name)  

(Signature)
WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

FOREST EXCISE TAX ROAD SUMMARY SHEET

Region: Olympic
Timber Sale Name: Mt Pleasant
Application Number: 30-102027

EXCISE TAX APPLICABLE ACTIVITIES

Construction: 410 linear feet
Road to be constructed (optional and required) but not abandoned

Reconstruction: 3770 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: 14675 linear feet
Existing road to receive maintenance work (optional and required) prior to haul

EXCISE TAX EXEMPT ACTIVITIES

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

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

All parties must make their own assessment of the taxable or non-taxable status of any work performed under the timber sale contract. The Department of Revenue bears responsibility for determining forest road excise taxes. The Department of Natural Resources developed this form to help estimate the impact of forest excise taxes. However, the information provided may not precisely calculate the actual amount of taxes due. The Department of Revenue is available for consultation by calling 1.800.548.8829.
(Revised 9/18)
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.

<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1000</td>
<td>0+00 - 87+55</td>
<td>Pre-Haul Maintenance</td>
</tr>
<tr>
<td>PA-F-1000</td>
<td>283+20 - 303+00</td>
<td>Pre-Haul Maintenance</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>0+00 - 6+85</td>
<td>Reconstruction</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>17+75 - 35+00</td>
<td>Reconstruction</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>35+00 - 74+40</td>
<td>Pre-Haul Maintenance</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1030</td>
<td>0+00 - 4+55</td>
<td>Reconstruction</td>
</tr>
<tr>
<td>PA-F-1111</td>
<td>0+00 - 4+10</td>
<td>Construction</td>
</tr>
<tr>
<td>PA-F-1120</td>
<td>0+00 - 9+05</td>
<td>Reconstruction</td>
</tr>
</tbody>
</table>

0-4 CONSTRUCTION
This project includes, but is not limited to the following construction requirements:

<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1111</td>
<td>0+00 - 4+10</td>
<td>See below...</td>
</tr>
<tr>
<td>Total Stations</td>
<td>4.10 Stations</td>
<td></td>
</tr>
</tbody>
</table>

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.
0-5 **RECONSTRUCTION**

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

<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1030</td>
<td>0+00 - 4+55</td>
<td>See below...</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>0+00 - 6+85</td>
<td>See below...</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>17+75 - 35+00</td>
<td>See below...</td>
</tr>
<tr>
<td>PA-F-1120</td>
<td>0+00 - 9+05</td>
<td>See below...</td>
</tr>
<tr>
<td>Total Stations</td>
<td>37.70 Stations</td>
<td></td>
</tr>
</tbody>
</table>

Reconstruction includes, but is not limited to: Removal of all vegetative material with minimum loss of rock and dispose of in accordance with Clause 2-9 and Clause 3-23. Cleaning ditches and constructing ditches, constructing headwalls, cleaning culvert inlets and outlets in accordance with Clause 2-6 and Clause 2-7. Installing additional culverts and replacing culverts in accordance with the culvert list. Grading, shaping and compacting existing road surface, turnouts and turnaround in accordance with Clause 2-5, realigning road segments, spreading grass seed and hay, and the application of rock in accordance with the Rock List.

0-6 **PRE-HAUL MAINTENANCE**

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

<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1000</td>
<td>0+00 - 87+55</td>
<td>Grade, shape and compact road surface in accordance with Clauses 2-5 and Clause 4-63, and the Compaction List. Apply Rock in accordance with Clauses 6-71, 6-73, 6-78, and the Rock List. Clean inlet and outlets of culverts in accordance with Clause 2-6. Clean ditches and headwalls in accordance with Clause 2-7. Brush road in accordance with Clause 3-1. Maintain and construct sediment control structures in accordance with Clause 8-1. Perform gate maintenance in accordance with Clause 7-75 Gate Maintenance.</td>
</tr>
<tr>
<td>PA-F-1000</td>
<td>283+20 - 303+00</td>
<td>Grade, shape and compact road surface in accordance with Clauses 2-5 and Clause 4-63, and the Compaction List. Clean inlet and outlets of culverts in accordance with Clause 2-6.</td>
</tr>
</tbody>
</table>
Clean ditches and headwalls in accordance with Clause 2-7.
Brush road in accordance with Clause 3-1.
Maintain and construct sediment control structures in accordance with Clause 8-1.

Grade, shape and compact road surface in accordance with Clauses 2-5 and Clause 4-63, and the Compaction List.
Apply Rock in accordance with Clauses 6-71, 6-73, 6-78, and the Rock List.
Clean inlet and outlets of culverts in accordance with Clause 2-6.
Clean ditches and headwalls in accordance with Clause 2-7.
Replace and install culverts in accordance with the Culvert List, the Rock List, Clause 4-65, and the Compaction List.
Brush road in accordance with Clause 3-1.
Maintain and construct sediment control structures in accordance with Clause 8-1.

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.

