



TIMBER NOTICE OF SALE

SALE NAME: KICK STAND VRH VDT

AGREEMENT NO: 30-104449

AUCTION: April 24, 2024 starting at 10:00 a.m., COUNTY: Snohomish Northwest Region Office, Sedro Woolley, WA

SALE LOCATION: Sale located approximately 12 miles southeast of Granite Falls, WA.

PRODUCTS SOLD AND SALE AREA:

All timber bounded by white timber sale boundary tags and the PK-64, PK-6425, and PK-6425-04 roads, except cedar salvage (cedar snags, preexisting dead and down cedar trees and cedar logs), trees marked with blue paint on the bole and root collar, forest products tagged out by blue special management tags (RMZs), and forest products tagged out by yellow leave tree area tags in Unit #1.

All timber bounded by white timber sale boundary tags and the PK-6425-04 Road, except cedar salvage (cedar snags, preexisting dead and down cedar trees and cedar logs), trees marked with blue paint on the bole and root collar, forest products tagged out by blue special management tags (RMZs), and forest products tagged out by yellow leave tree area tags in Units #2 and #3.

All timber as described for removal in Schedule B bounded by white timber sale boundary tags and marked with orange paint, except cedar salvage (cedar snags, preexisting dead and down cedar trees and cedar logs), in Unit #4.

All timber as described for removal in Schedule B located in the RMZ thinning areas (beyond the blue special management tags up to the white timber sale boundary tags) within Units #1, #2 and #3.

All timber bounded by orange right-of-way tags as well as right-of-way tags and PK-64 Road, except that title to the timber within the right-of-way associated with areas of road construction (located in thinning areas or RMZs) is not conveyed to the Purchaser unless the road segment is actually constructed except as described for removal in Schedule B.

All forest products above located on part(s) of Sections 2, 3, 5, 9, 10 and 11 all in Township 29 North, Range 8 East, W.M., containing 207 acres, more or less.

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

ESTIMATED SALE VOLUMES AND QUALITY:

Table with columns: Species, Avg Ring DBH, Ring Count, Total MBF, Total \$/MBF, and MBF by Grade (1P, 2P, 3P, SM, 1S, 2S, 3S, 4S, UT). Rows include Hemlock, Silver fir, Douglas fir, Redcedar, Other Hardwood, Other Conifer, and Sale Total.

MINIMUM BID: \$126.5/MBF (est. value \$780,000.00) BID METHOD: Sealed Bids



TIMBER NOTICE OF SALE

Shapefiles of units are available upon request, and on the DNR website after the BNR meeting in which the sale is presented.

FEES: \$90,933.00 is due on day of sale. \$9.00 per MBF is due upon removal. These are in addition to the bid price.

SPECIAL REMARKS:

1. Sale layout designed with the intention of 100% ground-based harvest as sale area contains gentle terrain.
2. Outer boundary of harvest area in RMZ thinning areas is demarcated with blue special management tags within the sale respective VRH timber sale unit.
3. Sample Scale - weight conversion sample scaling requests will be authorized for the following species: Douglas-fir (pure loads), western hemlock (pure loads). See Schedule S for more details. If approved for Sample Scale, diameter restrictions may apply.
4. Cedar salvage may be offered for sale separately from the timber sale and is NOT included in the products sold.
5. Temporary culverts on the PK-6424 shall be installed and removed within the same season if multiple seasons are required for harvest. Road work on the PK-6424 will not be permitted from October 1 to June 15 (fish window for temporary culverts); this shall not be waived.

Schedule B
Thinning Prescription

UNIT 4 – NRF THINNING AND RMZS

- Thin based on the criteria below, leaving a minimum of 95 trees per acre throughout the unit.
- Only live trees 8 inches or greater in DBH shall be used to calculate trees per acre.

To accomplish this prescription, fallers and operators shall remove trees in the following priority order and diameter ranges:

1. Silver fir (all diameters)
2. Western Hemlock (12in to 18in)

All other tree species may only be cut to facilitate yarding and road construction when they pose safety hazards. If felled, they shall be treated like all other harvested trees and be deducted from final standing trees per acre and residual basal area goals. If felled for safety reasons they shall be left where they lay and remain on site as down woody debris.

UNIT RMZ 1-3 – RIPARIAN THINNING

- Thin based on the criteria below, leaving a minimum of 95 trees per acre throughout the unit, targeting a 21 x 21 foot spacing.
- Only live trees 8 inches or greater in DBH shall be used to calculate trees per acre.

To accomplish this prescription, fallers and operators shall remove trees in the following priority order and diameter ranges:

1. Silver fir (all diameters)
2. Western Hemlock (12in to 18in)

All other tree species may only be cut to facilitate yarding and road construction when they pose safety hazards. If felled, they shall be treated like all other harvested trees and be deducted from final standing trees per acre and residual basal area goals. If felled for safety reasons they shall be left where they lay and remain on site as down woody debris.

RMZ ENHANCEMENT ACTIVITIES.

There are 17.2 acres of RMZ thinning in Unit RMZ 1, 20.8 acres of RMZ thinning in Unit RMZ 2, and 18.2 acres of RMZ thinning in RMZ Unit 3. Three conifer trees per acre of RMZ, from the largest thinned DBH class, shall be felled towards the stream where feasible to remain as down woody debris. Two conifer trees per acre of RMZ, from the largest thinned DBH class, shall be double girdled, or topped, for snag recruitment. The Purchaser shall mark and fell/girdle upon review and approval of the Contract Administrator. These trees shall be marked within 25 feet of the white “timber sale boundary” tags along type 3 and/or 4 streams.

THINNING CONDITIONS

Fallers and operators shall harvest trees of the first species and diameter range until the prescription is met. If there are not enough trees in a plot of the first species, then the faller shall harvest from the second species and diameter range and so on until the prescription is met. Fallers and operators shall cut from the full diameter range for each species, as specified above, and shall avoid targeting only one or two diameter ranges for harvest.

The Contract Administrator (CA) shall approve and certify in writing all persons engaged in felling of timber prior to any cutting operations, per the H-011 clause of the contract.

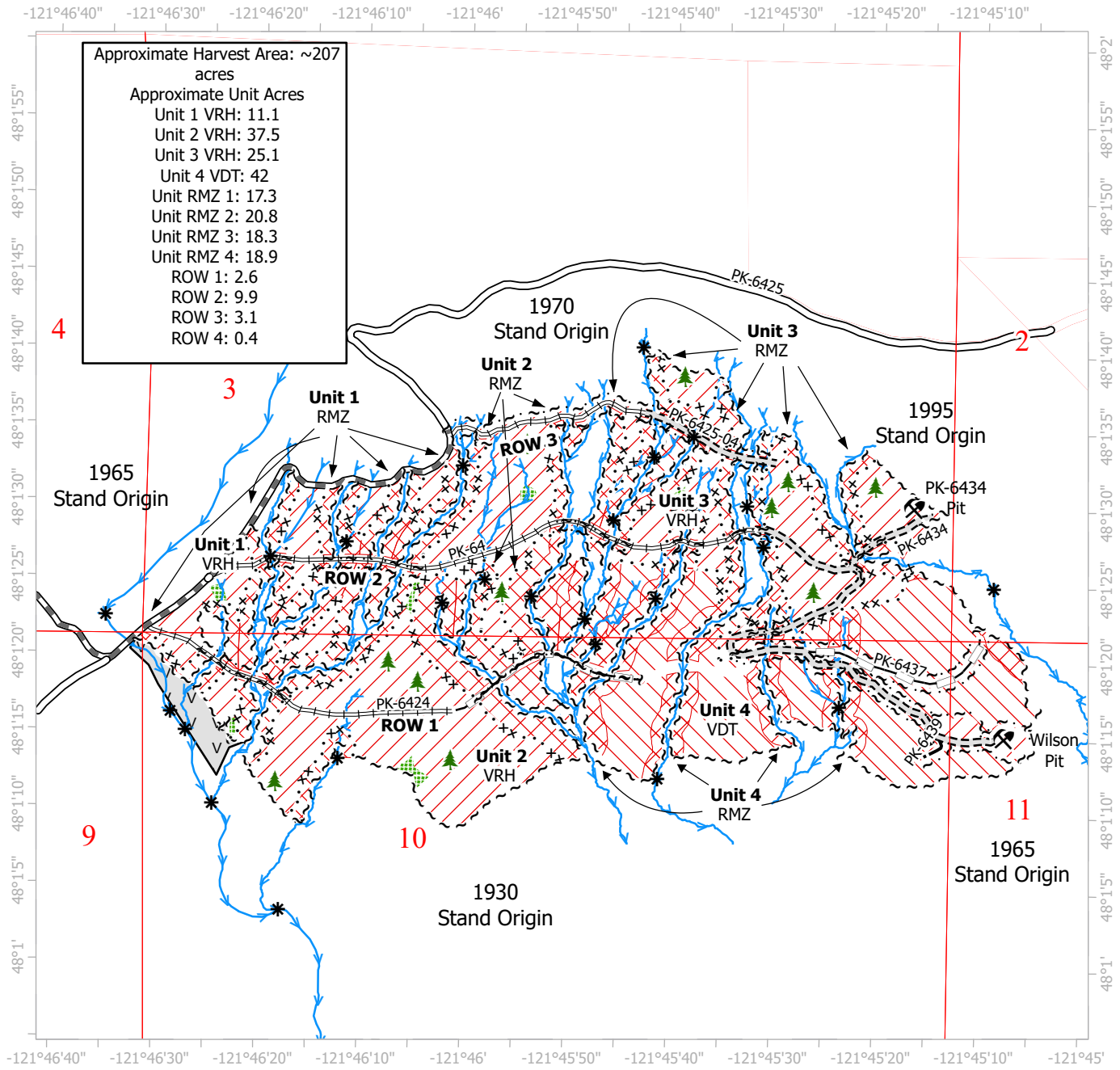
CERTIFICATION AND COMPLIANCE

The Contract Administrator and Purchaser and Purchaser's Operator shall jointly review the take tree selection criteria as outlined in Schedule B of the contract. In conjunction with the Contract Administrator, the Purchaser shall mark a designated area as a test plot within the sale area boundary. Satisfactory thinning of this test plot by fallers completes the certification process. The Purchaser shall not deviate from the requirements set forth in the Compliance portion of this schedule without prior written approval by the Contract Administrator.

TIMBER SALE MAP OVERVIEW

SALE NAME: KICK STAND VRH VDT
AGREEMENT #: 30-104449
TOWNSHIP(S): T29R8E
TRUST(S): Common School and Indemnity (3)

REGION: Northwest Region
COUNTY(S): Snohomish
ELEVATION RGE: 1320-1920



0 500 1,000 2,000 3,000 Feet

All State Unless Otherwise Noted

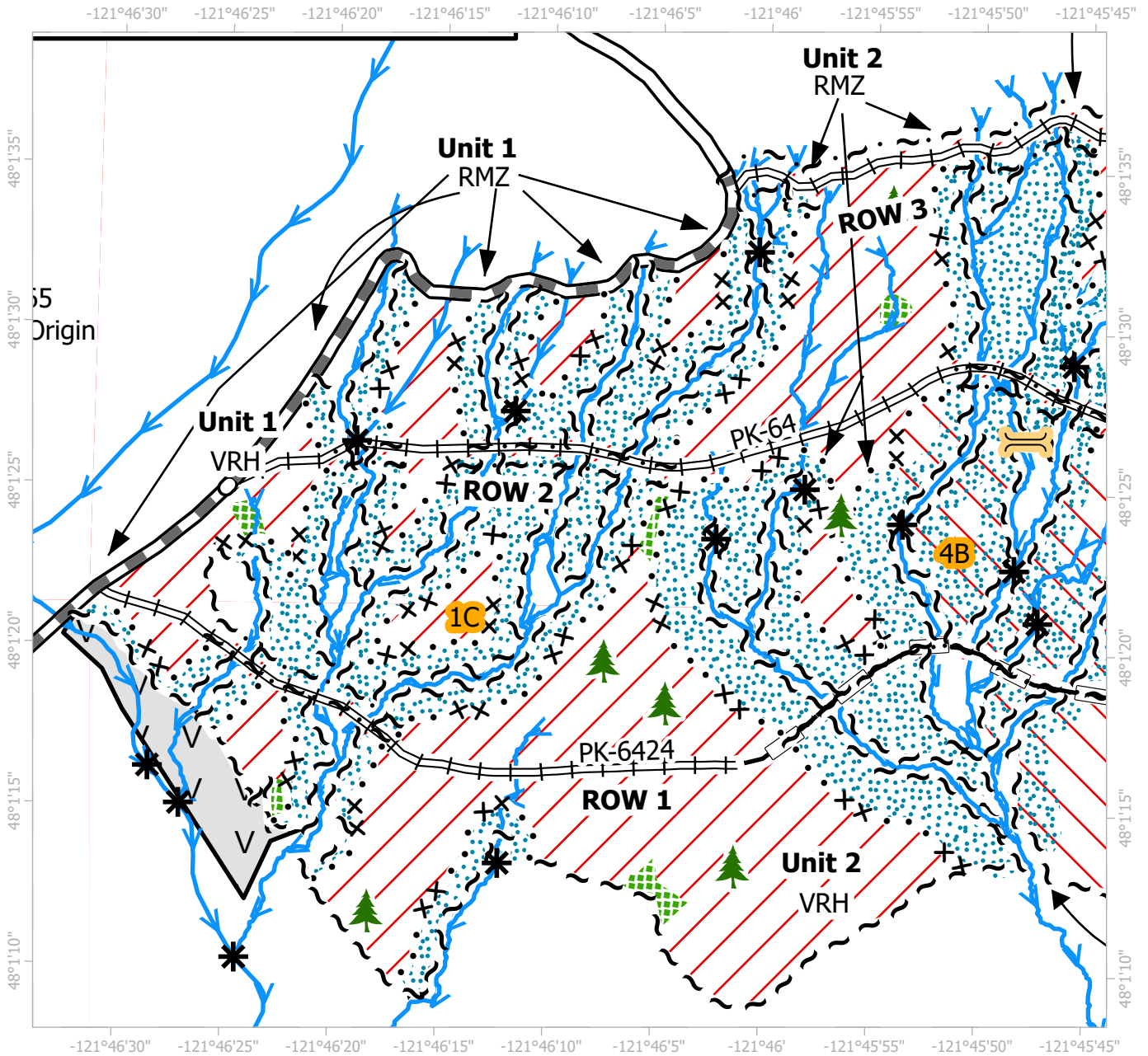
	Variable Retention Harvest		Rock Pit		Special Mgmt Area
	Variable Density Thinning		Streams		Existing Roads
	Riparian Thinning		Stream Type		Optional Construction
	Leave Tree Area		Stream Type Break		Optional Reconstruction
	Equipment Exclusion Zone		Right of Way Tags - Single		Pre-Haul Maintenance
	Leave Tree Area <1/4-acre		Sale Boundary Tags		Required Construction
					Required Reconstruction



TIMBER SALE MAP 1 of 3

SALE NAME: KICK STAND VRH VDT
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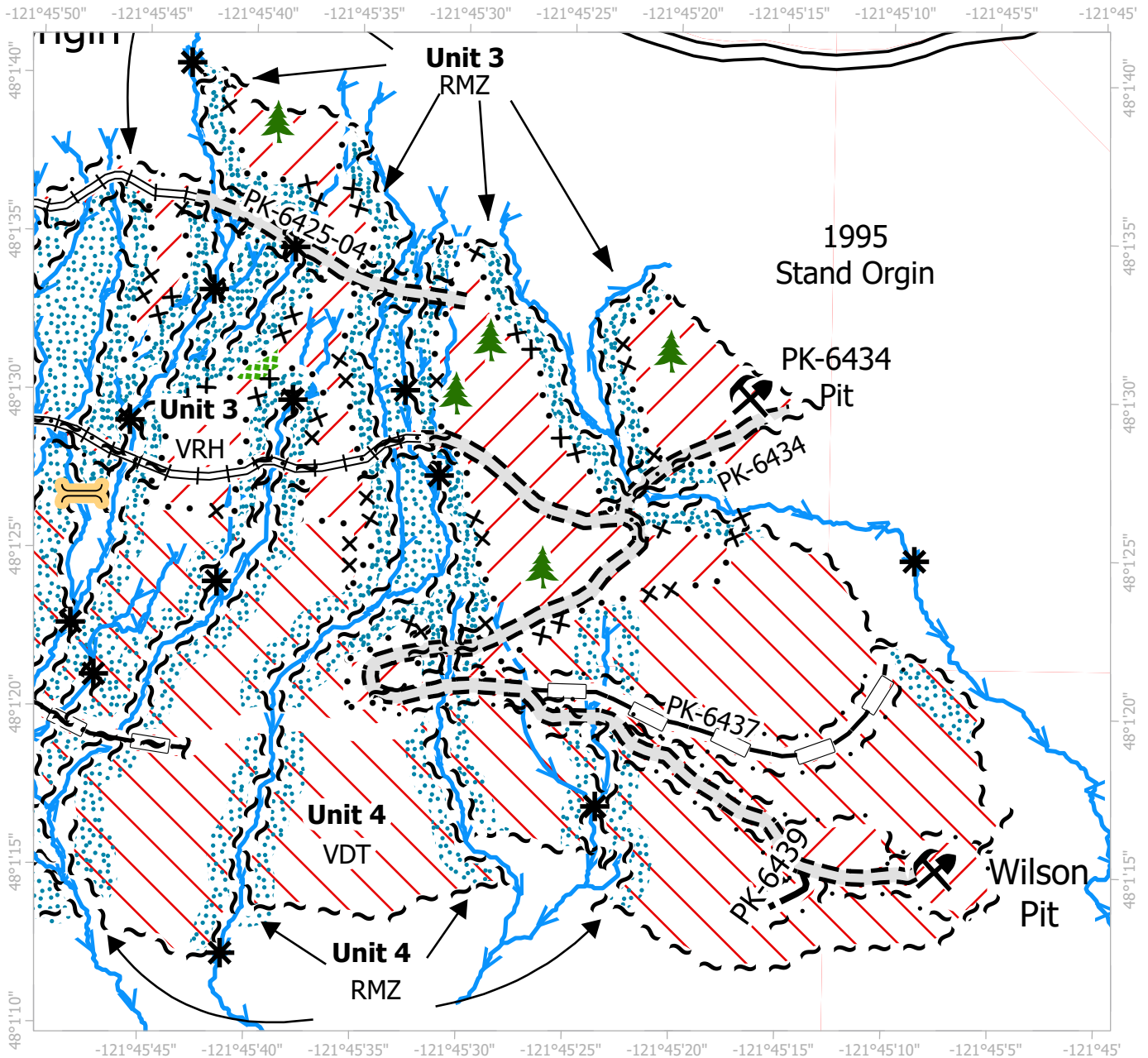
All State Unless Otherwise Noted

	Variable Retention Harvest		Alternate Access to 4B		Existing Roads
	Variable Density Thinning		Streams		Optional Reconstruction
	Riparian Thinning		Stream Type		Pre-Haul Maintenance
	Leave Tree Area		Stream Type Break		Required Construction
	Equipment Exclusion Zone		Right of Way Tags - Single		Required Reconstruction
	Riparian Mgt Zone		Sale Boundary Tags		
	Leave Tree Area <1/4-acre		Special Mgmt Area		

TIMBER SALE MAP 2 of 3

SALE NAME: KICK STAND VRH VDT
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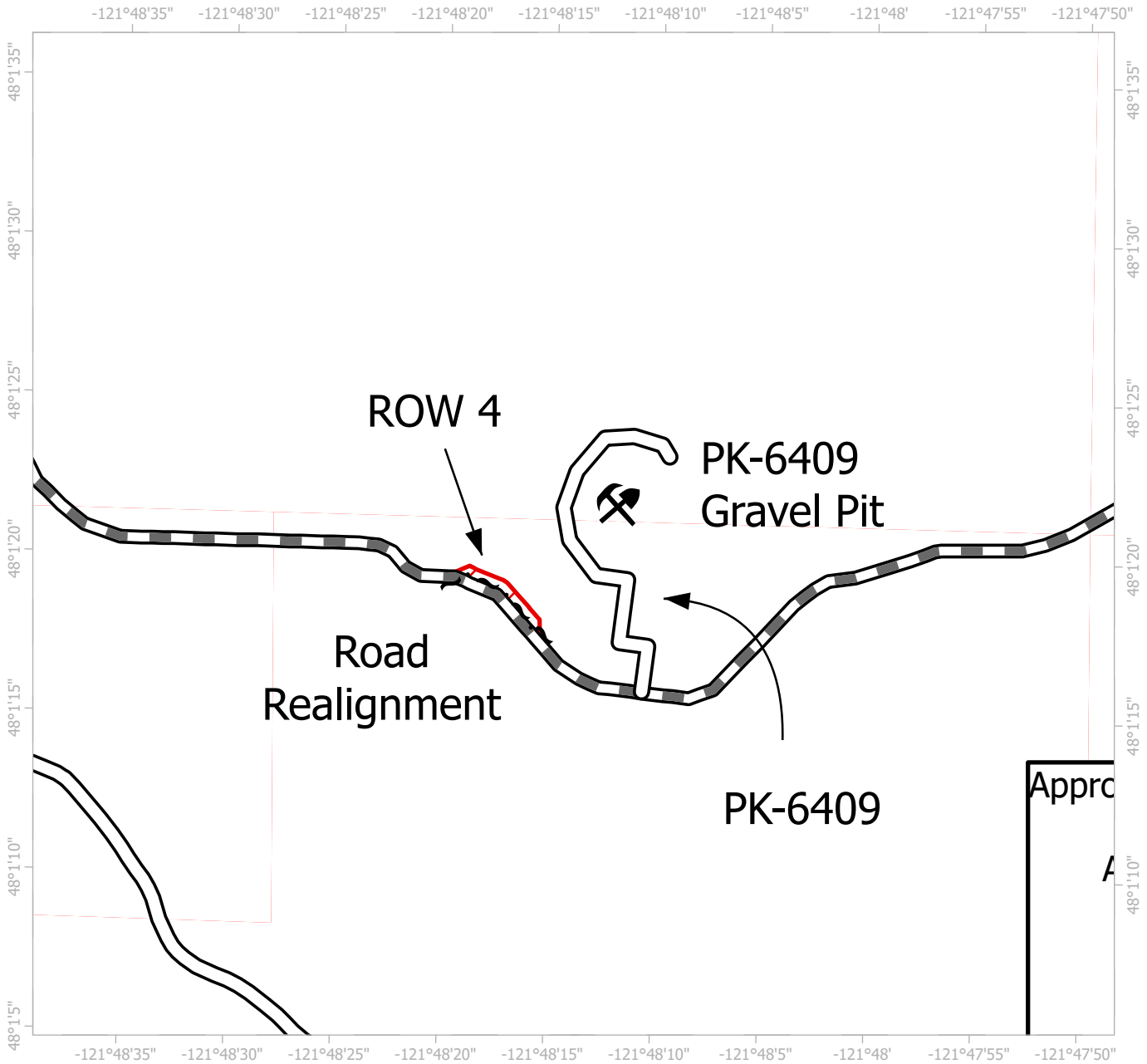
Variable Retention Harvest	Rock Pit	Sale Boundary Tags
Variable Density Thinning	Alternate Access to 4B	Special Mgmt Area
Riparian Thinning	Streams	Existing Roads
Leave Tree Area	Stream Type	Optional Construction
Riparian Mgt Zone	Stream Type Break	Optional Reconstruction
Leave Tree Area <1/4-acre	Right of Way Tags - Single	Required Construction
		Required Reconstruction



TIMBER SALE MAP 3 of 3

SALE NAME: KICK STAND VRH VDT
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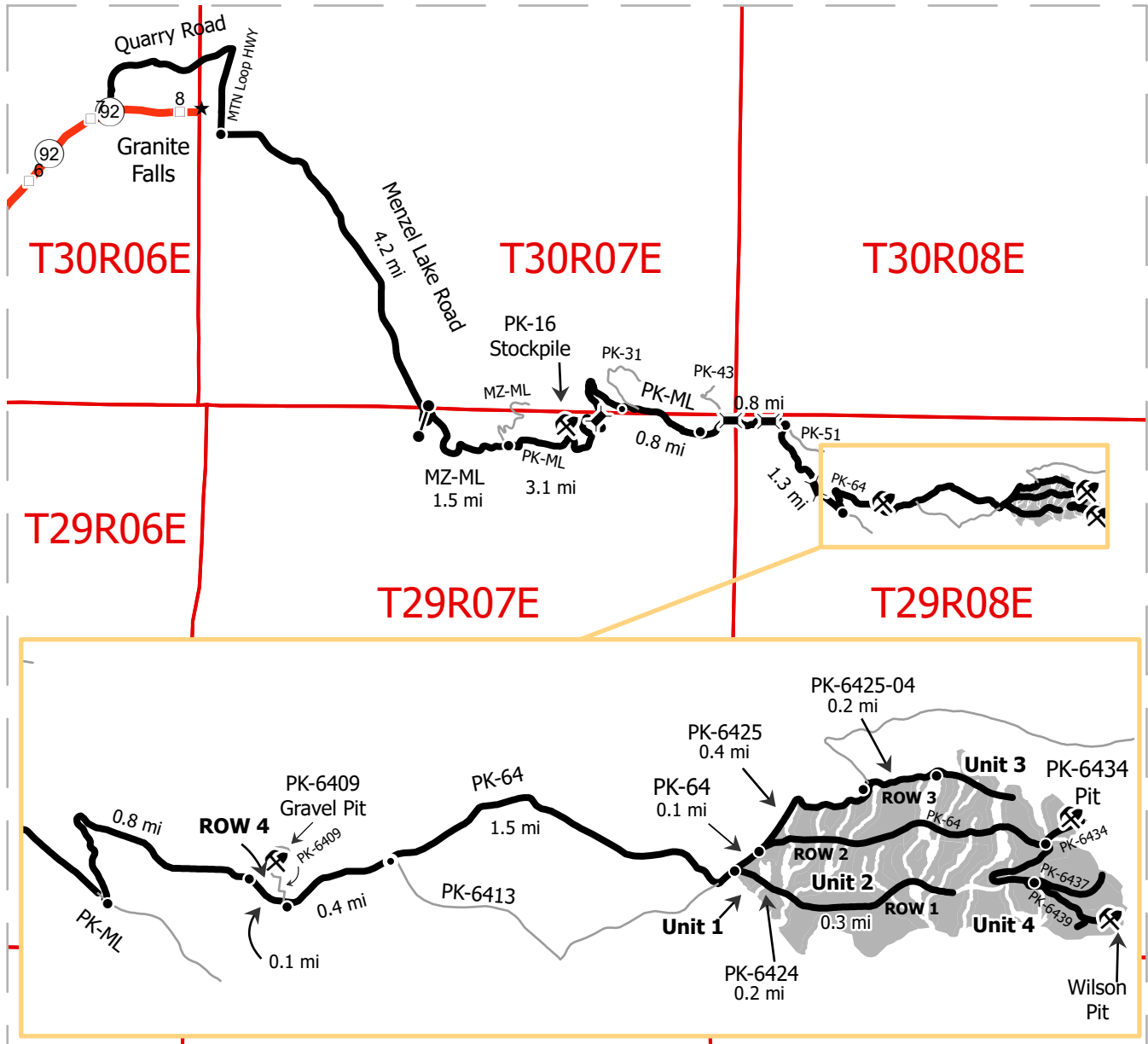
ROW	Right of Way Tags - Single
Rock Pit	Existing
Stream Type	Existing Roads
Stream Type Break	Pre-Haul Maintenance



DRIVING MAP

SALE NAME: KICK STAND VRH VDT
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Map may not be to scale

DRIVING DIRECTIONS

- Sale Area
- Haul Route
- Other Road
- Bridge
- Distance Indicator
- Gate (F1-3)
- Rock Pit
- Town
- Milepost Markers
- Highway

ROW 4: From the intersection of MTN Loop HWY and Menzel Lake Road in Granite Falls, travel 4.2 miles southeast along Menzel Lake Road to the Menzel Lake Main Line (MZ-ML) gate on the east side of the road. (F1-3 key required). Travel 1.5 miles east on the MZ-ML, staying right at the fork to continue on the Pilchuck PK-ML. From this junction, travel 3.1 miles east along PK-ML to the Junction of PK-31 and PKML. Veer right and continue along PK-ML for 0.8 miles to the junction of PK-43 and PK-ML. Stay right and travel 0.8 miles to the junction of the PK-ML and PK-51. Turn right and travel 1.3 miles to the junction of the PK-ML and the PK-64. Turn left and travel 0.8 miles along PK-64 to reach unit ROW 4. **Unit 1:** Continue straight from the intersection of PK-64 and PK-6409 for 0.4 miles to the PK-64 and PK-6413 junction. Continue straight on the PK-64 for 1.5 miles to the next junction of the PK-64 and PK-6413. Take a left to continue on PK-64 for 0.1 miles. Unit 1 will be on the right. **Unit 3 & ROW 3:** Drive straight from the PK-64 and PK-6425 junction for 0.4 miles to reach the PK-6425-04 on the right. ROW 2 will be on the right. Continue 0.2 miles to Unit 3. **ROW 2:** From the PK-64 and PK-6425 junction, continue right along the PK-64. ROW 2 is located on the right. **Unit 2 & ROW 1:** From the PK-64 and PK-6424 junction, continue right along the PK-6424. ROW 1 is located on the right. Continue for 0.3 miles to access Unit 2. **Unit 4:** From the PK-64 and PK-6425 junction, continue right along the PK-64. Continue right on the PK-64 after passing PK-6434. At the junction of PK-64 and PK6439, Unit 4 will be to the south.

**STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES**

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

Export Restricted MBF Scale AGREEMENT NO. 30-0104449

SALE NAME: KICK STAND VRH VDT

**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-010 Products Sold and Sale Area

Purchaser was the successful bidder on April 24, 2024 and the sale was confirmed on _____. The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase, cut, and remove the following forest products: All timber bounded by white timber sale boundary tags and the PK-64, PK-6425, and PK-6425-04 roads, except cedar salvage (cedar snags, preexisting dead and down cedar trees and cedar logs), trees marked with blue paint on the bole and root collar, forest products tagged out by blue special management tags (RMZs), and forest products tagged out by yellow leave tree area tags in Unit #1.

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All timber as described for removal in Schedule B located in the RMZ thinning areas (beyond the blue special management tags up to the white timber sale boundary tags) within Units #1, #2 and #3.

All timber bounded by orange right-of-way tags as well as right-of-way tags and PK-64 Road, except that title to the timber within the right-of-way associated with areas of road construction (located in thinning areas or RMZs) is not conveyed to the Purchaser unless the road segment is actually constructed except as described for removal in Schedule B.

All forest products described above located on approximately 207 acres on part(s) of Sections 2, 3, 5, 9, 10, and 11 all in Township 29 North, Range 8 East W.M. in Snohomish County(s) as shown on the attached timber sale map and as designated on the sale area.

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
B	Thinning Prescription
R	RFRS Tree Requirements Map
S	Sample Scaling

G-030 Contract Term

Purchaser shall remove the forest products conveyed and complete all work required by this contract prior to March 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-050 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 contract value based on the contract payment rate and advertised volume.

For the second extension, not to exceed 1 year, payment of at least 90 percent of the contract value based on the contract payment rate base and advertised volume.

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 timber value of the contract.

To determine the unpaid portion of the contract, multiply the contract payment rate for each item by the remaining volume for each item based on the volumes from the Timber Notice of Sale. In addition, all cash deposits that can be used for timber payments, except the initial deposit, will be deducted from the unpaid portion of the contract.

- e. Payment of \$3.00 per acre per annum for the acres on which an operating release has not been issued in Variable Density Thinning (VDT) Units and the RMZ Thinning areas.
Payment of \$16.00 per acre per annum for the acres on which an operating release has not been issued in Variable Retention Harvest (VRH) areas.
- f. In no event will the extension charge be less than \$200.00.
- g. Extension payments are non-refundable.

G-053 Surveys - Sensitive, Threatened, Endangered Species

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

G-060 Exclusion of Warranties

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

- a. The MERCHANTABILITY of the forest products. The use of the term "merchantable" in any document is not intended to vary the foregoing.
- b. The CONDITION of the forest products. The forest products will be conveyed "AS IS."
- c. The ACREAGE contained within any sale area. Any acreage descriptions appearing in the timber notice of sale, timber sale contract, or other documents are estimates only, provided solely for administrative and identification purposes.
- d. The VOLUME, QUALITY, OR GRADE of the forest products. The State neither warrants nor limits the amount of timber to be harvested. The descriptions of the forest products to be conveyed are estimates only, made solely for administrative and identification purposes.
- e. The CORRECTNESS OF ANY SOIL OR SURFACE CONDITIONS, PRE-SALE CONSTRUCTION APPRAISALS, INVESTIGATIONS, AND ALL OTHER PRE-BID DOCUMENTS PREPARED BY OR FOR THE STATE. These documents have been prepared for the State's appraisal purposes only.
- f. THAT THE SALE AREA IS FREE FROM THREATENED OR ENDANGERED SPECIES or their habitat. The State is not responsible for any interference with forestry operations that result from the presence of any threatened or endangered species, or the presence of their habitat, within the sale area.
- g. THAT THE FORESTRY OPERATIONS to be performed under this contract WILL BE FREE FROM REGULATORY ACTIONS by governmental agencies. The State is not responsible for actions to enforce regulatory laws, such as the Washington Forest Practices Act (chapter 76.09 RCW), taken by the Department of Natural Resources or any other agency that may affect the operability of this timber sale.

h. Items contained in any other documents prepared for or by the State.

G-061 Inadvertent Discovery of Cultural Resources

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

G-062 Habitat Conservation Plan

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

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

Any modifications to the contract shall be proposed in writing by Purchaser, shall continue to meet the terms and conditions of the HCP and ITP, and shall require the prior written approval of the Region Manager before taking effect.

G-063 Incidental Take Permit Notification Requirements

- a. Purchaser shall immediately notify the Contract Administrator of new locations of permit species covered by the Incidental Take Permits (ITP) that are discovered within the area covered by the State's Habitat Conservation Plan (HCP), including, but not limited to: locations of occupied murrelet

habitat; spotted owl nest sites; wolves; grizzly bears; nests, communal roosts, or feeding concentrations of bald eagles; peregrine falcon nests; Columbian white-tailed deer; Aleutian Canada geese; Oregon silverspot butterflies; and additional stream reaches found to contain bull trout. Purchaser is required to notify the Contract Administrator upon discovery of any fish species found in streams or bodies of water classified as non-fish bearing. In all circumstances, notification must occur within a 24 hour time period.

- b. Upon locating any live, dead, injured, or sick specimens of any permit species covered by the ITP, Purchaser shall immediately notify the Contract Administrator. Purchaser shall notify the Contract Administrator if there is any doubt as to the identification of a discovered permit species. Purchaser may be required to take certain actions to help the Contract Administrator safeguard the well-being of any live, injured or sick specimens of any permit species discovered, until the proper disposition of such specimens can be determined by the Contract Administrator. Any such requirements will be explained to Purchaser by the Contract Administrator during the Pre-Work Conference. In all circumstances, notification must occur within a 24 hour time period.
- c. Purchaser shall refer to a specific ITP number, ITP TE812521-1 or ITP 1168 (copies which are located in the region office) in all correspondence and reports concerning permit activities.
- d. Provisions and requirements of the ITP shall be clearly presented and explained to Purchaser by Contract Administrator during the Pre-Work Conference as per contract clause G-330. All applicable provisions of the ITP and this schedule must be presented and clearly explained by Purchaser to all authorized officers, employees, contractors, or agents of Purchaser conducting authorized activities in the timber sale area. Any questions Purchaser may have about the ITP should be directed to the Contract Administrator.

G-064 Permits

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

G-065 Regulatory Disclaimer

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

G-066 Governmental Regulatory Actions

- a. Risk

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

b. Sale Area

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

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

c. Adjustment of Price

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

G-070 Limitation on Damage

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

G-080 Scope of State Advice

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

this contract and State shall not be liable for any injuries resulting from Purchaser's reliance on any State advice regarding the method or manner of performance.

G-090 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, added forest products become a part of this contract and shall be paid for at the same rate and manner as other forest products under this contract.

G-100 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 shall be paid for at the same rate and manner as other forest products under this contract.

G-110 Title and Risk of Loss

Title to the forest products conveyed passes at confirmation of the sale. Purchaser bears the risk of loss of or damage to and has an insurable interest in the forest products in this contract from the time of confirmation of the sale of forest products. In the event of loss of or damage to the forest products after passage of title, whether the cause is foreseeable or unforeseeable, the forest products shall be paid for by Purchaser. Breach of this contract shall have no effect on this provision. Title to the forest products not removed from the sale area within the period specified in this contract shall revert to the State as provided in RCW 79.15.100.

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

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

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

G-120 Responsibility for Work

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

G-121 Exceptions

Exceptions to Purchaser's responsibility in clause G-120 shall be limited exclusively to the following. These exceptions shall not apply where road damage occurs due to

Purchaser's failure to take reasonable precautions or to exercise sound forest engineering and construction practices.

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

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

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

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

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

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

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

G-140 Indemnity

To the fullest extent permitted by law, Purchaser shall indemnify, defend and hold harmless State, agencies of State and all officials, agents and employees of State, from and against all claims arising out of or resulting from the performance of the contract. "Claim" as used in this contract means any financial loss, claim, suit, action, damage, or expense, including but not limited to attorneys' fees, attributable for bodily injury, sickness, disease or death, or injury to or destruction of tangible property including loss of use resulting therefrom. Purchasers' obligations to indemnify, defend, and hold harmless includes any claim by Purchasers' agents, employees, representatives, or any subcontractor or its employees. Purchaser expressly agrees to indemnify, defend, and

hold harmless State for any claim arising out of or incident to Purchasers' or any subcontractors' performance or failure to perform the contract. Purchasers' obligation to indemnify, defend, and hold harmless State shall not be eliminated or reduced by any actual or alleged concurrent negligence of State or its agents, agencies, employees and officials. Purchaser waives its immunity under Title 51 RCW to the extent it is required to indemnify, defend and hold harmless State and its agencies, officials, agents or employees.

G-150 Insurance

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

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

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

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

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

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

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

All insurance provided in compliance with this contract shall be primary as to any other insurance or self-insurance programs afforded to or maintained by State. Purchaser waives all rights against State for recovery of damages to the extent these damages are covered by general liability or umbrella insurance maintained pursuant to this contract.

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

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

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

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

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

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

compensation, employer's liability, commercial general liability, or commercial umbrella liability insurance.

If Purchaser, subcontractor or sub-subcontractor fails to comply with all State of Washington workers' compensation statutes and regulations and State incurs fines or is required by law to provide benefits to or obtain coverage for such employees, Purchaser shall indemnify State. Indemnity shall include all fines, payment of benefits to Purchaser or subcontractor employees, or their heirs or legal representatives, and the cost of effecting coverage on behalf of such employees.

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

G-160 Agents

The State's rights and duties will be exercised by the Region Manager at Sedro Woolley, 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; MZ-ML, PK-ML, PK-64, PK-6409, PK-6424, PK-6434, PK-6437, PK-6439, PK-6425, PK-6425-04. The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

G-330 Pre-work Conference

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

G-340 Preservation of Markers

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

G-360 Road Use Reservation

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

G-370 Blocking Roads

Purchaser shall not block the PK-64, 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-010 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 the 'Payment for Forest Products' clause, 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-021 Payment for Forest Products

Purchaser agrees to pay the following rates per MBF Scribner net log scale for forest products conveyed and cut or removed from the sale area plus \$90,933.00 on day of sale and \$9.00 per MBF upon removal in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066 clause.

DATA MISSING

Species that are conveyed but are not listed in the table above shall be paid for at a rate to be determined by the State.

Utility logs, special cull and peelable cull logs of all species, included on loads of logs that are required to be removed and scaled per clause H-150 will be paid for on an adjusted gross scale basis at the rate of \$20.00 per MBF plus fees.

P-027 Payment for Removal of Optional Forest Products

Purchaser agrees to weigh all loads and pay the rate of \$2.00 per ton for forest products approved for removal from the sale area under clause H-157.

P-040 Weighing and Scaling Costs

Purchaser agrees to pay for all scaling and weighing costs for logs and other products sold under this contract. Purchaser also agrees to pay for all costs associated with the transmission and reporting of scale or weight data.

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-052 Payment Procedure

If a third party Log and Load Reporting Service (LLRS) is required by this contract the State will compute and forward to the Purchaser statements of charges provided for in the contract. Purchaser shall deliver payment to the Northwest region office on or before the date shown on the billing statement.

If a third party LLRS is not required by this contract, Purchaser shall pay for forest products removed on a monthly basis. Payments will be submitted to the office listed above on or before the fourteenth of the month following the month in which the timber was removed or, according to an alternate payment schedule as approved by the State with at least one payment each month for timber removed. The alternate payment schedule, once approved by the State, shall become part of this contract and may be changed only with written approval of the State.

Payment will be based on the contract rate multiplied by the tons (tonnage contracts) or volume (mbf contracts) removed during the month or payment period. Included with the payment will be a summary report along with all related load tickets and the corresponding certified weight tickets for the payment period. The summary report will be generated using a computer spreadsheet and list the load tickets in ascending numerical order with the corresponding ticket number and weight or volume for each load.

P-070 Payment for Products: Damage, Theft, Loss, or Mismatch

Forest products included in this agreement which are destroyed, damaged, stolen, lost, or mismatched shall be paid for by Purchaser on demand of the State. The rates contained in clause P-021 shall apply.

P-080 Payment Account Refund

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

P-090 Performance Security

Purchaser agrees to furnish, within 30 days of the confirmation date, security acceptable to the State in the amount of \$100,000.00. The Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by operations under this contract or resulting from Purchaser's noncompliance with any rule or law. Acceptable performance security may be in the form of a performance bond, irrevocable letter of credit, cash, savings or certificate of deposit account assignments, and must name the State as the obligee or beneficiary. A letter of credit must comply with Title 62A RCW, Article 5. Performance security must remain in full force over the duration of the contract length. Surety bonds issued shall conform to the issuance and rating requirements in clause G-150. The State shall retain the performance security pursuant to RCW 79.15.100. Purchaser shall not operate unless the performance security has been accepted by the State. If at any time the State decides that the security document or amount has become unsatisfactory, Purchaser agrees to suspend operations and, within 30 days of notification, to replace the security with one acceptable to the State or to supplement the amount of the existing security.

P-100 Performance Security Reduction

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

Section L: Log Definitions and Accountability

L-010 Forest Products Conveyed

Forest products conveyed are all logs or parts of logs described by the 'Products Sold and Sale Area' (G-010) clause meeting the removal requirements listed in the 'Required Removal of Forest Products' (H-150) clause.

L-020 Short Logs - Peeler Blocks

Logs or parts of logs which are removed from the sale area that fail to meet the minimum gross length requirements shall be scaled and graded as short logs or peeler blocks. Such material shall be paid for at the forest products rates specified in this contract.

L-060 Load Tickets

Purchaser shall complete and use load tickets as directed by the Contract Administrator and, if required, use other identification as directed by the State to ensure accounting of forest products removed from the sale area. A load ticket must be fixed, as designated by the Contract Administrator, to each truck and trailer load prior to leaving the landing.

Purchaser shall account for all load tickets issued by the Contract Administrator and return unused tickets at termination of the contract, or as otherwise required by the Contract Administrator. Unused tickets not returned shall be subject to liquidated damages per clause D-030.

The State may also treat load tickets either not accounted for or not returned as lost forest products per clause P-070. All costs associated with computing the billings for lost forest products shall be borne by Purchaser.

L-071 Log and Load Reporting Service

This contract requires the use of a State approved third party Log and Load Reporting Service (LLRS). Purchaser shall ensure log volume measurement data and/or load and weight data is received by the LLRS within 1 business day of logs being measured or weighed. Purchaser agrees to pay the LLRS for log and load data supplied to the State.

If during the term of this contract, the State discontinues use of the LLRS, the State will notify the Purchaser in writing and the Purchaser will then be responsible to send log scale and/or weight information to the State.

L-080 Scaling Rules

Determination of volume and grade of any forest products shall be conducted by a state approved third party scaling organization and in accordance with the Westside log scaling and grading rules and Scribner Volume Table, revised July 1, 1972, contained in the Northwest Log Rules Eastside and Westside Log Scaling Handbook (developed and produced by the Northwest Log Rules Advisory Group) and in effect on the date of confirmation of this contract.

Special scaling specifications shall be noted on the State's Brand Designation form which is hereby incorporated to this contract by reference.

L-110 State Approval of Log Scaling and Weighing Locations

Forest Product measurement and weighing facilities required by this contract must be approved by the State. Forest products sold under the contract which require log scaling shall be scaled, measured, or counted by a State approved third party log scaling organization. Forest products sold under the contract which require weighing shall be weighed at a location that meets Washington State Department of Agriculture approval.

Prior to forest products being hauled, the Contract Administrator must authorize in writing the use of State approved measurement and/or weighing facilities that are at or

enroute to final destinations. Forest products from this sale shall be measured or weighed at facilities, which are currently approved for use by the State and are currently authorized for this sale. The State reserves the right to verify load volume and weights with State employees or contractors at the State's own expense. The State reserves the right to revoke the authorization of previously approved measurement locations.

L-120 Long Log Taper Distribution

Forest products over 40 feet long plus trim shall be segment scaled and the lower segment diameters shall be determined using actual taper. In order to utilize taper rules for determining segment diameters for poles and pilings greater than 40 feet in length plus trim, Purchaser must request use of a Pole and Piling Scaling Specification Agreement on file in the region office. Approval for usage of a special Pole and Piling Scaling Specification Agreement may be granted at the sole discretion of the State.

Following State approval for usage of the Pole and Piling Scaling Specification Agreement, the Brand Designation form shall be amended to incorporate the long log taper rules. The volume reported by the scaling organization for forest products over 40 feet plus trim will be expanded by 5 percent and the additional 5 percent volume shall be billed to the purchaser at the contract rate.

L-130 Conversion Factors

Forest products removed from the sale area that are not measured in units specified in the 'Payment for Forest Products' clause of this contract shall be converted to board feet using Department of Natural Resources' standard conversion factors.

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

Ground Based Yarding will not be permitted from November 1 to March 31 BY GROUND-BASED EQUIPMENT unless authorized in writing by the Contract Administrator.

H-011 Certification of Fallers and Yarder Operators

All persons engaged in the felling and yarding of timber must receive certification in writing from the Contract Administrator. Certification may be revoked when the Contract Administrator determines that non-compliance of leave tree selection criteria or cut tree selection criteria is occurring, or excessive damage to leave trees or skid trails is occurring.

Excessive damage for leave trees is defined in clause H-012.

Excessive damage for reserve trees is defined in clause H-013.

Excessive skid trail damage is defined in clause H-015 or H-016.

When leave tree damage exceeds the limits set forth in clause H-012, Purchaser shall be subject to liquidated damages (clause D-040)
When reserve tree damage exceeds the limits set forth in clause H-013, Purchaser shall be subject to liquidated damages (clause D-041).

H-012 Leave Tree Damage Definition

Leave trees are trees required for retention within the sale boundary. Purchaser shall protect leave trees from being cut, damaged, or removed during operations.

Leave tree damage exists when more than 5 percent of the leave trees are damaged in a unit and when one or more of the following criteria occur as a result of Purchaser's operation, as determined by the Contract Administrator:

- a. A leave tree has one or more scars on its trunk exposing the cambium layer, which in total exceeds 20 square inches.
- b. A leave tree top is broken or the live crown ratio is reduced below 30 percent.
- c. A leave 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 leave tree has been cut or damaged, the Purchaser may be required to pay liquidated damages for Excessive Leave Tree Damage as detailed in clause D-040.

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 200 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-015 Skid Trail Requirements

A skid trail is defined as an area that is used for more than three passes by any equipment.

Purchaser shall comply with the following during the yarding operation:

- a. Skid trails will not exceed 14 feet in width, including rub trees.
- b. Skid trails shall not cover more than 15 percent of the total acreage on one unit.
- c. Skid trail location will be pre-approved by the Contract Administrator.
- d. Except for rub trees, skid trails shall be felled and yarded prior to the felling of adjacent timber.
- e. Rub trees shall be left standing until all timber tributary to the skid trail has been removed.
- f. Excessive soil damage is not permitted. Excessive soil damage is described in clause H-017.
- g. Skid trails will be water barred at the time of completion of yarding, if required by the Contract Administrator.

Purchaser shall not deviate from the requirements set forth in this clause without prior written approval from the Contract Administrator.

H-017 Preventing Excessive Soil Disturbance

Operations may be suspended when soil rutting exceeds 8 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-018 Temporary Stream Crossings

A temporary stream crossing is required to access Unit 1C and optionally to access Unit 4B as alternate access.

Purchaser shall comply with the following during the yarding operation:

- a. Adhere to the approved Hydraulic Permit Application (HPA) or Forest Practice Application (FPA) with approved hydraulic project work, if required, amend a current FPA or obtain a new FPA prior to commencing any new stream crossing construction.
- b. Location of the temporary stream crossing must be approved by the Contract Administrator.
- c. A temporary stream crossing shall not exceed 12 feet in width, including rub trees.
- d. Purchaser shall suspend operations during periods of wet weather when a high potential for sediment delivery into typed waters may occur.
- e. Temporary stream crossings shall be removed at the time of completion of yarding as required by the Contract Administrator.

Purchaser shall not deviate from the requirements set forth in this clause without prior written approval from the Contract Administrator.

H-025 Timing Requirements for Timber Removal

All timber must be removed within 8 weeks of being felled.

H-030 Timber Falling

Trees shall be felled and logs shall be bucked to obtain the greatest practicable utilization of forest products and other valuable materials conveyed.

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 sale area. The plan shall address the falling, yarding and hauling, 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-050 Rub Trees

Trees designated for cutting along skid trails and cable corridors shall be left standing as rub trees until all timber that is tributary to the skid trail or cable corridor has been removed.

H-052 Branding and Painting

Forest products shall be branded with a brand furnished by the State prior to removal from the landing. 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-110 Stump Height

Trees shall be cut as close to the ground as practicable. Stump height shall not exceed 12 inches in height measured on the uphill side, or 2 inches above the root collar, whichever is higher.

H-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using cable; shovel, tracked skidder (in VDT areas only) on sustained slopes 35% or less; self-leveling harvester equipment on sustained slopes 55% or less; tethered harvester and/or shovel equipment (See H-141 for restrictions) may be utilized; also, a feller-buncher may be utilized on sustained slopes 35% or less. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

H-130 Hauling Schedule

The hauling of forest products will not be permitted on any roads from November 1 to March 31 unless authorized in writing by the Contract Administrator.

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

A. The following types of equipment are considered ground-based equipment:

SHOVEL is defined as a low ground pressure track-mounted machine with hydraulic boom and grapple capable of picking up one end of the largest log 25 feet from the center of the machine.

LOG PROCESSOR/DE-LIMBER is defined as a mobile machine with a hydraulic boom capable of simultaneously bucking, delimiting and/or debarking and chipping whole trees while sitting stationary at the landing.

FELLER-BUNCHER/HARVESTER is defined as a track mounted machine with hydraulic boom and cutter head capable of felling, bucking, limbing, and decking logs in one operation.

TRACKED SKIDDER is defined as any tracked tractor or skidder, fixed or articulated, used to drag logs to landings. Logs are generally pulled in groups of six or less, with one end on the ground.

- B. Equipment shall remain at least 30 feet from all water courses or areas of wet/soft soils, except as necessary to cross at approved locations. Trees shall be felled away from stream channels and any standing water or wet swales when feasible. Water course crossing structures must be approved by the Contract Administrator.
- C. When yarding and loading operations are occurring simultaneously, an additional shovel shall be required for loading to avoid extra trips to the landing. Shovel yarding shall not be allowed to create ruts or soil puddling. Shovel routes should be dispersed to prevent creation of definable trails.
- D. An on-site pre-work meeting that includes the Contract Administrator and Purchaser will be required after operations have been disrupted (leading to a cessation of operations) or operations moved off site for a period of more than two weeks before any activities resume on site.
- E. Unit 4B is designed to be yarded down to the PK-6424, however an alternate access into this unit is also available via a skid trail and with a temporary stream crossing (stream crossing identified on the timber sale map). The skid trail and temporary stream crossing location shall be marked in the field by the Purchaser and approved in writing by the Contract Administrator prior to use.
- F. Temporary stream crossings shall include the use of log cribbing, log puncheon, culvert, or other approved structure to ensure stream bank stability. All in-stream structures shall be removed immediately following completion of yarding. In-stream work shall only occur when there is no water present in the channel at the approved crossing location.
- G. Skid trail through RMZ to access to Unit 1C shall be marked by the Purchaser and approved by the Contract Administrator, prior to felling of trees.
- H. Ground-based yarding shall not exceed 800 feet from any road unless authorized in writing by the Contract Administrator.
- I. Purchaser must close and lock the DNR gate on the MZ-ML road at the end of each day.
- J. No tops or limbs will be allowed to accumulate on any landings. Tops and limbs shall be redistributed in the unit to the satisfaction of the Contract Administrator.
- K. Purchaser is responsible for all notification signage relating to logging or road construction activity at the Purchaser's expense.

L. Falling and yarding in thinning areas shall not be permitted during the bark slippage season unless the Purchaser provides a written plan outlining mitigation measures and the plan is pre-authorized in writing by the Contract Administrator. This season is estimated to run from April 1 to July 15 but may vary depending on weather conditions.

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

H-141 Additional Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

- A. A copy of the timber sale map, contract, and the FPA shall be present on site during active operations.
- B. Purchaser must obtain prior written approval from the Contract Administrator for areas as to where to utilize tethered equipment prior to use.
- C. Leave tree areas and leave trees may be exchanged for unmarked trees of similar size, species, and wildlife characteristics upon prior written approval by the Contract Administrator. There are no non-tradeable leave tree areas or non-tradeable individuals marked on this sale.
- D. Temporary culverts on the PK-6424 shall be installed and removed within the same season if multiple seasons are required for harvest.

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

H-150 Required Removal of Forest Products

Purchaser shall remove from the sale area and present for scaling or weighing all forest products conveyed in the G-010 clause that meet the following minimum dimensions:

Species	Net bd ft	Log length (ft)	Log dib
All Species	10	12	5

The State may treat failure to remove forest products left on the sale area that meet the above specifications as a breach of this contract. At the State's option, forest products that meet the above specifications and are left on the sale area may be scaled for volume or measured and converted to weight by the State or a third party scaling organization and billed to Purchaser at the contract payment rate. All costs associated with scaling, measuring and computing the billing will be borne by the Purchaser.

H-157 Optional Removal of Forest Products Not Designated

If in the course of operations, Purchaser decides to remove forest products that are below the minimum designated removal specifications per the 'Required Removal of Forest Products' (H-150), the payment rates in clause P-027 shall apply.

Forest products designated as optional shall be decked separately from forest products designated as required for removal. Prior to removal from the sale area, optional forest products as described in this clause must be inspected and approved by the Contract Administrator. Optional forest products may not be mixed with forest products that are required for removal by this contract and shall be removed from the sale area in separate truck loads using load tickets specified by the Contract Administrator.

All material removed under this clause is subject to the same log and load accountability rules as defined in the Log Definitions and Accountability section of this contract. Purchaser shall follow the payment procedures as required in the P-052 clause and will submit a separate summary report for all forest products removed from the sale area under the authority of this clause.

H-160 Mismanufacture

Mismanufacture is defined as forest products remaining on the sale area that would have met the specifications in clause H-150 if bucking lengths had been varied to include such products.

