



**TIMBER NOTICE OF SALE**

**SALE NAME:** FISH AND CHIPS

**AGREEMENT NO:** 30-104810

**AUCTION:** January 29, 2025 starting at 10:00 a.m.,  
Olympic Region Office, Forks, WA

**COUNTY:** Jefferson

**SALE LOCATION:** Sale located approximately 60 miles southwest of Forks, WA

**PRODUCTS SOLD  
AND SALE AREA:**

All timber except trees marked with a band of blue paint, or bounded out by Leave Tree Area tags, or downed redcedar; bounded by Timber Sale Boundary tags and the Q-510 road in Unit 1; bounded by Timber Sale Boundary tags, flag line, and the Q-2300 road in Unit 2; bounded by Timber Sale Boundary tags, the Q-1200 and Q-1869 roads in Unit 3; bounded by Timber Sale Boundary tags, and special management area in Unit 4.

All forest products above located on part(s) of Sections 13, 14, 23, 24, 25 and 26 all in Township 24 North, Range 11 West, W.M., containing 292 acres, more or less.

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

**ESTIMATED SALE VOLUMES AND QUALITY:**

Species	Avg DBH	Ring Count	Total MBF	MBF by Grade								
				1P	2P	3P	SM	1S	2S	3S	4S	UT
Douglas fir	16.8	6	4,797						1,826	2,343	545	83
Hemlock	14.4	6	3,948						1,068	2,159	697	25
Spruce	11.2		97						32	32	33	
Red alder	13.4		37							8	29	
Sale Total			8,879									

**MINIMUM BID:** \$1,621,556.00

**BID METHOD:** Sealed Bids

**PERFORMANCE**

**SECURITY:** \$100,000.00

**SALE TYPE:** Lump Sum

**EXPIRATION DATE:** October 31, 2027

**ALLOCATION:** Export Restricted

**BID DEPOSIT:** \$162,155.60 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

**HARVEST METHOD:** Ground based 85%, uphill cable 10%, downhill cable 5%.

Forest products sold under this contract shall be harvested and removed using cable, cable-tethered, and ground based equipment. Cable-tethered equipment is limited to sustained slopes of 75 percent and less. Ground based equipment is limited to tracked equipment on sustained slopes that are 45 percent and less. Rubber tired skidders and shovel yarding are restricted unless skidding and rutting requirements can be met and a harvest plan is submitted and approved in writing by the Contract Administrator. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.



## TIMBER NOTICE OF SALE

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30' Equipment Limitations Zones on all typed water. Falling and Yarding will not be permitted from October 15 to April 15 unless authorized in writing by the Contract Administrator.

### **ROADS:**

61.15 stations of optional construction. 1024.55 stations of optional prehaul maintenance. 15.75 stations of decommissioning. All road activities, including haul, is restricted from October 15 - April 15 unless authorized in writing by Contract Administrator.

#### Required Rock Source Work:

Vinegar Pit- Remove vegetation as directed by Contract Administrator.

Phelan Pit- Strip 3/4 acres to usable rock, crush 10,000 CY of 4" Jaw Run rock.

Marbled Murrelet Timing Restrictions: Roads Q-1200, and Q-1800. Any road work, right-of-way timber falling and yarding, rock pit operations or operation of heavy equipment performed during the marbled murrelet nesting season (April 1 - September 23) is restricted to two hours after sunrise to two hours before sunset. The hauling of forest products will not be permitted from October 15 - April 15 unless authorized in writing by the Contract Administrator.

### **ACREAGE DETERMINATION**

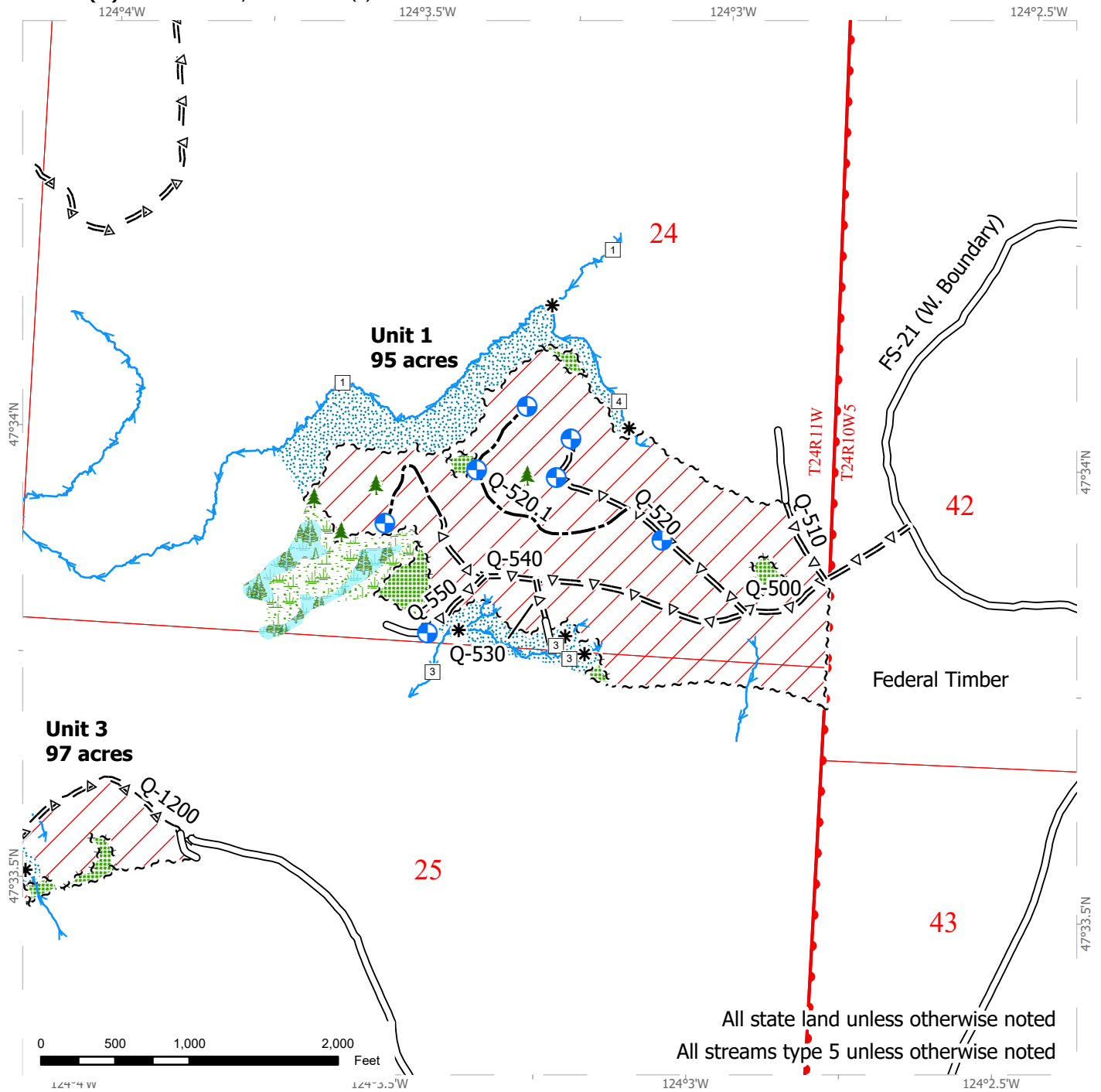
**CRUISE METHOD:** Sale acreage was 100% GPS'd. Sale units were cruised using a variable plot sample.

**FEES:** \$150,943.00 is due on day of sale. \$9.00 per MBF is due upon removal. These are in addition to the bid price.

# TIMBER SALE MAP

**SALE NAME:** FISH AND CHIPS  
**AGREEMENT #:** 30-104810  
**TOWNSHIP(S):** T24R11W  
**TRUST(S):** University - Transferred (5)

**REGION:** Olympic Region  
**COUNTY(S):** Jefferson  
**ELEVATION RGE:** 370-920



All state land unless otherwise noted  
 All streams type 5 unless otherwise noted

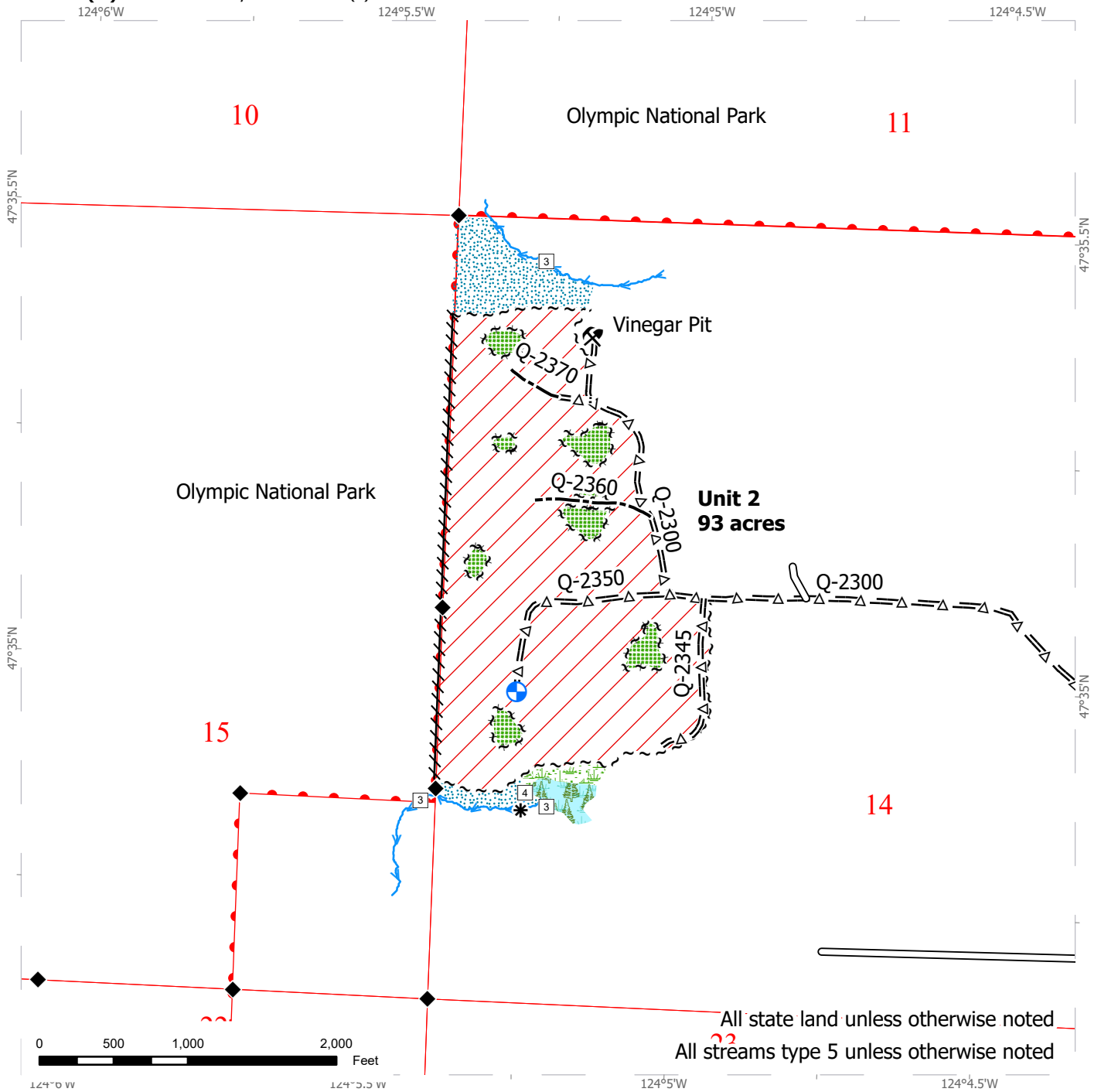
Variable Retention Harvest	Leave Tree Tags	Optional Construction
Leave Tree Area	Streams	Optional Pre-Haul Maint.
Forested Wetland	Stream Type	Landing
Wetland Mgt Zone	Stream Break	DNR Managed Lands
Riparian Mgt Zone	Leave Tree Area <1/4-acre	Public Land Survey Townships
Sale Boundary Tags	Existing Road	Public Land Survey Sections



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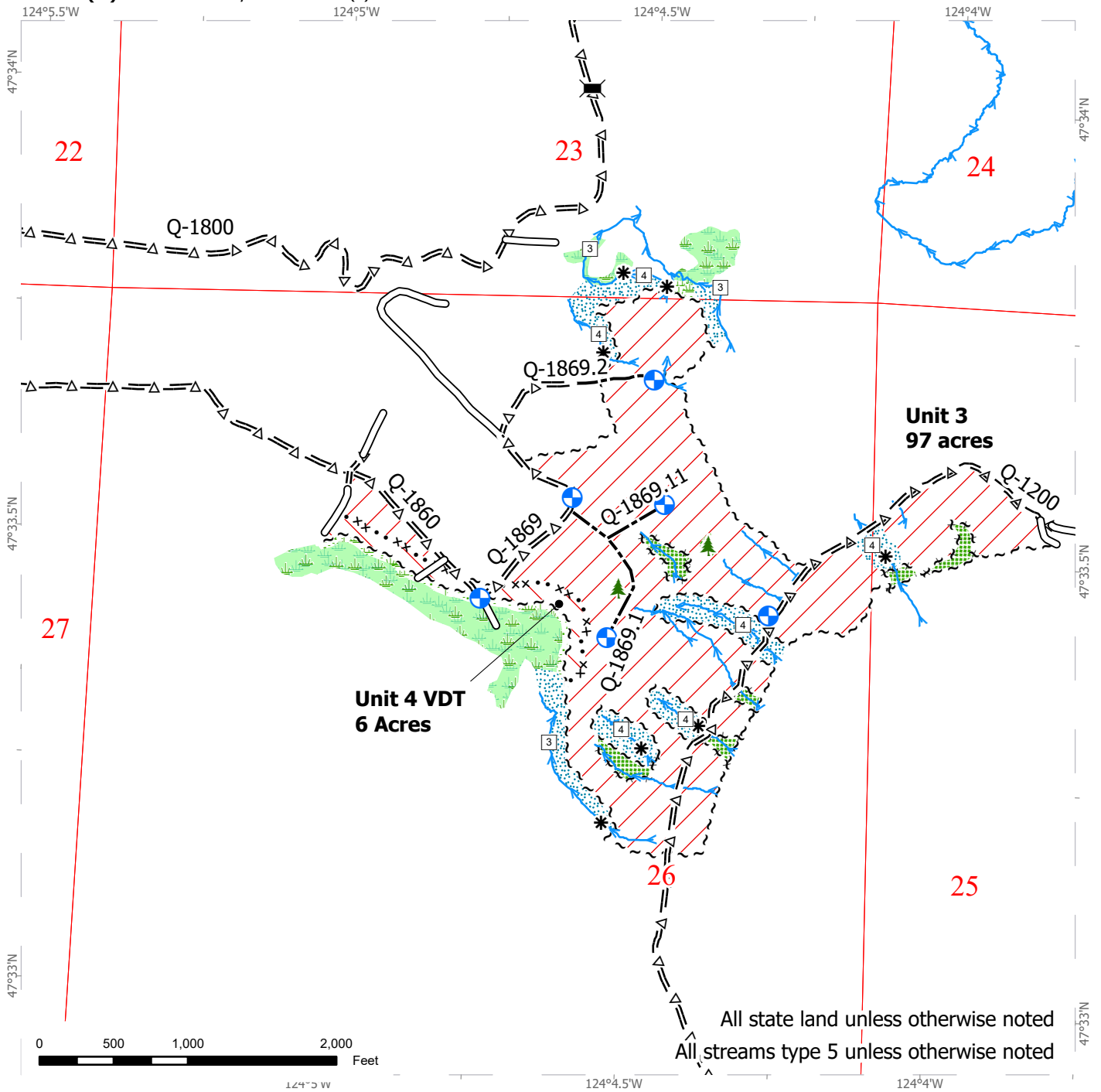
All state land unless otherwise noted  
 All streams type 5 unless otherwise noted

