

TIMBER NOTICE OF SALE

SALE NAME: PARCHED

AGREEMENT NO: 30-102017

AUCTION: December 18, 2024 starting at 10:00 a.m., COUNTY: Clallam Olympic Region Office, Forks, WA

SALE LOCATION: Sale located approximately 2 miles southwest of Port Angeles, WA

PRODUCTS SOLD AND SALE AREA:

All timber except trees marked with a band of blue paint, or bounded out by Leave Tree Area tags, no downed redcedar, 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 and all trees 60 inches or larger measured at diameter at breast height; bounded by Timber Sale Boundary tags, painted property lines, and a timber type change in Unit 1; Timber Sale Boundary tags, Timber Type Change, and the PA-H-3071 road in Unit 3; Timber Sale Boundary tags and a Timber Type Change in Units 4 and 6; Timber Sale Boundary tags, Take/ Removal trees and Walkabout Way in Unit 5.

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.

All timber bounded by right-of-way tags.

All forest products above located on part(s) of Sections 13, 23, 25 and 26 all in Township 30 North, Range 7 West, W.M., containing 182 acres, more or less.

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

ESTIMATED SALE VOLUMES AND QUALITY:

price.

	Avg F	Ring Total		MBF by Grade									
Species	DBH Co	ount MBF	1	1P	2P	3P	SM	1S	2S	3S	4S	UT	
Douglas fir	18.8	23 6,499				80	627		3,576	1,752	401	64	
Redcedar	15.8	414								308	106		
Hemlock	15.1	277							135	104	22	16	
Silver fir	17.5	84							53	28	3		
Maple	15.2	62							12	10	24	16	
Red alder	12.1	55							3	10	29	13	
Sale Total		7,391											
MINIMUM BID:		\$2,431,439.00				BII) MET	HOD	: :	Sealed I	Bids		
PERFORMANCE SECURITY:		\$100,000.00				SA	LE TY	PE:]	Lump S	um		
EXPIRATION DATE:		October 31, 2027				AL	LOCA	TION	:]	Export l	Restric	ted	
BID DEPOSIT:		\$243,143.90 or B	\$243,143.90 or Bid Bond. Said deposit shall constitute an opening bid at the appraised									d	



TIMBER NOTICE OF SALE

HARVEST METHOD: Approximately 31% Cable, 69% Ground Based.

Forest products sold under this contract shall be harvested and removed using cable, cable-tethered, and ground based equipment. Cable-tethered equipment is limited to sustained slopes of 75 percent and less. Non-tethered self-leveling tracked equipment is limited to sustained slopes of 65 percent and less. Other ground based equipment is limited to tracked equipment on sustained slopes that are 45 percent and less. Rubber tired skidders are restricted unless approved by the Contract Administrator. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

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

Skylines, guylines, tailholds, or other harvest activities occurring beyond the timber sale boundary in the Timing Restriction area shown on the Timber Sale Map adjacent to Unit 3 are subject to daily timing restrictions from April 1 - September 23 during which harvest activities are permitted from two hours after sunrise to two hours before sunset. Road maintenance activities on the PA-H-3200 between stations 34+65 and 45+34 are also subject to this daily timing restriction. Falling and Yarding will not be permitted from November 1 - March 31 unless authorized in writing by the Contract Administrator except for hand falling and cable yarding unless the operator provides a written plan to mitigate winter harvest/hauling impacts that is approved by the contract administrator. All harvest activities will be restricted on weekends, holidays and from 8:00 pm - 6:00 am.

ROADS:

63.14 stations of required construction. 40.07 stations of required reconstruction. 39.69 stations of optional construction. 460.12 stations of required prehaul maintenance. 40.65 stations of optional prehaul maintenance. Rock identified to be used out of a State lands rock pit shall meet specifications as identified within the road plan, compliance will be determined by the Contract Administrator. If the rock does not meet specifications, a commercial source shall be used that does and will be at the Purchaser's expense.

Marbled Murrelet Timing Restrictions: Roads PA-H-3200, PA-I-2600, PA-I-2610, PA-I-2620. Any road work, right-of-way timber falling and yarding, rock pit operation, or heavy equipment operation is not allowed from two hours before official sunset to two hours after official sunrise from April 1 - September 23. This restriction does not apply to hauling timber, rock, or equipment. Road construction will not be permitted from November 1 - March 31 unless authorized in writing by the Contract AdministratorNo activities, including haul will be permitted from November 1 - March 31 unless the purchaser provides a written plan to mitigate winter hauling impacts that is approved in writing by the contract administrator.

No operations on weekends, State recognized holidays, or between 8:00 pm - 6:00 am unless approved in writing by the Contract Administrator.

Skylines, guylines, tailholds, or other harvest activities in the timing restriction area shown on the timber sale map adjacent to Unit 3 are subject to daily restrictions from April 1 to September 23 during which harvest activities are permitted from two hours after sunrise to two hours before sunset. Road maintenance activities on the PA-H-3200 between stations 34+65 and 45+34 are also subject to this daily timing restriction. The hauling of forest products will not be permitted from November 1 - March 31 unless



TIMBER NOTICE OF SALE

authorized in writing by the Contract Administrator. All harvest and haul activities will be restricted on weekends, holidays and between 8:00 pm - 6:00 am daily unless otherwise approved 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: \$125,647.00 is due on day of sale. \$9.00 per MBF is due upon removal. These are in addition to the bid price.

SPECIAL REMARKS: No Unit 2 and Unit 8 associated with the timber sale.

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.

Two weeks notice shall be given prior to operating in Units 3 and 5 to allow for trail closure.

Timber and rock haul will be prohibited during sanctioned mountain bike events. Purchaser will be provided with written notice two weeks prior to event.

Locked gates located PA-H-3000, and PA-H-3050. Contact Olympic Region Dispatch Center at (360) 374-2800 to obtain an AA1 key.





TIMBER SALE MAP



TIMBER SALE MAP



Prepared By: bsin490

Modification Date: bsin490 6/9/2022

DRIVING MAP



Prepared By: kgal490

R

Gate

Rock Pit

Modification Date: bsin490 3/20/2023

Ν

Parched Driving Directions

Unit 1: From the intersection of Walkabout Way and Highway 101, turn south onto Walkabout Way and proceed for 0.2 miles until reaching a gate on your right. Proceed through the gate (AA1 key) and continue on the PA-H-3000 for 0.6 miles. Stay to the left to continue on the PA-H-3000 and continue for 1.2 miles to the intersection with the H-3200. Stay straight and continue on the PA-H-3200 for 0.4 miles and veer uphill onto the PA-H-3210. Continue for 0.5 miles. To access eastern portion of Unit 1, turn left onto the PA-H-3240 and continue for 0.1 miles before veering downhill onto the PA-H-3241 which terminates at the beginning of new construction into the harvest unit.

Unit 3: From the intersection of the PA-H-3000 and PA-H-3100, turn right to continue on the PA-H-3100 and proceed for approximately 2 miles before reaching the edge of the unit.

Unit 4: From the intersection of the PA-H-3000 and PA-H-3061, turn left downhill for a couple hundred feet, turn right and continue for 0.2 miles to reach the beginning of new construction into the unit.

Unit 5: From the intersection of US-101 and Walkabout Way, head south on Walkabout Way for 200 feet before arriving at Unit 5.

Unit 6: From the intersection of the PA-H-3000 and PA-H-3200, turn right to head up hill and proceed on the PA-H-3000 for 0.6 miles before arriving at the right of way for Unit 6.

STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES

BILL OF SALE AND CONTRACT FOR FOREST PRODUCTS

Export Restricted Lump Sum AGREEMENT NO. 30-0102017

SALE NAME: PARCHED

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 December 18, 2024 and the sale was confirmed on _______. The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase as much of the following forest products as can be cut and removed during the term of this contract: All timber except trees marked with a band of blue paint, or bounded out by Leave Tree Area tags, no downed redcedar, 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 and all trees 60 inches or larger measured at diameter at breast height; bounded by Timber Sale Boundary tags, painted property lines, and a timber type change in Unit 1; Timber Sale Boundary tags and a Timber Type Change, and the PA-H-3071 road in Unit 3; Timber Sale Boundary tags and a Timber Type Change in Units 4 and 6; Timber Sale Boundary tags, Take/ Removal trees and Walkabout Way in Unit 5.

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.

All timber bounded by right-of-way tags.

All forest products described above located on approximately 182 acres on part(s) of Sections 13, 23, 25, and 26 all in Township 30 North, Range 7 West W.M. in Clallam County(s) as designated on the sale area and as shown on the attached timber sale map.

All forest products described above from the bole of the tree that meet or exceed 2 inches diameter inside bark on the small end are eligible for removal. Above ground components of a tree that remain as by-products after the manufacture of logs, including but not limited to tree tops, branches, limbs, needles, leaves, stumps, are not eligible for removal under the terms of this contract.

Forest products purchased under a contract that is designated as export restricted shall not be exported until processed. Forest products purchased under a contract that is designated as exportable may be exported prior to processing.

G-020 Inspection By Purchaser

Purchaser hereby warrants to the State that they have had an opportunity to fully inspect the sale area and the forest products being sold. Purchaser further warrants to the State that they enter this contract based solely upon their own judgment of the value of the forest products, formed after their own examination and inspection of both the timber sale area and the forest products being sold. Purchaser also warrants to the State that they enter this contract without any reliance upon the volume estimates, acreage estimates, appraisals, pre-bid documentation, or any other representations by the State Department of Natural Resources.

G-025 Schedules

The following attached schedules are hereby incorporated by reference:

Schedule	Title
А	Slash Piling Specifications
В	Green Tree Retention Plan

G-031 Contract Term

Purchaser shall complete all work required by this contract prior to October 31, 2027.

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 \$579.00 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 that 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.

Contract	Appraised	Overbid			Contract
Item	Price	Factor	Price	Fees	Payment Rate
Douglas fir	\$325.35	0	\$0.00	\$9.00	\$9.00
Hemlock	\$231.56	0	\$0.00	\$9.00	\$9.00
Maple	\$160.40	0	\$0.00	\$9.00	\$9.00
Red alder	\$200.67	0	\$0.00	\$9.00	\$9.00
Redcedar	\$510.78	0	\$0.00	\$9.00	\$9.00
Silver fir	\$242.67	0	\$0.00	\$9.00	\$9.00
Other	\$316.34	0	\$0.00	\$9.00	\$9.00

G-106 Adding Naturally Damaged Forest Products

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

G-111 Title and Risk of Loss

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

G-116 Sustainable Forestry Initiative® (SFI®) Certification

Forest products purchased under this contract are certified as being in conformance with the Sustainable Forestry Initiative 2022 Forest Management Standard under certificate number: BVC-SFIFM-018227.

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

G-120 Responsibility for Work

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

G-121 Exceptions

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

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

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

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

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

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

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

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

G-140 Indemnity

To the fullest extent permitted by law, Purchaser shall indemnify, defend and hold harmless State, agencies of State and all officials, agents and employees of State, from and against all claims arising out of or resulting from the performance of the contract. "Claim" as used in this contract means any financial loss, claim, suit, action, damage, or expense, including but not limited to attorneys' fees, attributable for bodily injury, sickness, disease or death, or injury to or destruction of tangible property including loss of use resulting therefrom. Purchasers' obligations to indemnify, defend, and hold harmless includes any claim by Purchasers' agents, employees, representatives, or any subcontractor or its employees. Purchaser expressly agrees to indemnify, defend, and hold harmless State for any claim arising out of or incident to Purchasers' or any subcontractors' performance or failure to perform the contract. Purchasers' obligation to indemnify, defend, and hold harmless State shall not be eliminated or reduced by any actual or alleged concurrent negligence of State or its agents, agencies, employees and officials. Purchaser waives its immunity under Title 51 RCW to the extent it is required to indemnify, defend and hold harmless State and its agencies, officials, agents or employees.

G-150 Insurance

Purchaser shall, at its cost and expense, buy and maintain insurance of the types and amounts listed below. Failure to buy and maintain the required insurance may result in a breach and/or termination of the contract at State's option. State may suspend Purchaser operations until required insurance has been secured.

All insurance and surety bonds should be issued by companies admitted to do business within the State of Washington and have a rating of A-, Class VII or better in the most recently published edition of Best's Reports. If an insurer is not admitted, all insurance policies and procedures for issuing the insurance policies must comply with Chapter 48.15 RCW and 284-15 WAC.

The State of Washington, Department of Natural Resources region office of sale origin shall be provided written notice before cancellation or non-renewal of any insurance referred to therein, in accord with the following specifications:

- 1. Insurers subject to Chapter 48.18 RCW (admitted and regulated by the Insurance Commissioner): The insurer shall give the State 45 days advance notice of cancellation or non-renewal. If cancellation is due to non-payment of premium, the State shall be given 10 days advance notice of cancellation.
- 2. Insurers subject to Chapter 48.15 RCW (surplus lines): The State shall be given 20 days advance notice of cancellation. If cancellation is due to non-payment of premium, the State shall be given 10 days advance notice of cancellation.

Before starting work, Purchaser shall furnish State of Washington, Department of Natural Resources with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements specified in the contract. Insurance coverage shall be obtained by the Purchaser prior to operations commencing and continually maintained in full force until all contract obligations have been satisfied or an operating release has been signed by the State.

Purchaser shall include all subcontractors as insured under all required insurance policies, or shall furnish separate certificates of insurance and endorsements for each subcontractor. Subcontractor(s) must comply fully with all insurance requirements stated herein. Failure of subcontractor(s) to comply with insurance requirements does not limit Purchaser's liability or responsibility.

The State of Washington, Department of Natural Resources, its elected and appointed officials, agents and employees shall be named as an additional insured via endorsement on all general liability, excess, umbrella, and property insurance policies.

All insurance provided in compliance with this contract shall be primary as to any other insurance or self-insurance programs afforded to or maintained by State. Purchaser

waives all rights against State for recovery of damages to the extent these damages are covered by general liability or umbrella insurance maintained pursuant to this contract.

By requiring insurance herein, State does not represent that coverage and limits will be adequate to protect Purchaser and such coverage and limits shall not limit Purchaser's liability under the indemnities and reimbursements granted to State in this contract.

The limits of insurance, which may be increased as deemed necessary by State of Washington, Department of Natural Resources, shall not be less than as follows:

Commercial General Liability (CGL) Insurance. Purchaser shall maintain general liability (CGL) insurance, and, if necessary, commercial umbrella insurance with a limit of not less than \$1,000,000.00 per each occurrence. If such CGL insurance contains aggregate limits, the General Aggregate limit shall be at least twice the "each occurrence" limit. CGL insurance shall have products-completed operations aggregate limit of at least two times the "each occurrence" limit. CGL coverage shall include a Logging and Lumbering Endorsement (i.e. Logger's Broad-Form) to cover the events that include, but are not limited to, fire suppression expenses, accidental timber trespasses, and wildfire property damage with limits of not less than \$2,000,000.00 each occurrence.

CGL insurance shall be written on Insurance Services Office (ISO) occurrence form CG 00 01 (or a substitute form providing equivalent coverage). All insurance shall cover liability arising out of premises, operations, independent contractors, products completed operations, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another party assumed in a business contract), and contain separation of insured (cross liability) condition.

Employer's Liability "Stop Gap" Insurance. Purchaser shall buy employers liability insurance, and, if necessary, commercial umbrella liability insurance with limits not less than \$1,000,000.00 each accident for bodily injury by accident or \$1,000,000.00 each employee for bodily injury by disease.

Workers' Compensation Coverage. Purchaser shall comply with all State of Washington workers' compensation statutes and regulations. Workers' compensation coverage shall be provided for all employees of Purchaser and employees of any subcontractor or sub-subcontractor. Coverage shall include bodily injury (including death) by accident or disease, which exists out of or in connection with the performance of this contract. Except as prohibited by law, Purchaser waives all rights of subrogation against State for recovery of damages to the extent they are covered by workers' compensation, employer's liability, commercial general liability, or commercial umbrella liability insurance.

If Purchaser, subcontractor or sub-subcontractor fails to comply with all State of Washington workers' compensation statutes and regulations and State incurs fines or is required by law to provide benefits to or obtain coverage for such employees, Purchaser

shall indemnify State. Indemnity shall include all fines, payment of benefits to Purchaser or subcontractor employees, or their heirs or legal representatives, and the cost of effecting coverage on behalf of such employees.

Business Auto Policy (BAP). Purchaser shall maintain business auto liability and, if necessary, commercial umbrella liability insurance with a limit not less than \$1,000,000.00 per accident. Such insurance shall cover liability arising out of "Any Auto". Business auto coverage shall be written on ISO form CA 00 01, or substitute liability form providing equivalent coverage. If necessary the policy shall be endorsed to provide contractual liability coverage and cover a "covered pollution cost or expense" as provided in the 1990 or later editions of CA 00 01. Purchaser waives all rights against State for the recovery of damages to the extent they are covered by business auto liability or commercial umbrella liability insurance.

G-160 Agents

The State's rights and duties will be exercised by the Region Manager at Forks, Washington. The Region Manager will notify Purchaser in writing who is responsible for administering the contract. The Region Manager has sole authority to waive, modify, or amend the terms of this contract in the manner prescribed in clause G-180. No agent, employee, or representative of the State has any authority to bind the State to any affirmation, representation, or warranty concerning the forest products conveyed beyond the terms of this contract.

Purchaser is required to have a person on site during all operations who is authorized to receive instructions and notices from the State. Purchaser shall inform the State in writing who is authorized to receive instructions and notices from the State, and any limits to this person's authority.

G-170 Assignment and Delegation

No rights or interest in this contract shall be assigned by Purchaser without prior written permission of the State. Any attempted assignment shall be void and ineffective for all purposes unless made in conformity with this paragraph. Purchaser may perform any duty through a delegate, but Purchaser is not thereby relieved of any duty to perform or any liability. Any assignee or delegate shall be bound by the terms of the contract in the same manner as Purchaser.

G-180 Modifications

Waivers, modifications, or amendments of the terms of this contract must be in writing signed by Purchaser and the State.

G-190 Contract Complete

This contract is the final expression of the Parties' agreement. There are no understandings, agreements, or representations, expressed or implied, which are not specified in this contract.

G-200 Notice

Notices required to be given under the following clauses shall be in writing and shall be delivered to Purchaser's authorized agent or sent by certified mail to Purchaser's address of record:

G-210 Violation of Contract G-220 State Suspends Operations

All other notices required to be given under this contract shall be in writing and delivered to the authorized agent or mailed to the Party's post office address. Purchaser agrees to notify the State of any change of address.