The State may treat mismanufacture as a breach of this contract. At the State's option, forest products that are left on the sale area may be scaled for volume by the State or a third party scaling organization and billed to Purchaser at the contract payment rate. All costs associated with scaling and computing the billing will be borne by Purchaser.

H-180 Removal of Specialized Forest Products or Firewood

Prior to the removal of conveyed specialized forest products or firewood from the sale area, Purchaser and the State shall agree in writing to the method of accounting for/and removal of such products.

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 concurrently with felling operations.

Section C: Construction and Maintenance

C-040 Road Plan

Road construction and associated work provisions of the Road Plan for this sale, dated 7/24/2023 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on PK-ML (267+91 to 335+51), PK-64, PK-6409, PK-6424, PK-6434, PK-6437, PK-6439, PK-6425, PK-6425-04.. 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 MZ-ML and PK-ML (0+00 to 267+91) roads. Purchaser shall furnish a statement in a form satisfactory to the State showing the costs incurred while performing this work. Costs shall be based on the rates set forth in the equipment rate schedule on file at the Region office or Engineering Division in Olympia. The State shall reimburse Purchaser for said costs within 30 days of receipt and approval of the statement.

Section S: Site Preparation and Protection

S-001 Emergency Response Plan

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

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

S-010 Fire Hazardous Conditions

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

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

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

S-030 Landing Debris Clean Up

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

S-035 Logging Debris Clean Up

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

S-050 Cessation of Operations for Low Humidity

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

S-060 Pump Truck or Pump Trailer

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

S-100 Stream Cleanout

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

S-130 Hazardous Materials

a. Hazardous Materials and Waste - Regulatory Compliance

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

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

b. Hazardous Materials Spill Prevention

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

c. Hazardous Materials Spill Containment, Control and Cleanup

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

d. Hazardous Material Release Reporting

Releases of oil or hazardous materials to the environment must be reported according to the State Department of Ecology (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.

Section D: Damages

D-010 Liquidated Damages

The clauses in the DAMAGES section of this contract provide for payments by Purchaser to the State for certain breaches of the terms of this contract. These payments are agreed to as liquidated damages and not as penalties. They are reasonable estimates of anticipated harm to the State 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.

D-020 Failure to Remove Forest Products

Purchaser's failure to remove all or part of the forest products sold in this agreement prior to the expiration of the contract term results in substantial injury to the State. The value of the forest products sold at the time of breach is not readily ascertainable. Purchaser's failure to perform disrupts the State's management plans, the actual cost of which is difficult to assess. A resale involves additional time and expense and is not an adequate remedy. Therefore, Purchaser agrees to pay the State as liquidated damages a sum calculated using the following formula:

$$LD = .35V - ID - P + C + A$$

Where:

LD = Liquidated Damage value.

V = The unremoved value at the date of breach of contract. The value is determined by subtracting the removal volume to date from the State's cruise volume multiplied by the contract bid rates.

ID = Initial Deposit paid at date of contract that has not been applied to timber payments.

P = Advance payments received but not yet applied to specific contract requirements.

C = Charges assessed for contract requirements completed prior to breach of contract but not paid for.

A = Administrative Fee = \$2,500.00.

The above formula reflects the Purchaser's forfeiture of the initial deposit in accordance with clause P-010 by deducting the initial deposit from the amount owed. In no event shall the liquidated damages be less than zero. Interest on the liquidated damage is owed from the date of breach until final payment, calculated using the following formula: Interest = $r \times LD \times N$.

Where:

r = daily equivalent of an annual interest at current interest rate as established by WAC 332-100-030.

LD = Liquidated damage value.

N = Number of days from date of breach to date payment is received.

D-030 Inadequate Log Accountability

Removal of forest products from the sale area without adequate branding and/or valid load tickets attached to the load and scaling forest products in a location other than the facility approved by the State can result in substantial injury to the State. Failure to

properly account for loads and scaling and/or weighing information can result in loss to the State. The potential loss from not having proper branding, ticketing, scaling and/or weighing location and accountability is not readily ascertainable. Purchaser's failure to perform results in a loss of log weight and scale accountability, increases the potential for unauthorized removal of forest products, and increases the State's administration costs, the actual costs of which are difficult to assess.

Enforcement actions for unauthorized removal of forest products for each improperly branded load, improperly ticketed load, lost or unaccounted for tickets, or use of a facility not authorized for this sale or improper submission of scaling data are impractical, expensive, time consuming and are not an adequate remedy. Therefore, Purchaser agrees to pay the State, as liquidated damages, a sum of \$100 each time a load of logs does not have branding as required in the contract, \$250 each time a load of logs does not have a load ticket as required by the contract, \$250 each time a load ticket has not been filled out as required by the plan of operations, \$250 each time a load is weighed or scaled at a location not approved as required under this contract, \$250 each time a log ticket summary report is not submitted properly, and if a third party Log and Load Reporting Service is required, \$250 each time scaling or weight data is not properly submitted to the Log and Load Reporting Service per clause L-071, and \$250 each unused ticket that is not returned to the State, for any reason.

D-040 Leave Tree Excessive Damage

When Purchaser's operations exceed the damage limits set forth in clause H-012, Leave Tree Damage Definition, the trees damaged result in substantial injury to the State. The value of the damaged leave trees at the time of the breach is not readily ascertainable. Therefore, Purchaser agrees to pay the State as liquidated damages at the rate of \$250.00 per tree for all damaged trees in the Variable Density Thinning areas (located in Unit RMZ #1, Unit RMZ #2, Unit RMZ #3 and Unit 4).

D-041 Reserve Tree Excessive Damage

When Purchaser's operations exceed the damage limits set forth in clause H-013, Reserve Tree Damage Definition, and when the Contract Administrator determines that a suitable replacement for a damaged reserve tree is not possible, the damaged trees result in substantial injury to the State. The value of the damaged reserve trees at the time of the breach is not readily ascertainable. Therefore, the Purchaser agrees to pay the State as liquidated damages at the rate of \$1,000.00 per tree for all damaged reserve trees that are not replaced in the Variable Retention Harvest areas (located in Units #1, #2, and #3).

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

Jay Guthrie
Northwest Region Manager

Print Name

Date: _____

Date: _____

Address: _____

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

STATE OF _____)

_____)

COUNTY OF _____)

On this _____ day of _____, 20____, before me personally
appeared _____

_____ to me known to be the
_____ of the corporation

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

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

Notary Public in and for the State of

My appointment expires _____

Schedule B
Thinning Prescription

UNIT 4 – NRF THINNING AND RMZS

- Thin based on the criteria below, leaving a minimum of 95 trees per acre throughout the unit.
- Only live trees 8 inches or greater in DBH shall be used to calculate trees per acre.

To accomplish this prescription, fallers and operators shall remove trees in the following priority order and diameter ranges:

1. Silver fir (all diameters)
2. Western Hemlock (12in to 18in)

All other tree species may only be cut to facilitate yarding and road construction when they pose safety hazards. If felled, they shall be treated like all other harvested trees and be deducted from final standing trees per acre and residual basal area goals. If felled for safety reasons they shall be left where they lay and remain on site as down woody debris.

UNIT RMZ 1-3 – RIPARIAN THINNING

- Thin based on the criteria below, leaving a minimum of 95 trees per acre throughout the unit, targeting a 21 x 21 foot spacing.
- Only live trees 8 inches or greater in DBH shall be used to calculate trees per acre.

To accomplish this prescription, fallers and operators shall remove trees in the following priority order and diameter ranges:

1. Silver fir (all diameters)
2. Western Hemlock (12in to 18in)

All other tree species may only be cut to facilitate yarding and road construction when they pose safety hazards. If felled, they shall be treated like all other harvested trees and be deducted from final standing trees per acre and residual basal area goals. If felled for safety reasons they shall be left where they lay and remain on site as down woody debris.

RMZ ENHANCEMENT ACTIVITIES.

There are 17.2 acres of RMZ thinning in Unit RMZ 1, 20.8 acres of RMZ thinning in Unit RMZ 2, and 18.2 acres of RMZ thinning in RMZ Unit 3. Three conifer trees per acre of RMZ, from the largest thinned DBH class, shall be felled towards the stream where feasible to remain as down woody debris. Two conifer trees per acre of RMZ, from the largest thinned DBH class, shall be double girdled, or topped, for snag recruitment. The Purchaser shall mark and fell/girdle upon review and approval of the Contract Administrator. These trees shall be marked within 25 feet of the white “timber sale boundary” tags along type 3 and/or 4 streams.

THINNING CONDITIONS

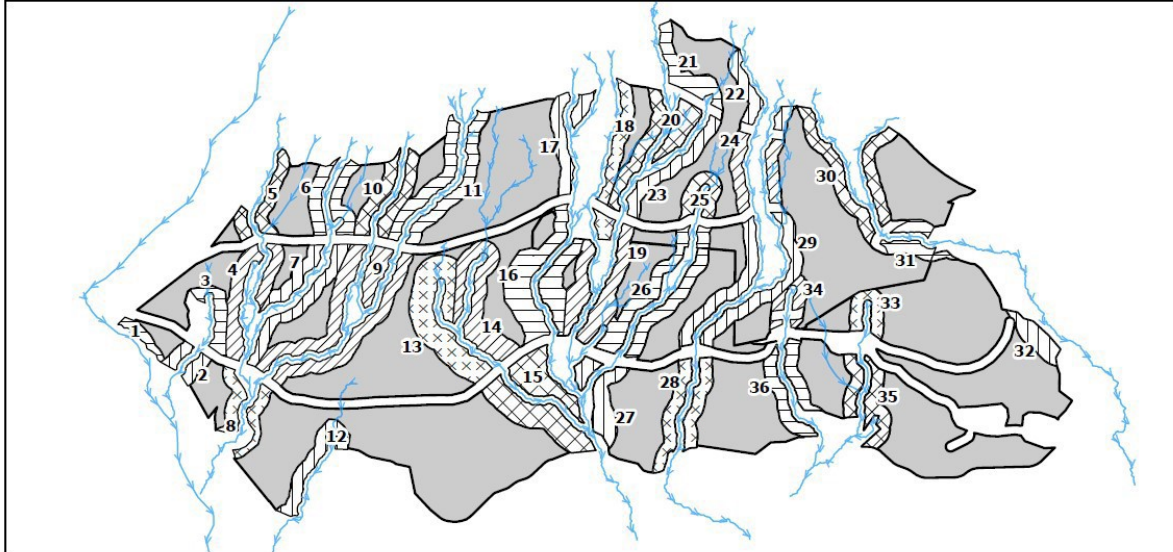
Fallers and operators shall harvest trees of the first species and diameter range until the prescription is met. If there are not enough trees in a plot of the first species, then the faller shall harvest from the second species and diameter range and so on until the prescription is met. Fallers and operators shall cut from the full diameter range for each species, as specified above, and shall avoid targeting only one or two diameter ranges for harvest.

The Contract Administrator (CA) shall approve and certify in writing all persons engaged in felling of timber prior to any cutting operations, per the H-011 clause of the contract.

CERTIFICATION AND COMPLIANCE

The Contract Administrator and Purchaser and Purchaser's Operator shall jointly review the take tree selection criteria as outlined in Schedule B of the contract. In conjunction with the Contract Administrator, the Purchaser shall mark a designated area as a test plot within the sale area boundary. Satisfactory thinning of this test plot by fallers completes the certification process. The Purchaser shall not deviate from the requirements set forth in the Compliance portion of this schedule without prior written approval by the Contract Administrator.

Schedule R RFRS Tree Requirements Map



RFRS Unit	Girdle	Fell	RFRS Unit	Girdle	Fell	RFRS Unit	Girdle	Fell	RFRS Unit	Girdle	Fell	RFRS Unit	Girdle	Fell	RFRS Unit	Girdle	Fell
1	1	1	7	5	8	13	8	12	19	6	9	25	2	3	31	2	3
2	1	2	8	3	5	14	6	8	20	5	7	26	7	10	32	2	3
3	2	3	9	10	16	15	9	13	21	3	4	27	3	5	33	2	3
4	4	6	10	4	6	16	8	13	22	2	3	28	5	7	34	1	2
5	3	4	11	6	10	17	3	5	23	3	4	29	7	11	35	4	6
6	4	5	12	3	4	18	3	5	24	3	5	30	6	9	36	4	6

Prepared By: amon490

0 237.5 475 950 1,425 Feet



Schedule S
Sample Scaling

Weight Conversion Sample Scaling

For this contract, weight conversion sample scaling will be allowed for the following species: Western hemlock, pure loads. Douglas-fir, pure loads. If approved for Sample Scale diameter restrictions may apply.

The Purchaser must make a written request for sample scaling and the State shall authorize in writing the use of sample scaling and amend the brand designation form accordingly. Upon facility inspection and approval for weight conversion sample scaling, DNR will set the sample scaling intensity for this contract.

DNR requires roll out scale for all weight conversion sample scale loads. The default frequency shall be 1:2. However, any facility that can provide the most recent sample scale load for check scaling may use a frequency of 1:3.

All loads arriving at a facility approved for weight conversion sample scale shall be weighed. DNR may force scaling at any time. Scale data from the forced scale loads will be included in the sample pool. The State may revoke the approval of the facility for weight conversion sample scaling at any time. Any load presented for weight conversion sample scale that is mis-sorted by species or diameter in excess of one log shall be scaled and excluded from the sample pool.



WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

FOREST EXCISE TAX ROAD SUMMARY SHEET

Region:

Timber Sale Name:

Application Number:

EXCISE TAX APPLICABLE ACTIVITIES

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

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

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

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

Pre-Haul Maintenance: **linear feet**
Existing road to receive maintenance work (optional and required) prior to haul

EXCISE TAX EXEMPT ACTIVITIES

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

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

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

(Revised 9/18)

PRE-CRUISE NARRATIVE

Sale Name: Kick Stand VRH VDT	Region: Northwest
Agreement #: 30-104449	District: Cascade
Contact Forester: Ariel Montgomery Phone / Location: 360-640-4679	County(s): Snohomish
Alternate Contact: John Moon Phone / Location: 360-770-4436	Other information: Click here to enter text.

Type of Sale: MBF Scale	
Harvest System: Ground based Click here to enter text.	See Logging Plan Map

UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit # Harvest R/W or RMZ WMZ	Legal Description (Enter only one legal for each unit) Sec/Twp/Rng	Grant or Trust	Gross Proposal Acres	Deductions from Gross Acres (No harvest acres)			Net Harvest Acres (includes thinned RMZ acres)	Acreage Determination (List method and error of closure if applicable)
				Leave Tree Acres	Existing Road Acres	Other Acres (describe)		
1A VRH	S03 T29 R08E	03	3.5	0.2			3.3	GPS (Garmin)
1B VRH	S10 T29 R08E	03	1.4	0.2			1.2	GPS (Garmin)
1C VRH	S03 T29 R08E	03	1.6				1.6	GPS (Garmin)
1D VRH	S03 T29 R08E	03	2.9				2.9	GPS (Garmin)
1E VRH	S03 T29 R08E	03	1.2				1.2	GPS (Garmin)
1F VRH	S03 T29 R08E	03	0.9				0.9	GPS (Garmin)
2 VRH	S03 T29 R08E	03	39.0	1.5			37.5	GPS (Garmin)
3A VRH	S03 T29 R08E	03	1.1				1.1	GPS (Garmin)
3B VRH	S03 T29 R08E	03	8.0	0.3			7.7	GPS (Garmin)
3C VRH	S03 T29 R08E	03	10.9	0.1			10.8	GPS (Garmin)
3D VRH	S03 T29 R08E	03	1.0				1.0	GPS (Garmin)
3E VRH	S03 T29 R08E	03	4.5				4.5	GPS (Garmin)
4A NRF VDT	S03 T29 R08E	03	0.5				0.5	GPS (Garmin)
4B NRF	S03 T29 R08E	03	0.3				0.3	GPS (Garmin)

VDT								
4C NRF VDT	S03 T29 R08E	03	1.7				1.7	GPS (Garmin)
4D NRF VDT	S03 T29 R08E	03	7.5				7.5	GPS (Garmin)
4E NRF VDT	S10 T29 R08E	03	6.3				6.3	GPS (Garmin)
4F NRF VDT	S03 T29 R08E	03	3.3				3.3	GPS (Garmin)
4G NRF VDT	S03 T29 R08E	03	22.4				22.4	GPS (Garmin)
RMZ 1 VDT	S03 T29 R08E	03	17.3				17.3	GPS (Garmin)
RMZ 2 VDT	S03 T29 R08E	03	20.8				20.8	GPS (Garmin)
RMZ 3 VDT	S03 T29 R08E	03	18.3				18.3	GPS (Garmin)
RMZ 4 VDT	S03 T29 R08E	03	18.9				18.9	GPS (Garmin)
ROW 1	S10 T29 R08E	03	2.6				2.6	GPS (Garmin)
ROW 2	S03 T29 R08E	03	9.9				9.9	GPS (Garmin)
ROW 3	S03 T29 R08E	03	3.1				3.1	GPS (Garmin)
ROW 4	S08 T29 R08E	03	0.4				0.4	GPS (Garmin)
TOTAL ACRES			209.3	2.3			207.0	

HARVEST PLAN AND SPECIAL CONDITIONS:

Unit #	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
1A VRH	Unit 1A is a Variable Retention Harvest (VRH). Take all trees bounded by blue "Special Management Unit" tags to the north, west, south and the adjacent PK-6425 road to the east. Leave tree areas are marked with yellow "Leave Tree Area" tags and/or individual trees marked with one or two bands of blue paint.	There are 3.5 acres of RMZ thinning adjacent to the harvest acreage of Unit 1A. Designated with a perimeter of trees that are marked with white "Timber Sale Boundary" tags, pink flagging, blue "Special Management Area" tags and an orange stump spot. All trees within this perimeter, including the blue "Special Management Area" tagged trees, shall be thinned following the prescription in Schedule B.	Leave Tree Clump: 24 Leave Tree Scattered: 6 Total: 30
1B VRH	Unit 1B is a Variable Retention Harvest (VRH).	There are 1.2 acres of RMZ thinning adjacent to the harvest	Leave Tree Clump: 16

	Take all trees bounded by blue "Special Management Unit" tags to the west, east, white "Timber Sale Boundary" tags to the south and the PK-6424 to the north. Leave tree areas are marked with yellow "Leave Tree Area" tags and/or individual trees marked with one or two bands of blue paint.	acreage of Unit 1B. Designated with a perimeter of trees that are marked with white "Timber Sale Boundary" tags, pink flagging, blue "Special Management Area" tags and an orange stump spot. All trees within this perimeter, including the blue "Special Management Area" tagged trees, shall be thinned following the prescription in Schedule B.	Leave Tree Scattered: 0 Total: 16
1C VRH	Unit 1C is a Variable Retention Harvest (VRH). Take all trees bounded by blue "Special Management Unit" tags to the north, west, south and east. Leave tree areas are marked with yellow "Leave Tree Area" tags and/or individual trees marked with one or two bands of blue paint.	There are 3.8 acres of RMZ thinning adjacent to the harvest acreage of Unit 4C. Designated with a perimeter of trees that are marked with white "Timber Sale Boundary" tags, pink flagging, blue "Special Management Area" tags and an orange stump spot. All trees within this perimeter, including the blue "Special Management Area" tagged trees, shall be thinned following the prescription in Schedule B.	Leave Tree Clump: 0 Leave Tree Scattered: 15 Total:15
1D VRH	Unit 1D is a Variable Retention Harvest (VRH). Take all trees bounded by blue "Special Management Unit" tags to the east, west, south and the adjacent PK-6425 road to the north. Leave tree areas are marked with yellow "Leave Tree Area" tags and/or individual trees marked with one or two bands of blue paint.	There are 3.4 acres of RMZ thinning adjacent to the harvest acreage of Unit 1D. Designated with a perimeter of trees that are marked with white "Timber Sale Boundary" tags, pink flagging, blue "Special Management Area" tags and an orange stump spot. All trees within this perimeter, including the blue "Special Management Area" tagged trees, shall be thinned following the prescription in Schedule B.	Leave Tree Clump: 0 Leave Tree Scattered: 15 Total: 15
1E VRH	Unit 1E is a Variable Retention Harvest (VRH). Take all trees bounded by blue "Special Management	There are 2.0 acres of RMZ thinning adjacent to the harvest acreage of Unit 1E. Designated with a perimeter of trees that	Leave Tree Clump: Leave Tree Scattered:11

	Unit” tags to the east, west, south and the adjacent PK-6425 road to the north. Leave tree areas are marked with yellow “Leave Tree Area” tags and/or individual trees marked with one or two bands of blue paint.	are marked with white “Timber Sale Boundary” tags, pink flagging, blue “Special Management Area” tags and an orange stump spot. All trees within this perimeter, including the blue “Special Management Area” tagged trees, shall be thinned following the prescription in Schedule B.	Total:11
1F VRH	Unit 1F is a Variable Retention Harvest (VRH). Take all trees bounded by blue “Special Management Unit” tags to the east, west, south and the adjacent PK-6425 road to the north. Leave tree areas are marked with yellow “Leave Tree Area” tags and/or individual trees marked with one or two bands of blue paint.	There are 2.5 acres of RMZ thinning adjacent to the harvest acreage of Unit 1F. Designated with a perimeter of trees that are marked with white “Timber Sale Boundary” tags, pink flagging, blue “Special Management Area” tags and an orange stump spot. All trees within this perimeter, including the blue “Special Management Area” tagged trees, shall be thinned following the prescription in Schedule B.	Leave Tree Clump: 0 Leave Tree Scattered: 7 Total: 7
2 VRH	Unit 2 is a Variable Retention Harvest (VRH). Take all trees bounded by blue “Special Management Unit” tags to the east and west; white “Timber Sale Boundary” tags to the south and the adjacent PK-6425-04 road to the north. Leave tree areas are marked with yellow “Leave Tree Area” tags and/or individual trees marked with one or two bands of blue paint..	There are 20.4 acres of RMZ thinning adjacent to the harvest acreage of Unit 2. Designated with a perimeter of trees that are marked with white “Timber Sale Boundary” tags, pink flagging, blue “Special Management Area” tags and an orange stump spot. All trees within this perimeter, including the blue “Special Management Area” tagged trees, shall be thinned following the prescription in Schedule B.	Leave Tree Clump: 264 Leave Tree Scattered: 56 Total: 320
3A VRH	Unit 3A is a Variable Retention Harvest (VRH). Take all trees bounded by blue “Special Management Unit” tags to the west,	There are 2.7 acres of RMZ thinning adjacent to the harvest acreage of Unit 3A. Designated with a perimeter of trees that are marked with white “Timber	Leave Tree Clump: 0 Leave Tree Scattered: 10 Total: 10

	<p>south, east and the adjacent PK-6425-04 road to the north. Leave tree areas are marked with yellow "Leave Tree Area" tags and/or individual trees marked with one or two bands of blue paint.</p>	<p>Sale Boundary" tags, pink flagging, blue "Special Management Area" tags and an orange stump spot. All trees within this perimeter, including the blue "Special Management Area" tagged trees, shall be thinned following the prescription in Schedule B.</p>	
3B VRH	<p>Unit 3B is a Variable Retention Harvest (VRH). Take all trees bounded by blue "Special Management Unit" tags to the south, west and white "Timber Sale Boundary" tags the north. Leave tree areas are marked with yellow "Leave Tree Area" tags and/or individual trees marked with one or two bands of blue paint.</p>	<p>There are 7.2 acres of RMZ thinning adjacent to the harvest acreage of Unit 3B. Designated with a perimeter of trees that are marked with white "Timber Sale Boundary" tags, pink flagging, blue "Special Management Area" tags and an orange stump spot. All trees within this perimeter, including the blue "Special Management Area" tagged trees, shall be thinned following the prescription in Schedule B.</p>	<p>Leave Tree Clump: 99 Leave Tree Scattered:17 Total:116</p>
3C VRH	<p>Unit 3C is a Variable Retention Harvest (VRH). Take all trees bounded by blue "Special Management Unit" tags to the north, west, south and east. Leave tree areas are marked with yellow "Leave Tree Area" tags and/or individual trees marked with one or two bands of blue paint.</p>	<p>There are 4.6 acres of RMZ thinning adjacent to the harvest acreage of Unit 3C. Designated with a perimeter of trees that are marked with white "Timber Sale Boundary" tags, pink flagging, blue "Special Management Area" tags and an orange stump spot. All trees within this perimeter, including the blue "Special Management Area" tagged trees, shall be thinned following the prescription in Schedule B.</p>	<p>Leave Tree Clump: 48 Leave Tree Scattered:14 Total: 62</p>
3D VRH	<p>Unit 3D is a Variable Retention Harvest (VRH). Take all trees bounded by blue "Special Management Unit" tags to the north, west, south and east. Leave tree areas are marked with</p>	<p>There are 0.8 acres of RMZ thinning adjacent to the harvest acreage of Unit 3D. Designated with a perimeter of trees that are marked with white "Timber Sale Boundary" tags, pink flagging, blue "Special</p>	

	yellow "Leave Tree Area" tags and/or individual trees marked with one or two bands of blue paint.	Management Area" tags and an orange stump spot. All trees within this perimeter, including the blue "Special Management Area" tagged trees, shall be thinned following the prescription in Schedule B.	
3E VRH	Unit 3E is a Variable Retention Harvest (VRH). Take all trees bounded by blue "Special Management Unit" tags to the north, west, and white "Timber Sale Boundary" tags to the south and east. Leave tree areas are marked with yellow "Leave Tree Area" tags and/or individual trees marked with one or two bands of blue paint.	There are 1.5 acres of RMZ thinning adjacent to the harvest acreage of Unit 3E. Designated with a perimeter of trees that are marked with white "Timber Sale Boundary" tags, pink flagging, blue "Special Management Area" tags and an orange stump spot. All trees within this perimeter, including the blue "Special Management Area" tagged trees, shall be thinned following the prescription in Schedule B.	Leave Tree Clump: 10 Leave Tree Scattered: 8 Total: 18
4A NRF VDT	Unit 4A is a Variable Density Thinning (VDT) in a Northern Spotted Owl Next Best Stand. Thin all timber bounded by blue "Special Management Unit" tags to the north, west, east and white "Timber Sale Boundary" tags following the prescription in Schedule B.	There are 0.6 acres of RMZ thinning adjacent to the harvest acreage of Unit 4A.	
4B NRF VDT	Unit 4B is a Variable Density Thinning (VDT) in a Northern Spotted Owl Next Best Stand. Thin all timber bounded by white "Timber Sale Boundary" tags to the north, west, east, and south, following the prescription in Schedule B.	There are 2.6 acres of RMZ thinning adjacent to the acreage of Unit 4B.	
4C NRF VDT	Unit 4C is a Variable Density Thinning (VDT) in a Northern Spotted Owl Next	There are 3.1 acres of RMZ thinning adjacent to the acreage of Unit 4C.	

	Best Stand. Thin all timber bounded by blue “Special Management Unit” tags to the north, white “Timber Sale Boundary” tags to the east, west, and south, following the prescription in Schedule B.		
4D NRF VDT	Unit 4D is a Variable Density Thinning (VDT) in a Northern Spotted Owl Next Best Stand. Thin all timber bounded by blue “Special Management Unit” tags to the north, white “Timber Sale Boundary” tags to the east, west, and south, following the prescription in Schedule B.	There are 4.8 acres of RMZ thinning adjacent to the acreage of Unit 4D.	
4E NRF VDT	Unit 4E is a Variable Density Thinning (VDT) in a Northern Spotted Owl Next Best Stand. Thin all timber bounded by blue “Special Management Unit” tags to the north, white “Timber Sale Boundary” tags to the east, west, and south, following the prescription in Schedule B.	There are 2.6 acres of RMZ thinning adjacent to the acreage of Unit 4E.	
4F NRF VDT	Unit 4F is a Variable Density Thinning (VDT) in a Northern Spotted Owl Next Best Stand. Thin all timber bounded by blue “Special Management Unit” tags to the north, white “Timber Sale Boundary” tags to the east, west, and south following the prescription in Schedule B.	There are 2 acres of RMZ thinning adjacent to the acreage of Unit 4F.	
4G NRF VDT	Unit 4G is a Variable Density Thinning (VDT) in a Northern Spotted Owl Next	There are 2.7 acres of RMZ thinning adjacent to the acreage of Unit 4G.	