Variable Retention Harvest	Flag Line	Optional Pre-Haul Maint.
Leave Tree Area	Streams	Landing
Forested Wetland	Stream Type	Rock Pit
Wetland Mgt Zone	Stream Break	DNR Managed Lands
Riparian Mgt Zone	Survey Monument	Public Land Survey Townships
Sale Boundary Tags	Existing Road	Public Land Survey Sections
Leave Tree Tags	Optional Construction	

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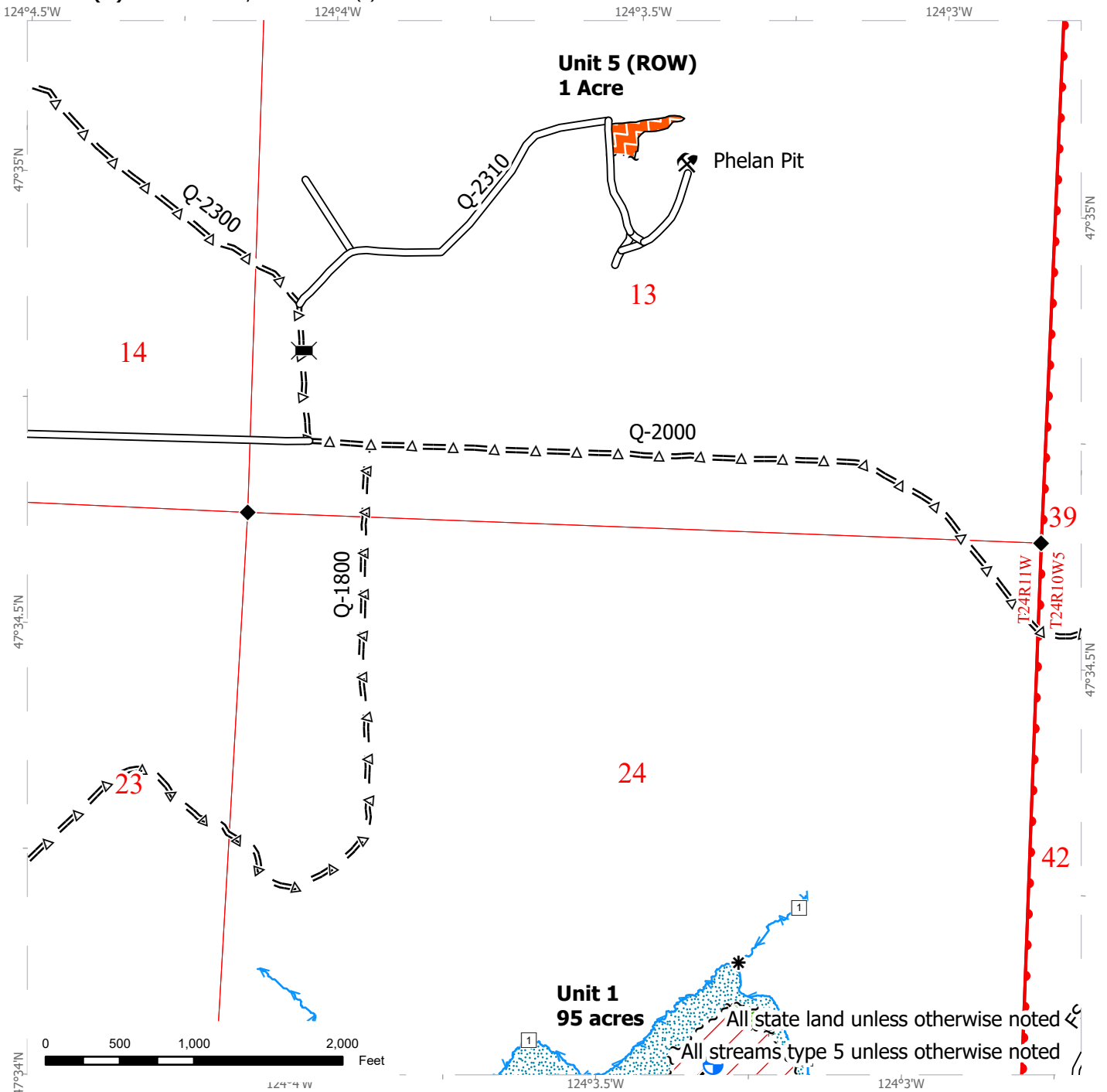
Variable Retention Harvest	Leave Tree Tags	Optional Construction
Variable Density Thinning	Special Mgmt Area	Optional Pre-Haul Maint.
Leave Tree Area	Streams	Bridge
Wetlands - Non-forested	Stream Type	Landing
Wetland Mgt Zone	Stream Break	DNR Managed Lands
Riparian Mgt Zone	Leave Tree Area <1/4-acre	Public Land Survey Townships
Sale Boundary Tags	Existing Road	Public Land Survey Sections



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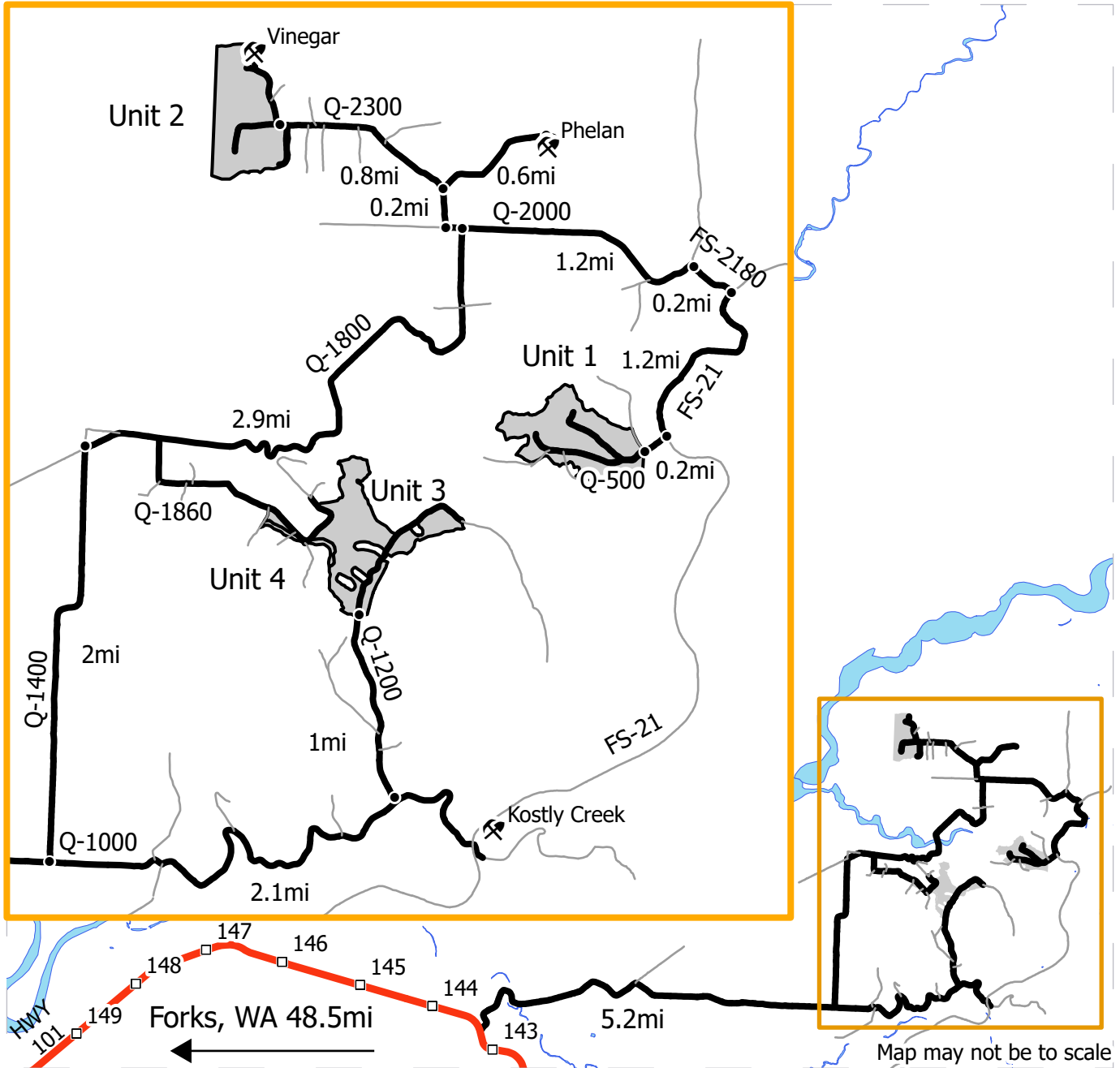
Variable Retention Harvest	Timber Type Change	Optional Pre-Haul Maint.
Right-of-Way Harvest	Streams	Bridge
Leave Tree Area	Stream Type	Landing
Riparian Mgt Zone	Stream Break	Rock Pit
Sale Boundary Tags	Survey Monument	DNR Managed Lands
Leave Tree Tags	Existing Road	Public Land Survey Townships
Right of Way Tags	Optional Construction	Public Land Survey Sections



# DRIVING MAP

**SALE NAME:** FISH AND CHIPS  
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**REGION:** Olympic Region  
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## **DRIVING DIRECTIONS:**

Unit 2: From Forks, drive south on US 101 for 48.5mi and turn left on the Q-1000. Drive 5.2mi and turn left on Q-1400. Drive 2mi and turn right on Q-1800. Drive for 2.9mi and turn left on Q-2000, then an immediate right on Q-2300. Drive 1mi and arrive.  
 Vinegar pit: Located at north end of Unit 2.  
 Phelan pit: From Unit 2, drive east on Q-2300 for 0.8mi. Turn left on Q-2310 and drive 0.6mi.  
 Unit 5: Right-of-way unit adjacent to Phelan pit.  
 Unit 1: From Jct. Q-2300 drive east on Q-2000 for 1.2 miles. Turn right on FS-2180 and continue for 0.2 miles. Turn right on FS-21 (West Boundary Road). Drive south for 1 mile and turn right on Q-500. Drive 0.2 miles and arrive.  
 Unit 3: From Jct. Q-1400 drive east on Q-1000 for 2.1mi. Turn left on Q-1200 and drive 1mi.  
 Kostly Creek pit: From Jct. Q-1200 drive east on Q-1000 for 0.6mi. Cross FS-21 and arrive.  
 Unit 4: Located in Southwest corner of Unit 3. Access via Q-1860.

**STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES**

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

**Export Restricted Lump Sum AGREEMENT NO. 30-0104810**

**SALE NAME: FISH AND CHIPS**

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

Section G: General Terms

G-001 Definitions

The following definitions apply throughout this contract;

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

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

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

**Purchaser:** The company or individual that has entered into a Bill of Sale and Contract for Forest Products with the State for the right to harvest and remove forest products from the timber sale area.



Road Construction: Includes building new and maintaining existing forest roads and associated work that may be optional or required as described in the Road Plan.

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

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

G-011 Right to Remove Forest Products and Contract Area

Purchaser was the successful bidder on January 29, 2025 and the sale was confirmed on \_\_\_\_\_. The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase as much of the following forest products as can be cut and removed during the term of this contract: All timber except trees marked with a band of blue paint, or bounded out by Leave Tree Area tags, no downed red cedar; bounded by Timber Sale Boundary tags and the Q-510 road in Unit 1; bounded by Timber Sale Boundary tags, flag line, and the Q-2300 road in Unit 2; bounded by Timber Sale Boundary tags, the Q-1200 and Q-1869 roads in Unit 3; bounded by Timber Sale Boundary tags, and special management area in Unit 4.

All forest products described above located on approximately 291 acres on part(s) of Sections 13, 14, 23, 24, 25, and 26 all in Township 24 North, Range 11 West W.M. in Jefferson County(s) as designated on the sale area and as shown on the attached timber sale map.

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

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

G-020 Inspection By Purchaser

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

estimates, appraisals, pre-bid documentation, or any other representations by the State Department of Natural Resources.

G-025 Schedules

The following attached schedules are hereby incorporated by reference:

Schedule	Title
A	Specifications for Slash Piling
B	Green Tree Retention Plan

G-031 Contract Term

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

G-040 Contract Term Adjustment - No Payment

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

- a. Road and bridge failures which deny access.
- b. Access road closures imposed by road owner.
- c. Excessive suspensions as provided in clause G-220.
- d. Regulatory actions not arising from Purchaser's failure to comply with this contract which will prevent timber harvest for a period less than 6 months.

G-051 Contract Term Extension - Payment

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

- a. A written request for extension of the contract term must be received prior to the expiration date of the contract.
- b. Completion of all required roads and compliance with all contract and regulatory requirements.
- c. For the first extension, not to exceed 1 year, payment of at least 25 percent of the total contract price.

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

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

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

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

- e. Payment of DATA MISSING per acre per annum for the acres on which an operating release has not been issued .
- f. In no event will the extension charge be less than \$200.00.
- g. Extension payments are non-refundable.

#### G-053 Surveys - Sensitive, Threatened, Endangered Species

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

#### G-060 Exclusion of Warranties

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

- a. The MERCHANTABILITY of the forest products. The use of the term "merchantable" in any document is not intended to vary the foregoing.
- b. The CONDITION of the forest products. The forest products will be conveyed "AS IS."
- c. The ACREAGE contained within any sale area. Any acreage descriptions appearing in the timber notice of sale, timber sale contract, or other documents are estimates only, provided solely for administrative and identification purposes.
- d. The VOLUME, QUALITY, OR GRADE of the forest products. The State neither warrants nor limits the amount of timber to be harvested. The descriptions of the forest products to be conveyed are estimates only, made solely for administrative and identification purposes.

- e. The CORRECTNESS OF ANY SOIL OR SURFACE CONDITIONS, PRE-SALE CONSTRUCTION APPRAISALS, INVESTIGATIONS, AND ALL OTHER PRE-BID DOCUMENTS PREPARED BY OR FOR THE STATE. These documents have been prepared for the State's appraisal purposes only.
- f. THAT THE SALE AREA IS FREE FROM THREATENED OR ENDANGERED SPECIES or their habitat. The State is not responsible for any interference with forestry operations that result from the presence of any threatened or endangered species, or the presence of their habitat, within the sale area.
- g. THAT THE FORESTRY OPERATIONS to be performed under this contract WILL BE FREE FROM REGULATORY ACTIONS by governmental agencies. The State is not responsible for actions to enforce regulatory laws, such as the Washington Forest Practices Act (chapter 76.09 RCW), taken by the Department of Natural Resources or any other agency that may affect the operability of this timber sale.
- h. Items contained in any other documents prepared for or by the State.