- G-210 Violation of Contract
 - a. If Purchaser violates any provision of this contract, the Contract Administrator, by written notice, may suspend those operations in violation. If the violation is capable of being remedied, Purchaser has 30 days after receipt of a suspension notice to remedy the violation. If the violation cannot be remedied (such as a violation of WAC 240-15-015) or Purchaser fails to remedy the violation within 30 days after receipt of a suspension notice, the State may terminate the rights of Purchaser under this contract and collect damages.
 - b. If the contract expires pursuant to clause G-030 or G-031 without Purchaser having performed all its duties under this contract, Purchaser's right to operate is terminated and Purchaser shall not have the right to remedy the breach. This provision shall not relieve Purchaser of any payment obligations.
 - c. The State has the right to remedy the breach in the absence of any indicated attempt by Purchaser or if Purchaser is unable, as determined by the State, to remedy the breach. Any expense incurred by the State shall be charged to Purchaser and shall be paid within 30 days of receipt of billing.
 - d. If Purchaser's violation is a result of a failure to make a payment when due, in addition to a. and b. above, interest shall accrue on the unpaid balance at 12 percent per annum, beginning the date payment was due.

G-220 State Suspends Operations

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

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

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

If it reasonably appears that the damage that the State is suffering, or can reasonably be expected to suffer if the operation is allowed to continue, will prevent harvest for a period that will exceed 6 months, and Purchaser has complied with this contract, the provisions of clause G-066 shall govern just as if the harvest was prevented by an applicable foreign or domestic governmental regulation or order.

G-230 Unauthorized Activity

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

G-240 Dispute Resolution

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

- a. In the event of a dispute, Purchaser must make a written request to the Region Manager for resolution prior to seeking other relief.
- b. The Region Manager will issue a written decision on Purchaser's request within ten business days.
- c. Within ten business days of receipt of the Region Manager's decision, Purchaser may make a written request for resolution to the Deputy Supervisor
 - Uplands of the Department of Natural Resources.
- d. Unless otherwise agreed, a conference will be held by the Deputy Supervisor -Uplands within 30 calendar days of the receipt of Purchaser's request for review of the Region Manager's written decision. Purchaser and the Region Manager will have an opportunity to present their positions. The Deputy Supervisor - Uplands will issue a decision within a reasonable time of being presented with both Parties' positions.

G-250 Compliance with All Laws

Purchaser shall comply with all applicable statutes, regulations and laws, including, but not limited to; chapter 27.53 RCW, chapter 68.50 RCW, WAC 240-15 and WAC 296-54. Failure to comply may result in forfeiture of this contract.

G-260 Venue

This contract shall be governed by the laws of the State of Washington. In the event of a lawsuit involving this contract, venue shall be proper only in Thurston County Superior Court.

G-270 Equipment Left on State Land

All equipment owned or in the possession of Purchaser, its employees, agents, or invitees, including independent contractors, shall be removed from the sale area and other State land by the termination date of this contract. Equipment remaining unclaimed on State land 60 days after the expiration of the contract period is subject to disposition as provided by law. Purchaser shall pay to the State all costs of moving, storing, and disposing of such equipment. The State shall not be responsible for any damages to or loss of the equipment or damage caused by the moving, storing or disposal of the equipment.

G-280 Operating Release

An operating release is a written document, signed by the State and Purchaser, indicating that Purchaser has been relieved of certain rights or responsibilities with regard to the entire or a portion of the timber sales contract. Purchaser and State may agree to an operating release for this sale, or portion of this sale, prior to the contract expiration, when all contract requirements pertaining to the release area have been satisfactorily completed. Upon issuance of a release, Purchaser's right to cut and remove forest products on the released area will terminate.

G-310 Road Use Authorization

Purchaser is authorized to use the following State roads and roads for which the State has acquired easements and road use permits; Walkabout Way, PA-H-3000, PA-H-3005, PA-H-3048, PA-H-3050, PA-H-3060, PAH-H-3061, PA-H-3066, PA-H-3071, PA-H-3100, PA-H-3112, PA-H-3113, PA-H-3200, PA-H-3210, PA-H-3215, PA-H-3240, PA-H-3241, PA-H-3243, PA-I-2600, PA-I-2610, PA-I-2620, Paradise Lane, 1+00 Spur. 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, reestablish 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-H-3000, PA-H-3200, PA-H-3210, or Walkabout Way roads, unless authority is granted in writing by the Contract Administrator.

G-430 Open Fires

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

- 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 \$192,166.00. The total contract price consists of a \$0.00 contract bid price plus \$192,166.00 in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066 clause. Purchaser shall be liable for the entire purchase price, and will not be entitled to any refunds or offsets unless expressly stated in this contract.

THE PURCHASE PRICE SHALL NOT BE AFFECTED BY ANY FACTORS,

INCLUDING: the amount of forest products actually present within the contract area, the actual acreage covered by the contract area, the amount or volume of forest products actually cut or removed by purchaser, whether it becomes physically impossible or uneconomic to remove the forest products, and whether the subject forest products have been lost or damaged by fire or any other cause. The only situations Purchaser may not be liable for the full purchase price are governed by clause G-066, concerning governmental regulatory actions taken during the term of the contract.

P-045 Guarantee of Payment

Purchaser will pay for forest products prior to cutting or will guarantee payment by posting an approved payment security. The amount of cash or payment security shall be determined by the State and shall equal or exceed the value of the cutting proposed by Purchaser.

P-050 Billing Procedure

The State will compute and forward to Purchaser statements of charges provided for in the contract. Purchaser shall deliver payment to the State on or before the date shown on the billing statement.

P-080 Payment Account Refund

Advance payments made under P-045 or P-045.2 remaining on account above the value for the charges shall be returned to Purchaser within 30 days following the final report of charges. Refunds not made within the 30 day period will accrue interest at the interest rate, as established by WAC 332-100-030, computed on a daily basis until paid.

P-090 Performance Security

Purchaser agrees to furnish, within 30 days of the confirmation date, security acceptable to the State in the amount of \$100,000.00. The Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by operations under this contract or resulting from Purchaser's noncompliance with any rule or law. Acceptable performance security may be in the form of a performance bond, irrevocable letter of credit, cash, savings or certificate of deposit account assignments, and must name the State as the obligee or beneficiary. A letter of credit must comply with Title 62A RCW, Article 5. Performance security must remain in full force over the duration of the contract length. Surety bonds issued shall conform to the issuance and rating requirements in clause G-150. The State shall retain the performance security 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 - March 31, with the exception of hand falling and cable yarding on weekends and state recognized holidays or prior to 8:00 pm - 6:00 am 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 cottonwood shall be felled and yarded to a landing or girdled and left standing.

H-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using cable, cable-tethered, and ground based equipment. Cable-tethered equipment is limited to sustained slopes of 75 percent and less. Non-tethered self-leveling tracked equipment is limited to sustained slopes of 65 percent and less.

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

H-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities.

H-126 Tailholds on State Land

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

H-127 Tailholds on Private Land

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

H-130 Hauling Schedule

The hauling of forest products will not be permitted on any roads from 8:00 pm - 6:00 am, and no haul on weekends or state holidays, and no haul from November 1 - March 31 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, including road construction/reconstruction, and digging next to the Walkabout Way and PA-H-3000 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 timber, warning signs must be posted on the start and end of the H-3000, H-3100, and H-3200 and where recreation trails enter the harvest area.

4. Two weeks notice shall be given prior to operating in Units 3 and 5 to allow for trail closure.

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

6. Slash shall be piled in accordance with schedule A.

7. 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.

8. Timber must be felled and yarded away from streams where safely possible.

9. A timber sale prospectus map, copy of the FPA and contract must be present on site while harvest activities are occurring.

10. A 30' Equipment Limitation Zone (ELZ) must be applied to all Type 5 streams. If more than 10% of the soil within the ELZ is exposed during operations, falling/yarding activities must cease until the purchaser formulates a mitigation plan approved by the contract administrator.

11. Leave trees that need to be cut to facilitate road construction or safe operations may be cut but cannot be yarded or shipped off site. They must be replaced. They must remain on site as downed wood.

12. Timber and rock haul will be prohibited during sanctioned mountain bike events. Purchaser will be provided with written notice two weeks prior to event. 13. Tailholds outside of the harvest units must be approved in writing by the Contract Administrator.

14. Rubber tired skidders are prohibited unless skidding and rutting requirements can be met and a Purchaser Harvest Plan is submitted. The Purchaser Harvest Plan must be approved in writing by the Contract Administrator.

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

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

H-141 Additional Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

1. No skylines, guylines, tailholds, or other harvest activities are permitted in the Equipment Exclusion Zone area shown on the Timber Sale Map in Units 1 and 3.

2. Skylines, guylines, tailholds, or other harvest activities occurring in the Timing Restriction area shown on the Timber Sale Map adjacent to Unit 3 are subject to daily timing restriction from April 1 - September 23 during which harvest activities are permitted from two hours after sunrise to two hours before sunset. Impacts to trees with potential nesting platforms must be avoided.

3. Road maintenance activities on the PA-H-3200 between stations 34+65 and 45+34 are also subject to this daily timing restriction.

4. 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.

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

H-142 Wildlife Timing Restrictions

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

Marbled Murrelet timing restrictions- On the PA-H-3200, PA-I-2600, PA-I-2610, PT-I-2620 roads, any road work, right-of-way timber falling and yarding, rock pit operation, or heavy equipment operation is not allowed from two hours before official sunset to two hours after official sunrise from April – September 23. This restriction does not apply to hauling timber, rock, or equipment.

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

H-190 Completion of Settings

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

H-220 Protection of Residual or Adjacent Trees

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

H-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 10/16/2024 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-I-2600, PA-I-2610, PA-I-2620, Walkabout Way, PA-H-3000, PA-H-3100, PA-H-3200. 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-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-040 Noxious Weed Control

Purchaser shall notify the Contract Administrator in advance of moving equipment onto State lands. Purchaser shall thoroughly clean all off road equipment prior to entry onto State land to remove contaminated soils and noxious weed seed. If equipment is moved from one DNR project area to another, the Contract Administrator reserves the right to require the cleaning of equipment. Equipment shall be cleaned at a location approved 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 typed waters as a result of operations under this contract and which is identified by the Contract Administrator shall be removed and deposited in a stable position. Removal of slash or debris shall be accomplished in a manner that avoids damage to the natural stream bed and bank vegetation.

S-110 Resource Protection

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

S-120 Stream Protection

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

- S-130 Hazardous Materials
 - a. Hazardous Materials and Waste Regulatory Compliance

Purchaser is responsible for understanding and complying with all applicable local, state, and federal hazardous material/waste laws and regulations for operations conducted under this contract. Such regulations pertain to, but may not be limited to, hazardous material storage, handling and transport, personnel protection, release notification and emergency response, cleanup, and waste disposal.

Purchaser shall be responsible for restoring the site in the event of a spill or other releases of hazardous material/waste during operations conducted under this contract.

b. Hazardous Materials Spill Prevention

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

c. Hazardous Materials Spill Containment, Control and Cleanup

If safe to do so, Purchaser shall take immediate action to contain and control all hazardous material spills. Purchaser shall ensure that enough quick

response spill kits capable of absorbing 10 gallons of oil, coolant, solvent or contaminated water are available on site to quickly address potential spills from any piece of equipment at all times throughout active operations. If large quantities of bulk fuel/other hazardous materials are stored on site, Purchaser must be able to effectively control a container leak and contain & recover a hazmat spill equal to the largest single on site storage container volume. (HAZWOPER reg. 29CFR 1910.120 (j) (1) (vii)).

d. Hazardous Material Release Reporting

Releases of oil or hazardous materials to the environment must be reported according to the State Department of Ecology (ECY). It is the responsibility of the Purchaser to have all emergency contact information readily available and a means of remote communication for purposes of quick notification. In the event of a spill covered in part a., the Purchaser is responsible for immediately notifying all the following:

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

S-131 Refuse Disposal

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

S-150 Recreation Trail Cleanout

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

Section D: Damages

D-013 Liquidated Damages or Failure to Perform

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

obtaining an adequate remedy. These liquidated damages provisions provide greater certainty for the Purchaser by allowing the Purchaser to better assess its responsibilities under the contract.

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

D-041 Reserve Tree Excessive Damage

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

SIGNATURES

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

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

STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES

Purchaser

William Wells Olympic Region Manager

Print Name

Date:

Date: Address:

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

STATE OF)						
COUNTY OF)						
On this appeared	day of		_, 20_	_,	before 1	ne p	ersor	nally
			to n	ne	known of the co	to orpor:	be ation	the that
executed the with voluntary act and	in and foregoing instrument a deed of the corporation, for	nd acknowledge the uses and p	ed said in urposes 1	stru the	ument to rein ment	be the	e free 1, and	and d 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 _____
Slash Piling Specifications

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

A. Piles shall be a minimum of 12 feet tall by 8 feet wide to a maximum of 30 feet tall and 16 feet wide. Piles shall be cone shaped and stable.

B. Piles shall be free of topsoil, large rotten logs and large stumps. No material larger than 8 inches in diameter shall be piled. Any 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.

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.

	<pre># of Individually</pre>		# of Trees	Total # of
Unit #	Marked Trees	# of Clumps	Clumped	Leave Trees
1	99	9	496	595
3	165	7	440	605
4	101	2	123	224
5	63	1	165	228
6	49	1	71	120

Permission to substitute leave trees must be granted by the Contract Administrator.



WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

FOREST EXCISE TAX ROAD SUMMARY SHEET

Region:

Timber Sale Name:

Application Number:

EXCISE TAX APPLICABLE ACTIVITIES

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

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

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

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

Pre-Haul Maintenance:linear feetExisting 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 contact. 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)

linear feet

PRE-CRUISE NARRATIVE

Sale Name: Parched	Region: Olympic
Agreement #: 30-102017	District: Straits
Contact Forester: Ben Stein Phone / Location: (360) 640-8794 / PAWC	County(s): Clallam, Choose a county
Alternate Contact: Cody Pagel Phone / Location: (360) 640-9996 / Port Angeles	Other information: Click here to enter text.

Type of Sale: Lump Sum	100%
Harvest System: Ground based	68%
Harvest System: Uphill Cable	32%

UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit #	Legal		sal	Dedu	ctions fro (No harv	om Gros vest acre	s Acres s)	cres	Acreage Determinatio
Harvest R/W or RMZ WMZ	(Enter only one legal for each unit) Sec/Twp/Rng	Grant or Trust	Gross Propo Acres	RMZ/ WMZ Acres	Leave Tree Acres	Existing Road Acres	Other Acres (describe)	Net Harvest A	n (List method and error of closure if applicable)
1 VRH	Section 25 of T30N R07W	01	122.1	23.8	2.7	-	34.0	61.6	GPS (Smart phone)
3 VRH	Section 23 of T30N R07W	01 / 03	63.9	2.2	3.1	-	39.0	58.6	GPS (Smart phone)
4 VRH	Section 23/26 of T30N R07W	01 / 03	25.6	3.1	1.0	-	-	21.5	GPS (Smart phone)
5 VRH	Section 13 of T30N R07W	03	38.8	7.8	2.0	0.5	-	28.5	GPS
6 VRH	Section 23 of T30N R07W	01	17.9	2.3	0.6	-	-	15	GPS
7 ROW	Section 25 of T30N R07W	03	3.1	-	-	-	-	3.1	GPS centerline x 50' width
9 ROW	Section 23 of T30N R07W	01 / 03	2	-	-	-	-	2	GPS centerline x 50' width
10 ROW	Section 23 of T30N R07W	03	1	-	-	-	-	1	GPS centerline x 50' width
11 ROW	Section 13 of T30N R07W	03	1	-	-	-	-	1	GPS centerline x 50' width
TOTAL ACRES			314.4	39.2	9.4	0.5	73.0	192.3	

Unit #	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
1 VRH	Harvest all timber bound by timber sale tags, plantation, and painted property lines; except for forest products bound by leave tree area tags or trees marked with blue paint on the bole.	There are two segments of tagged right-of-way. Clearing limits for the H-3215 are not marked and no merch timber removal is anticipated.	There are 496 trees retained in nine leave tree areas. An additional 99 trees have been individually marked for retention.
3 VRH	Harvest all timber bound by timber sale tags and plantation; except for forest products bound by leave tree area tags or trees marked with blue paint on the bole.	There are five segments of tagged right of way	There are 511 trees retained in eight leave tree areas. An additional 214 trees have been individually marked for retention.
4 VRH	Harvest all timber bound by timber sale tags and plantation; except for forest products bound by leave tree area tags or trees marked with blue paint on the bole.	n/a	There are 123 trees retained in two leave tree areas. An additional 101 trees have been individually marked for retention.
5VRH	Harvest all timber bound by timber sale tags and red-ringed trees; except for forest products bound by leave tree area tags or trees marked with blue paint on the bole.	n/a	There are 165 trees retained in one leave tree area. An additional 63 trees have been individually marked for retention.
6 VRH	Harvest all timber bound by timber sale tags and plantation; except for forest products bound by leave tree area tags or trees marked with blue paint on the bole.	n/a	There are 71 trees retained in one leave tree area. An additional 49 trees have been individually marked for retention.
7 ROW	bound by right-of-way boundary tags	n/a	n/a
9 ROW	bound by right-of-way boundary tags	n/a	n/a
10 ROW	bound by right-of-way boundary tags	n/a	n/a
11 ROW	bound by right-of-way boundary tags	n/a	n/a

HARVEST PLAN AND SPECIAL CONDITIONS:

OTHER PRE-CRUISE INFORMATION:

Unit #	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
		Accessible with an AA1 lock at Walkabout	
1	DF, WH / 2,300 mbf	Way / PA-H-3000 intersection	
3	DF, GF / 2,500 mbf		
4	DF, WH / 1,000 mbf		
5	DF, WH / 200 mbf		
6	DF, WH/ 500 mbf		
R/W &			
Daylight	DF 26 mbf		
TOTAL MBF	6,526 mbf		

REMARKS:

Additional field markings:

- Traverse points are marked with red and blue ribbon.
- Where harvest is occurring adjacent to private property, the last take tree on state property is painted with a pink X facing the sale area.
- Road centerlines are marked with orange ribbon.