	Best Stand. Thin all timber bounded by blue “Special Management Unit” tags to the north, white “Timber Sale Boundary” tags to the east, west, and south, following the prescription in Schedule B.		
RMZ 1 VDT	The Unit 1 Riparian Management Zone is a Variable Density Thinning (VDT) designated with a perimeter of trees that are marked with white “Timber Sale Boundary” tags, pink flagging, blue “Special Management Area” tags and an orange stump spot. All trees within this perimeter, including the blue “Special Management Area” tagged trees, shall be thinned following the prescription in Schedule B.	There are 0.8 acres of RMZ thinning not adjacent to a unit in the Unit 1 vicinity.	
RMZ 2 VDT	The Unit 2 Riparian Management Zone (RMZ) is a Variable Density Thinning (VDT) designated with a perimeter of trees that are marked with white “Timber Sale Boundary” tags, pink flagging, blue “Special Management Area” tags and an orange stump spot. All trees within this perimeter, including the blue “Special Management Area” tagged trees, shall be thinned following the prescription in Schedule B.	There are 0.4 acres of RMZ thinning not adjacent to a unit in the Unit 2 vicinity.	
RMZ 3 VDT	The Unit 3 Riparian Management Zone (RMZ) is a Variable Density Thinning (VDT) designated with a	There are 1.4 acres of RMZ thinning not adjacent to a unit in the Unit 3 vicinity.	

	<p>perimeter of trees that are marked with white “Timber Sale Boundary” tags, pink flagging, blue “Special Management Area” tags and an orange stump spot. All trees within this perimeter, including the blue “Special Management Area” tagged trees, shall be thinned following the prescription in Schedule B.</p>		
<p>RMZ 4 VDT</p>	<p>The Unit 4 Riparian Management Zone (RMZ) is a Variable Density Thinning (VDT) designated with a perimeter of trees that are marked with white “Timber Sale Boundary” tags, pink flagging, blue “Special Management Area” tags and an orange stump spot. All trees within this perimeter, including the blue “Special Management Area” tagged trees, shall be thinned following the prescription in Schedule B.</p>	<p>There are 0.4 acres of RMZ thinning not adjacent to a unit in the Unit 4 vicinity.</p>	
<p>ROW 1</p>	<p>Right of Way (ROW): Take all trees bounded by orange flagging and orange “Right of way tags”. 30-foot average ROW width from centerline</p>		
<p>ROW 2</p>	<p>Right of Way (ROW): Take all trees bounded by orange flagging and orange “Right of way tags”. 30-foot average ROW width from centerline</p>		
<p>ROW 3</p>	<p>Right of Way (ROW): Take all trees bounded by orange flagging and orange “Right of way tags”. 30-foot</p>		

	average ROW width from centerline		
ROW 4	Right of Way (ROW): Take all trees bounded by orange flagging and orange "Right of way tags". 30-foot average ROW width from centerline		

OTHER PRE-CRUISE INFORMATION:

Unit #	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1A VRH	WH, SF/ 175	Access off PK-64 on Pilchuck Mainline (PK-ML). F1 Key is needed to open main gate on Menzel Lake Main Line (MZ-ML).	See attached pre-cruise and vicinity maps
1B VRH	WH, SF/60	Same as above.	Same as above.
1C VRH	WH, SF/125	Same as above.	Same as above.
1D VRH	WH, SF/155	Same as above.	Same as above.
1E VRH	WH, SF/75	Same as above.	Same as above.
1F VRH	WH, SF/75	Same as above.	Same as above.
2 VRH	WH, DF/1610	Same as above.	Same as above.
3A VRH	WH, DF/25	Same as above.	Same as above.
3B VRH	WH, DF/85	Same as above.	Same as above.
3C VRH	WH, DF/385	Same as above.	Same as above.
3D VRH	WH, DF/50	Same as above.	Same as above.
3E VRH	WH, DF/175	Same as above.	Same as above.
4A NRF VDT	WH, DF/35	Same as above.	Same as above.
4B NRF VDT	WH, DF/50	Same as above.	Same as above.
4C NRF VDT	WH, DF/85	Same as above.	Same as above.
4D NRF VDT	WH, DF/225	Same as above.	Same as above.
4E NRF VDT	WH, DF/160	Same as above.	Same as above.

4F NRF VDT	WH, DF/95	Same as above.	Same as above.
4G NRF VDT	WH, DF/475	Same as above.	Same as above.
1 RMZ VDT	WH, SF/15	Same as above.	Same as above.
2 RMZ VDT	WH, SF/5	Same as above.	Same as above.
3 RMZ VDT	WH, DF/5	Same as above.	Same as above.
4 RMZ VDT	WH, DF/5	Same as above.	Same as above.
ROW 1	WH, DF/25	Same as above.	Same as above.
ROW 2	WH, DF/100	Same as above.	Same as above.
ROW 3	WH, DF/30	Same as above.	Same as above.
ROW 4	WH, DF/5	Same as above.	Same as above.
Total MBF	4,745		

REMARKS:

Unit Acres grouped

- Unit 1 VRH (1A, 1B, 1C, 1D, 1E, 1F) = 11.5 gross
 - Leave tree acres = 0.4 gross
 - Unit 1VRH = 11.1 net
- Unit 3 VRH (3A, 3B, 3C, 3D, 3E) = 25.5 gross
 - Leave tree acres = 1.5 gross
 - Unit 3 VRH = 24.0 net
- Unit 4 NRF VDT (4A, 4B, 4C, 4D, 4E, 4F, 4G)= 42.0 gross and net

Shapefiles

- All shapefiles located here: K:\timber_sales\fy24\Kick Stand\final_shapefiles
- KickStand_Units – has units as multi-part polygons includes VRH, NRF VDT, RMZ VDT, & ROW
- KickStand_SubUnits – has sub-units as individual polygons includes VRH, NRF VDT, RMZ VDT, & ROW
- Attribute tables are updated with acres

General Description:

Units 1 and 2 are a uniform western hemlock and silver fir stand. Units 3 and 4 are a uniform western hemlock and Douglas-fir stand.

- Boundary and leave tree area traverse points marked with green flagging.
- Right-of-Way and associated roads
 - ROW 1: PK-6424
 - ROW 2: PK-64, potential rock pits, PK-6434

- ROW 3: PK-6425_04
- ROW 4: PK-64
- No sub units in LRM only multi-part polygons
- Location of shapefiles K:\timber_sales\fy24\Kick Stand\shapefiles for cruisers

Schedule B

Units 4a-4g and Riparian Management Area in Units 1-4

- Thin from middle, leaving a minimum of 95-100 trees per acre maintained at uniform spacing throughout the unit. Target average 21' x 20' spacing.
- All silver fir to be cut.
- Western hemlock 12" to 18" DBH will be cut. Leaving western hemlock less than 12" to released in the understory creating a bimodal stand.

Riparian Management Acreage consolidation and their associated units

- Unit 1 has a total of 17.2 acres of riparian area thinning with 0.8 of those acres not being adjacent to a VRH unit.
- Unit 2 has a total of 20.8 acres of riparian area thinning with 0.4 of those acres not being adjacent VRH unit.
- Unit 3 has a total of 18.2 acres of riparian area thinning with 1.4 of those acres not being adjacent to a VRH unit.
- Unit 4 has a total of 17.2 acres of riparian area thinning with 0.4 of those acres not being adjacent to a VRH unit.
-

Driving Directions:

ROW 4:

From the intersection of MTN Loop HWY and Menzel Lake Road in Granite Falls, travel 4.2 miles southeast along Menzel Lake Road to the Menzel Lake Main Line (MZ-ML) gate on the east side of the road. (F1-3 key required). Travel 1.5 miles east on the MZ-ML, staying right at the fork to continue on the Pilchuck PK-ML. From this junction, travel 3.1 miles east along PK-ML to the Junction of PK-31 and PK-ML. Veer right and continue along PK-ML for 0.8 miles to the junction of PK-43 and PK-ML. Stay right and travel 0.8 miles to the junction of the PK-ML and PK-51. Turn right and travel 1.3 miles to the junction of the PK-ML and the PK-64. Turn left and travel 0.8 miles to reach unit ROW 4

Unit 1, 2, & 4 /ROW1:

Continue straight from the PK-64 and PK-6409 for 0.4 miles to the PK-64 and PK-6413 junction continue straight for 1.5 miles the next junction of the PK-64 and PK-6413 take a left unit one will be on the right.

ROW 2:

Drive straight from the PK-64 and PK-6424 junction for 0.1 miles to reach ROW 2 on the left.

Unit 3/ROW3:

Drive straight from the PK-64 and PL-6425 junction for 0.4 miles to reach the PK-6425-04 on the right, walk in from the PK-6425-04 for 0.2 miles to reach unit 3.

Prepared By: Ariel
Montgomery

Title: Pre-sales Forester

CC: John Moon

Date: 7/26/2023

Timber Sale Cruise Report Kick Stand VRH VDT - NW

Sale Name: KICK STAND VRH VDT

Sale Type: MBF SCALE

Region: NORTHWEST

District: CASCADE

Lead Cruiser: Matt Llobet

Other Cruisers: Bailey Vos

Kick Stand is located southeast of Granite Falls off the Menzel Lake ML. It consists of three variable retention harvest (VRH) units, one variable density thinning (VDT) unit scattered Riparian Management Zones (RMZs). Topography is flat with a gentle gradient in some areas. Forest roads provide drive access to most of the sale, but units three and four require short hikes to reach.

My total net cruise volume for Kick Stand is 5,349 mbf. Most of the sale contains uniformly stocked, "plantation-style" timber in the small-medium diameter range. The exception to this is in the southern portion of the sale, where the timber is more variable, and shows larger diameter classes.

For this cruise different basal area factors were selected based on stocking levels and tree sizes. My plots were generated in GIS and located in the field using Avenza Maps. Bole height was measured with a laser/relaskop and taken to a 5" top or break point (40% of diameter at 16 feet). Trees were segmented into appropriate west-side log lengths and defect was accounted for accordingly within each VBAR tree sampled.

Schedule B

Units 4a-4g and Riparian Management Area in Units 1-4

- Thin from middle, leaving a minimum of 95-100 trees per acre maintained at uniform spacing throughout the unit. Target average 21' x 20' spacing.
- All silver fir to be cut.
- Western hemlock 12" to 18" DBH will be cut. Leaving western hemlock less than 12" to released in the understory.

Timber Sale Notice Volume (MBF)

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
WH	16.5			4,216	1,675	2,195	316	29
SF	20.2			663	401	205	19	39
DF	20.7	8.0		439	251	173	15	
RC	15.1			31		30	2	
ALL	17.0	8.0		5,349	2,327	2,603	351	68

Timber Sale Notice Weight (tons)

Sp	Tons by Grade				
	All	2 Saw	3 Saw	4 Saw	Utility
WH	36,102	13,189	19,476	3,172	265
SF	5,092	2,911	1,732	184	265
DF	3,173	1,639	1,397	137	

Tons by Grade					
Sp	All	2 Saw	3 Saw	4 Saw	Utility
RC	302		290	11	
ALL	44,668	17,739	22,896	3,504	530

Timber Sale Overall Cruise Statistics

BA (sq ft/acre)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR SE (%)	Net Vol (bf/acre)	Vol SE (%)
296.1	2.1	134.9	1.3	39,985	2.5

Timber Sale Unit Cruise Design

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
KICK STAND U1	B2C: VR, 2 BAF (46.94, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	11.1	11.5	15	7	0
KICK STAND U2	B2C: VR, 2 BAF (46.94, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	37.5	39.0	25	14	0
KICK STAND U3	B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	25.1	25.4	15	8	0
KICK STAND U4	B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	42.0	42.0	39	13	0
KICK STAND U1 RMZ	B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 0 ft	17.3	17.3	8	6	0
KICK STAND U2 RMZ	B2C: VR, 2 BAF (46.94, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	20.8	20.8	22	12	0
KICK STAND U3 RMZ	B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	18.3	18.5	15	8	0
KICK STAND U4 RMZ	B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	18.9	18.9	19	6	0
KICK STAND ROW1	B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	2.6	2.6	3	3	0
KICK STAND ROW2	B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	9.9	9.9	3	3	0
KICK STAND ROW3	B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	3.1	3.1	5	5	1
KICK STAND ROW4	FX: FR plots (20 tree / acre expansion)	0.4	0.4	2	2	0
All		207.0	209.2	171	87	1

Timber Sale Log Grade x Sort Summary

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
DF	LIVE	2 SAW	Domestic	15.4	34	1,241	1,215	2.1	1,638.8	251.5
DF	LIVE	3 SAW	Domestic	9.3	36	842	837	0.7	1,396.7	173.2
DF	LIVE	4 SAW	Domestic	6.4	21	70	70	0.0	137.1	14.5
DF	LIVE	CULL	Cull	17.1	5	14	0	100.0	0.0	0.0
RC	LIVE	3 SAW	Domestic	6.8	34	143	143	0.0	290.4	29.6
RC	LIVE	4 SAW	Domestic	5.4	18	7	7	0.0	11.3	1.5
RC	LIVE	CULL	Cull	18.0	8	15	0	100.0	0.0	0.0
SF	LIVE	2 SAW	Domestic	15.4	40	2,041	1,935	5.2	2,910.7	400.5
SF	LIVE	3 SAW	Domestic	9.3	36	993	989	0.4	1,732.0	204.8
SF	LIVE	4 SAW	Domestic	6.4	23	91	91	0.0	183.9	18.8
SF	LIVE	CULL	Cull	16.8	6	14	0	100.0	0.0	0.0
SF	LIVE	UTILITY	Pulp	15.1	40	188	188	0.0	265.2	38.9
WH	LIVE	2 SAW	Domestic	14.0	36	8,182	8,091	1.1	13,189.1	1,674.9
WH	LIVE	3 SAW	Domestic	8.9	35	10,679	10,606	0.7	19,476.4	2,195.4
WH	LIVE	4 SAW	Domestic	6.1	23	1,528	1,527	0.1	3,171.5	316.1
WH	LIVE	CULL	Cull	15.7	8	193	0	100.0	0.0	0.0
WH	LIVE	UTILITY	Pulp	6.1	24	142	142	0.0	264.7	29.4

Timber Sale Log Sort x Diameter Bin Summary

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 7	LIVE	Domestic	6.3	28	160	0.0	285.0	33.1
DF	8 - 11	LIVE	Domestic	10.1	35	728	0.8	1,223.8	150.8
DF	12 - 15	LIVE	Domestic	14.2	37	772	1.8	1,068.2	159.7
DF	16 - 19	LIVE	Domestic	16.9	29	427	2.7	554.7	88.4
DF	16 - 19	LIVE	Cull	17.1	5	0	100.0	0.0	0.0
DF	20+	LIVE	Domestic	20.5	40	35	0.0	40.9	7.2
RC	5+	LIVE	Domestic	7.1	34	150	0.0	301.7	31.1
RC	5+	LIVE	Cull	18.0	8	0	100.0	0.0	0.0
SF	5 - 7	LIVE	Domestic	6.6	32	315	0.0	651.1	65.2
SF	8 - 11	LIVE	Pulp	9.9	40	18	0.0	34.9	3.7
SF	8 - 11	LIVE	Domestic	10.0	35	765	0.5	1,264.8	158.4
SF	12 - 15	LIVE	Domestic	13.8	40	1,276	2.2	2,016.7	264.2
SF	12 - 15	LIVE	Pulp	15.9	40	55	0.0	77.1	11.4
SF	16 - 19	LIVE	Cull	16.8	6	0	100.0	0.0	0.0
SF	16 - 19	LIVE	Domestic	17.3	40	392	12.5	570.0	81.1
SF	16 - 19	LIVE	Pulp	18.1	40	115	0.0	153.2	23.8

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
SF	20+	LIVE	Domestic	22.7	40	267	7.6	324.0	55.2
WH	5 - 7	LIVE	Pulp	5.4	23	79	0.0	155.7	16.4
WH	5 - 7	LIVE	Domestic	6.4	28	3,784	0.1	7,956.1	783.3
WH	8 - 11	LIVE	Pulp	9.4	32	63	0.0	109.0	13.1
WH	8 - 11	LIVE	Domestic	10.0	35	8,349	0.8	14,691.8	1,728.2
WH	12 - 15	LIVE	Domestic	13.4	36	6,185	1.3	10,465.9	1,280.4
WH	12 - 15	LIVE	Cull	14.0	8	0	100.0	0.0	0.0
WH	16 - 19	LIVE	Domestic	17.5	38	1,389	0.8	2,064.6	287.5
WH	16 - 19	LIVE	Cull	19.6	11	0	100.0	0.0	0.0
WH	20+	LIVE	Domestic	21.5	33	517	0.0	658.5	107.0

Cruise Unit Report KICK STAND U1

Unit Sale Notice Volume (MBF): KICK STAND U1

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	2 Saw	3 Saw	4 Saw
WH	18.1			374	234	132	9
SF	17.9			155	83	68	3
DF	20.6	8.0		44	21	21	1
RC	15.0			2		2	
ALL	18.2	8.0		575	338	223	14

Unit Cruise Design: KICK STAND U1

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B2C: VR, 2 BAF (46.94, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	11.1	11.4	15	7	0

Unit Cruise Summary: KICK STAND U1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
WH	34	72	4.8	0
SF	13	30	2.0	0
DF	5	7	0.5	1
RC	1	1	0.1	0
ALL	53	110	7.3	1

Unit Cruise Statistics: KICK STAND U1

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
WH	225.3	44.0	11.4	149.6	19.5	3.3	33,706	48.1	11.8
SF	93.9	88.6	22.9	148.3	16.5	4.6	13,923	90.2	23.3
DF	21.9	241.2	62.3	180.0	13.3	6.0	3,943	241.5	62.6
RC	2.7	387.3	100.0	71.7	0.0	0.0	191	387.3	100.0
ALL	343.8	16.3	4.2	150.6	20.2	2.8	51,763	26.0	5.1

Unit Summary: KICK STAND U1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	5	ALL	18.6	92	116	3,943	3,943	0.0	11.6	21.9	5.1	43.8
RC	LIVE	CUT	1	ALL	15.0	58	73	191	191	0.0	2.2	2.7	0.7	2.1
SF	LIVE	CUT	13	ALL	18.4	81	106	14,300	13,923	2.6	50.8	93.9	21.9	154.6
WH	LIVE	CUT	34	ALL	18.2	74	96	34,651	33,706	2.7	124.7	225.3	52.8	374.1
ALL	LIVE	CUT	53	ALL	18.2	77	100	53,085	51,763	2.5	189.3	343.8	80.5	574.6
ALL	ALL	ALL	53	ALL	18.2	77	100	53,085	51,763	2.5	189.3	343.8	80.5	574.6

Cruise Unit Report KICK STAND U2

Unit Sale Notice Volume (MBF): KICK STAND U2

Sp	DBH	Rings/In	Age	MBF Volume by Grade				Utility
				All	2 Saw	3 Saw	4 Saw	
WH	17.2			1,118	582	461	69	6
DF	22.2			241	179	53	10	
SF	20.9			122	80	39	3	
RC	9.5			6		6		
ALL	17.6			1,488	840	559	82	6

Unit Cruise Design: KICK STAND U2

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B2C: VR, 2 BAF (46.94, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	37.5	39.0	25	14	0

Unit Cruise Summary: KICK STAND U2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
WH	63	114	4.6	0
DF	10	21	0.8	0
SF	7	11	0.4	0
RC	1	1	0.0	0
ALL	81	147	5.9	0

Unit Cruise Statistics: KICK STAND U2

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
WH	214.0	49.5	9.9	139.3	20.6	2.6	29,811	53.6	10.2
DF	39.4	177.5	35.5	163.2	26.1	8.3	6,437	179.4	36.5
SF	20.7	174.6	34.9	158.0	26.1	9.9	3,262	176.5	36.3
RC	1.6	500.0	100.0	101.6	0.0	0.0	163	500.0	100.0
ALL	275.7	32.5	6.5	143.9	22.8	2.5	39,673	39.6	7.0

Unit Summary: KICK STAND U2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	10	ALL	21.0	93	114	6,629	6,437	2.9	16.4	39.4	8.6	241.4
RC	LIVE	CUT	1	ALL	9.5	34	80	163	163	0.0	3.3	1.6	0.5	6.1
SF	LIVE	CUT	7	ALL	18.2	83	101	3,489	3,262	6.5	11.4	20.7	4.8	122.3
WH	LIVE	CUT	63	ALL	17.9	69	89	30,058	29,811	0.8	122.5	214.0	50.6	1,117.9
ALL	LIVE	CUT	81	ALL	18.1	72	92	40,338	39,673	1.6	153.6	275.7	64.6	1,487.7
ALL	ALL	ALL	81	ALL	18.1	72	92	40,338	39,673	1.6	153.6	275.7	64.6	1,487.7

Cruise Unit Report KICK STAND U3

Unit Sale Notice Volume (MBF): KICK STAND U3

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
WH	16.1			895	432	386	62	15
DF	19.9			58	24	34		
SF	15.3			19		15	4	
RC	22.1			3		3		
ALL	16.4			974	456	438	66	15

Unit Cruise Design: KICK STAND U3

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	25.1	25.4	15	8	0

Unit Cruise Summary: KICK STAND U3

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
WH	45	88	5.9	0
DF	4	5	0.3	0
SF	1	2	0.1	0
RC	1	1	0.1	0
ALL	51	96	6.4	0

Unit Cruise Statistics: KICK STAND U3

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
WH	275.4	28.7	7.4	129.5	20.6	3.1	35,654	35.4	8.0
DF	15.6	146.4	37.8	147.8	12.5	6.2	2,313	146.9	38.3
SF	6.3	387.3	100.0	119.1	0.0	0.0	745	387.3	100.0
RC	3.1	387.3	100.0	33.0	0.0	0.0	103	387.3	100.0
ALL	300.4	26.9	7.0	129.2	22.7	3.2	38,815	35.3	7.6

Unit Summary: KICK STAND U3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	4	ALL	20.0	85	108	2,349	2,313	1.6	7.2	15.6	3.5	58.0
RC	LIVE	CUT	1	ALL	22.1	55	68	228	103	54.6	1.2	3.1	0.7	2.6
SF	LIVE	CUT	1	ALL	18.1	64	81	745	745	0.0	3.5	6.3	1.5	18.7
WH	LIVE	CUT	45	ALL	16.1	67	84	36,550	35,654	2.5	194.8	275.4	68.6	894.9
ALL	LIVE	CUT	51	ALL	16.3	67	84	39,873	38,815	2.7	206.7	300.4	74.3	974.3
ALL	ALL	ALL	51	ALL	16.3	67	84	39,873	38,815	2.7	206.7	300.4	74.3	974.3

Cruise Unit Report KICK STAND U4

Unit Sale Notice Volume (MBF): KICK STAND U4

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
WH	15.0			606	75	453	78	
SF	22.6			117	48	28	1	39
DF	16.0			14		13	1	
ALL	16.3			737	123	494	81	39

Unit Cruise Design: KICK STAND U4

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	42.0	42.0	39	13	0

Unit Cruise Summary: KICK STAND U4

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
RC		7	0.2	0
WH	21	213	5.5	0
DF	2	36	0.9	0
SF	8	14	0.4	0
ALL	31	270	6.9	0

Unit Cruise Statistics: KICK STAND 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 (%)
RC	8.4	380.7	61.0						
WH	256.4	36.3	5.8	131.8	14.5	3.2	33,781	39.1	6.6
DF	43.3	157.9	25.3	135.9	12.5	8.9	5,888	158.4	26.8
SF	16.9	207.0	33.1	165.2	19.1	6.7	2,783	207.8	33.8
ALL	325.0	21.1	3.4	134.1	19.7	3.5	43,582	28.9	4.9

Unit Summary: KICK STAND U4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	2	ALL	16.0	71	95	327	327	0.0	1.7	2.4	0.6	13.7
DF	LIVE	LEA	17	ALL	21.0	87	111	5,561	5,561	0.0	17.0	40.9	8.9	233.6
RC	LIVE	LEA	4	ALL	16.4	61	77				5.7	8.4	2.1	
SF	LIVE	CUT	8	ALL	20.0	86	110	2,870	2,783	3.0	7.7	16.9	3.8	116.9
WH	LIVE	CUT	21	ALL	15.1	68	86	14,693	14,432	1.8	88.1	109.5	28.2	606.2
WH	LIVE	LEA	40	ALL	19.2	76	95	19,698	19,349	1.8	73.0	146.8	33.5	812.6
ALL	LIVE	LEA	61	ALL	19.4	77	97	25,259	24,910	1.4	95.7	196.2	44.5	1,046.2
ALL	LIVE	CUT	31	ALL	15.6	69	88	17,890	17,542	1.9	97.5	128.8	32.6	736.8
ALL	ALL	ALL	92	ALL	17.6	73	92	43,149	42,452	1.6	193.2	325.0	77.1	1,783.0

Cruise Unit Report KICK STAND U1 RMZ

Unit Sale Notice Volume (MBF): KICK STAND U1 RMZ

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	2 Saw	3 Saw	4 Saw
SF	20.7			173	144	25	4
WH	15.6			123	14	99	10
ALL	16.8			296	158	125	14

Unit Cruise Design: KICK STAND U1 RMZ

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 0 ft	17.3	17.3	8	6	0

Unit Cruise Summary: KICK STAND U1 RMZ

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF		6	0.8	0
RC		1	0.1	0
WH	8	32	4.0	0
SF	4	15	1.9	0
ALL	12	54	6.8	0

Unit Cruise Statistics: KICK STAND U1 RMZ

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	35.2	198.4	70.1						
RC	5.9	282.8	100.0						
WH	187.8	48.2	17.0	134.7	15.8	5.6	25,294	50.7	17.9
SF	88.0	66.5	23.5	155.1	20.6	10.3	13,647	69.6	25.7
ALL	316.8	19.0	6.7	141.2	18.3	5.3	44,740	26.4	8.5

Unit Summary: KICK STAND U1 RMZ

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	0	ALL	17.0						3.7	5.9	1.4	

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	LEA	4	ALL	17.8	86	109				17.0	29.3	7.0	
RC	LIVE	LEA	1	ALL	15.0	58	73				4.8	5.9	1.5	
SF	LIVE	CUT	4	ALL	20.1	87	111	10,362	10,007	3.4	29.3	64.5	14.4	173.1
SF	LIVE	LEA	4	ALL	23.5	87	111	3,768	3,639	3.4	7.8	23.5	4.8	63.0
WH	LIVE	CUT	8	ALL	15.7	73	90	7,114	7,114	0.0	39.3	52.8	13.3	123.1
WH	LIVE	LEA	12	ALL	19.2	87	106	18,180	18,180	0.0	67.1	135.0	30.8	314.5
ALL	LIVE	CUT	12	ALL	17.7	79	99	17,476	17,121	2.0	72.3	123.2	29.1	296.2
ALL	LIVE	LEA	21	ALL	19.2	85	105	21,948	21,819	0.6	96.7	193.6	44.1	377.5
ALL	ALL	ALL	33	ALL	18.5	83	103	39,424	38,941	1.2	169.0	316.8	73.3	673.7

Cruise Unit Report KICK STAND U2 RMZ

Unit Sale Notice Volume (MBF): KICK STAND U2 RMZ

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
WH	15.2			138	15	100	22	1
SF	20.4			71	46	23	2	
ALL	16.3			209	60	123	24	1

Unit Cruise Design: KICK STAND U2 RMZ

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B2C: VR, 2 BAF (46.94, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	20.8	20.8	22	12	0

Unit Cruise Summary: KICK STAND U2 RMZ

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF		20	0.9	0
WH	15	98	4.5	0
SF	6	10	0.5	0
ALL	21	128	5.8	0