G-061 Inadvertent Discovery of Cultural Resources

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

G-062 Habitat Conservation Plan

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

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

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

**G-063 Incidental Take Permit Notification Requirements**

- a. Purchaser shall immediately notify the Contract Administrator of new locations of permit species covered by the Incidental Take Permits (ITP) that are discovered within the area covered by the State's Habitat Conservation Plan (HCP), including, but not limited to: locations of occupied murrelet habitat; spotted owl nest sites; wolves; grizzly bears; nests, communal roosts, or feeding concentrations of bald eagles; peregrine falcon nests; Columbian white-tailed deer; Aleutian Canada geese; Oregon silverspot butterflies; and additional stream reaches found to contain bull trout. Purchaser is required to notify the Contract Administrator upon discovery of any fish species found in streams or bodies of water classified as non-fish bearing. In all circumstances, notification must occur within a 24 hour time period.
- b. Upon locating any live, dead, injured, or sick specimens of any permit species covered by the ITP, Purchaser shall immediately notify the Contract Administrator. Purchaser shall notify the Contract Administrator if there is any doubt as to the identification of a discovered permit species. Purchaser may be required to take certain actions to help the Contract Administrator safeguard the well-being of any live, injured or sick specimens of any permit species discovered, until the proper disposition of such specimens can be determined by the Contract Administrator. Any such requirements will be explained to Purchaser by the Contract Administrator during the Pre-Work Conference. In all circumstances, notification must occur within a 24 hour time period.
- c. Purchaser shall refer to a specific ITP number, ITP TE812521-1 or ITP 1168 (copies which are located in the region office) in all correspondence and reports concerning permit activities.
- d. Provisions and requirements of the ITP shall be clearly presented and explained to Purchaser by Contract Administrator during the Pre-Work Conference as per contract clause G-330. All applicable provisions of the ITP and this schedule must be presented and clearly explained by Purchaser to all

authorized officers, employees, contractors, or agents of Purchaser conducting authorized activities in the timber sale area. Any questions Purchaser may have about the ITP should be directed to the Contract Administrator.

G-064 Permits

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

G-065 Regulatory Disclaimer

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

G-066 Governmental Regulatory Actions

a. Risk

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

b. Sale Area

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

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

c. Adjustment of Price

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

removing timber. A reduction in total contract price terminates all of the Purchaser's rights to purchase and remove the timber and all other interest in the affected sale area.

G-070 Limitation on Damage

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

G-080 Scope of State Advice

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

G-091 Sale Area Adjustment

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

G-101 Forest Products Not Designated

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

The pricing schedule has not been set for the sale.

G-111 Title and Risk of Loss

Title to the forest products under this contract passes to the Purchaser after they are removed from the sale area, if adequate advance payment or payment security has been provided to the State under this contract. Purchaser bears all risk of loss of, or damage to, and has an insurable interest in, the forest products described in this contract from

the time the sale is confirmed under RCW 79.15.120. Breach of this contract shall have no effect on this provision.

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

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

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

G-120 Responsibility for Work

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

G-121 Exceptions

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

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

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

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

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

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



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

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

#### G-140 Indemnity

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

#### G-150 Insurance

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

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

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

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

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

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

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

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

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

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

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

that include, but are not limited to, fire suppression expenses, accidental timber trespasses, and wildfire property damage with limits of not less than \$2,000,000.00 each occurrence.

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

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

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

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

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

#### G-160 Agents

The State's rights and duties will be exercised by the Region Manager at Forks, Washington. The Region Manager will notify Purchaser in writing who is responsible for administering the contract. The Region Manager has sole authority to waive,

modify, or amend the terms of this contract in the manner prescribed in clause G-180. No agent, employee, or representative of the State has any authority to bind the State to any affirmation, representation, or warranty concerning the forest products conveyed beyond the terms of this contract.

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

G-170 Assignment and Delegation

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

G-180 Modifications

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

G-190 Contract Complete

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

G-200 Notice

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

G-210 Violation of Contract

G-220 State Suspends Operations

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

G-210 Violation of Contract

- a. If Purchaser violates any provision of this contract, the Contract Administrator, by written notice, may suspend those operations in violation. If the violation is capable of being remedied, Purchaser has 30 days after receipt of a suspension notice to remedy the violation. If the violation cannot be remedied (such as a violation of WAC 240-15-015) or Purchaser fails to remedy the violation within 30 days after receipt of a suspension notice, the

State may terminate the rights of Purchaser under this contract and collect damages.

- b. If the contract expires pursuant to clause G-030 or G-031 without Purchaser having performed all its duties under this contract, Purchaser's right to operate is terminated and Purchaser shall not have the right to remedy the breach. This provision shall not relieve Purchaser of any payment obligations.
- c. The State has the right to remedy the breach in the absence of any indicated attempt by Purchaser or if Purchaser is unable, as determined by the State, to remedy the breach. Any expense incurred by the State shall be charged to Purchaser and shall be paid within 30 days of receipt of billing.
- d. If Purchaser's violation is a result of a failure to make a payment when due, in addition to a. and b. above, interest shall accrue on the unpaid balance at 12 percent per annum, beginning the date payment was due.

#### G-220 State Suspends Operations

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

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

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

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

#### G-230 Unauthorized Activity

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

**G-240 Dispute Resolution**

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

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

**G-250 Compliance with All Laws**

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

**G-260 Venue**

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

**G-270 Equipment Left on State Land**

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

**G-280 Operating Release**

An operating release is a written document, signed by the State and Purchaser, indicating that Purchaser has been relieved of certain rights or responsibilities with regard to the entire or a portion of the timber sales contract. Purchaser and State may agree to an operating release for this sale, or portion of this sale, prior to the contract

expiration, when all contract requirements pertaining to the release area have been satisfactorily completed. Upon issuance of a release, Purchaser's right to cut and remove forest products on the released area will terminate.

**G-310 Road Use Authorization**

Purchaser is authorized to use the following State roads and roads for which the State has acquired easements and road use permits; West Boundary road - FS-21 (mp7.2 to mp8.2), FS-2180 (jct. FS21 to jct. Q-2000), Q-1000, Q-1400 Q-1800, Q-2000, Q-1860, Q-1866, Q-1867, Q-1869, Q-1869.1, Q-1869.11, Q-1869.2 Q-1200, Q-500, Q-510, Q-520, Q-520.1, Q-530, Q,540, Q-2300, Q-2345, Q-2350, Q-2360, Q-2370, Q-2310, Q-2100. The State may authorize in writing the use of other roads subject to fees, restrictions, and prior rights.

**G-330 Pre-work Conference**

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

**G-340 Preservation of Markers**

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

**G-360 Road Use Reservation**

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

**G-370 Blocking Roads**

Purchaser shall not block the Q-1000, Q-1400, Q-1800, Q-2000, West Boundary Road, 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:

USFS – West Boundary Road (FS21) / FS-2180

55-000389 Morrison Logging Company  
55-081615: SUP with USFS

G-430 Open Fires

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

Section P: Payments and Securities

P-011 Initial Deposit

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

P-020 Payment for Forest Products

Purchaser agrees to pay the total, lump sum contract price of \$150,943.00. The total contract price consists of a \$0.00 contract bid price plus \$150,943.00 in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066 clause. Purchaser shall be liable for the entire purchase price, and will not be entitled to any refunds or offsets unless expressly stated in this contract.

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

P-045 Guarantee of Payment

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

P-050 Billing Procedure

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



**P-080 Payment Account Refund**

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

**P-090 Performance Security**

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

**P-100 Performance Security Reduction**

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

**Section H: Harvesting Operations****H-010 Cutting and Yarding Schedule**

Falling and Yarding will not be permitted from October 15 to April 15 unless authorized in writing by the Contract Administrator.

**H-012 Leave Tree Damage Definition**

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

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

- a. A leave tree has one or more scars on its trunk exposing the cambium layer, which in total exceeds 100 square inches.
- b. A leave tree top is broken or the live crown ratio is reduced below 30 percent.

- c. A leave tree has more than 1/3 of the circumference of its root system injured such that the cambium layer is exposed.

If the Contract Administrator determines that a leave tree has been cut or damaged, the Purchaser may be required to pay liquidated damages for Excessive Leave Tree Damage as detailed in clause D-040.

#### H-013 Reserve Tree Damage Definition

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

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

- a. A reserve tree has one or more scars on its trunk exposing the cambium layer, which in total exceeds 100 square inches.
- b. A reserve tree top is broken or the live crown ratio is reduced below 30 percent.
- c. A reserve tree has more than 1/3 of the circumference of its root system injured such that the cambium layer is exposed.

If the Contract Administrator determines that a reserve tree has been cut or damaged, the Purchaser shall provide a replacement reserve tree of like condition, size, and species within the sale unit containing the damaged leave tree, as approved by the Contract Administrator. Purchaser may be required to pay liquidated damages for Excessive Reserve Tree Damage as detailed in clause D-041.

Removal of designated reserve trees from the sale area is unauthorized, and may invoke the use of the G-230 'Unauthorized Activity' clause. Purchaser is required to leave all cut or damaged reserve trees on site.

#### H-017 Preventing Excessive Soil Disturbance

Operations may be suspended when soil rutting exceeds 12 inches as measured from the natural ground line. To reduce soil damage, the Contract Administrator may require water bars to be constructed, grass seed to be placed on exposed soils, or other mitigation measures. Suspended operations shall not resume unless approval to do so has been given, in writing, by the Contract Administrator.

#### H-051 Branding and Painting

Purchaser shall provide a State of Washington registered log brand, acceptable to the State, unless the State agrees to furnish the brand. All purchased timber shall be branded in a manner that meets the requirements of WAC 240-15-030(2)(a)(i). All timber purchased under a contract designated as export restricted shall also be painted in a manner that meets the requirements of WAC 240-15-030(2)(a)(ii).

For pulp loads purchased under a contract designated as export restricted, Purchaser shall brand at least 3 logs with legible brands at one end. Also, 10 logs shall be painted at one end with durable red paint.

H-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using cable, cable-tethered, and ground based equipment. Cable-tethered equipment is limited to sustained slopes of 75 percent and less. Ground based equipment is limited to tracked equipment on sustained slopes that are 45 percent and less. Rubber tired skidders are restricted unless approved by the Contract Administrator. 30' Equipment Limitations Zones (ELZ) on all typed water. Rubber tired skidder must meet rutting and skidding requirements and have an approved harvest plan. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

H-130 Hauling Schedule

The hauling of forest products will not be permitted on all roads from October 15 to April 15 unless authorized in writing by the Contract Administrator.

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

1. Purchaser shall immediately repair all gate damage resulting from operations to an equal or better condition than existed at the time of the sale.
2. Purchaser shall fully suspend one end of logs above the ground. If yarding over typed water, entire log must be by suspending over streams.
3. The Purchaser shall notify all employees and contractors working on this sale that any danger tree, marked or unmarked, may be felled. Any felled marked danger tree shall be replaced with a suitable tree of similar size and species as approved by the Contract Administrator.

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

H-190 Completion of Settings

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

H-220 Protection of Residual or Adjacent Trees

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

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

Road construction and associated work provisions of the Road Plan for this sale, dated DATA MISSING are hereby made a part of this contract.

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

Purchaser shall perform work at their own expense on all roads listed in the road plan, authorized in Clause G-310, and not listed in Clause C-060. All work shall be completed to the specifications detailed in the Road Plan.

**C-060 Designated Road Maintainer**

If required by the State, Purchaser shall perform maintenance and replacement work as directed by the Contract Administrator on Q-1000, Q-2000 (0+00 – 65+20), Q-2300 (0+00 – 9+30), Q-2310, Kostly Creek Pit Road, West Boundary Road (FS21), FS-2180 (all other roads not listed in clause C-050). Purchaser shall furnish a statement in a form satisfactory to the State showing the costs incurred while performing this work. Costs shall be based on the rates set forth in the equipment rate schedule on file at the Region office or Engineering Division in Olympia. The State shall reimburse Purchaser for said costs within 30 days of receipt and approval of the statement.

**C-140 Water Bars**

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

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

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

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

**S-010 Fire Hazardous Conditions**

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

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

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

S-050 Cessation of Operations for Low Humidity

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

S-060 Pump Truck or Pump Trailer

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

S-110 Resource Protection

No equipment may operate within 30 feet of typed waters unless authority is granted in writing 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 or other releases of hazardous material/waste during operations conducted under this contract.

b. Hazardous Materials Spill Prevention

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

c. Hazardous Materials Spill Containment, Control and Cleanup

If safe to do so, Purchaser shall take immediate action to contain and control all hazardous material spills. Purchaser shall ensure that enough quick response spill kits capable of absorbing 10 gallons of oil, coolant, solvent or contaminated water are available on site to quickly address potential spills from any piece of equipment at all times throughout active operations. If large quantities of bulk fuel/other hazardous materials are stored on site, Purchaser must be able to effectively control a container leak and contain &

recover a hazmat spill equal to the largest single on site storage container volume. (HAZWOPER reg. 29CFR 1910.120 (j) (1) (vii)).

d. Hazardous Material Release Reporting

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

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

S-131 Refuse Disposal

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

Section D: Damages

D-013 Liquidated Damages or Failure to Perform

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

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

D-041 Reserve Tree Excessive Damage

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

SIGNATURES

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

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

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

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

\_\_\_\_\_  
William Wells  
Olympic Region Manager

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 \_\_\_\_\_



**Specifications for Slash Piling**

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

1. Piles shall be a minimum of 12 feet tall by 8 feet wide to a maximum of 30 feet tall and 16 feet wide. Piles shall be cone shaped and stable.
2. Piles shall be free of topsoil, large rotten logs and large stumps. No material larger than 8 inches in diameter shall be piled. Any burnable material shall be well scattered.
3. Piles shall not be placed on large stumps or logs.
4. Piles shall be stacked a minimum of 50 feet from all unit boundaries, Riparian Management Zones, leave tree areas and any standing timber; a minimum of 100 feet from any public roads and highways; and a minimum of 200 feet from any structures.
5. Piling shall be completed using an approved hydraulic shovel and grapples.
6. Slash and displaced soil shall be removed from swales and natural drainage channels concurrent with yarding.
7. Slash generated during cable yarding shall be stacked in dirt free piles and shall not block roads or interfere with functioning of drainage structures, ditches, or stream channels.

**Green Tree Retention Plan**

Leave the following as directed by the Contract Administrator:

1. All trees marked with a blue band of paint and all leave tree area clumps shall remain standing.

The perimeter of the leave tree clumps are designated by Leave Tree Area tags. The tags face outward from the leave tree clumps.