0-12 DEVELOP ROCK SOURCE
Purchaser may develop an existing rock source called Barnes Borrow Pit. Rock source development will involve stripping approximately 1.25 acres to useable rock as determined by the Contract Administrator and possible drilling and shooting to obtain 3460 CY of jaw run ballast material. 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 the rock pit(s) listed above cannot meet rock specifications in accordance to specifications listed in Section 6, subsection rock gradations and in the opinion of the Contract Administrator, purchaser shall obtain rock meeting rock specification from a commercial source at their own expense.

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.

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

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.
7. Road Plan Work maps.

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

1-8 REPAIR OR REPLACEMENT OF DAMAGED MATERIALS
Purchaser shall repair or replace all materials, roadway infrastructure, and road components damaged during road work or operation activities. The Contract Administrator will direct repairs and replacements. Repairs to structural materials must be made in accordance with the manufacturer’s recommendation, and may not begin without written approval from the Contract Administrator.

1-9 DAMAGED METALLIC COATING
Any cut ends, or damaged galvanized or aluminized coating on existing or new bridge components, culverts, downspouts, and flumes must be cleaned and treated with a minimum of two coats of zinc rich paint or cold galvanizing compound.

1-12 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.

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.

SUBSECTION TIMING

1-20 COMPLETE BY DATE
Purchaser shall complete reconstruction, construction and pre-haul road work before the start of timber haul.

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.

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.

<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
<th>Activity</th>
<th>Closure Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>All</td>
<td>All</td>
<td>Weekends and State Recognized Holidays</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>All roadwork activities including Timber Haul and rock pit development.</td>
<td>8:00 P.M. to 6:00 A.M.; November 1st – April 30th</td>
</tr>
</tbody>
</table>

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.

1-29 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 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.
- When, in the opinion of the Contract Administrator excessive road damage or rutting may occur.

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

1-33 SNOW PLOWING RESTRICTION
Snowplowing will be allowed after the execution of a SNOW PLOWING AGREEMENT, which is available from the Contact 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:

<table>
<thead>
<tr>
<th>Road Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mt Pleasant Rd</td>
</tr>
<tr>
<td>Baker Farm Rd</td>
</tr>
<tr>
<td>Monroe Rd</td>
</tr>
</tbody>
</table>
1-41 REQUIREMENTS FOR PAVED ROAD APPROACHES
Requirements for the Mt Pleasant Rd and Baker Farm Rd road approaches:
Purchaser shall build up approaches to allow a smooth grade transition between the PA-F-1000 and Mt Pleasant Rd and Baker Farm Rd roads. The top of the PA-F-1000 road surfacing must be kept level with the surface of the Mt Pleasant Rd and Baker Farm Rd road(s) at all times.

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.

<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
<th>Utility</th>
<th>Utility Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1000</td>
<td>283+20 to 303+00</td>
<td>Underground Power and water</td>
<td>811</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>0+00 to 1+00</td>
<td>Underground Power</td>
<td>811</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1000</td>
<td>0+00 to 87+55, 283+20 to 303+00</td>
<td>Grade, shape, compact and remove shoulder vegetation</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>0+00 to 74+40</td>
<td>Grade, shape, compact and remove shoulder vegetation</td>
</tr>
</tbody>
</table>

2-6 CLEANING CULVERTS
Purchaser shall clean the inlets and outlets of all culverts and shall obtain written approval from the Contract Administrator before start of timber haul.

2-7 CLEANING DITCHES, HEADWALLS, AND CATCH BASINS
Purchaser shall clean and/or construct ditches, headwalls, and catchbasins. Work must be completed before the start of timber haul and must be done in accordance with the Typical Section Sheet. Pulling ditch material across the road or mixing in with the road surface is not allowed. Ditchlines, headwalls, and catch basins shall not encroach into the existing road.

2-9 REMOVING VEGETATIVE MATERIAL
Purchaser shall remove all vegetative material, dirt, mud and other debris on the existing road surface with a minimum loss of rock. Material must disposed of as specified in Clauses 4-35 through 4-38.

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.

<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1000</td>
<td>0+00 - 87+55</td>
</tr>
<tr>
<td>PA-F-1000</td>
<td>283+20 - 303+00</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>0+00 - 74+40</td>
</tr>
</tbody>
</table>
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 if not marked in the field, between the clearing limits specified on the TYPICAL SECTION SHEET. Clearing must be completed before starting excavation and embankment.

3-7 **RIGHT-OF-WAY DECKING**
Purchaser shall deck all right-of-way timber. Decks must be parallel to the road centerline and placed within the cleared right-of-way. Decks must be free of dirt, limbs, and other right-of-way debris, and removable by standard log loading equipment from the roadbed.

