



GOOD NEIGHBOR AUTHORITY TIMBER NOTICE OF SALE

Details

SALE NAME: QUEETS CORNER

AGREEMENT NO: 36-100598

AUCTION: May 27th, 2020 starting at 10:00 a.m., Olympic Region Office, Forks, WA

COUNTY: Grays Harbor

SALE LOCATION: Sale located approximately 13 miles North of Amanda Park, WA.

PRODUCTS SOLD

AND SALE AREA: All timber as described for removal in Schedule B, bounded by white timber sale boundary tags, pink flagging, red flashers, and/or orange paint for one-unit Sale Area (Unit 1). Leave trees have been marked with orange paint, ringed with two butt marks.

The above described products on part(s) of Sections 1 of Township 23N, Range 11 West, containing 35.5 acres, more or less.

ESTIMATED SALE VOLUMES AND QUALITY:

Table with 10 columns: Species, Avg DBH, Total Take MBF, Price \$/MBF, SM, 1S, 2S, 3S, 4S, UT. Rows include Western hemlock, Sitka spruce, Red alder, Pacific silver fir, Western red cedar, and Subtotal.

MINIMUM BID: Hemlock/ Sitka spruce combined \$20.00/MBF (approx. \$11,000)

BID METHOD: Sealed Bids

PERFORMANCE

SECURITY: \$2,200.00 (20% of Bid)

SALE TYPE: MBF Scale

EXPIRATION DATE: August 31st, 2021

ALLOCATION: Export Restricted

BIDDABLE SPECIES: Hemlock

BID DEPOSIT: \$1,100 (10% of Bid) or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

HARVEST METHOD: Cable, shovel, forwarder, or skidder.

ROADS: 20+25 stations of temporary new construction. 68+70 stations of pre-haul maintenance. 99+55 stations of decommissioning. One fish culvert removal in Hydraulic window July 1st to September 30th, and must be complete August 31st, 2021. New temporary construction of Temp 1 road must be complete by June 17th, 2021. No road work permitted October 1st to May 31st unless a Wet Weather Agreement is authorized in



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writing by the Contract Administrator. Road activities permitted from June 1st to September 30th.

ACREAGE DETERMINATION

CRUISE METHOD: *Acres determined using GPS methods. 35.5 acres of variable density thinning. Cruised using variable plot sample method. Expansion factors of 40, 54.45 used in unit, see cruise. Sighting height was 4.5 feet. A total of 19 plots were taken.*

Shapefiles are available upon request.

SPECIAL REMARKS: Harvest activities, including landing and road construction, felling, skidding, yarding, and rehabilitation will not be permitted from October 1st through May 31st in unit. Harvest activities permitted from June 1st to September 30th.

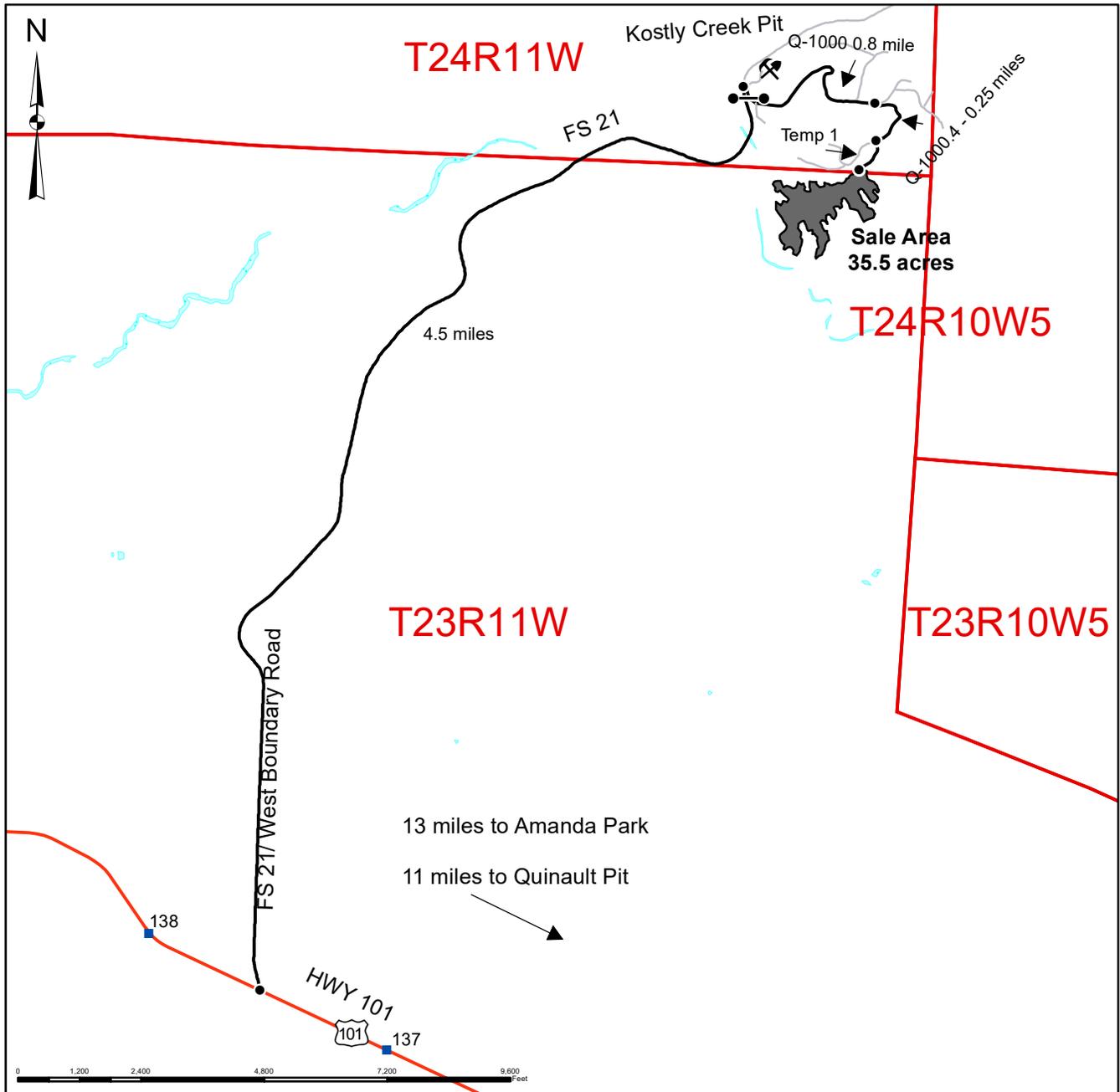
Harvest operations must begin 2 hours after sunrise and end 2 hours before sunset for cable- portions of unit from April 1st through September 23rd.

Purchaser shall accommodate tours of the project area, a minimum of 3 business days throughout the term of the contract. Tour dates will be agreed upon by the purchaser and the Contract Administrator at least one week in advance.

GOOD NEIGHBOR AUTHORITY DRIVING MAP

SALE NAME: Queets Corner
AGREEMENT #: 36-100598
TOWNSHIP(S): T23NR11W

NATIONAL FOREST: Olympic National Forest
COUNTY: Grays Harbor
ELEVATION RGE: 520' - 850'



Legend

- U.S. Highways
- Haul Route
- Other roads
- Distance Indicator
- ⛏ Rockpit
- Gate
- ▭ Survey - Township Lines

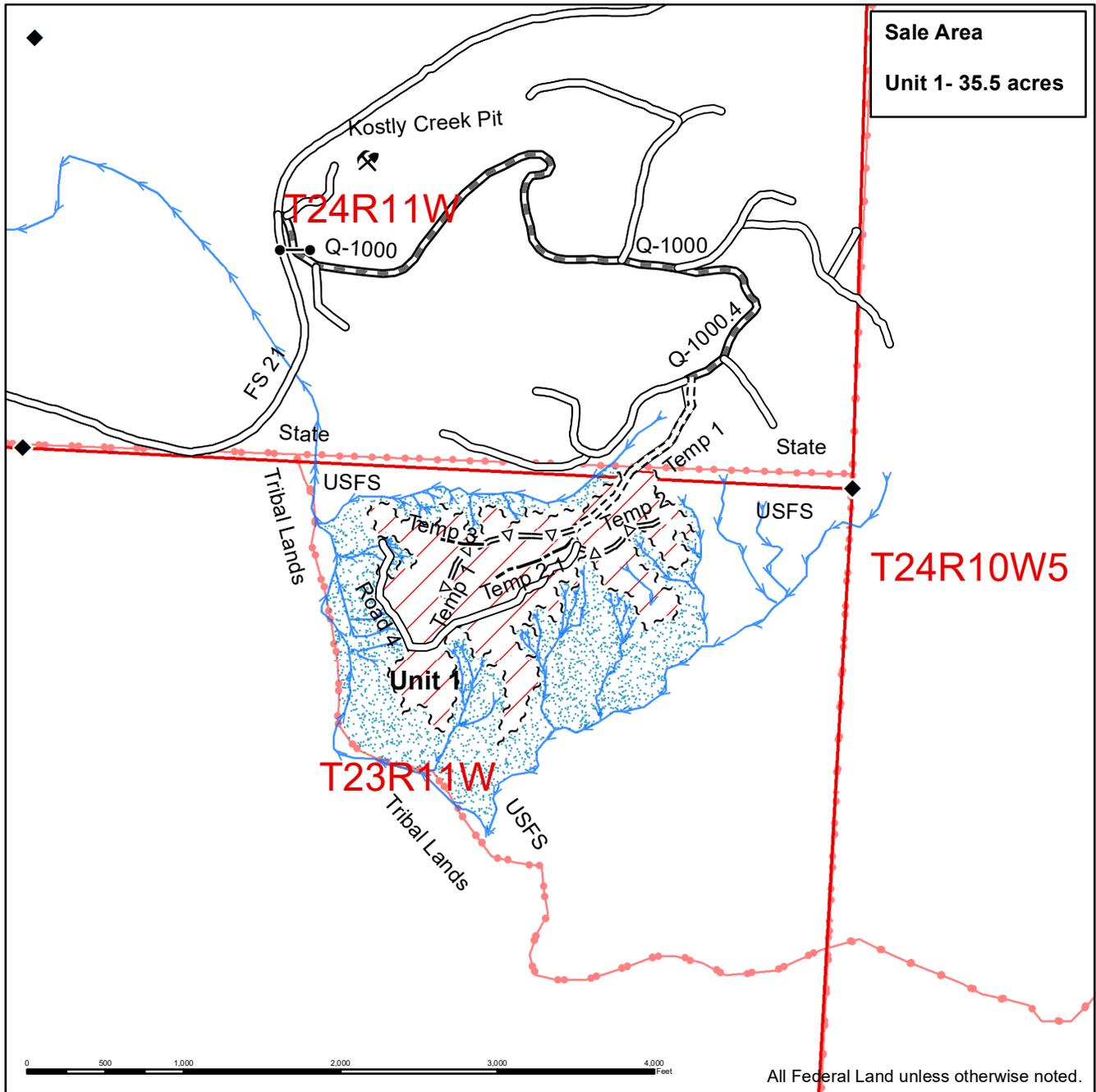
DIRECTIONS:
 From Amanda Park, drive 13 miles North on HWY 101. Between MP 137 and 138, turn left onto FS 21/ West Boundary Road. Continue on FS 21 for 4.5 miles then turn right onto the Q-1000. Immediately keep right and continue through the yellow gate, keeping left at the following fork and continue 0.8 miles, keep right at the fork of the Q-1000 and Q-1000.4 and continue onto the Q-1000.4 to the unit on the Temp 1 Road.

For Quinault Pit: From Amanda Park drive 2 miles North and turn left at 6379 HWY 101, Amanda Park, WA 98526.

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Sale Area
Unit 1- 35.5 acres

Legend

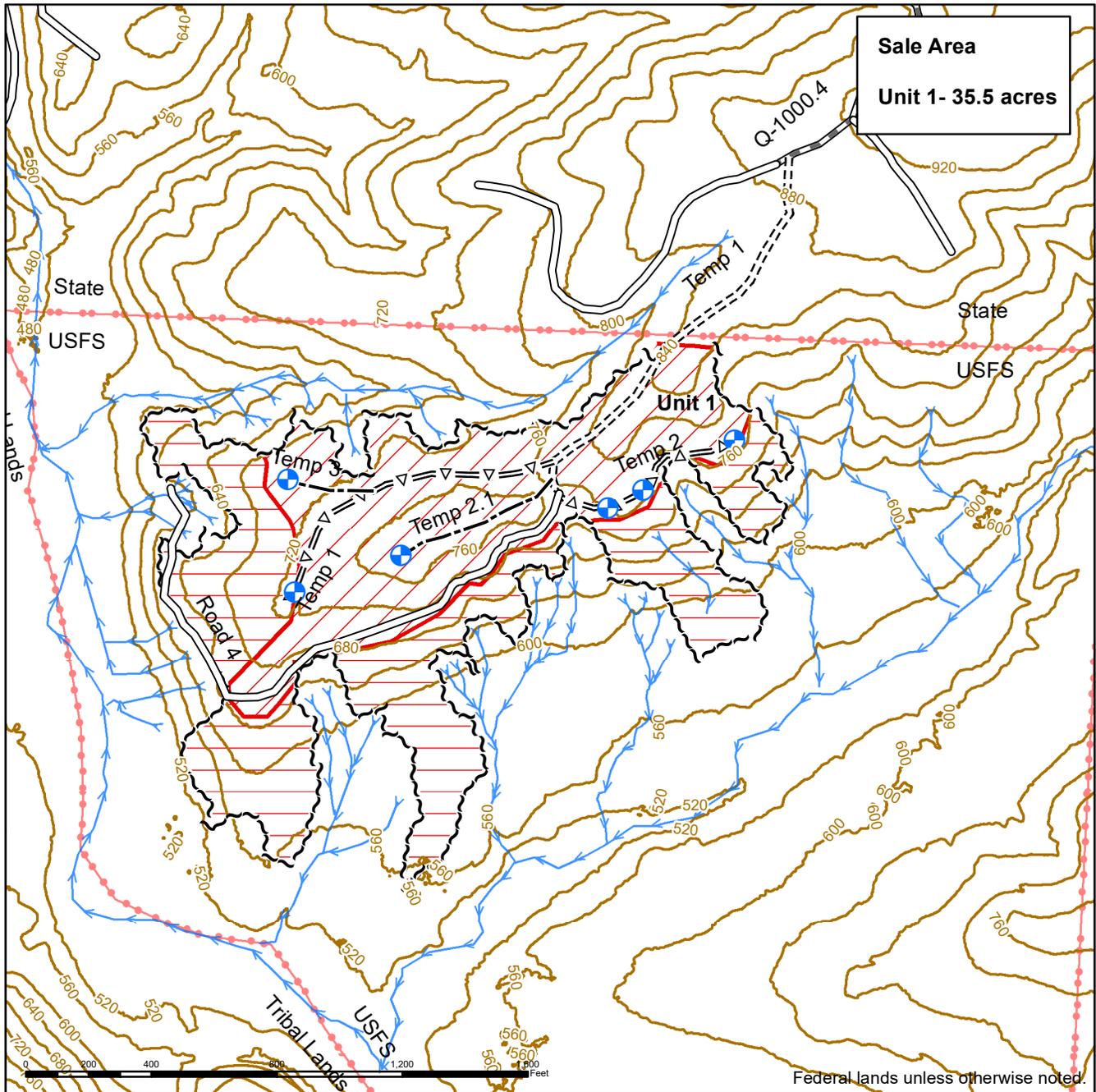
- | | | |
|--------------------------|---------------------------------|----------------------------|
| Sale Area | Gate (AA1) | Survey - Township Lines |
| Sale boundary tags | Rockpit | Timberland Ownership |
| Streams | Existing Roads | Survey - Monumented Points |
| Riparian Management Zone | Optional Temporary Construction | |
| | Optional Prehaul | |
| | Required Temporary Construction | |
| | Required Prehaul | |



GOOD NEIGHBOR AUTHORITY LOGGING PLAN MAP

SALE NAME: Queets Corner
AGREEMENT #: 36-100598
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NATIONAL FOREST: Olympic National Forest
COUNTY: Grays Harbor
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Legend

- | | | |
|--------------------|---------------------------------|----------------------------|
| Cable Harvest | Proposed landings | Timberland Ownership |
| Ground Harvest | Existing Roads | Survey - Monumented Points |
| Sale boundary tags | Optional Temporary Construction | |
| Streams | Optional Prehaul | |
| | Required Temporary Construction | |
| | Required Prehaul | |



**STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES**

**BILL OF SALE AND CONTRACT FOR
GOOD NEIGHBOR AGREEMENT FOREST PRODUCTS**

Export Restricted MBF Scale AGREEMENT NO. 36-100598

SALE NAME: QUEETS CORNER

This Bill of Sale and Contract for Good Neighbor Agreement Forest Products (Contract) is entered into between the Washington State Department of Natural Resources (DNR), acting as the agent for the United States Department of Agriculture Forest Service (U.S. Forest Service) pursuant to the authority granted in 16 USC § 2113a, and [TBD] Purchaser, herein collectively referred to as the “Parties” or individually as a “Party.”

In consideration of the mutual covenants and agreements contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the State and Purchaser hereby agree to the following terms and conditions for the Contract.

SECTION G: GENERAL TERMS

G-001 Definitions

The following definitions apply throughout this contract;

Bill of Sale and Contract for Forest Products: The 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.

Contract Administrator: DNR’s State Forester’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 the Contract with the State for the right to harvest and remove forest products from the timber sale area.

Road Construction: Includes construction of new temporary roads, temporary reconstruction, and maintenance of existing forest roads, and associated work as authorized and described in the Road Plan.

State: The State of Washington represented by the Washington State Department of Natural Resources (Seller), acting under an agreement with the U.S. Forest Service to act as their agent in the selling of Forest Products from the timber sale area, located on

U.S. Forest Service land, under the Good Neighbor Authority in 16 USC § 2113a. The State is represented by the State Forester as designated on the contract signature page. Contractual obligations of the Purchaser under the Contract are enforced by the State Forester 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 Contract. The Purchaser is responsible for independently negotiating, procuring and paying for all subcontracted services rendered.

United States Forest Service (U.S. Forest Service): An agency of the U.S. Department of Agriculture responsible for administering the nation's national forests.

G-010 Products Sold and Sale Area

Purchaser was the successful bidder on **DATA MISSING** and the sale was confirmed on May 27th, 2020. The State, as the U.S. Forest Service's agent, agrees to sell to Purchaser, and Purchaser agrees to purchase, cut, and remove the following forest products:

All timber as described for removal in Schedule B, bounded by white timber sale boundary tags, pink flagging, red flashers, and/or orange paint for one-unit Sale area (Unit 1). Leave trees have been marked with orange paint, ringed with two butt marks.

The above described products on part(s) of Section 1 of Township 23N, Range 11 West, containing 35.5 acres, more or less, in Grays Harbor County as shown on the attached timber sale map and as designated as the sale area.

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 or U.S. Forest Service.

G-025 Schedules

The following attached schedules are hereby incorporated by reference:

Schedule	Title
B	Thinning Prescription

G-030 Contract Term

Unless terminated earlier as authorized under the Contract, Purchaser shall remove the forest products conveyed and complete all work required by this contract prior to August 31st, 2021 (Termination Date), unless this termination date is adjusted pursuant to G-040, or extended pursuant to G-050, in which case the new Termination Date shall be as established by the State.

G-040 Contract Term Adjustment - No Payment

Purchaser may request an adjustment in the contract term due to an interruption or delay in operations. A request for an adjustment must be submitted in writing and received by the State within 30 days after the start of the interruption or delay and describe Purchaser's reason for seeking a contract term adjustment. The request 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 (force majeure). A force majeure includes, but is not limited to acts of God, acts of the public enemy, acts of the Government, labor disputes, fires, insurrections, floods; road and bridge failures that deny Purchaser access to, or out of, the sale area; access road closures imposed by a road owner; excessive suspensions as provided in clause G-220; and regulatory actions, that do not arise from Purchaser's failure to comply with the Contract and which will prevent timber harvest for a period of less than 6 months.

The State shall adjust the term of the Contract to provide for additional calendar days equal to the actual time lost for the period that such force majeure continues in effect. All other terms and conditions of the Contract shall remain in effect during periods of force majeure. Lack of funds on the part of Purchaser, adverse market conditions, state approval or assistance delays, and/or similar conditions shall not constitute force majeure.

G-051 Contract Term Extension – Market Related Conditions

The term of this contract may be adjusted when a drastic reduction in wood product prices has occurred in accordance with 36 CFR 223.52 as determined by the U.S. Forest Service, and the Purchaser makes a written request for additional time to perform the Contract. The Producer Price Index used to determine when a drastic reduction in price has occurred shall be the Softwood Lumber Commodity Index Series (Index Code 0811) as set forth in 36 CFR 223.52(b)(i). If the drastic reduction criteria specified in 36 CFR 223.52 are met for two consecutive calendar quarters, after Contract award date, the Contract Administrator will add one year to the Contract term upon Purchaser's written request. For each additional consecutive quarter such a drastic reduction occurs, the Contract Administrator will, upon written request, add an additional three months to the term during the operating season, except that no single three month addition shall extend the term of the Contract by more than one year. For

each additional consecutive quarter such a drastic reduction occurs, the Contract Administrator will, upon written request, add an additional three months to the term during the operating season. The total amount of contract term addition is limited to the lesser of twice the length of the original Contract or three years. The Contract Administrator must receive Purchaser's written request for a market-related contract term addition before the expiration of this contract. Additional contract time may not be granted for those portions of the contract: (i) with a required completion date; where the U.S. Forest Service determines that the timber is in need of urgent removal; where timber deterioration or resource damage may result from delay; or (iv) where the timber is designated by diameter and delay may change the treatment as a result of trees growing into or out of the specified diameter ranges(s).

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 FORESTRY OPERATIONS to be performed under this contract WILL BE FREE FROM REGULATORY ACTIONS by governmental agencies.
- g. Items contained in any other documents prepared for or by the State.

G-064 Permits

Purchaser is responsible for obtaining any permits not already obtained by the State or U.S. Forest Service that relate to Purchaser's operation. Any permits obtained by the State shall be transferred to Purchaser. Purchaser is responsible for all permits, amendments and renewals.

G-066 Termination Due to Governmental Regulatory Actions, Harm to the Environment or Administrative Appeal or Litigation

The State may terminate the Contract, in whole or in part, for any of the following reasons: (1) to prevent actual or potential harm to the environment including without limitation, harm to the land, water, air, habitat, animals, cave resources, or cultural resources; (2) to ensure consistency with U.S. Forest Service land and resource management plans; requirements for the timber sale imposed in any documents prepared pursuant to the National Environmental Policy Act of 1969, 42 USC 1531, et seq.; or compliance with any state or Federal law; (3) to conduct environmental analysis, including but not limited to, the Endangered Species Act of 1973, 16 USC 1531, et seq.; or (4) due to an existing or threatened administrative appeal or litigation involving the U.S. Forest Service or State that might affect or involve the timber sale, regardless of whether the Forest Service or State is required by an administrative or court order to terminate this Contract, or this Contract is named in such a proceeding.

In the event of termination for a reason stated above, Purchaser shall be entitled to a refund, or release of advanced deposits for timber cut but not removed from the sale area, and reimbursement of out-of-pocket expenses incurred as a direct result of the termination of operations; provided, however, that Purchaser shall not be entitled to any compensation provided herein when the Contract is terminated under this clause due to Purchaser's violation of any provision of the Contract. Out-of-pocket expenses do not include, lost profits, attorney's fees, replacement cost of timber, cost or expenses of running a sawmill or other processing facility, expectancy damages, or any other anticipatory expenses suffered by Purchaser.

G-066.1 Termination Due to Catastrophic Damage

The Contract may be terminated by the State, in whole or in part, or the Purchaser may request in writing that the Contract be terminated in whole or in part, if the value of timber remaining to be cut is diminished materially because of catastrophic damage caused by forces beyond the control of the Purchaser. Catastrophic damage is defined as a major change or damage to timber on the sale area, or access to the sale area, or a combination thereof: (a) caused by forces beyond the control of Purchaser, occurring within a 12 month period, including, but not limited to, wind, flood, earthquake, landslide, fire, forest pest epidemic (except as provided below), or other major natural phenomenon; and (b) affecting the value of any trees or products authorized for sale

under the Contract estimated to total (i) either more than half of the estimated timber volume stated in Notice of Sale; or (ii) more than 578 MBF or equivalent.

A forest pest epidemic shall not be considered catastrophic damage under this clause when the major change or damage to timber is caused by insect or disease that occurs after felling of the timber unless Purchaser is prevented from removing such timber for reasons that would qualify for a Contract Term Adjustment in G-040.

In the event of termination for the reasons stated above, Purchaser shall be entitled to a refund, or release of advanced deposits for timber cut but not removed from the sale area, and reimbursement of out-of-pocket expenses incurred as a direct result of termination of operations. Out-of-pocket expenses do not include, lost profits, attorney's fees, replacement cost of timber, cost or expenses of running a sawmill or other processing facility, expectancy damages, or any other anticipatory expenses suffered by Purchaser.

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 and any unapplied payments; credit for unamortized improvements made by Purchaser; and payment of out-of-pocket expenses, but only under the circumstances where the Contract is terminated under G-066 or G-066.1 and the State is required to pay such out-of-pocket expenses. The State or U.S. Forest Service shall not be liable for any damages, whether direct, incidental or consequential.

G-080 Scope of State or U.S. Forest Service Advice

No advice by any agent, employee, or representative of the State or U.S. Forest Service regarding the method or manner of performing operations 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 or U.S. Forest Service 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 or U.S. Forest Service shall not be liable for any injuries resulting from Purchaser's reliance on any State or U.S. Forest Service advice regarding the method or manner of performance.

G-090 Sale Area Adjustment

The Parties may agree to adjustments in the sale area boundary due to the circumstances specified in G-066.1 or G-066. 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 excluded from harvest due to the circumstances to be measured. 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 is unable to 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-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. All right, title, and interest in, and to any timber, shall remain in the U.S. Forest Service, until it has been cut, measured, and removed from the sale area, at which time title shall vest in Purchaser. Any right of Purchaser to cut and remove the timber from the sale area shall end at the time this Contract terminates. Any timber not removed by the termination date remains the property of the U.S. Forest Service.

Risk of Loss. If timber is destroyed or damaged by an “unexpected event” that significantly changes the nature of the timber, the party with title, right and interest to the timber shall bear the timber value loss resulting from such destruction or damage. An “unexpected event” is defined to mean fire, wind, flood, insects or disease, or any similar cause; except that such losses caused by insect or disease after felling of timber shall be borne by Purchaser, unless Purchaser is prevented from removing such timber for reasons that would qualify for a Contract Term Adjustment in G-040.