Unit #	# of Individually Marked Trees	# of Clumps	# of Trees Clumped	Total # of Leave Trees
1	201	6	565	766
2	125	6	619	744
3	273	6	503	776



**WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES**  
**FOREST EXCISE TAX ROAD SUMMARY SHEET**

**Region:**

**Timber Sale Name:**

**Application Number:**

**EXCISE TAX APPLICABLE ACTIVITIES**

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

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

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

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

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

**EXCISE TAX EXEMPT ACTIVITIES**

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

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

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

(Revised 9/18)

## PRE-CRUISE NARRATIVE

Sale Name: <b>Fish and Chips</b>	Region: <b>Olympic</b>
Agreement #: <b>30-104810</b>	District: <b>Coast</b>
Contact Forester: <b>Dave Riley</b> Phone / Location: <b>360-640-5370 - Forks</b>	County(s): <b>Jefferson, Choose a county</b>
Alternate Contact: <b>Mike Potter</b> Phone / Location: <b>360-640-0722 - Forks</b>	Other information: <a href="#">Click here to enter text.</a>

Type of Sale: Lump Sum	
Harvest System: Ground based <a href="#">Click here to enter text.</a>	85%
Harvest System: Uphill Cable <a href="#">Click here to enter text.</a>	10%
Enter % of sale acres	
Harvest System: Downhill Cable <a href="#">Click here to enter text.</a>	5%

### UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit # Harvest R/W or RMZ WMZ	Legal Description <small>(Enter only one legal for each unit)</small> Sec/Twp/Rng	Grant or Trust	Gross Proposal Acres	Deductions from Gross Acres (No harvest acres)				Net Harvest Acres	Acreage Determinatio n  <small>(List method and error of closure if applicable)</small>
				RMZ/ WMZ Acres	Leave Tree Acres	Existing Road Acres	Other Acres (describe)		
1	S24 T24N R11W	05	134	34	3	2	0	95	GPS (Garmin)
2	S14 T24N R11W	05	115	14	7	1	0	93	GPS (Garmin)
3	S25/26 T24N R11W	05	121	19	4	1	0	97	GPS (Garmin)
4	S14 T24N R11W	05	20	14	0	0	0	6	GPS (Garmin)
5 ROW	S14 T24N R13W	05	1	0	0	0	0	1	GPS (Garmin)
	<a href="#">Enter Sec / Twp / Rng</a>								Choose an item.
	<a href="#">Enter Sec / Twp / Rng</a>								Choose an item.
<b>TOTAL ACRES</b>			391	81	14	4	0	292	

### HARVEST PLAN AND SPECIAL CONDITIONS:

Unit #	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
1	Standard VRH	None	Scattered: 201 Leave Tree Area: 565
2	Standard VRH	None	Scattered: 95 Leave Tree Area: 649
3	Standard VRH	None	Scattered: 159 Leave Tree Area: 623
4	Wetland buffer VDT	Unit boundaries marked with blue "special management unit" tags	Leave trees painted to retain a WMZ buffer of 120 sq ft/acre after 50ft. no-harvest buffer
5ROW	Right of Way	None	Clear timber for pit expansion

#### OTHER PRE-CRUISE INFORMATION:

Unit #	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	DF,WH 2,500mbf	Access via Q-500 off West Boundary Road (FS-21). Can drive almost to section line, then short walk into unit.	
2	DF,WH 2,700mbf	Access from Q-2300. Q-2350 is rough, but drivable.	
3	DF,WH 3,000mbf	Eastern portions of unit are easily accessible from Q-1200. West side is accessible from the Q-1800. Neither the Q-1860 or Q-1870 are drivable but are relatively easy to walk.	
4	DF,WH 60mbf	WMZ thinning in SW corner of unit 3. Access from Q-1860 or Q1200	
5ROW	DF, WH 25mbf	Right-of-Way for Phelan pit expansion	
TOTAL MBF	Click here to enter total mbf.		

#### REMARKS:

Low-lying portions of unit 1, as well as a majority of unit 2 have a significant number of snags. Unit 3 is approximately 10 years older than the others, was thinned in the late 90's, and has the highest quality timber. Access is good to all units.

Prepared By: Dave Riley Date: 6/18/24	Title: Unit Forester	CC: Mike Potter
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## Timber Sale Cruise Report Fish and Chips

**Sale Name:** FISH AND CHIPS

**Sale Type:** LUMP SUM

**Region:** OLYMPIC

**District:** COAST

**Lead Cruiser:** Kevin Peterson

**Other Cruisers:**

**Cruise Narrative:**

**Location:**

This sale is located off of the FS 21 Rd on the Q-1000 and Q-2000. Access to all units is pretty good. No locked gates

**Cruise Design:**

For this sale I used a 54.44/40 BAF combo for all the units. Merch height was determined at 40% of the diameter at 16'. All logs were cruised in 40' lengths.

**Timber Quality:**

This sale is mostly larger diameter DF and WH, there is a little bit of scatted SS and RA in the low land areas. Parts of unit 3 have been thinned which has some of the largest DF and WH. Common defects were sweep, forked tops and spike knots.

**Logging and Stand Conditions:**

This sale is 85% ground-based harvest and 15% cable harvest. Unit 1 is pretty easy to move thru, Units 2 and 3 have a bit of brush and down trees to get through.

### Timber Sale Notice Volume (MBF)

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	16.8	6.2		4,797	1,826	2,343	545	83
WH	14.4	6.2		3,948	1,068	2,159	697	25
SS	11.2			97	32	32	33	
RA	13.4			37		8	29	
ALL	15.5	6.2		8,879	2,925	4,542	1,304	108

### Timber Sale Notice Weight (tons)

Sp	Tons by Grade				
	All	2 Saw	3 Saw	4 Saw	Utility
DF	38,154	12,938	19,449	5,014	753
WH	34,671	8,572	19,156	6,736	207
SS	747	209	319	220	
RA	312		54	258	
ALL	73,884	21,719	38,978	12,228	960

**Timber Sale Overall Cruise Statistics**

BA (sq ft/acre)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR SE (%)	Net Vol (bf/acre)	Vol SE (%)
243.6	2.8	126.8	1.2	30,766	3.1

**Timber Sale Unit Cruise Design**

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
FISH AND CHIPS U1	B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	95.0	99.2	47	23	0
FISH AND CHIPS U2	B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	93.0	98.9	46	15	0
FISH AND CHIPS U3	B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	97.0	102.7	48	16	2
FISH AND CHIPS U4	B2: VR, 2 BAF (54.44, 40 for some species) Measure All, Sighting Ht = 4.5 ft	6.0	5.8	4	4	0
FISH AND CHIPS	B1: VR, 1 BAF (54.44) Measure All, Sighting Ht = 4.5 ft	1.0	1.4	1	1	0
All		292.0	308.0	146	59	2

**Timber Sale Log Grade x Sort Summary**

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
DF	LIVE	2 SAW	Domestic	14.2	33	6,557	6,252	4.7	12,937.8	1,825.6
DF	LIVE	3 SAW	Domestic	9.1	35	8,327	8,025	3.6	19,449.0	2,343.3
DF	LIVE	4 SAW	Domestic	5.5	27	1,899	1,866	1.7	5,014.1	544.9
DF	LIVE	CULL	Cull	10.0	25	53	0	100.0	0.0	0.0
DF	LIVE	UTILITY	Pulp	8.7	32	284	284	0.0	753.2	83.0
RA	LIVE	3 SAW	Domestic	10.1	30	27	27	0.0	54.1	8.0
RA	LIVE	4 SAW	Domestic	7.7	32	99	99	0.0	257.5	28.9
SS	LIVE	2 SAW	Domestic	13.3	32	123	108	12.4	208.8	31.6
SS	LIVE	3 SAW	Domestic	8.3	34	135	110	18.4	318.7	32.1
SS	LIVE	4 SAW	Domestic	5.0	25	116	114	1.8	219.7	33.2
WH	LIVE	2 SAW	Domestic	14.0	36	3,788	3,657	3.5	8,572.2	1,067.8
WH	LIVE	3 SAW	Domestic	9.0	35	7,453	7,392	0.8	19,156.2	2,158.5
WH	LIVE	4 SAW	Domestic	5.4	27	2,390	2,388	0.1	6,736.2	697.3
WH	LIVE	CULL	Cull	13.3	6	45	0	100.0	0.0	0.0
WH	LIVE	UTILITY	Pulp	14.8	40	84	84	0.0	206.8	24.6



**Timber Sale Log Sort x Diameter Bin Summary**

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 8	LIVE	Domestic	6.2	30	4,280	3.4	11,685.1	1,249.9
DF	5 - 8	LIVE	Pulp	6.8	31	92	0.0	309.3	26.8
DF	9 - 11	LIVE	Pulp	9.1	32	24	0.0	61.9	7.0
DF	9 - 11	LIVE	Cull	10.0	25	0	100.0	0.0	0.0
DF	9 - 11	LIVE	Domestic	10.5	36	5,611	3.1	12,777.9	1,638.4
DF	12 - 14	LIVE	Pulp	12.7	32	78	0.0	172.9	22.7
DF	12 - 14	LIVE	Domestic	13.3	34	3,692	3.5	8,174.5	1,078.2
DF	15 - 19	LIVE	Pulp	15.6	40	91	0.0	209.1	26.6
DF	15 - 19	LIVE	Domestic	16.0	32	2,357	5.6	4,391.3	688.1
DF	20+	LIVE	Domestic	21.6	32	203	12.5	372.0	59.3
RA	5 - 8	LIVE	Domestic	7.3	32	77	0.0	204.4	22.5
RA	9 - 11	LIVE	Domestic	9.7	30	49	0.0	107.2	14.3
SS	5 - 8	LIVE	Domestic	5.1	26	148	3.1	321.7	43.1
SS	9 - 11	LIVE	Domestic	9.7	32	76	22.6	216.8	22.2
SS	12 - 14	LIVE	Domestic	13.3	32	108	12.4	208.8	31.6
WH	5 - 8	LIVE	Domestic	6.2	30	5,250	0.2	15,025.5	1,533.0
WH	9 - 11	LIVE	Domestic	10.5	35	4,530	1.2	10,866.9	1,322.8
WH	12 - 14	LIVE	Cull	13.3	6	0	100.0	0.0	0.0
WH	12 - 14	LIVE	Domestic	13.3	37	2,253	2.9	5,807.5	658.0
WH	12 - 14	LIVE	Pulp	14.8	40	84	0.0	206.8	24.6
WH	15 - 19	LIVE	Domestic	15.8	33	1,403	4.4	2,764.7	409.7

## Cruise Unit Report FISH AND CHIPS U1

### Unit Sale Notice Volume (MBF): FISH AND CHIPS U1

Sp	DBH	Rings/In	Age	MBF Volume by Grade				Utility
				All	2 Saw	3 Saw	4 Saw	
DF	16.3			1,600	237	1,156	201	5
WH	15.1			1,564	412	898	230	25
RA	13.5			29		8	20	
ALL	15.6			3,193	649	2,063	451	30

### Unit Cruise Design: FISH AND CHIPS U1

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	95.0	99.2	47	23	0

### Unit Cruise Summary: FISH AND CHIPS U1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	64	118	2.5	0
WH	62	119	2.5	0
RA	4	4	0.1	0
ALL	130	241	5.1	0

### Unit Cruise Statistics: FISH AND CHIPS U1

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	136.7	59.8	8.7	123.2	17.4	2.2	16,841	62.3	9.0
WH	137.8	71.7	10.5	119.5	20.0	2.5	16,467	74.5	10.8
RA	3.4	479.5	69.9	88.2	13.2	6.6	300	479.7	70.2
ALL	277.9	28.8	4.2	120.9	19.1	1.7	33,608	34.6	4.5

### Unit Summary: FISH AND CHIPS U1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	64	ALL	16.3	74	95	17,315	16,841	2.7	94.3	136.7	33.9	1,599.9
RA	LIVE	CUT	4	ALL	13.5	63	77	300	300	0.0	3.4	3.4	0.9	28.5

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	CUT	62	ALL	15.1	67	84	16,740	16,467	1.6	110.8	137.8	35.5	1,564.3
ALL	LIVE	CUT	130	ALL	15.6	70	89	34,356	33,608	2.2	208.5	277.9	70.3	3,192.7
ALL	ALL	CUT +LEAVE	130	ALL	15.6	70	89	34,356	33,608	2.2	208.5	277.9	70.3	3,192.7

## Cruise Unit Report FISH AND CHIPS U2

### Unit Sale Notice Volume (MBF): FISH AND CHIPS U2

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	17.3	6.5		1,442	663	571	137	71
WH	12.3	6.5		1,101	300	532	269	
ALL	15.3	6.5		2,543	963	1,103	406	71

### Unit Cruise Design: FISH AND CHIPS U2

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	93.0	98.9	46	15	0

### Unit Cruise Summary: FISH AND CHIPS U2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	47	109	2.4	2
WH	19	82	1.8	2
ALL	66	191	4.2	4

### Unit Cruise Statistics: FISH AND CHIPS U2

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	129.0	77.7	11.5	120.2	18.0	2.6	15,508	79.8	11.8
WH	97.0	109.6	16.2	122.0	19.8	4.5	11,838	111.4	16.8
ALL	226.0	32.1	4.7	121.0	18.4	2.3	27,346	37.0	5.2

### Unit Summary: FISH AND CHIPS U2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	47	ALL	17.3	71	89	16,404	15,508	5.5	79.0	129.0	31.0	1,442.2
WH	LIVE	CUT	19	ALL	12.3	57	71	11,972	11,838	1.1	117.6	97.0	27.7	1,101.0
ALL	LIVE	CUT	66	ALL	14.5	63	78	28,376	27,346	3.6	196.6	226.0	58.7	2,543.2
ALL	ALL	CUT +LEAVE	66	ALL	14.5	63	78	28,376	27,346	3.6	196.6	226.0	58.7	2,543.2

## Cruise Unit Report FISH AND CHIPS U3

### Unit Sale Notice Volume (MBF): FISH AND CHIPS U3

Sp	DBH	Rings/In	Age	MBF Volume by Grade				Utility
				All	2 Saw	3 Saw	4 Saw	
DF	16.9	6.0		1,724	925	598	194	6
WH	15.2	6.0		1,218	356	675	187	
SS	11.2			97	32	32	33	
RA	13.0			8			8	
ALL	15.7	6.0		3,047	1,313	1,306	422	6

### Unit Cruise Design: FISH AND CHIPS U3

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B2C: VR, 2 BAF (54.44, 40 for some species) Measure/Count Plots, Sighting Ht = 4.5 ft	97.0	102.7	48	16	2

### Unit Cruise Summary: FISH AND CHIPS U3

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	42	112	2.3	1
WH	33	76	1.6	1
SS	3	9	0.2	0
RA	1	1	0.0	0
ALL	79	198	4.1	2

### Unit Cruise Statistics: FISH AND CHIPS U3

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	127.0	78.2	11.3	139.9	17.5	2.7	17,771	80.2	11.6
WH	86.2	134.0	19.3	145.7	16.9	2.9	12,559	135.1	19.6
SS	10.2	421.2	60.8	97.9	26.4	15.2	999	422.0	62.7
RA	1.1	692.8	100.0	75.9	0.0	0.0	86	692.8	100.0
ALL	224.6	42.3	6.1	139.9	19.1	2.2	31,415	46.5	6.5

**Unit Summary: FISH AND CHIPS U3**

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	42	ALL	16.9	71	89	18,533	17,771	4.1	81.5	127.0	30.9	1,723.8
RA	LIVE	CUT	1	ALL	13.0	50	60	86	86	0.0	1.2	1.1	0.3	8.4
SS	LIVE	CUT	3	ALL	11.2	45	55	1,126	999	11.3	14.9	10.2	3.1	96.9
WH	LIVE	CUT	33	ALL	15.2	70	87	12,881	12,559	2.5	68.4	86.2	22.1	1,218.2
ALL	LIVE	CUT	79	ALL	15.7	68	85	32,627	31,415	3.7	166.0	224.6	56.4	3,047.3
ALL	ALL	CUT +LEAVE	79	ALL	15.7	68	85	32,627	31,415	3.7	166.0	224.6	56.4	3,047.3

## Cruise Unit Report FISH AND CHIPS U4

### Unit Sale Notice Volume (MBF): FISH AND CHIPS U4

Sp	DBH	Rings/In	Age	MBF Volume by Grade		
				All	3 Saw	4 Saw
WH	17.5			39	32	7
DF	10.1			31	17	14
ALL	11.8			70	50	20

### Unit Cruise Design: FISH AND CHIPS U4

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B2: VR, 2 BAF (54.44, 40 for some species) Measure All, Sighting Ht = 4.5 ft	6.0	5.8	4	4	0

### Unit Cruise Summary: FISH AND CHIPS U4

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	3	15	3.8	0
WH	2	6	1.5	0
ALL	5	21	5.3	0