Unit Cruise Statistics: KICK STAND U2 RMZ

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	42.7	172.8	36.8						
WH	209.1	51.7	11.0	119.9	14.6	3.8	25,064	53.7	11.7
SF	21.3	176.1	37.5	159.1	28.3	11.6	3,395	178.4	39.3
ALL	273.1	32.1	6.8	123.5	26.3	5.7	33,729	41.5	8.9

Unit Summary: KICK STAND U2 RMZ

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	LEA	9	ALL	20.9	92	114				17.9	42.7	9.3	
SF	LIVE	CUT	6	ALL	17.8	80	100	3,549	3,395	4.3	12.3	21.3	5.1	70.6
WH	LIVE	CUT	15	ALL	15.4	62	80	6,650	6,650	0.0	42.9	55.5	14.1	138.3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	LEA	38	ALL	19.1	71	91	18,414	18,414	0.0	77.2	153.6	35.2	383.0
ALL	LIVE	CUT	21	ALL	16.0	66	84	10,198	10,044	1.5	55.2	76.8	19.2	208.9
ALL	LIVE	LEA	47	ALL	19.5	75	95	18,414	18,414	0.0	95.1	196.3	44.5	383.0
ALL	ALL	ALL	68	ALL	18.2	72	91	28,613	28,459	0.5	150.3	273.1	63.7	591.9

Cruise Unit Report KICK STAND U3 RMZ

Unit Sale Notice Volume (MBF): KICK STAND U3 RMZ

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
WH	15.3			320	74	220	23	3
SF	15.3			7		5	1	
ALL	15.3			326	74	225	24	3

Unit Cruise Design: KICK STAND U3 RMZ

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	18.3	18.5	15	8	0

Unit Cruise Summary: KICK STAND U3 RMZ

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF		5	0.3	0
RC		1	0.1	0
WH	22	89	5.9	0
SF	1	2	0.1	0
ALL	23	97	6.5	0

Unit Cruise Statistics: KICK STAND U3 RMZ

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	15.6	146.4	37.8						
RC	3.1	387.3	100.0						
WH	278.5	28.1	7.3	126.8	21.0	4.5	35,325	35.1	8.5
SF	6.3	387.3	100.0	119.1	0.0	0.0	745	387.3	100.0
ALL	303.5	26.7	6.9	126.7	20.6	4.3	38,449	33.7	8.1

Unit Summary: KICK STAND U3 RMZ

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	0	ALL	17.0	85					2.0	3.1	0.8	

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	LEA	3	ALL	21.1	85	108				5.2	12.5	2.7	
RC	LIVE	LEA	1	ALL	22.1	55	68				1.2	3.1	0.7	
SF	LIVE	CUT	1	ALL	15.3	64	81	373	373	0.0	2.5	3.1	0.8	6.8
SF	LIVE	LEA	0	ALL	23.2			373	373	0.0	1.1	3.1	0.6	6.8
WH	LIVE	CUT	22	ALL	15.3	68	86	17,887	17,464	2.4	107.8	137.7	35.2	319.6
WH	LIVE	LEA	24	ALL	17.1	66	82	18,294	17,861	2.4	88.3	140.8	34.1	326.9
ALL	LIVE	LEA	28	ALL	17.5	67	83	18,666	18,234	2.3	95.8	159.6	38.1	333.7
ALL	LIVE	CUT	23	ALL	15.3	68	86	18,260	17,837	2.3	112.3	143.9	36.8	326.4
ALL	ALL	ALL	51	ALL	16.4	68	84	36,926	36,071	2.3	208.1	303.5	74.9	660.1

Cruise Unit Report KICK STAND U4 RMZ

Unit Sale Notice Volume (MBF): KICK STAND U4 RMZ

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	2 Saw	3 Saw	4 Saw
WH	16.4			269	59	188	22
DF	14.6			14		14	
ALL	16.2			282	59	201	22

Unit Cruise Design: KICK STAND U4 RMZ

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	18.9	18.9	19	6	0

Unit Cruise Summary: KICK STAND U4 RMZ

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
RC		2	0.1	0
SF		5	0.3	0
WH	8	103	5.4	0
DF	1	14	0.7	0
ALL	9	124	6.5	0

Unit Cruise Statistics: KICK STAND U4 RMZ

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
RC	4.9	299.5	68.7						
SF	12.4	171.9	39.4						
WH	254.5	25.6	5.9	130.8	7.0	2.5	33,278	26.5	6.4
DF	34.6	126.7	29.1	148.0	0.0	0.0	5,118	126.7	29.1
ALL	306.3	21.3	4.9	132.8	7.8	2.6	40,693	22.7	5.5

Unit Summary: KICK STAND U4 RMZ

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	1	ALL	15.3	68	95	731	731	0.0	3.9	4.9	1.3	13.8

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	LEA	4	ALL	19.8	86	110	4,387	4,387	0.0	13.9	29.6	6.7	82.9
RC	LIVE	LEA	1	ALL	13.3	58	73				5.1	4.9	1.4	
SF	LIVE	CUT	0	ALL	18.6						3.9	7.4	1.7	
SF	LIVE	LEA	2	ALL	26.0	89	113				1.3	4.9	1.0	
WH	LIVE	CUT	8	ALL	15.6	72	90	14,895	14,216	4.6	81.9	108.7	27.5	268.7
WH	LIVE	LEA	16	ALL	18.7	73	90	19,973	19,062	4.6	76.4	145.8	33.7	360.3
ALL	LIVE	CUT	9	ALL	15.7	72	90	15,626	14,947	4.3	89.7	121.1	30.5	282.5
ALL	LIVE	LEA	23	ALL	18.7	74	93	24,359	23,449	3.7	96.7	185.3	42.7	443.2
ALL	ALL	ALL	32	ALL	17.4	73	91	39,985	38,396	4.0	186.4	306.3	73.2	725.7

Cruise Unit Report KICK STAND ROW1

Unit Sale Notice Volume (MBF): KICK STAND ROW1

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	2 Saw	3 Saw	4 Saw
WH	19.3			26	18	7	1
DF	22.8			12	10	1	0
ALL	20.1			38	28	8	1

Unit Cruise Design: KICK STAND ROW1

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	2.6	2.6	3	3	0

Unit Cruise Summary: KICK STAND ROW1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
WH	5	5	1.7	0
DF	2	2	0.7	0
ALL	7	7	2.3	0

Unit Cruise Statistics: KICK STAND ROW1

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 (%)
WH	78.2	91.7	52.9	126.3	24.0	10.7	9,877	94.7	54.0
DF	31.3	86.6	50.0	148.3	11.6	8.2	4,640	87.4	50.7
ALL	109.5	65.5	37.8	132.5	21.0	8.0	14,517	68.8	38.6

Unit Summary: KICK STAND ROW1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	2	ALL	22.8	83	106	4,764	4,640	2.6	11.0	31.3	6.6	12.1
WH	LIVE	CUT	5	ALL	19.3	62	78	9,996	9,877	1.2	38.5	78.2	17.8	25.7
ALL	LIVE	CUT	7	ALL	20.1	67	84	14,760	14,517	1.6	49.5	109.5	24.4	37.7
ALL	ALL	ALL	7	ALL	20.1	67	84	14,760	14,517	1.6	49.5	109.5	24.4	37.7

Cruise Unit Report KICK STAND ROW2

Unit Sale Notice Volume (MBF): KICK STAND ROW2

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
WH	17.7			289	143	127	14	4
DF	16.0			22		22		
RC	15.9			20		19	2	
ALL	17.3			332	143	168	16	4

Unit Cruise Design: KICK STAND ROW2

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	9.9	9.9	3	3	0

Unit Cruise Summary: KICK STAND ROW2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
WH	13	13	4.3	0
DF	1	1	0.3	0
RC	2	2	0.7	0
ALL	16	16	5.3	0

Unit Cruise Statistics: KICK STAND ROW2

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 (%)
WH	203.4	48.0	27.7	143.7	11.0	3.0	29,220	49.3	27.9
DF	15.6	173.2	100.0	144.7	0.0	0.0	2,264	173.2	100.0
RC	31.3	86.6	50.0	65.4	10.0	7.1	2,047	87.2	50.5
ALL	250.3	21.7	12.5	133.9	22.6	5.7	33,531	31.3	13.7

Unit Summary: KICK STAND ROW2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	1	ALL	16.0	77	97	2,264	2,264	0.0	11.2	15.6	3.9	22.4
RC	LIVE	CUT	2	ALL	15.9	57	72	2,047	2,047	0.0	22.7	31.3	7.8	20.3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	CUT	13	ALL	17.7	73	91	29,220	29,220	0.0	119.0	203.4	48.3	289.3
ALL	LIVE	CUT	16	ALL	17.3	71	88	33,531	33,531	0.0	152.9	250.3	60.1	332.0
ALL	ALL	ALL	16	ALL	17.3	71	88	33,531	33,531	0.0	152.9	250.3	60.1	332.0

Cruise Unit Report KICK STAND ROW3

Unit Sale Notice Volume (MBF): KICK STAND ROW3

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	2 Saw	3 Saw	4 Saw
WH	18.8			57	31	22	4
DF	19.3			31	18	12	2
ALL	19.0			88	49	33	6

Unit Cruise Design: KICK STAND ROW3

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	3.1	3.1	5	5	1

Unit Cruise Summary: KICK STAND ROW3

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
WH	14	14	2.8	0
DF	8	8	1.6	0
ALL	22	22	4.4	0

Unit Cruise Statistics: KICK STAND ROW3

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 (%)
WH	131.4	81.4	36.4	138.9	11.0	2.9	18,253	82.2	36.5
DF	75.1	83.9	37.5	132.9	15.1	5.3	9,982	85.2	37.9
ALL	206.5	67.4	30.2	136.7	12.4	2.6	28,234	68.6	30.3

Unit Summary: KICK STAND ROW3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	8	ALL	19.3	75	94	10,344	9,982	3.5	37.0	75.1	17.1	30.9
WH	LIVE	CUT	14	ALL	18.8	73	91	18,302	18,253	0.3	68.2	131.4	30.3	56.6
ALL	LIVE	CUT	22	ALL	19.0	73	92	28,646	28,234	1.4	105.2	206.5	47.4	87.5
ALL	ALL	ALL	22	ALL	19.0	73	92	28,646	28,234	1.4	105.2	206.5	47.4	87.5

Cruise Unit Report KICK STAND ROW4

Unit Sale Notice Volume (MBF): KICK STAND ROW4

Sp	DBH	Rings/In	Age	MBF Volume by Grade		
				All	3 Saw	4 Saw
DF	13.4			3	3	0
WH	13.3			1	1	0
ALL	13.4			4	4	1

Unit Cruise Design: KICK STAND ROW4

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
FX: FR plots (20 tree / acre expansion)	0.4	0.4	2	2	0

Unit Cruise Summary: KICK STAND ROW4

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	3	6	3.0	0
WH	2	3	1.5	0
ALL	5	9	4.5	0

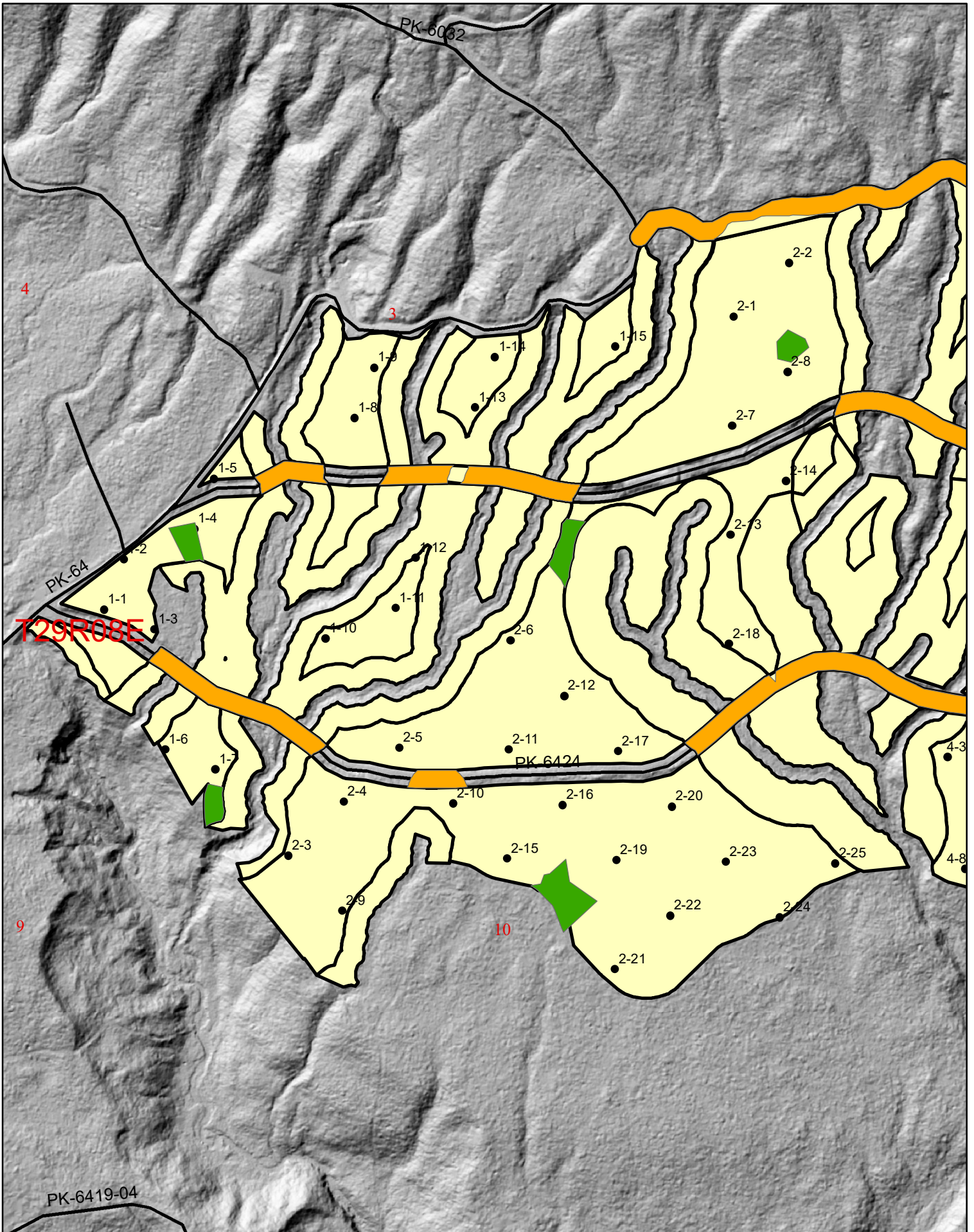
Unit Cruise Statistics: KICK STAND ROW4

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	59.1	39.1	27.7	125.8	12.1	7.0	7,440	41.0	28.5
WH	29.1	37.6	26.6	126.7	10.3	7.3	3,690	39.0	27.6
ALL	88.2	13.8	9.8	126.1	10.0	4.5	11,130	17.1	10.7

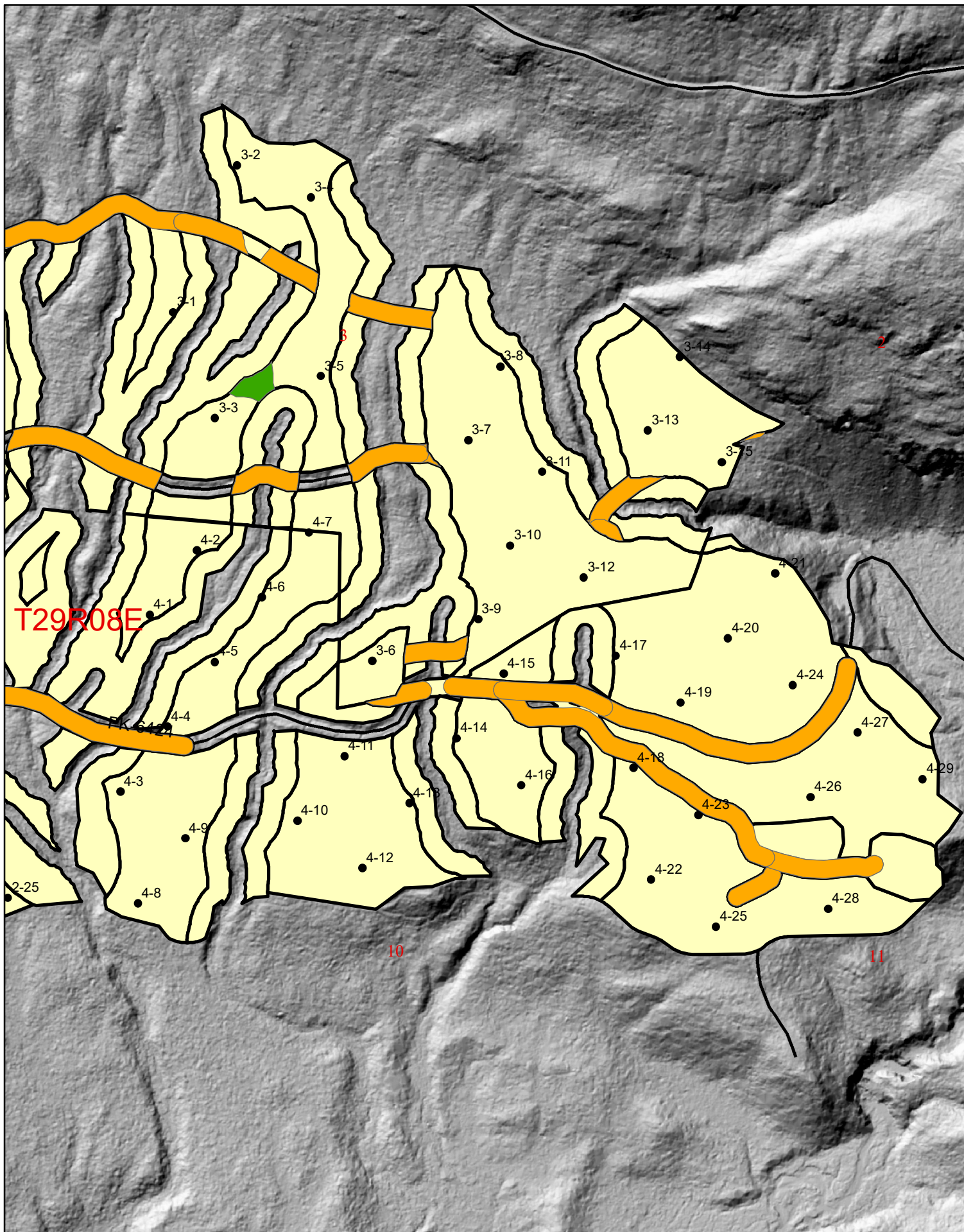
Unit Summary: KICK STAND ROW4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	3	ALL	13.4	67	83	7,440	7,440	0.0	60.4	59.1	16.2	3.0
WH	LIVE	CUT	2	ALL	13.3	68	84	3,690	3,690	0.0	30.2	29.1	8.0	1.5
ALL	LIVE	CUT	5	ALL	13.4	67	84	11,130	11,130	0.0	90.6	88.2	24.1	4.5
ALL	ALL	ALL	5	ALL	13.4	67	84	11,130	11,130	0.0	90.6	88.2	24.1	4.5

Kick Stand Timber Sale



Kick Stand Timber Sale





Forest Practices Application/Notification
Notice of Decision

FPA/N No: 2819216
Effective Date: 1/5/2024
Expiration Date: 1/5/2027
Shut Down Zone: 658
EARR Tax Credit: [X] Eligible [] Non-eligible
Reference: Kickstand

Decision

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

FPA/N Classification

Number of Years Granted on Multi-Year Request

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

Conditions on Approval/Reasons for Disapproval

Timing Limitations on Type S and F water(s):

All work below the ordinary high water line shall only occur between June 16 and September 30.

Condition(s) required for approval/disapproval:

Notify the Department of Natural Resources Forest Practices Forester at least 2 business days before beginning work in Type S or F water(s). Provide the application number and legal description for your activity.

Notify the Department of Natural Resources Forest Practices Forester at least 2 business days before beginning work. Provide the application number and legal description for your activity.

Issued By: Bryant Daugherty Region: Northwest Region

Title: Resource Protection Forester Date: 1/5/2024

Copies to: [] Landowner, Timber Owner, and Operator

Issued in person: [X] LO [X] TO [X] OP By: CS [Signature] Date: 1/5/2024

Appeal Information

You have thirty (30) days to **file** (i.e., **actually deliver**) an appeal in writing of this Decision and any related State Environmental Policy Act (SEPA) determinations to the Pollution Control Hearings Board, the Attorney General’s Office, and the Department of Natural Resources’ region office. See [RCW 76.09.205](http://www.wa.gov/RCW76.09.205). The appeal period starts when the applicant receives this decision, which usually happens electronically on the date indicated below.

You must file your appeal at all three addresses below:

Pollution Control Hearings Board	Office of the Attorney General Natural Resources Division	Department Of Natural Resources Northwest Region
<u>Physical Address</u> 1111 Israel Road SW Suite 301 Tumwater, WA 98501 <u>Mailing address</u> Post Office Box 40903 Olympia, WA 98504-0903	<u>Physical Address</u> 1125 Washington Street, SE Olympia, WA 98504 <u>Mailing Address</u> Post Office Box 40100 Olympia, WA 98504-0100	<u>Physical Address</u> 919 North Township Street Sedro-Woolley, WA 98284 <u>Mailing Address</u> 919 North Township Street Sedro-Woolley, WA 98284

Information regarding the Pollution Control Hearings Board can be found at: <https://eluhwa.gov/>

Other Applicable Laws

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

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

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

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

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

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

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

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

DNR Declaration of Mailing

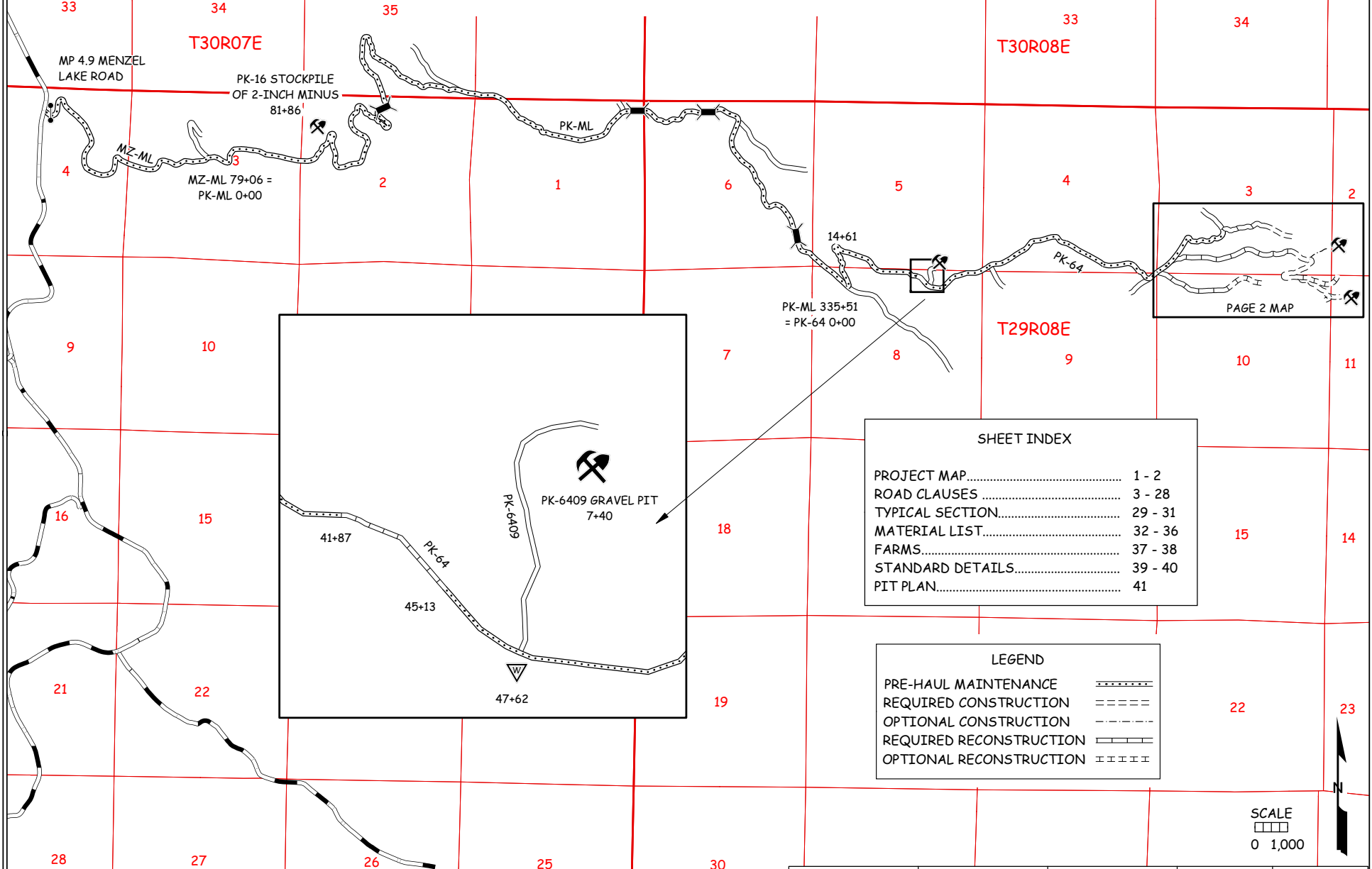
I Choose an item., caused the Notice of Decision for FPA/N No. _____ To be placed in the United States mail at **Sedro-Woolley, WA**; postage paid. I declare under penalty of perjury of the laws of the State of Washington, that the foregoing is true and correct.