<u>Unit 1:</u> ~100 year old naturally regenerated Douglas fir stand with decent stocking. Scattered remnants are marked for retention throughout the unit.

<u>Unit 3:</u> ~120-140 year old naturally regenerated Douglas fir stand with decent stocking. Scattered remnants are marked for retention throughout the unit. This unit contains areas of boney topography with relatively short timber.

<u>Unit 4:</u> ~100 year old naturally regenerated Douglas fir stand with decent stocking. Scattered remnants are marked for retention throughout the unit. The R/W clearing limits into the unit (H-3061) are not marked and no merch timber removal is anticipated.

<u>R/W & Daylighting:</u> Right-of-way clearing to access the harvest units is occurring in 20-25 year old Douglas fir plantation and consists mostly ~20' CNS removal. Daylighting into the gravel pit on the H-3005 is removing older (~30 year old) Douglas fir plantation.

Prepared By: Cody Pagel	Title: Unit Coordinator	CC:
Date: 10/16/2024		

Timber Sale Cruise Report Parched

Sale Name: PARCHED

Sale Type: LUMP SUM

Region: OLYMPIC

District: STRAITS

Lead Cruiser: Matt Llobet

Other Cruisers: PK, AH and DR. Prepared by Kevin Peterson

Cruise Narrative:

Location:

Parched timber sale is located 5 miles West of Port Angeles off Walkabout way road. Cruise Design: A cruise all sample was applied throughout all three units and right of ways.

Log Lengths cruised:

Conifer- 12', 18', 24', 26', 30', 32', 34', 36', and 40' Hardwood- 18', 20', 28', 30', and 40'

Poles- Class 3-45'+

All timber was graded in variable log lengths with the Scaling Bureaus Westsdide/Northwest log rules. The utility wood was given a board ft. volume. Parched timber sale was cruised using the variable plot and fix plot sample method. If a plot landed near or in a "Leave Tree Area" the leave trees were recorded as leave. A species and DBH was obtained. This volume is not included in the sale volume. Cruised acres are based on FMA acres including leave tree areas.

Parched ranges in elevation from 1,120 feet - 2,120 feet, with good road access. Parched has a dominant Douglas fir component (90%), with a scattered component of Western Hemlock, Western Red Cedar, True Fir, and Hardwoods. The Terrain throughout Parched is gentle to moderate, making for excellent operator ground.

Unit 1

- DF dominant, variability in diameters and heights
- Moderate and steady slopes
- Waist height salal understory in a lot of places
- WH, RC, and mixed hardwood understory

Unit 2:

- DF dominant
- WH, RC, and RA scattered throughout Unit 3:
- DF dominant- variability in diameters and heights
- Moderate and steady slopes
- WH, RC, and mixed hardwood understory
- DF poles observed in central and southern portion of U3A ROW:
- DF plantation, small trees around 8-14" dbh

Unit 4:

- DF dominant- variability in sizes and heights
- In some places small scattered WH and RC in understory

- Appears to be lower DF stocking in southern "tail" end of unit. This area tended to have a more open understory and seemed "drier"

Unit 5:

- Mixture of widely spaced RA, DF and RC.

Unit 6:

_ DF dominant with scattered RC, WH and SF.

- Eastern side of unit (plots 22-28) looks wetter with greater WH and RC stocking, more downed woody debris. Some large WH and RC here.

ROW:

- Df plantation, small trees around 8-12" DBH Daylight:
- Along grade- drivable to the pit
- Mostly contains plantation DF 8-13" DBH

Timber Sale Notice Volume (MBF)

				MBF Volume by Grade						
Sp	DBH	Rings/In	Age	All	Peeler	Spec Mill	2 Saw	3 Saw	4 Saw	Utility
DF	18.8	23.1	122	6,499	80	627	3,576	1,752	401	64
RC	15.8			414				308	106	
WH	15.1			277			135	104	22	16
SF	17.5			84			53	28	3	
MA	15.2			62			12	10	24	16
RA	12.1			55			3	10	29	14
ALL	17.9	23.0	122	7,391	80	627	3,779	2,212	584	109

Timber Sale Notice Weight (tons)

	Tons by Grade								
Sp	All	Peeler	Spec Mill	2 Saw	3 Saw	4 Saw	Utility		
DF	45,591	411	3,645	23,102	14,424	3,574	436		
RC	3,558				2,566	992			
WH	2,345			989	1,005	229	123		
SF	578			317	237	25			
MA	518			82	78	248	110		
RA	493			25	66	306	96		
ALL	53,084	411	3,645	24,515	18,375	5,374	765		

Timber Sale Overall Cruise Statistics

BA	BA SE	V-BAR	V-BAR SE	Net Vol	Vol SE
(sq ft/acre)	(%)	(bf/sq ft)	(%)	(bf/acre)	(%)
272.4	3.3	138.5	1.4	39,953	3.7

Timber Sale Unit Cruise Design

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
PARCHED 1A	B2: VR, 2 BAF (62.5, 40 for some species) Measure All, Sighting Ht = 4.5 ft	26.9	26.9	25	25	0

September 19, 2024 14:50:07

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
PARCHED 1B	B2: VR, 2 BAF (62.5, 40 for some species) Measure All, Sighting Ht = 4.5 ft	29.8	29.8	26	26	0
PARCHED 1C	B2: VR, 2 BAF (62.5, 40 for some species) Measure All, Sighting Ht = 4.5 ft	8.1	8.1	9	9	0
PARCHED 1 RW	B1: VR, 1 BAF (10) Measure All, Sighting Ht = 0 ft	3.2	3.2	2	2	0
PARCHED 3A	B2: VR, 2 BAF (62.5, 40 for some species) Measure All, Sighting Ht = 4.5 ft	53.8	53.8	43	43	0
PARCHED 3B	B2: VR, 2 BAF (62.5, 40 for some species) Measure All, Sighting Ht = 4.5 ft	7.9	7.9	8	8	0
PARCHED 3 RW	FX: FR plots (20 tree / acre expansion)	2.7	2.7	1	1	0
PARCHED U4	B2: VR, 2 BAF (62.5, 40 for some species) Measure All, Sighting Ht = 4.5 ft	23.2	23.2	28	28	0
PARCHED U5	B2C: VR, 2 BAF (40, 40 for some species) Measure/Count Plots, Sighting Ht = 0 ft	27.8	27.8	21	17	0
PARCHED 6	B2: VR, 2 BAF (62.5, 40 for some species) Measure All, Sighting Ht = 4.5 ft	15.6	15.6	14	14	0
PARCHED U11	B1: VR, 1 BAF (20) Measure All, Sighting Ht = 4.5 ft	1.3	1.3	1	1	0
All		200.3	200.2	178	174	0

Timber Sale Log Grade x Sort Summary

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
DF	DEAD	2 SAW	Domestic	16.4	40	33	24	28.5	43.7	4.7
DF	DEAD	3 SAW	Domestic	12.9	40	41	21	48.5	63.3	4.2
DF	DEAD	UTILITY	Pulp	8.4	29	14	14	0.0	22.2	2.7
DF	LIVE	2 SAW	Domestic	16.1	39	10,561	10,434	1.2	13,016.4	2,089.9
DF	LIVE	2 SAW	HQ-A	14.0	36	3,051	3,031	0.7	4,196.9	607.2
DF	LIVE	2 SAW	HQ-B	15.6	38	3,776	3,717	1.6	4,957.4	744.5
DF	LIVE	2 SAW	Pole	14.3	37	646	646	0.0	887.7	129.3
DF	LIVE	3 PEELER	Domestic	26.9	33	399	399	0.0	411.1	79.9
DF	LIVE	3 SAW	Domestic	8.4	36	5,945	5,879	1.1	9,933.3	1,177.7
DF	LIVE	3 SAW	HQ-B	9.9	37	2,409	2,406	0.1	3,726.4	481.9

September 19, 2024 14:50:07

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
DF	LIVE	3 SAW	Pole	10.4	36	439	439	0.0	700.7	88.0
DF	LIVE	4 SAW	Domestic	5.9	25	1,965	1,959	0.3	3,506.6	392.5
DF	LIVE	4 SAW	Pole	8.7	23	40	40	0.0	67.2	8.1
DF	LIVE	CULL	Cull	7.2	7	1,059	0	100.0	0.0	0.0
DF	LIVE	SPECIAL MILL	HQ-A	18.8	35	3,151	3,130	0.7	3,644.7	627.0
DF	LIVE	UTILITY	Pulp	5.7	21	309	307	0.6	413.6	61.6
MA	LIVE	2 SAW	Domestic	16.3	26	68	62	9.1	82.1	12.4
MA	LIVE	3 SAW	Domestic	12.0	24	52	50	3.4	77.7	10.1
MA	LIVE	4 SAW	Domestic	6.8	30	121	118	2.9	248.3	23.6
MA	LIVE	CULL	Cull	6.5	20	39	0	100.0	0.0	0.0
MA	LIVE	UTILITY	Pulp	6.2	19	79	79	0.0	110.1	15.8
RA	LIVE	2 SAW	Domestic	13.3	28	18	15	18.9	25.3	2.9
RA	LIVE	3 SAW	Domestic	10.2	29	49	49	0.0	66.0	9.7
RA	LIVE	4 SAW	Domestic	6.5	29	158	146	7.6	305.7	29.2
RA	LIVE	CULL	Cull	5.0	11	10	0	100.0	0.0	0.0
RA	LIVE	UTILITY	Pulp	5.6	22	68	68	0.0	96.4	13.5
RC	LIVE	3 SAW	Domestic	9.8	34	1,597	1,515	5.1	2,528.2	303.4
RC	LIVE	3 SAW	Pole	9.0	40	24	24	0.0	37.4	4.7
RC	LIVE	4 SAW	Domestic	6.0	26	533	528	0.9	992.3	105.8
RC	LIVE	CULL	Cull	8.2	9	425	0	100.0	0.0	0.0
SF	LIVE	2 SAW	Domestic	19.0	39	266	266	0.0	316.6	53.2
SF	LIVE	3 SAW	Domestic	8.0	37	141	141	0.0	237.0	28.2
SF	LIVE	4 SAW	Domestic	6.2	26	14	14	0.0	24.6	2.7
SF	LIVE	CULL	Cull	7.0	8	27	0	100.0	0.0	0.0
WH	LIVE	2 SAW	Domestic	15.0	38	694	674	2.9	988.7	135.1
WH	LIVE	3 SAW	Domestic	8.4	35	527	521	1.1	1,004.9	104.4
WH	LIVE	4 SAW	Domestic	5.7	26	111	109	1.9	228.8	21.9
WH	LIVE	CULL	Cull	8.6	7	60	0	100.0	0.0	0.0
WH	LIVE	UTILITY	Pulp	5.7	20	77	77	0.0	122.9	15.5

Timber Sale Log Sort x Diameter Bin Summary

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 8	LIVE	Pulp	5.3	20	189	1.0	278.6	37.9
DF	5 - 8	LIVE	Cull	5.8	7	0	100.0	0.0	0.0
DF	5 - 8	LIVE	Domestic	6.4	30	4,780	0.6	8,581.6	957.4
DF	5 - 8	DEAD	Pulp	7.5	16	2	0.0	3.8	0.4
DF	5 - 8	LIVE	Pole	8.3	34	78	0.0	163.3	15.5

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 8	LIVE	HQ-B	8.5	37	325	0.0	584.6	65.1
DF	9 - 11	DEAD	Pulp	9.1	40	11	0.0	18.5	2.3
DF	9 - 11	LIVE	Pulp	9.6	22	9	0.0	14.7	1.8
DF	9 - 11	LIVE	Cull	10.3	12	0	100.0	0.0	0.0
DF	9 - 11	LIVE	Domestic	10.3	35	3,045	1.3	4,839.0	609.9
DF	9 - 11	LIVE	HQ-B	10.3	37	2,081	0.1	3,141.8	416.8
DF	9 - 11	LIVE	Pole	10.6	34	402	0.0	604.5	80.5
DF	9 - 11	DEAD	Domestic	10.8	40	6	52.9	19.7	1.2
DF	12 - 14	LIVE	Pulp	12.3	20	13	0.0	16.2	2.7
DF	12 - 14	LIVE	HQ-B	13.2	38	1,139	0.6	1,746.4	228.1
DF	12 - 14	LIVE	Domestic	13.3	38	2,810	0.7	4,010.8	562.9
DF	12 - 14	LIVE	Pole	13.3	37	347	0.0	499.6	69.6
DF	12 - 14	LIVE	HQ-A	13.4	36	1,999	0.5	2,917.8	400.3
DF	12 - 14	LIVE	Cull	13.9	6	0	100.0	0.0	0.0
DF	12 - 14	DEAD	Domestic	14.7	40	15	46.5	43.6	3.0
DF	15 - 19	LIVE	Pole	16.3	40	298	0.0	388.1	59.8
DF	15 - 19	DEAD	Domestic	16.4	40	24	28.5	43.7	4.7
DF	15 - 19	LIVE	Pulp	16.6	33	63	0.0	71.6	12.7
DF	15 - 19	LIVE	Domestic	16.8	39	4,653	0.9	5,693.2	932.1
DF	15 - 19	LIVE	HQ-A	17.0	35	2,481	0.6	3,031.9	497.0
DF	15 - 19	LIVE	Cull	17.1	14	0	100.0	0.0	0.0
DF	15 - 19	LIVE	HQ-B	17.1	37	1,715	0.9	2,190.4	343.6
DF	20+	LIVE	HQ-A	21.6	35	1,682	1.0	1,891.9	336.8
DF	20+	LIVE	HQ-B	22.1	36	863	4.1	1,020.5	172.9
DF	20+	LIVE	Domestic	23.6	39	3,383	1.9	3,742.8	677.7
DF	20+	LIVE	Pulp	24.6	18	32	0.0	32.5	6.5
DF	20+	LIVE	Cull	26.0	13	0	100.0	0.0	0.0
MA	5 - 8	LIVE	Cull	5.7	19	0	100.0	0.0	0.0
MA	5 - 8	LIVE	Pulp	5.8	18	40	0.0	53.8	8.1
MA	5 - 8	LIVE	Domestic	6.6	29	89	2.0	193.7	17.9
MA	9 - 11	LIVE	Domestic	9.9	27	45	3.5	76.2	9.1
MA	9 - 11	LIVE	Pulp	10.6	32	27	0.0	43.0	5.4
MA	12 - 14	LIVE	Domestic	13.0	30	33	5.0	56.0	6.7
MA	12 - 14	LIVE	Pulp	13.0	28	12	0.0	13.2	2.3
MA	15 - 19	LIVE	Domestic	16.5	24	62	9.1	82.1	12.4
MA	15 - 19	LIVE	Cull	18.4	11	0	100.0	0.0	0.0
RA	5 - 8	LIVE	Cull	5.0	15	0	100.0	0.0	0.0
RA	5 - 8	LIVE	Pulp	5.1	22	60	0.0	85.6	12.0

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
RA	5 - 8	LIVE	Domestic	6.2	30	120	7.8	256.6	24.0
RA	9 - 11	LIVE	Domestic	10.0	27	74	2.5	115.1	14.9
RA	9 - 11	LIVE	Pulp	11.3	14	8	0.0	10.8	1.6
RA	12 - 14	LIVE	Domestic	13.3	28	15	18.9	25.3	2.9
RC	5 - 8	LIVE	Cull	5.3	11	0	100.0	0.0	0.0
RC	5 - 8	LIVE	Domestic	6.3	28	863	3.4	1,755.0	172.8
RC	9 - 11	LIVE	Pole	9.0	40	24	0.0	37.4	4.7
RC	9 - 11	LIVE	Cull	9.6	6	0	100.0	0.0	0.0
RC	9 - 11	LIVE	Domestic	10.0	33	524	5.4	924.1	105.0
RC	12 - 14	LIVE	Domestic	13.1	34	360	4.3	527.7	72.1
RC	12 - 14	LIVE	Cull	13.6	11	0	100.0	0.0	0.0
RC	15 - 19	LIVE	Cull	17.2	8	0	100.0	0.0	0.0
RC	15 - 19	LIVE	Domestic	17.6	33	230	3.7	253.8	46.1
RC	20+	LIVE	Domestic	21.5	35	65	1.4	59.9	13.1
RC	20+	LIVE	Cull	23.8	11	0	100.0	0.0	0.0
SF	5 - 8	LIVE	Cull	5.4	8	0	100.0	0.0	0.0
SF	5 - 8	LIVE	Domestic	6.7	33	77	0.0	132.7	15.4
SF	9 - 11	LIVE	Domestic	9.6	36	78	0.0	128.9	15.5
SF	12 - 14	LIVE	Domestic	13.0	39	84	0.0	133.3	16.8
SF	12 - 14	LIVE	Cull	14.6	8	0	100.0	0.0	0.0
SF	15 - 19	LIVE	Domestic	17.0	40	17	0.0	22.3	3.4
SF	20+	LIVE	Domestic	24.5	40	165	0.0	161.0	33.0
SF	20+	LIVE	Cull	39.4	6	0	100.0	0.0	0.0
WH	5 - 8	LIVE	Pulp	5.4	19	57	0.0	91.5	11.3
WH	5 - 8	LIVE	Cull	5.8	8	0	100.0	0.0	0.0
WH	5 - 8	LIVE	Domestic	6.9	31	399	1.9	844.4	79.9
WH	9 - 11	LIVE	Domestic	9.8	34	231	0.0	389.4	46.3
WH	9 - 11	LIVE	Pulp	9.8	15	2	0.0	4.9	0.4
WH	12 - 14	LIVE	Cull	12.9	5	0	100.0	0.0	0.0
WH	12 - 14	LIVE	Domestic	13.3	34	231	0.0	356.5	46.3
WH	12 - 14	LIVE	Pulp	14.7	16	19	0.0	26.4	3.8
WH	15 - 19	LIVE	Cull	15.9	5	0	100.0	0.0	0.0
WH	15 - 19	LIVE	Domestic	16.1	40	343	5.5	512.4	68.7
WH	20+	LIVE	Domestic	20.9	40	100	0.0	119.7	20.1
WH	20+	LIVE	Cull	26.7	5	0	100.0	0.0	0.0

Cruise Unit Report PARCHED 1A

Unit Sale Notice Volume	(MBF): PARCHED 1A
-------------------------	-------------------