### Unit Cruise Statistics: FISH AND CHIPS U4

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	204.2	25.5	12.8	94.9	8.1	4.7	19,366	26.8	13.6
WH	81.7	86.1	43.0	119.5	2.5	1.8	9,761	86.1	43.1
ALL	285.8	24.0	12.0	101.9	14.4	6.4	29,126	27.9	13.6

### Unit Summary: FISH AND CHIPS U4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	3	ALL	10.7	57	70	5,164	5,164	0.0	87.2	54.4	16.6	31.0
DF	LIVE	LEA	8	ALL	18.2	71	85	14,202	14,202	0.0	82.9	149.7	35.1	85.2
WH	LIVE	CUT	2	ALL	15.5	68	92	6,507	6,507	0.0	41.5	54.4	13.8	39.0
WH	LIVE	LEA	1	ALL	15.6	59	80	3,254	3,254	0.0	20.5	27.2	6.9	19.5
ALL	LIVE	CUT	5	ALL	12.5	61	77	11,671	11,671	0.0	128.7	108.9	30.5	70.0

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	LIVE	LEA	9	ALL	17.7	68	84	17,455	17,455	0.0	103.4	176.9	42.0	104.7
ALL	ALL	CUT +LEAVE	14	ALL	15.0	64	80	29,126	29,126	0.0	232.1	285.8	72.5	174.8



## Cruise Unit Report FISH AND CHIPS

### Unit Sale Notice Volume (MBF): FISH AND CHIPS

Sp	DBH	Rings/In	Age	MBF Volume by Grade		
				All	3 Saw	4 Saw
WH	14.4			26	21	5
ALL	14.4			26	21	5

### Unit Cruise Design: FISH AND CHIPS

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1: VR, 1 BAF (54.44) Measure All, Sighting Ht = 4.5 ft	1.0	1.4	1	1	0

### Unit Cruise Summary: FISH AND CHIPS

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

### Unit Cruise Statistics: FISH AND CHIPS

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
WH	217.8	0.0	0.0	118.2	10.3	5.1	25,730	10.3	5.1
ALL	217.8	0.0	0.0	118.2	10.3	5.1	25,730	10.3	5.1

### Unit Summary: FISH AND CHIPS

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	CUT	4	ALL	14.4	70	87	25,730	25,730	0.0	192.5	217.8	57.4	25.7
ALL	LIVE	CUT	4	ALL	14.4	70	87	25,730	25,730	0.0	192.5	217.8	57.4	25.7
ALL	ALL	CUT +LEAVE	4	ALL	14.4	70	87	25,730	25,730	0.0	192.5	217.8	57.4	25.7



Forest Practices Application/Notification  
Notice of Decision

FPA/N No: 2618552  
Effective Date: 12/1/2024  
Expiration Date: 12/1/2027  
Shut Down Zone: 650  
EARR Tax Credit:  Eligible  Non-eligible  
Reference: DNR  
Fish and Chips

Decision

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

FPA/N Classification

- Class II  Class III  Class IVG  Class IVS

Number of Years Granted on Multi-Year Request

- 4 years  5 years

Conditions on Approval/Reasons for Disapproval

**Timing Limitations on Type S and F water(s):**  
All work below the ordinary high water line shall only occur between July 1 and September 30.