Except as provided above, Purchaser will not be obligated to remove and pay for destroyed timber for which the U.S. Forest Service holds title. If timber is damaged by an unexpected event, and the U.S. Forest Service holds title and risk of loss for the damaged timber, the Contract Administrator shall make an appraisal to determine for each species the difference between the appraised unit value of the timber immediately prior to the value loss and the appraised unit value of timber after the loss. Current contract rates in effect at the time for the value loss shall be adjusted by differences to become the re-determined rates for the affected timber.

There shall be no obligation for the State to supply Federal timber, or for the Purchaser to accept and pay for other Federal timber, in lieu of that destroyed or damaged. Neither this contract provision, nor any other provision of the Contract, shall be construed to relieve Purchaser of liability for negligence resulting from its operations.

G-120 Responsibility for Work

All work, equipment, and materials necessary to perform this contract shall be the responsibility of Purchaser.

So far as practicable, Purchaser shall protect roads and other improvements (e.g., trails, telephone lines, ditches, fences) existing in the sale area. When Purchaser's operations are adjacent to properties of railway, telephone, or power companies, or other property, work shall not begin until Purchaser has identified actions necessary to prevent damage to such property. Purchaser shall cooperate with the owners of any underground or overhead utility lines in their removal and/or rearrangement operations in order that these operations may progress in a reasonable manner such that utility duplication rearrangement work may be reduced to a minimum, and services shall not be unnecessarily interrupted. In the event of interruption to utility services because of accidental breakage or as a result of lines being exposed or unsupported, Purchaser shall promptly notify the proper authority and shall cooperate with that authority in the restoration of service until the service is restored.

Any damage to roads and 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. Road is defined as the road bed, including but not limited to its component parts, such as subgrade, ditches, culverts, bridges, and cattle guards. Improvement is defined to include trails, telephone and utility lines, gates, fences, buildings or any other type of structure.

G-121 Exceptions

Exceptions to Purchaser's responsibility for repairs in clause G-120 shall be limited exclusively to the following:

1. Failure of (a) required improvements or roads designated in clause C-050, or (b) required or optional construction or reconstruction 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.

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 repair work identified by the State shall be promptly completed by Purchaser at an agreed price. If the Parties are unable to reach an agreement on price, Purchaser shall complete the repairs based on DNR's determination of the price. Purchaser shall be entitled to challenge the costs through the dispute resolution process in clause G-240.

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 the State, U.S. Forest Service, agencies of the State or U.S. Forest Service, and all officials, agents and employees of the State or U.S. Forest, from and against all claims arising out of, or in any way whatsoever resulting from, 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 brought against the State, including without limitation claims brought against the State by Purchasers' agents, employees, representatives, or any subcontractor or its employees. Purchaser expressly agrees to indemnify, defend, and hold harmless the State or U.S. Forest Service 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 the State or U.S. Forest Service shall not be eliminated or reduced by any actual or alleged concurrent negligence of the State, U.S. Forest Service, or their 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 or U.S. Forest Service 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's 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 Product Sales and Leasing Division in Olympia, WA 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 the 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, U.S. Forest Service, its elected and appointed officials, agents and employees shall be named as an additional insured 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 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 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 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 or U.S. Forest Service for the recovery of damages to the extent they are covered by business auto liability or commercial umbrella liability insurance.

G-152 Pollution Legal Liability

Pollution Legal Liability (or Contractor's Pollution Liability). Purchaser and/or contractor(s) shall at its cost and expense, buy and maintain insurance of the types and

amounts listed below for coverage of pollution legal liability, including investigation and defense costs, for bodily injury and property damage, including loss of use of damaged property or of property that has been physically damaged or destroyed. 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. Insurance coverage shall be obtained by the Purchaser and/or contractor(s) prior to operations commencing and continually maintained in full force until all contract obligations have been satisfied or an operating release is signed by the State.

Such coverage must provide coverage for both on-site and off-site cleanup costs and cover gradual and sudden pollution, and includes in its scope of coverage, natural resource damage claims. The U.S. Forest Service, State of Washington, Department of Natural Resources, its elected and appointed officials, agents and employees shall be named as additional insured. Coverage shall be maintained in an amount of at least:

1. \$1,000,000 each occurrence for contractor's operations at the site(s) identified above, and
2. If the policy contains a general aggregate limit or policy limit, it shall be at least \$5,000,000.

Such insurance may be provided on an occurrence or claims-made basis. If such coverage is obtained as an endorsement to the CGL and is provided on a claims-made basis, the following additional conditions must be met:

- a. The Insurance Certificate must state that the insurer is covering hazardous substance removal.
- b. The policy must contain no retroactive date, or the retroactive date must precede abatement services.
- c. Coverage must be continuously maintained with the same insurance carrier throughout the entire term of the Contract.
- d. The extended reporting period (tail) must be purchased to cover a minimum of 36 months beyond completion of work.

G-160 Agents

The State's rights and duties will be exercised by the State Forester of the state of Washington. The State Forester will notify Purchaser in writing who is responsible for administering the Contract (Contract Administrator). The State Forester 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 or U.S. Forest Service has any authority to bind the State or U.S. Forest Service to any affirmation, representation, or warranty concerning the forest products conveyed

beyond the terms of this contract. The Contract Administrator shall be the State's authorized agent for purposes of receipt of notices under G-200.

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 under G-160, from the State, and any limits to this person's authority.

G-170 Assignment of Rights; Delegation of Performance (Subcontracting)

No rights or interest in this Contract shall be assigned by Purchaser without the prior written permission of the State, which approval shall be at the sole discretion of the State. Such approval shall not relieve the Purchaser of his or her responsibilities or liabilities under the Contract and may be given only if the third party assignee (assignee) has not been debarred or suspended from bidding on the award of U.S. Forest Service timber sale contracts in accordance with 36 CFR § 223.130 through 36 CFR § 223.145 and: (a) the assignee acquiring the rights of the Purchaser is acceptable to the State under the conditions and requirements then in effect for similar GNA timber sales, and assumes in writing all of the obligations to the State under the terms of the Contract as to the uncompleted portion; or (b) the rights are acquired by the assignee in trust as security and subject to such conditions as may be necessary for the protection of the public interests. 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 (i.e., subcontractor), but Purchaser is not thereby relieved of any duty to perform or any liability under this contract. Any 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 and 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

All notices required to be given under this Contract shall be in writing and personally delivered to the Party's authorized agent as provided in G-160; or sent by U.S. mail (certified mail requested), or personally delivered to a Party at the address listed below:

Department of Natural Resources
Attn: Annette Mesman
Northwest Region
912 N. Township Street
Sedro Woolley, WA 98284

Purchaser

A party can designate a different authorized agent or address in writing by serving notice of such change as provided in this clause.

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 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. Purchaser shall not be entitled to any compensation if the Contract is terminated by the State as provided in this clause.
- b. If the Contract expires pursuant to clause G-030 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 Operation

The Contract Administrator may suspend any operation of Purchaser under this Contract for any of the reasons stated in G-066, for any other reason as provided for in the Contract or, if deemed necessary in the public interest.

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 or U.S. Forest Service, Purchaser is entitled to request a contract term adjustment under clause G-040.

If it reasonably appears that the damage that the State or U.S. Forest Service 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 all terms and conditions of this contract, then the State may elect to terminate the Contract under G-066 just as if the harvest was prevented by a governmental statute, 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 Federal law, is unauthorized. Purchaser agrees to pay two times the current contract rates for any unauthorized cutting, removal or damage of forest products.

G-240 Dispute Resolution

The following procedures apply in the event of a dispute regarding interpretation or administration of this Contract. The Parties agree that these procedures must be followed before a lawsuit can be initiated against the State. Purchaser's failure to submit a request for resolution of a dispute under the procedures set forth shall relieve the State of any obligations whatsoever arising under the Contract regarding the dispute. As used herein, a dispute means a demand or assertion by Purchaser seeking, as a legal right, the extension or adjustment of the term of the Contract, or any other relief under the Contract, including a claim for the payment of any money.

a. In the event of a dispute, Purchaser must submit a written request to the State Forester for resolution of any dispute prior to seeking other relief. If the dispute involves a claim for money owed by the State, Purchaser shall submit with the written request a demand for the amount owed and any appropriate data necessary to establish that the amount requested accurately reflects what Purchaser claims is owing under the Contract for which the State is liable.

b. The State Forester will issue a written decision on Purchaser's request within ten business days for matters not involving a claim for money. In the case of a claim by Purchaser for money owed under the Contract, the State Forester shall render a decision

within 30 days, or notify Purchaser of the date when a decision will be issued. The State Forester's decision shall be final unless Purchaser submits a request under c.

c. Within ten business days of receipt of the State Forester's decision, Purchaser may submit a written request for resolution of the dispute to the Department Supervisor of the Department of Natural Resources.

d. Unless otherwise agreed, a conference will be held by the Department Supervisor within 30 calendar days of the receipt of Purchaser's request for review of the State Forester's written decision. Purchaser and the State Forester will have an opportunity to present their positions. The Department Supervisor will issue a decision within a reasonable time of being presented with both Parties' positions.

G-250 Compliance with All Laws

Purchaser is responsible for completing all operations in compliance with all applicable statutes, regulations and laws; and in compliance with all applicable requirements of the U.S. Forest Service, Decision Notice and Finding of No Significant Impact (DN), Decision Memo, Olympic National Forest, Queets Vegetation Management Environmental Assessment, including all applicable Mitigation Measures and Design Criteria in the DN Appendices, and applicable Best Management Practices contained in the Environmental Assessment. Failure to comply may result in suspension, and/or termination 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 and Personal Property Left on U.S. Forest Service Land

All equipment and personal property owned or in the possession of Purchaser, its employees, agents, or invitees, including independent contractors, shall be removed from the sale area and other U.S. Forest Service land by the termination date of this contract. Any equipment or personal property remaining on U.S. Forest Service land 60 days after the expiration of the contract may be removed and disposed of by the State. Purchaser shall pay to the State all costs of moving, storing, and disposing of such personal property and equipment. The State and the U.S. Forest Service shall not be responsible for any damages to or loss of the personal property or equipment, or damage caused by the moving, storing or disposal of the personal property or 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 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 U.S. Forest Service roads, State roads, and roads for which the State has acquired easements and road use permits; West Boundary Road/ FS 21, Q-1000, Q-1000.4, Temp 1, Temp 2, Temp 2.1, Temp 3, Road 4, and all associated spurs. The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

The U.S. Forest Service shall have the right to use any road constructed by Purchaser during the term of the Contract for any and all purposes in connection with the protection and administration of the National Forest. Other parties, in connection with the logging of tributary National Forest timber, may use roads constructed by Purchaser when the Contract Administrator determines that such use will not materially interfere with Purchaser's Operations. The State may grant others the right to use the roads constructed by Purchaser during the term of the Contract if such uses are authorized by the U.S. Forest Service and will not materially interfere with Purchaser's operations.

G-320 Erosion Control

Reference Road Plan for revegetation measures. To reduce soil damage for cable operations and logging operations, the Contract Administrator may require water bars to be constructed, grass seed to be placed on exposed soils, or other mitigation measures to be taken by the Purchaser, in addition to what is already required under this contract.

All seed must be of species native to the Olympic peninsula, and must originate from the same seed zone (as defined by U.S. Forest Service) as the project site. All seed used will be supplied by the Olympic National Forest.

G-330 Pre-work Conference

Purchaser shall arrange with the Contract Administrator to review this Contract and examine the sale area before beginning any operations. Purchaser shall furnish the State a written Plan of Operations at the pre-work conference that includes the Harvest Plan required in H-040, and sets forth planned periods for road construction and completion of all other contractual requirements. The State's written approval of the Plan of

Operations is a prerequisite to commencement of Purchaser's operations. A revised Plan of Operations shall be submitted by Purchaser for the Contract Administrator's approval to accommodate a contract adjustment under G-040, a contract extension under G-050, or if determined necessary by the Contract Administrator. 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

Purchaser shall protect all survey monuments, witness corners, reference monuments, and bearing trees (hereinafter collectively referred to as "survey markers") against destruction, obliteration, or damage during operations performed under the Contract. If any survey markers are destroyed, obliterated, or damaged by such operations, Purchaser shall hire an appropriate county surveyor or registered land surveyor to reestablish or restore the survey markers at the same location, using surveying procedures in accordance with the *Manual of Instruction for the Survey of the Public Lands of the United States* as required by the U.S. Forest Service under federal law and the State under RCW 58.24, and shall record such survey in appropriate county records. The Contract Administrator may prescribe in writing additional requirements for protection of monuments, corners, and bearing trees.

G-370 Blocking Roads

Purchaser shall not block the West Boundary Road/FS 21 unless authority is granted in writing by the Contract Administrator.

G-380 Road Easement and Road Use Permit Requirements

Purchaser agrees to comply with the terms and conditions of the attached:
Dept. of Natural Resources RUP #50-100722

G-396 County Hauling Permit

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

G-430 Open Fires

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

SECTION P: PAYMENTS AND SECURITIES

P-010 Initial Deposit and Periodic Payment Schedule

Purchaser paid [TO BE DETERMINED ON DAY OF SALE] as an initial deposit to the State, which will be maintained until Purchaser has completed all obligations under this Contract. Purchaser shall not be entitled to any interest earned on the initial deposit. However, all or a portion of the initial deposit may be applied as the final payment for the timber if the State determines that adequate security exists for the performance or fulfillment of any remaining obligations of the Purchaser under the Contract. If the Contract expires without Purchaser's payment of the full amount specified in P-021, 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.

[TO BE DETERMINED ON DAY OF SALE]

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 product approved for removal from the sale area under clause H-150.

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-052 Billing and Payment Procedure

The State will compute and forward to the Purchaser statements of charges provided for in the contract. Purchaser shall deliver payment to DNR's Forest Health and Resiliency Division in Olympia, WA on or before the date shown on the billing statement.

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. If such material is not listed in P-021, the State shall establish the rates to be paid.

P-080 Payment Account Refund

Advance payments made under P-045 remaining on account above the value for the charges shall be returned to Purchaser within 30 days following the final report of charges. Interest shall accrue at the rate of five percent per month, or fraction thereof, on any balance owed after expiration of the thirty days.

P-090 Performance Security

Purchaser agrees to furnish, within 30 days of the confirmation date of the sale, security acceptable to the State in the amount of \$5,800.00. 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 62A.5 (Letters of Credit) 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 until all contractual obligations of the Purchaser are satisfied. 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 amount of the performance security required under the Contract 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-040 Utility Logs

Utility logs are logs that meet the minimum utility log standards as described by the log scaling rules applicable for 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-070 Purchaser to Furnish Log Scale Information

Purchaser agrees to furnish the State with scaling information, supplied by a third party scaling organization showing the scale, count, and measure of forest products removed during each billing period unless the scale, count, and measure is performed by the State.

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 one (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.

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

Harvest activities, including landing and road construction, felling, skidding, yarding, and rehabilitation will not be permitted from October 1st through May 31st.

Harvest operations must begin 2 hours after sunrise and end 2 hours before sunset for cable- portions of unit from April 1st through September 23rd.

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 skid trail damage is defined in clause 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).

H-012 Leave Tree Damage Definition

Leave trees are trees required for retention within the sale area. 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 144 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-016 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 shall not exceed 12 feet in width.
- b. Skid trails, skyline corridors, and roads shall not cover more than 20 percent of the total acreage on one unit.
- c. Location of the skid trails must be marked by Purchaser and approved by the Contract Administrator.
- d. Skid trails must be located outside of all no harvest buffers.
- e. Skid trails should be re-established at previous skid trail locations, except where existing skid trails are causing detrimental soil or hydrologic conditions that could be avoided with alternative skid trail locations.
- g. Except for rub trees, skid trails shall be felled and yarded prior to the felling of adjacent timber.
- h. Rub trees shall be left standing until all timber tributary to the skid trail has been removed.
- i. Excessive soil damage is not permitted. Excessive soil damage is described in clause H-017.
- j. Purchaser will not have more than two skid trails open to active skidding at any one time. All other skid trails used for skidding timber will be closed.
- k. Once a skid trail is closed, Purchaser will not reopen a skid trail unless approved in writing by the Contract Administrator.
- l. Skid trails will be water barred at the time of completion of yarding, if required by the Contract Administrator.
- m. Heavily impacted skid trails, including those subjected to multiple passes of heavy equipment, those lacking sufficient slash cover, and/or those running parallel to stream courses, will be decompacted to a depth of at least 12 inches and logging slash will be placed across the decompacted surface.

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, in all or in part, by the Contract Administrator, for such periods as may be deemed necessary to avoid damage when soil rutting exceeds 12

inches as measured from the natural ground line, or when ground conditions are unfavorable.

To reduce soil damage, the Contract Administrator may require water bars to be constructed, native grass seed to be placed on exposed soils, or other mitigation measures to be taken by the Purchaser, in addition to what is already required under this Contract. All seed must be of species native to the Olympic peninsula, and must originate from the same seed zone (as defined by U.S. Forest Service) as the project site. All seed will be provided by the Forest Service. Suspended operations shall not resume unless approval to do so has been given, in writing, by the Contract Administrator.

H-025 Timing Requirements for Timber Removal

All timber must be removed within 30 days 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 each operating season for planned units. The Harvest Plan shall address the harvest and haul operations and be presented to the Contract Administrator at the pre-work conference. 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

All timber shall be painted with a spot of highway yellow paint not less than three square inches in size, and branded on each end with a hammer brand approved by the State prior to removal from the sale area. Purchaser shall not use the brand pattern

selected to mark timber for another source in violation of the requirements set forth in 36 CFR § 223.195.

H-060 Skid Trail Locations

Locations of skid trails must be marked by Purchaser and approved by the Contract Administrator prior to the felling of timber.

Erosion control measures such as slash and mulch placement, seeding and water bars will be utilized where bare soil is exposed inside corridors. All seed must be of species native to the Olympic peninsula, and must originate from the same seed zone (as defined by U.S. Forest Service) as the project site. Seed will be provided by the Forest Service.

H-080 Snags Not to be Felled

Snags that are felled shall not be removed and must remain where felled.

H-110 Stump Height

Trees shall be cut as close to the ground as practicable and 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 felled by hand or mechanical means and yarded by ground based equipment on slopes of 30% or less and cable based equipment on slopes greater than 30%. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

H-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities.

For skyline corridors across streams, wetlands, and perennial wet areas including seeps and springs, full log suspension and written approval by the Contract Administrator is required.

H-131 Hauling Schedule

The hauling of forest products is not be permitted from October 1st to May 31st unless a Wet Weather agreement is authorized each year in writing by the Contract Administrator.

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

1. Fall and yard away from all waters when possible.
2. A copy of the timber sale prospectus map and contract shall be present onsite during active operations.
3. Purchaser shall accommodate tours of the project area, a minimum of 3 business days throughout the term of the contract. Tour dates will be agreed upon by the purchaser and the Contract Administrator at least one week in advance.
4. Timber must be removed from the site and scaled within 30 days of felling operations. Tops and limbs will be redistributed in the unit to the satisfaction of the Contract Administrator.
5. Maintain legacy features wherever practical and safe, including remnant trees, snags, and large down woody debris.
6. Suitable Nesting Trees (SNTs) have been marked in advance with orange paint by the Forest Service; however, if purchaser encounters unmarked SNTs: Leave WH >20" DBH with large branch platforms greater than 4" across. Leave all surrounding trees with interlocking crowns.
7. Heavy equipment should operate on operationally-generated slash mats (limbs, tops, or otherwise unmerchantable material) to minimize soil compaction and long term soil disturbance. The slash mat will be as thick and continuous as practicable.
8. When practical, save topsoil on site from areas to be disturbed and replace over disturbed soil before replanting.
9. Certified weed free straw bale catchments or silt fences will be located to intercept runoff from landings prior to reaching any road ditch or stream. Any sediment that is captured and deposited behind sediment catchments will be removed annually and deposited out on the forest floor to ensure it does not have a direct flow path to a system road ditch or stream.
10. Hazard trees that are felled along haul routes must be retained to add to large woody debris on the ground, unless otherwise approved by the Contract Administrator.
11. Operation of ground-based skidding equipment will not occur within 30 feet of harvest unit boundaries.

12. Skyline corridors will not exceed 12 feet in width. Skyline corridors will be parallel to each other where feasible. Skyline corridors will be no closer than 150 feet apart center to center at the tailhold or trailtree and will not exceed 12 feet in width for wheeled spoked landings.
13. Large Down Woody Debris may be moved for access, however disturbance should be minimized. Large, old stumps will be kept intact and not uprooted wherever possible.
14. Trees felled in the vicinity of streams, wetlands, seeps, or springs will be felled away from aquatic features. Portions of trees falling into no-cut buffers will be left on the ground where they were felled.
15. Ground Based equipment will travel on operationally generated slash where possible. Yarding activities will be planned to make as few trips as possible.
16. Feller bunchers/ mechanical harvesters shall not operate like a skidder and travel while bearing the weight of trees except in some occasions at the ends of a skid trail where it may cause less disturbance than a skidder.
17. Areas of gouging or soil displacement resulting from logging systems will be treated to prevent rill and gully erosion and potential sediment delivery to stream courses. Off-road trails used for equipment fueling and servicing will be rehabilitated post use by moving the soil back to the natural contour of the hillslope (re-contour) and placing slash or vegetation on exposed mineral soils. Steep slopes will not be decompacted to prevent further soil disturbance. Erosion control treatment may include, but is not limited to, repositioning displaced soil to restore the hillslope contour of disturbed sites, creating small ditches or diversions to redirect surface water movement, seeding, and scattering slash material to disrupt flow and provide soil surface stability. Seed will be provided by the Forest Service.
18. No fuel storage or refueling will occur in riparian buffers.
19. Workers shall properly store and dispose of food and garbage while working on site to minimize attraction/feeding of corvids that can cause nest predation.

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

H-142 Wildlife Timing Restrictions

Harvest operations must begin 2 hours after sunrise and end 2 hours before sunset for cable-portions of unit from April 1st through September 23rd.

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 G-010 that meet the following minimum net scale dimensions which concur Schedule B:

Species	Net bd ft	Log length (ft)	Log dib
All	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 left on the sale area upon termination of the Contract that meet the above specifications 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-160 Mismatch

Mismatch 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 mismatch 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-170 Utility Log Removal

All utility logs shall be yarded concurrently with the yarding of other logs and shall be removed from the sale area.

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 otherwise 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 Area

Tops and limbs outside the sale boundary area 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.

H-260 Fall Leaners

Trees that have been pushed over in falling or skidding operations shall be felled and left on site.

SECTION C: CONSTRUCTION AND MAINTENANCE

C-040 Road Plan

Purchaser shall comply with all of the road construction, associated work provisions, and all other terms and conditions of the Road Plan for this sale, dated 03/23/2020 which is hereby made a part of this Contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform road maintenance and repair work at its own expense on Q-1000, Q-1000.4, Temp 1, Temp 2, Temp 2.1, Temp 3, and Road 4. All work shall be completed to the specifications detailed in the Road Plan.

C-080 Landing Locations Approved Prior to Construction

Landings shall be marked by Purchaser and approved by the Contract Administrator prior to construction.

C-090 Landing Location

Landings shall be located where past landings were located, unless a new location would cause less resource effect or where no past landings were used to harvest the unit.

New landings shall be located outside of all no harvest buffers and preferably not near riparian buffers. Avoid placing landings adjacent to streams, no-cut buffers, wet areas and unstable slopes.

Landings shall be limited to the area needed for safe and efficient yarding and loading operations and have proper drainage.

C-140 Water Bars

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

SECTION S: SITE PREPARATION AND PROTECTION

S-001 Emergency Response Plan

An Emergency Response Plan (ERP) shall be provided to the Contract Administrator containing but not limited to, a plan for the prevention and reporting of wildfires within the sale area; a communication plan for reporting wildfires; a description of fire prevention and control measures on the logging unit; and a list of qualified personnel and equipment available for implementing the plan. The ERP shall include the valid contact numbers for qualified personnel available for implementing the ERP, and the equipment available, and procedures for responding to, medical emergencies, fire, hazardous spills, forest practice violations and any unauthorized or unlawful activity occurring 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 to the Contract Administrator for inspection and approval at the prework meeting and kept readily available to all personnel, including subcontractors, on site during active operations. Purchaser shall make any revisions to the ERP required by the Contract Administrator, either upon initial inspection or anytime thereafter, required for operations within the sale area during the Contract.

S-010 Fire Hazardous Conditions

Fire Precautionary Period. The fire precautionary period or “closed season” for this Contract is April 15 to October 15. The Contract Administrator may change the dates of the closed season by advance written notice. Required tools and equipment shall be kept in serviceable condition and immediately available for fire-fighting at all times during Purchaser’s Operations in Fire Precautionary Period.

Purchaser acknowledges that operations under this Contract may increase the risk of fire. Purchaser shall conduct all operations under this Contract 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. Purchaser shall, both independently and in cooperation with the U.S. Forest Service, take the highest degree of care to prevent fires resulting from Purchaser’s Operations. Purchaser shall furnish and maintain in good and serviceable conditions such wildland firefighting tools and

equipment, and take such fire prevention measures as may be required by the U.S. Forest Service or the State to meet the fire protection requirements of the Contract and the existing fire danger. The requirements shall not be less than are required under the laws of the State of Washington (i.e., WAC 332-24-401 through .411).

In the event of an uncontrolled fire, Purchaser shall immediately report the incident to the appropriate authorities specified in the ERP. Purchaser agrees to provide equipment and personnel working at the site to safely and effectively engage in first response fire suppression activity. Purchaser agrees to reimburse the State and U.S. Forest Service for the cost of fire suppression incurred as the result of the negligence or willful acts of its employees, agents, subcontractors, etc.

The Contract Administrator may require the Purchaser to suspend any or all of Purchaser's Operations when ignition conditions identified in the ERP are met, or when fire is within or threatening the Operational Area. 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.

Slash with a diameter of 1 to 3 inches and 3 inches in length or greater, and within 100 feet of roads that are to remain open after the sale is completed, must be dispersed, piled, or removed to an approved location. If piled, piles must be at least 8 feet from adjacent timber, pile height must be at least two-thirds that of the width and free of noncombustible material including soil, rocks, and rootballs.

S-040 Noxious Weed Control

Purchaser shall thoroughly pressure wash all equipment prior to entry onto U.S. Forest Service land, to remove all contaminated soils, plant parts, seeds, vegetative matter, or other debris that could contain or hold seeds. Equipment shall be considered free of soil seed, and other such debris when a visual inspection does not disclose such material. The Contract Administrator reserves the right to also require the cleaning of equipment as required by this clause in cases where equipment is being moved onto nonfederal lands.

Purchaser shall notify the Contract Administrator in advance of moving all off-road logging and construction equipment onto U.S. Forest Service lands. Notification will

include a location approved by the Contract Administrator where the equipment will be cleaned by the Purchaser, and made available for inspection by the State at a time agreed by the Parties. Only logging and construction equipment cleaned as required under this clause, and inspected by the Contract Administrator (or designee), will be allowed to operate on Federal lands within the sale area. All subsequent move-ins of equipment to the sale area shall be treated in the same manner as the initial move in. "Off-road equipment" includes all logging and construction machinery, except for log trucks, chip vans, pickup trucks or vehicles used to transport personnel on a daily basis.