				MBF Volume by Grade								
Sp	DBH	Rings/In	Age	All	Spec Mill	2 Saw	3 Saw	4 Saw	Utility			
DF	20.6			1,094	49	775	224	43	3			
RC	19.5			39			34	5				
MA	15.9			15			3	7	4			
WH	13.5			11			9	2				
RA	15.8			7		3		4				
ALL	20.0			1,166	49	778	271	60	7			

Unit Cruise Design: PARCHED 1A

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B2: VR, 2 BAF (62.5, 40 for some species) Measure All, Sighting Ht = 4.5 ft	26.9	26.9	25	25	0

Unit Cruise Summary: PARCHED 1A

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	91	105	4.2	0
RC	10	13	0.5	0
MA	4	4	0.2	0
WH	2	2	0.1	0
RA	2	2	0.1	0
ALL	109	126	5.0	0

Unit Cruise Statistics: PARCHED 1A

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	262.5	52.3	10.5	178.8	26.1	2.7	46,934	58.5	10.8
RC	21.7	229.9	46.0	90.8	67.9	21.5	1,970	239.7	50.7
MA	6.4	295.4	59.1	85.9	42.6	21.3	549	298.4	62.8
WH	5.0	346.1	69.2	78.3	23.2	16.4	392	346.9	71.1
RA	3.2	500.0	100.0	82.6	2.5	1.8	264	500.0	100.0
ALL	298.8	51.8	10.4	167.7	34.4	3.3	50,109	62.2	10.9

Unit Summary: PARCHED 1A

Sp	Status	Rx	Ν	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	86	ALL	20.5	85	116	39,778	38,441	3.4	93.8	215.0	47.5	1,034.1
DF	LIVE	CUT	5	ALL	22.0	99	127	2,313	2,235	3.4	4.7	12.5	2.7	60.1
MA	LIVE	CUT	4	ALL	15.9	57	91	699	549	21.3	4.6	6.4	1.6	14.8
RA	LIVE	CUT	2	ALL	15.8	56	68	308	264	14.1	2.4	3.2	0.8	7.1
RC	LIVE	CUT	10	ALL	19.5	64	80	2,018	1,453	28.0	7.7	16.0	3.6	39.1
WH	LIVE	CUT	2	ALL	13.5	53	64	413	392	5.1	5.0	5.0	1.4	10.5
ALL	LIVE	CUT	109	ALL	20.0	81	110	45,528	43,334	4.8	118.2	258.1	57.5	1,165.7
ALL	ALL	CUT	109	ALL	20.0	81	110	45,528	43,334	4.8	118.2	258.1	57.5	1,165.7

Cruise Unit Report PARCHED 1B

Unit Sale Notice Volume (MBF): PARCHED 1B

				MBF Volume by Grade								
Sp	DBH	Rings/In	Age	All	Spec Mill	2 Saw	3 Saw	4 Saw	Utility			
DF	16.8	13.0		934	18	520	325	58	14			
RC	15.7			18			12	6				
MA	16.8			11		3	3	3	2			
ALL	16.8	13.0		963	18	523	340	66	16			

Unit Cruise Design: PARCHED 1B

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B2: VR, 2 BAF (62.5, 40 for some species) Measure All, Sighting Ht = 4.5 ft	29.8	29.8	26	26	0

Unit Cruise Summary: PARCHED 1B

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	87	100	3.8	1
RC	7	10	0.4	0
MA	3	3	0.1	0
ALL	97	113	4.3	1

Unit Cruise Statistics: PARCHED 1B

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	240.4	53.9	10.6	149.9	30.1	3.2	36,039	61.7	11.0
RC	15.4	209.0	41.0	55.4	28.5	10.8	852	210.9	42.4
MA	4.6	509.9	100.0	80.4	3.7	2.1	371	509.9	100.0
ALL	260.4	47.4	9.3	143.1	35.3	3.6	37,262	59.1	10.0

Unit Summary: PARCHED 1B

Sp	Status	Rx	Ν	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	87	ALL	16.8	74	95	33,076	31,354	5.2	135.9	209.1	51.0	934.3
MA	LIVE	CUT	3	ALL	16.8	50	64	391	371	5.0	3.0	4.6	1.1	11.1

6eee7256-74e3-42c5-be91-600bfc6fcdfa

September 19, 2024 14:50:07

Sp	Status	Rx	Ν	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
RC	LIVE	CUT	7	ALL	15.7	55	69	932	596	36.0	8.0	10.8	2.7	17.8
ALL	LIVE	CUT	97	ALL	16.7	72	93	34,398	32,321	6.0	146.9	224.5	54.9	963.2
ALL	ALL	CUT	97	ALL	16.7	72	93	34,398	32,321	6.0	146.9	224.5	54.9	963.2

Cruise Unit Report PARCHED 1C

Unit Sale Notice Volume (MBF): PARCHED 1C

				MBF Volume by Grade								
Sp	DBH	Rings/In	Age	All	Peeler	Spec Mill	2 Saw	3 Saw	4 Saw	Utility		
DF	17.2	13.0		318	8	58	122	94	29	5		
MA	18.0			16			9		2	5		
RC	18.3			14				12	2			
RA	12.8			11				7	4	1		
SF	19.1			7			6	2				
ALL	17.1	13.0		367	8	58	137	115	37	12		

Unit Cruise Design: PARCHED 1C

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B2: VR, 2 BAF (62.5, 40 for some species) Measure All, Sighting Ht = 4.5 ft	8.1	8.1	9	9	0

Unit Cruise Summary: PARCHED 1C

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	36	38	4.2	1
RC	7	10	1.1	0
MA	4	4	0.4	0
RA	3	3	0.3	0
SF	1	1	0.1	0
ALL	51	56	6.2	1

Unit Cruise Statistics: PARCHED 1C

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	263.9	56.5	18.8	156.8	38.6	6.4	41,382	68.5	19.9
RC	46.9	96.1	32.0	57.4	80.1	30.3	2,696	125.1	44.1
MA	17.8	228.1	76.0	113.9	34.1	17.1	2,025	230.6	77.9
RA	13.3	300.0	100.0	103.7	18.5	10.7	1,383	300.6	100.6
SF	6.9	300.0	100.0	131.2	0.0	0.0	911	300.0	100.0
ALL	348.9	34.6	11.5	138.7	46.8	6.5	48,397	58.2	13.3

Unit Summary: PARCHED 1C

Sp	Status	Rx	Ν	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	36	ALL	17.2	75	94	42,420	39,204	7.6	154.9	250.0	60.3	317.5
MA	LIVE	CUT	4	ALL	18.0	62	75	2,348	2,025	13.8	10.1	17.8	4.2	16.4
RA	LIVE	CUT	3	ALL	12.8	61	75	1,530	1,383	9.6	14.9	13.3	3.7	11.2
RC	LIVE	CUT	7	ALL	18.3	56	70	3,547	1,787	49.6	17.0	31.1	7.3	14.5
SF	LIVE	CUT	1	ALL	19.1	84	107	932	911	2.2	3.5	6.9	1.6	7.4
ALL	LIVE	CUT	51	ALL	17.1	72	90	50,778	45,309	10.8	200.4	319.2	77.1	367.0
ALL	ALL	CUT	51	ALL	17.1	72	90	50,778	45,309	10.8	200.4	319.2	77.1	367.0

Cruise Unit Report PARCHED 1 RW

Unit Sale Notice Volume (MBF): PARCHED 1 RW

				MBF Volume by Grade				
Sp	DBH	Rings/In	Age	All	4 Saw			
DF	8.0			9	9			
ALL	8.0			9	9			

Unit Cruise Design: PARCHED 1 RW

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B1: VR, 1 BAF (10) Measure All, Sighting Ht = 0 ft	3.2	3.1	2	2	0

Unit Cruise Summary: PARCHED 1 RW

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	10	10	5.0	0
ALL	10	10	5.0	0

Unit Cruise Statistics: PARCHED 1 RW

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	50.0	0.0	0.0	54.4	0.0	0.0	2,722	0.0	0.0
ALL	50.0	0.0	0.0	54.4	0.0	0.0	2,722	0.0	0.0

Unit Summary: PARCHED 1 RW

Sp	Status	Rx	Ν	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	10	ALL	8.0	25	28	2,722	2,722	0.0	143.2	50.0	17.7	8.7
ALL	LIVE	CUT	10	ALL	8.0	25	28	2,722	2,722	0.0	143.2	50.0	17.7	8.7
ALL	ALL	CUT	10	ALL	8.0	25	28	2,722	2,722	0.0	143.2	50.0	17.7	8.7

Cruise Unit Report PARCHED 3A

Unit Sale Notice Volume (MBF): PARCHED 3A

				MBF Volume by Grade								
Sp	DBH	Rings/In	Age	All	Peeler	Spec Mill	2 Saw	3 Saw	4 Saw	Utility		
DF	18.7	33.0	131	2,391	42	258	1,309	649	112	21		
RC	14.4			73				53	20			
WH	13.9			63			22	32	7	2		
SF	16.9			42			26	17				
MA	15.0			3				3				
ALL	18.1	33.0	131	2,572	42	258	1,356	754	139	23		

Unit Cruise Design: PARCHED 3A

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B2: VR, 2 BAF (62.5, 40 for some species) Measure All, Sighting Ht = 4.5 ft	53.8	53.8	43	43	0

Unit Cruise Summary: PARCHED 3A

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	180	195	4.5	7
RC	19	19	0.4	0
WH	5	5	0.1	0
SF	3	3	0.1	0
MA	1	1	0.0	0
ALL	208	223	5.2	7

Unit Cruise Statistics: PARCHED 3A

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	283.4	46.5	7.1	168.9	32.7	2.4	47,874	56.8	7.5
RC	17.7	253.3	38.6	76.6	39.7	9.1	1,353	256.4	39.7
WH	7.3	278.9	42.5	160.8	38.8	17.4	1,169	281.6	45.9
SF	4.4	369.5	56.3	180.0	74.6	43.1	785	376.9	70.9
MA	0.9	655.7	100.0	67.6	0.0	0.0	63	655.7	100.0
ALL	313.7	39.3	6.0	163.4	37.4	2.6	51,244	54.2	6.5

Unit Summary: PARCHED 3A

Sp	Status	Rx	Ν	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	16	ALL	19.6	89	115	4,091	3,928	4.0	11.1	23.3	5.3	211.3
DF	LIVE	CUT	164	ALL	18.7	79	100	42,184	40,509	4.0	125.7	239.8	55.5	2,179.4
MA	LIVE	CUT	1	ALL	15.0	50	60	85	63	25.9	0.8	0.9	0.2	3.4
RC	LIVE	CUT	18	ALL	14.4	54	66	1,540	1,282	16.7	14.8	16.7	4.4	69.0
RC	LIVE	CUT	1	ALL	15.0	67	98	86	71	16.7	0.8	0.9	0.2	3.8
SF	LIVE	CUT	3	ALL	16.9	71	90	874	785	10.3	2.8	4.4	1.1	42.2
WH	LIVE	CUT	5	ALL	13.9	76	107	1,218	1,169	4.0	6.9	7.3	1.9	62.9
ALL	LIVE	CUT	208	ALL	18.2	77	98	50,078	47,807	4.5	162.9	293.3	68.6	2,572.0
ALL	ALL	CUT	208	ALL	18.2	77	98	50,078	47,807	4.5	162.9	293.3	68.6	2,572.0

Cruise Unit Report PARCHED 3B

Unit Sale Notice Volume (MBF): PARCHED 3B

				MBF Volume by Grade							
Sp	DBH	Rings/In	Age	All	Peeler	Spec Mill	2 Saw	3 Saw	4 Saw	Utility	
DF	16.5			257	10	25	126	73	17	5	
WH	18.7			45			28	12		5	
RC	16.8			6				4	2		
ALL	16.8			308	10	25	154	89	19	10	

Unit Cruise Design: PARCHED 3B

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B2: VR, 2 BAF (62.5, 40 for some species) Measure All, Sighting Ht = 4.5 ft	7.9	7.9	8	8	0

Unit Cruise Summary: PARCHED 3B

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	27	31	3.9	0
WH	5	5	0.6	0
RC	3	3	0.4	0
ALL	35	39	4.9	0

Unit Cruise Statistics: PARCHED 3B

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	242.2	55.9	19.8	148.5	37.0	7.1	35,961	67.1	21.0
WH	39.1	146.6	51.8	147.3	36.8	16.5	5,754	151.1	54.4
RC	15.0	282.8	100.0	51.4	62.8	36.2	771	289.7	106.4
ALL	296.3	47.3	16.7	143.4	41.1	6.9	42,486	62.7	18.1

Unit Summary: PARCHED 3B

Sp	Status	Rx	Ν	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	27	ALL	16.6	68	87	33,909	32,481	4.2	145.6	218.8	53.7	256.6
RC	LIVE	CUT	3	ALL	16.8	55	67	1,159	771	33.5	9.7	15.0	3.7	6.1

6eee7256-74e3-42c5-be91-600bfc6fcdfa

September 19, 2024 14:50:07

Sp	Status	Rx	Ν	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	CUT	5	ALL	18.7	72	90	5,854	5,754	1.7	20.5	39.1	9.0	45.5
ALL	LIVE	CUT	35	ALL	16.9	68	86	40,922	39,006	4.7	175.8	272.8	66.4	308.1
ALL	ALL	CUT	35	ALL	16.9	68	86	40,922	39,006	4.7	175.8	272.8	66.4	308.1

Cruise Unit Report PARCHED 3 RW

Unit Sale Notice Volume (MBF): PARCHED 3 RW

				MBF Volume by Grade				
Sp	DBH	Rings/In	Age	All	3 Saw	4 Saw		
DF	13.0			6	5	1		
ALL	13.0			6	5	1		

Unit Cruise Design: PARCHED 3 RW

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
FX: FR plots (20 tree / acre expansion)	2.7	2.7	1	1	0

Unit Cruise Summary: PARCHED 3 RW

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	1	1	1.0	0
ALL	1	1	1.0	0

Unit Cruise Statistics: PARCHED 3 RW

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	18.4	0.0	0.0	117.2	0.0	0.0	2,160	0.0	0.0
ALL	18.4	0.0	0.0	117.2	0.0	0.0	2,160	0.0	0.0

Unit Summary: PARCHED 3 RW

Sp	Status	Rx	Ν	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	1	ALL	13.0	65	82	2,160	2,160	0.0	20.0	18.4	5.1	5.8
ALL	LIVE	CUT	1	ALL	13.0	65	82	2,160	2,160	0.0	20.0	18.4	5.1	5.8
ALL	ALL	CUT	1	ALL	13.0	65	82	2,160	2,160	0.0	20.0	18.4	5.1	5.8

Cruise Unit Report PARCHED U4

Unit Sale Notice Volume (MBF): PARCHED U4

				MBF Volume by Grade								
Sp	DBH	Rings/In	Age	All	Spec Mill	2 Saw	3 Saw	4 Saw	Utility			
DF	18.4	11.0	99	927	67	526	261	67	7			
RC	15.1			77			55	23				
WH	21.1			14		10	4	0				
RA	12.2			13			3	8	2			
ALL	17.8	11.0	99	1,032	67	536	322	98	9			

Unit Cruise Design: PARCHED U4

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B2: VR, 2 BAF (62.5, 40 for some species) Measure All, Sighting Ht = 4.5 ft	23.2	23.2	28	28	0

Unit Cruise Summary: PARCHED U4

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	113	116	4.1	1
RC	26	26	0.9	0
WH	3	3	0.1	0
RA	3	3	0.1	0
ALL	145	148	5.3	1

Unit Cruise Statistics: PARCHED U4

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	258.9	53.7	10.1	157.1	32.4	3.0	40,674	62.7	10.6
RC	39.6	145.1	27.4	84.0	39.5	7.8	3,324	150.4	28.5
WH	6.7	294.0	55.6	90.9	44.0	25.4	609	297.2	61.1
RA	4.3	529.2	100.0	130.8	12.9	7.4	561	529.3	100.3
ALL	309.5	37.1	7.0	146.0	38.0	3.2	45,167	53.1	7.7

Unit Summary: PARCHED U4

Sp	Status	Rx	Ν	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	DEAD	CUT	2	ALL	22.9	96	123	724	701	3.2	1.6	4.5	0.9	16.3
DF	LIVE	CUT	5	ALL	19.4	86	110	1,811	1,753	3.2	5.4	11.2	2.5	40.7
DF	LIVE	CUT	106	ALL	18.3	76	97	38,750	37,518	3.2	130.8	238.8	55.8	870.4
RA	LIVE	CUT	3	ALL	12.2	72	102	597	561	6.0	5.3	4.3	1.2	13.0
RC	LIVE	CUT	26	ALL	15.1	50	64	3,887	3,324	14.5	31.8	39.6	10.2	77.1
WH	LIVE	CUT	3	ALL	21.1	66	81	854	609	28.7	2.8	6.7	1.5	14.1
ALL	LIVE	CUT	143	ALL	17.7	71	91	45,899	43,765	4.6	176.1	300.5	71.2	1,015.3
ALL	DEAD	CUT	2	ALL	22.9	96	123	724	701	3.2	1.6	4.5	0.9	16.3
ALL	ALL	CUT	145	ALL	17.7	72	92	46,623	44,466	4.6	177.7	305.0	72.2	1,031.6

Cruise Unit Report PARCHED U5

Unit Sale Notice Volume (MBF): PARCHED U5

				MBF Volume by Grade						
Sp	DBH	Rings/In	Age	All	3 Saw	4 Saw	Utility			
DF	12.1			104	51	53				
RC	14.9			95	67	28				
RA	10.7			24		14	10			
MA	10.5			13		9	4			
WH	14.0			2		2				
ALL	12.5			238	118	105	15			

Unit Cruise Design: PARCHED U5

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B2C: VR, 2 BAF (40, 40 for some species) Measure/ Count Plots, Sighting Ht = 0 ft	27.8	27.8	21	17	0

Unit Cruise Summary: PARCHED U5

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	18	31	1.5	0
RC	22	34	1.6	0
RA	9	9	0.4	0
MA	6	6	0.3	0
WH	1	1	0.0	0
ALL	56	81	3.9	0

Unit Cruise Statistics: PARCHED U5

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	59.0	138.2	30.2	63.3	23.8	5.6	3,741	140.2	30.7
RC	64.8	122.7	26.8	52.7	41.8	8.9	3,411	129.6	28.2
RA	17.1	157.8	34.4	50.5	29.2	9.7	865	160.4	35.8
MA	11.4	196.2	42.8	42.2	24.6	10.0	482	197.8	44.0
WH	1.9	458.3	100.0	33.7	0.0	0.0	64	458.3	100.0
ALL	154.3	44.4	9.7	55.5	33.7	4.5	8,563	55.7	10.7