Issued By: Jenny Garstang Region: Olympic

Title: Forest Practices Forester Date: 12/1/2024

Copies to:  Landowner, Timber Owner and Operator

Issued in person:  LO  TO  OP By: [Signature] Date: 12.1.2024

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

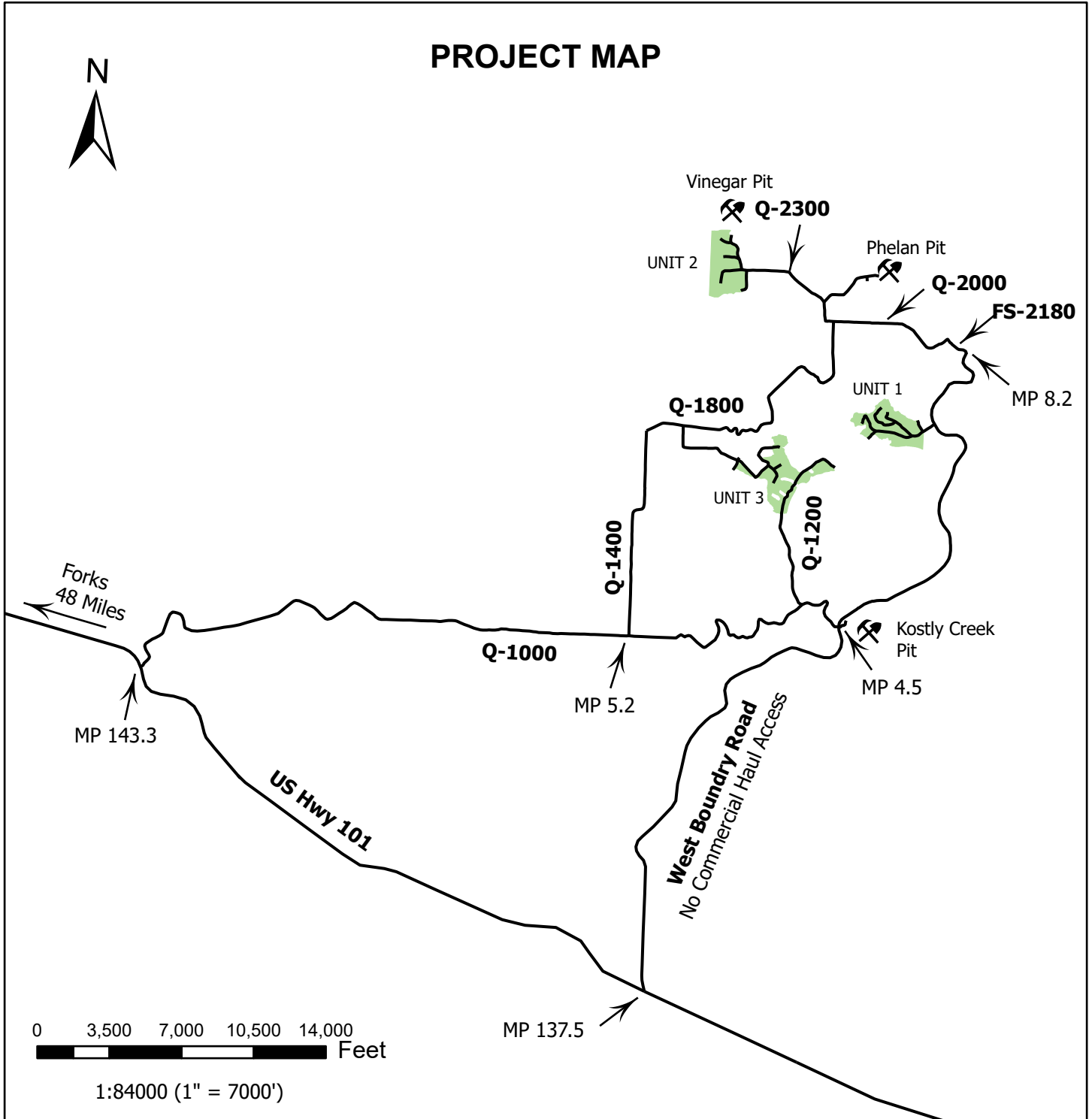
FISH AND CHIPS TIMBER SALE ROAD PLAN  
JEFFERSON COUNTY  
COAST DISTRICT

AGREEMENT NO.: 30-104810

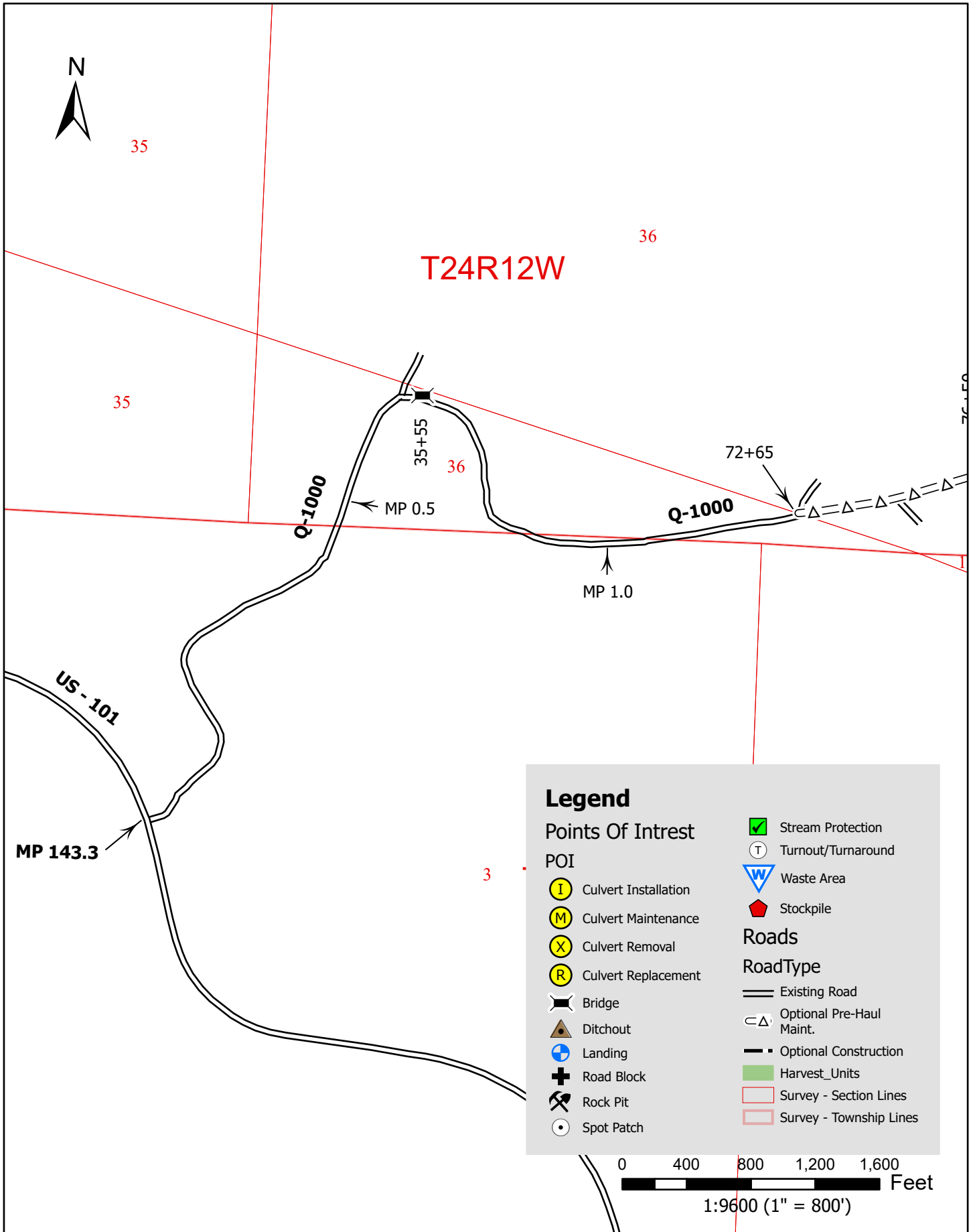
DISTRICT ENGINEER: BILL MEHL

DATE: 30 OCTOBER 2024

DRAWN & COMPILED BY: AUSTEN DOOLEY

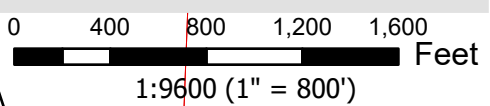


# PLANVIEW - HAUL ROUTE

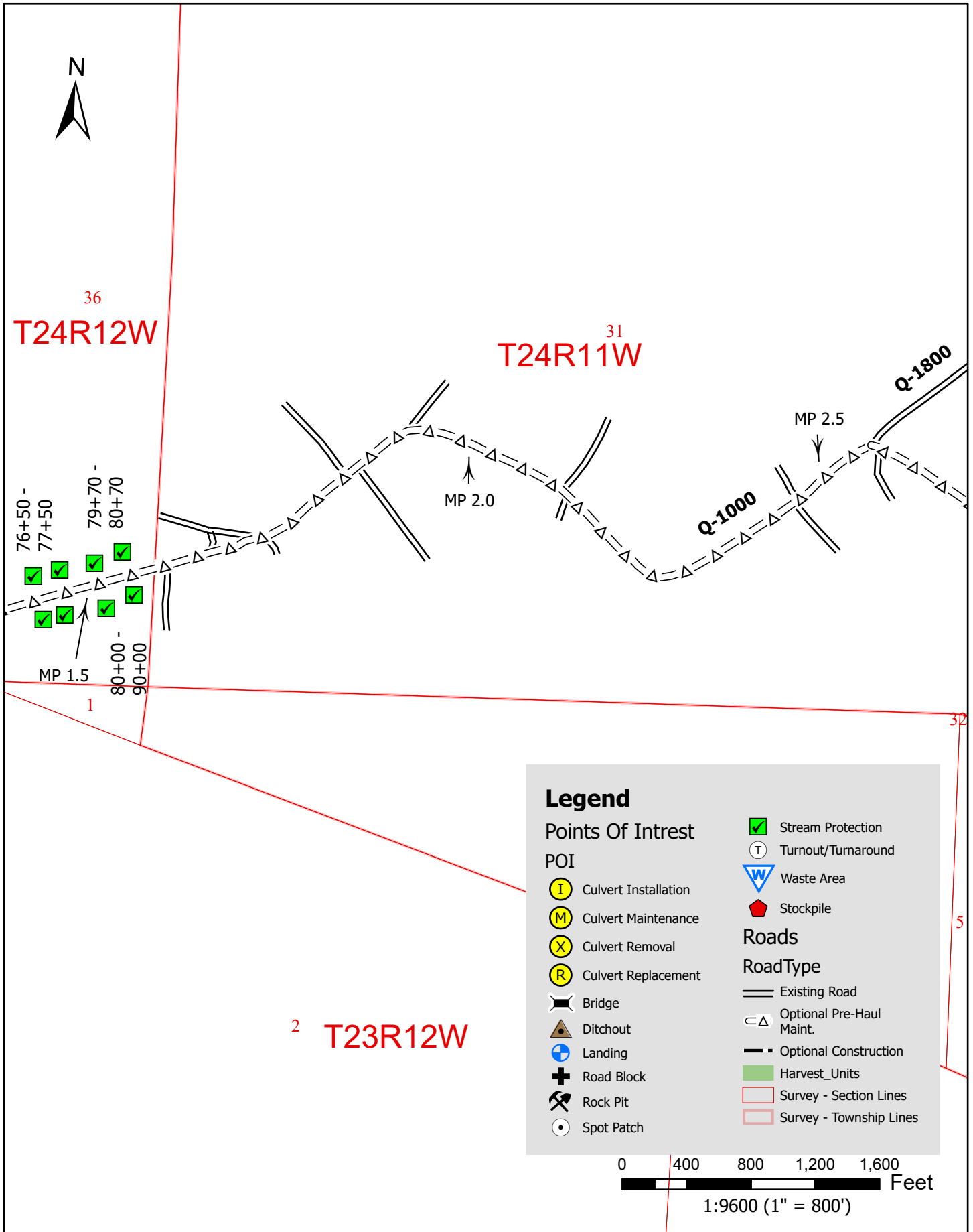


**Legend**

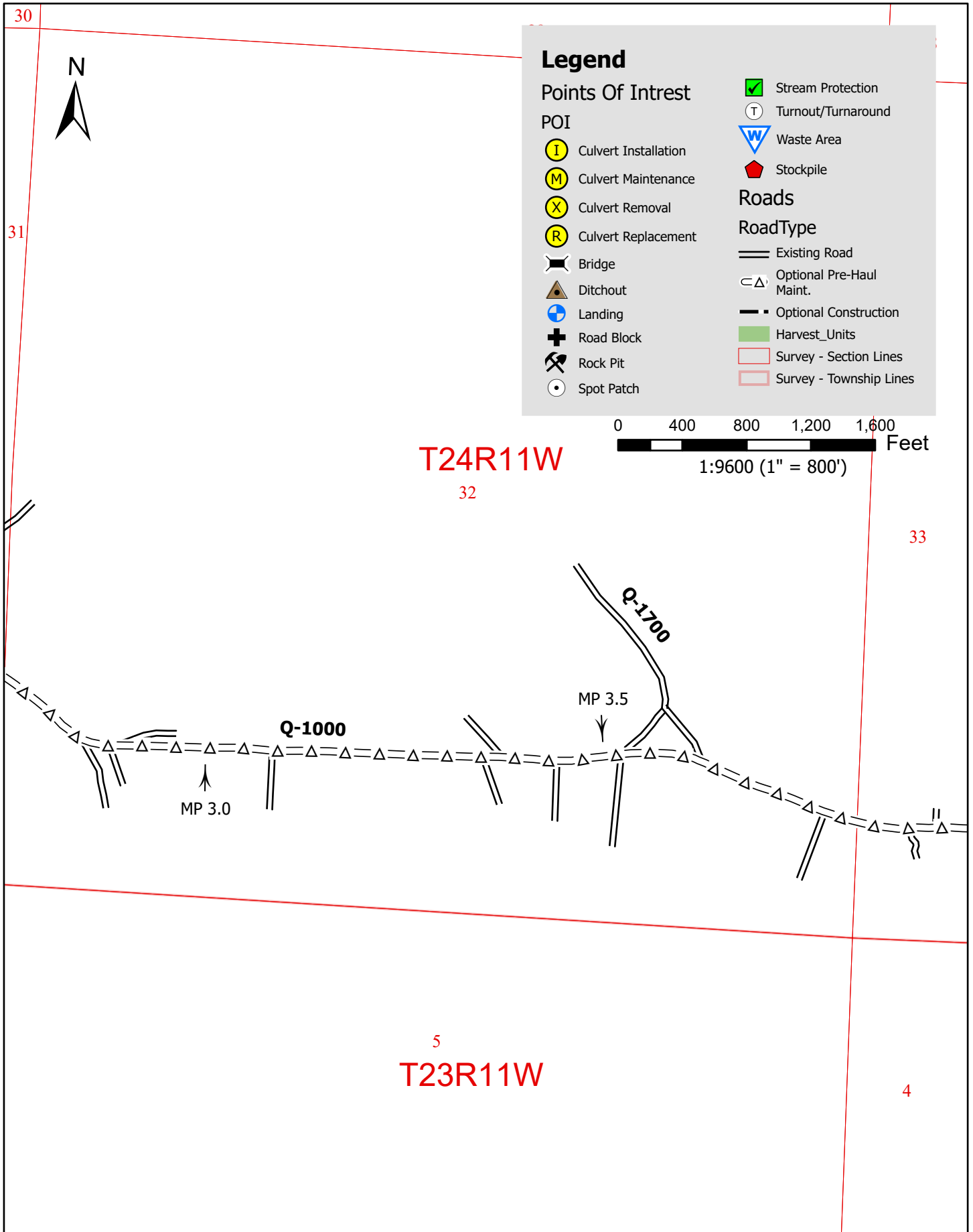
<b>Points Of Intrest</b>	Stream Protection
<b>POI</b>	Turnout/Turnaround
Culvert Installation	Waste Area
Culvert Maintenance	Stockpile
Culvert Removal	<b>Roads</b>
Culvert Replacement	<b>RoadType</b>
Bridge	Existing Road
Ditchout	Optional Pre-Haul Maint.
Landing	Optional Construction
Road Block	Harvest_Units
Rock Pit	Survey - Section Lines
Spot Patch	Survey - Township Lines



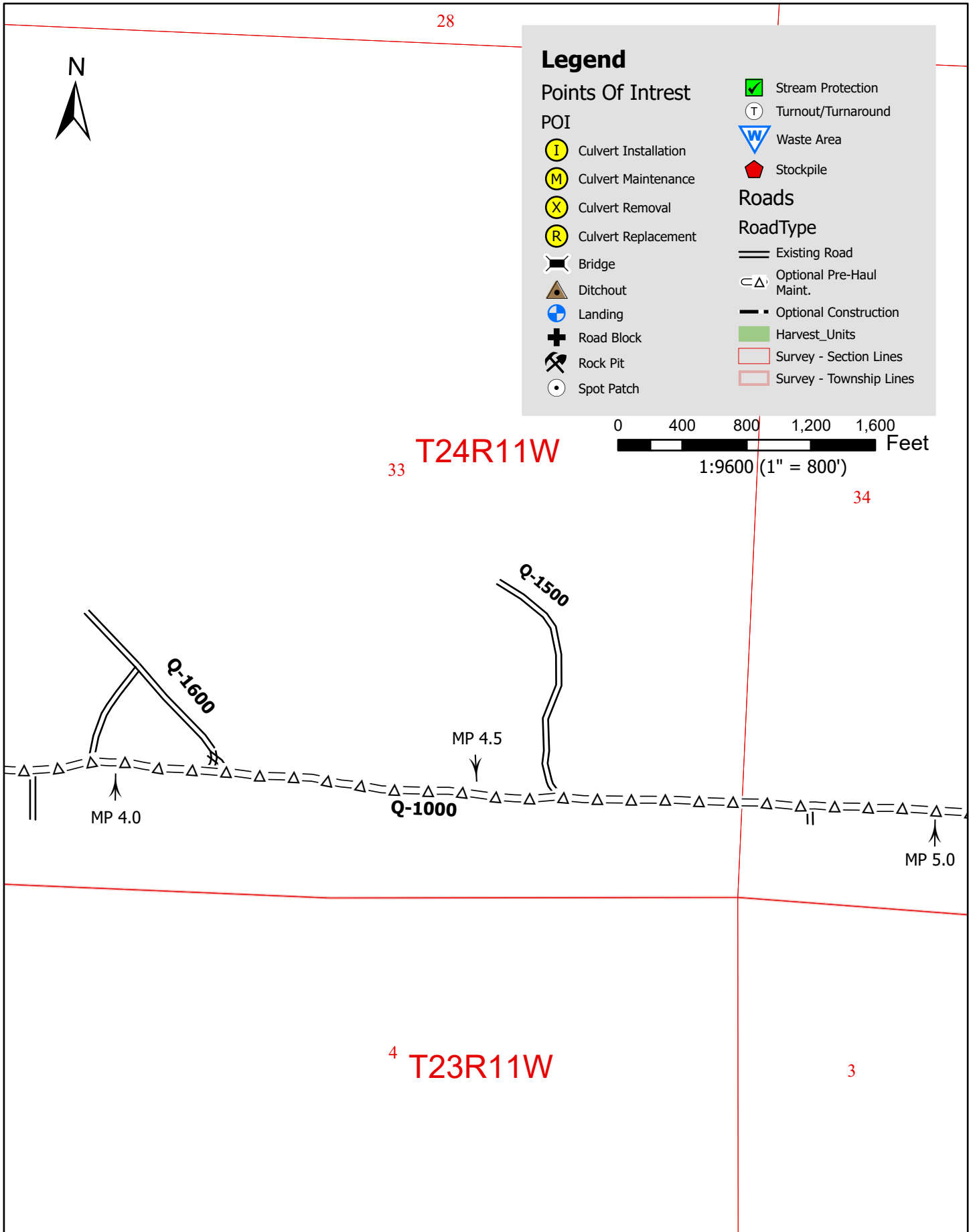
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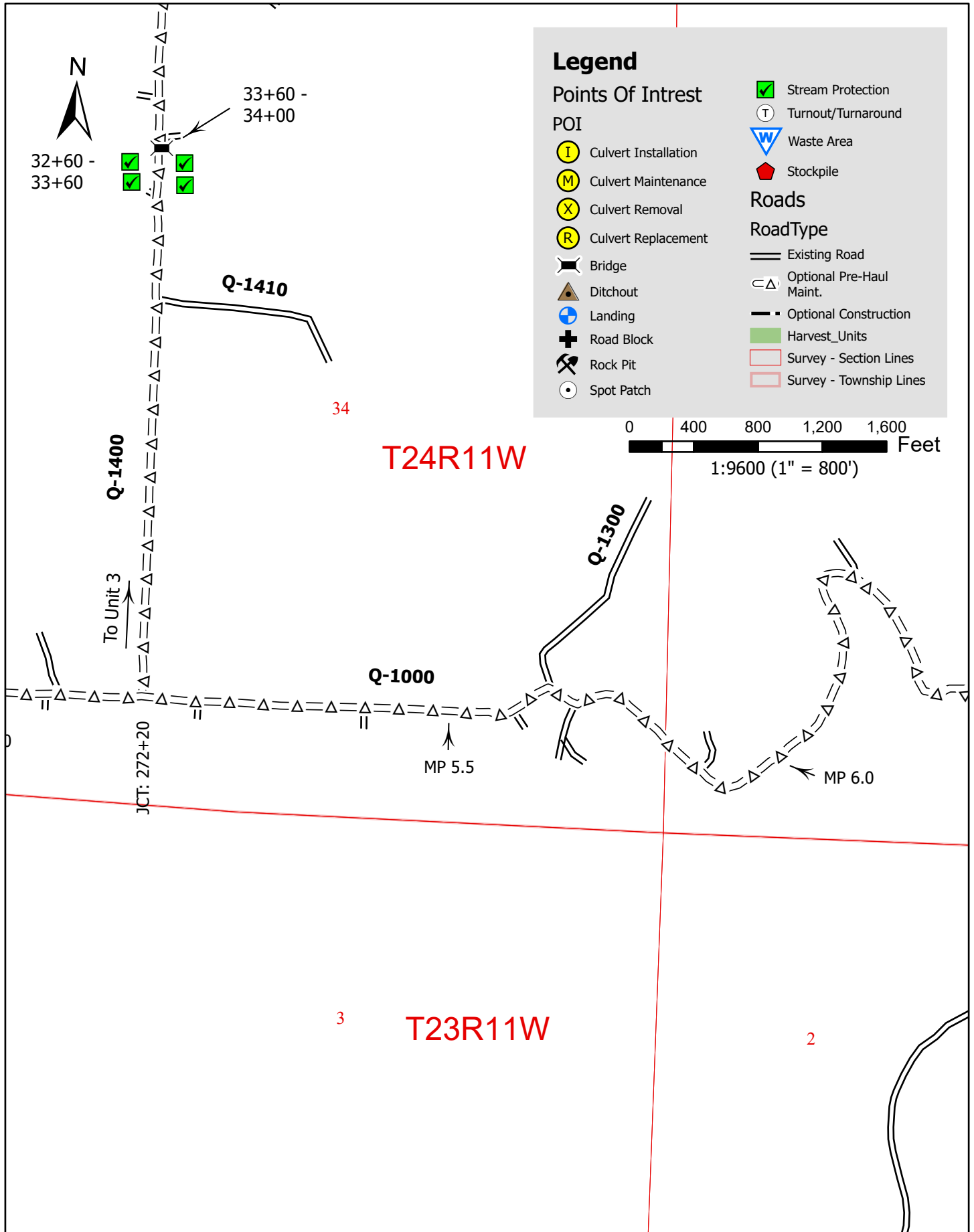
# PLANVIEW - HAUL ROUTE