3-8 **PROHIBITED DECKING AREAS**
Purchaser shall not deck right-of-way timber in the following areas:
- Within the grubbing limits.
- Within 50 feet of any stream.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- On slopes greater than 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.
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. 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:

<table>
<thead>
<tr>
<th>Material Type</th>
<th>Excavation Slope Ratio</th>
<th>Excavation Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Earth (on side slopes up to 55%)</td>
<td>1:1</td>
<td>100</td>
</tr>
<tr>
<td>Common Earth (56% to 70% side slopes)</td>
<td>¾:1</td>
<td>133</td>
</tr>
<tr>
<td>Common Earth (on slopes over 70%)</td>
<td>½:1</td>
<td>200</td>
</tr>
<tr>
<td>Fractured or loose rock</td>
<td>½:1</td>
<td>200</td>
</tr>
<tr>
<td>Hardpan or solid rock</td>
<td>¾:1</td>
<td>400</td>
</tr>
</tbody>
</table>
4-6 **EMBANKMENT SLOPE RATIO**
Purchaser shall construct embankment slopes no steeper than shown on the following table, unless construction staked or designed:

<table>
<thead>
<tr>
<th>Material Type</th>
<th>Embankment Slope Ratio</th>
<th>Embankment Slope Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandy Soils</td>
<td>2:1</td>
<td>50</td>
</tr>
<tr>
<td>Common Earth and Rounded Gravel</td>
<td>1½:1</td>
<td>67</td>
</tr>
<tr>
<td>Angular Rock</td>
<td>1¼:1</td>
<td>80</td>
</tr>
</tbody>
</table>

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.

**SUBSECTION INTERSECTIONS, TURNOUTS AND TURNAROUNDS**

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.
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.

4-29  DITCHOUTS
Purchaser shall construct ditchouts as identified in the table below and as needed to fit as built conditions. Ditchouts must be constructed in a manner that diverts ditch water onto the forest floor and must have excavation backslopes no steeper than a 1:1 ratio. L or R denotes ditchout left or ditchout right.

<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
<th>L or R</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1120</td>
<td>2+00</td>
<td>Right</td>
</tr>
</tbody>
</table>

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.

4-38  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 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 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 BACKILL 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. 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.

5-12 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.
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.

5-16  APPROVAL FOR LARGER CULVERT INSTALLATION
Purchaser shall obtain written approval from the District Engineer or his/her designee for the installation of culverts 30 inches in diameter and over before backfilling.

5-17  CROSS DRAIN SKEW AND SLOPE
Cross drains, on road grades in excess of 3%, must be skewed at least 30 degrees from perpendicular to the road centerline, except where the cross drain is at the low point in the road culverts will not be skewed. Cross drain culverts must be installed at a slope steeper than the incoming ditch grade, but not less than 3% or more than 10%.

5-18  CULVERT DEPTH OF COVER
Cross drain culverts must be installed with a depth of cover of not less than 18 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.
5-25 **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.

5-27 **ARMORING FOR STREAM CROSSING CULVERTS**
At the following culvert(s), Purchaser shall place rip rap in conjunction with or immediately following construction of the embankment. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets as designated on the TYPICAL TYPE NS NP CULVERT INSTALLATION DETAIL or as directed by the Contract Administrator. Rock may not restrict the flow of water into culvert inlets or catch basins. Rock must be set in place by machine. Placement must be with a zero-drop-height method only. No placement by end dumping or dropping of rock is allowed.

<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
<th>Rock Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1100</td>
<td>28+75</td>
<td>Light Loose Riprap</td>
</tr>
</tbody>
</table>

**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 business days before starting any operations in the listed locations.

<table>
<thead>
<tr>
<th>Source</th>
<th>Location</th>
<th>Rock Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnes Borrow</td>
<td>T30R05W Sec 31</td>
<td>6-inch Jaw Run Rock</td>
</tr>
</tbody>
</table>
6-5 ROCK FROM COMMERCIAL SOURCE
Rock used in accordance with the quantities on the ROCK LIST may be obtained from any commercial source at the Purchaser’s expense. Rock sources are subject to written approval by the Contract Administrator before their use. 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 business calendar days before starting any operations in the rock source.

<table>
<thead>
<tr>
<th>Source</th>
<th>Rock Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnes Borrow</td>
<td>6-inch Jaw Run Rock, Light Loose Rip Rap</td>
</tr>
</tbody>
</table>

6-12 ROCK SOURCE SPECIFICATIONS
Rock sources must be in accordance with the following specifications:
- 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:

<table>
<thead>
<tr>
<th>Material</th>
<th>Maximum Slope Ratio (Horiz. :Vert.)</th>
<th>Maximum Slope Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>2:1</td>
<td>50</td>
</tr>
<tr>
<td>Gravel</td>
<td>1.5:1</td>
<td>67</td>
</tr>
<tr>
<td>Common Earth</td>
<td>1:1</td>
<td>100</td>
</tr>
<tr>
<td>Fractured Rock</td>
<td>0.5:1</td>
<td>200</td>
</tr>
<tr>
<td>Solid Rock</td>
<td>0:1</td>
<td>vertical</td>
</tr>
</tbody>
</table>

- 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.