Unit Summary: PARCHED U5

Sp	Status	Rx	Ν	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	18	ALL	12.1	44	54	3,828	3,741	2.3	73.9	59.0	17.0	104.0
MA	LIVE	CUT	6	ALL	10.5	29	33	494	482	2.3	19.0	11.4	3.5	13.4
RA	LIVE	CUT	9	ALL	10.7	35	41	935	865	7.4	27.5	17.1	5.2	24.1
RC	LIVE	CUT	22	ALL	14.9	43	52	3,806	3,411	10.4	53.5	64.8	16.8	94.8
WH	LIVE	CUT	1	ALL	14.0	44	53	77	64	16.3	1.8	1.9	0.5	1.8
ALL	LIVE	CUT	56	ALL	12.7	41	49	9,139	8,563	6.3	175.7	154.3	43.0	238.0
ALL	ALL	CUT	56	ALL	12.7	41	49	9,139	8,563	6.3	175.7	154.3	43.0	238.0

Cruise Unit Report PARCHED 6

Unit Sale Notice Volume (MBF): PARCHED 6

				MBF Volume by Grade									
Sp	DBH	Rings/In	Age	All	Peeler	Spec Mill	2 Saw	3 Saw	4 Saw	Utility			
DF	23.9			453	20	153	198	65	8	9			
WH	14.1			139			75	46	10	8			
RC	16.5			92				71	21				
SF	17.8			34			22	10	3				
MA	12.5			3					3				
ALL	18.3			721	20	153	295	192	44	17			

Unit Cruise Design: PARCHED 6

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B2: VR, 2 BAF (62.5, 40 for some species) Measure All, Sighting Ht = 4.5 ft	15.6	15.6	14	14	0

Unit Cruise Summary: PARCHED 6

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	34	35	2.5	0
WH	14	14	1.0	0
RC	23	28	2.0	0
SF	3	3	0.2	0
MA	1	1	0.1	0
ALL	75	81	5.8	0

Unit Cruise Statistics: PARCHED 6

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	156.3	69.7	18.6	191.3	32.0	5.5	29,884	76.7	19.4
WH	62.5	135.9	36.3	142.7	34.8	9.3	8,918	140.3	37.5
RC	81.6	87.8	23.5	83.9	35.8	7.5	6,844	94.8	24.6
SF	13.4	270.2	72.2	165.0	28.3	16.4	2,209	271.7	74.0
MA	2.9	374.2	100.0	61.0	0.0	0.0	174	374.2	100.0
ALL	316.6	44.3	11.8	151.7	44.9	5.2	48,030	63.1	12.9

Unit Summary: PARCHED 6

Sp	Status	Rx	Ν	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	34	ALL	23.9	92	117	30,327	29,030	4.3	48.7	151.8	31.0	452.9
MA	LIVE	CUT	1	ALL	12.5	61	75	268	174	35.0	3.4	2.9	0.8	2.7
RC	LIVE	CUT	23	ALL	16.5	63	80	7,247	5,886	18.8	47.3	70.2	17.3	91.8
SF	LIVE	CUT	3	ALL	17.8	79	100	2,240	2,209	1.4	7.8	13.4	3.2	34.5
WH	LIVE	CUT	14	ALL	14.1	61	75	9,395	8,918	5.1	57.6	62.5	16.6	139.1
ALL	LIVE	CUT	75	ALL	18.3	72	90	49,477	46,217	6.6	164.8	300.7	69.0	721.0
ALL	ALL	CUT	75	ALL	18.3	72	90	49,477	46,217	6.6	164.8	300.7	69.0	721.0

Cruise Unit Report PARCHED U11

Unit Sale Notice Volume (MBF): PARCHED U11

				MBF	Volume b	y Grade
Sp	DBH	Rings/In	Age	All	3 Saw	4 Saw
DF	11.5			7	4	3
WH	11.0			3	2	1
ALL	11.3			10	6	4

Unit Cruise Design: PARCHED U11

Design	Cruise	FMA	N	N Cruise	N Void
	Acres	Acres	Plots	Plots	Plots
B1: VR, 1 BAF (20) Measure All, Sighting Ht = 4.5 ft	1.3	1.3	1	1	0

Unit Cruise Summary: PARCHED U11

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	3	3	3.0	0
WH	1	1	1.0	0
ALL	4	4	4.0	0

Unit Cruise Statistics: PARCHED U11

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	60.0	0.0	0.0	89.2	17.7	10.2	5,355	17.7	10.2
WH	20.0	0.0	0.0	112.1	0.0	0.0	2,243	0.0	0.0
ALL	80.0	0.0	0.0	95.0	18.2	9.1	7,598	18.2	9.1

Unit Summary: PARCHED U11

Sp	Status	Rx	Ν	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	3	ALL	11.5	52	64	5,355	5,355	0.0	83.2	60.0	17.7	7.0
WH	LIVE	CUT	1	ALL	11.0	55	67	2,243	2,243	0.0	30.3	20.0	6.0	2.9
ALL	LIVE	CUT	4	ALL	11.4	53	65	7,598	7,598	0.0	113.5	80.0	23.7	9.9
ALL	ALL	CUT	4	ALL	11.4	53	65	7,598	7,598	0.0	113.5	80.0	23.7	9.9

Forest Practices Ap Notice of	plication/Notification f Decision	FPA/N No: Effective Date: Expiration Date: Shut Down Zone: EARR Tax Credit:	2617912 5/25/2023 5/25/2026 653 S ⊠ Eligible □ Non-eligible			
		Reference:	WA Dept. of Natural Resources			
			Parched			
<u>Decision</u>						
Notification Accepted	Operations shall not begin be	fore the effective date.				
Approved	This Forest Practices Applica	tion is subject to the cond	itions listed below.			
□ Disapproved	This Forest Practices Application is disapproved for the reasons listed below.					
U Withdrawn	Applicant has withdrawn the I	Forest Practices Application	on/Notification (FPA/N).			
Closed	All forest practices obligations					
FPA/N Classification □ Class II ⊠ Class III Conditions on Approval/R	Class IVG Class IVS	Number of Yea	rs Granted on Multi-Year Request □ 5 years			
Issued By: Levi Puksta Title: Forest Practices F	orester	Region: Olymp Date: 5/25/202	ic 3			
Copies to: 🛛 🛛 La	ndowner, Timber Owner and	Operator				
Issued in person: 🛛 🛛 🗠	🛛 TO 🖂 OP 🛛 By: 🛛 Krista	Pagel Kt Pag	Date: 5/25/2023			
2023 January - FPA/N Notice of	Decision		Page 1 of 2			

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 <u>RCW 76.09.205</u>. 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 add	resses below:
--	---------------

Pollution Control Hearings Board	Office of the Attorney General Natural Resources Division	Department Of Natural Resources Olympic Region
Physical Address	Physical Address	Physical & Mailing Address
1111 Israel Road, SW	1125 Washington Street, SE	411 Tillicum Lane
Suite 301	Olympia, WA 98504	Forks, WA 98331
Tumwater, WA 98501	Mailing Address	
Mailing address	Post Office Box 40100	
Post Office Box 40903	Olympia, WA 98504-0100	
Olympia, WA 98504-0903		

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

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.

Iransfer of Forest Practices Application/Notification (WAC 222-20-010)

Use the "Notice of Transfer of Approved Forest Practices Application/Notification" form. This form is available at region offices and on the Forest Practices website https://www.dnr.wa.gov/programs-and-services/forest-practices/review-applications-fpars/forest-practices-forms-and. Notify DNR of new Operators within 48 hours.

Continuing Forestland Obligations (RCW 76.09.060, RCW 76.09.070, RCW 76.09.390, and WAC 222-20-055)

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

Before the sale or transfer of land or perpetual timber rights subject to continuing forest and obligations, the seller must notify the buyer of such an obligation on a form titled "Notice of Continuing Forest Land Obligation". The seller and buyer must both sign the "Notice of Continuing Forest Land Obligation" form and send it to the DNR Region Office for retention. This form is available at DNR region offices.

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

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

DNR Declaration of Mailing

I, Choose an item., caused the Notice of Decision for FPA/N Click or tap here to enter text. to be placed in the United States mail at Forks, WA, postage paid. I declare under penalty of perjury of the laws of the State of Washington, that the foregoing is true and correct.

Click or tap to enter

a date. (Date)

(City & State where signed)

(Signature)

STATE OF WASHINGTON DEPARTMENT OF NATURAL RESOURCES

PARCHED TIMBER SALE ROAD PLAN CLALLAM COUNTY STRAITS DISTRICT OLYMPIC REGION

AGREEMENT NO.: 30-102017

DISTRICT ENGINEER: GREG ELLIS

DATE: JUNE 16, 2021

DRAWN & COMPILED BY: J. WESTRA








Parched Timber Sale Contract No. 30-102017





Parched Timber Sale Contract No. 30-102017



Parched Timber Sale Contract No. 30-102017



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.

Road	Stations	Туре
Paradise Lane	0+00 to 4+90	Reconstruction
Paradise Lane	4+90 to 7+60	Construction
1+00 Spur	0+00 - 1+00	Construction
PA-H-3000	0+00 to 190+26	Pre-haul Maintenance
PA-H-3005	0+00 to 8+42	Reconstruction
PA-H-3048	0+00 to 13+85	Construction
PA-H-3060	0+00 to 2+14	Pre-haul Maintenance
PA-H-3061	0+00 to 8+73	Pre-haul Maintenance
PA-H-3061	8+73 to 11+96	Construction
PA-H-3071	0+00 to 0+92	Pre-haul Maintenance
PA-H-3100	0+00 to 136+86	Pre-haul Maintenance
PA-H-3200	0+00 to 22+57	Pre-haul Maintenance
PA-H-3210	0+00 to 59+19	Pre-haul Maintenance
PA-H-3215	0+00 to 4+28	Construction
PA-H-3240	0+00 to 5+38	Pre-haul Maintenance
PA-H-3241	0+00 to 19+32	Pre-haul Maintenance
PA-H-3241	19+32 to 26+75	Reconstruction
PA-H-3241	26+75 to 64+83	Construction
Walkabout Way	0+00 to 14+75	Pre-haul Maintenance

0-3 OPTIONAL ROADS

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

Road	<u>Stations</u>	Туре
PA-H-3050	0+00 to 8+15	Pre-haul Maintenance*
PA-H-3050	8+15 to 15+50	Construction
PA-H-3066	0+00 to 10+57	Construction
PA-H-3112	0+00 to 3+27	Construction
PA-H-3113	0+00 to 4+98	Construction
PA-H-3241	64+83 to 71+99	Construction
PA-H-3243	0+00 to 6+36	Construction
PA-I-2600	0+00 to 14+00	Pre-haul Maintenance

PA-I-2610	0+00 to 12+00	Pre-haul Maintenance	
PA-I-2620	0+00 to 6+50	Pre-haul Maintenance	

*Pre-haul maintenance on the PA-H-3050 is required if Purchaser chooses to use it as a haul route.

0-4 CONSTRUCTION

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

Road	Stations	Requirements
		<u>Con Dala</u>
Paradise Lane	4+90 to 7+60	See Below:
1+00 Spur	0+00 to 1+00	
PA-H-3048	0+00 to 13+85	
PA-H-3050	8+15 to 15+50	
PA-H-3061	8+73 to 11+96	
PA-H-3066	0+00 to 10+57	
PA-H-3112	0+00 to 3+27	
PA-H-3113	0+00 to 4+98	
PA-H-3215	0+00 to 4+28	
PA-H-3241	26+75 to 71+99	
PA-H-3243	0+00 to 6+36	
Total Stations:	102.83 Stations	

Construction may include, 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:

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
Paradise Lane	0+00 to 4+90	
PA-H-3005	0+00 to 8+42	Coo Dolour
PA-H-3241	19+32 to 26+75	See Below.
Total Stations:	20.75 Stations	

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 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, drill and shoot, 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:

Road	Stations Requirements	
PA-H-3000	0+00 to 190+26	Grading road surface in accordance with Clause 2-5. Spot Rock Patching in accordance with Clause 6-78. Clean/construct ditch lines in accordance with Clause 2-7. Brush road in accordance with Clause 3-1. Culvert Installation in accordance with Clause 5-15.
PA-H-3050	0+00 to 8+15	Grading road surface in accordance with Clause 2-5. 4" Rock Surfacing in accordance with Clause 6-71.
PA-H-3060	0+00 to 2+14	Grading road surface in accordance with Clause 2-5.
PA-H-3061	0+00 to 8+73	Clearing road surface in accordance with 3-5. Grading road surface in accordance with Clause 2-5. 4" Rock Surfacing in accordance with Clause 6-71. Clean/construct ditch lines in accordance with Clause 2-7. Culvert Installation in accordance with Clause 5-15.
PA-H-3071	0+00 to 0+92	Grading road surface in accordance with Clause 2-5.
PA-H-3100	0+00 to 136+86	Grading road surface in accordance with Clause 2-5. Rock buttress construction in accordance with 8-10. Culvert maintenance in accordance with 2-6 and culvert installation in accordance with Clause 5-15. Clean/construct ditch lines in accordance with Clause 2-7. Perform gate maintenance in accordance with clause 7-75.
PA-H-3200	0+00 to 22+57	Grading road surface in accordance with Clause 2-5. Clean/construct

		ditch lines in accordance with Clause 2-7.
PA-H-3210	0+00 to 59+19	Grading road surface in accordance with Clause 2-5. Spot Rock Patching in accordance with Clause 6-78.
PA-H-3240	0+00 to 5+38	Grading road surface in accordance with Clause 2-5. Clean/construct ditch lines in accordance with Clause 2-7.
PA-H-3241	0+00 to 19+32	Grading road surface in accordance with Clause 2-5. Clean/construct ditch lines in accordance with Clause 2-7.
Walkabout Way	0+00 to 14+75	Grading road surface in accordance with Clause 2-5. 4" Rock Surfacing in accordance with Clause 6-71. Brush road in accordance with Clause 3-1.
PA-I-2600	0+00 to 14+00	Grading road surface in accordance with Clause 2-5.
PA-I-2610	0+00 to 12+00	Grading road surface in accordance with Clause 2-5.
PA-I-2620	0+00 to 6+50	Grading road surface in accordance with Clause 2-5.
Total Stations:	500.77 Stations	

Pre-haul maintenance includes, but is not limited to: brushing right-of-way, right-of-way debris disposal, cleaning ditches, constructing ditches, installing additional culverts, widening road segments, constructing headwalls, cleaning culvert inlets and outlets, cross drain culvert replacement, 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 an 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 Dry Hill Pit. Rock source development will involve clearing, stripping approximately 0.5 acres and processing bank run to generate 13,950 yds³ of pit run ballast.

Purchaser may develop an existing rock source called Place Pit. Rock source development will involve digging and loading out of a stockpile to obtain 730 yds³ of 1 ¼" minus crushed rock.

Work for developing rock sources is listed in Section 6 ROCK AND SURFACING. All rock manufactured out of rock sources listed above shall meet specifications as listed in Section 6 ROCK AND SURFACING. In the event that 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.

0-13 STRUCTURES

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

SECTION 1 – GENERAL

1-1 ROAD PLAN CHANGES

If the Purchaser desires a change from this road plan including, but not limited to, relocation, extension, change in design, or adding roads; a revised road plan must be submitted in writing to the Contract Administrator for consideration. Before work begins, Purchaser shall obtain approval from the State for the submitted plan.

1-2 UNFORESEEN CONDITIONS

Quantities established in this road plan are minimum acceptable values. Additional quantities required by the state due to unforeseen conditions, or Purchaser's choice of construction season or techniques will be at the Purchaser's expense. Unforeseen conditions include, but are not limited to, solid subsurface rock, subsurface springs, saturated ground, and unstable soils.

1-3 ROAD DIMENSIONS

Purchaser shall perform road work in accordance with the dimensions shown on the TYPICAL SECTION SHEET and the specifications within this road plan.

1-4 ROAD TOLERANCES

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

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

1-6 ORDER OF PRECEDENCE

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

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

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

1-8 REPAIR OR REPLACEMENT OF DAMAGED MATERIALS

Purchaser shall repair or replace all materials, roadway infrastructure, and road components damaged during road work or operation activities. The Contract Administrator will direct repairs and replacements. Repairs to structural materials must be made in accordance with the manufacturer's recommendation.

1-9 DAMAGED METALLIC COATING

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

1-12 SURVEY MONUMENTS

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

1-13 LOG LOADING

At no time shall the loading of logs occur on Walkabout Way or PA-H-3000. In addition, no debris from harvesting operations shall be allowed on this road.

SUBSECTION ROAD MARKING

1-15 ROAD MARKING

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

- Orange flagging and/or stakes for road centerline
- Construction stakes for everything else.

1-18 REFERENCE POINT DAMAGE

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

SUBSECTION TIMING

1-20 COMPLETE BY DATE

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

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 3 business days before work begins.

1-23 ROAD WORK PHASE APPROVAL

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

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

1-25 ACTIVITY TIMING RESTRICTION

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

Road	Stations	<u>Activity</u>	Closure Period
All	All	All	State Recognized Holidays and Weekends
All	All	All roadwork activities including Timber Haul and rock pit development.	November 1 to April 30
All	All	All	During Sanctioned Bike Events
All	All	All	8 pm – 6 am

1-26 OPERATING DURING CLOSURE PERIOD

If permission is granted to operate during a closure period listed in Clause 1-25 ACTIVITY TIMING RESTRICTION, Purchaser shall provide a maintenance plan to include further protection of state resources. Purchaser shall obtain written approval from the Contract

Administrator for the maintenance plan, and shall put preventative measures in place before operating during the closure period. Purchaser is required to maintain all haul roads at their own expense including those listed in Contract Clause C-060 DESIGNATED ROAD MAINTAINER. If other operators are using, or desire to use these designated maintainer roads, a joint operating plan must be developed. All parties shall follow this plan.

1-27 TIMING RESTRICTION FOR MARBLED MURRELET

On the following road, any road work, right-of-way timber falling and yarding, rock pit operation, or heavy equipment operation is not allowed from two hours before official sunset to two hours after official sunrise from April 1 through September 23. This restriction does not apply to hauling timber, rock, or equipment.