All material (e.g. soil, gravel, sand borrow, mulch, aggregate, etc.) transported onto National Forest System land or incorporated into the work shall be certified weed-free, as determined by Forest Service Invasive Plant staff, or County Noxious Weed Control Board staff. Documentation of weed free status must be provided to the Contract Administrator. The contractor shall provide the Contract Administrator written notification of proposed material sources 14 days prior to use. If weed species are present in the proposed source, appropriate mitigation measures may allow conditional use of the source as required by the Contract Administrator.

All seed must be of species native to the Olympic peninsula, and must originate from the same seed zone (as defined by U.S. Forest Service) as the project site. Seed will be provided by the Forest Service.

S-050 Cessation of Operations for Low Humidity

During the "closed season", 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-120 Stream Protection

No timber shall be felled into, across, or yarded through any stream without written approval by the Contract Administrator.

S-130 Hazardous Materials

a. Hazardous Materials and Waste - Regulatory Compliance

Purchaser is responsible for understanding and complying with all applicable local, state, and Federal hazardous material/waste laws and regulations for operations conducted under this contract. Such regulations pertain to, but may

not be limited to, hazardous material storage, handling and transport, personnel protection, release notification and emergency response, cleanup and waste disposal. Purchaser shall be responsible for restoring the site in the event of a spill.

b. Hazardous Materials Spill Prevention

All operations shall be conducted in a manner that prevents the release of hazardous materials, including petroleum products, into the environment (water, air or land). If the total oil or oil products storage exceeds 1320 gallons or if any single container exceeds a capacity of 660 gallons, the purchaser will prepare and provide the Contract Administrator a Spill Prevention Control and Counter measures Plan prior to commencing operations. The plan shall meet EPA requirements including certification by a registered professional engineer.

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 4 to 6 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. Spill kit must also contain one or more oil-absorbing floating booms to contain a spill if it gets into a stream or other waterbody and plastic garbage bags for disposal of used pads and booms off-Forest. 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 and recover a hazmat spill equal to the largest single on site storage container volume. (HAZWOPER reg. 29 CFR 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, the Purchaser is responsible for notifying the following:

Appropriate Department of Ecology regional office (contact information below).

DNR Contract Administrator

ECY - Northwest Region:

1-425-649-7000

(Island, King, Kitsap, San Juan, Skagit, Snohomish, and Whatcom counties)

ECY - Southwest Region:

1-360-407-6300

(Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, and Wahkiakum counties)

ECY - Central Region:

1-509-575-2490

(Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, and Yakima counties)

ECY - Eastern Region:

1-509-329-3400

(Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, and Whitman counties)

In addition to the above, Purchaser shall immediately notify the Contract Administrator if any leakage or spillage enters any stream, water course or area of open water.

S-131 Refuse Disposal

All Purchaser generated refuse shall be removed from state or U.S. Forest Service lands for proper disposal prior to termination of this contract. No refuse shall be burned, buried or abandoned on state or U.S. Forest Service 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 and the U.S. Forest Service. The value of the forest products sold at the time of breach is not readily ascertainable. Purchaser's failure to perform disrupts National Forest management plans and the state's role in implementing such 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 or U.S. Forest Service. Failure to properly account for loads and scaling and/or weighing information

can result in loss to the State or U.S. Forest Service. 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 National Forest. 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 \$1,000.00 per tree for all damaged trees in the sale area.

SECTION M: MISCELLANEOUS

M-010 Federal Endangered Species Act

The Federal Endangered Species Act of 1973 (ESA), 16 USC § 1531 et seq. prohibits a person from taking any Federally listed threatened or endangered species. Taking under the Federal ESA may include alteration of habitat. Neither this Contract, or the State's approval of Purchaser's Plan of Operations, is certification that Purchaser's operations under the plan are lawful under the ESA. Purchaser's compliance with the plan is not in lieu of compliance with any Federal requirements under the ESA or its implementing regulations.

M-020 Forest Resources Conservation and Shortage Relief Act of 1990

Purchaser must comply with the provisions of the Forest Resources Conservation and Shortage Relief Act of 1990 (Act), (16 USC 620 *et seq.*), and its implementing regulations (36 CFR § 223.185 *et seq.*), as the Act and rules now exist or are hereafter

amended. Prior to award, during the life of this contract, and for a period of three years from the Contract Termination Date, Purchaser shall upon request furnish to the State and the U.S. Forest Service records showing the volume and geographic origin of unprocessed timber from private lands exported or sold for export by Purchaser or affiliates. Prior to delivering unprocessed timber to another party, Purchaser shall require each buyer, exchange, or recipient to execute an acceptable agreement that will: (i) identify the Federal origin of the timber; (ii) specify domestic processing for the timber involved; (iii) require the execution of such agreements between the parties to any subsequent transactions involving the timber; (iv) require that all hammer brands and/or yellow paint must remain on logs until they are either legally exported or domestically processed, whichever is applicable; and (v) otherwise comply with the requirements of the Act, 16 USC 620(d). No later than 10 (ten) days following the execution of any such agreement between Purchaser and another party, Purchaser shall furnish to U. S. Forest Service a copy of each such agreement. Purchaser shall retain, for three years from the Termination Date, the records of all sales, exchanges, or dispositions of all timber. For breach of this Subsection, the State may terminate this contract and the U.S. Forest Service may take such other action as may be provided by statute or regulation, including the imposition of penalties. When the Contract is terminated by the State for a violation of the Act or rules under this clause, the State shall not be liable for any Claim submitted by Purchaser relating to the termination.

M-030 Debarment, Suspension, Ineligibility, and Exclusion.

Purchaser is a corporation organized and existing under the laws of the State of [insert State] and certifies by execution of the Contract that it is not, nor are its principals, presently debarred, suspended, proposed for debarment or suspension, declared ineligible, or excluded from participation in any transaction with the Federal government. Purchaser shall immediately notify the State without undue delay if it receives a notice from the Federal government that it or its principals are proposed for debarment or suspension, or are debarred, suspended, declared ineligible, or excluded from participating in a transaction with the Federal government.

Purchaser shall require all subcontractors to provide written certification that they are not debarred, suspended, ineligible, or excluded from participating in a transaction with the Federal government. (Execution of Department of Agriculture Form AD-1048 is sufficient to satisfy this requirement.) Purchaser shall maintain a file of certifications and provide a copy to the Contract Administrator upon request.

M-040 Certification Regarding Felony Conviction and Tax Delinquent Status.

Purchaser, by signature below, certifies that: (1) Neither the corporation or its principals have been convicted of a felony violation under any Federal law within the preceding 24 months of the effective date of the Contract; and (2) Neither the corporation or its principals have failed to file all Federal tax returns required during the three years preceding the Contract; have been convicted of a criminal offense under the Internal Revenue Code; or have been notified of any unpaid Federal tax assessment

for which the liability remains unsatisfied, unless the assessment is the subject of an installment agreement or offer in compromise that has been approved by the Internal Revenue Service and is not in default.

M-050 Human Remains, Artifacts, and Other Cultural and Historic Items

In the event that human remains, burials, funerary items, sacred objects, object of cultural patrimony, prehistoric artifacts (i.e., arrowheads, spear points, motors, pestles, other ground stone tools, knives, scrapers, or flakes from the manufacture of tools, fire pits, peeled trees, etc.) or historic period artifacts or features (i.e., fragments of old plates or ceramic vessels, weathered glass, dumps of old cans, cabins, root cellars, etc.) are found during project implementation, work on the site shall cease immediately to protect the find from further damage or disruption and the U.S. Forest Service Archeologist will be notified. No further work shall be allowed on the site until the Forest Archeologist has approved a plan for managing or preserving the remains or items.

M-060 Payment of Taxes

The State makes no representations concerning tax liability or consequences arising from the purchase of Federal timber under the Contract. It is Purchaser's sole responsibility to pay all taxes owed, including any forest excise taxes under RCW 84.33.

M-070 Non-Discrimination in Employment

In connection with the performance of work under this Contract, Purchaser agrees not to discriminate against any applicant for employment, employee, or independent contractor on the basis of race, color, national origin, sex, religion, age, disability, sexual orientation, or marital status. This shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment, layoff or termination; rates of pay, or other forms of compensation; and selection for training, including apprenticeship. Purchaser agrees to comply with all Federal and state laws governing non-discrimination in employment applicable to the work performed under the Contract.

M-080 Records

Purchaser shall maintain all reports, data, correspondence, other and information pertaining to this Contract for a period of 6 years, and provide copies to the State upon request.

M-090 Waiver

Any provision of the Contract that is determined to be invalid, void, or illegal shall in

no way affect, impair, or invalidate any other provision of the Contract, such other provisions remaining in full force and effect.

M-100 Severability Clause

Any provision of the Contract that is determined to be invalid, void, or illegal shall in no way affect, impair, or invalidate any other provision of the Contract, such other provisions remaining in full force and effect.

M-110 Effective Date

This Contract shall be effective upon the date signed by the State of Washington, Department of Natural Resources.

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

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

Purchaser

State Forester

Print Name

Date: _____

Address:

Date: _____

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 _____

QUEETS CORNER
Schedule B - Thinning Prescription

Cut designated species to Basal Area Target in accordance with Table 1, starting at smallest diameter and working up to max DBH limits ensuring that smaller diameter trees are harvested first to meet target basal area requirements.

Table 1. Queets Corner Thinning Prescription

Unit	Trees per Acre Target	Target Relative Density	Target Basal Area	Diameter Max Cut Limit. (DBH) (Min = 7")	Designated Cut Species	No Cut
1	116	44	180	20"	WH, SS	DF,RC,RA,PSF

DF – Douglas-fir, WH – Western Hemlock, SS-Sitka Spruce, RC-Red Cedar, PSF- Pacific Silver fir, RA- Red alder

Basal Area Target – Target of residual basal area to be left, excluding landings, temporary roads, skips, and gaps. All live conifers within the DBH limits, regardless of species, may be counted toward the leave target. Variability of +/- 40 square feet per acre in any particular point within the treatment unit of the target is permitted on any one acre, but the average for the unit needs to be within +/- 5% of Target Basal Area. Post-harvest basal area will be measured by the Contract Administrator.

Designated Cut Species – These are species to be removed if they are within the diameter limits, less than 20 inches. All other non-designated tree species are to be left standing, as are all trees outside of the diameter limits, and excepting on landings and temporary roads.

DBH – Diameter Breast Height is 4.5 feet on the uphill side.

Right-of-way Timber – All right-of-way timber of any species or diameter may be removed for temporary road construction, road maintenance, or skid trails.

Suitable Nesting Trees: SNTs have been marked in advance with orange paint by the Forest Service; however, if purchaser encounters unmarked SNTS: Leave WH >20" DBH with large branch platforms greater than 4" across. Leave all surrounding trees with interlocking crowns.

Thinning is to be done from below, in general, leaving the largest diameter trees with the fullest crowns and removing smaller diameter trees of the designated species, which are in excess of the target basal area per acre. Even or minimum spacing is not desired. Focus on leave tree criteria over spacing. Thin variably leaving a mix of individual trees and small clumps. Only cut live trees. Leave snags where possible to maintain operator's safety. Leave hardwoods (vine maple, bigleaf maple, red alder, black cottonwood), unless located along temporary roads.

Structurally unique trees over 15" DBH, such as those with mistletoe brooms, broken tops, spike knots, cavities, and forked tops, will be favored as leave trees if available, though they should not be preferred over larger well-formed trees every time.

CERTIFICATION OF FALLERS AND YARDER OPERATORS – SEE CLAUSE H-011 OF THE CONTRACT.

The Contract Administrator and Faller/Harvester Operator will jointly review the take tree selection criteria as outlined in Schedule B of the contract.

In conjunction with the Contract Administrator, the Faller/Harvester Operator will mark a designated area as a test plot within the sale area boundary. Satisfactory thinning of the test plot completes the certification process. Certification may be revoked at any time by Contract Administrator if Contract Administrator determines that the prescription is not being implemented properly.

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

FOREST EXCISE TAX ROAD SUMMARY SHEET

Region:

Timber Sale Name:

Application Number:

EXCISE TAX APPLICABLE ACTIVITIES

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

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

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

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

Pre-Haul Maintenance: **linear feet**
Existing road to receive maintenance work (specifically required by the contract) prior to haul

EXCISE TAX EXEMPT ACTIVITIES

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

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

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

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

(Revised 6/13)

Cruise Narrative

GNA Sale Name: Queets Corner	Region: Olympic
Agree. #: 36-100598	District: Olympic National Forest
Lead cruiser: Dakota Truitt	Completion date: 02/13/20
Other cruisers on sale:	

Unit acreage specifications:

Unit #	Cruised Thinning acres	Cruised acres agree with sale acres? Yes/No	If acres do not agree explain why.
1	35.5 acres	No	Reduction of original cruised acres. See Queets Cruise plot map.
TOTALS	35.5 acres		

Unit cruise specifications:

Unit #	Sample type (VP, FP, ITS,100%)	Expansion factor (BAF, full/half)	Sighting height (4.5 ft, 16 ft.)	Grid size (Plot spacing or % of area)	Plot ratio (cruise:count)	Number of plots
1	VP	54.44/ 40	4.5 ft	300x300	1:1	19

Sale/Cruise Description:

Minor species cruise intensity:	Minor species sampled using same cruise plots with a 40 BAF.						
Minimum cruise spec:	Minimum DBH 8 inches; 10 Net BF; 40% of Form Factor at 16 ft. DOB or 5 inch top or merchantable top						
Avg ring count by sp:	<table style="width: 100%; border: none;"> <tr> <td style="border: none;">DF =</td> <td style="border: none;">N/A</td> <td style="border: none;">WH =</td> <td style="border: none;">5-7</td> <td style="border: none;">SS =</td> <td style="border: none;">5-7</td> </tr> </table>	DF =	N/A	WH =	5-7	SS =	5-7
DF =	N/A	WH =	5-7	SS =	5-7		
Leave/take tree description:	<p>Variable Density Thinning- See Schedule B Thinning Prescription in Timber Sale Contract.</p> <p>Individual leave trees are marked with orange bands and orange butt marks.</p> <p>Structurally unique trees over 15" DBH, such as those with mistletoe brooms, broken tops, spike knots, cavities, and forked tops, will be favored as leave trees if available, though they should not be preferred over larger well-formed trees every time.</p> <p>Wildlife trees are marked for leave with orange paint, ringed with two butt marks.</p>						

Other conditions	Harvest boundaries are marked with white timber sale tags, pink flashers, red flashers, pink flagging, and/or orange paint.
Sort Description	D- Domestic

Field observations:

The Queets Corner timber sale is a 1-unit variable density thinning harvest. Queets Corner is located on the West Boundary road systems. Access to the unit is very good. The topography ranges from flat ridgetop to slopes of 75% and ranges in elevation from 520' to 850'. The sale will be logged using 47% ground-based operations and 53% uphill cable yarding.

The timber consists mainly of Western hemlock and Sitka spruce with minor quantities of Western red cedar, Pacific Silver fir, and red alder. The take volume is comprised of Western hemlock (WH) 73% and Sitka spruce (SS) 27%, with a total take volume of 578 MBF. Western hemlock take trees have an average diameter of 13.6 inches and an average bole height of 76 feet. Sitka spruce take trees have an average diameter of 13.3 inches and an average bole height of 85 feet. Major defect observed was bear damage, butt rot, crooks, spike knots, and pockets of root rot throughout the stand.

For thinning prescriptions as well as diameter cut limits and designated cut species see contract. Any timber for Right-of-way purposes may be cut and removed.

Prepared by: Dakota Truitt

Title: Restoration Specialist/ Forester/ Timber Cruiser

TC PSTATS										PROJECT STATISTICS		PAGE	1
										PROJECT	OC	DATE	2/27/2020
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt			
23N	11	01	QC	QC		35.50	24	140	S	W			
			PLOTS		TREES	TREES	ESTIMATED TOTAL	PERCENT SAMPLE					
					PER PLOT	TREES	TREES						
TOTAL			24	140	5.8								
CRUISE			12	69	5.8	8,998		.8					
DBH COUNT													
REFOREST													
COUNT			12	69	5.8								
BLANKS													
100 %													
STAND SUMMARY													
SAMPLE TREES		TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC			
WHEMLOCK	18	39.9	17.7	87	16.2	68.0	12,438	12,309	2,849	2,849			
WHEMLOCK-T	22	106.0	13.0	77	27.1	97.5	14,367	13,970	3,446	3,442			
S SPRUCE	14	51.4	17.1	80	19.8	81.7	14,034	13,611	3,334	3,333			
S SPRUCE-T	4	32.0	14.0	82	9.1	34.0	5,623	5,531	1,321	1,321			
R ALDER	5	17.7	11.0	49	3.5	11.7	811	811	266	266			
PS FIR	3	3.4	24.8	90	2.3	11.3	1,817	1,719	449	449			
WR CEDAR	3	3.1	19.8	47	1.5	6.7	444	444	170	170			
TOTAL	69	253.5	15.0	77	80.3	310.9	49,533	48,394	11,835	11,830			
CONFIDENCE LIMITS OF THE SAMPLE													
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR													
CL	68.1	COEFF	SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.				
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15				
WHEMLOCK	48.7	11.8		318	361	403							
WHEMLOCK-T	39.2	8.5		133	145	158							
S SPRUCE	71.8	19.9		330	412	494							
S SPRUCE-T	37.8	21.6		145	185	225							
R ALDER	73.8	36.7		41	64	87							
PS FIR	43.5	30.1		373	533	694							
WR CEDAR	83.0	57.4		82	193	304							
TOTAL	79.4	9.6		245	271	297	252	63	28				
CL	68.1	COEFF	SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.				
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15				
WHEMLOCK	42.1	10.2		74	82	91							
WHEMLOCK-T	34.9	7.6		33	36	38							
S SPRUCE	57.4	15.9		83	98	114							
S SPRUCE-T	36.3	20.7		35	44	54							
R ALDER	83.8	41.7		13	22	31							
PS FIR	20.5	14.2		117	136	156							
WR CEDAR	64.3	44.5		38	68	99							
TOTAL	68.7	8.3		60	66	71	188	47	21				
CL	68.1	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.				
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15				
WHEMLOCK	107.3	22.3		31	40	49							
WHEMLOCK-T	72.9	15.2		90	106	122							
S SPRUCE	141.7	29.5		36	51	67							
S SPRUCE-T	110.9	23.1		25	32	39							
R ALDER	371.2	77.3		4	18	31							
PS FIR	290.9	60.6		1	3	5							
WR CEDAR	382.2	79.6		1	3	6							
TOTAL	44.3	9.2		230	253	277	82	20	9				
CL	68.1	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.				
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15				

PROJECT STATISTICS

PROJECT OC

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
23N	11	01	QC	QC	35.50	24	140	S	W		
			WHEMLOCK	103.5	21.6	53	68	83			
			WHEMLOCK-T	71.7	14.9	83	98	112			
			S SPRUCE	134.8	28.1	59	82	105			
			S SPRUCE-T	113.8	23.7	26	34	42			
			R ALDER	371.2	77.3	3	12	21			
			PS FIR	282.4	58.8	5	11	18			
			WR CEDAR	382.2	79.6	1	7	12			
			TOTAL	39.8	8.3	285	311	337	66	17	7
CL	68.1	COEFF	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
			WHEMLOCK	104.0	21.7	9,642	12,309	14,976			
			WHEMLOCK-T	71.7	14.9	11,883	13,970	16,056			
			S SPRUCE	137.2	28.6	9,720	13,611	17,502			
			S SPRUCE-T	115.9	24.1	4,195	5,531	6,866			
			R ALDER	371.2	77.3	184	811	1,438			
			PS FIR	276.2	57.5	730	1,719	2,708			
			WR CEDAR	382.2	79.6	90	444	797			
			TOTAL	45.2	9.4	43,835	48,394	52,952	85	21	9
CL	68.1	COEFF	NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
			WHEMLOCK	103.2	21.5	2,236	2,849	3,462			
			WHEMLOCK-T	71.1	14.8	2,932	3,442	3,951			
			S SPRUCE	132.8	27.7	2,411	3,333	4,256			
			S SPRUCE-T	114.7	23.9	1,006	1,321	1,637			
			R ALDER	371.2	77.3	60	266	472			
			PS FIR	282.0	58.8	185	449	713			
			WR CEDAR	382.2	79.6	35	170	305			
			TOTAL	41.9	8.7	10,799	11,830	12,862	73	18	8

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																	
T23N R11W S01 TyQC				35.50		Project: QC										Page 1					
						Acres 35.50										Date 2/27/2020					
																Time 3:16:05PM					
Spp	S	So	Gr	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf	
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
WH	D	2S		51	.6	7,343	7,300	259			86	14				100	39	13	264	1.45	27.6
WH	D	3S		43	2.0	6,217	6,090	216		100				1	99	36	8	97	0.69	62.6	
WH	D	4S		5		791	791	28	56	44			32	25	12	31	23	6	28	0.33	28.1
WH	D	UT		1		48	48	2	100				100			11	5	5	0.13	8.9	
WH Totals				30	1.2	14,398	14,228	505	3	45	44	7	2	2	1	95	32	9	112	0.82	127.2
WH	T	D	3S	78	3.3	9,616	9,301	330		100					100	36	8	83	0.57	111.9	
WH	T	D	4S	21	2.4	2,533	2,474	88	100				2	41	25	32	29	5	29	0.24	84.8
WH	T	D	UT	1		71	71	3	100				100			7	5	4	0.15	17.6	
WH Totals				25	3.1	12,220	11,845	421	21	79			1	9	5	85	31	7	55	0.44	214.3
SS	D	2S		64	3.4	9,841	9,507	338		3	55	42			100	40	14	313	1.80	30.4	
SS	D	3S		24	3.4	3,703	3,578	127		100					100	37	9	103	0.76	34.7	
SS	D	4S		12		1,660	1,660	59	29	71			15	5	13	67	22	6	27	0.33	60.9
SS	D	UT														6	5		0.00	11.9	
SS Totals				31	3.0	15,203	14,745	523	3	34	35	27	2	1	1	96	29	8	107	0.92	137.9
SS	T	D	2S	19		843	843	30		100					100	40	12	200	1.18	4.2	
SS	T	D	3S	60	2.7	2,757	2,683	95		100					100	37	9	105	0.66	25.6	
SS	T	D	4S	21		898	898	32	61	39			25	75	34	5	42	0.32	21.4		
SS	T	D	UT													9	5		0.00	4.2	
SS Totals				9	1.6	4,498	4,425	157	12	68	19			5	95	34	7	80	0.56	55.5	
SF	D	2S		86	4.7	1,557	1,483	53			64	36			100	39	15	347	2.20	4.3	
SF	D	3S		14	9.6	261	236	8		100					100	40	9	95	0.82	2.5	
SF	D	UT														10	8		0.00	2.2	
SF Totals				4	5.4	1,817	1,719	61		14	55	31			100	32	12	193	1.56	8.9	
RA	D	4S		96		784	784	28	33	67			16		17	67	30	6	44	0.49	17.7
RA	D	UT		4		27	27	1	100				100				15	5	20	0.29	1.4
RA Totals				2		811	811	29	35	65			19		17	65	29	6	43	0.48	19.0
RC	D	2S		76		339	339	12		47	53				100	36	12	217	1.97	1.6	
RC	D	3S		14		63	63	2	100						100	36	5	40	0.77	1.6	
RC	D	4S		10		42	42	2		100			100			9	6	14	0.57	3.1	
RC Totals				1		444	444	16	14	46	40		10		90	22	7	71	1.21	6.3	
Totals					2.4	49,391	48,217	1,712	9	51	28	12	2	3	2	93	31	8	85	0.68	569.1