6-14 DRILL AND SHOOT
Rock drilling and shooting must meet the following specifications:
- Oversize material remaining in the rock source at the conclusion of the timber sale may not exceed 5% of the total volume mined in that source.
- Oversize material is defined as rock fragments larger than five feet in any dimension.
- Oversized rock that exceeds the maximum allowable amount must be shot or broken up.
- Purchaser shall notify the Contract Administrator a minimum of 3 working days before blasting operations.
- Purchaser shall submit an informational drilling and shooting plan to the Contract Administrator 10 working days before any drilling (Form #M-126PAC).
- All operations must be carried out in compliance with 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 the Safety Standards for Construction Work (296-155 WAC), Washington Department of Labor and Industries.
- Purchaser is require to inform Clallam County Dispatch (PenCom) of a day and approximate time of the pit blasting.

6-16 DRILL AND SHOOT TECHNICAL SPECIFICATIONS

DRILLING
The Purchaser shall drill in accordance to an approved Shot Plan. Drill depth shall not extend more than 5 feet below existing pit floor. The District Engineer or their designee and Purchaser shall jointly measure and determine drill depths, hole spacing and pattern and must be approved prior to loading explosives. During drilling operation, drill operator shall keep a bore log which includes the depth and location of each hole drilled. The District Engineer or their designee may ask to see the bore log during and after the drilling process has completed.

BLASTING
The Purchaser shall furnish and load appropriate explosives, detonators, and ignition sources in accordance to all State and Federal laws and in accordance to an approved Shot Plan.
DRILLING AND SHOOTING PLAN “SHOT PLAN”
The Purchaser shall submit a written drilling and shooting plan, including drawings, to the District Engineer or their designee, which must meet the approval of the District Engineer or their designee prior to the start of the drilling operation. The plan and drawing(s) shall include the following proposals: drill hole diameter, drill hole spacing, drill hole pattern, drill hole depth, any stemming depths, type and depth of explosive including amount per drill hole, detonator and ignition type, and proposed delay pattern. Any adjustment or modifications to the proposals during operations must be noted and resubmitted prior to loading of explosives.

WEATHER LIMITATIONS
When, in the opinion of the District Engineer or their designee, the weather is such that satisfactory results cannot be obtained in any phase of operation, Purchaser shall suspend operations until the weather is favorable. Before and during any suspension, Purchaser shall protect the work from damage or deterioration.

SUBSECTION ROCK MANUFACTURE

6-20 ROCK CRUSHING OPERATIONS
Rock crushing operations must conform to the following specifications:
- Operations and placement of oversize material must be conducted in or near the rock source site, as approved in writing by the Contract Administrator.
- Purchaser may provide an onsite weatherproof field laboratory equipped with all necessary testing equipment (oven, sieves, sieve shaker, and scales) for conducting sieve testing of the required aggregate that is being produced. This laboratory must be available for use by the Contract Administrator during the entire crushing operation.
- All testing and operations must be performed in accordance with the attached ROCK CRUSHING COMPLIANCE PROCEDURE.
- Purchaser shall produce sieve analysis for crushing operations every 1000 yards for each rock gradation type
- Purchaser may use a commercial testing lab to produce sieve analyses.
- Sieve analysis for acceptance of aggregate shall be performed by procedure described in WSDOT FOP for WAQTC T 27/11.

6-22 FRACTURE REQUIREMENT FOR ROCK
A minimum of 50% by visual inspection of coarse aggregate must have at least one fractured face. Coarse aggregate is the material greater than 1/4-inch in size.
6-23 ROCK GRADATION TYPES
Purchaser shall provide 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.

<table>
<thead>
<tr>
<th>Rock Type</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-inch Jaw Run Rock</td>
<td>3460 CY</td>
</tr>
<tr>
<td>Light Loose Riprap</td>
<td>37 CY</td>
</tr>
</tbody>
</table>

6-24 ROCK CRUSHING COMPLIANCE PROCEDURE

Phase I. Equipment Adjustment

Step 1:
At start up of crushing operations, the Purchaser will notify the Contract Administrator when the rock meets the gradation specifications in the contract. None of the rock crushed during this calibration period will be counted toward the amount required to be crushed, and this rock must be kept separate from accepted rock crushed later.

Step 2:
The Purchaser will test the rock. Two samples will be taken. If the rock meets specifications, crushing may begin. If the rock does not meet specifications, return to Step 1.