Road	<u>Stations</u>
PA-H-3200	34+65 to 45+34
PA-I-2600	ALL
PA-I-2610	ALL
PT-I-2620	ALL

1-29 SEDIMENT RESTRICTION

Purchaser shall not allow silt-bearing runoff to enter any streams.

1-30 CLOSURE TO PREVENT DAMAGE

In accordance with Contract Clause G-220 STATE SUSPENDS OPERATION, the Contract Administrator will suspend road work or hauling right-of-way timber, forest products, or rock under the following conditions:

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

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

1-33 SNOW PLOWING RESTRICTION

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

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.

1-41 REQUIREMENTS FOR PAVED ROAD APPROACHES

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

1-42 UTILITY ACCESS ROAD

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

<u>Road</u>	<u>Stations</u>
PA-H-3000	24+46 to 25+26

1-43 ROAD WORK AROUND UTILITIES

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

<u>Road</u>	Stations	<u>Utility</u>	Utility Contact
Walkabout Way	0+00 to 14+75	Overhead power	811
Walkabout Way	0+00 to 14+75	Buried communication lines	811
PA-H-3050	8+15 to 9+47	811	811

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

2-5 MAINTENANCE GRADING – EXISTING ROAD

On the following maintenance roads, Purchaser shall use a grader to shape the existing surface before timber haul as needed or directed by Contract Administrator on other haul routes.

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>	
PA-H-3000	0+00 to 190+26	Grade, shape, compact and remove shoulder vegetation and berms.	
PA-H-3050	0+00 to 8+15	Grade, shape, compact and remove shoulder vegetation and berms.	
PA-H-3060	0+00 to 2+14	Grade, shape, compact and remove shoulder vegetation and berms.	
PA-H-3061	0+00 to 8+73	Grade, shape, compact and remove shoulder vegetation and berms.	
PA-H-3071	0+00 to 0+92	Grade, shape, compact and remove shoulder vegetation and berms.	
PA-H-3100	0+00 to 136+86	Grade, shape, compact and remove shoulder vegetation and berms.	
PA-H-3200	0+00 to 22+57	Grade, shape, compact and remove shoulder vegetation and berms.	
PA-H-3210	0+00 to 32+75	Grade, shape, compact and remove shoulder vegetation and berms.	
PA-H-3240	0+00 to 5+38	Grade, shape, compact and remove shoulder vegetation and berms.	
PA-H-3241	0+00 to 19+32	Grade, shape, compact and remove shoulder vegetation and berms.	
PA-I-2600	0+00 - 14+00	Grade, shape, compact and remove shoulder vegetation and berms.	

PA-I-2610	0+00 - 12+00	Grade, shape, compact and remove shoulder vegetation and berms.
PA-I-2620	0+00 – 6+50	Grade, shape, compact and remove shoulder vegetation and berms.
Walkabout Way	0+00 – 14+75	Grade, shape, compact and remove shoulder vegetation and berms.

2-6 CLEANING CULVERTS

On the following road, Purchaser shall clean the inlets and outlets of all culverts listed in the MATERIALS LIST before timber haul. Contract Administrator may direct culvert cleaning on other haul routes as needed.

<u>Road</u>	<u>Stations</u>
PA-H-3100	0+00 to 136+86

2-7 CLEANING DITCHES, HEADWALLS, AND CATCH BASINS

On the following roads, Purchaser shall clean ditches, headwalls, and catchbasins. Work must be completed before timber haul and must be done in accordance with the TYPICAL SECTION.

<u>Road</u>	<u>Stations</u>	Left and/or Right	<u>Comments</u>
PA-H-3000	0+00 to 190+26	Left and/or Right	Ditching where ditch lines are present
PA-H-3061	0+00 to 8+73	Left and/or Right	Ditching where ditch lines are present
PA-H-3100	0+00 to 136+86	Left and/or Right	Ditching where ditch lines are present
PA-H-3200	0+00 to 22+57	Left and/or Right	Ditching where ditch lines are present
PA-H-3240	0+00 to 5+38	Left and/or Right	Ditching where ditch lines are present
PA-H-3241	0+00 to 19+32	Left and/or Right	Ditching where ditch lines are present

2-9 REMOVING VEGETATIVE MATERIAL

On the following road(s), Purchaser shall remove all vegetative material, dirt, mud and other debris on the existing road surface with a minimum loss of rock. Material must be disposed of as specified in Clauses 4-35 through 4-38.

<u>Road</u>	<u>Stations</u>
PA-H-3005	0+00 to 8+42

SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL

SUBSECTION BRUSHING

3-1 BRUSHING

On the following road(s), Purchaser shall cut vegetative material up to 5 inches in diameter, including limbs, as shown on the BRUSHING DETAIL. Brushing must be achieved by mechanical cutting of brush, trees, and branches. Root systems and stumps of cut vegetation may not be disturbed unless directed by the Contract Administrator. Purchaser shall remove brushing debris from the road surface, ditchlines, and culvert inlets and outlets.

<u>Road</u>	<u>Stations</u>
Walkabout Way	0+00 to 14+75
PA-H-3000	0+00 to 190+26

3-2 BRUSHING RESTRICTION

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

3-3 BRUSH REMOVAL

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

SUBSECTION CLEARING

3-5 CLEARING

Purchaser shall fall all vegetative material larger than 2 inches DBH or over 5 feet high between the marked right-of-way boundaries and within waste and debris areas, or if not marked in the field, between the clearing limits specified on the TYPICAL SECTION SHEET. Clearing must be completed before starting excavation and embankment.

3-7 RIGHT-OF-WAY DECKING

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

3-8 PROHIBITED DECKING AREAS

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

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

SUBSECTION GRUBBING

3-10 GRUBBING

Purchaser shall remove all stumps between the grubbing limits specified on the TYPICAL SECTION SHEET. Purchaser shall also remove stumps with undercut roots outside the grubbing limits. Purchaser shall remove stumps using a hydraulic mounted excavator unless authorized in writing by the Contract Administrator. Grubbing must be completed before starting excavation and embankment.

3-12 STUMP PLACEMENT

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

3-20 ORGANIC DEBRIS DEFINITION

Organic debris is defined as all vegetative material not eligible for removal by Contract Clause G-010 PRODUCTS SOLD AND SALE AREA or G-011 RIGHT TO REMOVE FOREST PRODUCTS AND CONTRACT AREA, that is larger than one cubic foot in volume within the clearing limits as shown on the TYPICAL SECTION SHEET and BRUSHING DETAIL.

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 3-32 unless otherwise detailed in this road plan and as directed by Contract Administrator.

SUBSECTION PILE

3-30 EXCLUSION OF DOZER BLADES

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

3-31 PILING

Purchaser shall pile organic debris no closer than 20 feet from standing timber and no higher than 20 feet. 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 1,000 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 prior to embankment.

4-3 ROAD GRADE AND ALIGNMENT STANDARDS

Purchaser shall follow these standards for road grade and alignment:

- Grade and alignment must have smooth continuity, without abrupt changes in direction.
- Maximum grades may not exceed 18 percent favorable and 15 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:

	<u>Excavation</u>	Excavation Slope
Material Type	<u>Slope Ratio</u>	<u>Percent</u>
Common Earth (on side slopes up to 55%)	1:1	100
Fractured or loose rock	1⁄2:1	200
Hardpan or solid rock	1/4:1	400

4-6 EMBANKMENT SLOPE RATIO

Purchaser shall construct embankment slopes no steeper than shown on the following table:

<u>Embankment</u>	<u>Embankment</u>
<u>Slope Ratio</u>	Slope Percent
2:1	50
1½:1	67
1¼:1	80
	Embankment Slope Ratio 2:1 1½:1 1¼:1

4-7 SHAPING CUT AND FILL SLOPE

Purchaser shall construct excavation and embankment slopes to a uniform line and left rough for easier revegetation.

4-8 CURVE WIDENING

The minimum widening placed on the inside of curves is:

- 6 feet for curves of 50 to 79 feet radius.
- 4 feet for curves of 80 to 100 feet radius.

4-9 EMBANKMENT WIDENING

The minimum embankment widening is:

- 2 feet for embankment heights at centerline of 2 to 6 feet.
- 4 feet for embankment heights at centerline of greater than 6 feet.

Purchaser shall apply embankment widening equally to both sides of the road to achieve the required width.

4-12 FULL BENCH CONSTRUCTION

Where side slopes exceed 45%, Purchaser shall use full bench construction for the entire subgrade width. Purchaser shall end haul waste material to the location specified in Clause 4-37 WASTE AREA LOCATION. Purchaser may sidecast waste material on side slopes up to 45% if the waste material is compacted and free of organic debris. On side slopes greater than 45%, all waste material must be end hauled or pushed to the designated embankment sites and waste areas identified in Clause 4-37.

4-37 WASTE AREA LOCATION or in a location approved by the Contract Administrator.

4-15 NO EXCAVATION IN SUBGRADE

At the specified locations, Purchaser shall not excavate the subgrade.

<u>Road</u>	<u>Stations</u>
Paradise Lane	0+00 to 1+00 or as needed to avoid utilities
1+00 spur	0+00 to 1+00 or as needed to avoid utilities

SUBSECTION INTERSECTIONS, TURNOUTS AND TURNAROUNDS

4-20 SUBGRADE DIMENSIONS FOR INTERSECTIONS

On the following road(s), Purchaser shall construct the subgrade to the dimensions shown on the INTERSECTION DETAIL.

4-21 TURNOUTS

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

4-22 TURNAROUNDS

Purchaser shall construct turnarounds in accordance with the TURNAROUND DETAIL on all roads. Turnarounds must be no larger than 50 feet long and 30 feet wide. Locations are subject to written approval by the Contract Administrator.

4-23 SUBGRADE FLARE FOR INTERSECTIONS

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

SUBSECTION DITCH CONSTRUCTION

4-25 DITCH CONSTRUCTION AND RECONSTRUCTION

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

4-27 DITCH WORK – MATERIAL USE PROHIBITED

Purchaser shall not pull ditch material across the road or mix in with the road surface. Excavated material must be 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 on the MATERIALS LIST and as needed and as directed by the Contract Administrator. Ditchouts must be constructed in a manner that diverts ditch water onto the forest floor and must have excavation backslopes no steeper than a 1:1 ratio.

SUBSECTION WASTE MATERIAL (DIRT)

4-35 WASTE MATERIAL DEFINITION

Waste material is defined as all dirt, rock, mud, or related material that is extraneous or unsuitable for construction material. Waste material, as used in Section 4 EXCAVATION, is not organic debris.

4-36 DISPOSAL OF WASTE MATERIAL

Purchaser may sidecast waste material on side slopes up to 45% if the waste material is compacted and free of organic debris. On side slopes greater than 45%, all waste material must be end hauled or pushed to the designated embankment sites and waste areas identified in Clause 4-37.

4-37 WASTE AREA LOCATION

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

<u>Road</u>	Waste Area Location Comments	
		Fill in old borrow pit with waste generated from keyed
PA-H-3100	132+39	embankment construction, culvert maintenance and installation on
		the PA-H-3100.

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.

SUBSECTION SHAPING

4-55 ROAD SHAPING

Purchaser shall shape the subgrade and surface as shown on the TYPICAL SECTION SHEET. The subgrade and surface shape must ensure runoff in an even, un-concentrated manner, and must be uniform, firm, and rut-free.

4-56 DRY WEATHER SHAPING

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

SUBSECTION COMPACTION

4-60 FILL COMPACTION

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

4-61 SUBGRADE COMPACTION

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

4-62 DRY WEATHER COMPACTION

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

4-63 EXISTING SURFACE COMPACTION

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

4-64 WASTE MATERIAL COMPACTION

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

4-65 CULVERT BACKFILL COMPACTION

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

4-66 COMPACTION BY METHOD

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

SECTION 5 – DRAINAGE

5-1 REMOVAL OF SHOULDER BERMS

Purchaser shall remove berms from road shoulders. The construction of ditchouts is required where ponding could result from the effects of sidecast debris.

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 MATERIALS 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 must meet the specifications in Clauses 10-15 through 10-24.

5-6 CULVERT TYPE

Purchaser shall install culverts in accordance with Clauses 10-15 through 10-24 and the Materials List.

5-7 USED CULVERT MATERIAL

On the following road(s), Purchaser may install used culverts. All other culverts must have new culverts installed. Purchaser shall obtain approval from the Contract Administrator for the quality of the used culverts before installation. Culverts must meet the specifications in Clauses 10-15 through 10-24.

<u>Road</u>	<u>Stations</u>
1+00 spur	0+10

5-12 UNUSED MATERIALS STATE PROPERTY

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

5-13 CONTINGENCY CULVERTS

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

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

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 Contract Administrator 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 in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL. Energy dissipater installation is subject to approval by the Contract Administrator.

The type of energy dissipater and the amount of material must be consistent with the specifications listed on the CULVERT AND DRAINAGE SPECIFICATION DETAIL.

5-21 DOWNSPOUTS AND FLUMES

Downspouts and flumes longer than 10 feet must be staked on both sides at maximum intervals of 10 feet with 6-foot heavy-duty steel posts, and fastened securely to the posts with No. 10 galvanized smooth wire or 1/2-inch bolts in accordance with the TYPICAL CULVERT INSTALLATION DETAILS SHEET.

SUBSECTION CATCH BASINS, HEADWALLS, AND ARMORING

5-25 CATCH BASINS

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

5-26 HEADWALLS FOR CROSS DRAIN CULVERTS

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

5-27 ARMORING FOR STREAM CROSSING CULVERTS

At stream crossing culverts, Purchaser shall place riprap in conjunction with construction of the embankment. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets as designated on the MATERIALS LIST or as directed by the Contract Administrator. Rock may not restrict the flow of water into culvert inlets or catch basins. Placement must be by zero-drop-height method only. No placement by end dumping or dropping of rock is allowed.

SECTION 6 – ROCK AND SURFACING

SUBSECTION ROCK SOURCE

6-2 ROCK SOURCE ON STATE LAND

Rock used in accordance with the quantities on the TYPICAL SECTION and MATERIALS LIST may be obtained from the following sources 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 sources, a joint operating plan must be developed. All parties shall follow this plan.

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>
Dry Hill Pit	T30N R07W Sec 13	Pit Run Ballast
Place Pit	T31N R07W Sec 33	1 ¼" Minus Crushed Rock

6-3 ROCK SOURCE STATE LAND, EXISTING STOCKPILE

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the following existing stockpile(s) on state land at no charge to the Purchaser. Purchaser shall not remove more than 565 cubic yards of 1 ¼" minus crushed rock. Purchaser shall not remove additional yardage without prior written approval from the Contract Administrator. Other stockpiles may not be used without prior written approval from the Contract Administrator.

<u>Source</u>	Location	Rock Type	<u>Quantity</u>	

Place Pit	T31N R07W Sec 33	1 ¼" Minus Crushed	730 yd ³
		Rock	

6-5 ROCK FROM COMMERCIAL SOURCE

Rock used in accordance with the quantities on the TYPICAL SECTION and MATERIALS 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. 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 days before starting any operations in the rock source.

<u>Source</u>	<u>Rock Type</u>
Place Pit	1 ¼" Minus Crushed Rock
Dry Hill Pit	Pit Run Ballast

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:

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

 Pit walls must be maintained in a condition to minimize the possibility of the walls sliding or failing.

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

SUBSECTION ROCK MANUFACTURE

6-23 ROCK GRADATION TYPES

Purchaser shall provide rock in accordance with the types and amounts listed in the TYPICAL SECTION and MATERIALS LIST. Rock must meet the following specifications for gradation and uniform quality when placed in hauling vehicles or during manufacture and placement into a stockpile. The exact point of evaluation

SUBSECTION ROCK GRADATIONS

6-28 1 ¼-INCH MINUS CRUSHED ROCK

% Passing 1 ¼" square sieve	100%
% Passing 5/8" square sieve	50 - 80%
% Passing U.S. #4 sieve	30 - 50%
% Passing U.S. #40 sieve	3 - 18%
% Passing U.S. #200 sieve	5%

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

6-41 PIT RUN ROCK

No more than 50 percent of the rock may be larger than 8 inches in any dimension and no rock may be larger than 12 inches in any dimension. Pit Run rock may not contain more than 5 percent by weight of organic debris, dirt, and trash. Rock may require processing to meet this specification.

6-50 LIGHT LOOSE RIP RAP

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

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

6-51 HEAVY LOOSE RIP RAP

Heavy 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. Heavy loose rip rap must be free of rock fines, soil, organic debris or other extraneous material, and must meet the following requirements:

<u>Quantity</u>	<u>Size Range</u>
30% to 90%	1 ton to 2 ton (28"- 36")
30% to 70%	500 lbs. to 1 ton (18"- 28")
20% to 50%	50 lbs. to 500 lbs. (8"- 18")
10% to 20%	3 inch to 50 lbs. (3"- 8")

SUBSECTION ROCK MEASUREMENT

6-55 ROCK APPLICATION MEASURED BY COMPACTED DEPTH

Measurement of specified rock depths are defined as the compacted depths using the compaction methods required in this road plan. Estimated quantities specified in the TYPICAL SECTION are loose yards. Purchaser shall apply adequate amounts of rock to meet the specified rock depths. Specified rock depths are minimum requirements and are not subject to reduction.

Purchaser shall obtain written approval from the Contract Administrator for culvert installation, ditch construction, ditch reconstruction, headwall construction, and headwall reconstruction before rock application.

SUBSECTION ROCK APPLICATION

6-70 APPROVAL BEFORE ROCK APPLICATION

Purchaser shall obtain written approval from the Contract Administrator for subgrade construction and culvert installation before rock application.

6-71 ROCK APPLICATION

Purchaser shall apply rock in accordance with the specifications and quantities shown on the TYPICAL SECTION. 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 TYPICAL SECTION by routing equipment over the entire width.

6-72 ROCK APPLICATION AFTER HAULING

On the following roads, upon completion of all hauling operations, Purchaser shall apply rock in accordance with the quantities shown on the ROCK LIST and listed below.

Road	Location	Rock Type	<u>Amount</u>
PA-H-3000		1 ¼" Minus	250 yd ³
Walkabout Way		Crushed rock	50 yd ³
PA-H-3100	As directed by Contract Administrator		100 yd ³
PA-H-3200			100 yd ³
PA-H-3210		PIL RUN	100 yd ³
Paradise Lane			50 yd ³

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.