Estimated Take Volume

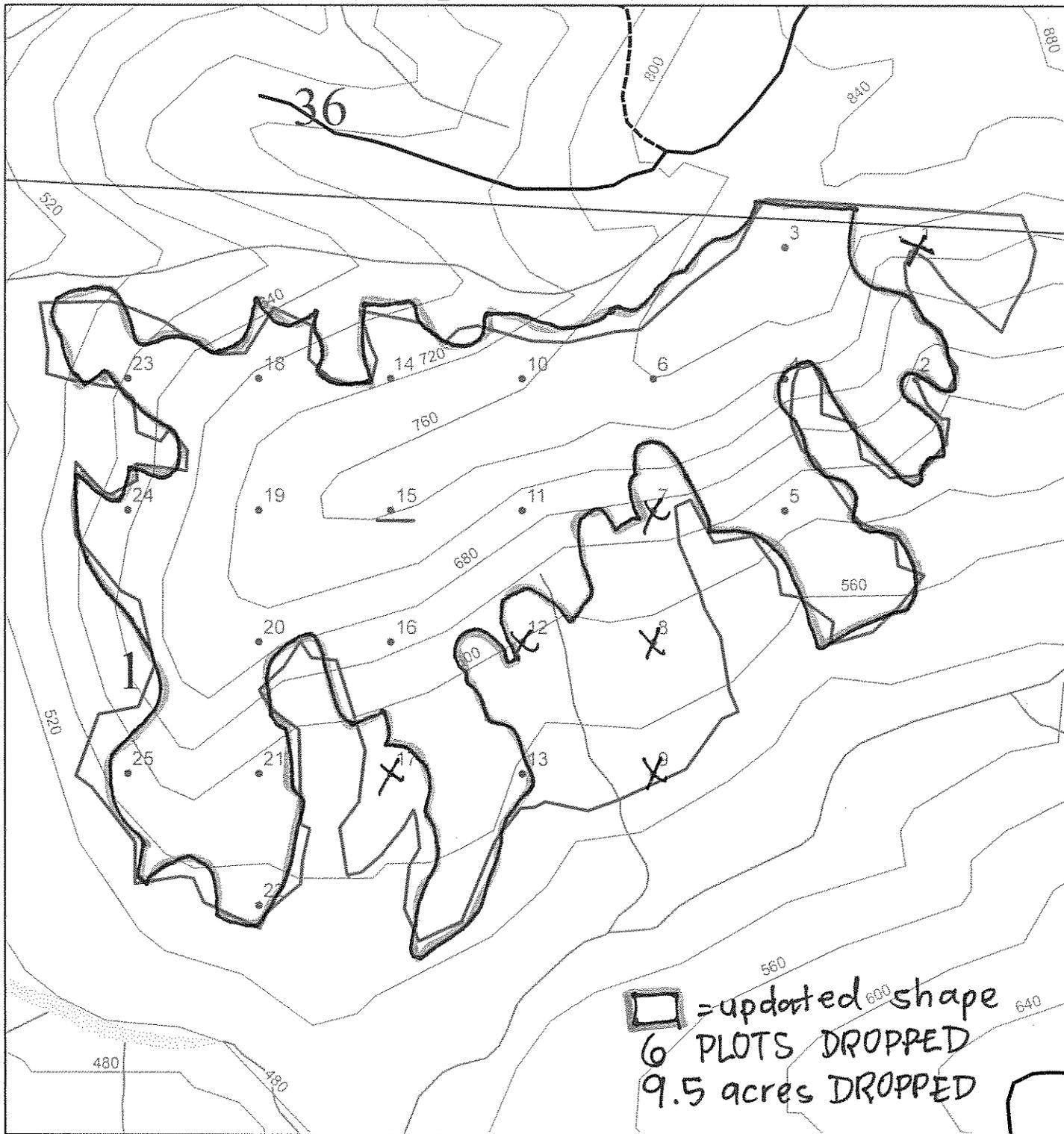
Western hemlock 421 MBF

Sitka spruce 157 MBF

TOTAL Take Volume= 578 MBF

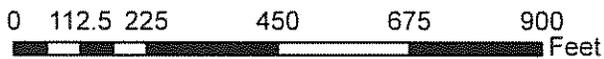
TC		PSTNDSUM		Stand Table Summary										Page	1		
														Date:	2/27/2020		
		T23N R11W S01 TyQC		35.50		Project				QC		Time:		3:33:46PM			
				Acres				35.50		Grown Year:							
S Spc	T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
WH		9	1	99	17	4.707	2.27										
WH		10	1	99	17	4.330	2.27										
WH		11	1	98	17	3.772	2.27										
WH		12	1	82	96	2.841	2.27	5.68	13.9	50.0	2.52	79	284	89	28	10	
WH		14	2	95	66	4.214	4.54	6.37	14.8	73.3	3.01	94	467	107	33	17	
WH		15	2	93	54	3.775	4.54	3.90	20.0	85.0	2.50	78	332	89	28	12	
WH		16	1	98	17	1.585	2.27										
WH		17	2	87	110	3.037	4.54	9.11	20.0	78.3	5.84	183	713	207	65	25	
WH		18	4	95	83	5.197	9.07	9.05	30.3	130.9	8.78	274	1,185	312	97	42	
WH		19	4	87	105	4.650	9.07	11.63	30.9	117.0	11.50	359	1,361	408	128	48	
WH		20	5	94	81	5.295	11.34	9.42	34.6	165.2	10.42	326	1,557	370	116	55	
WH		21	3	96	58	2.831	6.81	2.94	39.2	193.3	3.69	115	568	131	41	20	
WH		24	2	95	63	1.469	4.54	1.44	65.8	305.0	3.04	95	440	108	34	16	
WH		26	1	85	126	.630	2.27	1.89	56.6	253.3	3.42	107	479	121	38	17	
WH		Totals	30	94	62	48.332	68.05	61.44	27.8	120.2	54.70	1,710	7,385	1,942	607	262	
WHT		10	4	98	17	16.236	9.07										
WHT		11	8	93	54	27.811	18.15	27.68	11.1	42.6	9.82	306	1,180	349	109	42	
WHT		12	7	87	79	20.097	15.88	37.40	11.8	44.4	14.13	441	1,660	502	156	59	
WHT		13	6	94	45	15.100	13.61	9.96	16.8	70.0	5.36	167	697	190	59	25	
WHT		14	6	94	57	12.835	13.61	12.62	19.8	86.3	7.98	249	1,090	283	89	39	
WHT		15	6	96	60	11.255	13.61	14.95	17.8	82.2	8.55	266	1,228	303	95	44	
WHT		16	2	81	98	3.272	4.54	6.54	24.7	92.4	5.16	161	605	183	57	21	
WHT		17	2	83	109	3.055	4.54	9.17	19.0	75.0	5.59	175	687	198	62	24	
WHT		18	1	99	17	1.358	2.27										
WHT		19	1	99	17	1.202	2.27										
WHT		Totals	43	93	55	112.221	97.54	118.32	14.9	60.4	56.59	1,766	7,147	2,009	627	254	
SS		8	2	99	17	12.524	4.54										
SS		9	1	99	85	5.370	2.27	10.74	6.3	40.0	1.77	68	430	63	24	15	
SS		10	2	99	17	8.320	4.54										
SS		11	2	98	17	7.133	4.54										
SS		12	1	98	17	2.749	2.27										
SS		13	2	99	17	4.777	4.54										
SS		15	4	88	71	7.475	9.07	13.00	17.5	56.7	5.91	227	737	210	81	26	
SS		16	2	96	67	3.230	4.54	4.75	21.4	93.3	2.64	102	444	94	36	16	
SS		17	1	99	17	1.390	2.27										
SS		18	2	98	17	2.554	4.54										
SS		19	2	99	17	2.430	4.54										
SS		20	3	91	112	3.111	6.81	8.25	35.5	158.9	7.61	293	1,311	270	104	47	
SS		22	2	87	71	1.719	4.54	2.63	36.6	76.7	2.50	96	201	89	34	7	
SS		23	3	90	54	2.402	6.81	2.44	39.6	120.0	2.51	97	293	89	34	10	
SS		24	1	88	120	.747	2.27	2.24	45.6	203.3	2.66	102	455	94	36	16	
SS		25	1	91	133	.693	2.27	2.08	55.1	270.0	2.98	115	561	106	41	20	
SS		26	2	92	64	1.250	4.54	1.85	52.9	230.0	2.54	98	425	90	35	15	
SS		27	1	99	17	.583	2.27										
SS		29	2	95	68	1.020	4.54	1.54	69.2	353.3	2.76	106	543	98	38	19	
SS		Totals	36	96	41	69.478	81.66	49.51	26.3	109.1	33.87	1,302	5,401	1,202	462	192	
SST		9	2	98	17	10.432	4.54										
SST		10	3	98	17	12.077	6.81										
SST		12	2	95	64	5.637	4.54	5.50	17.5	80.0	2.50	96	440	89	34	16	
SST		13	3	93	43	7.128	6.81	4.92	15.0	50.0	1.91	74	246	68	26	9	
SST		15	1	92	100	1.925	2.27	3.85	23.3	110.0	2.33	90	423	83	32	15	

TC		PSTNDSUM		Stand Table Summary								Page		2			
												Date:		2/27/2020			
T23N R11W S01 TyQC				35.50		Project				QC		Time:		3:33:46PM			
						Acres				35.50		Grown Year:					
S Spc	T	DBH	Sample Trees	FF 16'	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
SST		16	3	99	17	4.941	6.81										
SST		17	1	88	111	1.406	2.27	4.22	22.1	86.7	2.42	93	366	86	33	13	
SST		Totals	15	96	34	43.545	34.03	18.49	19.1	79.8	9.16	352	1,475	325	125	52	
SF		15	1	99	17	1.777	2.27										
SF		17	1	99	17	1.390	2.27										
SF		24	2	83	114	1.487	4.54	3.73	48.0	164.0	5.12	179	611	182	63	22	
SF		28	1	88	115	.538	2.27	1.61	56.2	260.0	2.60	91	420	92	32	15	
SF		Totals	5	93	55	5.192	11.34	5.34	50.4	193.0	7.72	269	1,031	274	96	37	
RA		8	1	99	52	4.436	1.67	4.44	7.1	40.0	.86	31	177	31	11	6	
RA		10	1	98	51	3.248	1.67	3.25	10.7	40.0	.96	35	130	34	12	5	
RA		12	2	98	42	4.142	3.33	2.02	20.2	90.0	1.12	41	182	40	14	6	
RA		13	1	29	68	1.956	1.67	1.96									
RA		18	1	77	69	.964	1.67	1.93	26.3	70.0	1.39	51	135	49	18	5	
RA		19	1	98	17	.874	1.67										
RA		Totals	7	88	50	15.619	11.67	13.59	11.6	45.9	4.33	158	624	154	56	22	
RC		8	1	99	17	4.657	1.67										
RC		16	1	81	46	1.179	1.67	2.36	13.8	20.0	.76	33	47	27	12	2	
RC		20	1	80	68	.749	1.67	1.50	31.2	90.0	1.10	47	135	39	17	5	
RC		27	1	80	72	.419	1.67	.84	57.4	180.0	1.13	48	151	40	17	5	
RC		Totals	4	93	31	7.004	6.67	4.69	27.1	70.9	2.99	127	333	106	45	12	
Totals			140	94	49	301.391	310.95	271.38	20.9	86.2	169.37	5,685	23,396	6,012	2,018	831	

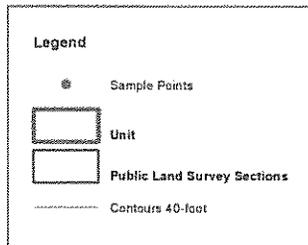


Cruiser Sample Point Locations

LAYER NAME	queets_harvestsysproject	Township:	T23R11W, T24R11W
POLY ID:	1	Total Sample Points:	25 19
Acres:	46	Spacing Between Points:	300
	35.5	Point Rotation Degrees:	0



Scale 1:3,900



Washington State Department of Natural Resources
Hilary Franz, Commissioner of Public Lands

Jan 22, 2020 07:49 AM

Species Summary - Trees, Logs, Tons, CCF, MBF

T23N R11W S01 TyQC

35.5

Project QC
Acres 35.50Page No 1
Date: 2/27/2020
Time 3:46:32PM

Species	s T	Total	Total	Total	Net Cubic Ft/		CF/	Total CCF		Total MBF	
		Trees	Logs	Tons	Tree	Log	LF	Gross	Net	Gross	Net
WHEMLOCK	T	3,763	8,210	3,914	32.46	14.88	0.48	1,223	1,222	510	496
S SPRUCE		1,823	4,520	3,077	64.90	26.18	0.93	1,183	1,183	498	483
WHEMLOCK		1,416	3,635	3,237	71.45	27.83	0.90	1,011	1,011	442	437
S SPRUCE	T	1,137	2,461	1,219	41.25	19.06	0.58	469	469	200	196
PS FIR		120	316	457	133.02	50.43	1.58	159	159	65	61
R ALDER		627	675	260	15.07	14.00	0.48	95	95	29	29
WR CEDAR		111	222	142	54.29	27.15	1.23	60	60	16	16
Totals		8,998	20,039	12,306	46.68	20.96	0.69	4,201	4,200	1,758	1,718

Wood Type Species	Total	Total	Total	Net Cubic Ft/		CF/	Total CCF		Total MBF	
	Trees	Logs	Tons	Tree	Log	LF	Gross	Net	Gross	Net
A	627	675	260	15.07	14.00	0.48	95	95	29	29
B	5,179	11,845	7,151	43.12	18.85	0.61	2,235	2,233	952	933
C	111	222	142	54.29	27.15	1.23	60	60	16	16
O	2,960	6,981	4,296	55.81	23.67	0.80	1,652	1,652	698	680
W	120	316	457	133.02	50.43	1.58	159	159	65	61
Totals	8,998	20,039	12,306	46.68	20.96	0.69	4,201	4,200	1,758	1,718

GOOD NEIGHBOR AUTHORITY
OLYMPIC NATIONAL FOREST
PACIFIC RANGER DISTRICT

QUEETS CORNER TIMBER SALE ROAD PLAN
GRAYS HARBOR COUNTY

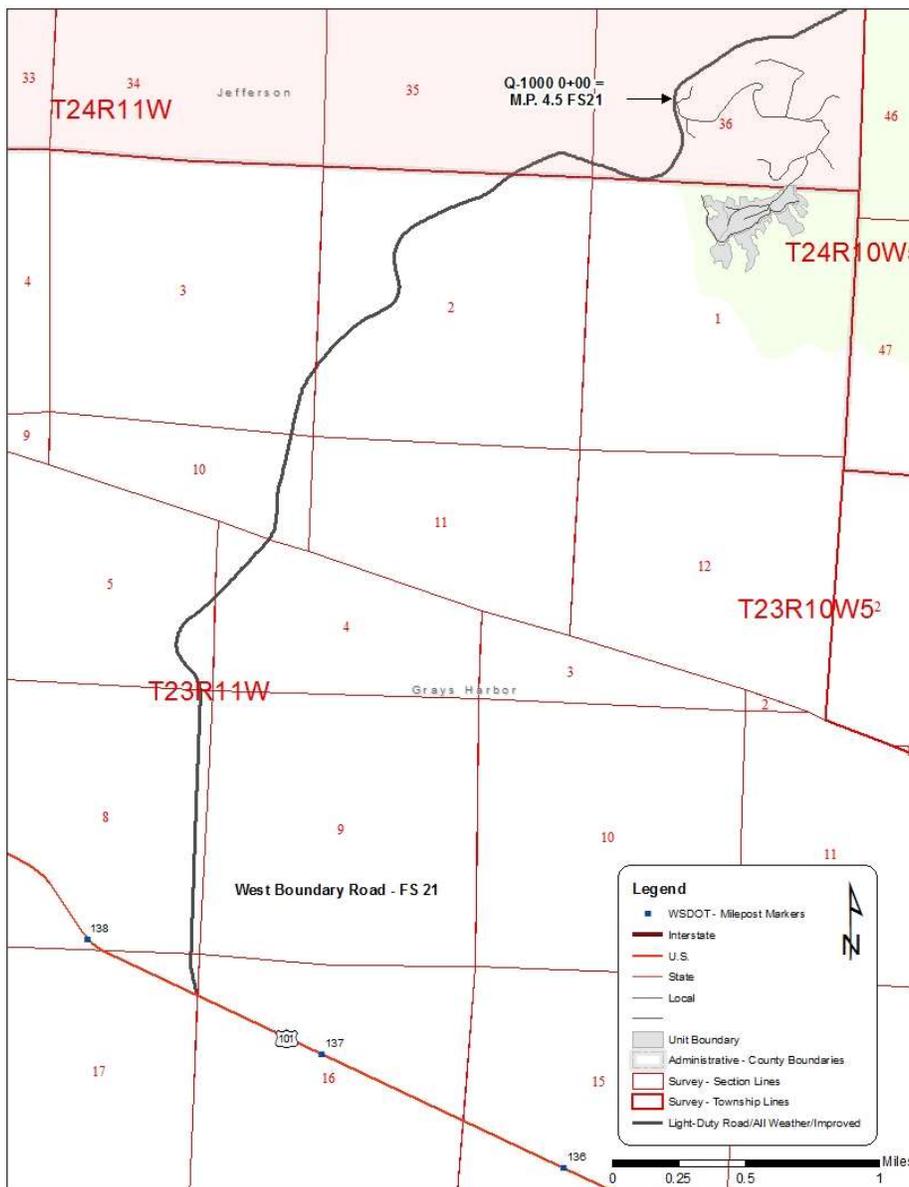
AGREEMENT NO.: 36-100598

STAFF ENGINEER: JUSTIN LONG

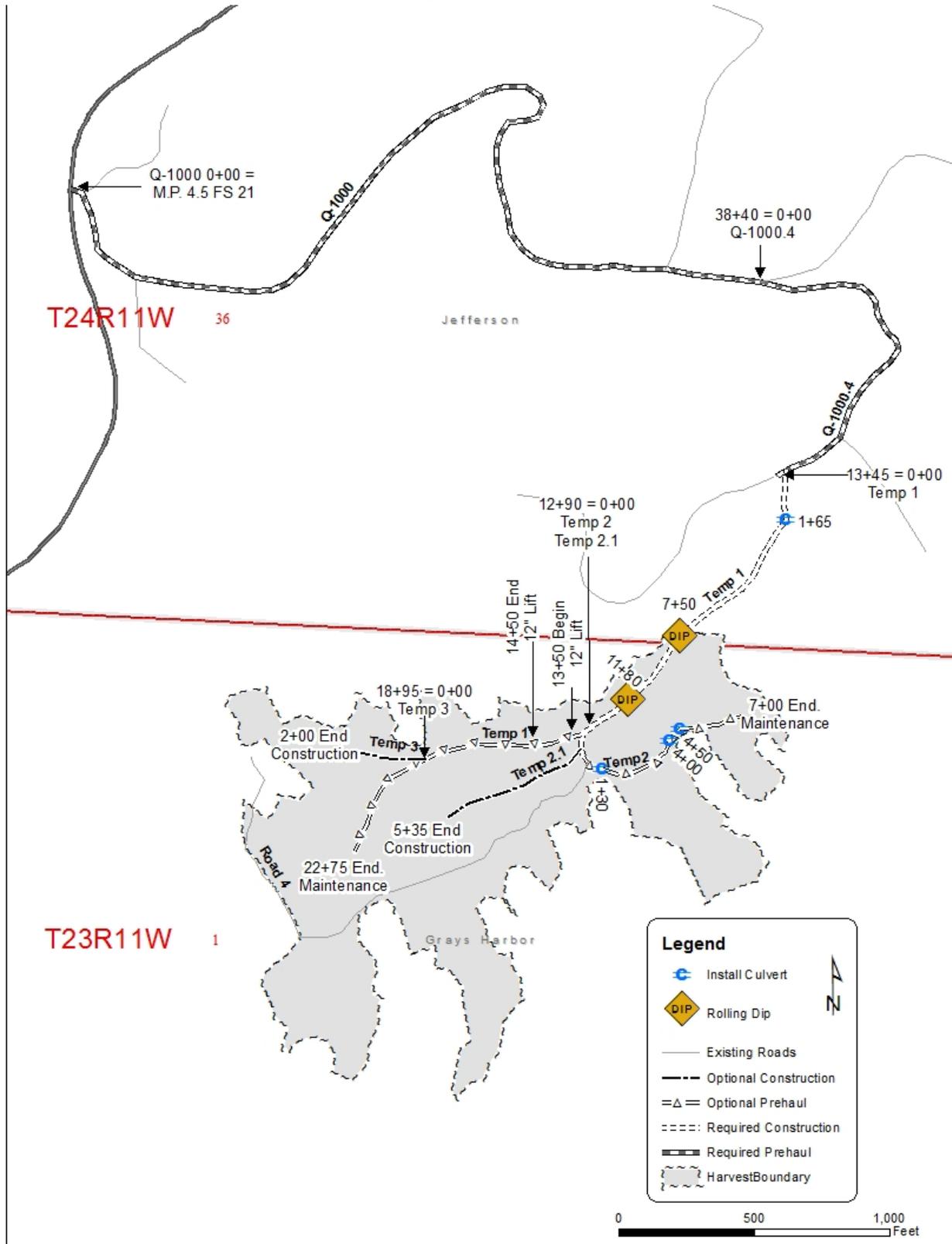
DATE: 03/23/2020

DRAWN & COMPILED BY: JUSTIN LONG

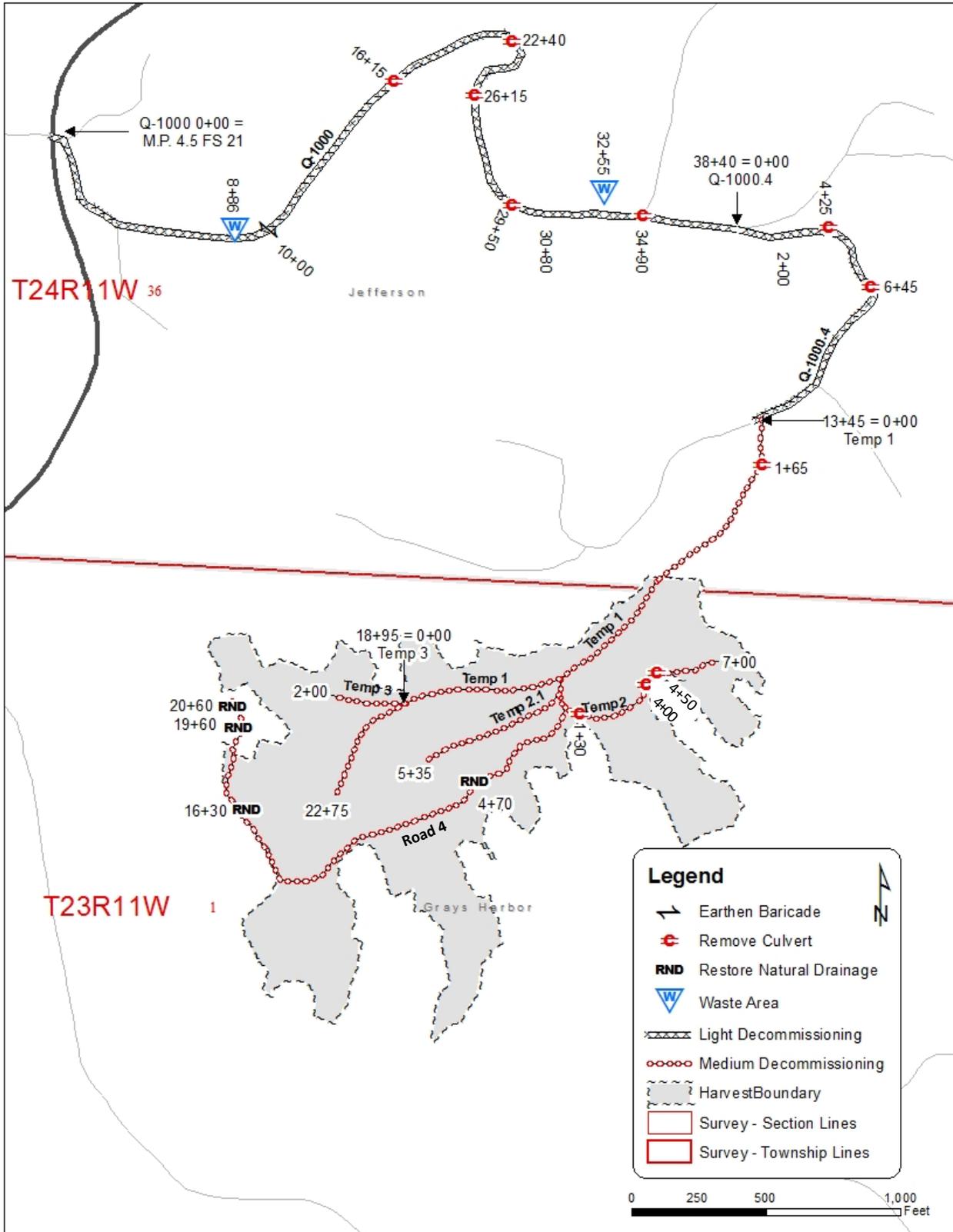
MAP 1 OF 3
VICINITY MAP



**MAP 2 OF 3
CONSTRUCTION AND MAINTENANCE**



**MAP 3 OF 3
DECOMMISSIONING**



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>	<u>Comments</u>
Q-1000	0+00 to 38+40	Prehaul Maintenance	-
Q-1000.4	0+00 to 13+45	Prehaul Maintenance	-
Temp 1	0+00 to 12+90	Temporary Construction	If overwintered, Culverts must be removed and roads must be waterbarred by September 30. Purchaser shall construct waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical distance of no more than 10 feet between waterbars or between natural drainage paths, and with a maximum spacing of 300 feet.

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>	<u>Comments</u>
Temp 1	12+90 to 22+75	Prehaul Maintenance	Reconstruct Ditch according to the TYPICAL SECTION SHEET.
Temp 2	0+00 to 7+00	Prehaul Maintenance	If overwintered, Culverts must be removed and roads must be waterbarred by September 30. Purchaser shall construct waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical distance of no more than 10 feet between waterbars or between natural drainage paths, and with a maximum spacing of 300 feet.
Temp 2.1	0+00 to 5+35	Temporary Construction	
Temp 3	0+00 to 2+00	Temporary Construction	

0-4 CONSTRUCTION

Construction includes, but is not limited to.

- Clearing;
- Grubbing;
- Right-of-way debris disposal;
- Construct road in accordance to the TYPICAL SECTION SHEET;
- Excavation and/or embankment to subgrade;
- Compaction of embankment and subgrade as listed in the COMPACTION LIST.
- Turnaround and turnout construction;
- Construction of drivable dips as according to the DRIVABLE DIP DETAIL as listed in the CULVERT AND DRIANAGE LIST.
- Acquisition and installation of drainage structures as listed in the CULVERT AND DRAINAGE LIST;
- Acquisition and application of rock as listed in the ROCK LIST;
- Creating positive drainage using a combination of insloping, outsloping, and ditchouts as needed or as designated by the Contract Administrator.

0-6 PRE-HAUL MAINTENANCE

Pre-haul maintenance includes, but is not limited to.

- Cleaning culverts and catchbasins;
- Acquisition and application of rock as listed in the ROCK LIST;
- Roadside brushing and debris removal;
- Acquisition and installation of drainage structures as listed in the CULVERT AND DRIANAGE LIST;
- Cleaning and reshaping ditches;

0-7 POST-HAUL MAINTENANCE

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

0-9 DECOMMISSIONING

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

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 any submitted plan that changes the scope of work or environmental condition from the original road 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 or design data (plan, profile, and cross-sections).

1-4 ROAD TOLERANCES

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

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

1-5 DESIGN DATA

Design data is available upon request at the Department of Natural Resources Olympic Region Office in Forks, WA.

1-6 ORDER OF PRECEDENCE

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

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

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

1-7 TEMPORARY ROAD CLOSURE

Purchaser shall notify the Contract Administrator a minimum of 5 calendar days before the closure of any road. Construction may not close any road for more than 14 consecutive calendar days.

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.

1-10 WSDOT STANDARD SPECIFICATION REFERENCE

References in this road plan to "WSDOT Standard Specifications" mean the Washington State Department of Transportation's Standard Specifications for Road, Bridge, and Municipal Construction 2012 (M41-10).

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 flags for centerline and points of interest

1-20 COMPLETE BY DATE

Purchaser shall complete road work by August 31, 2021.

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 14 calendar days before work begins.

1-23 ROAD WORK PHASE APPROVAL

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

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

1-25 ACTIVITY TIMING RESTRICTION

The specified activities are not allowed during the listed closure period(s) unless authorized in writing by the Contract Administrator. Restrictions for hauling forest products are specified in Contract Clause H-131 HAULING SCHEDULE.

<u>Activity</u>	<u>Closure Period</u>
All Road Work	September 30 th to June 1 st .
Q-1000 and Q-1000.4 Culvert Removals	October 1 st to June 30 th

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 federal 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. If other operators are using, or desire to use these roads, a joint operating plan must be developed. All parties shall follow this plan.

1-29 SEDIMENT RESTRICTION

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

1-30 CLOSURE TO PREVENT DAMAGE

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

- Wheel track rutting exceeds 6 inches on pit run roads.
- Wheel track rutting exceeds 4 inches on crushed rock roads.
- Wheel track rutting exceeds 8 inches on native surface roads.
- Surface or base stability problems persist.
- Weather is such that satisfactory results cannot be obtained in an area of operations.
- When, in the opinion of the Contract Administrator excessive road damage or rutting may occur.

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

1-43 ROAD WORK AROUND UTILITIES

It is the Purchaser’s responsibility to identify any utilities not listed. Purchaser shall work in accordance with all applicable laws or rules concerning utilities. Purchaser is responsible for all notification, including “call before you dig”, and liabilities associated with the utilities and their rights-of-way.

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.

2-4 PASSAGE OF LIGHT VEHICLES

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

<u>Road</u>	<u>Stations</u>
Q-1000	0+00 to 38+40
Q-1000.4	0+00 to 13+45
TEMP 1	0+00 to 12+90

2-5 MAINTENANCE GRADING – EXISTING ROAD

Purchaser shall use a grader to shape the existing surface before timber haul. Purchaser shall accomplish all grading using a motor grader with a minimum of 175 horsepower.