Phase II. Production

Step 3:
The Purchaser will continue periodic testing to ensure that rock stays in spec. Testing will take place according to the following schedule:
- After the first 500 yards
- After every 2,000 yards thereafter.

a) Any time a sample is out of spec, but is within 5%*, the Purchaser will be notified and a second sample will be taken later in the day. If the second sample meets specifications, the rock crushed during that day will be accepted. If the second sample also fails to meet spec, none of the rock crushed since the last acceptable test will be counted toward the amount to be crushed.

b) Any time a sample is out of spec and is more than 5% off in any category, none of the rock crushed since the last acceptable test will be accepted and that rock must be kept separate from the stockpile. Return to Step 1.

c) Purchaser is strongly encouraged to take their own samples regularly and keep their operations in spec to avoid unnecessary expenses.
• The 5% will be applied only to sieve specs for 2” to ¼”; rock that is out of spec in larger sizes must be kept separate from the acceptable rock. Periodic visual inspection required for all rock gradations larger for rock larger than 2”. If in the opinion of the Contract Administrator that gradations are not meeting specifications, Contract Administrator may require testing of material 2” or larger.

SUBSECTION ROCK GRADATIONS

6-30 2-INCH MINUS CRUSHED ROCK

% Passing 2” square sieve 100%
% Passing 1” square sieve 50 - 85%
% Passing U.S. #4 sieve 30 - 50%
% 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.

6-39 6-INCH JAW RUN ROCK

% Passing 6” in one dimension 100%
% Passing 2 ½” square sieve 25 - 60%
% Passing U.S. #200 sieve 10 % maximum

Rock may not contain more than 5 percent organic debris and trash. All percentages are by weight.

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:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Approximate Size Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>20% to 90%</td>
<td>500 lbs. to 1 ton (18”- 28”)</td>
</tr>
<tr>
<td>15% to 80%</td>
<td>50 lbs. to 500 lbs. (8”- 18”)</td>
</tr>
<tr>
<td>10% to 20%</td>
<td>3 inch to 50 lbs. (3”- 8”)</td>
</tr>
</tbody>
</table>

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
Upon completion of all hauling operations, Purchaser shall apply 2-in Minus Crushed Rock in accordance with the quantities shown on the ROCK LIST.

<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
<th>Rock Type</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1000</td>
<td>0+00 – 87+55, 283+20 – 303+00</td>
<td>2” Minus Crushed Rock</td>
<td>400 yd³</td>
</tr>
</tbody>
</table>

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.

6-76  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.

6-78  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.

SECTION 7 – STRUCTURES

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 GATE CLOSURE

7-70 GATE CLOSURE
On the following road(s), Purchaser shall keep gates closed and locked except during periods of haul. All gates that remain open during haul must be locked or securely fastened in the open position. All gates must be closed at termination of use.

<table>
<thead>
<tr>
<th>Road</th>
<th>Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1000</td>
<td>1+60</td>
</tr>
<tr>
<td>PA-F-1000</td>
<td>300+00</td>
</tr>
</tbody>
</table>
## SUBSECTION GATES AND FENCES

### 7-75 GATE MAINTENANCE

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

<table>
<thead>
<tr>
<th>Road</th>
<th>Station</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1000</td>
<td>1+60</td>
<td>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. Gate hinges shall be lubricated.</td>
</tr>
<tr>
<td>PA-F-1000</td>
<td>300+00</td>
<td>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. Gate hinges shall be lubricated. Repair toaster box locking mechanisms, replacing internal links and tongues allowing for the installation for state owned locks both internally and externally.</td>
</tr>
</tbody>
</table>
SECTION 8 – EROSION CONTROL

8-1 SEDIMENT CONTROL STRUCTURES
On the following road(s), Purchaser shall install silt fence. Sediment control shall be accomplished using silt fencing or other methods as approved in writing by the Contract Administrator.

<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
<th>Left and/or Right</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1100</td>
<td>28+80 to 30+80</td>
<td>Left and Right</td>
<td>Roadside Silt Fence</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>28+80 to 30+80</td>
<td>Right</td>
<td>Silt fence in Ditch x 3</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>41+35 to 43+35</td>
<td>Left and Right</td>
<td>Roadside Silt Fence</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>41+35 to 43+35</td>
<td>Right</td>
<td>Silt fence in Ditch x 3</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>44+15 to 46+15</td>
<td>Left and Right</td>
<td>Roadside Silt Fence</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>44+15 to 46+15</td>
<td>Right</td>
<td>Silt fence in Ditch x 3</td>
</tr>
</tbody>
</table>

SUBSECTION REVEGETATION

8-15 REVEGETATION
On the following road(s), Purchaser shall spread grass seed on all exposed soils including, but not limited to, stream culverts, waste areas, sidecast pullback areas, stream crossing removals, bridge installations, 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 after road work is completed. Soils may not be allowed to sit exposed for longer than one month without receiving revegetation treatment unless otherwise approved in writing by the Contract Administrator. Soils shall not be allowed to sit exposed during any rain event.
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. Seed may not be allowed to sit exposed during any rain event. The protective cover requirement may be waived in writing by the Contract Administrator if Purchaser is able to demonstrate a revegetation plan that will result in the establishment of a uniform dense crop (at least 50% coverage) of 3-inch tall grass by October 31.