SECTION 7 – STRUCTURES

7-1 SIGN INSTALLATION

Purchaser shall purchase, install, and maintain the following road signs. The Contract Administrator may approve alternate sign language and location.

<u>Road</u>	<u>Station</u>	<u>Sign</u>
Walkabout Way	0+15	Timber Operations Aboad
PA-H-3000	30+10	Timber Operations Ariead

SUBSECTION STREAM CROSSING STRUCTURES GENERAL

7-5 STRUCTURE DEBRIS

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

7-6 STREAM CROSSING INSTALLATION

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

7-7 BANK PROTECTION FOR STREAM CROSSING STRUCTURES

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

SUBSECTION GATE CLOSURE

7-70 GATE CLOSURE

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.

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.

<u>Road</u>	<u>Station</u>	<u>Requirements</u>
PA-H-3100	1+50	Replace broken toaster box lever

SECTION 8 – EROSION CONTROL

8-2 PROTECTION FOR EXPOSED SOIL

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

be covered before the first anticipated storm event. Soils may not sit exposed during any rain event.

8-10 STABILIZE SLOPES – ROCK APPLICATION

On the following road, Purchaser shall stabilize excavation slopes by applying rock as specified below. Rock must be applied in quantities specified in the MATERIALS LIST to exposed soil on the excavated slopes to a minimum depth of 30 inches. Rock must be set in place by machine. No placement by end dumping or dropping of rock is allowed.

Work must be done in accordance with the attached rock buttress construction detail.

Road	Stations	Rock Type
PA-H-3100	48+30 to 50+10	Light Loose Riprap, Heavy Loose Riprap

SUBSECTION REVEGETATION

8-15 REVEGETATION

Purchaser shall spread grass seed and straw and/or hay mulch on all exposed soils including, but not limited to, stream culverts, waste areas, sidecast pullback areas, stream crossing removals, 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 seed and straw.

8-17 REVEGETATION TIMING

Purchaser shall revegetate during the first available opportunity. 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 straw and/or hay mulch 3" thick or jute matting. Seed must be covered before the first anticipated storm event.

8-19 ASSURANCE FOR SEEDED AREA

Purchaser shall ensure the growth of a uniform and dense crop (at least 50% coverage) of 3-inch tall grass. Purchaser shall reapply the grass seed and/or straw and/or hay mulch in areas that have failed to germinate or have been damaged through any cause,

restore eroded or disturbed areas, clean up and properly dispose of eroded materials, and reapply the grass seed and/or straw and/or hay mulch 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 50 pounds per acre of exposed soil. Grass seed must meet the following specifications:

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

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

SECTION 9 – POST-HAUL ROAD WORK

SUBSECTION STRUCTURES

9-3 CULVERT MATERIAL REMOVED FROM STATE LAND

Culverts removed from roads become the property of the Purchaser and must be removed from state land.

SUBSECTION POST-HAUL MAINTENANCE

9-5 POST-HAUL MAINTENANCE

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

<u>Road</u>	Stations	Additional Requirements
		Clean culverts, clean ditches, grade road
All	All	shape and compact as directed by the
		Contract Administrator.
PA-H-3000	0+00 to 190+26	Apply post haul rock per Clause 6-72.
PA-H-3100	0+00 to 127+82	Apply post haul rock per Clause 6-72.
PA-H-3200	0+00 to 85+92	Apply post haul rock per Clause 6-72.
PA-H-3210	0+00 to 59+19	Apply post haul rock per Clause 6-72.
Paradise Ln	0+00 - 7+60	Apply post haul rock per Clause 6-72.
Walkabout Way	0+00 - 14+75	Apply post haul rock per Clause 6-72.

SUBSECTION POST-HAUL LANDING MAINTENANCE

9-10 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface.

9-11 LANDING EMBANKMENT

Purchaser shall slope landing embankments to the original construction specifications.

SECTION 10 MATERIALS

SUBSECTION GEOTEXTILES

10-2 GEOTEXTILE FOR SEPARATION

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

	ASTM Test	<u>Requirements</u>
Туре		Non-woven
Apparent opening size	D 4751	No. 30 max
Water permittivity	D 4491	0.02 sec ⁻¹
Grab tensile strength	D 4632	160 lb

Grab tensile elongation	D 4632	>= 50%
Puncture strength	D 6241	310 lb
Tear strength	D 4533	50 lb
Ultraviolet stability	D 4355	50% retained after 500 hours of exposure

10-3 GEOTEXTILE FOR STABILIZATION

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

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

10-6 GEOTEXTILE FOR TEMPORARY SILT FENCE

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

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

SUBSECTION CULVERTS

10-15 CORRUGATED STEEL CULVERT

Metallic coated steel culverts must meet AASHTO M-36 (ASTM A-760) specifications. Culverts must be aluminized (aluminum type 2 coated meeting AASHTO M-274).
10-17 CORRUGATED PLASTIC CULVERT

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

10-20 FLUME AND DOWNSPOUT

Downspouts and flumes must meet the AASHTO specification designated for the culvert. Plastic downspouts and flumes 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.

10-24 GAUGE AND CORRUGATION

Metal culverts must conform to the following specifications for gage and corrugation as a function of diameter.

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

SECTION 11 SPECIAL NOTES

11-1 BIKE TRAIL AND ROAD INTERSECTIONS

Where road construction intersects with bike trails, Purchaser shall construct dirt ramps on the road edges to allow for a smooth transition between trails and road surface.

ROAD #		PA-H-3000	PA-H-3005	PA-H-3048	PA-H-3050
REQUIRED / OPTIONAL		REQUIRED	REQUIRED	REQUIRED	OPTIONAL
CONSTRUCT / RECONSTRUCT		PRE-HAUL	RECONSTRUCT	CONSTRUCT	PRE-HAUL
TOLERANCE CLASS (A/B/C)		С	С	С	С
STATION / MP TO		167+73	0+00	0+00	0+00
STATION / MP		190+26	8+42	13+85	8+15
ROAD WIDTH	R	12	12	12	12
CROWN (INCHES @ C/L)		3	3	3	3
DITCH WIDTH	w	3	3	3	3
DITCH DEPTH	D	1	1	1	1
TURNOUT LENGTH	L			25	
TURNOUT WIDTH	т			10	
TURNOUT TAPER	Р			25	
GRUBBING	G1		5	5	
	G2		5	5	
CLEARING	C1		10	10	
	C2		10	10	
ROCK FILLSLOPE	K:1		1 ½ : 1	1 ½ : 1	
BALLAST DEPTH	B1		6	18	
CUBIC YARDS / STATION			34	110	
> TOTAL CY BALLAST			285	1,525	
SURFACING DEPTH	B2				4
CUBIC YARDS / STATION					23
> TOTAL CY SURFACING					185
> TOTAL CUBIC YARDS		100 ^{AB}	285	1,525	185
SUBGRADE WIDTH	S	12	13	16.5	12.5
BRUSHCUT (Y/N)		N	N	N	N
BLADE, SHAPE, & DITCH (Y/N)	Y	N	Ν	Y

TYPICAL SECTION



TURNOUT DETAIL (PLAN VIEW)



SYMBOL NOTES

- Specified Rock Depth is FINISHED COMPACTED DEPTH in inches.
- Specified Rock Quantity is LOOSE MEASURE (Truck Cubic Yards) needed to accomplish specified FINISHED COMPACTED DEPTH. Rock quantities include volume for turnouts, curve widening and landings.

A: Rock for spot patching as directed by Contract Administrator. B: Rock for use shall be 1 %'' minus crushed rock

Rock Totals Summary (including Post Haul Rock)

Туре	Quantity (Cubic Yards)
Pit Run Rock	13,370
1 ¼" minus crushed	730
Rock	
Rip Rap	510

ROAD #		PA-H-3050	PA-H-3060	PA-H-3061	PA-H-3061	PA-H-3066	PA-H-3071	PA-H-3100
REQUIRED / OPTIONAL		OPTIONAL	REQUIRED	REQUIRED	REQUIRED	OPTIONAL	REQUIRED	REQUIRED
CONSTRUCT / RECONSTRUCT	r	CONSTRUCT	PRE-HAUL	PRE-HAUL	CONSTRUCTION	CONSTRUCTION	PRE-HAUL	PRE-HAUL
TOLERANCE CLASS (A/B/C)		С	С	С	С	С	С	С
STATION / MP TO		8+15	0+00	0+00	8+73	0+00	0+00	0+00
STATION / MP		15+50	2+14	8+73	11+96	10+57	0+92	136+86
ROAD WIDTH	R	12	12	12	12	12	12	12
CROWN (INCHES @ C/L)		3	3	3	3	3	3	3
DITCH WIDTH	w	3	3	3	3	3	3	3
DITCH DEPTH	D	1	1	1	1	1	1	1
TURNOUT LENGTH	L	25						
TURNOUT WIDTH	т	10						
TURNOUT TAPER	Р	25						
GRUBBING	G1	5			5	5		
	G2	5			5	5		
CLEARING	C1	10		5	10	10		
	C2	10		5	10	10		
ROCK FILLSLOPE	K:1	1 ½ : 1			1 ½ : 1	1 ½ : 1		
✤ BALLAST DEPTH	B1	12			18	18		
CUBIC YARDS / STATION		70			110	110		
> TOTAL CY BALLAST		515			355	1,165		
SURFACING DEPTH	B2			4				
CUBIC YARDS / STATION				23				
> TOTAL CY SURFACING				200				
> TOTAL CUBIC YARDS		515		200	355	1,165		150 ⁴
SUBGRADE WIDTH	S	15	12	12.5	16.5	16.5	12	12
SUBGRADE WIDTH S BRUSHCUT (Y/N)		N	N	N	N	N	N	N
BLADE, SHAPE, & DITCH (Y/N	1)	N	Y	Y	N	N	Y	N

ROAD #		PA-H-3112	PA-H-3113	PA-H-3200	PA-H-3210	PA-H-3215
REQUIRED / OPTIONAL		OPTIONAL	OPTIONAL	REQUIRED	REQUIRED	REQUIRED
CONSTRUCT / RECONSTRUCT	-	CONSTRUCT	CONSTRUCT	PRE-HAUL	PRE-HAUL	CONSTRUCT
TOLERANCE CLASS (A/B/C)		С	С	С	С	С
STATION / MP TO		0+00	0+00	0+00	26+44	0+00
STATION / MP		3+27	4+98	22+57	59+19	4+28
ROAD WIDTH	R	12	12	12	12	12
CROWN (INCHES @ C/L)		3	3	3	3	3
DITCH WIDTH	w	3	3	3	3	3
DITCH DEPTH	D	1	1	1	1	1
TURNOUT LENGTH	L					
TURNOUT WIDTH	т					
TURNOUT TAPER	Р					
GRUBBING	G1	5	5			5
	G2	5	5			5
CLEARING	C1	10	10			10
	C2	10	10			10
ROCK FILLSLOPE	К:1	1 ½ : 1	1 ½ : 1			1 ½ : 1
✤ BALLAST DEPTH	B1	12	12			12
CUBIC YARDS / STATION		70	70			70
> TOTAL CY BALLAST	-	230	350			300
SURFACING DEPTH	B2					
CUBIC YARDS / STATION						
> TOTAL CY SURFACING						
> TOTAL CUBIC YARDS		230	350		50 ^A	300
SUBGRADE WIDTH	S	15	15	12	12	15
BRUSHCUT (Y/N)		Ν	Ν	Ν	Ν	Ν
BLADE, SHAPE, & DITCH (Y/N)	Y	N	Y	Y	N

ROAD #		PA-H-3240	PA-H-3241	PA-H-3241	PA-H-3241	PA-H-3243	Walkabout Way			
REQUIRED / OPTIONAL		REQUIRED	REQUIRED	REQUIRED	REQUIRED	OPTIONAL	OPTIONAL	REQUIRED		
CONSTRUCT / RECONSTRUCT	r	PRE-HAUL	PRE-HAUL	RECONSTRUCT	CONSTRUCT	CONSTRUCT	CONSTRUCT	PRE-HAUL		
TOLERANCE CLASS (A/B/C)		С	С	С	С	С	С	С		
STATION / MP TO		0+00	0+00	19+32	26+75	64+83	0+00	0+00		
STATION / MP		5+38	19+32	26+75	64+83	71+99	6+36	14+75		
ROAD WIDTH	R	12	12	12	12	12	12	12		
CROWN (INCHES @ C/L)		3	3	3	3	3	3	3		
DITCH WIDTH	w	3	3	3	3	3	3	3		
DITCH DEPTH	D	1	1	1	1	1	1	1		
TURNOUT LENGTH	L				25					
TURNOUT WIDTH	т				10					
TURNOUT TAPER	Р				25					
GRUBBING	G1			5	5	5	5			
	G2			5	5	5	5			
CLEARING	C1			10	10	10	10			
	C2			10	10	10	10			
ROCK FILLSLOPE	K:1			1 ½ : 1	1 ½ : 1	1 ½ : 1	1 ½ : 1			
✤ BALLAST DEPTH	B1			12	18	18	18			
CUBIC YARDS / STATION				70	110	110	110			
> TOTAL CY BALLAST				520	4,190	790	700			
SURFACING DEPTH	B2							4		
CUBIC YARDS / STATION								20		
> TOTAL CY SURFACING								330		
> TOTAL CUBIC YARDS				520	4,190	790	700	330 ^B		
SUBGRADE WIDTH	S	12	12	15	16.5	16.5	16.5	12		
SUBGRADE WIDTH S BRUSHCUT (Y/N)		N	N	N	N	N	N	N		
BLADE, SHAPE, & DITCH (Y/N	1)	Y	Y	N	N	N	N	Y		

ROAD #		PA-I-2600	PA-I-2610	PA-I-2620	Paradise Lane	Paradise Lane	1+00 Spur	Parking Lot
REQUIRED / OPTIONAL		OPTIONAL	OPTIONAL	OPTIONAL	Required	Required	Required	Required
CONSTRUCT / RECONSTRUCT	г	PRE-HAUL	PRE-HAUL	PRE-HAUL	Reconstruction	Construction	Construction	Construction
TOLERANCE CLASS (A/B/C)		С	С	С	С	С	С	С
STATION / MP TO		0+00	0+00	0+00	0+00	4+90	0+00	0+00
STATION / MP		14+00	12+00	6+50	4+90	7+60	1+00	1+00
ROAD WIDTH	R	12	12	12	12	12	12	100' x 100'
CROWN (INCHES @ C/L)		3	3	3	3	3	3	3
DITCH WIDTH	w	3	3	3	3	3	3	3
DITCH DEPTH	D	1	1	1	1	1	1	3
TURNOUT LENGTH	L							
TURNOUT WIDTH	т							
TURNOUT TAPER	Р							
GRUBBING	G1				5	5	5	5
	G2				5	5	5	5
CLEARING	C1				10	10	10	10
	C2				10	10	10	10
ROCK FILLSLOPE	K:1				1 ½ : 1	1 ½ : 1	1 ½ : 1	1 ½ : 1
✤ BALLAST DEPTH	B1				18	18	18	12
CUBIC YARDS / STATION					110	110	110	N/A
> TOTAL CY BALLAST					600	300	140	450
SURFACING DEPTH	B2							
CUBIC YARDS / STATION								
> TOTAL CY SURFACING								
> TOTAL CUBIC YARDS					600	300	140	450
SUBGRADE WIDTH	S	12	12	12	16.5	16.5	16.5	N/A
SUBGRADE WIDTH S BRUSHCUT (Y/N)		N	N	Ν	N	N	N	N
BLADE, SHAPE, & DITCH (Y/N	1)	Y	Y	Y	N	N	N	N

MATERIALS LIST

LOCA	TION	С	ULVE	RT	DWI	NSPT	R	IPRA	Ρ			REMARKS Note: Steel culverts shall conform to the following										
		DIA	LEI	-	E	_	5	o	-	FILLT	TOLER	<u>Note:</u> Steel culverts shall conform to the following specifications for gage and corrugation as a function the diameter:										
ROAD #	STATION	METER	NGTH	YPE	NGTH	YPE	VLET	JTLET	YPE	TYPE	ANCE	specifications for gage and corrugation as a function the diameter: <u>Diameter</u> <u>Gage</u> <u>Corrugation</u> 18" 16 2 ² / ₃ " x ¹ / ₂ " 24" - 48" 14 2 ² / ₃ " x ¹ / ₂ " 54" - 96" 12 5" x 1"										
PA-H-3000	176+93	18	30	ХХ			1	2	L	NT	С	54" – 96" 12 5" x 1"										
PA-H-3048	2+94	18	30	ХХ			1	2	L	NT	С											
PA-H-3048	6+97	18	30	XX			1	2	L	NT	С											
PA-H-3048	8+78	18	30	XX			1	2	L	NT	С											
PA-H-3048	11+14	18	30	XX			1	2	L	NT	С											
PA-H-3061	4+18	18	30	XX			1	2	L	NT	С											
PA-H-3066	0+27	18	30	XX			1	2	L	NT	C	DITCH LAY CLEAN INLET CLEAN INLET REPLACE EXISTING CULVERT										
PA-H-3066	3+19	18	30	XX			1	2	L	NT	C	DITCH LAY CLEAN INLET CLEAN INLET REPLACE EXISTING CULVERT										
PA-H-3066	6+27	18	30	XX			1	2	L	NT	С											
PA-H-3100	0+39											CLEAN INLET										
PA-H-3100	5+44											CLEAN INLET										
PA-H-3100	20+22	18	30	ХХ			1	2	L	NT	C	REPLACE EXISTING CULVERT										
PA-H-3100	46+71	18	30	ХХ			1	2	L	NT	С											
PA-H-3100	47+70	24	40	хх			1	10	L	NT	С	REPLACE EXISTING STREAM CULVERT, Rip Rap Energ Dissipater Rock										
PA-H-3100	48+30 to 50+10						3!	50	L/H			Dissipater Rock RIPRAP FOR SLOPE STABILIZATION										
PA-H-3100	48+99	18	30	XX			1	10	L	NT	C	REPLACE CULVERT, Rip Rap Energy Dissipater Rock										
PA-H-3100	50+62	18	30	XX			1	2	L	NT	C											
PA-H-3100	58+32	18	30	XX			1	2	L	NT	C											
PA-H-3100	61+11											CLEAN INLET										
GM – Galvanize H – He	d Metal PS – Polye eavy Loose Riprap	ethyle L – l	ne Pip _ight Lo	e Singlo oose Ri	e Wall prap	PD – P SR	olyeth – Shot	nylene t Rock	Pipe [Dual W	all AN N	– Aluminized Metal C – Concrete XX – PD or AM T – Native (Bank Run) QS – Quarry Spalls										