2-6 CLEANING CULVERTS

Purchaser shall clean the inlets and outlets of all culverts before timber haul.

SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL

3-5 CLEARING

Purchaser shall fall all vegetative material between the marked right-of-way boundaries or if not marked in the field, between the clearing limits specified on the TYPICAL SECTION SHEET. Clearing must be completed before starting excavation and embankment.

3-7 RIGHT-OF-WAY DECKING

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

3-8 PROHIBITED DECKING AREAS

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

- Within the grubbing limits.
- Within 50 feet of any stream.
- Within 50 feet of any cross drain or drivable dip.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- On slopes greater than 45%.
- Against standing trees.

3-10 GRUBBING

Purchaser shall remove all stumps between the grubbing limits specified on the TYPICAL SECTION SHEET and within waste and debris areas. Purchaser shall also remove stumps with undercut roots outside the grubbing limits.

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.

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, except by burning, before timber haul.

3-23 PROHIBITED DISPOSAL AREAS

Purchaser shall not place organic debris in the following areas:

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

3-24 BURYING ORGANIC DEBRIS RESTRICTED

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

3-25 SCATTERING ORGANIC DEBRIS

Purchaser shall scatter organic debris in natural openings as directed by the Contract Administrator. Where natural openings are unavailable or restrictive, alternate debris disposal methods are subject to the written approval of the Contract Administrator.

3-30 EXCLUSION OF DOZER BLADES

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

3-31 PILING AND SCATTERING

Right-of-way debris shall be scattered unless debris amounts are significant enough to produce piles a minimum of 4' tall by 6' wide. Debris piles shall be made to be burnable, clean, tight, and free of rock or soil. Piles shall be made no closer than 20 feet from standing timber, and no higher than 10 feet. Debris piles shall be placed within cleared right-of-way, or in natural openings, as designated by the Contract Administrator. Placement of debris piles outside of the right-of-way limits is subject to the written approval of the Contract Administrator. No piling within the Riparian Habitat Conservation Area (RHCA).

SECTION 4 – EXCAVATION

4-2 PIONEERING

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

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

4-3 ROAD GRADE AND ALIGNMENT STANDARDS

Purchaser shall follow these standards for road grade and alignment:

- Grade and alignment must have smooth continuity, without abrupt changes in direction.
- Maximum grades may not exceed 18 percent favorable and 15 percent adverse.
- Minimum curve radius is 60 feet at centerline.
- Maximum grade change for sag vertical curves is 10% in 100 feet.
- Maximum grade change for crest vertical curves is 8% 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 12%.
- Maximum favorable grades for switchbacks is 15%.
- 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 (56% to 70% side slopes)	¾:1	133
Common Earth (on slopes over 70%)	½:1	200
Fractured or loose rock	½:1	200
Hardpan or solid rock	¼:1	400

4-6 EMBANKMENT SLOPE RATIO

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

<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.

4-21 TURNOUTS

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

4-22 TURNAROUNDS

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

4-28 DITCH DRAINAGE

Ditches must drain to cross-drain culverts, rolling dips, or ditchouts.

4-29 DITCHOUTS

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

4-35 WASTE MATERIAL DEFINITION

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

4-36 DISPOSAL OF WASTE MATERIAL

Purchaser may sidecast waste material on side slopes up to 45% if the waste material is compacted and free of organic debris.

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>	<u>Comments</u>
Q-1000	8+86	Designated waste area
Q-1000	22+40	Culvert removal site. Do not impede ditch drainage.
Q-1000	32+55	Designated waste area
Q-1000.4	4+25	Culvert removal site. Do not impede ditch drainage.
Q-1000.4	6+45	Culvert removal site. Do not impede ditch drainage.

4-38 PROHIBITED WASTE DISPOSAL AREAS

Purchaser shall not deposit waste material in the following areas:

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

4-48 NATIVE MATERIAL

Native material consists of naturally occurring material that is free of organic debris, trash, and rocks greater than 6 inches in any dimension.

4-55 ROAD SHAPING

Purchaser shall shape the subgrade and surface as shown on the TYPICAL SECTION SHEET. The subgrade and surface shape must ensure runoff in an even, un-concentrated manner, and must be uniform, firm, and rut-free. Purchaser shall accomplish all shaping using a motor grader with a minimum of 175 horsepower.

4-61 SUBGRADE COMPACTION

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

4-63 EXISTING SURFACE COMPACTION

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

SECTION 5 – DRAINAGE

5-5 CULVERTS

Purchaser shall install culverts as part of this contract. Culverts must be installed concurrently with subgrade work and must be installed before subgrade compaction and rock application. Culvert locations and the minimum requirements for culvert length and diameter are designated on the MATERIALS LIST. Culvert, downspout, and flume lengths may be adjusted to fit as-built conditions and may not terminate directly on unprotected soil. Culverts may be new or used material and must meet the specifications in Clauses 10-15 through 10-24. Culvert placement shall precede embankment construction.

5-7 USED CULVERT MATERIAL

On the following roads, Purchaser may install used culverts. Purchaser shall obtain approval from the Contract Administrator for the quality of the used culverts before installation.

Road	Stations
Temp 1	1+65
Temp 2	1+30, 5+00, 5+50

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". Culverts must be installed in a manner consistent with the manufacturer’s recommendations. Precautions will be taken to ensure no sediment is delivered to live water.

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

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

5-20 ENERGY DISSIPATERS

Purchaser shall install energy dissipaters in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all culverts on the CULVERT AND DRAINAGE LIST that specify the placement of rock.

5-21 DOWNSPOUTS AND FLUMES

Downspouts and flumes longer than 10 feet must be staked on both sides at a maximum interval of 10 feet with heavy-duty steel posts, and fastened securely to the posts with No. 10 galvanized smooth wire.

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 shall meet the specifications for Light Loose Rip Rap. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets. Minimum specifications require that rock be placed at a width of one culvert diameter on each side of the culvert opening, and to a height of one culvert diameter above the top of the culvert. Rock may not restrict the flow of water into culvert inlets or catch basins. Placement shall be by zero-drop-height method only. No placement by end dumping or dropping of rock is allowed.

5-27 ARMORING FOR 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 CULVERT AND DRAINAGE LIST or as directed by the Contract Administrator. Rock shall 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.

5-31 ROLLING DIP CONSTRUCTION

Purchaser shall construct rolling dips in accordance with the DRIVABLE DIP DETAIL and as specified on the CULVERT AND DRAINAGE LIST. Rolling dips must be installed concurrently with construction of the subgrade and must be maintained in an operable condition.

5-33 NATIVE SURFACE ROADS

If overwintered, native surface roads must be waterbarred by September 30. Purchaser shall construct waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical distance of no more than 10 feet between waterbars or between natural drainage paths, and with a maximum spacing of 300 feet.

SECTION 6 – ROCK AND SURFACING

6-5 ROCK FROM COMMERCIAL SOURCE

Rock used in accordance with the quantities on the ROCK LIST may be obtained from the listed commercial source at the Purchaser's expense and must be a certified weed free source either by the Forest Service or the County Weed Board. Rock sources are subject to written approval by the Contract Administrator before their use.

<u>Possible Source</u>	<u>Location</u>
Quinault Pit	6379 Highway 101 Amanda Park, WA 98562

6-41 SELECT PIT RUN ROCK

No more than 30 percent of the rock may be larger than 6 inches in any dimension and no rock may be larger than 8 inches in any dimension. Pit Run rock may not contain more than 10 percent by weight of organic debris and trash and must be certified as free of noxious weeds by the Forest Service or the County Weed Board. 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>
70% to 100%	50 lbs. to 500 lbs. (8" - 18")
30% to 50%	3 inch to 50 lbs. (3" - 8")

6-56 ROCK MEASUREMENT BY TRUCK VOLUME

Measurement of rock is on a cubic yard truck measure basis. The Contract Administrator will measure each truck box before rock hauling. An average of such volumes for each truck will be used to tally the volume hauled. The Contract Administrator may periodically require that a load be flattened off and its volume calculated. Purchaser shall maintain load tally sheets for each truck as shown in ROCK ACCOUNTABILITY DETAIL and shall give them to the Contract Administrator on a weekly basis during rocking operations.

6-70 APPROVAL BEFORE ROCK APPLICATION

Purchaser shall obtain written approval from the Contract Administrator for approved completion of subgrade and drainage installations before rock application.

6-71 ROCK APPLICATION

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

SECTION 7 – STRUCTURES

7-2 SIGN INSTALLATION (NON-HIGHWAY)

The Purchaser shall be responsible for the purchase, installation, and maintenance of the following road signs. Signs shall be installed a minimum of 7 days before road work begins. All signs used to notify the public of timber sale activities and delineate hazards must meet the current standard of MUTCD (Manual on Uniform Traffic Control Devices) such as warning signs, delineators, gates. Required safety road closures shall be planned in advance and documented between the Purchaser and Contract Administrator.

<u>Road</u>	<u>Station</u>	<u>Sign</u>
Q-1000	1+00	Forest Operations Ahead (or similar)

7-57 CULVERT SHAPE CONTROL

Purchaser shall monitor the culvert shape during backfill and compaction. Special attention must be paid to maintaining the structure’s rise dimensions, concentricity, and smooth uniform curvature. If compaction methods are resulting in peaking or deflection of the culvert, Purchaser shall modify the compaction method to achieve the appropriate end result.

SECTION 8 – EROSION CONTROL

8-1 SEDIMENT CONTROL STRUCTURES

On the following road(s), Purchaser shall install sediment traps in accordance with the SEDIMENT TRAP DETAIL.

<u>Road</u>	<u>Stations</u>
Temp 2	5+25, 5+75

8-2 PROTECTION FOR EXPOSED SOIL

Purchaser shall provide and evenly spread a 4-inch layer of Weed-free straw to all exposed soils within 150 feet of a stream or wetland. Soils must be covered before the first anticipated storm event.

8-15 REVEGETATION

On the following road(s), Purchaser shall spread grass seed on all exposed soils resulting from road work activities.

<u>Road</u>	<u>Location</u>	<u>Qty (lbs)*</u>	<u>Type</u>	<u>Comments</u>
Temp 1	0+00 to 22+75	25/acre	Grass Seed	Apply during decommissioning
Temp 2	0+00 to 7+00	25/acre	Grass Seed	Apply during decommissioning
Temp 2	4+00 to 6+00	25/acre	Grass Seed	Apply after culvert install
Temp 2.1	0+00 to 5+35	25/acre	Grass Seed	Apply during decommissioning
Temp 3	0+00 to 2+00	25/acre	Grass Seed	Apply during decommissioning
Road 4	0+00 to 20+60	25/acre	Grass Seed	Apply during decommissioning

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

8-16 REVEGETATION SUPPLY

The Forest Service will provide certified weed free grass seed for the project.

8-17 REVEGETATION TIMING

Purchaser shall revegetate after road work is completed between April 15 and November 1, unless otherwise approved in writing by the Contract Administrator.

8-18 PROTECTION FOR SEED

Purchaser shall provide a protective cover for grass seed on all exposed soils. The protective cover shall consist of certified weed free straw applied at 1.5-2 tons/acre so that 15-20% of soil surface remains exposed. Minimum of one inch thick, with 15-20% of soil surface visible through straw after application.

8-25 GRASS SEED

Native grass seed or seed mixes provided by the Olympic National Forest. Seed consisting of only grass species will be sown at 25 lbs/acre. Seed mixes that consist of native grass and forb species may also be provided by the Olympic National Forest, as appropriate. These will be spread evenly by the purchaser according to the label on the bag of seed provided.

SECTION 9 – POST-HAUL ROAD WORK

9-1 EARTHEN BARRICADES

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

<u>Road</u>	<u>Stations</u>
Q-1000	10+00

9-2 CULVERT REMOVAL FROM LIVE STREAM

On the following road(s), Purchaser shall remove culverts from the road prism and leave the resulting channel open with excavation slope and excavated channel width as specified.

<u>Road</u>	<u>Stations</u>	<u>Excavated Channel Width</u>	<u>Slope Ratio</u>	<u>Comments</u>
Q-1000	22+40	8 ft	1.5H:1V	Slope 1.5H:1V or match valley wall
Q-1000.4	4+25	9 ft	1.5H:1V	
Q-1000.4	6+45	8 ft	1.5H:1V	
Temp 2	4+50	4 ft	1.5H:1V	

9-3 CULVERT MATERIAL REMOVED FROM FEDERAL LAND

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

9-5 POST-HAUL MAINTENANCE

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

<u>Road</u>	<u>Comments</u>
Q-1000	Post-haul Maintenance required.
Q-1000.4	
Temp 1	No Post-haul Maintenance required.
Temp 2	
Temp 2.1	
Temp 3	

9-20 ROAD DECOMMISSIONING

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

<u>Road</u>	<u>Stations</u>	<u>Type</u>
Q-1000	10+00 to 38+40	Light
Q-1000.4	0+00 to 13+45	Light
Temp 1	0+00 to 12+90	Medium
Temp 1	12+90 to 22+75	Medium
Temp 2	0+00 to 7+00	Medium
Temp 2.1	0+00 to 5+35	Medium
Temp 3	0+00 to 2+00	Medium
Road 4	0+00 to 20+60	Medium

9-22 LIGHT DECOMMISSIONING

- Perform Decommissioning work shown on the CULVERT AND DRAINAGE LIST for the Q-1000 and Q-1000.4.
- Remove Q-1000 cross drains at 16+15, 26+15, 29+50, 34+80 according to the Q-1000 Typical Cross Drain Removal Plan & Profile. Place waste material on road prism.
- Remove Live Stream Culvert on Q-1000 at 22+40 According to the Q-1000 MP 8.33 Removal Detail Sheet. Place waste material on road prism and at a designated waste area.
- Remove Live Stream Culverts on Q-1000.4 at 4+25 according to the Q-1000.4 4+25 Culvert Removal Detail. Place waste material on road prism and a designated waste area.
- Remove Live Stream Culvert on Q-1000.4 at 6+45 according to the Q-1000.4 6+45 Culvert Removal Detail. Place waste material on road prism and at a designated waste area.
- Block Q-1000 with earthen barricade at 10+00 in accordance with the attached EARTHEN BARRICADE DETAIL.
-

9-23 MEDIUM DECOMMISSIONING

- Construct non-drivable waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical drop of no more than 10 feet between waterbars or between natural drainage paths and with a maximum spacing of 100 feet, or as marked in the field.
- Skew waterbars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3 percent grade.
- Remove ditch cross drain culverts and leave the resulting trench open.
- Remove fill material from natural drainages to allow for natural drainage at the following locations:

<u>Road</u>	<u>Station</u>	<u>Comments</u>
Temp 2	4+50	Remove Culvert. Remove fill material to restore natural drainage. Waste material on existing road prism.
Road 4	4+70	Remove fill material to restore natural drainage. Waste material on existing road prism.
Road 4	16+30	Redirect water away from road prism by constructing 3 ditchout trenches at flagged locations or as directed by the Contract Administrator.
Road 4	19+60	Remove fill material to restore natural drainage. Waste material on existing road prism.
Road 4	20+60	Remove fill material to restore natural drainage. Waste material on existing road prism.

- Slope all trench walls and approach embankments no steeper than 1.5:1.
- Apply grass seed concurrently with decommissioning and in accordance with Section 8 EROSION CONTROL.
- Cover, concurrently with decommissioning, all exposed soils within 100 feet of any live stream, with a 4-inch deep layer of weed-free straw.
- Scatter woody debris onto decommissioned road surfaces.

SECTION 10 MATERIALS

10-17 CORRUGATED PLASTIC CULVERT

Polyethylene culverts must meet AASHTO M-294 specifications, or ASTM F-2648 specifications for recycled polyethylene.

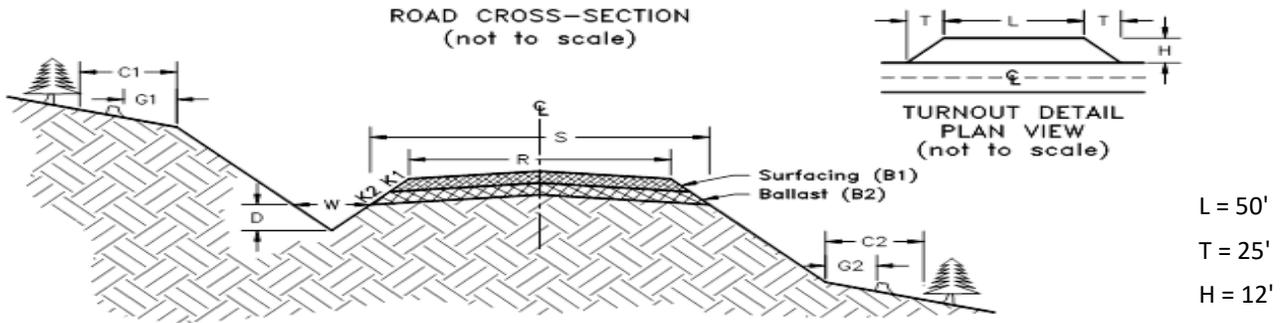
10-20 FLUME AND DOWNSPOUT

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

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.

TYPICAL SECTION SHEET



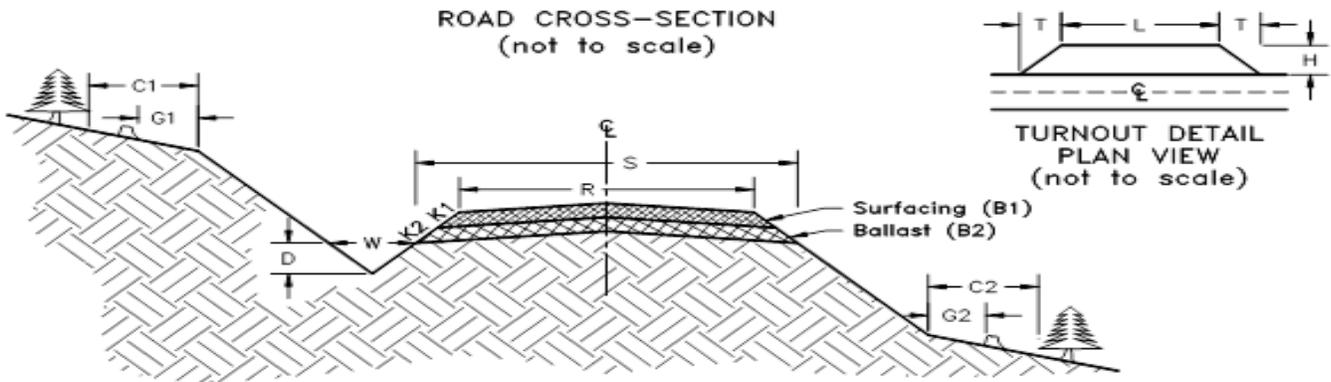
Road Name	Stations		Tolerance Class	Subgrade Width	Road Width	Ditch		Crown @ CL (in)	Grubbing Limits		Clearing Limits	
	From	To				Width	Depth		G1	G2	C1	C2
FR-Q-1000	0+00	38+40	-	-	-	-	-	-	-	-	-	-
FR-Q-1000.4	0+00	13+45	-	-	-	-	-	-	-	-	-	-
Temp 1 Construction	0+00	12+90	C	14	12	3	1	3	3	3	5	5
Temp 1 Maintenance	12+90	22+75	-	-	-	3	1	3	-	-	-	-
Temp 2	0+00	7+00	-	-	-	-	-	3	3	3	5	5
Temp 2.1	0+00	5+35	C	14	12	-	-	3	3	3	5	5
Temp 3	0+00	2+00	C	12	10	-	-	-	-	-	-	-
Road 4	0+00	20+60	-	-	-	-	-	-	-	-	-	-

COMPACTION LIST

Page 1 of 1

Road Name	Stations		Type	Max. Depth per Lift (in.)	Equipment Type	Equipment Weight (pounds)	Minimum # of Passes	Maximum Operating Speed
	From	To						
All	-	-	Maintenance grading	-	Vibratory Smooth Drum	12000	3 Low Freq. Vibe on	3
All	-	-	Subgrade	-	Vibratory Smooth Drum	12000	3 Low Freq. Vibe on	3
All	-	-	Embankment	12	Vibratory Smooth Drum	12000	3 Low Freq. Vibe on	3
All	-	-	Fill	24	Vibratory Smooth Drum	12000	3 Low Freq. Vibe on	3
All	-	-	Rock	6	Vibratory Smooth Drum	12000	3 Low Freq. Vibe on	3
All	-	-	Waste Area	24	Excavator	20000	2	3

ROCK LIST
PAGE 1 OF 1



Rock Sources		C Commercial							
Road Name	Rock Type	Stations		Rock Slope	Compacted Depth (in)	C. Y./Sta	Number of Stations	C.Y. Needed	Rock Source
		From	To	K1	B1				
Temp 1	A	0+00	1+30	1.5 to 1	6	35	1.30	46	C
Ballast	A	1+30	1+80	1.5 to 1	18	105	0.50	53	C
Ballast	A	1+80	11+00	1.5 to 1	6	35	9.20	322	C
Traction Coarse	B	11+00	13+50	1.5 to 1	6	35	2.50	88	C
Ballast	A	13+50	14+50	1.5 to 1	12	70	1.00	70	C
Maintenance Rock	A	14+50	22+75					100	C
Temp 2	A	0+00	3+00	1.5 to 1	6	35	3.00	105	C
Culvert Cover	A	1+30						10	C
Culvert Armoring	LLRR	1+30						2	C
Culvert Armoring	LLRR	5+00						2	C
Culvert Cover	A	5+50						10	C
Culvert Backfill	A	5+50						10	C
Temp 2.1	A	0+00	5+35	1.5 to 1	6	35	5.35	187	C

Rock Type

- A - Pit Run Ballast
- B - 1 1/4" Crushed
- LLRR - Light Loose Rip Rap

BALLAST ROCK TOTAL	912 CUBIC YARDS
SURFACING ROCK TOTAL	88 CUBIC YARDS
LIGHT LOOSE RIP RAP TOTAL	4 CUBIC YARDS
TOTAL ROCK	1004 CUBIC YARDS

CULVERT AND DRAINAGE LIST

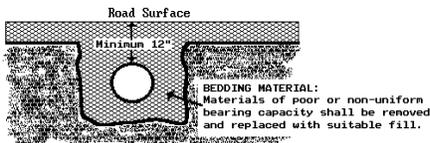
Page 1 of 1

Road	Location	Culvert Diameter (in.)	Length (feet)		Energy Dissapater (CY)				Backfill Material Type	Remarks
			Culvert	Flume	Inlet	Outlet	Type	Source		
Q-1000	16+15									Remove 18" Cross Drain Post Haul
	22+40	18	30							Remove 18" Culvert according to the Q-1000 MP 8.33 Removal Detail Sheet.
	26+15	18	30							
	29+50	18	30							Remove 18" Cross Drain Post Haul
	30+80									Install Non-Drivable waterbar Post Haul
	34+90	18	30							Remove 18" Cross Drain Post Haul
Q-1000.4	2+00									Install Non-Drivable waterbar Post Haul
	4+25	2x24	40							Remove 2x 24" Culverts according to the Q-1000 4+25 Culvert Removal Detail
	6+45	2x24	40							Remove 2x 24" Culverts according to the Q-1000 6+45 Culvert Removal Detail
	9+45									Install Non-Drivable waterbar Post Haul
Temp 1	1+65	18	24					NT		Cross Drain
	7+50									Drivable Dip
	11+80									Drivable Dip
Temp 2	1+30	18	30		1	1	LLRR	C	NT	Cross Drain
	4+00	18	30		1		LLRR	C	NT	Cross Drain
	4+25									Sediment Traps
	4+50	24	36	20	2		LLRR	C	10 cy SL	Stream
	5+00									Sediment Traps

Key:

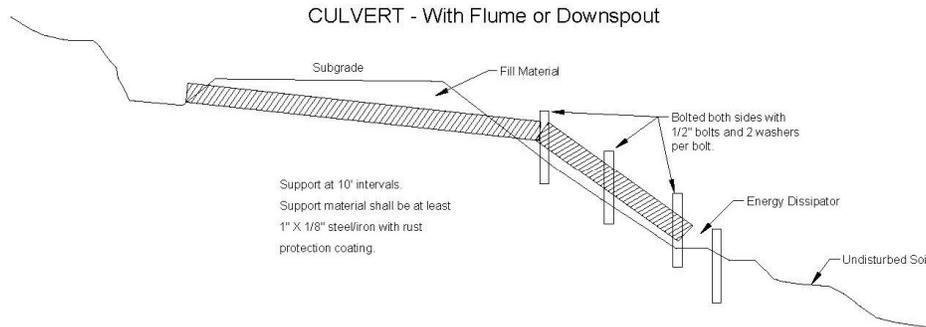
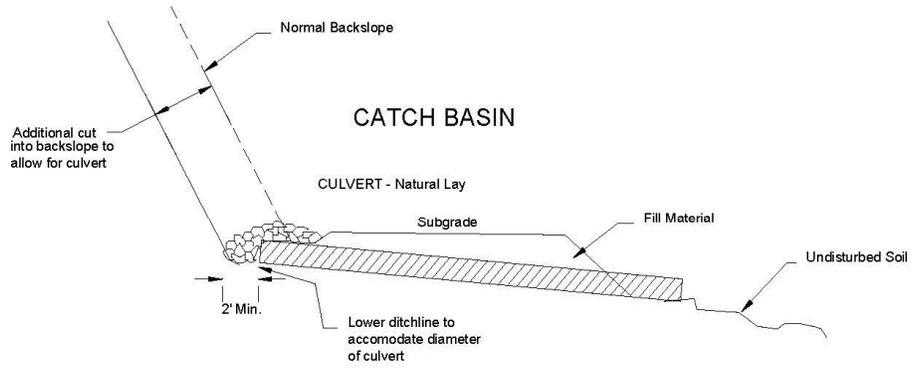
- SR - Shot Rock
- NT - Native (bank run)
- SL - Select Fill
- HLRR - Heavy Loose Rip Rap
- LLRR - Light Loose Rip Rap
- Flume - Half round pipe
- Downspout - Full round pipe
- DOL-
- DOR-

CULVERT BACKFILL AND BASE PREPARATION
(For culverts less than 36")



CULVERT AND DRAINAGE SPECIFICATION DETAIL

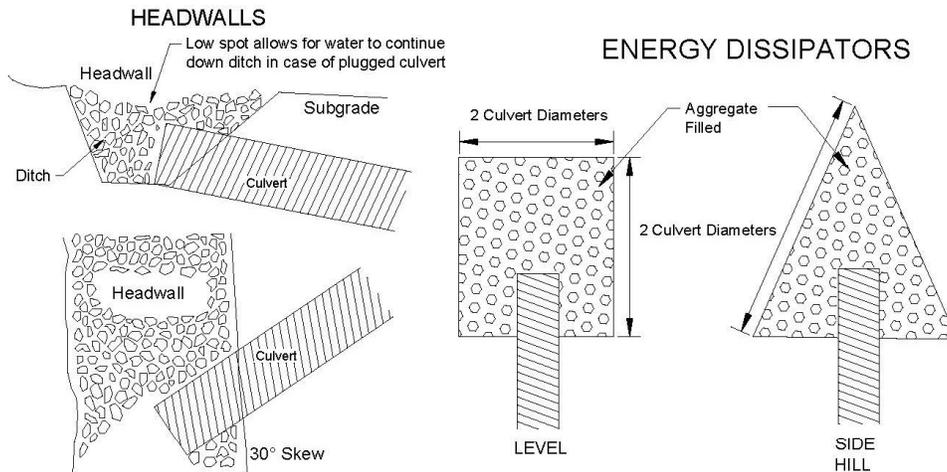
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CULVERT AND DRAINAGE SPECIFICATION DETAIL

(Page 2 of 3)

Proper preparation of foundation and placement of bedding material shall precede the installation of all culvert pipe. This includes necessary leveling of the native trench bottom and compaction of required bedding material to form a uniform dense unyielding base. The backfill material shall be placed so that the pipe is uniformly supported along the barrel.