8-19 **ASSURANCE FOR SEEDED AREA**

Purchaser shall ensure the growth of a uniform and dense crop (at least 50% coverage) of 3-inch tall grass. Purchaser shall reapply the grass seed in areas that have failed to germinate or have been damaged through any cause, restore eroded or disturbed areas, clean up and properly dispose of eroded materials, and reapply the grass seed at no 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 inside the grubbing limits 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.

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

<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
<th>Additional Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>All</td>
<td>Clean culverts, clean ditches, grade road shape and compact as directed by the Contract Administrator.</td>
</tr>
<tr>
<td>PA-F-1000</td>
<td>0+00 – 87+55, 283+20 – 303+00</td>
<td>Apply post haul rock per Clause 6-72.</td>
</tr>
</tbody>
</table>

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.
SECTION 10 MATERIALS

SUBSECTION GEOTEXTILES

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.

<table>
<thead>
<tr>
<th>ASTM Test</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Unsupported between posts</td>
</tr>
<tr>
<td>Apparent opening size</td>
<td>D 4751</td>
</tr>
<tr>
<td>Water permittivity</td>
<td>D 4491</td>
</tr>
<tr>
<td>Grab tensile strength</td>
<td>D 4632</td>
</tr>
<tr>
<td>Grab tensile elongation</td>
<td>D 4632</td>
</tr>
<tr>
<td>Ultraviolet stability</td>
<td>D 4355</td>
</tr>
</tbody>
</table>

SUBSECTION CULVERTS

10-15 CORRUGATED STEEL CULVERT
Metallic coated steel culverts must meet AASHTO M-36 (ASTM A-760) specifications. Culverts must be aluminized (zinc coated meeting AASHTO M-218) except culverts over 36 inches 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.

10-21 METAL BAND
Metal coupling and end bands must meet the AASHTO specification designated for the culvert and must have matching corrugations. Culverts 24 inches and smaller must have bands with a minimum width of 12 inches. Culverts over 24 inches must have bands with a minimum width of 24 inches.

10-22 PLASTIC BAND
Plastic coupling and end bands 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.
10-23  **RUBBER CULVERT GASKETS**
Rubber gaskets must be continuous closed cell, synthetic expanded rubber gaskets conforming to the requirements of ASTM D 1056. Rubber gaskets must be used with all corrugated metal pipe coupling bands.

10-24  **GAUGE AND CORRUGATION**
Metal culverts must conform to the following specifications for gage and corrugation as a function of diameter.

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Gauge</th>
<th>Corrugation</th>
</tr>
</thead>
<tbody>
<tr>
<td>18&quot;</td>
<td>16 (0.064&quot;)</td>
<td>2 2/3&quot; X 1/2&quot;</td>
</tr>
<tr>
<td>24&quot; to 48&quot;</td>
<td>14 (0.079&quot;)</td>
<td>2 2/3&quot; X 1/2&quot;</td>
</tr>
<tr>
<td>54&quot; to 96&quot;</td>
<td>12 (0.109&quot;)</td>
<td>5&quot; X 1&quot;</td>
</tr>
<tr>
<td>ROAD NAME</td>
<td>START STATION</td>
<td>END STATION</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------</td>
<td>-------------</td>
</tr>
<tr>
<td>PA-F-1000</td>
<td>0+00</td>
<td>87+55</td>
</tr>
<tr>
<td>PA-F-1000</td>
<td>283+20</td>
<td>303+00</td>
</tr>
<tr>
<td>PA-F-1030</td>
<td>0+00</td>
<td>4+55</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>0+00</td>
<td>6+85</td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>17+75</td>
<td>35+00</td>
</tr>
<tr>
<td>PA-F-1111</td>
<td>0+00</td>
<td>4+10</td>
</tr>
<tr>
<td>PA-F-1120</td>
<td>0+00</td>
<td>9+05</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PA-F-1000</td>
<td>Turnaround</td>
<td>75+75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,2</td>
<td>70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post Haul</td>
<td>0+00</td>
<td>303+00</td>
<td>1,2</td>
<td></td>
<td></td>
<td>70</td>
<td>3</td>
<td>400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PA-F-1030</td>
<td>Lift</td>
<td>0+00</td>
<td>4+55</td>
<td>17</td>
<td>1,2</td>
<td>14</td>
<td>12</td>
<td>70</td>
<td>320</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Culvert Replace</td>
<td>1+55</td>
<td></td>
<td>1,2</td>
<td></td>
<td></td>
<td>70</td>
<td>20</td>
<td>1,2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>Lift</td>
<td>0+00</td>
<td>6+85</td>
<td>17</td>
<td>1,2</td>
<td>14</td>
<td>12</td>
<td>70</td>
<td>480</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Landing</td>
<td>4+60</td>
<td></td>
<td>1,2</td>
<td></td>
<td></td>
<td>70</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Culvert Install</td>
<td>6+15</td>
<td></td>
<td>1,2</td>
<td></td>
<td></td>
<td>20</td>
<td>1,2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PA-F-1100</td>
<td>Lift</td>
<td>17+75</td>
<td>35+00</td>
<td>17</td>
<td>1,2</td>
<td>14</td>
<td>12</td>
<td>70</td>
<td>1200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Culvert Install</td>
<td>17+85</td>
<td></td>
<td>1,2</td>
<td></td>
<td></td>
<td>70</td>
<td>1,2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Culvert Install</td>
<td>21+50</td>
<td></td>
<td>1,2</td>
<td></td>
<td></td>
<td>20</td>
<td>1,2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Landing</td>
<td>22+35</td>
<td></td>
<td>1,2</td>
<td></td>
<td></td>
<td>20</td>
<td>1,2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Culvert Install</td>
<td>26+60</td>
<td></td>
<td>1,2</td>
<td></td>
<td></td>
<td>20</td>
<td>1,2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Culvert Install</td>
<td>28+75</td>
<td></td>
<td>1,2</td>
<td></td>
<td></td>
<td>20</td>
<td>1,2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
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<td>400</td>
<td>31</td>
<td></td>
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</tr>
</tbody>
</table>
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.