# PLANVIEW - HAUL ROUTE

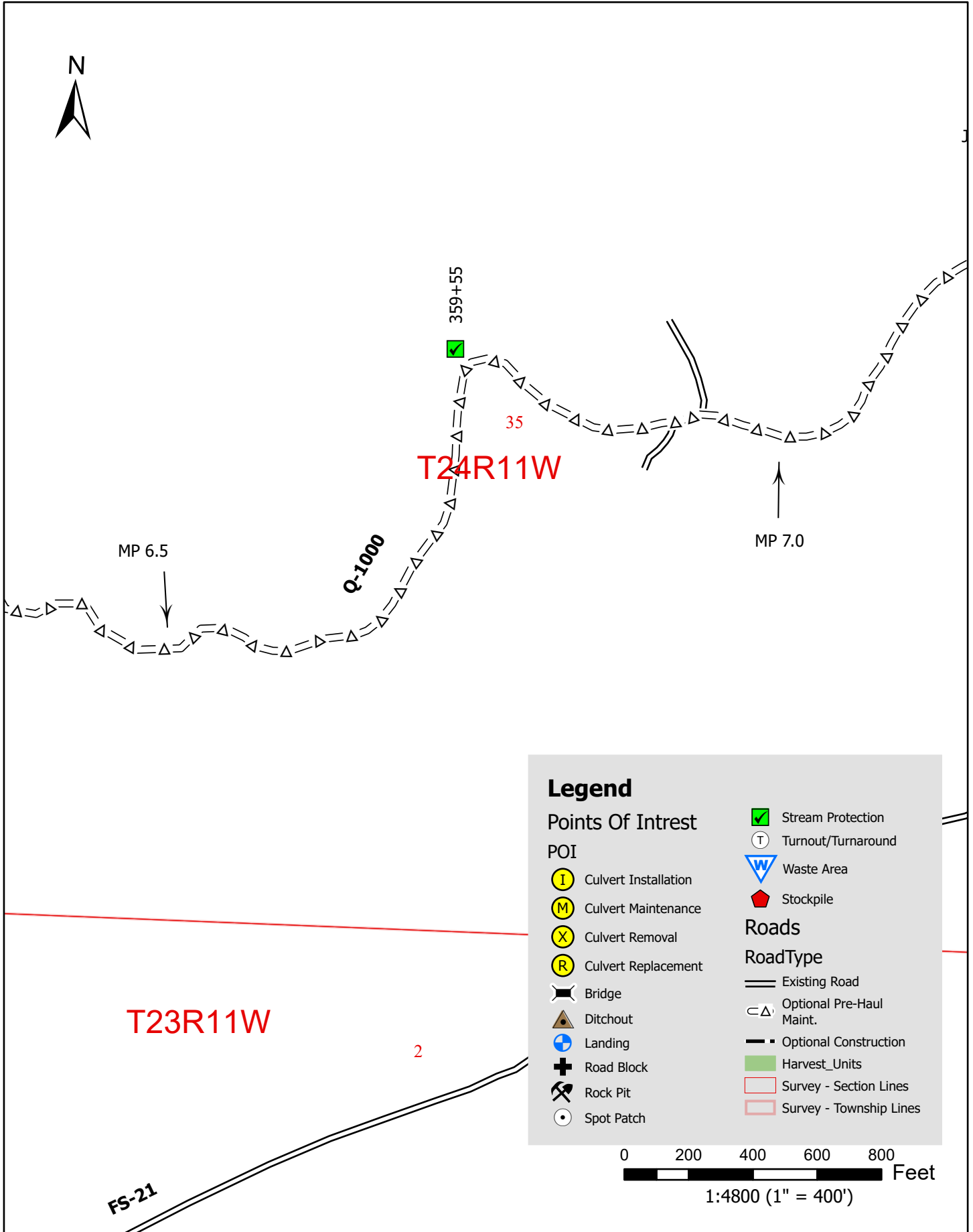


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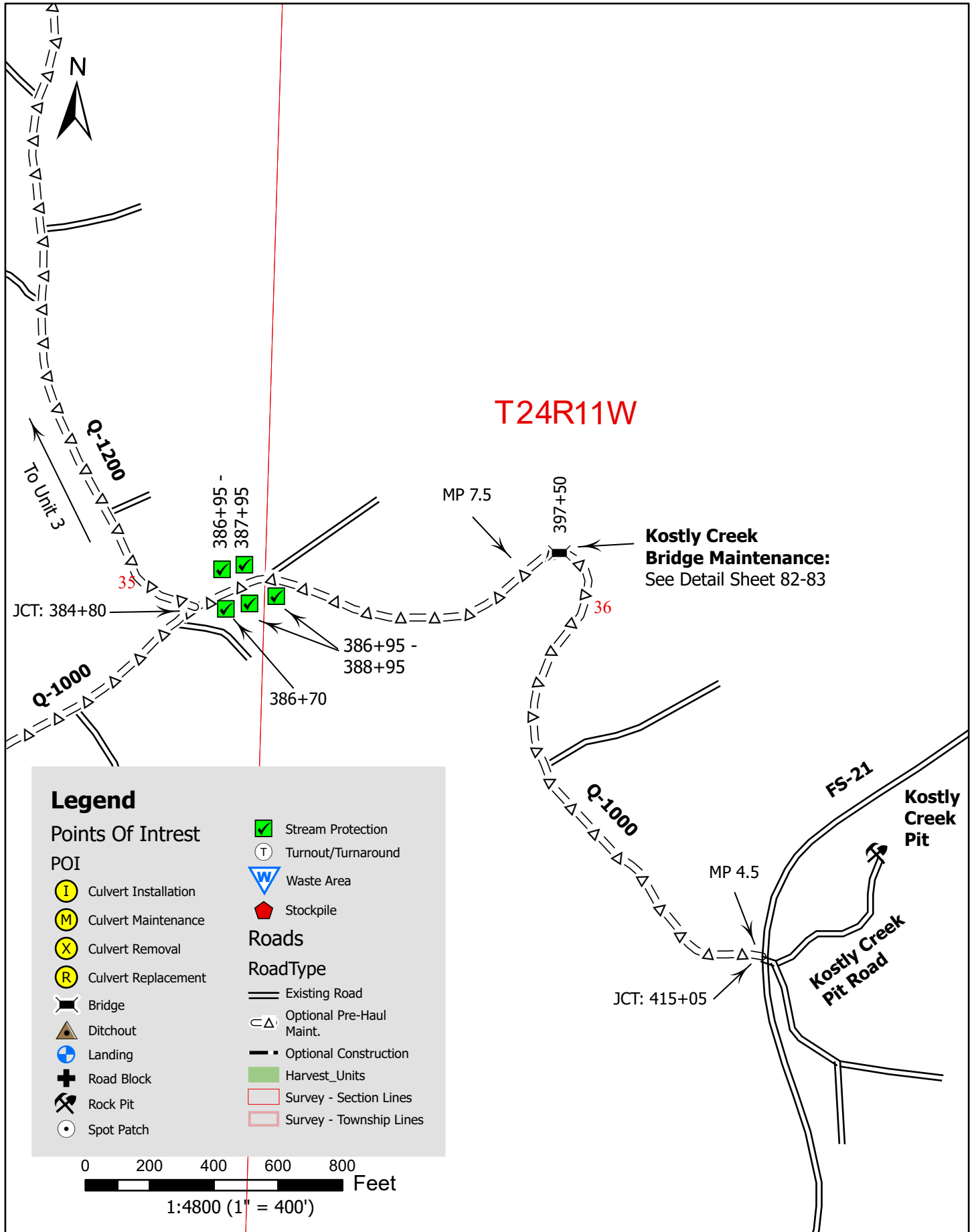




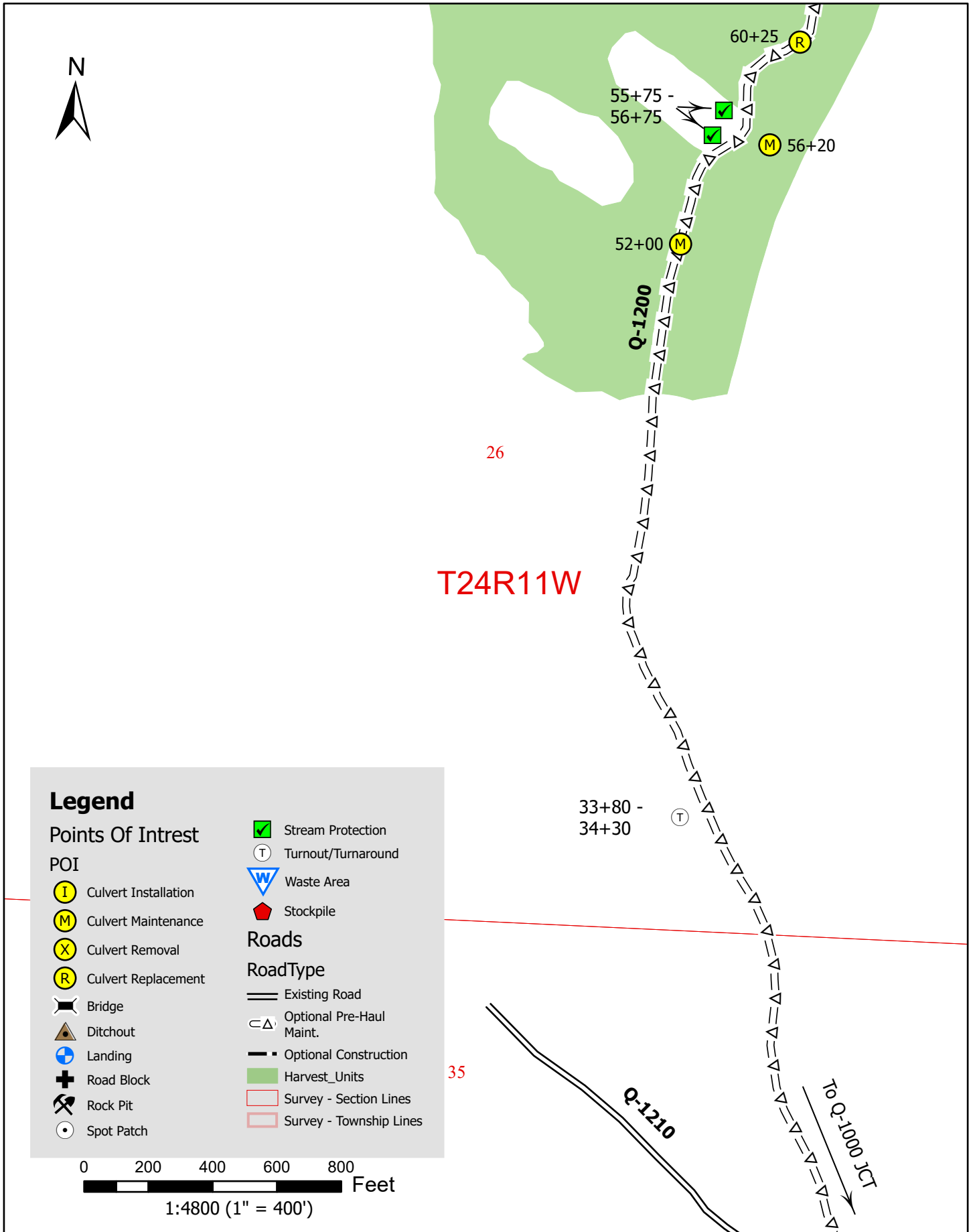
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# PLANVIEW - HAUL ROUTE



# PLANVIEW - UNIT 3



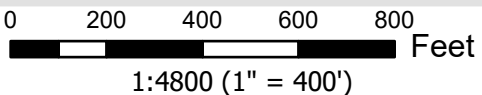
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### Points Of Intrest

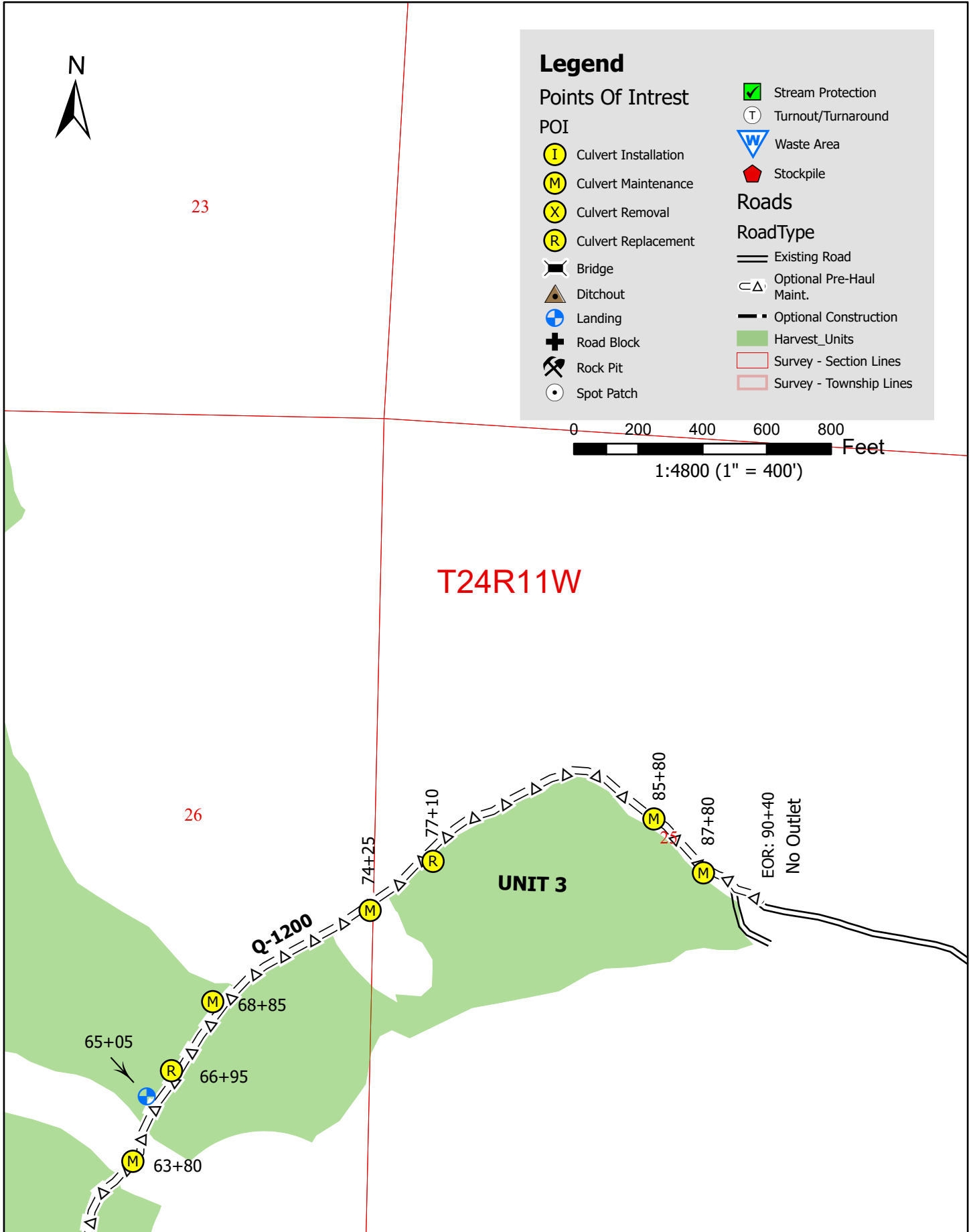
#### POI

- I Culvert Installation
- M Culvert Maintenance
- X Culvert Removal
- R Culvert Replacement
- Bridge
- Ditchout
- Landing
- Road Block
- Rock Pit
- Spot Patch

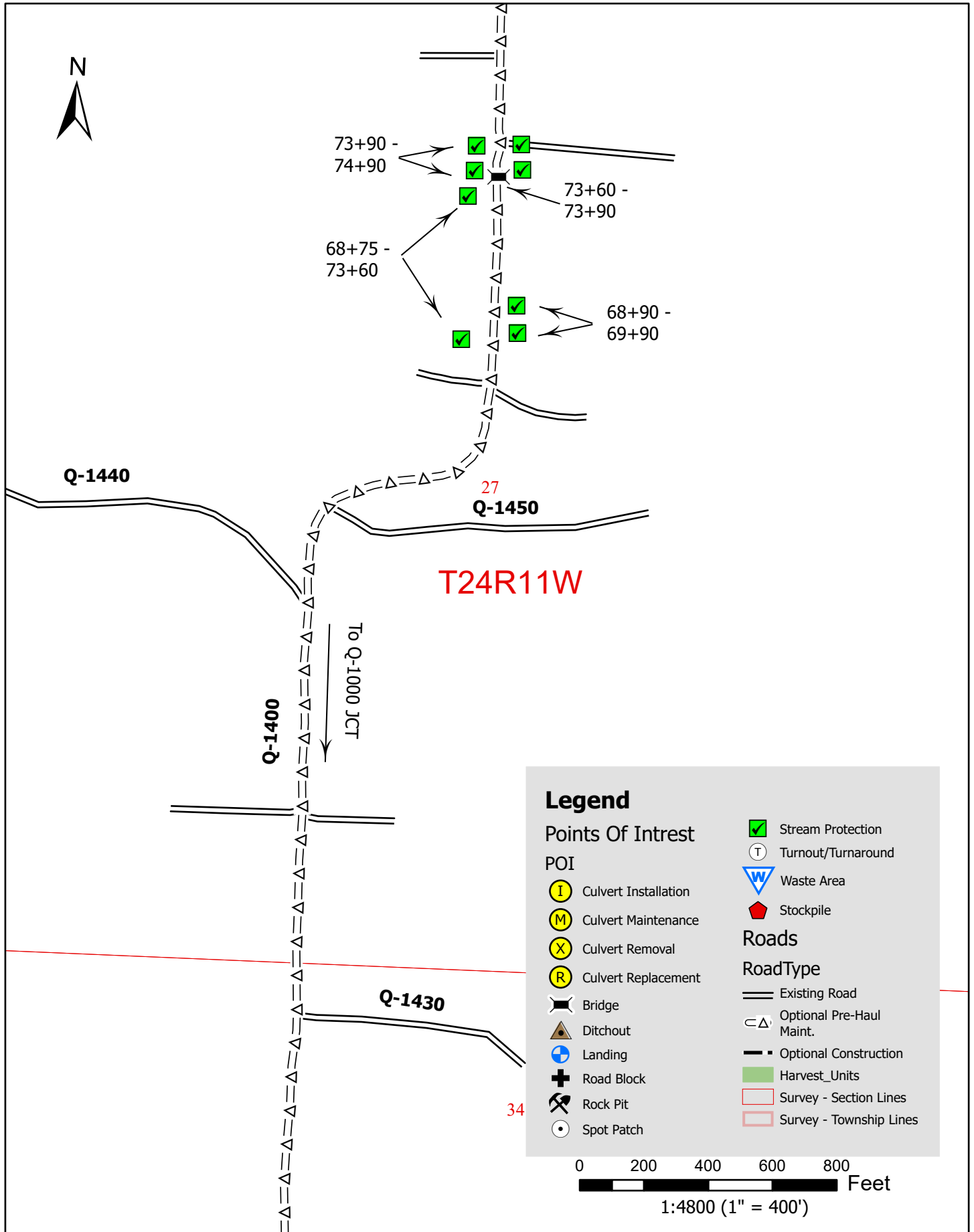
- Stream Protection
  - T Turnout/Turnaround
  - Waste Area
  - Stockpile
- ### Roads
- #### RoadType
- Existing Road
  - Optional Pre-Haul Maint.
  - Optional Construction
  - Harvest\_Units
  - Survey - Section Lines
  - Survey - Township Lines