Headwalls to be constructed of material that will resist erosion.

Dissipator Specifications:
 Depth: 1 culvert diameter
 Aggregate: as specified in the CULVERT LIST.

CULVERT AND DRAINAGE SPECIFICATION DETAIL

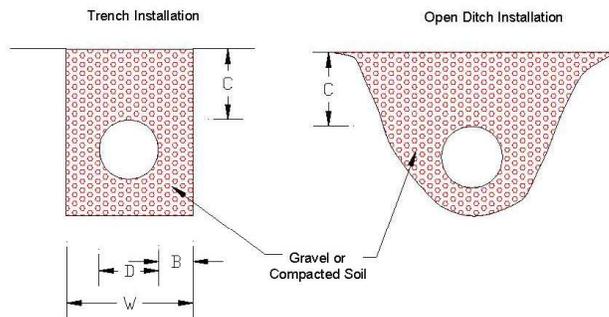
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POLYETHYLENE PIPE INSTALLATION

INSTALLATION REQUIREMENTS:

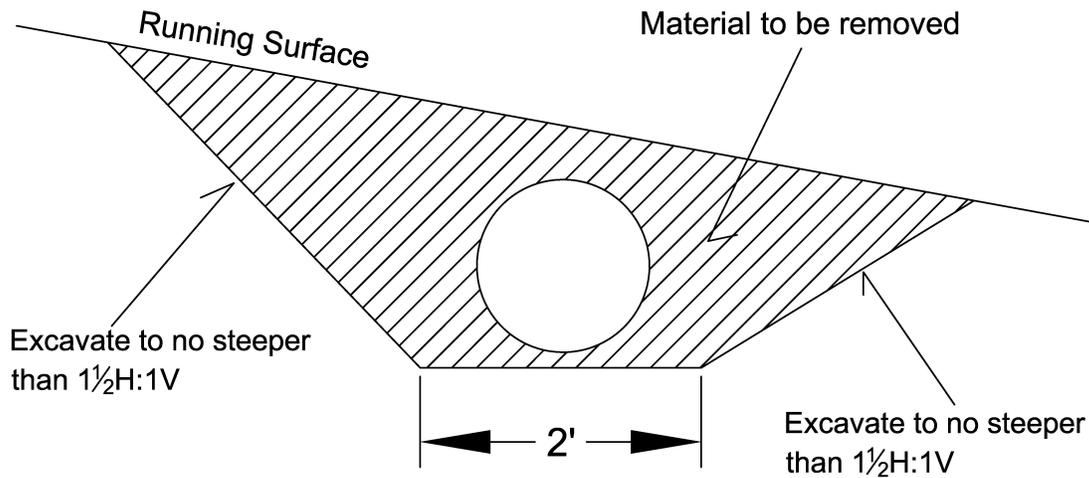
1. Crushed stone, gravel, or compacted soil backfill material shall be used as the bedding and envelope material around the culvert. The aggregate size shall not exceed 1/6 pipe diameter or 4" diameter, whichever is smaller.
2. The corrugated pipe shall be laid on grade, on a layer of bedding material as shown for the two types of installations. If native soil is used as the bedding and backfill material, it shall be well compacted in six inch layers under the haunches, around the sides and above the pipe to the recommended minimum height of cover.
3. Site conditions and availability of bedding materials often dictate the type of installation method used.
4. The load bearing capability of flexible conduits is dependent on the type of backfill material used and the degree of compaction achieved. Crushed stone and gravel backfill materials typically reach a compaction level of 90-95% AASHTO standard density without compaction. When native soils are used as backfill material, a compaction level of 85% is required. This minimum compaction can be achieved by either hand or mechanical tamping.

MINIMUM DIMENSIONS
Trench or Open Ditch Installation



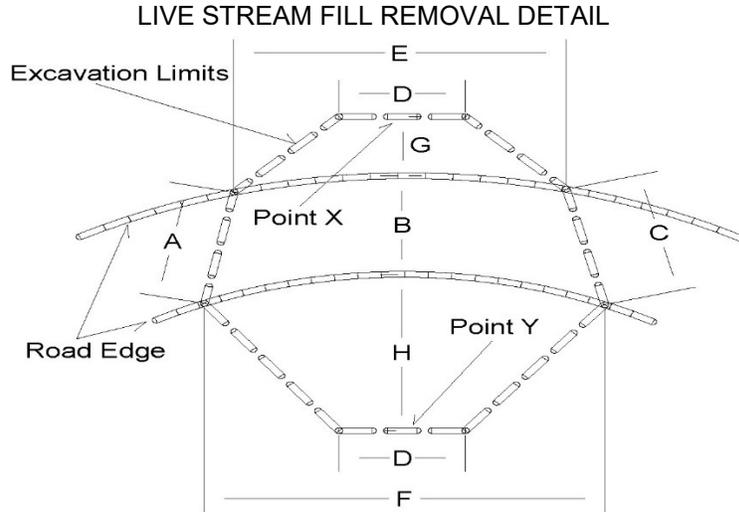
Nominal Diameter	Minimum Thickness	Minimum Cover	Min. Trench Width
D	B	C	W
18"	6"	12"	36"
24"	6"	12"	42"
30"	6"	12"	48"
36"	6"	12"	54"

CROSSDRAIN REMOVAL DETAIL



1) Excavated material may be wasted on the road surface on the downhill side of the excavation. Waste material shall be sloped at no steeper than ½ H:1V.

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



- A. Approximate excavation length
- B. Road width
- C. Approximate excavation length
- D. Excavated channel width
- E. Minimum horizontal distance of upstream excavation measured along upstream edge of road
- F. Minimum horizontal distance of downstream excavation measured along downstream edge of road
- G. Approximate vertical distance from upstream road edge to bottom of excavation at inlet
- H. Approximate vertical distance from downstream road edge to bottom of excavation at outlet

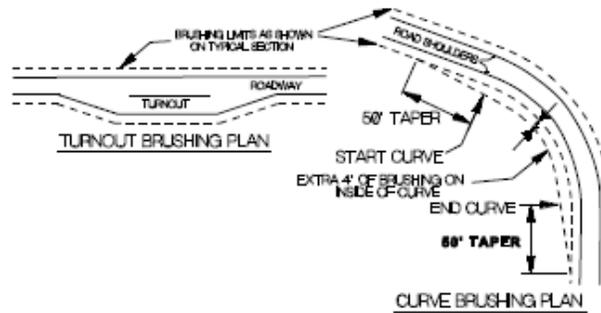
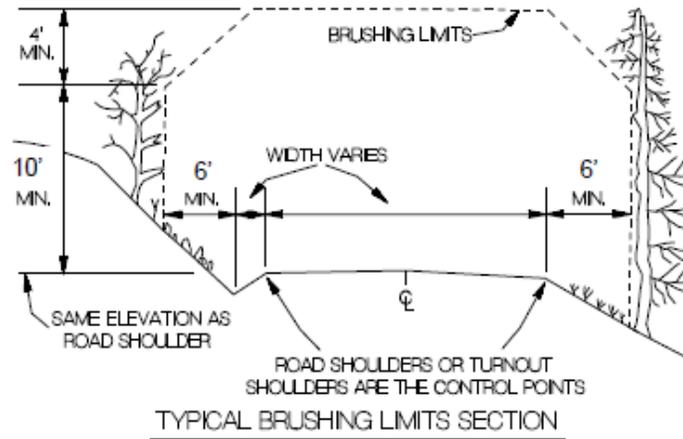
Horizontal and vertical locations of points X and Y are controlled by R.P. tags in the field

Road	Station	Approx. Volume [yd ³]*	Fill dimensions [ft]							
			A	B	C	D	E	F	G	H
Q-1000	22+40	290	15.9	14	15.9	8	29	44	7	12
Q-1000.4	4+25	50	15.4	15.4	15.4	8	17.9	19.4	3.3	3.8
Q-1000.4	6+45	70	16.5	16.4	16.5	8	17.3	21.2	3.1	4.4
TEMP 2	5+50	80	18.2	18.1	18.4	4	6	22.3	1.4	6.8

Notes:

- 1) The stream channel shall be excavated to the width D and shall be a consistent gradient between points X and Y
- 2) All excavated slopes shall be constructed to a consistent grade between the excavated stream channel and the approximate excavation limits shown on the drawing

BRUSHING DETAIL



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

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Page 1 of 2

Cuts and Fills

- Maintain slope lines as constructed. 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 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 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 drivable 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 dissipators at culvert outlets with non-erodible material or rock.
- Keep ditches and culverts 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.

Structures

- Repair culverts, bridges, gates, fences, cattle guards, signs, and other road structures as required because of purchaser use.

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

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Preventative Maintenance

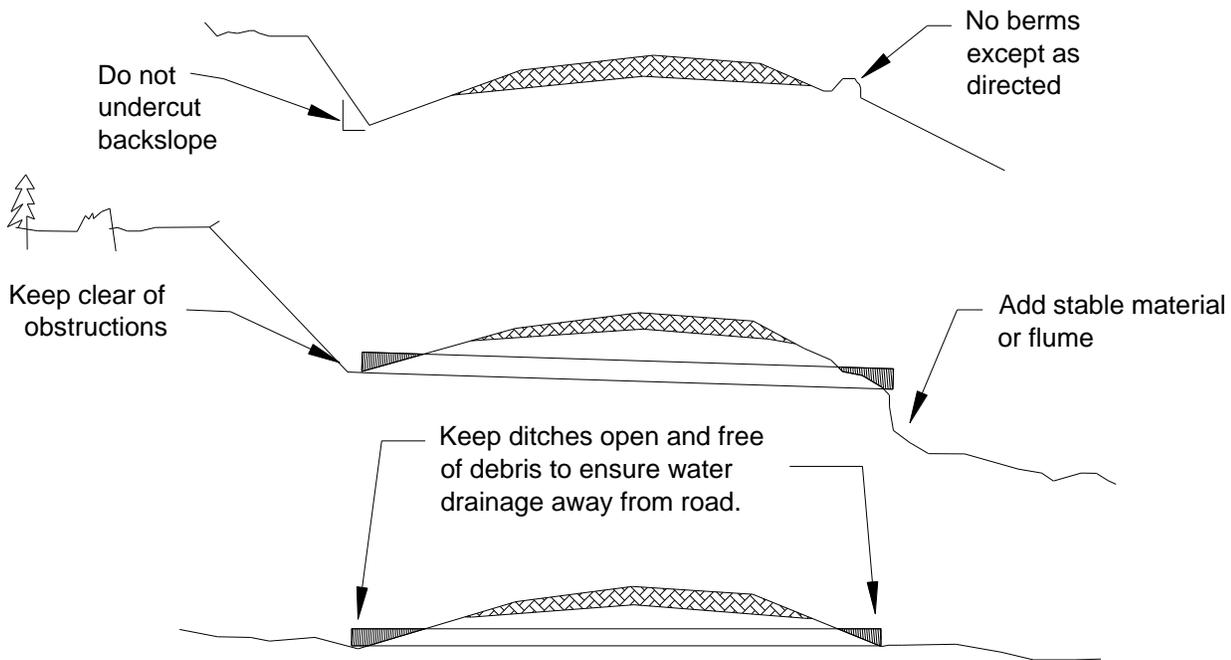
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

Termination of Use or End of Season

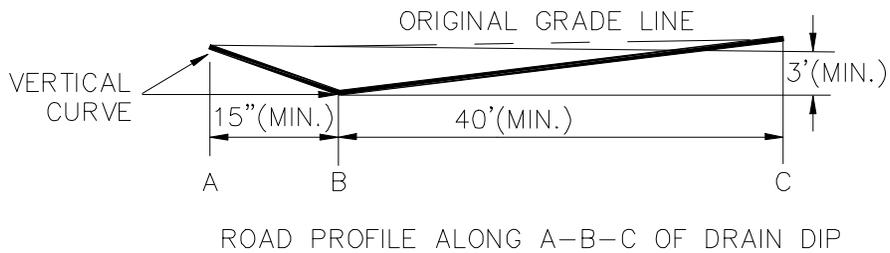
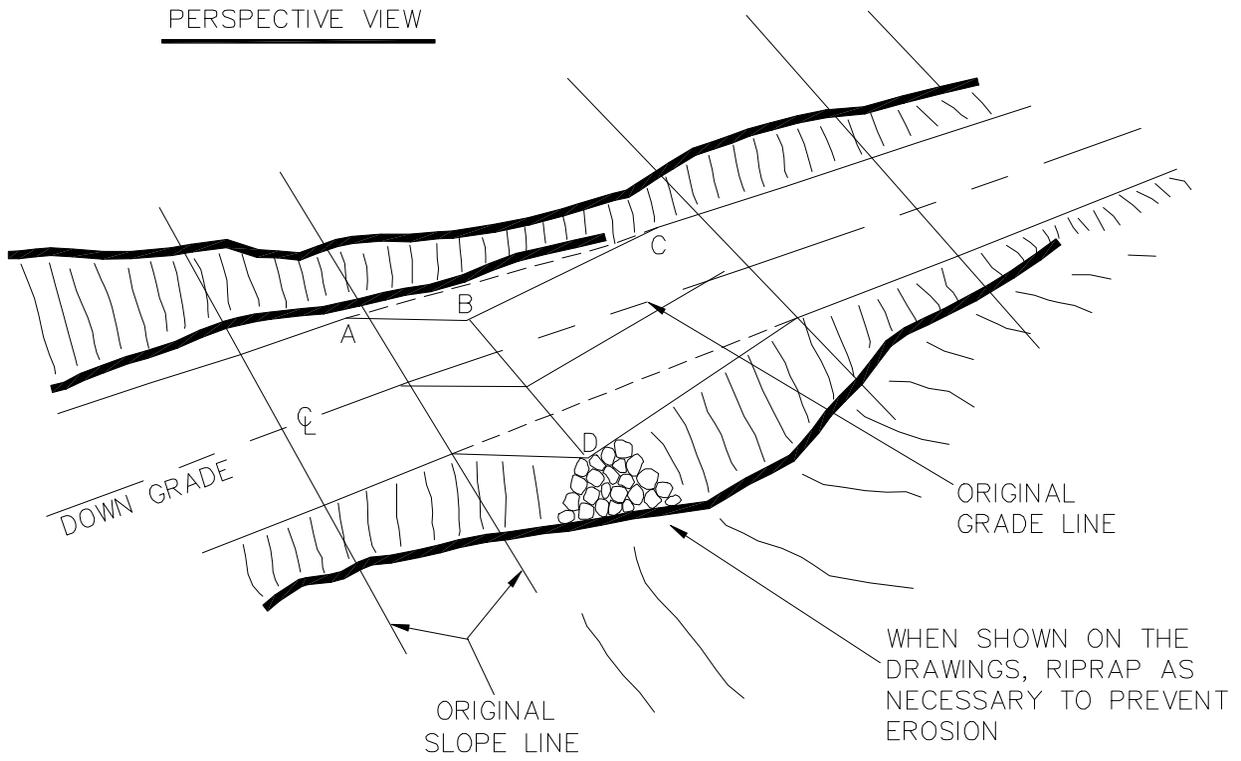
- At the conclusion of logging operations, ensure all conditions of these specifications have been met.

Debris

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

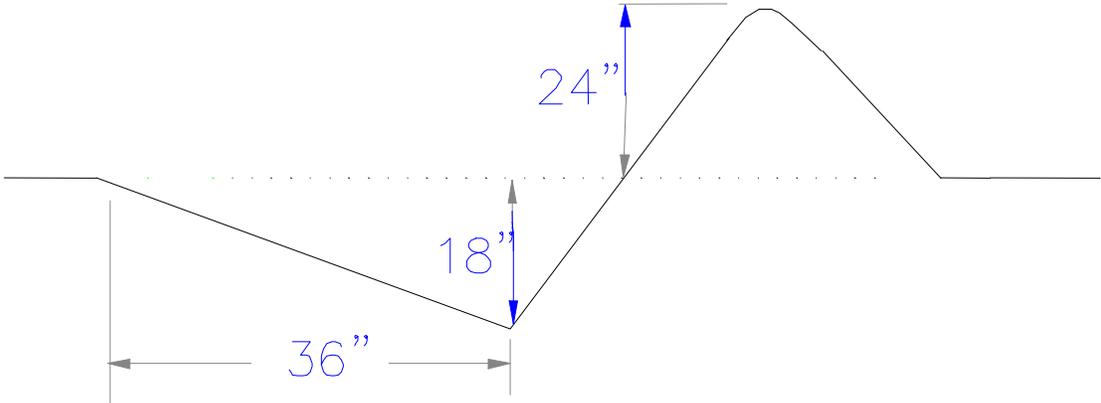
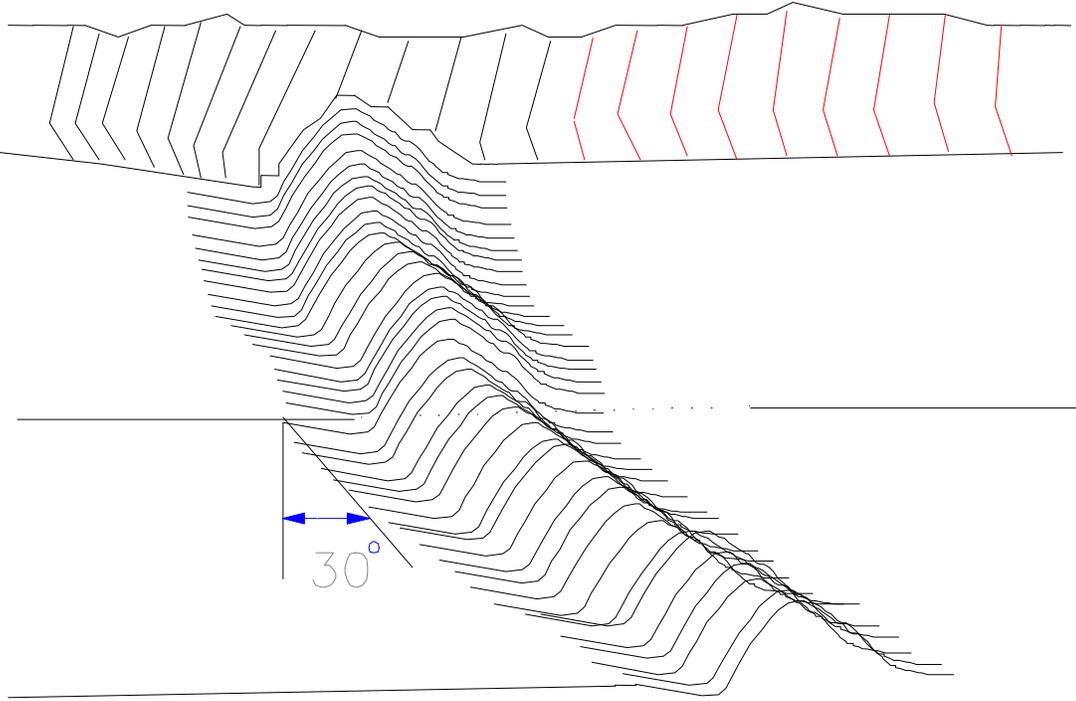


DRIVABLE DIP DETAIL



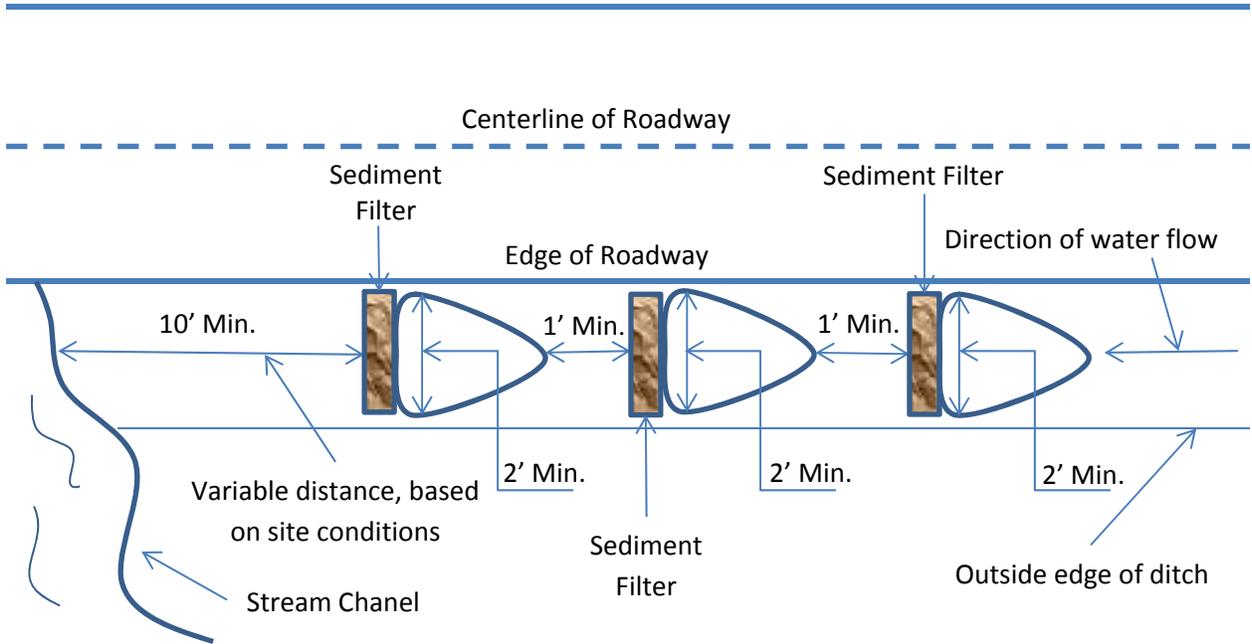
- Notes: 1) Plan shown is for outsloped dip. Dips may be either insloped or outsloped.
- 2) When insloped, dips shall discharge into a culvert, drop inlet, or ditch out.
- 3) The minimum cross grade from "B" to "D" shall be 6%.
- 4) Skew line B-D to fit low point in draw if located in natural drain.
- 5) Preferred construction is to excavate entire dip. If embankment is used, it shall be rock.