<table>
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<td>4+10</td>
<td>17</td>
<td>1,2</td>
<td>14</td>
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<tr>
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<td>70</td>
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## CULVERT LIST

<table>
<thead>
<tr>
<th>ROAD NAME</th>
<th>STATION</th>
<th>CULVERT DIAMETER (in)</th>
<th>CULVERT LENGTH (ft)</th>
<th>RIP RAP – INLET (cy)</th>
<th>RIP RAP – OUTLET (cy)</th>
<th>BACKFILL MATERIAL</th>
<th>NOTES</th>
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<tbody>
<tr>
<td>PA-F-1030</td>
<td>1+55</td>
<td>18</td>
<td>30</td>
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<td>1.5</td>
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<td>18</td>
<td>30</td>
<td>1.5</td>
<td>1.5</td>
<td>JR</td>
<td>Culvert Installation, Inlet Armoring &amp; Energy Dissipator Rock with Light Loose Rip Rap</td>
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</table>

All rip rap shall be Oversize unless specified in the Rock List, or in the field. All backfill shall be native material (NT) unless specified otherwise. CR= 1 ¼”- crushed rock, PR= Pit Run Rock, JR= Jaw Run.
<table>
<thead>
<tr>
<th>Road</th>
<th>Stations</th>
<th>Type</th>
<th>Max Depth Per Lift (inches)</th>
<th>Equipment Type</th>
<th>Minimum Equipment Weight (lbs)</th>
<th>Minimum Number of Passes</th>
<th>Maximum Operating Speed (mph)</th>
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<td>All</td>
<td>Culvert Backfill</td>
<td>8&quot;</td>
<td>Jumping Jack</td>
<td>3</td>
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<td>Pre-haul All</td>
<td>All</td>
<td>Rock Lifts</td>
<td>6&quot;</td>
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<td></td>
<td>Vibratory Smooth Drum</td>
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<tr>
<td>Construction All</td>
<td>All</td>
<td>Subgrade (Except Puncheon)</td>
<td>6&quot;</td>
<td>Vibratory Smooth Drum</td>
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<td>8&quot;</td>
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<tr>
<td>Reconstruction All</td>
<td>All</td>
<td>Subgrade (Except Puncheon)</td>
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<td>CLEARING AND GRUBBING</td>
<td>ROAD BRUSHING</td>
<td>EXCAVATION AND FILL</td>
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<td>Posthaul</td>
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<td>$0.00</td>
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<tr>
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<td>0.00%</td>
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<td>$924.00</td>
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**Total Costs:** $118,863.69

**Cost per Station:** $2,838 1,841 106 145

**Total Cost per MBF:** $122.99

**Road Development and Abandonment Costs:** $139,964
1. Mining shall begin in the development shown on pit plan.
2. All vegetation including stumps shall be cleared a minimum 20 feet beyond the top of all working faces. Trees shall be cleared to a minimum of ¾ of height of the tallest tree adjacent to the pit. The Contractor shall maintain a minimum of 10 foot wide stripped area from the pit face at all times.
3. Root wads and organic debris larger than one cubic foot in volume shall be separated from overburden material and piled in an area designated by the Contract Administrator.
4. All exposed soils shall be grass seeded in accordance with Road Plan Clause 8-25.
5. Activity restrictions per Clause 1-25.
6. 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.
7. Maintain drainage of the pit floor and all drainage structures within the pit boundaries. The pit floor shall have continuity of slope be left in a smooth and neat condition, providing drainage to the southeast at a minimum of 2 percent. All knobs, bumps, or extrusions shall be removed to the designated floor level by excavation or drill and shoot techniques.
8. Excavated face height shall not exceed 20 feet and shall be sloped no steeper than 1/4:1.
9. Excavated slopes shall have a 1 1/2:1 back slope or less at the completion of operations unless otherwise stated in Clause 4-5.
10. 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.
11. 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.
12. At the end of operations, pit faces and walls shall be scaled and cleared of loose and overhanging material, benches shall have safety berms constructed or access blocked to highway vehicles. Upon completion of operations in the pit, the area will be left in a condition that will not endanger public safety, damage property, or be hazardous to animal or human life. The contractor shall use Light Loose Rip Rap to block the drill trail.
13. All material shall remain the property of the State.
14. 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.
15. All work shall be conducted according to relevant specifications in this Road Plan, and the Contract Administrator.
16. Purchaser shall give the Contract Administrator a minimum of 7 days’ notice prior to commencing any operations.
**STATE OF WASHINGTON**  
**DEPARTMENT OF NATURAL RESOURCES**  
**OLYMPIC REGION**