	Sedro-Woolley, WA	
(Date)	(City & State where signed)	(Signature)



WASHINGTON STATE
DEPT. OF NATURAL RESOURCES
NORTHWEST REGION

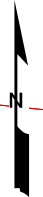
ROAD PLAN AND SPECIFICATIONS #30-104449 KICKSTAND TIMBER SALE



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LEGEND	
PRE-HAUL MAINTENANCE	=====
REQUIRED CONSTRUCTION	-----
OPTIONAL CONSTRUCTION	- - - - -
REQUIRED RECONSTRUCTION	=====
OPTIONAL RECONSTRUCTION	-----

SCALE
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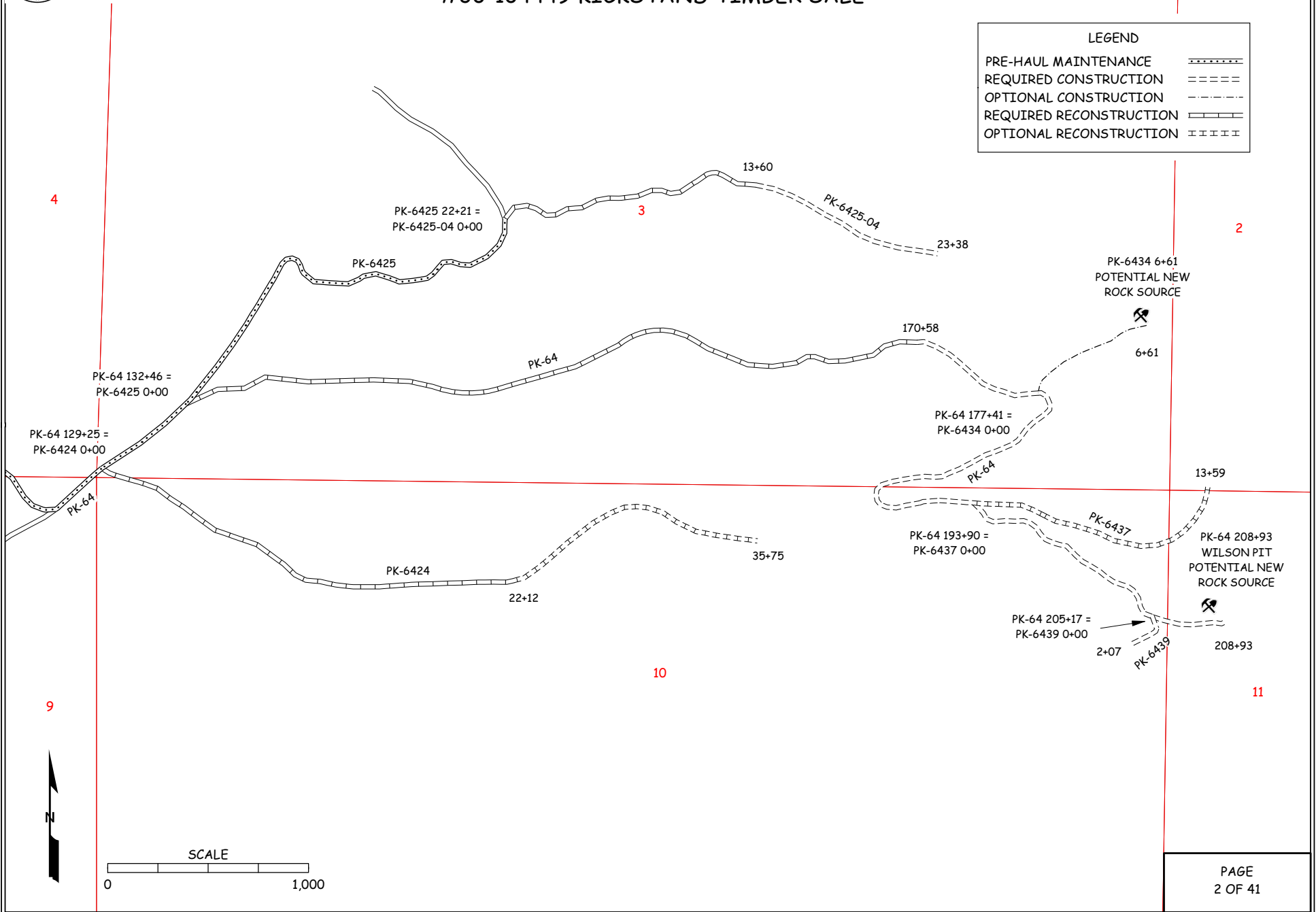


DESIGNED BY	REVIEWED BY	APPROVED BY	PLAN DATE	SHEET
J. WESTRA	ZYLSTRA 9/5/2023	ZYLSTRA 9/5/2023	7/24/2023	1 OF 41



ROAD PLAN AND SPECIFICATIONS #30-104449 KICKSTAND TIMBER SALE

LEGEND	
PRE-HAUL MAINTENANCE	-----
REQUIRED CONSTRUCTION	-----
OPTIONAL CONSTRUCTION	-----
REQUIRED RECONSTRUCTION	-----
OPTIONAL RECONSTRUCTION	-----



STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

KICKSTAND TIMBER SALE ROAD PLAN
SNOHOMISH COUNTY
CASCADE DISTRICT
NORTHWEST REGION

AGREEMENT NO.: 30-104449

STAFF ENGINEER: J. WESTRA

DATE: JULY 24, 2023

SECTION 0 – SCOPE OF PROJECT

0-1 ROAD PLAN SCOPE

Clauses in this road plan apply to all road related work, including landings and rock source development, unless otherwise noted.

0-2 REQUIRED ROADS

The specified work on the following roads is required.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
MZ-ML	0+00 to 79+06	PREHAUL MAINTENANCE
PK-ML	0+00 to 335+51	PREHAUL MAINTENANCE
PK-64	0+00 to 41+87 45+13 to 132+46	PREHAUL MAINTENANCE
PK-64	41+87 to 45+13 132+46 to 170+58	RECONSTRUCTION
PK-64	170+58 to 208+93	CONSTRUCTION
PK-6424	0+00 to 22+12	RECONSTRUCTION
PK-6425	0+00 to 22+21	PREHAUL MAINTENANCE
PK-6425-04	0+00 to 13+60	RECONSTRUCTION
PK-6425-04	13+60 to 23+38	CONSTRUCTION
PK-6439	0+00 to 2+07	CONSTRUCTION

0-3 OPTIONAL ROADS

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

<u>Road</u>	<u>Stations</u>	<u>Type</u>
PK-6424	22+12 to 35+75	RECONSTRUCTION
PK-6434	0+00 to 6+61	CONSTRUCTION
PK-6437	0+00 to 13+59	RECONSTRUCTION

0-4 CONSTRUCTION

Construction may include, but is not limited to clearing, grubbing, excavation and embankment to subgrade, full bench end haul, landing and turnout construction, culvert installation and application of 3-inch-minus ballast.

0-5 RECONSTRUCTION

Reconstruction includes, but is not limited to clearing, grubbing, excavation and embankment to subgrade, landing and turnout construction, culvert installation and application of 3-inch-minus ballast.

Additional reconstruction requirements are listed below:

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
PK-64	41+87 to 45+13	Move centerline 8 feet into cutslope, endhaul waste. Reconstruct ditch and surface with six inches of 2-inch minus crushed rock.

0-6 PRE-HAUL MAINTENANCE

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
MZ-ML	0+00 to 79+06	Grade, Spot Rock as Directed by CA
PK-ML	0+00 to 335+51	Grade, Spot Rock as Directed by CA
PK-64	0+00 to 14+61	Grade, 3" Rock Lift
PK-64	14+61 to 41+87 45+13 to 132+46	Grade, Spot Rock as Directed by CA
PK-6425	0+00 to 22+21	Grade

0-7 POST-HAUL MAINTENANCE

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

0-10 ABANDONMENT

This project includes abandonment listed in Clause 9-21 ROAD ABANDONMENT.

0-12 DEVELOP ROCK SOURCE

Purchaser may develop new rock sources. Rock source development will involve clearing, stripping, drilling, shooting and processing rock. Work for developing rock sources is listed in Section 6 ROCK AND SURFACING.

SECTION 1 – GENERAL

1-1 ROAD PLAN CHANGES

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

1-2 UNFORESEEN CONDITIONS

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

1-3 ROAD DIMENSIONS

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

1-4 ROAD TOLERANCES

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

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

1-6 ORDER OF PRECEDENCE

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

1. Addenda.
2. Road Plan Clauses.
3. Typical Section Sheet.
4. Standard Lists.
5. Standard Details.

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.

1-15 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

1-18 REFERENCE POINT DAMAGE

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

1-21 HAUL APPROVAL

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

1-22 WORK NOTIFICATIONS

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

1-23 ROAD WORK PHASE APPROVAL

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

- 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.

<u>Road</u>	<u>Activity</u>	<u>Closure Period</u>
ALL ROADS	ALL ACTIVITIES	November 1 to March 31
*PK-6424	*ALL ACTIVITIES	*October 1 to June 15

*Fish window for temporary culverts, not waivable.

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.

Purchaser’s maintenance plan must include a total volume of rock that will be provided at the Purchaser’s expense in addition to what is specified in this road plan. This rock shall be available before permission is granted to operate during the closure period and will be used as necessary along the haul route. The Contract Administrator may direct the Purchaser where to apply this maintenance rock.

Rock from stockpiles may not be used for out of season maintenance.

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 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 Contract Administrator upon request. If damage occurs while plowing, further permission to plow may be revoked by the Contract Administrator.

1-40 ROAD APPROACHES TO COUNTY ROADS AND STATE HIGHWAYS

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

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

SECTION 2 – MAINTENANCE

2-1 GENERAL ROAD MAINTENANCE

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

2-2 ROAD MAINTENANCE – PURCHASER MAINTENANCE

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

2-3 ROAD MAINTENANCE – DESIGNATED MAINTAINER

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

2-4 PASSAGE OF LIGHT VEHICLES

Purchaser shall maintain all roads in a condition that will allow the passage of light administrative vehicles.

2-5 MAINTENANCE GRADING – EXISTING ROAD

On prehaul maintenance roads, Purchaser shall use a grader to shape the existing surface before timber haul.

SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL

3-5 CLEARING

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

3-8 PROHIBITED DECKING AREAS

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

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

3-10 GRUBBING

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

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.

3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS

Waste areas for organic debris are located as listed below.

<u>Road</u>	<u>Disposal Location</u>	<u>Requirements</u>
PK-64	47+62	Endhaul debris from reconstruction of PK-64

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 50%.
- 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 clearing limits in natural openings unless otherwise detailed in this road plan.

3-32 END HAULING ORGANIC DEBRIS

On the following road, Purchaser shall end haul or push organic debris to the designated waste areas specified in Clause 3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS.

<u>Road</u>	<u>Stations</u>
PK-64	41+87 to 45+13

SECTION 4 – EXCAVATION

4-2 PIONEERING

Pioneering may not extend past construction that will be completed during the current construction season. Pioneering may not extend more than 500 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.

On the following roads, Purchaser may extend pioneering subgrade to access rock sources with rock pit development equipment and off-highway dump trucks with written approval from the Contract Administrator. Purchaser shall protect water quality at stream crossings by installing culverts with rock lifts or log cribbing and geofabric. Failure to protect culverts and/or water quality will result in revocation of this pioneering length waiver. Purchaser shall ensure that all pioneering is complete and roads are rocked within one construction season.

<u>Road</u>	<u>Stations</u>
PK-64	132+46 to 208+93
PK-6434	0+00 to 6+61

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>Material Type</u>	<u>Excavation Slope Ratio</u>	<u>Excavation Slope Percent</u>
Common Earth (on side slopes up to 55%)	1:1	100
Common Earth (on side slopes 56-70%)	¾:1	150
Fractured or loose rock	½:1	200
Hardpan or solid rock	¼:1	400

4-6 EMBANKMENT SLOPE RATIO

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

<u>Material Type</u>	<u>Embankment Slope Ratio</u>	<u>Embankment Slope Percent</u>
Sandy Soils	2:1	50
Common Earth and Rounded Gravel	1½:1	67
Angular Rock	1¼:1	80

4-7 SHAPING CUT AND FILL SLOPE

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

4-8 CURVE WIDENING

The minimum widening placed on the inside of curves is:

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

4-9 EMBANKMENT WIDENING

The minimum embankment widening is:

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

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

4-12 FULL BENCH CONSTRUCTION

On the following road, and 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.

<u>Road</u>	<u>Full Bench Location</u>	<u>Comments</u>
PK-64	41+87 to 45+13	Move road centerline 8 feet into cutslope.

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 30 feet long and 30 feet wide. Locations are subject to written approval by the Contract Administrator.

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.

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 55% if the waste material is compacted and free of organic debris. On side slopes greater than 55%, all waste material must be end hauled or pushed to the designated embankment sites identified by the Contract administrator.

4-37 WASTE AREA LOCATION

Purchaser shall deposit waste material in the listed designated areas. Additional waste areas may also be identified or approved by the Contract Administrator. The amount of material allowed in a waste area is at the discretion of the Contract Administrator.

<u>Road</u>	<u>Waste Area Location</u>
PK-64	47+62

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.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- Against standing timber.
- Outside the clearing limits.

4-55 ROAD SHAPING

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

4-60 FILL COMPACTION

Purchaser shall compact all embankment and waste material by routing equipment over the entire width of each lift.

4-61 SUBGRADE COMPACTION

Purchaser shall compact constructed and reconstructed subgrades by routing equipment over the entire width.

SECTION 5 – DRAINAGE

5-5 CULVERTS

Purchaser shall install culverts as part of this contract. Culverts must be installed concurrently with subgrade work and must be installed before subgrade compaction and rock application. Culvert locations and the minimum requirements for culvert length and diameter are designated on 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.

5-8 TEMPORARY STREAM CULVERT INSTALLATION

Purchaser shall install temporary culverts as listed in the MATERIALS LIST. Temporary stream culverts must be located in the natural channel of the stream. Temporary culverts must be removed as indicated in Clause 1-25 ACTIVITY TIMING RESTRICTION. Geotextile fabric must meet the specifications in Clause 10-2 GEOTEXTILE FOR SEPARATION.

<u>Road</u>	<u>Stations</u>	<u>Notes:</u>
PK-6424	25+56	Lay culvert on geotextile fabric and backfill with clean fill. Remove all fill and fabric with culvert removal.
	29+30	
	30+44	Place 2 trees with rootwad from clearing limits in each stream upon final removal.

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.

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

5-15 CULVERT INSTALLATION

Culvert installation must be in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL and 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".

5-16 APPROVAL FOR LARGER CULVERT INSTALLATION

Purchaser shall obtain written approval from the Contract Administrator for the installation of culverts 36 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 1 foot of compacted subgrade over the top of the culvert at the shallowest point. Stream crossing culverts must be installed with a depth of cover recommended by the culvert manufacturer for the type and size of the pipe.

5-20 ENERGY DISSIPATERS

Purchaser shall install energy dissipaters in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL. 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.

5-25 CATCH BASINS

Purchaser shall construct catch basins in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL. Minimum dimensions of catch basins are 2 feet wide and 4 feet long.

5-26 HEADWALLS FOR CROSS DRAIN CULVERTS

Purchaser shall construct headwalls in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts. Rock used for headwalls must weigh at least 50 pounds. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets. 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

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>
PK-6409*	7+40 of the PK-6409	Pitrun Gravel
PK-6434**	6+61 of the PK-6434	3-Inch Minus Ballast, Riprap
Wilson Pit**	208+93 of the PK-64	3-Inch Minus Ballast, Riprap

* Pitrun gravel may only be used as a 6-inch deep ballast base for pioneering to new rock sources.

**The PK-6434 and Wilson Pit are proposed new rock pits.

6-3 ROCK SOURCE STATE LAND, EXISTING STOCKPILE

Rock used in accordance with the quantities on the TYPICAL SECTION and MATERIALS LIST may be obtained from the following existing stockpile on state land at no charge to the Purchaser. Purchaser shall not remove additional yardage without prior written approval from the Contract Administrator.

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>	<u>Quantity</u>
PK-16	84+86 of the PK-ML	2-Inch Minus Crushed Rock	450

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.

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 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 business days before starting any operations in the rock source.

<u>Source</u>	<u>Rock Type</u>	<u>Comment</u>
Wilson Pit	3-Inch Minus Ballast, Riprap	Purchaser is required to strip pit even if it is not utilized as a rock source with this contract.

6-11 ROCK SOURCE DEVELOPMENT PLAN BY PURCHASER

Purchaser shall conduct rock source development and use at the following sources, in accordance with a written ROCK SOURCE DEVELOPMENT PLAN to be prepared by the Purchaser. The plan is subject to written approval by the Contract Administrator before any rock source operations. Upon completion of operations, the rock source must be left in the condition specified in the ROCK SOURCE DEVELOPMENT PLAN, and approved in writing by the Contract Administrator.

<u>Source</u>	<u>Rock Type</u>
PK-6409	Pitrun Gravel
PK-6434	3-Inch Minus Ballast, Riprap

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

- Rock source location.
- Rock source overview showing access roads, development areas, stockpile locations, waste areas, and floor drainage.
- Rock source profiles showing development areas, bench locations including widths, and wall faces including heights.
- Rock source reclamation plan describing how the area will be left in a condition that will ensure public safety and minimize environmental impacts.

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.

6-14 DRILL AND SHOOT

Rock drilling and shooting must meet the following specifications:

- Oversize material remaining in the rock source at the conclusion of the timber sale may not exceed 5% of the total volume mined in that source.
- Oversize material is defined as rock fragments too large to be converted by the Purchaser to a size that will meet specifications used for the roads in this sale.
- All operations must be carried out in compliance with the Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations (30 CFR) U.S. Department of Labor, Mine Safety and Health Administration and the Safety Standards for Construction Work (296-155 WAC), Washington Department of Labor and Industries.
- Purchaser shall block access roads before blasting operations.

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

6-30 2-INCH MINUS CRUSHED ROCK

- % Passing 2" square sieve 100%
- % Passing 1" square sieve 55 - 75%
- % Passing U.S. #4 sieve 20 - 45%

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

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

6-34 3-INCH MINUS BALLAST ROCK

Ballast rock must be 100% equal to, or smaller than, 3 inches in at least one dimension.

Rock may contain no more than 5 percent organic debris, dirt, and trash.

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

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")

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.

6-70 APPROVAL BEFORE ROCK APPLICATION

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

6-73 ROCK FOR WIDENED PORTIONS

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

6-75 OPTIONAL ROCK EXCEPTION

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

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

<u>Road</u>	<u>Stations</u>
PK-6424	0+00 to 35+75
PK-6437	0+00 to 13+59
PK-6439	0+00 to 2+07
PK-6425-04	0+00 to 23+38

SECTION 8 – EROSION CONTROL

8-2 PROTECTION FOR EXPOSED SOIL

Purchaser shall provide and evenly spread a 3-inch layer of straw to all exposed soils at culvert installations. Soils must be covered before the first anticipated storm event. Soils may not sit exposed during any rain event.

8-15 REVEGETATION

Purchaser shall spread seed and fertilizer on all exposed soils within the grubbing limits resulting from road work activities. Cover all exposed soils using manual dispersal of grass seed and fertilizer. Other methods of covering must be approved in writing by the Contract Administrator.

8-16 REVEGETATION SUPPLY

The Purchaser shall provide the seed and fertilizer.

8-17 REVEGETATION TIMING

Purchaser shall revegetate during the first available opportunity after road work is completed. Soils may not be allowed to sit exposed for longer than one month without receiving revegetation treatment unless otherwise approved in writing by the Contract Administrator.

8-18 PROTECTION FOR SEED

Purchaser shall provide a protective cover for seed if revegetation occurs between July 1 and March 31. The protective cover may consist of dispersed straw, jute matting, or clear plastic sheets. The protective cover requirement may be waived in writing by the Contract Administrator if Purchaser is able to demonstrate a revegetation plan that will result in the establishment of a uniform dense crop (at least 50% coverage) of 3-inch tall grass by October 31.

8-19 ASSURANCE FOR SEEDED AREA

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

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.

<u>Kind and Variety of Seed in Mixture</u>	<u>% by Weight</u>
Creeping Red Fescue	50
Elf Perennial Rye Grass	25
Highland Colonial Bentgrass	15
White Clover	10
Inert and Other Crop	0.5

8-27 FERTILIZER

Purchaser shall evenly spread the fertilizer listed below on all exposed soil inside the grubbing limits at a rate of 200 pounds per acre of exposed soil. Fertilizer must meet the following specifications:

<u>Chemical Component</u>	<u>% by Weight</u>
Nitrogen	16
Phosphorous	16
Potassium	16
Sulphur	3
Inerts	49

SECTION 9 – POST-HAUL ROAD WORK

9-5 POST-HAUL MAINTENANCE

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

9-10 LANDING DRAINAGE

Purchaser shall provide for drainage of the landing surface.

9-11 LANDING EMBANKMENT

Purchaser shall slope landing embankments to the original construction specifications.

9-21 ROAD ABANDONMENT

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

<u>Road</u>	<u>Stations</u>
PK-6424	22+12 to 35+75

9-22 ABANDONMENT

- Remove all ditch relief culverts. The resulting slopes must be 1:1 or flatter. Place and compact the removed fill material in a location that will not erode into any Type 1 through 5 waters or wetlands.
- Remove all culverts in natural drainages. The resulting slopes must be 1.5:1 or flatter. Strive to match the existing native stream bank gradient. The natural streambed width must be re-established. Place and compact the removed fill material in a location that will not erode into any Type 1 through 5 waters or wetlands.
- Transport all removed culverts off site. All removed culverts are the property of the Purchaser.
- Construct non-drivable waterbars at natural drainage points and at a spacing that will produce a vertical drop of no more than 20 feet between waterbars and with a maximum horizontal spacing of 400 feet.
- Skew waterbars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3 percent grade.
- Key waterbars into the cut-slope to intercept the ditch. Waterbars must be outsloped to provide positive drainage. Outlets must be on stable locations.
- Inslope or outslope the road as appropriate.
- Remove bridges and other structures.
- Pull back unstable fill that has potential of failing and entering any Type 1 through 5 waters or wetlands. Place and compact removed material in a stable location.
- Remove berms except as designed.
- Block the road by constructing an aggressive barrier of dense interlocked large woody debris (logs, stumps, root wads, etc.) so that four wheel highway vehicles cannot pass the point of abandonment. Typical barrier dimensions are 10 feet high by 20 feet deep, spanning the entire road prism from top of cutslope to toe of fillslope. Long term effectiveness is the primary objective. If necessary construct a vehicular turn-around near the point of abandonment.
- Apply grass seed to all exposed soils resulting from the abandonment work and in accordance with Section 8 EROSION CONTROL.

SECTION 10 MATERIALS

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.

	<u>ASTM Test</u>	<u>Requirements</u>
Type	--	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

10-15 CORRUGATED STEEL CULVERT

Metallic coated steel culverts must meet AASHTO M-36 (ASTM A-760) specifications. Culverts must be galvanized (zinc coated meeting AASHTO M-218).

10-17 CORRUGATED PLASTIC CULVERT

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

10-21 METAL BAND

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

10-22 PLASTIC BAND

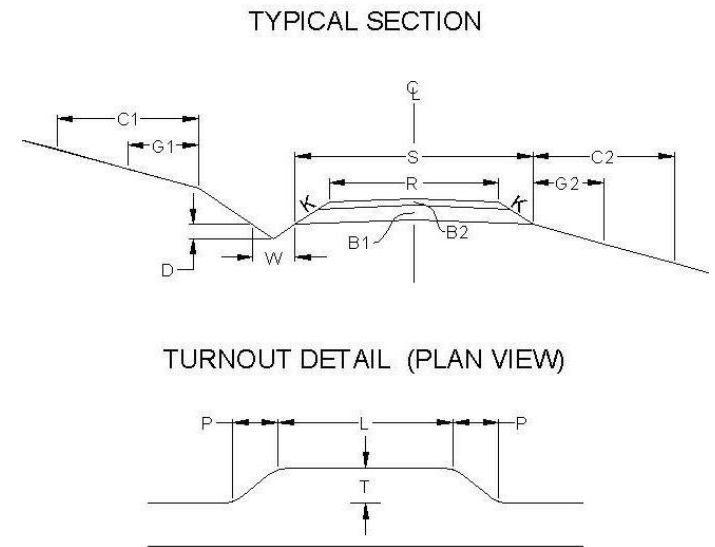
Plastic coupling and end bands must meet the AASHTO specification designated for the culvert. Only fittings supplied or recommended by the culvert manufacturer may be used.

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

ROAD #		MZ-ML	PK-ML	PK-64	PK-64
REQUIRED / OPTIONAL		REQUIRED	REQUIRED	REQUIRED	REQUIRED
CONSTRUCT / RECONSTRUCT		PREHAUL	PREHAUL	PREHAUL	PREHAUL
TOLERANCE CLASS (A/B/C)		C	C	C	C
STATION / MP TO		0+00	0+00	0+00	14+61
STATION / MP		79+06	335+51	14+61	41+87
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	--	--	--	--
TURNOUT WIDTH	T	--	--	--	--
TURNOUT TAPER	P	--	--	--	--
GRUBBING	G1	--	--	--	--
	G2	--	--	--	--
CLEARING	C1	--	--	--	--
	C2	--	--	--	--
ROCK FILLSLOPE	K:1	--	--	--	--
❖ BALLAST DEPTH	B1	--	--	--	--
CUBIC YARDS / STATION		--	--	--	--
➤ TOTAL CY BALLAST		--	--	--	--
❖ SURFACING DEPTH	B2	--	--	3	--
CUBIC YARDS / STATION		--	--	17	--
➤ TOTAL CY SURFACING		60 ^A	100 ^A	250	10 ^A
➤ TOTAL CUBIC YARDS		60 ^A	100 ^A	250 ^A	10 ^A
SUBGRADE WIDTH	S	12	12	12.5	12
BRUSHCUT (Y/N)		N	N	N	N
BLADE, SHAPE, & DITCH (Y/N)		Y	Y	Y	Y



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.