NON-DRIVABLE WATER BAR DETAIL

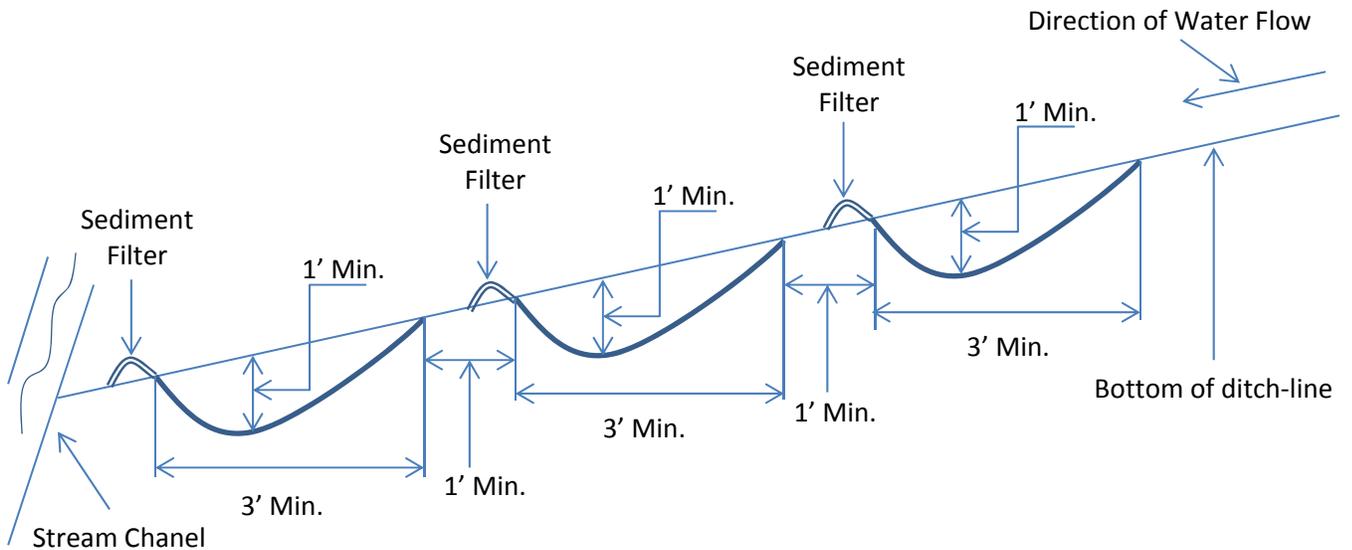


SEDIMENT TRAP DETAIL

Top View

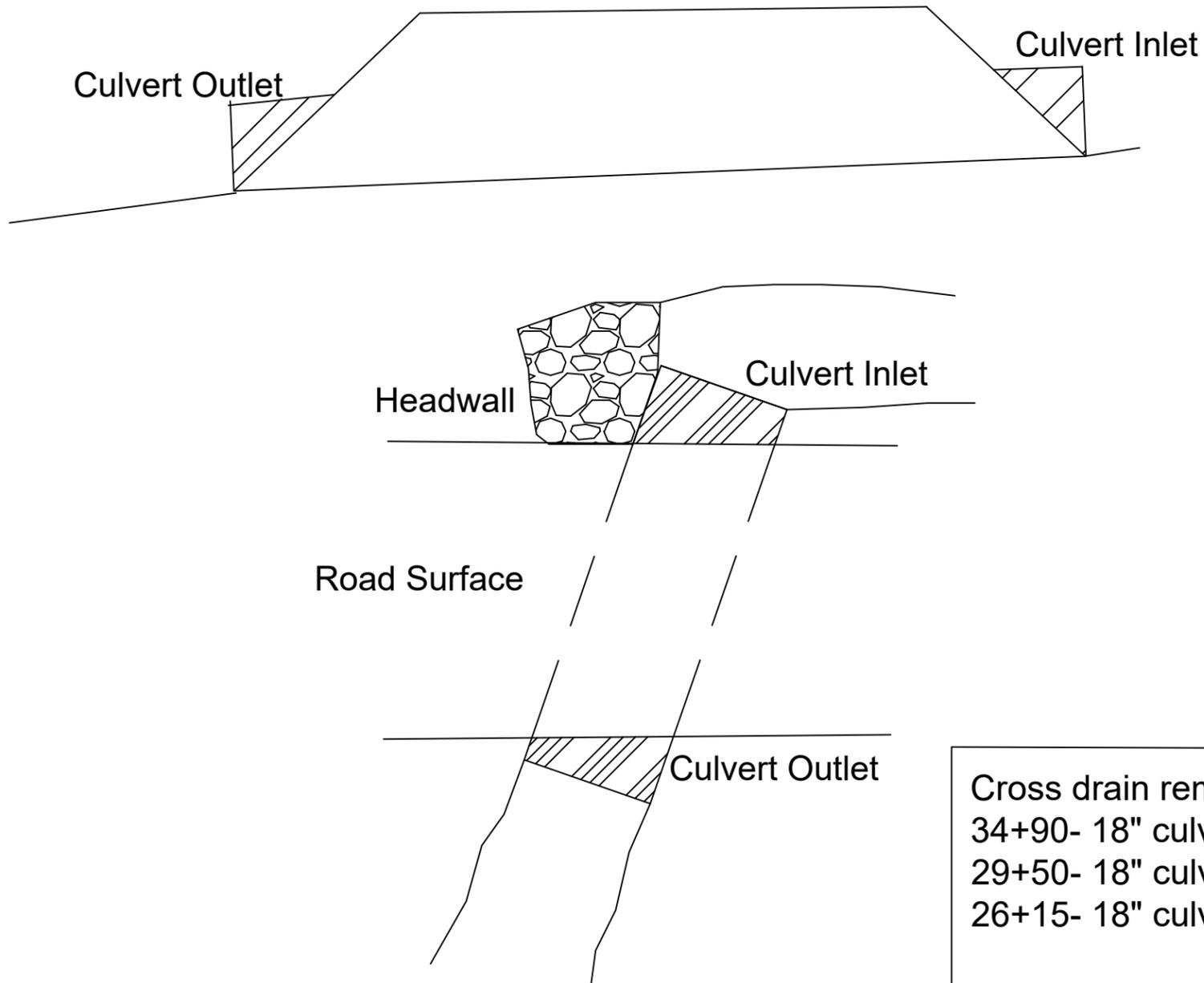


Profile View

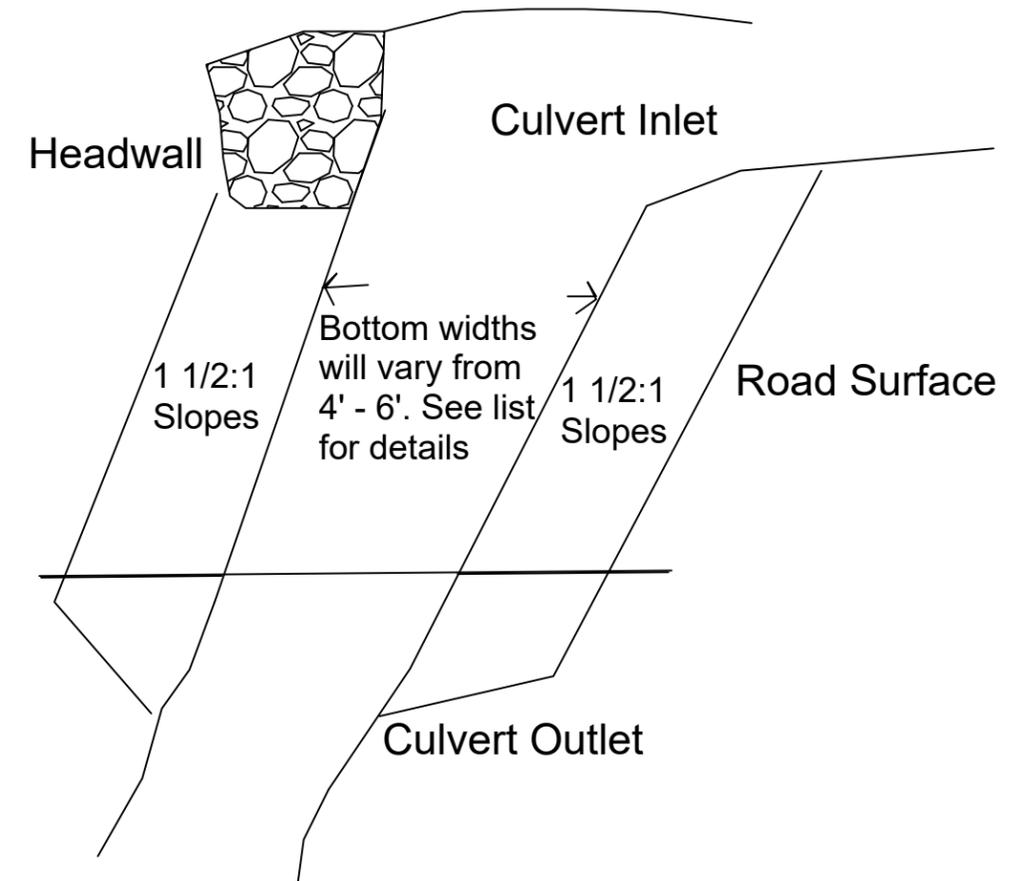


Q-1000 Typical Cross Drain Removal Plan & Profile

Profile



Plan



- Cross drain removal list
- 34+90- 18" culvert, 6' bottom
 - 29+50- 18" culvert, 4' bottom
 - 26+15- 18" culvert, 4' bottom at inlet
5' bottom at outlet
 - 16+15- 18" culvert, 6' bottom

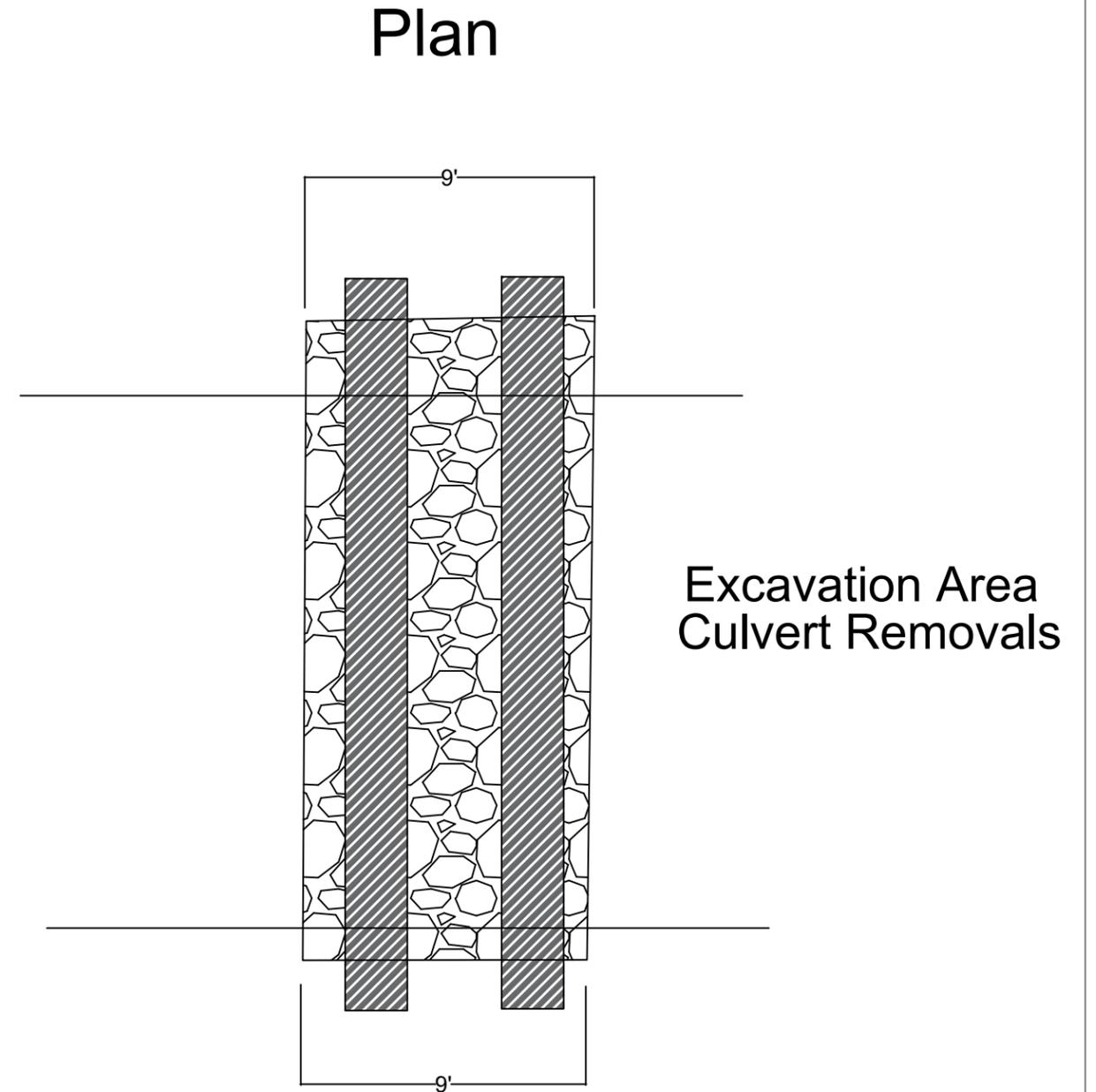
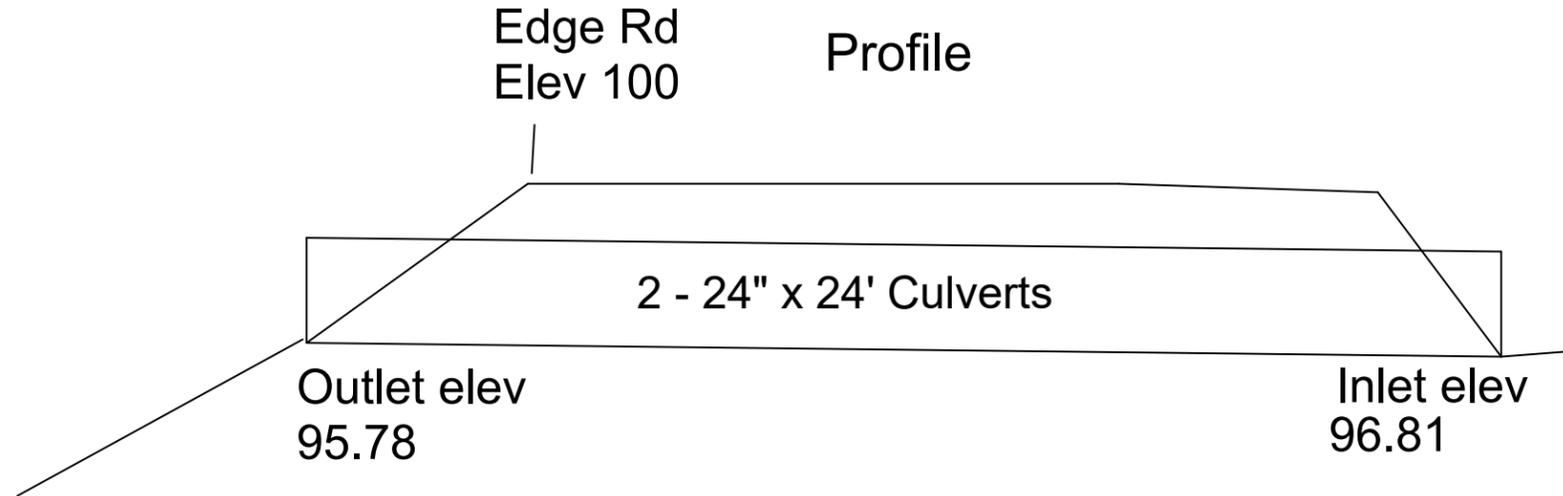


Typical Cross Drain Removal Plan

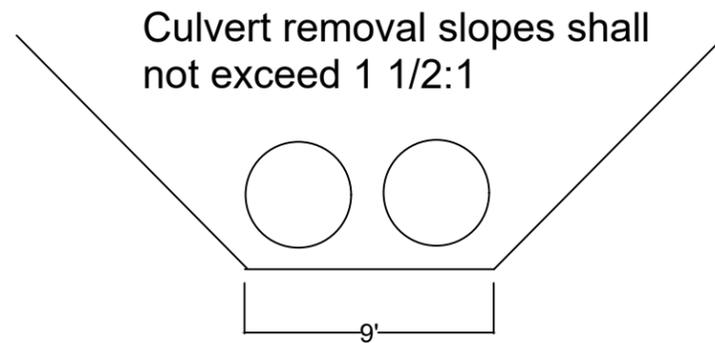
Washington State Department of
Natural Resources
Olympic Region

Revised February 2018

Q-1000.4 4+25 CULVERT REMOVAL DETAIL - Remove 2 - 24" x 24' Culverts
 remove flume, place material in Waste area



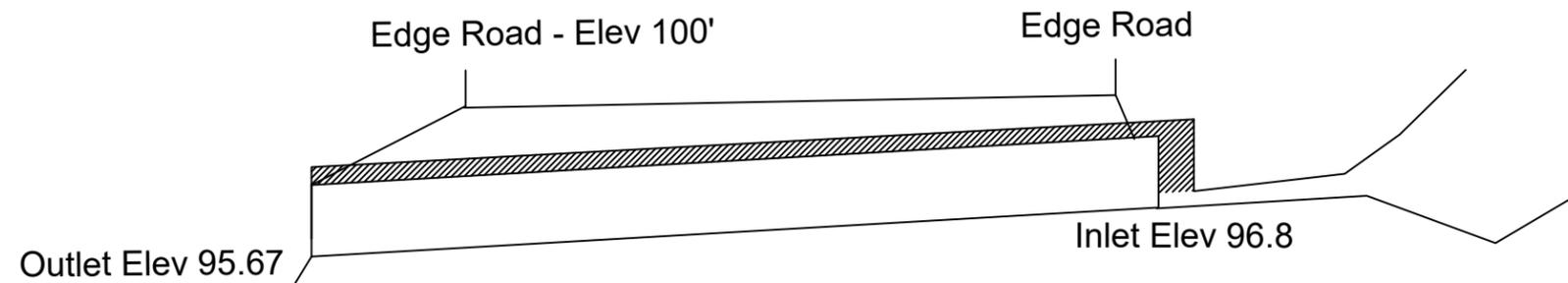
Removal End View



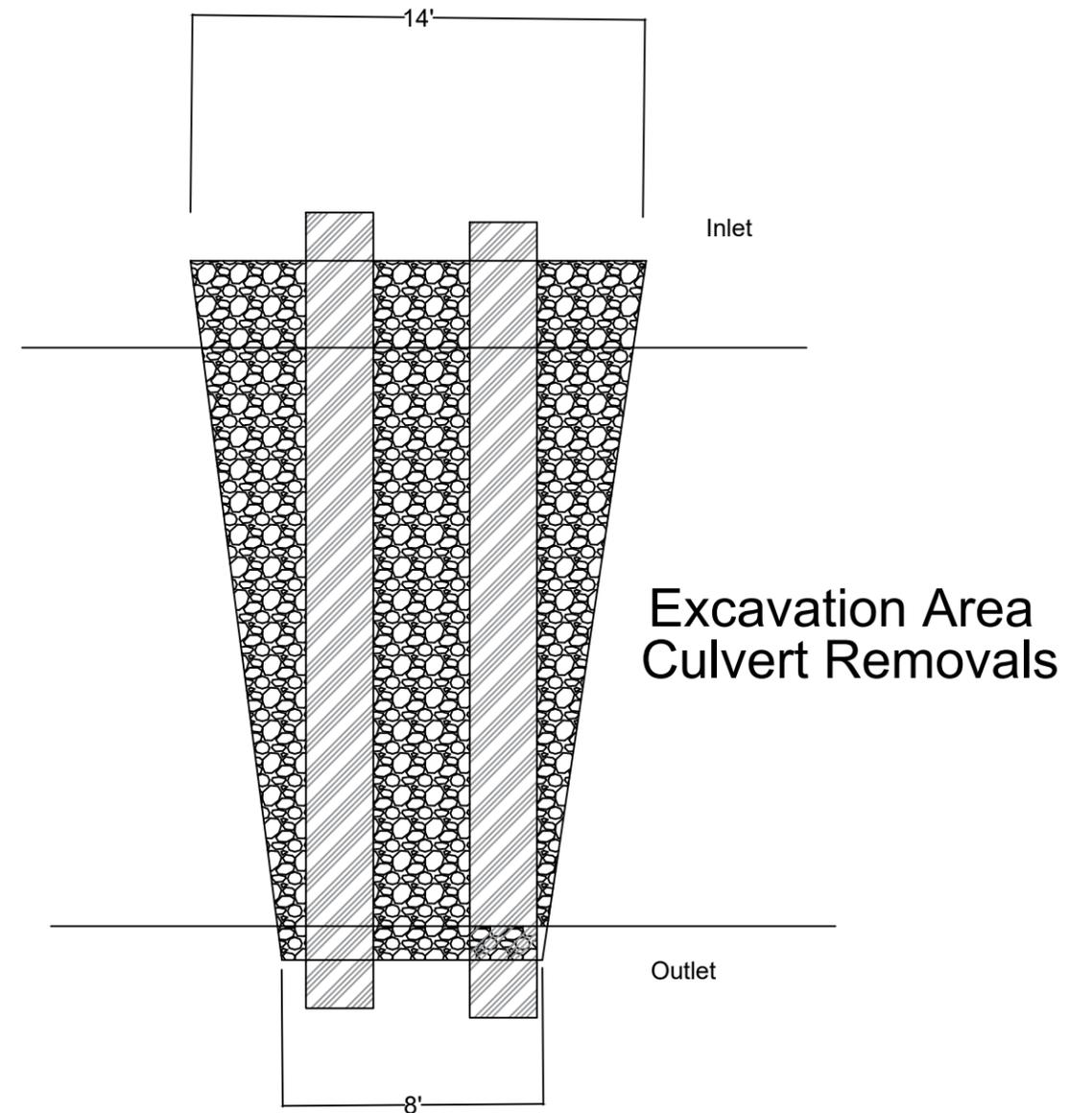
No Scale

Q-1000.4 6+45 CULVERT REMOVAL DETAIL- Remove 2 - 24" x 24' Culverts
remove flume, place material in Waste area

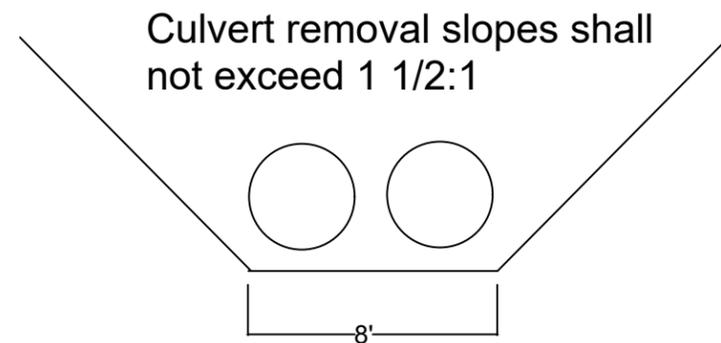
Profile



Plan



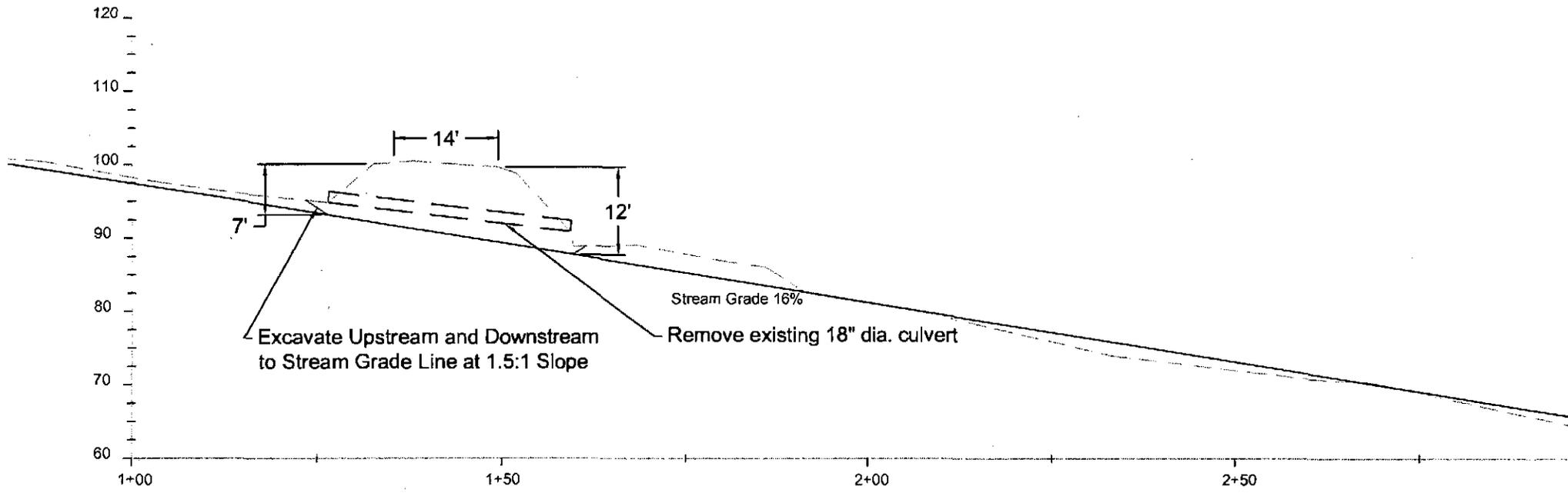
Removal End View



No Scale

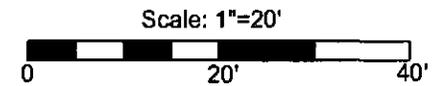
26/3943
11-10-15

Q-1000 MP 8.33 Removal Detail Sheet 1 of 2



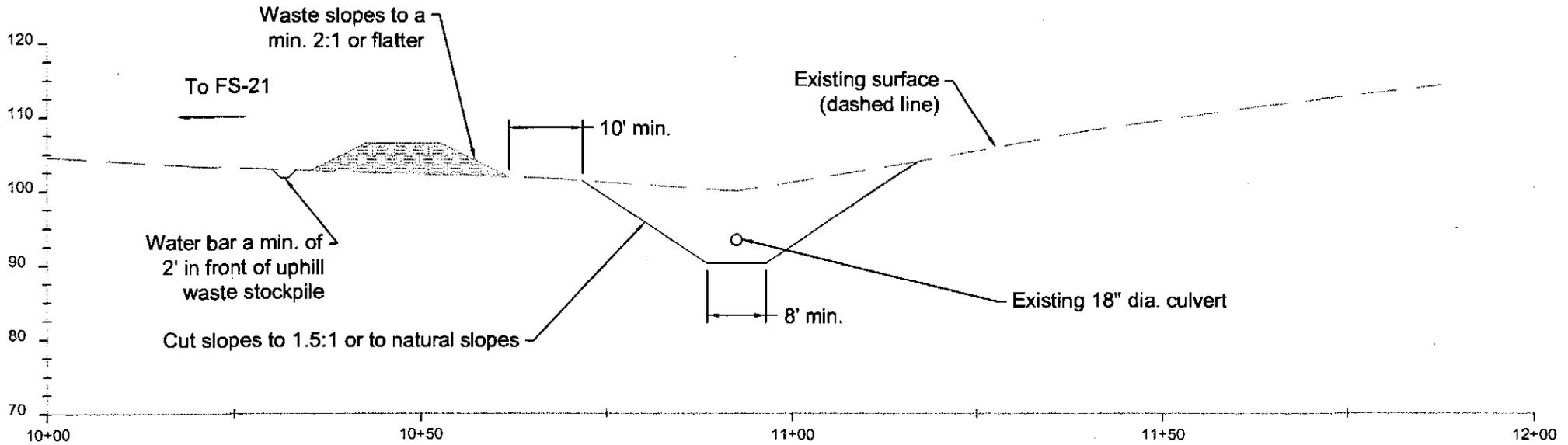
Notes:

Culvert Located at N 47.539209° W 124.054786°
Place marked LWD in stream. Place roots in plunge pool with stem on bank. Also place top of LWD in stream 10' upstream of existing culvert inlet.
Average Channel Bed Width 4.7'
Scale bar formatted for 8.5 x 11 page size
Revised 11/10/2015 GTE

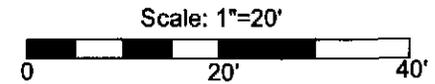


2613943
11-10-15

Q-1000 8.33 Removal Detail Sheet 2 of 2



Notes:
Scale bar formatted for 8.5 x 11 page size
Revised 11/10/2015 GTE



FISH STREAM WORK PROVISIONS

2613943
11-10-14
PURPOSE:

The purpose of the FISH STREAM WORK PROVISIONS are to provide a list of provisions for this project that would be constructed by DNR Heavy Equipment Crew. This sheet shall accompany the PLANS and shall be available on the job site during construction.

The stream and fish protection provisions are as follows:

TIMING LIMITATIONS:

In-stream work below the ordinary high water line of Type 1-3 streams shall only occur between July 1st through September 30th.

FISH REMOVAL:

Prior to the commencement of in-stream work on Type 1-3 streams, game fish and other fish life shall be captured and safely moved from the job site. Captured fish shall be immediately and safely transferred to free-flowing water downstream of the project site.

Block nets may be necessary to isolate the job site and prevent fish from re-entering the site after fish removal has been completed.

TEMPORARY STREAM FLOW BYPASS INSTALLATION:

All work below the ordinary high water line of Type 1-3 streams shall be constructed in the dry or isolation from the stream flow by the installation of a bypass flume, diversion pipe, or by pumping the flow around the work area.

Method for temporary stream flow bypass is expected to be pumping the flow around the work area.

A sandbag revetment or similar device shall be installed at the bypass inlet to divert the entire flow through the bypass. The bypass shall be of sufficient size to pass all flows and debris for the duration of the project.

If a pump is used for diverting water from a fish-bearing stream, it shall be equipped with a fish guard to prevent passage of fish into the diversion device pursuant to RCW 77.57.010 and 77.57.070. The pump intake shall be screened by one of the following:

- a. Perforated plate: 0.094 inch (maximum opening diameter).
- b. Profile bar: 0.069 inch (maximum with opening).
- c. Woven wire: 0.087 inch (maximum opening in the narrow direction).

The velocity through screened intakes shall be less than 0.4 feet per second. Screens shall be maintained to prevent injury or entrapment of juvenile fish.

TEMPORARY STREAM FLOW BYPASS OPERATION:

Once the stream has been diverted, stream flow shall not be allowed through the work area until all work below the ordinary high water line has been completed, unless stopping the stream diversion can be accomplished without delivering sediment downstream.