**INFORMATIONAL BLASTING PLAN**

**Timber Sale/Project Name:** ________________________  **App./Project No.:** ________________________

---

1. **Blaster-in-Charge:** Name: ________________________
   
   Company: ________________________
   
   Address: ________________________
   
   Telephone: ________________________

2. ** Quarry Name/Location:** ________________________

3. **Total Estimated Cubic Yards in Blast (loose):** ________________________

4. **Hole Spacing:** ________________________

5. **Burden:** ________________________

6. **Hole Diameter:** ________________________

7. **Hole Depth:** ________________________

8. **Sub Drill:** ________________________

9. **Number of Holes:** ________________________

10. **Stemming Depth:** ________________________

11. **Explosive (mfg., name, density, %, V.O.D.):** ________________________

12. **Type and Size of Primer (if applicable):** ________________________

13. **Total Weight of Primers for Shot:** ________________________

14. **Calculated Powder Factor/Cubic Yard:** ________________________

15. **Number of Delays (in M.S.):** ________________________

16. **Number of Holes Fired on Each Delay:** ________________________

17. **Total Amount of Explosives Fired on Each Delay:** ________________________

18. **Type of Blasting Machine:** ________________________

19. **Date, Start Drilling:** ________________________

20. **Date and Time, Start Loading:** ________________________

21. **Date and Time of Blast (approx.):** ________________________

---

**INFORMATIONAL BLASTING PLAN**  
M-126/PAC (03/04)  
Page 1 of 2
22. Detail drawing of delay system (show hole pattern and delays in milliseconds). Attach additional sheets if required:

23. Typical cross-section of hole (show primer, main charge, sub drill, and stemming):

23. Submitted by: _______________________________ Date: ________________
24. Received by: _______________________________ Date: ________________

Note: Attach copies of manufacturer’s data sheet(s) for explosive and caps.
1) All vegetation within the brushing limits shall be cut to within 8' of the ground, unless otherwise directed by the contract administrator.
2) All brush, trees, limbs, etc. shall be removed from the road surface.
3) All brush, trees, limbs, etc. that may restrict the flow of water shall be removed from the ditch line.
4) All debris that may roll or migrate into the ditch line shall be removed.
Typical Cross Drain Culvert Installation Detail Sheet

- Culvert lay shall not exceed 10%.
- Flumes longer than 10ft shall be staked on both sides at maximum intervals of 10ft with 6ft heavy duty steel fence posts, and fastened securely to the posts with No. 10 galvanized smooth wire or bolted to the fence posts.
- Oversize shall be placed using a “zero height drop method”, and shall be set in conjunction with the culvert installation.
- Oversize shall be placed at headwalls, along the fill at the inlet, and at the end off flumes in accordance with this Detail. On culverts with no flume oversize shall be placed at the outlet as an energy dissipator as specified in this Detail. All oversize distance to be determined by the Contract Administrator.
- Backfill compaction for installations on existing roads shall be achieved using a jumping jack, or plate compactor on lifts not to exceed 10m. 3 complete passes per lift is required for compaction. Backfill shall be placed and compacted evenly on both sides of the culvert. Care shall be taken to ensure adequate compaction of backfill material under the haunches of the pipe. Excavation trench width shall be at least culvert diameter plus at least the width of the compactor footprint used.

<table>
<thead>
<tr>
<th>Culvert Minimum Cover</th>
<th>Diameter</th>
<th>Steel</th>
<th>Plastic</th>
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</thead>
<tbody>
<tr>
<td>18&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Profile View: Flume

Profile View: No Flume

Cross Section View: Flume

Cross Section View: Inlet

Plan View: No Dip

Plan View: Dip

Not To Scale
Forest Access Road Maintenance Specifications

Cuts and Fills

- Maintain slope lines to a stable gradient compatible with the construction materials. Remove slides up to 100 cubic yards in volume from ditches and the roadway. Repair fill-failures 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.

![Diagram showing road maintenance guidelines]

- Do not undercut backslope
- Keep clear of obstructions
- Add stable material or flume
- Keep ditches open and free of debris to ensure water drainage away from road.