Rock Totals Summary

Type	Quantity (Cubic Yards)
A: 2-Inch Minus Surfacing	560
B: 3-Inch Minus Ballast	11,355
Shotrock Approx	70
Rip Rap	650

ROAD #		PK-64	PK-64	PK-64	PK-64	PK-6424	PK-6424	PK-6425
REQUIRED / OPTIONAL		REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	OPTIONAL	REQUIRED
CONSTRUCT / RECONSTRUCT		RECONSTRUCT	PREHAUL	RECONSTRUCT	CONSTRUCT	RECONSTRUCT	RECONSTRUCT	PREHAUL
TOLERANCE CLASS (A/B/C)		C	C	C	C	C	C	C
STATION / MP TO		41+87	45+13	132+46	170+58	0+00	22+12	0+00
STATION / MP		45+13	132+46	170+58	208+93	22+12	35+75	22+21
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	2	3
DITCH DEPTH	D	1	1	1	1	1	1	1
TURNOUT LENGTH	L	--	--	50	50	50	--	--
TURNOUT WIDTH	T	--	--	10	10	10	--	--
TURNOUT TAPER	P	--	--	25	25	25	--	--
GRUBBING	G1	5	--	5	5	5	5	--
	G2	5	--	5	5	5	5	--
CLEARING	C1	10	--	10	10	10	10	--
	C2	10	--	10	10	10	10	--
ROCK FILLSLOPE	K:1	1 ½ : 1	--	1 ½ : 1	1 ½ : 1	1 ½ : 1	1 ½ : 1	--
❖ BALLAST DEPTH	B1	--	--	12	18	6	6	--
CUBIC YARDS / STATION		--	--	72	114	34	34	--
➤ TOTAL CY BALLAST		--	--	2,745	4,370	750	465	--
❖ SURFACING DEPTH	B2	6	--	--	--	--	--	--
CUBIC YARDS / STATION		34	--	--	--	--	--	--
➤ TOTAL CY SURFACING		110	30 ^A	--	--	--	--	--
➤ TOTAL CUBIC YARDS		110 ^A	30 ^A	2,745 ^B	4,370 ^B	750 ^B	465 ^B	--
SUBGRADE WIDTH	S	12.5	12	14.5	16.5	13	13	12
BRUSHCUT (Y/N)		N	N	N	N	N	N	N
BLADE, SHAPE, & DITCH (Y/N)		N	Y	N	N	N	N	Y

ROAD #		PK-6425-04	PK-6425-04	PK-6434	PK-6437	PK-6439			
REQUIRED / OPTIONAL		REQUIRED	REQUIRED	OPTIONAL	OPTIONAL	REQUIRED			
CONSTRUCT / RECONSTRUCT		RECONSTRUCT	CONSTRUCT	CONSTRUCT	RECONSTRUCT	CONSTRUCT			
TOLERANCE CLASS (A/B/C)		C	C	C	C	C			
STATION / MP TO		0+00	13+60	0+00	0+00	0+00			
STATION / MP		13+60	23+38	6+61	13+59	2+07			
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	50	50	--	50	--			
TURNOUT WIDTH	T	10	10	--	10	--			
TURNOUT TAPER	P	25	25	--	25	--			
GRUBBING	G1	5	5	5	5	5			
	G2	5	5	5	5	5			
CLEARING	C1	10	10	10	10	10			
	C2	10	10	10	10	10			
ROCK FILLSLOPE	K:1	1 ½ : 1	1 ½ : 1	1 ½ : 1	1 ½ : 1	1 ½ : 1			
❖ BALLAST DEPTH	B1	6	18	18	6	18			
CUBIC YARDS / STATION		34	114	114	34	114			
➤ TOTAL CY BALLAST		460	1,115	755	460	235			
❖ SURFACING DEPTH	B2	--	--	--	--	--			
CUBIC YARDS / STATION		--	--	--	--	--			
➤ TOTAL CY SURFACING		--	--	--	--	--			
➤ TOTAL CUBIC YARDS		460 ^B	1,115 ^B	755 ^B	460 ^B	235 ^B			
SUBGRADE WIDTH	S	13	16.5	16.5	13	16.5			
BRUSHCUT (Y/N)		N	N	N	N	N			
BLADE, SHAPE, & DITCH (Y/N)		N	N	N	N	N			

MATERIALS LIST

LOCATION		CULVERT			DWNST		RIPRAP			FILL TYPE	TOLERANCE	REMARKS	
ROAD #	STATION	DIAMETER	LENGTH	TYPE	LENGTH	TYPE	INLET	OUTLET	TYPE				Note: Galvanized metal culverts shall conform to the following specifications for gage and corrugation as a function of the diameter:
PK-64	133+94	18	30	--	--	PD	2	3	L	NT	C		
PK-64	136+94	72	30	--	--	GM	10	10	L/H	NT	C	TYPE 4 STREAM	
PK-64	137+87	18	30	--	--	PD	2	3	L	NT	C		
PK-64	138+94	18	30	--	--	PD	2	3	L	NT	C		
PK-64	141+22	48	30	--	--	GM	3	5	L/H	NT	C	TYPE 4 STREAM	
PK-64	142+14	18	30	--	--	PD	2	3	L	NT	C		
PK-64	143+89	30	30	--	--	XX	2	3	L/H	NT	C	TYPE 4 STREAM	
PK-64	144+38	18	30	--	--	PD	2	3	L	NT	C		
PK-64	145+48	60	40	--	--	GM	10	10	L/H	NT	C	TYPE 4 STREAM	
PK-64	146+00	18	30	--	--	PD	2	3	L	NT	C		
PK-64	148+34	24	30	--	--	PD	2	3	L	NT	C	TYPE 5 STREAM	
PK-64	148+88	18	30	--	--	PD	2	3	L	NT	C		
PK-64	151+15	24	30	--	--	PD	2	3	L	NT	C	TYPE 5 STREAM	
PK-64	151+57	18	30	--	--	PD	2	3	L	NT	C		
PK-64	152+29	18	30	--	--	PD	2	3	L	NT	C		
PK-64	154+81	18	30	--	--	PD	2	3	L	NT	C		
PK-64	157+10	48	30	--	--	GM	3	5	L/H	NT	C	TYPE 4 STREAM. 5 YDS SHOTROCK FOR BEDDING	
PK-64	158+04	60	40	--	--	GM	10	10	L/H	SR	C	TYPE 4 STREAM. DIPPED SHOTROCK FILL.	
PK-64	159+48	18	30	--	--	PD	2	3	L	NT	C		
PK-64	160+32	48	40	--	--	GM	3	5	L/H	NT	C	TYPE 4 STREAM	
PK-64	161+27	18	30	--	--	PD	2	3	L	NT	C		

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

MATERIALS LIST

LOCATION		CULVERT			DWNST		RIPRAP			FILL TYPE	TOLERANCE	REMARKS	
ROAD #	STATION	DIAMETER	LENGTH	TYPE	LENGTH	TYPE	INLET	OUTLET	TYPE				Note: Galvanized metal culverts shall conform to the following specifications for gage and corrugation as a function of the diameter:
													Diameter
PK-64	162+73	18	30	--	--	PD	2	3	L	NT	C		
PK-64	165+09	24	30	--	--	PD	2	3	L	NT	C	TYPE 4 STREAM	
PK-64	165+62	18	30	--	--	PD	2	3	L	NT	C		
PK-64	167+24	18	30	--	--	PD	2	3	L	NT	C		
PK-64	169+14	24	30	--	--	PD	2	3	L	NT	C	TYPE 4 STREAM	
PK-64	169+94	24	30	--	--	PD	2	3	L	NT	C	TYPE 4 STREAM	
PK-64	170+84	24	30	--	--	PD	2	3	L	NT	C	TYPE 5 STREAM	
PK-64	172+35	18	30	--	--	PD	2	3	L	NT	C		
PK-64	175+62	18	30	--	--	PD	2	3	L	NT	C		
PK-64	177+02	18	30	--	--	PD	2	3	L	NT	C		
PK-64	179+65	18	30	--	--	PD	2	3	L	NT	C		
PK-64	181+93	18	30	--	--	PD	2	3	L	NT	C	TRENCH OUTLET ACROSS OLD GRADE	
PK-64	183+49	18	30	--	--	PD	2	3	L	NT	C		
PK-64	184+03	24	30	--	--	PD	2	3	L	NT	C		
PK-64	185+25	18	30	--	--	PD	2	3	L	NT	C		
PK-64	185+77	30	36	--	--	XX	3	5	L/H	NT	C	TYPE 4 STREAM	
PK-64	190+87	18	30	--	--	PD	2	3	L	NT	C	DO NOT DIRECT WATER DOWN OLD GRADE	
PK-64	191+45	30	30	--	--	XX	3	5	L/H	NT	C	TYPE 4 STREAM	
PK-64	192+50	18	30	--	--	PD	2	3	L	NT	C	COLLECT WATER COMING DOWN OLD GRADE	
PK-64	193+88	18	40	--	--	PD	2	3	L	NT	C		
PK-64	196+39	18	30	--	--	PD	2	3	L	NT	C		

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MATERIALS LIST

LOCATION		CULVERT			DWNST		RIPRAP			FILL TYPE	TOLERANCE	REMARKS	
ROAD #	STATION	DIAMETER	LENGTH	TYPE	LENGTH	TYPE	INLET	OUTLET	TYPE				Note: Galvanized metal culverts shall conform to the following specifications for gage and corrugation as a function of the diameter:
													Diameter 18" 24" – 48" 54" – 96"
PK-64	197+08	24	40	--	--	PD	2	3	L	NT	C	TYPE 4 STREAM	
PK-64	199+86	18	30	--	--	PD	2	3	L	NT	C		
PK-64	203+63	18	30	--	--	PD	2	3	L	NT	C		
PK-64	206+57	18	30	--	--	PD	2	3	L	NT	C		
PK-64	208+19	18	30	--	--	PD	2	3	L	NT	C		
PK-6424	0+25	18	30	--	--	PD	2	3	L	NT	C		
PK-6424	1+45	18	30	--	--	PD	2	3	L	NT	C		
PK-6424	3+80	18	30	--	--	PD	2	3	L	NT	C		
PK-6424	4+38	18	30	--	--	PD	2	3	L	NT	C		
PK-6424	5+07	24	30	--	--	PD	2	3	L	NT	C	TYPE 4 STREAM	
PK-6424	7+03	18	30	--	--	PD	2	3	L	NT	C		
PK-6424	7+95	72	40	--	--	GM	10	15	L/H	SR	C	TYPE 4 STREAM. DIPPED SHOTROCK FILL.	
PK-6424	9+41	48	40	--	--	GM	5	8	L/H	NT	C	TYPE 4 STREAM	
PK-6424	10+01	18	30	--	--	PD	2	3	L	NT	C		
PK-6424	11+53	18	30	--	--	PD	2	3	L	NT	C		
PK-6424	14+72	24	30	--	--	PD	2	3	L	NT	C	TYPE 5 STREAM	
PK-6424	15+30	18	30	--	--	PD	2	3	L	NT	C		
PK-6424	17+52	18	30	--	--	PD	2	3	L	NT	C		
PK-6424	19+66	18	30	--	--	PD	2	3	L	NT	C		
PK-6424	24+84	18	30	--	--	PD	2	3	L	NT	C		

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MATERIALS LIST

LOCATION		CULVERT			DWNSPT	RIPRAP			FILL TYPE	TOLERANCE	REMARKS											
ROAD #	STATION	DIAMETER	LENGTH	TYPE	LENGTH	TYPE	INLET	OUTLET			TYPE	<p><u>Note:</u> Galvanized metal culverts shall conform to the following specifications for gage and corrugation as a function of the diameter:</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Diameter</u></td> <td style="text-align: center;"><u>Gage</u></td> <td style="text-align: center;"><u>Corrugation</u></td> </tr> <tr> <td style="text-align: center;">18"</td> <td style="text-align: center;">16</td> <td style="text-align: center;">2 2/3" x 1/2"</td> </tr> <tr> <td style="text-align: center;">24" – 48"</td> <td style="text-align: center;">14</td> <td style="text-align: center;">2 2/3" x 1/2"</td> </tr> <tr> <td style="text-align: center;">54" – 96"</td> <td style="text-align: center;">14</td> <td style="text-align: center;">3" x 1"</td> </tr> </table>	<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"
<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"	14	3" x 1"																				
PK-6424	25+46	30	30	--	--	XX	3	5	L	NT	C	TYPE 3 STREAM. TEMPORARY SEASONAL CULVERT.										
PK-6424	25+89	18	30	--	--	PD	2	3	L	NT	C											
PK-6424	29+18	48	30	--	--	XX	5	8	L/H	NT	C	TYPE 3 STREAM. TEMPORARY SEASONAL CULVERT.										
PK-6424	30+43	42	30	--	--	XX	3	5	L	NT	C	TYPE 3 STREAM. TEMPORARY SEASONAL CULVERT.										
PK-6424	31+59	24	30	--	--	PD	2	3	L	NT	C	TYPE 4 STREAM										
PK-6424	33+40	24	30	--	--	PD	2	3	L	NT	C	TYPE 4 STREAM										
PK-6424	33+99	18	30	--	--	PD	2	3	L	NT	C											
PK-6434	1+04	60	40	--	--	GM	10	15	L/H	NT	C	TYPE 4 STREAM										
PK-6434	2+57	18	30	--	--	PD	2	3	L	NT	C											
PK-6434	4+75	18	30	--	--	PD	2	3	L	NT	C											
PK-6437	2+63	24	30	--	--	PD	2	3	L	NT	C	TYPE 4 STREAM										
PK-6437	5+66	18	30	--	--	PD	2	3	L	NT	C											
PK-6437	7+87	18	30	--	--	PD	2	3	L	NT	C											
PK-6437	9+60	18	30	--	--	PD	2	3	L	NT	C											
PK-6437	11+68	18	30	--	--	PD	2	3	L	NT	C											
PK-6439	0+54	18	30	--	--	PD	2	3	L	NT	C											
PK-6439	1+64	18	30	--	--	PD	2	3	L	NT	C											

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MATERIALS LIST

LOCATION		CULVERT			DWNST		RIPRAP			FILL TYPE	TOLERANCE	REMARKS	
ROAD #	STATION	DIAMETER	LENGTH	TYPE	LENGTH	TYPE	INLET	OUTLET	TYPE				Note: Galvanized metal culverts shall conform to the following specifications for gage and corrugation as a function of the diameter:
													Diameter 18" 24" – 48" 54" – 96"
PK-6425-04	0+42	18	30	--	--	PD	2	3	L	NT	C	TYPE 5 STREAM	
PK-6425-04	1+05	24	30	--	--	PD	2	3	L	NT	C	TYPE 5 STREAM	
PK-6425-04	1+99	48	30	--	--	GM	5	8	L/H	NT	C	TYPE 4 STREAM. CORRECT WATER PIRATING	
PK-6425-04	3+22	18	30	--	--	PD	2	3	L	NT	C		
PK-6425-04	3+99	18	30	--	--	PD	2	3	L	NT	C		
PK-6425-04	5+80	18	30	--	--	PD	2	3	L	NT	C		
PK-6425-04	8+39	30	30	--	--	XX	2	3	L	NT	C	TYPE 4 STREAM. REMOVE EXISTING CULVERT	
PK-6425-04	8+92	18	30	--	--	PD	2	3	L	NT	C		
PK-6425-04	10+33	24	30	--	--	PD	2	3	L	NT	C	TYPE 4 STREAM	
PK-6425-04	11+26	60	30	--	--	GM	10	15	L/H	NT	C	TYPE 4 STREAM. CORRECT WATER PIRATING. CLEAN LWD.	
PK-6425-04	11+81	30	30	--	--	XX	2	3	L	NT	C	TYPE 4 STREAM	
PK-6425-04	12+48	18	30	--	--	PD	2	3	L	NT	C		
PK-6425-04	14+60	24	30	--	--	PD	2	3	L	NT	C	TYPE 4 STREAM	
PK-6425-04	15+13	18	30	--	--	PD	2	3	L	NT	C		
PK-6425-04	16+93	18	30	--	--	PD	2	3	L	NT	C		
PK-6425-04	17+55	24	30	--	--	PD	2	3	L	NT	C	TYPE 4 STREAM	
PK-6425-04	18+94	18	30	--	--	PD	2	3	L	NT	C		
PK-6425-04	20+54	18	30	--	--	PD	2	3	L	NT	C		
PK-6425-04	20+99	24	30	--	--	PD	2	3	L	NT	C	TYPE 4 STREAM	
PK-6425-04	21+74	24	30	--	--	PD	2	3	L	NT	C	TYPE 4 STREAM	
PK-6425-04	23+38	18	30	--	--	PD	2	3	L	NT	C	TYPE 5 STREAM	

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

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

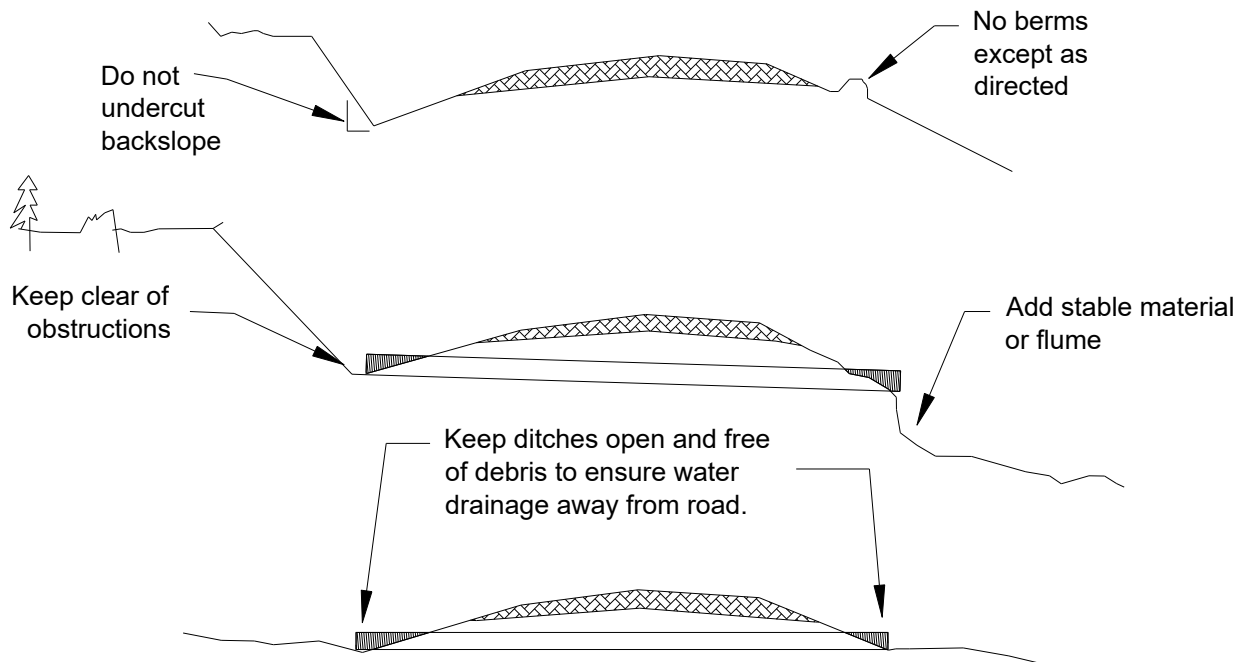
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

Termination of Use or End of Season

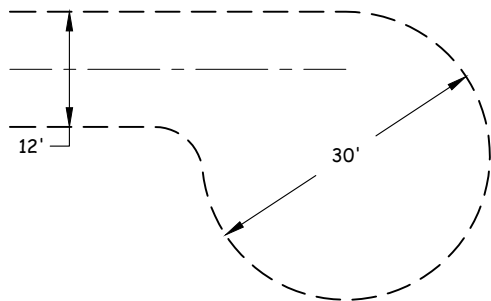
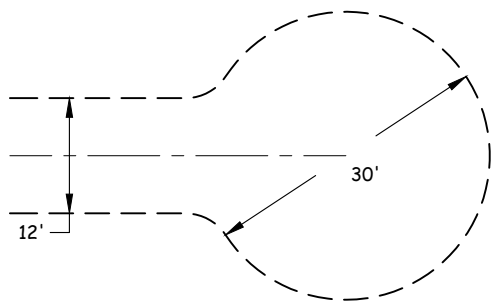
- At the conclusion of logging operations, ensure all conditions of these specifications have been met.

Debris

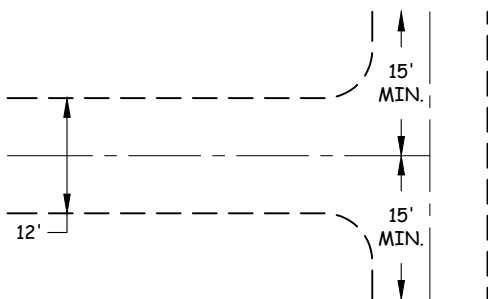
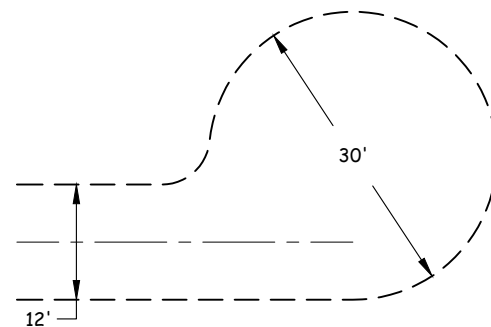
- Remove fallen timber, limbs, and stumps from the slopes, roadway, ditchlines, and culvert inlets.



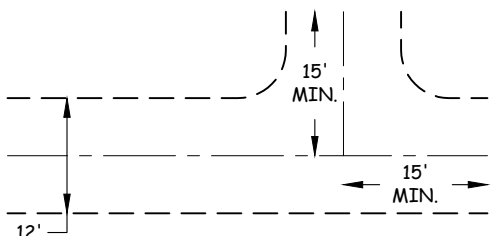
TURNAROUND DETAILS



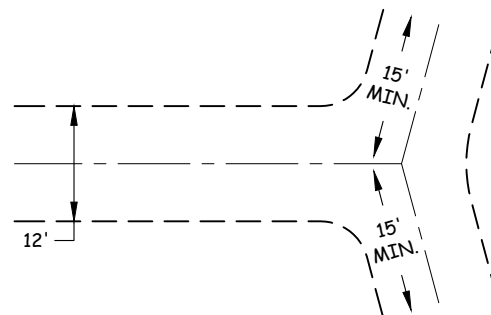
CUL-DE-SAC



HAMMERHEAD



3-POINT SIDE



3-POINT WYE

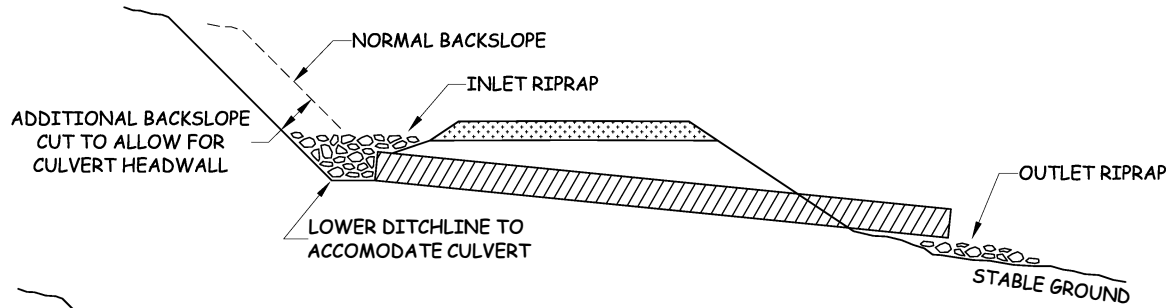
TURNAROUND TYPE AND TURNAROUND LOCATION ARE SUBJECT TO THE APPROVAL OF THE CONTRACT ADMINISTRATOR.

ROCK SHALL BE APPLIED THROUGHOUT THE TURNAROUND TO THE SAME DEPTH AND SPECIFICATIONS AS LISTED IN THE TYPICAL SECTION.

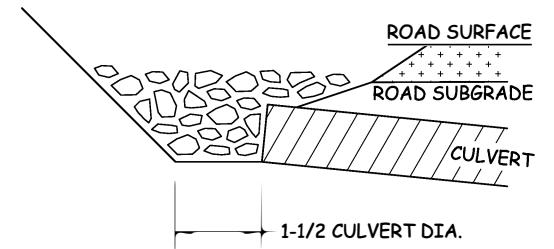
CONTRACT # 30-104449	PROJECT KICKSTAND	SHEET 39 OF 41
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CULVERT AND DRAINAGE SPECIFICATIONS

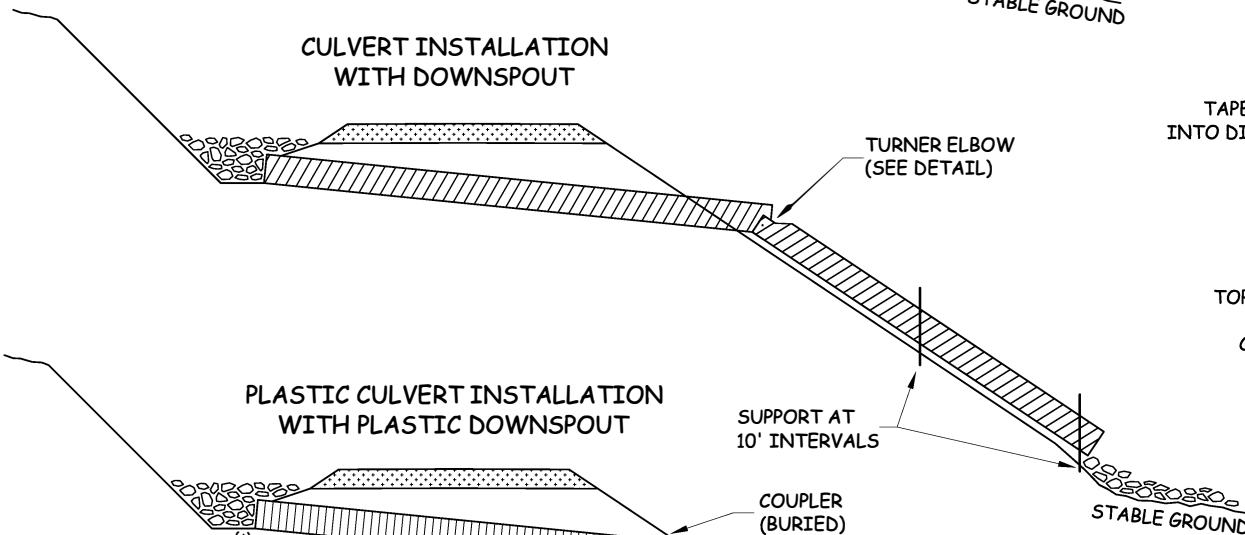
CULVERT INSTALLATION (TYPICAL)



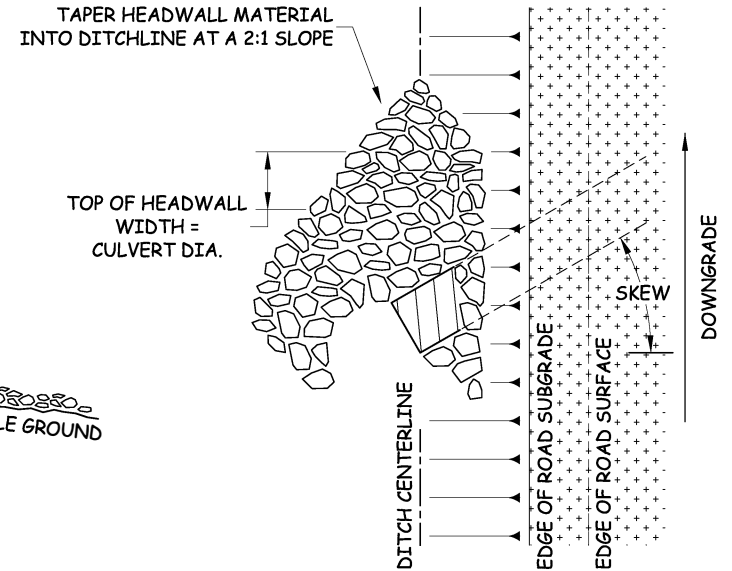
CULVERT HEADWALL - SECTION VIEW



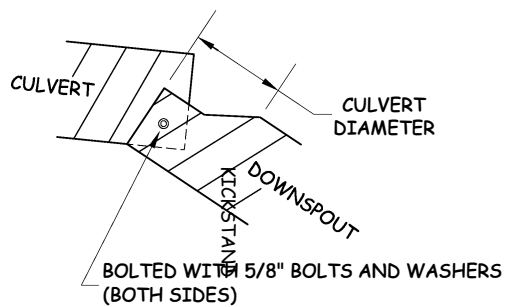
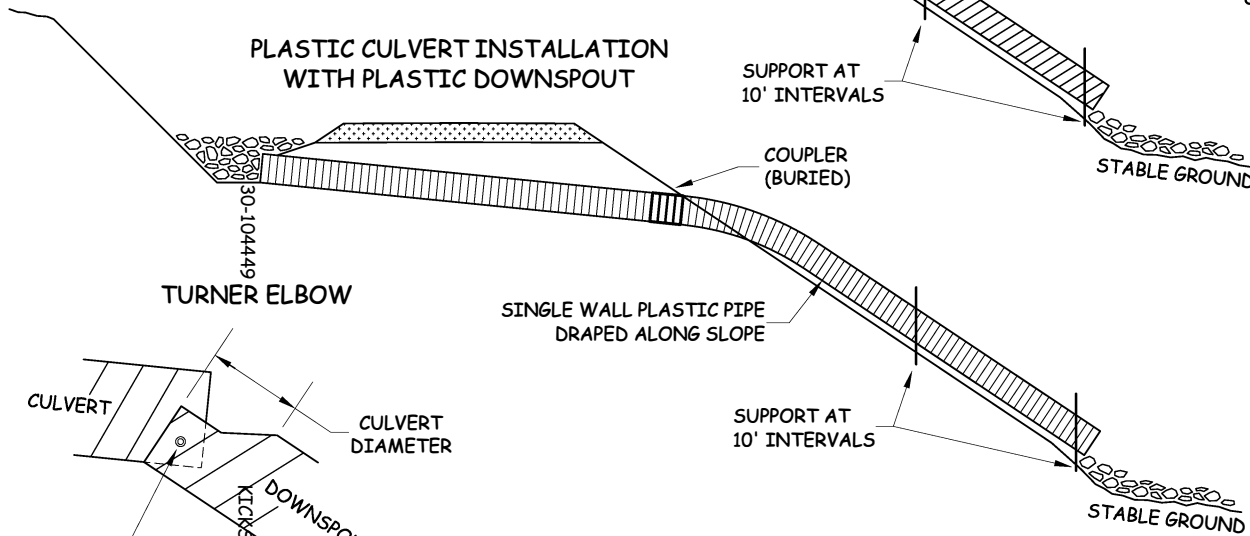
CULVERT INSTALLATION WITH DOWNSPOUT



CULVERT HEADWALL - PLAN VIEW



PLASTIC CULVERT INSTALLATION WITH PLASTIC DOWNSPOUT

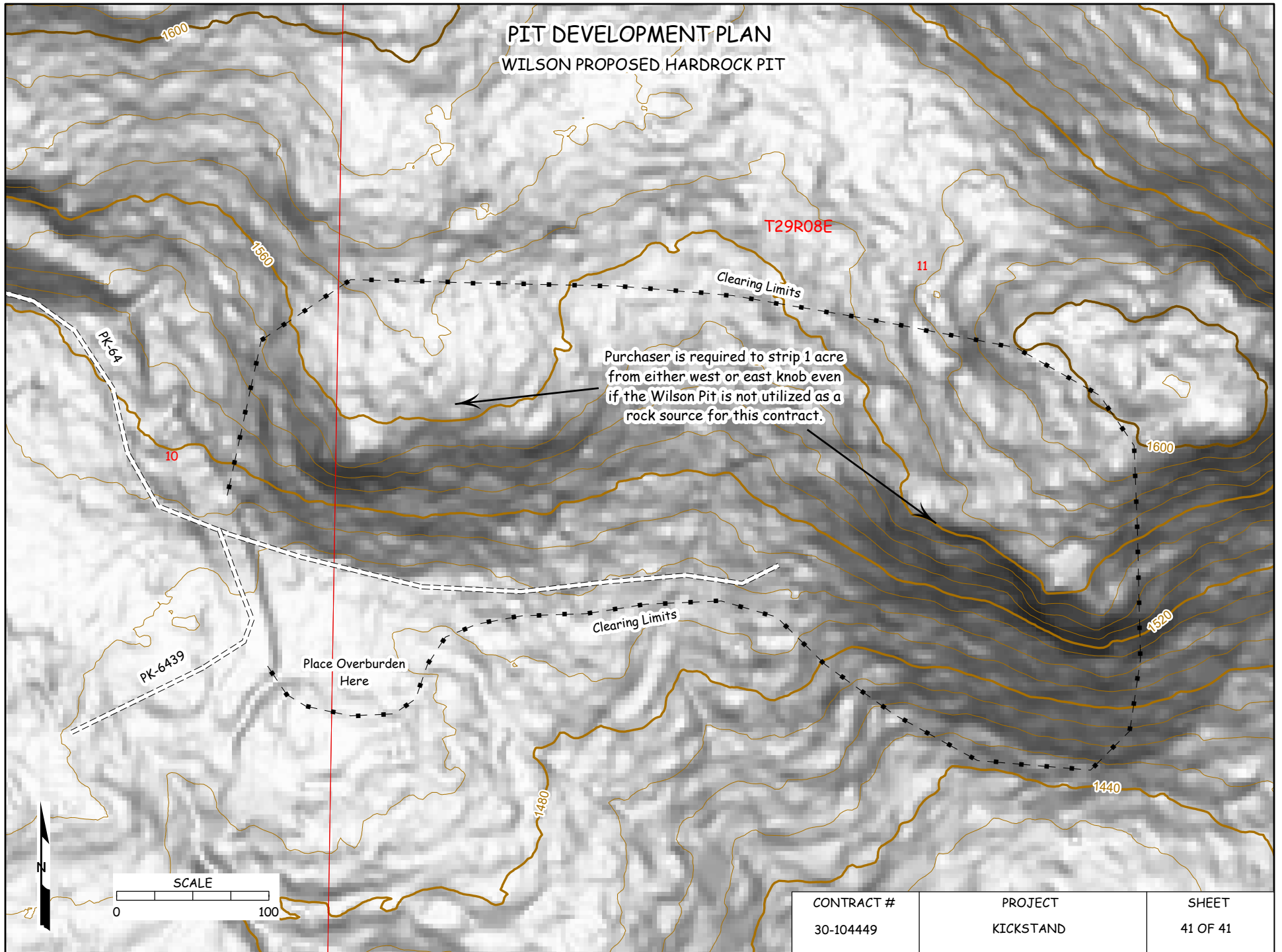


HEADWALL NOTE:
 HEADWALL TO BE CONSTRUCTED OF IMPERVIOUS MATERIAL THAT WILL RESIST EROSION AND ARMORED WITH RIPRAP QUANTITY SPECIFIED IN ROAD PLAN.