STREAM PROTECTION, WATER QUALITY AND TEMPORARY EROSION AND SEDIMENT CONTROL:

Disturbance of the streambed, banks, and riparian vegetation shall be limited to that necessary to construct the project.

Sediment delivery shall be avoided. Temporary Erosion and Sediment Control BMPs shall be used as needed to prevent sediment delivery. If construction activities cause sediment delivery downstream, construction shall stop until the sediment delivery issue has been resolved.

Upon completion of the in-stream work, all materials used for the temporary bypass, temporary silt fences, check dams or other temporary in-stream structures shall be removed and the stream returned to pre-project conditions or better.

EROSION CONTROL - PERMANENT:

Immediately following project completion, all exposed or or disturbed areas resulting from this project, including waste areas, shall be protected from erosion using grass seed, hay or straw mulch, or erosion control blanket.

EQUIPMENT:

Equipment shall be free of external petroleum-based projects while working around streams. Equipment shall be checked daily for leaks and any necessary repairs shall be completed prior to commencing work activities.

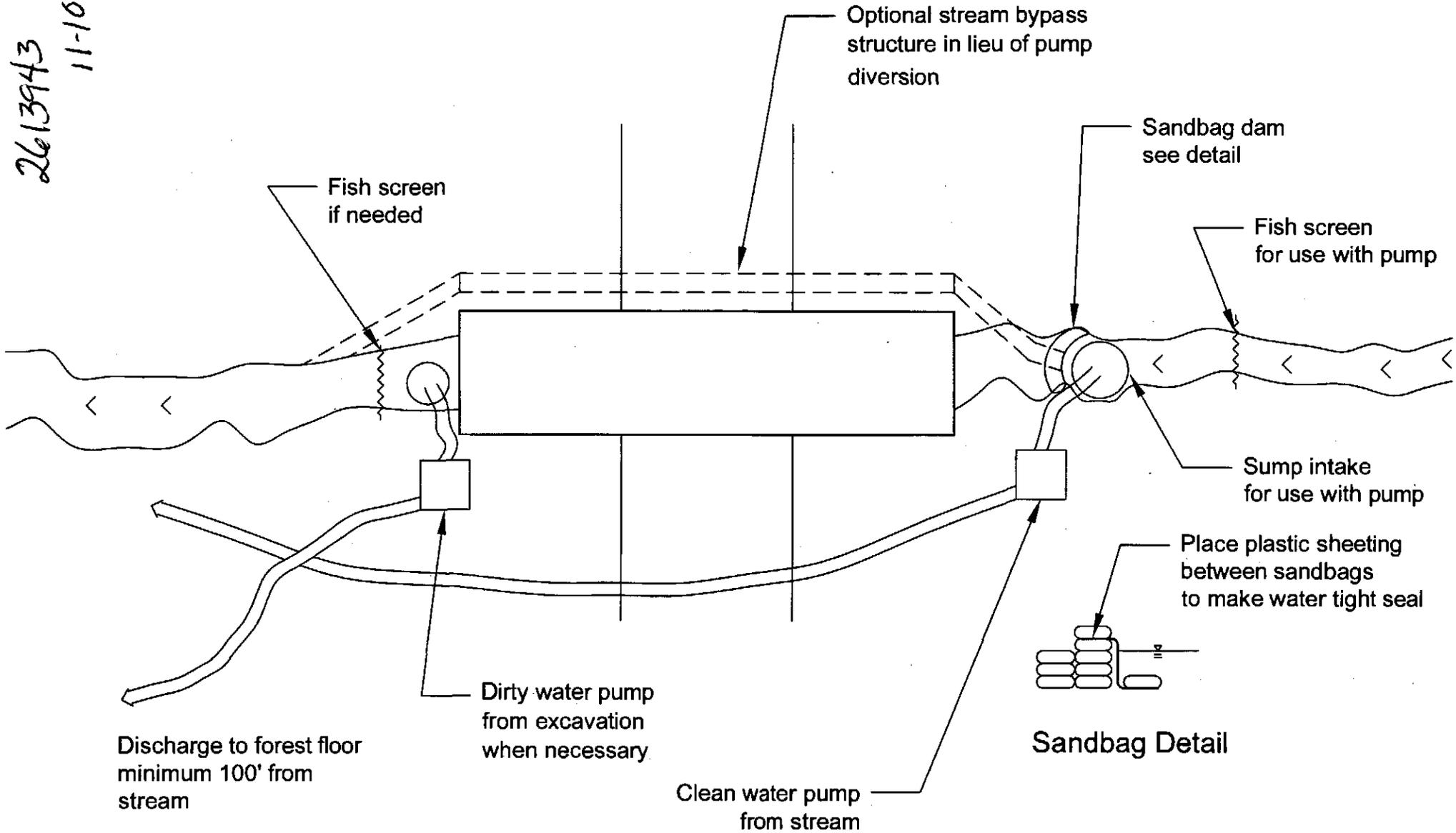
SITUATION RESPONSE AND CONTACTS:

If at any time, as a result of project activities, the following conditions are observed, immediate notification shall be made to the appropriate person or agency listed below:

- Water quality sedimentation delivery, notify DNR Forest Practices Forester, Jenny Garstang, at 360-840-4052.
- Fish are observed in distress or a fish kill occurs, notify WDFW Area Habitat Biologist, Theresa Powell, at (360) 417-1434.
- Equipment leaks, or spills of oil, fuel or chemicals, the spiller is responsible for notifying:
 - Dept. of Ecology - Southwest Region, (360) 407-6300;
 - National Response Center, 1-800-424-8802; and
 - Washington Emergency Management Division 1-800-258-5990.

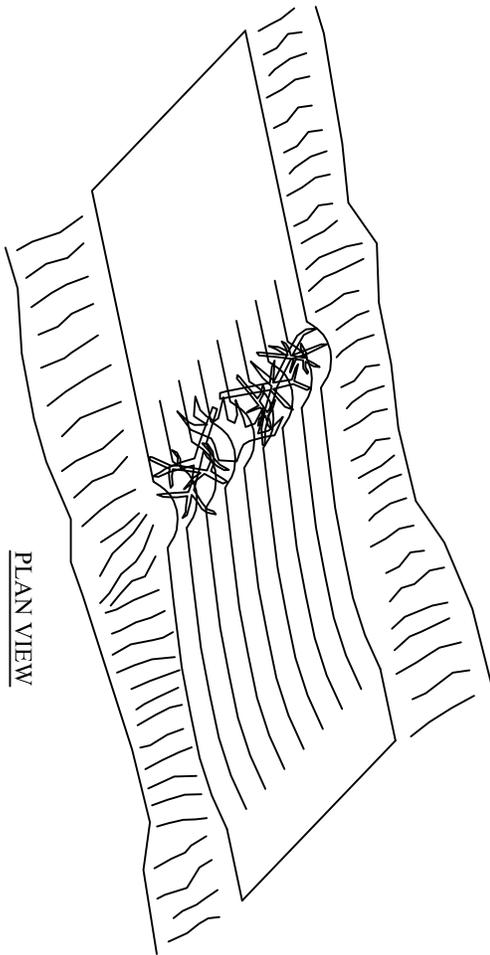
General Stream Diversion Plan

2613943
11-10-15

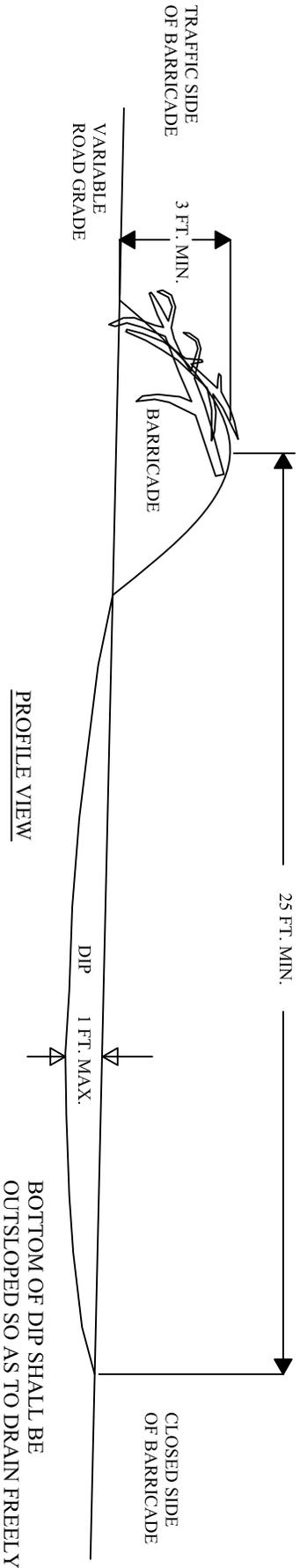


Notes: Drawing not to Scale

EARTHEN BARRICADE DETAIL



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



**QUEETS CORNER TIMBER SALE
SUMMARY - Road Development Costs**

GOOD NEIGHBOR AUTHORITY
OLYMPIC NATIONAL FOREST

PACIFIC RANGER DISTRICT
GRAYS HARBOR COUNTY WASHINGTON

Compiled By Justin Long Agreement # 36-100598

Date 3/20/2020

ROAD NUMBERS:	Temp 1 C, Temp 2.1, Temp 3	FR-Q-1000, FR-Q1000.4, Temp 1 PH, Temp 2
ROAD STANDARD:	Construction	Maintenance
NUMBER OF STATIONS:	20+25	68+70
CLEARING & GRUBBING:	\$ 2,390.63	\$ 785.30
EXCAVATION AND FILL:	\$ 8,338.13	\$ 3,308.20
ROAD & LANDING ROCK:	\$ 18,027.05	\$ 5,405.77
CULVERTS AND FLUMES:	\$ 526.32	\$ 3,056.75
MISC. MAINTENANCE:	\$ 332.68	\$ 1,387.60
STRUCTURES:	-	-
DECOMMISSIONING:	\$ 5,832.70	-
POST HAUL CULVERT REMOVALS:	-	\$ 6,735
MANAGEMENT & OVERHEAD (10%)	\$ 3,544.75	\$ 2,067.86
MOBILIZATION:	\$ 1,485.00	\$ 1,485.00
POST HAUL MOBILIZATION:	\$ 800.00	\$ 800.00
COST PER STATION:	\$ 2,038.38	\$ 364.36
TOTAL COSTS:	\$ 41,277.25	\$ 25,031.47
	TOTAL (All Roads):	\$66,308.73
	SALE VOLUME MBF: \$	578.00
	TOTAL \$/MBF:	\$114.72

SALE/PROJECT NAME: QUEETS CORNER TIMBER SALE

CONTRACT #: 36-100598

ROAD NUMBER: FR-Q-1000

Total road length (feet): 3840

Distance to Pit (feet) 44000

Average Haul Speed (mph) 20

Truck Load/Unload Time (minutes) 12

Volume per Truck (CY) 10

PREHAUL MAINTENANCE

MISC. MAINTENANCE

Grass seed (spread by hand)	2 pounds @	\$2.00 per pound	\$	3.67
Straw mulching (spread by hand)	0.04 acres @	\$302.00 per acre	\$	11.09
Remove Woody Debris	3 hours	\$150.00 per hour	\$	450.00
		Misc. Maintenance Total	\$	464.77

PREHAUL MAINTENANCE TOTAL \$ 464.77
\$/STA \$ 12.23

SALE/PROJECT NAME: QUEETS CORNER TIMBER SALE

CONTRACT #: 36-100598

ROAD NUMBER: FR-Q-1000.4

Total road length (feet): 1345

Distance to Pit (feet) 44000

Average Haul Speed (mph) 20

Truck Load/Unload Time (minutes) 12

Volume per Truck (CY) 10

PREHAUL MAINTENANCE

MISC. MAINTENANCE

Grass seed (spread by hand)	4 pounds @	\$2.00 per pound	\$	8.26
Straw mulching (spread by hand)	0.08 acres @	\$302.00 per acre	\$	24.96
Remove Woody Debris	2 hours	\$150.00 per hour	\$	300.00
		Misc. Maintenance Total	\$	333.22
		Misc. Maintenance Total	\$	666.45

PREHAUL MAINTENANCE TOTAL \$ 666.45
\$/STA \$ 49.55

SALE/PROJECT NAME: QUEETS CORNER TIMBER SALE

CONTRACT #: 36-100598

ROAD NUMBER: Temp 1 Construction

Total road length (feet): 1290

Distance to Pit (feet) 87120

Average Haul Speed (mph) 40

Truck Load/Unload Time (minutes) 12

Volume per Truck (CY) 12

CONSTRUCTION

CLEARING & GRUBBING

Scatter	5.40 stations @	\$	187.50	per station	\$	1,012.50
						C & G Total \$ 1,012.50

EXCAVATION AND FILL

Construction (balanced, light)	7.50 stations @	\$	318.32	per station	\$	2,387.38
Construction (balanced, medium)	5.40 stations @	\$	430.47	per station	\$	2,324.53
Landing (small)	2 each @	\$	193.00	each	\$	386.00
Turnaround	1 each @	\$	196.58	each	\$	196.58
						Excavation Total \$ 5,294.49

ROCK

Quinault Pit Ballast Purchase Price	490 CY @	\$	12.00	per CY	\$	5,880.00
Quinault Pit Surfacing Purchase Price	88 CY @	\$	16.80	per CY	\$	1,470.00
Rock haul	Round Trip (feet) 176820	40 Hours @	\$	100.00	per Hour	\$ 4,049.10
Process/Compacting Surfacing (6" Lift)	578 CY @	\$	1.86	per CY	\$	1,071.98
Rolling Dip	2 each @	\$	50.00	each	\$	100.00
						Road Rock Total \$ 12,571.09

CULVERTS & FLUMES

18" Polyethylene, double wall	24 feet @	\$21.93	per foot	\$526.32	
24" Polyethylene, double wall	feet @	\$34.43	per foot	\$0.00	
Rock haul	Round Trip (feet) 176820	0.00 Hours @	\$100.00	per hour	\$0.00
				Culvert, Flume, & Pipe Bedding Total	\$526.32

MISC. MAINTENANCE

Grass seed (spread by hand)	36 pounds @	\$	2.00	per pound	\$	71.07
Straw mulching (spread by hand)	0.4146	\$	302.00	per acre	\$	125.21
						Misc Maintenance Total \$ 196.28

Construction Total	\$	19,600.68
\$/sta	\$	1,519.43

SALE/PROJECT NAME: QUEETS CORNER TIMBER SALE

CONTRACT #: 36-100598

ROAD NUMBER: Temp 1 Maintenance

Total road length (feet): 985

Distance to Pit (feet) 87120

Average Haul Speed (mph) 40

Truck Load/Unload Time (minutes) 12

Volume per Truck (CY) 11

PREHAUL MAINTENANCE

CLEARING & GRUBBING

Brushing (medium)	9.85 stations @	\$	56.70 per station	\$	558.50
				C & G Total	\$ 558.50

EXCAVATION AND FILL

Reconstruction (light)	9.85 stations @	\$	138.85 per station	\$	1,367.67
Landing (small)	2 each @	\$	193.00 each	\$	386.00
Turnaround	1 each @	\$	196.58 each	\$	196.58
				Excavation Total	\$ 1,950.25

ROCK

Quinault Pit Ballast Purchase Price	100 CY @	\$	12.00 per CY	\$	1,200.00
Load dump truck	0 CY @	\$	0.83 per CY	\$	-
Rock haul	Round Trip (feet) 176210	8 Hours @	\$ 100.00 per Hour	\$	778.48
Process/Compacting Surfacing (6" Lift)	100 CY @	\$	1.86 per CY	\$	185.63
				Road Rock Total	\$ 2,164.10

CULVERTS & FLUMES

18" Polyethylene, double wall	0 feet @	\$21.93 per foot	\$0.00	
24" Polyethylene, double wall	0 feet @	\$34.43 per foot	\$0.00	
Rock haul	Round Trip (feet) 176210	0.00 Hours @	\$100.00 per hour	\$0.00
			Culvert, Flume, & Pipe Bedding Total	\$0.00

MISC. MAINTENANCE

Grass seed (spread by hand)	27 pounds @	\$	2.00 per pound	\$	54.27
Straw mulching (spread by hand)	0.32 acres @	\$	302.00 per acre	\$	95.61
				Misc Maintenance Total	\$ 149.88

Maintenance Total	\$	4,822.73
\$/sta	\$	489.62

SALE/PROJECT NAME: QUEETS CORNER TIMBER SALE

CONTRACT #: 36-100598

ROAD NUMBER: Temp 2

Total road length (feet): 700

Distance to Pit (feet) 87120

Average Haul Speed (mph) 30

Truck Load/Unload Time (minutes) 12

Volume per Truck (CY) 12

PREHAUL MAINTENANCE

CLEARING & GRUBBING

Brushing (light)	7.00 stations @	\$	32.40	per station	\$	226.80
C & G Total						\$ 226.80

EXCAVATION AND FILL

Reconstruction (light)	7.00 stations @	\$	138.85	per station	\$	971.95
Landing (small)	2 each @	\$	193.00	each	\$	386.00
Excavation Total						\$ 1,357.95

ROCK

Quinault Pit Ballast Purchase Price	135 CY @	\$	12.00	per CY	\$	1,620.00
Rock haul	Round Trip (feet) 175640	13 Hours @	\$	100.00	per Hour	\$ 1,267.44
Process/Compacting Surfacing (6" Lift)	135 CY @	\$	1.86	per CY	\$	250.59
Light Loose Rip Rap	4.00 CY @	\$	15.00	per CY	\$	60.00
Rock haul	Round Trip (feet) 175640	0 Hours @	\$	100.00	per Hour	\$ 43.63
Road Rock Total						\$ 3,241.66

CULVERTS & FLUMES

18" Polyethylene, double wall	60 feet @	\$21.93	per foot	\$1,315.80	
24" Polyethylene, double wall	36 feet @	\$34.43	per foot	\$1,239.48	
24" Flume	20 feet @	\$21.93	per foot	\$438.60	
Load dump truck	5.00 CY @	\$1.67	per CY	\$8.33	
Rock haul	Round Trip (feet) 175640	0.55 Hours @	\$100.00	per hour	\$54.53
Culvert, Flume, & Pipe Bedding Total					\$3,056.75

MISC. MAINTENANCE

Grass seed (spread by hand)	19 pounds @	\$	2.00	per pound	\$	38.57
Straw mulching (spread by hand)	0.224977043	\$	302.00	per acre	\$	67.94
Misc Maintenance Total						\$ 106.51

Maintenance Total \$ 7,989.67
 \$/sta \$ 1,141.38

SALE/PROJECT NAME: QUEETS CORNER TIMBER SALE

CONTRACT #: 36-100598

ROAD NUMBER: Temp 2.1

Total road length (feet): 535

Distance to x Pit (feet) 87120

Average Haul Speed (mph) 25

Truck Load/Unload Time (minutes) 12

Volume per Truck (CY) 10

CONSTRUCTION

CLEARING & GRUBBING

Scatter	5.35 stations @	\$	187.50 per station	\$	1,003.13
				C & G Total	\$ 1,003.13

EXCAVATION AND FILL

Construction (balanced, light)	5.35 stations @	\$	318.32 per station	\$	1,703.00
Landing (medium)	2.00 each @	\$	255.50 each	\$	511.00
Turnaround	0.00 each @	\$	196.58 each	\$	-
Fill Removal - Shallow	CY @	\$	2.65 per CY	\$	-
				Excavation Total	\$ 2,214.00

ROCK

Quinault Pit Ballast Purchase Price	187.25 CY @	\$	12.00 per CY	\$	2,247.00
Rock haul	Round Trip (feet) 175310	29 Hours @	\$	100.00 per Hour	\$ 2,861.38
Process/Compacting Surfacing (6" Lift)	187.25 CY @	\$	1.86 per CY	\$	347.58
				Rock Total	\$ 5,455.96

CULVERTS & FLUMES

18" Polyethylene, double wall	feet @	\$21.93 per foot	\$0.00	
24" Polyethylene, double wall	feet @	\$34.43 per foot	\$0.00	
Ditchout	each @	\$13.20 each	\$0.00	
			Culvert & Flume Total	\$0.00

MISC. MAINTENANCE

Grass seed (spread by hand)	27 pounds @	\$	2.00 per pound	\$	54.04
Straw mulching (spread by hand)	0.17 acres @	\$	302.00 per acre	\$	51.93
				Misc Maintenance Total	\$ 105.97

Construction Total	\$	8,779.05
\$/sta	\$	1,640.94

SALE/PROJECT NAME: QUEETS CORNER TIMBER SALE

CONTRACT #: 36-100598

ROAD NUMBER: Temp 3

Total road length (feet): 200

Distance to Pit (feet) 87120

Average Haul Speed (mph) 30

Truck Load/Unload Time (minutes) 12

Volume per Truck (CY) 10

CONSTRUCTION

CLEARING & GRUBBING

Scatter	2.00 stations @	\$	187.50	per station	\$	375.00
C & G Total						\$ 375.00

EXCAVATION AND FILL

Construction (balanced, light)	2.00 stations @	\$	318.32	per station	\$	636.64
Landing (small)	1 each @	\$	193.00	each	\$	193.00
Excavation Total						\$ 829.64

ROCK

Quinault Pit Ballast Purchase Price	0 CY @	\$	12.00	per CY	\$	-
Rock haul	Round Trip (feet) 174640	\$	100.00	per Hour		
Process/Compacting Surfacing (6" Lift)	0 CY @	\$	1.86	per CY	\$	-
Road Rock Total						\$ -

CULVERTS & FLUMES

18" Polyethylene, double wall	0 feet @		\$21.93	per foot		\$0.00
24" Polyethylene, double wall	0 feet @		\$34.43	per foot		\$0.00
Culvert, Flume, & Pipe Bedding Total						\$0.00

MISC. MAINTENANCE

Grass seed (spread by hand)	6 pounds @	\$	2.00	per pound	\$	11.02
Straw mulching (spread by hand)	0.06 acres @	\$	302.00	per acre	\$	19.41
Misc Maintenance Total						\$ 30.43

Construction Total \$ 1,235.07
 \$/sta \$ 617.53

Straw

50 lb bale	0.2	8712
6.5625 cf	0.4	17424
7.619048 LB / CF	0.6	26136

At 3"
50 sf / bale

43560 sf/ac
871.2 Bales / ac
5 \$/Bale
4356 \$/Ac

At light Dusting
2000 sf/bale
43560 sf/ac
21.78 Bales / ac
5 \$/Bale
108.9 \$/Ac

9 lbs/cf 12 lbs/ cf
6.5625 cf /bale
1.5 tons/acre
3000 lbs / acre
50.79365 Bales/Ac
253.9683 \$/Acre
48 \$/acre spread
301.9683

SALE/PROJECT NAME: QUEETS CORNER TIMBER SALE

CONTRACT #: 36-100598

ROAD NUMBER: Q-1000, Q-1000.4

POST HAUL CULVERT REMOVALS

Total Dozer hours: 5

Total truck hours: 12

Assume Cat 320 size excavator, \$220/hour

Assume D6 size dozer, \$160/hour

Assume standard solo dump truck, \$110/hour

Labor hours: 10

Erosion Control/Reveg Materials:

20 bales straw, 2 sacks of seed, \$200 total

Cost Summary

Item	Hours	Cost	Total
Excavator	18.25	\$ 220	\$ 4,015
Dozer	5	\$ 160	\$ 800
Truck	12	\$ 110	\$ 1,320
Labor	10	\$ 40	\$ 400
Materials			\$ 200
Subtotal			\$ 6,735
Total			\$ 6,735.0

Note: this estimate covers decommissioning work done on existing road, and excludes road to be built and decommissioned after use.

POST HAUL MAINTENANCE TOTAL \$ 6,735.00

SALE/PROJECT NAME: GNA Timber Sale

CONTRACT #: 36-100598

ROAD NAMES: Temp 1, Temp 2, Temp 2.1, Temp 3, Road 4

DECOMMONISSIONG

ROAD DEACTIVATION & ABANDONMENT

Restore Natural Drainage	57.7 Stations	\$ 80.00	\$/Station	\$ 4,616.00
Road 4 Fill Removal	460 Cy	2.65	per cy	\$ 1,216.70
		Abandonment Cost	\$	5,832.70

MOBILIZATION

SALE/PROJECT NAME: QUEETS CORNER

CONTRACT #: 36-100598

ROAD BUILDING EQUIPMENT

Grader	1 @	\$ 750	each	\$	750
Dozer (small)	1 @	\$ 500	each	\$	500
Excavator (small)	0 @	\$ 500	each	\$	-
Excavator (large)	1 @	\$ 1,000	each	\$	1,000
Roller	1 @	\$ 500	each	\$	500
End Dump	2 @	\$ 110	each	\$	220
Tractor Brusher	0 @	\$ 400	each	\$	-
ROAD BUILDING EQUIPMENT SUBTOTAL:				\$	2,970

POST HAUL EQUIPMENT

Grader	@	750	each	\$	-
Dozer (small)	1 @	500	each	\$	500
Excavator (large)	1 @	1000	each	\$	1,000
Roller	@	500	each	\$	-
End Dump	1 @	100	each	\$	100
POST HAUL & ABANDONMENT				\$	1,600

MOBILIZATION TOTAL \$ 4,570



**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion AD-1048
Lower Tier Covered Transactions**

The following statement is made in accordance with the Privacy Act of 1974 (5 U.S.C. § 552a, as amended). This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, and 2 C.F.R. §§ 180.300, 180.335, Participants' responsibilities. The regulations were amended and published on August 31, 2005, in 70 Fed. Reg. 51865-51880. Copies of the regulations may be obtained by contacting the Department of Agriculture agency offering the proposed covered transaction.

According to the Paperwork Reduction Act of 1995 an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0505-0027. The time required to complete this information collection is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The provisions of appropriate criminal and civil fraud privacy, and other statutes may be applicable to the information provided.

(Read instructions on page two before completing certification.)

- A. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency;
- B. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

ORGANIZATION NAME	PR/AWARD NUMBER OR PROJECT NAME
NAME(S) AND TITLE(S) OF AUTHORIZED REPRESENTATIVE(S)	
SIGNATURE(S)	DATE

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotope, American Sign Language, etc.) should contact the responsible agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint \(https://www.ascr.usda.gov/filing-program-discrimination-complaint-usda-customer\)](https://www.ascr.usda.gov/filing-program-discrimination-complaint-usda-customer) and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442.

Instructions for Certification

- (1) By signing and submitting this form, the prospective lower tier participant is providing the certification set out on page 1 in accordance with these instructions.
- (2) The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension or debarment.
- (3) The prospective lower tier participant shall provide immediate written notice to the person(s) to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- (4) The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549, at 2 C.F.R. Parts 180 and 417. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
- (5) The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- (6) The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- (7) A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the System for Award Management (SAM) database.
- (8) Nothing contained in the foregoing shall be construed to require establishment of a system of records to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- (9) Except for transactions authorized under paragraph (5) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.