Parched Timber Sale Contract No. 30-102017

MATERIALS LIST

LOCA	ΓΙΟΝ	C	ULVE	RT	DWI	NSPT	R	IPRA	Ρ				REMARKS								
		DIA	LE	-	E	-	5	Q	-	FILLT	TOLER	<u>Note:</u> Galvanize following specifi fu	d metal culverts s cations for gage a nction of the diar	hall conform to the and corrugation as a neter:							
ROAD #	STATION	METER	NGTH	YPE	NGTH	YPE	VLET	JTLET	YPE	'YPE	ANCE	<u>Diameter</u> 18" 24" – 48" 54" – 96"	REMARKS Ivanized metal culverts shall conform to specifications for gage and corrugation function of the diameter: er Gage Corrugation of the diameter: 2r 16 2 2/3" x 1/ 3" 14 2 2/3" x 1/ 5" 12 5" x 1" CLEAN INLET EPLACE EXISTING STREAM CULVERT CLEAN INLET OUT OF THE STREAM								
PA-H-3100	64+78	18	30	ХХ			1	2	L	NT	С										
PA-H-3100	73+63												CLEAN INLET								
PA-H-3100	75+76	36	60	AM	10	AM	3	20	L/H	NT	С	10 10 173 × 72 24" - 48" 14 2 ²/₃" × 1/2" 54" - 96" 12 5" x 1" CLEAN INLET CLEAN INLET CLEAN INLET CLEAN INLET CLEAN INLET CLEAN INLET									
PA-H-3100	93+01												CLEAN INLET								
PA-H-3241	20+02	18	30	XX			1	2	L	NT	C										
PA-H-3241	25+12	18	30	XX			1	2	L	NT	C										
PA-H-3241	37+20	18	30	XX			1	2	L	NT	С										
PA-H-3241	41+62	18	30	XX			1	2	L	NT	C										
PA-H-3241	47+00	18	30	XX			1	2	L	NT	С										
PA-H-3241	52+92	18	30	XX			1	2	L	NT	С										
PA-H-3241	54+18	18	30	ХХ			1	2	L	NT	С										
PA-H-3241	58+06	18	30	XX			1	2	L	NT	С										
PA-H-3241	60+45	18	30	XX			1	2	L	NT	С										
PA-H-3241	61+53	24	30	XX			1	2	L	NT	С		TYPE 5 STREAM	1							
PA-H-3241	61+97	18	30	XX			1	2	L	NT	С										
PA-H-3241	64+60	18	40	XX			1	2	L	NT	С										
PA-H-3241	65+32	18	30	ХХ			1	2	L	NT	С										
PA-H-3241	71+05	18	30	XX			1	2	L	NT	С										
PA-H-3243	2+44	18	30	ХХ			1	2	L	NT	С										

H – Heavy Loose Riprap L – Light Loose Riprap

SR – Shot Rock

NT – Native (Bank Run) QS – Quarry Spalls

MATERIALS LIST

LOCAT	ION	C	ULVE	RT	DWI	NSPT	R	IPRA	P			REMARKS								
		DIA	LE	-	E	-	5	Q	-	FILLI	TOLER	<u>Note:</u> Galvanize following specifi fur	d metal culverts s cations for gage a action of the dian	hall conform to the nd corrugation as a neter:						
ROAD #	STATION	METER	NGTH	YPE	NGTH	YPE	VLET	JTLET	YPE	'YPE	ANCE	<u>Diameter</u> 18" 24" – 48" 54" – 96"	<u>Gage</u> 16 14 12	Corrugation 2 ² / ₃ " x ¹ / ₂ " 2 ² / ₃ " x ¹ / ₂ " 5" x 1"						
Walkabout Way	1+65	18	40	XX						CR	С		Culvert Replacem	ent						
Paradise Lane	0+10	18	60	XX						CR	С									
1+00 Spur	0+10	18	40	XX						CR	С									
GM – Galvan	 ized Metal PS - P	olveth	vlene	Dina Si		_ חס ווי	Polve	thylen	Dinc		Vall AM		al C - Concrete	XX – PD or AM						

GM – Galvanized Metal PS – Polyethylene Pipe Single Wall PD – Polyethylene Pipe Dual Wall AM – Aluminized Metal C – Concrete XX – PD or AM H – Heavy Loose Riprap L – Light Loose Riprap SR – Shot Rock CR-Crushed Rock NT – Native (Bank Run) QS – Quarry Spalls

COMPACTION LIST

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



Dry Hill Pit ROCK SOURCE DEVELOPMENT PLAN SEC. 13, T.30N R.07W PIT USE REQUIREMENTS

- 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.



Place Pit ROCK SOURCE DEVELOPMENT PLAN SEC. 33, T.31N R.07W PIT USE REQUIREMENTS

- 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 $\frac{3}{2}$ 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 & 1-27.
- 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.

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 dissipater 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 8in. 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..



Typical Type Ns, Np Culvert Installation Detail Sheet.

-Water shall be diverted away from the work site before any "In stream" work begins, and shall continue until culvert installation is complete.

-Culvert lay shall match stream gradient up to 5%.

-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.

-Rip rap shall be placed using a "zero height drop method", and shall be set in conjunction with the culvert installation.

-Rip rap 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 rip rap shall be placed along the fill at the outlet, unless there is stream drop or it is called for in the Road Plan, at which point it will be installed as an energy dissipater at the end of the culvert as specified in this Detail. All rip rap distance to be determined by the Contract Administrator or the District Engineer.

-Backfill compaction shall be achieved using a jumping jack, walk behind vibratory roller, or plate compactor on lifts not to exceed 8in. 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 3 times the width of the compactor footprint used.



Ditch Cleaning Detail



1. The backslope shall be no steeper than $\frac{1}{2}$:1, unless the material is hardpan or solid rock, in which case it may be $\frac{1}{4}$:1.

2. If there is sufficient width for the ditch without affecting the cut bank, than removing bank material is not required.

3. Bank material above the ditch shall be removed to a maximum height of 15 feet, if needed to meet the requirements of this detail.

4. If there is insufficient width to clean or construct a ditch without disturbing more than 15 vertical feet of bank, the Contract Administrator may authorize changes to this plan in order to still meet the intent of having a ditch, while staying within the excavation limits already set.

5. Ditch cleaning or construction shall not shrink the running surface of the road.







Parched Timber Sale Contract No. 30-102017

Plans to be f	Sheet 1 of 5	NOTE: This app		Pit Work	ROAD DEACTIV	MOBILIZATION	COST PER ST/	TOTAL COSTS	O VERHEAD:	MISC. EXPENSE	STRUCTURES:		CULVERTS AND		Oversize:		Surface:		Ballast	ROCK TOTALS (DITCH CLEANIN	ROAD GRADING	EXCAVATION A	ROAD BRUSHIN	CLEARING AND	SIDESLOPE:	NUMBER OF ST.	ROAD TYPE:		ROAD NAME:			SALE NAME:	
urnished by:		raisal has n			ATION AND AF		TION:						FLUMES:		510		730		13371	Cu. Yds.)/ROC	G/CONSTRUC		ID FILL:	៉	GRUBBING:		ATIONS:					LEGAL D	Parched	
		o allowance			BANDONMEN										510		730		13,370	K COSTS:	TION:											ESCRIPTION:		
		for profit and risk.			r costs:		\$2,592	\$35,903	\$2,659	\$109	ŞO	-	\$3,696	\$747	12	\$0	0	\$17,223	1,526		\$0	\$0	\$7,711	\$0	\$3,757	40%	13.85	Construction		H-3048		0	CONTRACT#:	
				\$15,000			\$1,335	\$9,814	\$727	\$58	ŞO	;	\$0	\$0	0	\$0	0	\$6,133	515		\$0	\$0	\$1,926	\$0	\$970	20%	7.35	Construction		H-3050			30-102017	NUS
					\$0	\$9,800	\$2,686	\$8,676	Ş643	\$26	0\$0	-	\$0	\$189	ω	\$0	0	\$4,615	355		\$0	\$0	\$2,327	\$0	\$876	45%	3.23	Construction		H-3061				1MARY - Road
Compiled by:	Cost per Sta. =	Total Sta. =	Total Costs =	Road Standard			\$2,700	\$28,535	Ş2,114	Ş84	\$0		\$2,772	\$568	9	\$0	0	\$15,258	1,165		\$0	\$0	\$5,885	\$0	\$1,856	40%	10.57	Construction		H-3066			REGION:	Development
E Hein	\$2,611	103.83	\$271,085	Const.			\$1,305	\$4,268	\$316	\$26	0\$		\$0	\$0	0	\$0	0	\$2,697	231		\$0	\$0	\$750	\$0	\$479	15%	3.27	Construction		H-3112			Olympic	Costs
	\$1,579	20.75	\$32,755	Reconst.			\$1,620	\$8,066	\$597	9E\$	\$0	-	\$0	\$0	0	\$0	0	\$4,447	350		\$0	\$0	\$1,631	\$0	\$1,351	30%	4.98	Construction		H-3113				
	\$178	500.77	\$89,243	Prehaul			\$1,552	\$6,643	Ş492	Ş34	ŞO	-	\$0	\$0	0	\$0	0	\$3,868	300		\$0	\$0	\$1,402	\$0	\$847	30%	4.28	Construction		H-3215			DISTRICT:	
	\$36	616.99	\$21,959	Posthaul			\$2,677	\$121,128	\$8,972	\$357	\$0		\$11,256	\$2,658	42	\$0	0	\$67,833	4,980		\$0	\$0	\$17,779	\$0	\$12,272	35%	45.24	Construction		H-3241			Straits	
							\$2,459	\$15,640	\$1,158	\$50	ŞO	-	\$924	\$219	ω	\$0	0	\$9,480	700		\$0	\$0	\$2,083	\$0	\$1,725	30%	6.36	Construction		H-3243				
			(0)				\$1,359	\$3,671	\$272	\$21	\$0		\$0	\$0	0	\$0	0	\$2,535	300		\$0	\$0	\$ 531	\$0	\$312	10%	2.70	Construction		Paradise				
	TOTAL COST P	TOTAL COS	SALE VOLUME MI	TOTAL (/			\$2,954	\$2,954	Ş219	Ş8	şo	-	\$1,232	\$0	0	\$0	0	\$1,183	140		\$0	\$0	\$197	\$0	\$116	10%	1.00	Construction	1	1+00 Spur				
Date:	ER STATION=	T PER MBF =	¥	II Roads) =			\$2,385	\$245,296	\$18,170	\$812	ŞO		\$19,880	\$4,381	69	\$0	0	\$135,271	10560		\$0	\$0	\$42,220	\$0	\$24,561	305%	102.83			TOTAL:				
9/13/2024	\$334.08	\$56.15	7,391	\$415,041			\$126	\$143,745	\$11,234	Ş11,484	\$500		\$18,900	\$27,332	441	\$9,097	730	\$30,898	2811		\$15,751	\$9,464	\$6,527	\$0	\$2,559	63%	1,139.51			SHEET #2-5	TOTAL			

Parched Timber Sale Contract No. 30-102017

COST PER S	TOTAL COST	OVERHEAD:	MISC. EXPENS	STRUCTURES:	CULVERTS AND		Oversiz		Surfac		Ballas	ROCK TOTALS	DITCH CLEANI	ROAD GRADIN	EXCAVATION /	ROAD BRUSHI	CLEARING AND	SIDESLOPE:	NUMBER OF S	ROAD TYPE:	ROAD NAME:		SALE NAME:	
FATION:			ES:) FLUMES:		ë		Ģ		T .	(Cu. Yds.)/ROCK COST:	NG/CONSTRUCTION:	ē	AND FILL:	NG:	GRUBBING:		TATIONS:				Parched	
\$7,138	\$7,138	\$529	8\$	\$0	\$0	\$0	0	\$0	0	\$6,323	450		\$0	\$0	\$164	\$0	\$116	8%	1.00	Construction	Parking	c	CONTRACT#:	
\$811	\$6,826	\$564	\$88¢	\$0	\$0	\$0	0	\$0	0	\$2,074	285		\$328	\$71	\$1,930	\$0	\$973	15%	8.42	Recon.	H-3005		30-10201	SUMMAI
\$2,036	\$15,128	\$1,249	\$782	\$0	\$1,848	\$392	6	\$0	0	\$6,600	520		\$290	\$63	\$2,433	\$0	\$1,471	30%	7.43	Recon.	H-3241		7	RY - Road
\$1,704	\$8,351	\$690	\$516	\$0	\$1,848	0¢	0	0¢	0	\$5,065	620		\$191	\$41	\$0	0¢	\$0	10%	4.90	Recon.	Paradise		REGION:	Developn
\$84	\$15,918	\$1,179	\$1,503	\$0	\$2,772	\$189	ω	\$1,247	100	\$0	0		\$7,420	\$1,608	\$0	\$0	\$0	0%	190.26	Prehaul	H-3000		Olympic	nent Cost
\$304	\$2,479	\$184	\$64	\$0	\$0	\$0	0	\$0	0	\$2,162	185		\$0	\$69	\$0	\$0	\$0	0%	8.15	Prehaul	H-3050			ζ.
\$18	\$38	\$3	\$17	\$0	\$0	\$0	0	\$0	0	\$0	0		\$0	\$18	\$0	\$0	\$0	0%	2.14	Prehaul	H-3060			
\$490	\$4,277	\$317	\$69	\$0	\$924	\$0	0	\$0	0	\$2,553	200		\$340	\$74	\$0	\$0	\$0	0%	8.73	Prehaul	H-3061		DISTRICT:	
\$18	\$16	\$1	\$7	\$0	\$0	\$0	0	\$0	0	\$0	0		\$0	8\$	\$0	\$0	\$0	0%	0.92	Preha ul	H-3071		Straits	
\$389	\$53,228	\$3,943	\$1,689	\$500	\$10,276	\$26,751	432	\$0	0	\$1,575	150		\$5,338	\$1,156	\$2,000	\$0	\$0	0%	136.86	Prehaul	H-3100			
\$60	\$1,349	\$100	\$178	\$0	\$0	\$0	0	\$0	0	\$0	0		\$880	\$191	\$0	\$0	\$0	0%	22.57	Prehaul	H-3200			
\$29	\$1,732	\$128	\$468	\$0	\$0	\$0	0	\$0	0	\$636	50		\$0	\$500	0¢	\$0	\$0	0%	59.19	Prehaul	H-3210			
\$60	\$322	\$24	\$43	\$0	\$0	\$0	0	\$0	0	\$0	0		\$210	\$45	\$0	\$0	\$0	0%	5.38	Prehaul	H-3240			

		SUMMAR	Y - Road	Developr	nent Cost			
SALE NAME: Parched	CONTRACT#:	30-102017		REGION:	Olympic	D	ISTRICT: Stra	nits
LEGAL DESCRIPTION	0							
ROAD NAME:	H-3241	Walk Way	I-2600	I-2610	I-2620	All Post-Haul		
ROAD TYPE:	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Post-Haul		
NUMBER OF STATIONS:	19.32	14.75	14.00	12.00	6.50	616.99		
SIDESLOPE:	0%	0%	0%	0%	0%	0%		
CLEARING AND GRUBBING:	\$0	\$0	\$0	0\$	\$0	\$0		
ROAD BRUSHING:	¢0	\$0	\$0	\$0	\$0	\$0		
EXCAVATION AND FILL:	\$0	\$0	\$0	\$0	\$0	\$0		
ROAD GRADING:	\$163	\$125	\$118	\$0	\$0	\$5,214		
DITCHING:	\$753	\$0	\$0	\$0	\$0	\$0		
ROCK TOTALS (Cu. Yds.)/ROCK COSTS:								
Ballast:	0	0	0	0	0	350		
	\$0	\$0	\$0	\$0	\$0	\$3,910		
Surface:	0	330	0	0	0	300		
	\$0	\$4,112	\$0	\$0	\$0	\$3,738		
Oversize:	0	0	0	0	0	0		
	\$0	\$0	\$0	\$0	\$0	\$0		
CULVERTS AND FLUMES:	\$0	\$1,232	\$0	¢0	\$0	\$0		
STRUCTURES:	\$0	\$0	\$0	\$0	\$0	\$0		
MISC. EXPENSES:	\$153	\$117	\$111	\$0	\$0	\$4,874		
OVERHEAD:	\$86	\$447	\$18	\$0	\$0	\$1,774		
TOTAL COSTS:	\$1,155	\$6,032	\$247	\$0	\$0	\$19,509		
)-)-)-)-)	<u>}</u>)-))		
COST PER STATION:	\$60	\$409	Ş18	0Ś	0Ś	\$32		

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Cuts and Fills

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

Surface

- Grade and shape the road surface, turnouts, and shoulders to the original shape on the TYPICAL SECTION SHEET. Inslope or outslope as directed to provide a smooth, rut-free traveled surface and maintain surface water runoff in an even, unconcentrated manner.
- Blading shall not undercut the backslope or cut into geotextile fabric on the road.
- If required by the Contract Administrator, water shall be applied as necessary to control dust and retain fine surface rock.
- Surface material shall not be bladed off the roadway. Replace surface material when lost or worn away, or as directed by the Contract Administrator.
- Remove shoulder berms, created by grading, to facilitate drainage, except as marked or directed by the Contract Administrator.
- For roads with geotextile fabric: spread surface aggregate to fill in soft spots and wheel ruts (barrel spread) to prevent damage to the geotextile fabric.

Drainage

- Prevent silt bearing road surface and ditch runoff from delivering sediment to any streams or wetlands.
- Maintain rolling dips and drivable waterbars as needed to keep them functioning as intended.
- Maintain headwalls to the road shoulder level with material that will resist erosion.
- Maintain energy dissipaters at culvert outlets with non-erodible material or rock.
- Keep ditches, culverts, and other drainage structures clear of obstructions and functioning as intended.
- Inspect and clean culverts at least monthly, with additional inspections during storms and periods of high runoff. This shall be done even during periods of inactivity.

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Preventative Maintenance

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

Termination of Use or End of Season

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

Debris

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



LOGGING PLAN MAP



LOGGING PLAN MAP



LOGGING PLAN MAP