CONTRACT # 30-104449	PROJECT KICKSTAND	SHEET 40 OF 41
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PIT DEVELOPMENT PLAN

WILSON PROPOSED HARDROCK PIT



CONTRACT #	PROJECT	SHEET
30-104449	KICKSTAND	41 OF 41

SUMMARY - Road Development Costs

REGION: NW

DISTRICT: Cascade

SALE/PROJECT NAME: Kickstand

CONTRACT #: 30-104449

ROAD NUMBERS:	PK-64, PK-6434 PK-6425-04	PK-64, PK-6424, PK-6424-04, PK-6437	MZ-ML, PK-ML, PK-64, PK-6425
ROAD STANDARD:	Construction	Reconstruction	Pre-Haul Maintenance
NUMBER OF STATIONS:	56.81	104.32	565.98
CLEARING & GRUBBING:	\$21,367	\$21,585	\$0
EXCAVATION & FILL:	\$42,352	\$59,139	\$0
MISC. MAINTENANCE:	\$0	\$0	\$45,922
ROAD ROCK:	\$105,218	\$90,785	\$6,803
ROCK PIT DEVELOPMENT:	\$5,000	\$0	\$0
CULVERTS & FABRIC:	\$28,236	\$83,019	\$0
STRUCTURES:	\$0	\$0	\$0
MOBILIZATION:	\$4,077	\$4,077	\$246
TOTAL COSTS:	\$206,249	\$258,605	\$52,971
COST PER STATION:	\$3,631	\$2,479	\$94
ROAD DEACTIVATION & ABANDONMENT COSTS:		\$1,442	

TOTAL (All Roads) =	\$519,267
ESTIMATED PRECRUISE SALE VOLUME MBF =	4800
ESTIMATED TOTAL \$/MBF =	\$108.18

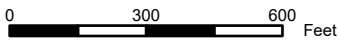
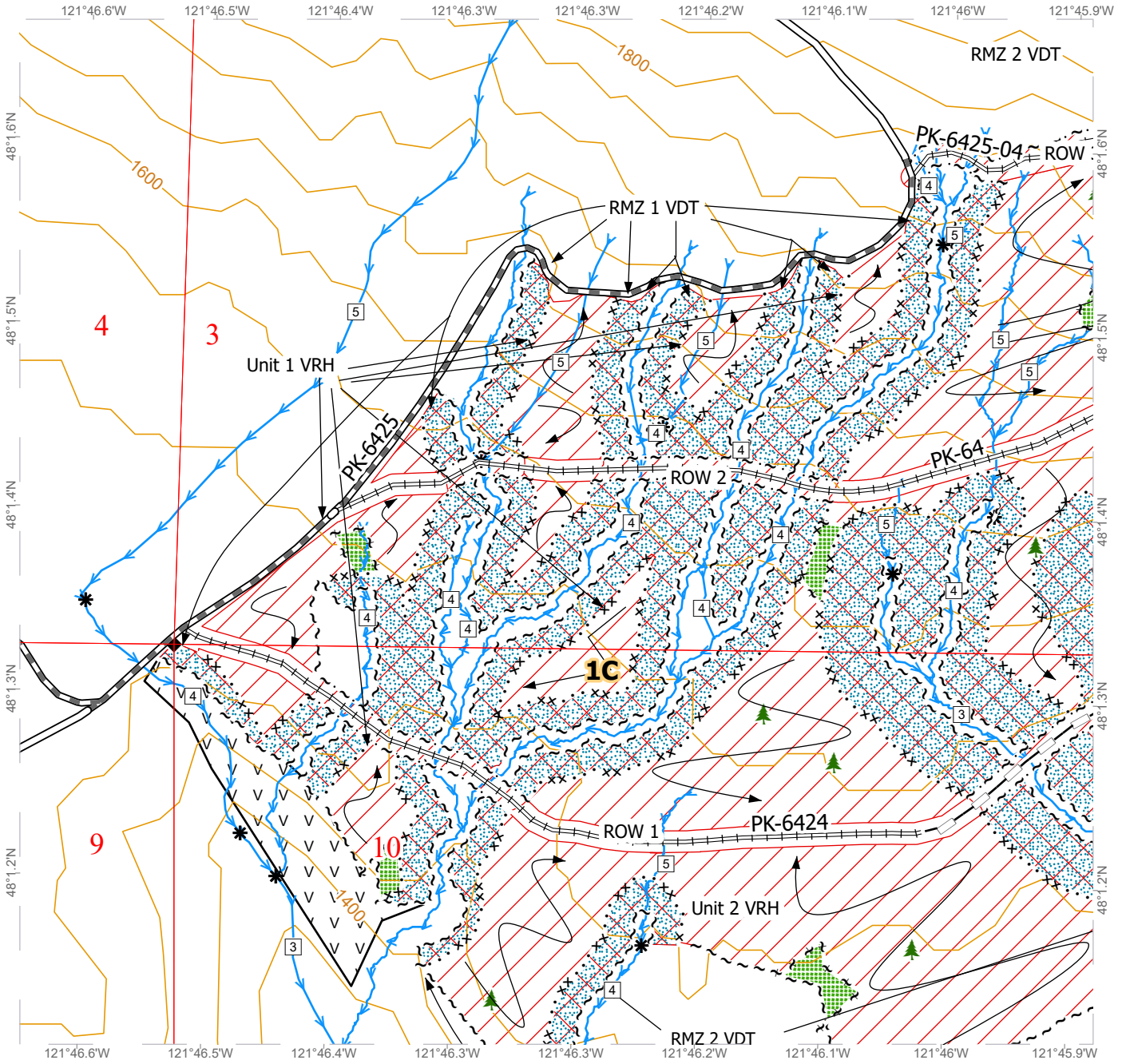
Compiled by: J. Westra

Date: 7/24/2023

LOGGING PLAN MAP 1 of 5

SALE NAME: KICK STAND VRH VDT
AGREEMENT#: 30-104449
TOWNSHIP(S): T29R8E
TRUST(S): Common School and Indemnity (3)

REGION: Northwest Region
COUNTY(S): Snohomish
ELEVATION RGE: 1320-1920



All State Unless Otherwise Noted

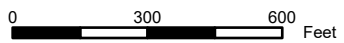
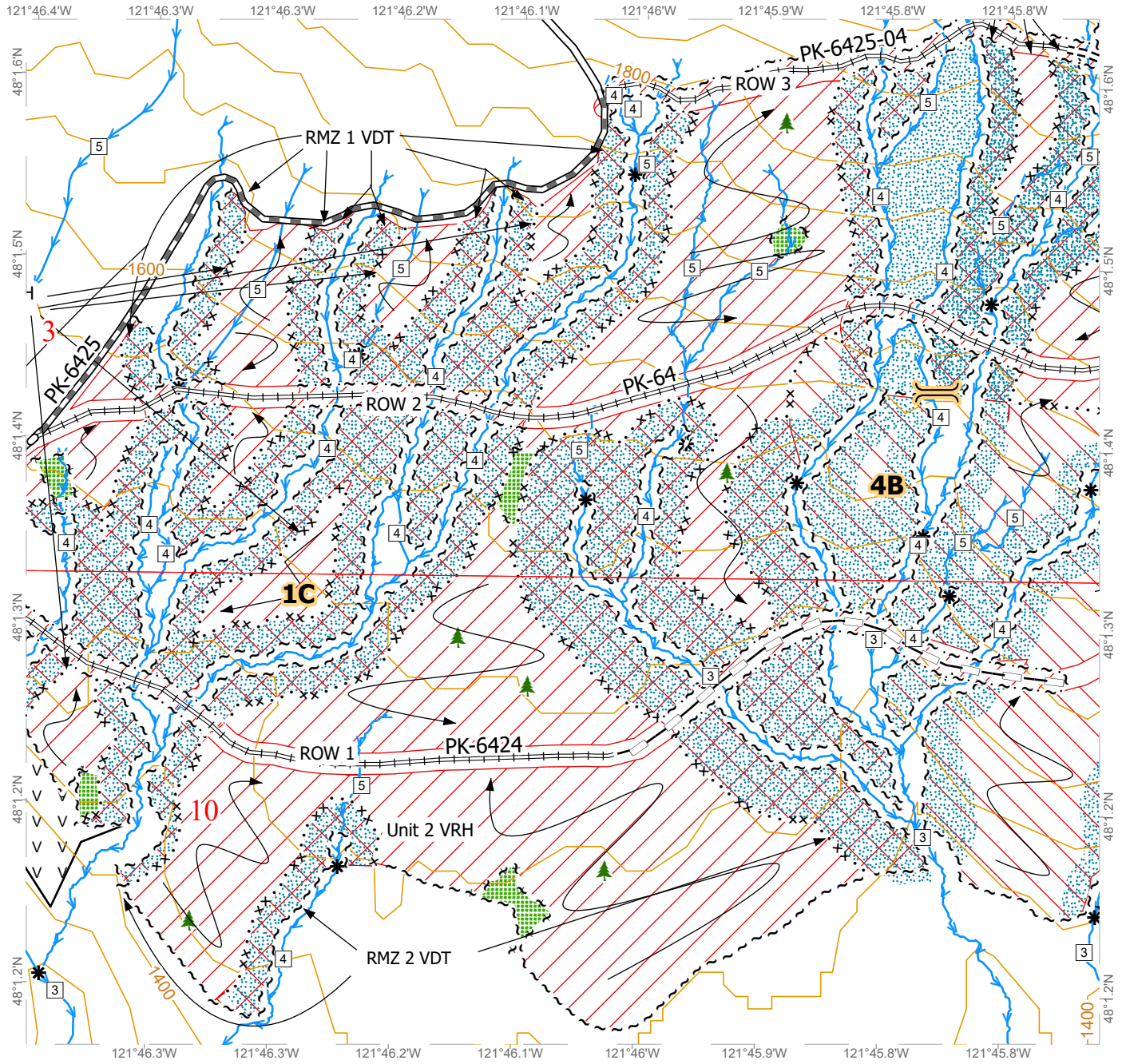
Special Management Area	Leave Tree Tags	Leave Tree Area <1/4-acre
Variable Retention Harvest	Right of Way Tags - Single	Stream Type Break
Leave Tree Area	Sale Boundary Tags	Existing Roads
Equipment Exclusion Zone	Special Mgmt Area	Optional Reconstruction
Riparian Mgt Zone	Streams	Pre-Haul Maintenance
		Required Reconstruction
		Ground Based Harvest



LOGGING PLAN MAP 2 of 5

SALE NAME: KICK STAND VRH VDT
AGREEMENT#: 30-104449
TOWNSHIP(S): T29R8E
TRUST(S): Common School and Indemnity (3)

REGION: Northwest Region
COUNTY(S): Snohomish
ELEVATION RGE: 1320-1920



All State Unless Otherwise Noted

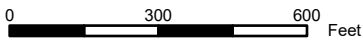
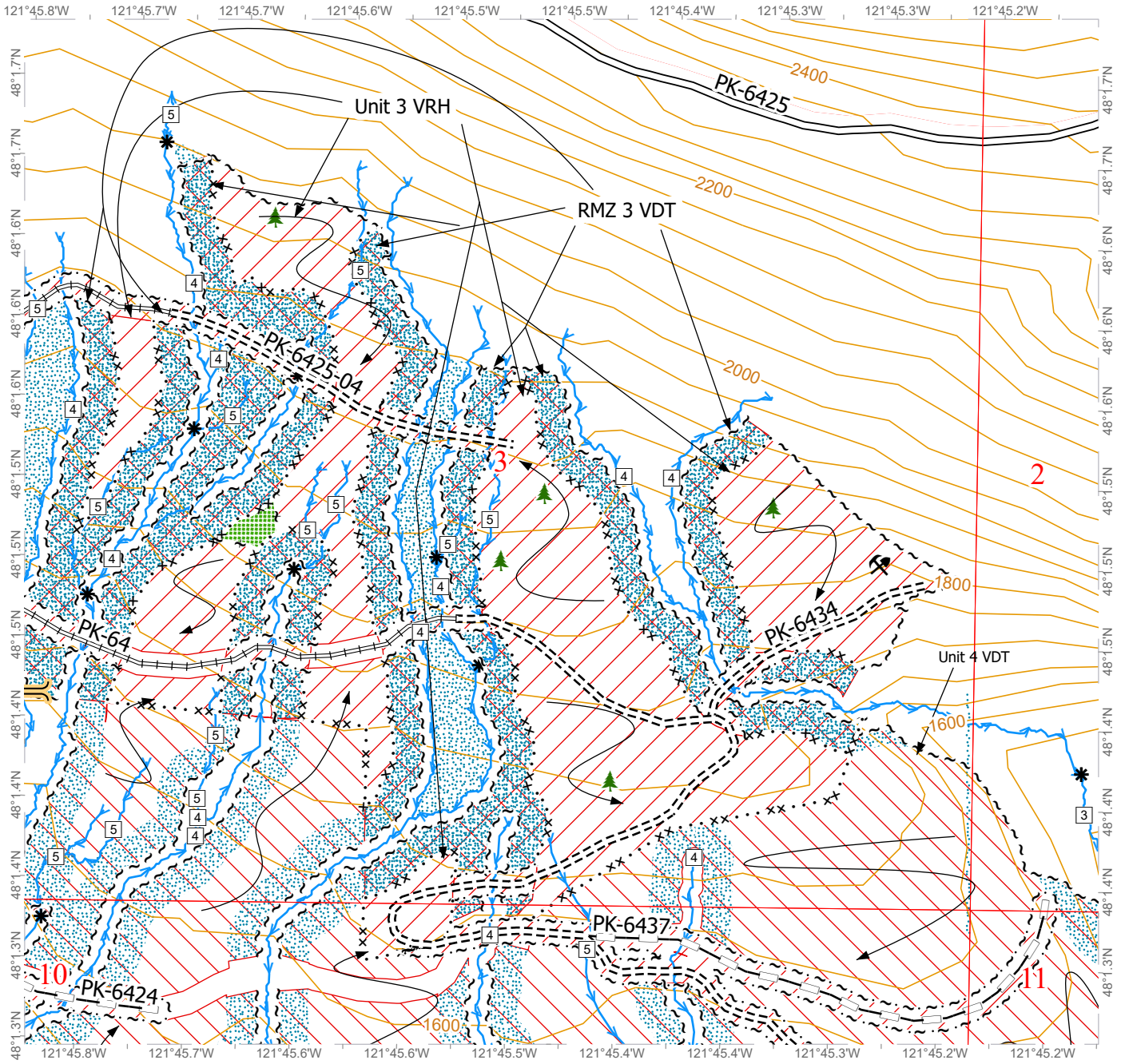
Special Management Area	Leave Tree Tags	Alternate Access for 4B
Variable Density Thinning	Right of Way Tags - Single	Stream Type Break
Variable Retention Harvest	Sale Boundary Tags	Existing Roads
Leave Tree Area	Special Mgmt Area	Optional Reconstruction
Equipment Exclusion Zone	Streams	Pre-Haul Maintenance
Riparian Mgt Zone	Leave Tree Area <1/4-acre	Required Construction
		Required Reconstruction Ground Based Harvest



LOGGING PLAN MAP 3 of 5

SALE NAME: KICK STAND VRH VDT
AGREEMENT#: 30-104449
TOWNSHIP(S): T29R8E
TRUST(S): Common School and Indemnity (3)

REGION: Northwest Region
COUNTY(S): Snohomish
ELEVATION RGE: 1320-1920



All State Unless Otherwise Noted

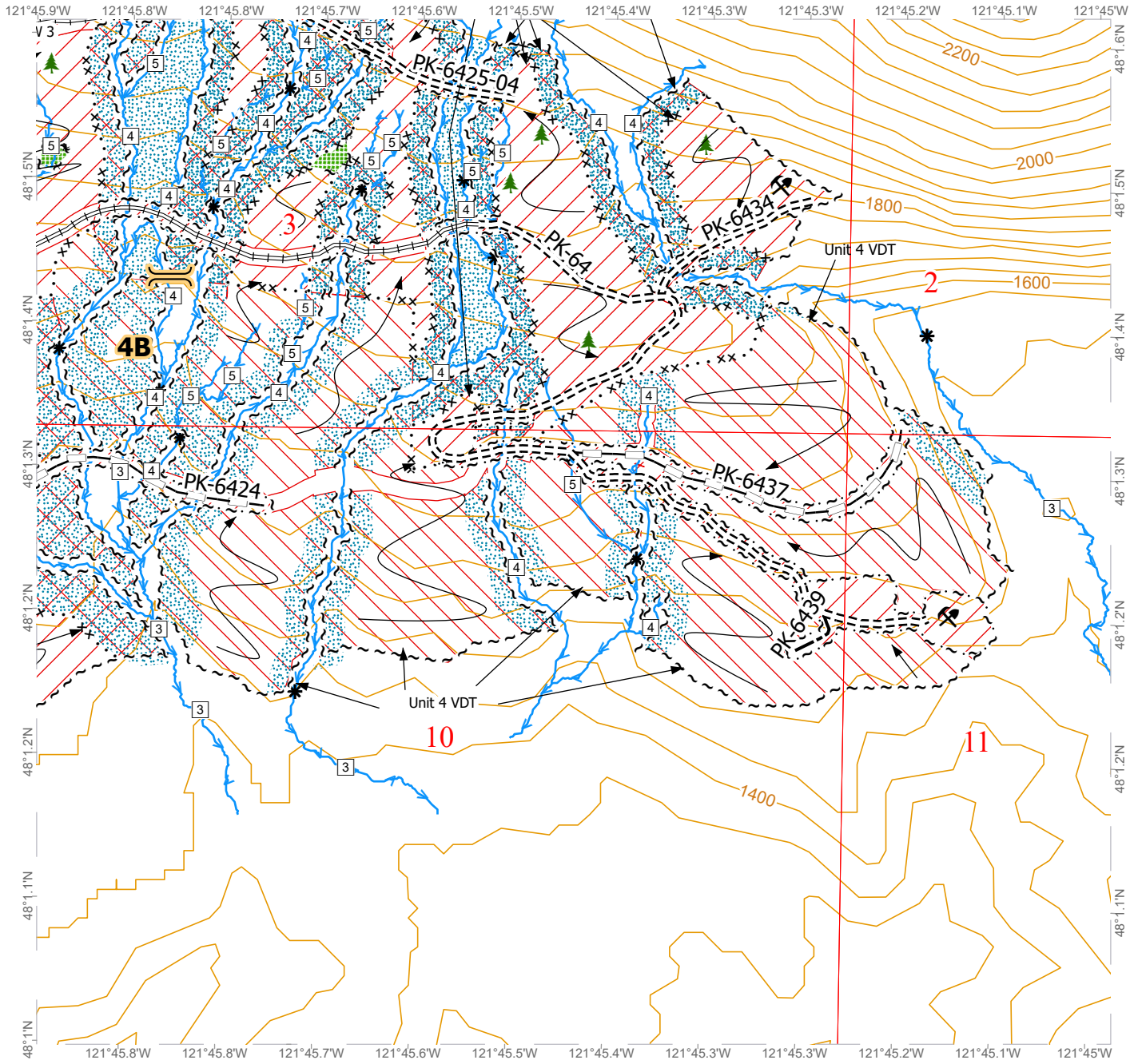
	Special Management Area		Right of Way Tags - Single		Alternate Access for 4B
	Variable Density Thinning		Sale Boundary Tags		Stream Type Break
	Variable Retention Harvest		Special Mgmt Area		Existing Roads
	Leave Tree Area		Streams		Optional Reconstruction
	Riparian Mgt Zone		Leave Tree Area <1/4-acre		Required Construction
	Leave Tree Tags		Rock Pit		Required Reconstruction
					Ground Based Harvest



LOGGING PLAN MAP 4 of 5

SALE NAME: KICK STAND VRH VDT
AGREEMENT#: 30-104449
TOWNSHIP(S): T29R8E
TRUST(S): Common School and Indemnity (3)

REGION: Northwest Region
COUNTY(S): Snohomish
ELEVATION RGE: 1320-1920



All State Unless Otherwise Noted

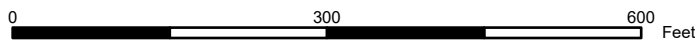
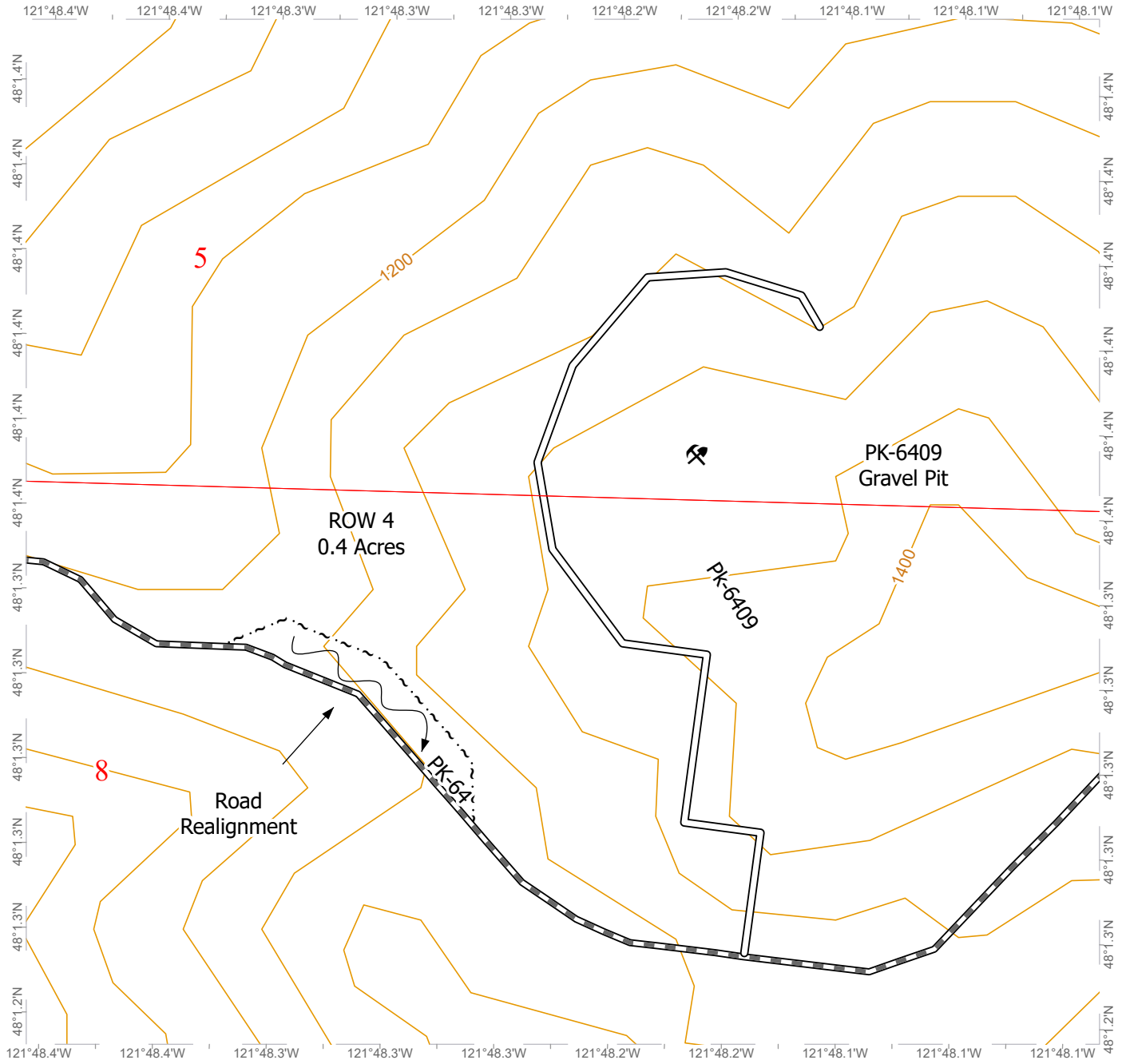
Special Management Area	Right of Way Tags - Single	Alternate Access for 4B
Variable Density Thinning	Sale Boundary Tags	Stream Type Break
Variable Retention Harvest	Special Mgmt Area	Optional Construction
Leave Tree Area	Streams	Optional Reconstruction
Riparian Mgt Zone	Leave Tree Area <1/4-acre	Required Construction
Leave Tree Tags	Rock Pit	Required Reconstruction
		Ground Based Harvest



LOGGING PLAN MAP 5 of 5

SALE NAME: KICK STAND VRH VDT
AGREEMENT#: 30-104449
TOWNSHIP(S): T29R8E
TRUST(S): Common School and Indemnity (3)

REGION: Northwest Region
COUNTY(S): Snohomish
ELEVATION RGE: 1320-1920



All State Unless Otherwise Noted

	Right of Way Tags - Single
	Rock Pit
	Existing Roads
	Pre-Haul Maintenance
	Ground Based Harvest