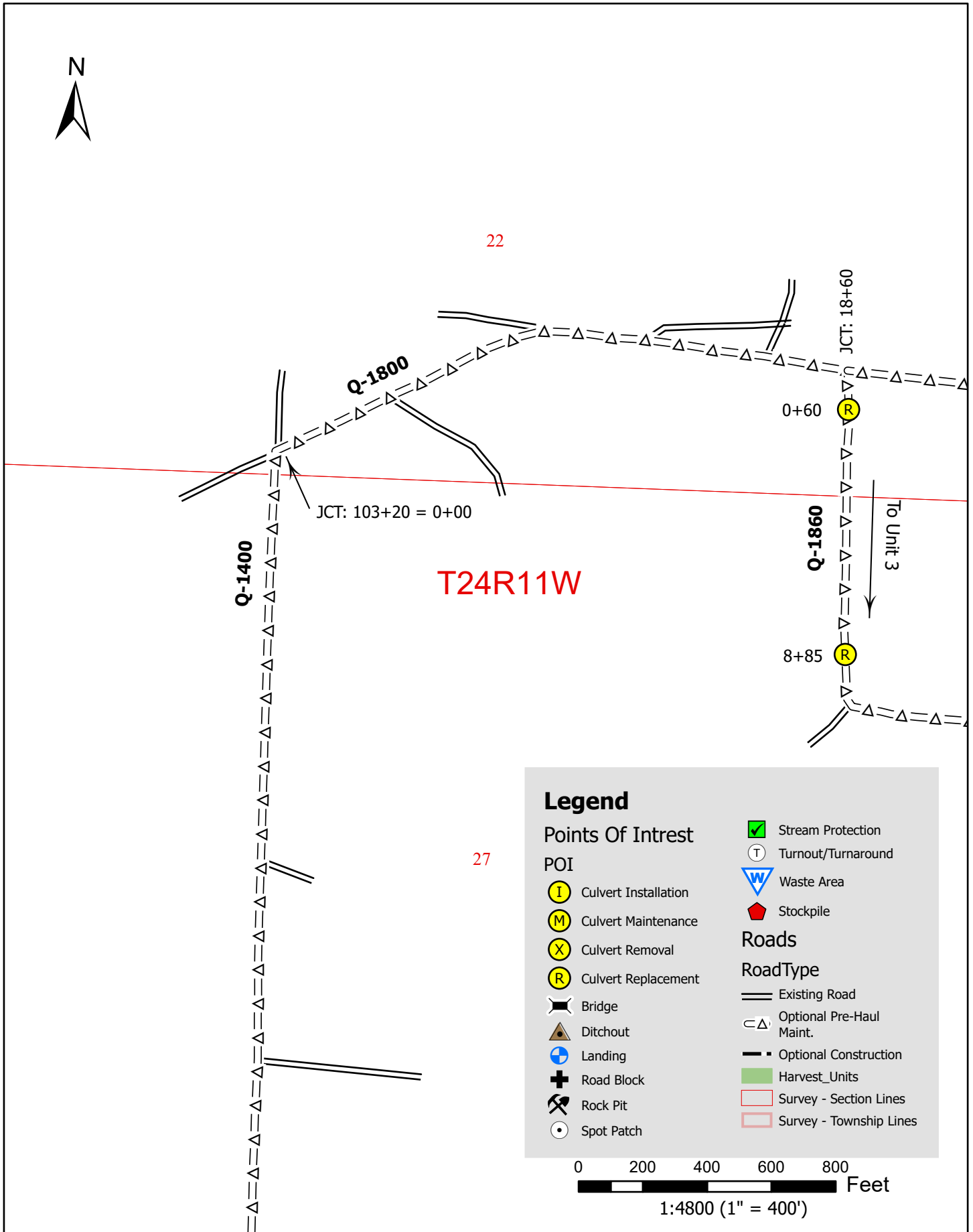
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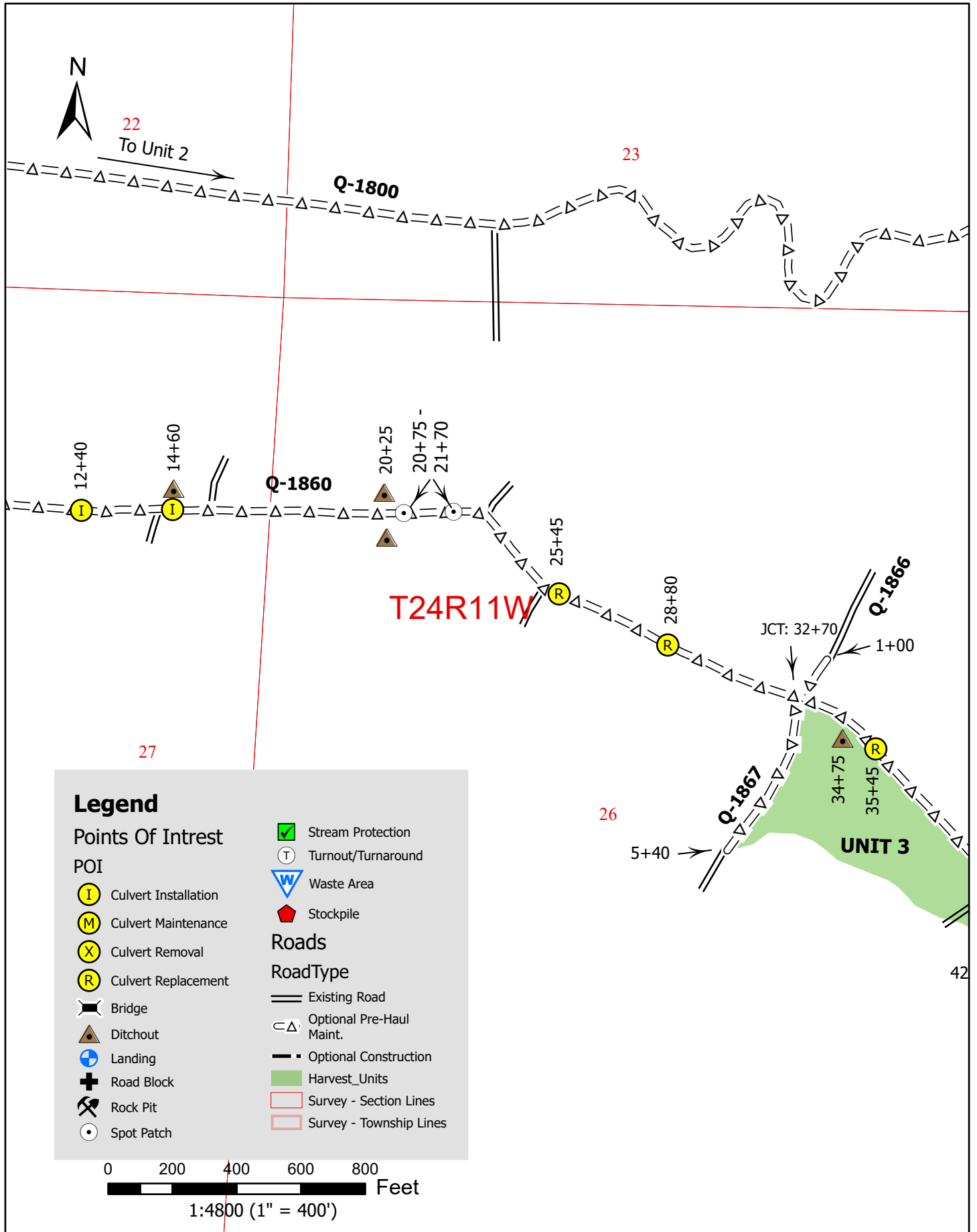
# PLANVIEW - HAUL ROUTE



# PLANVIEW - HAUL ROUTE

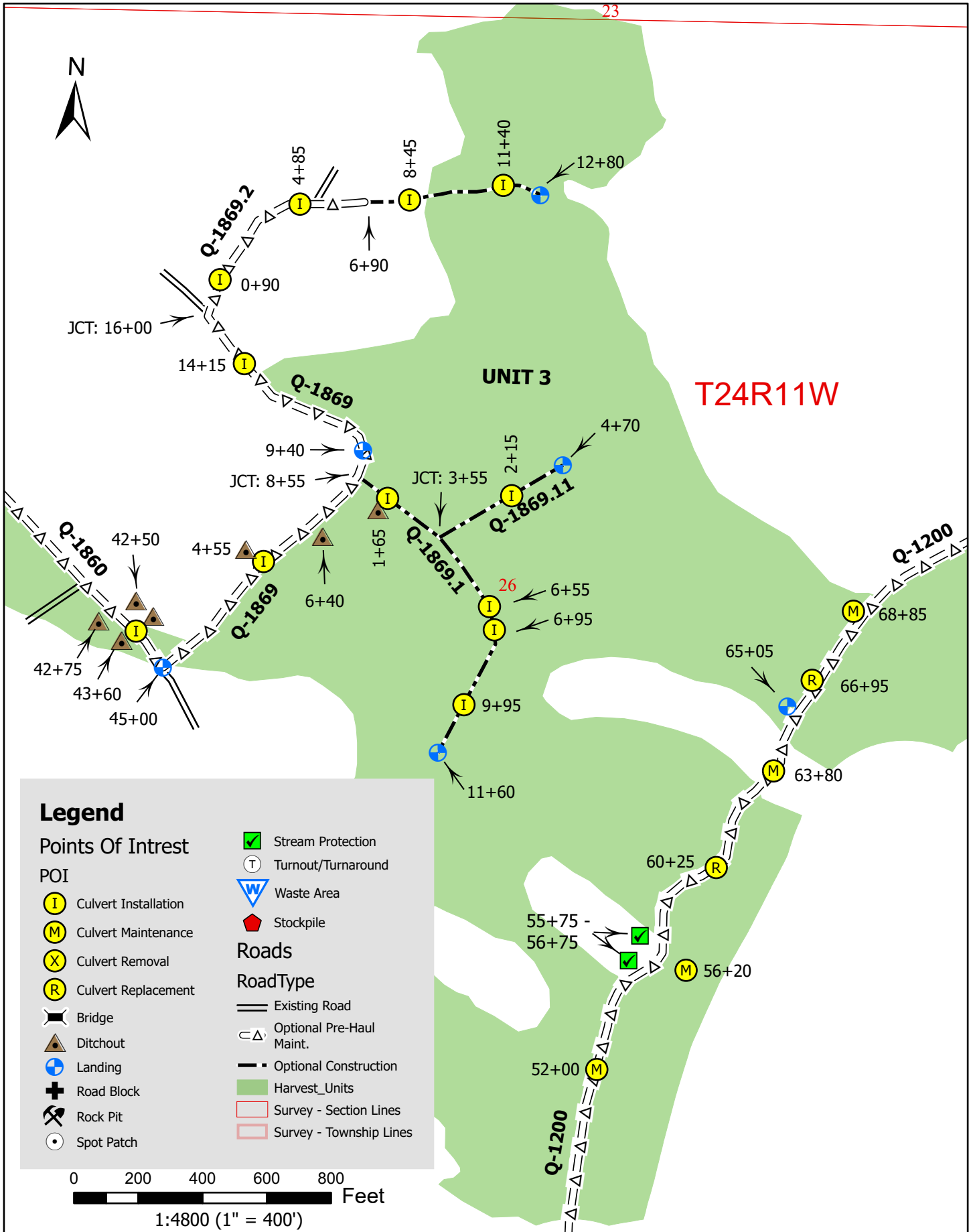


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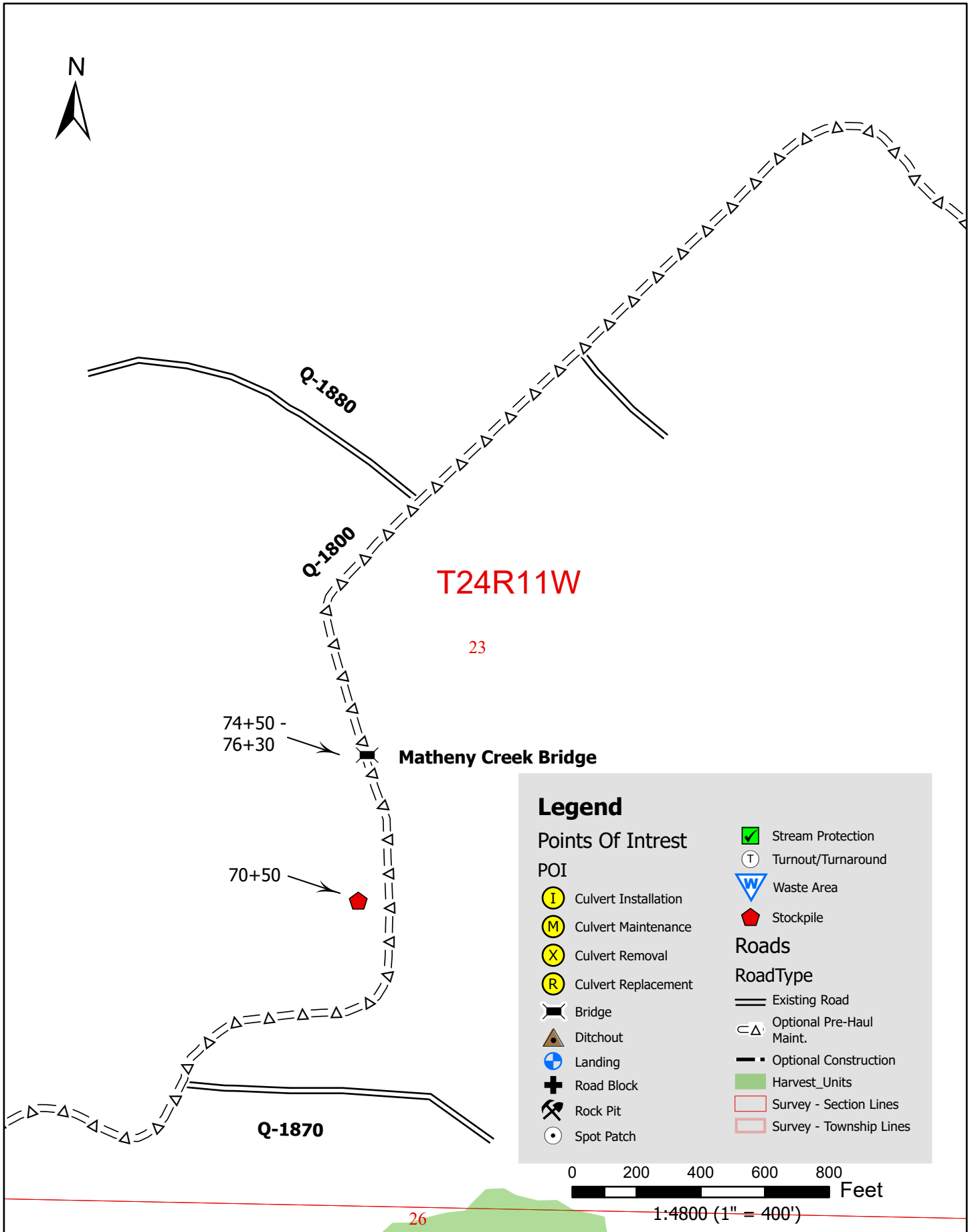
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23



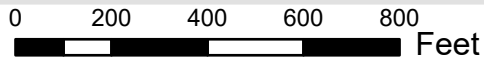


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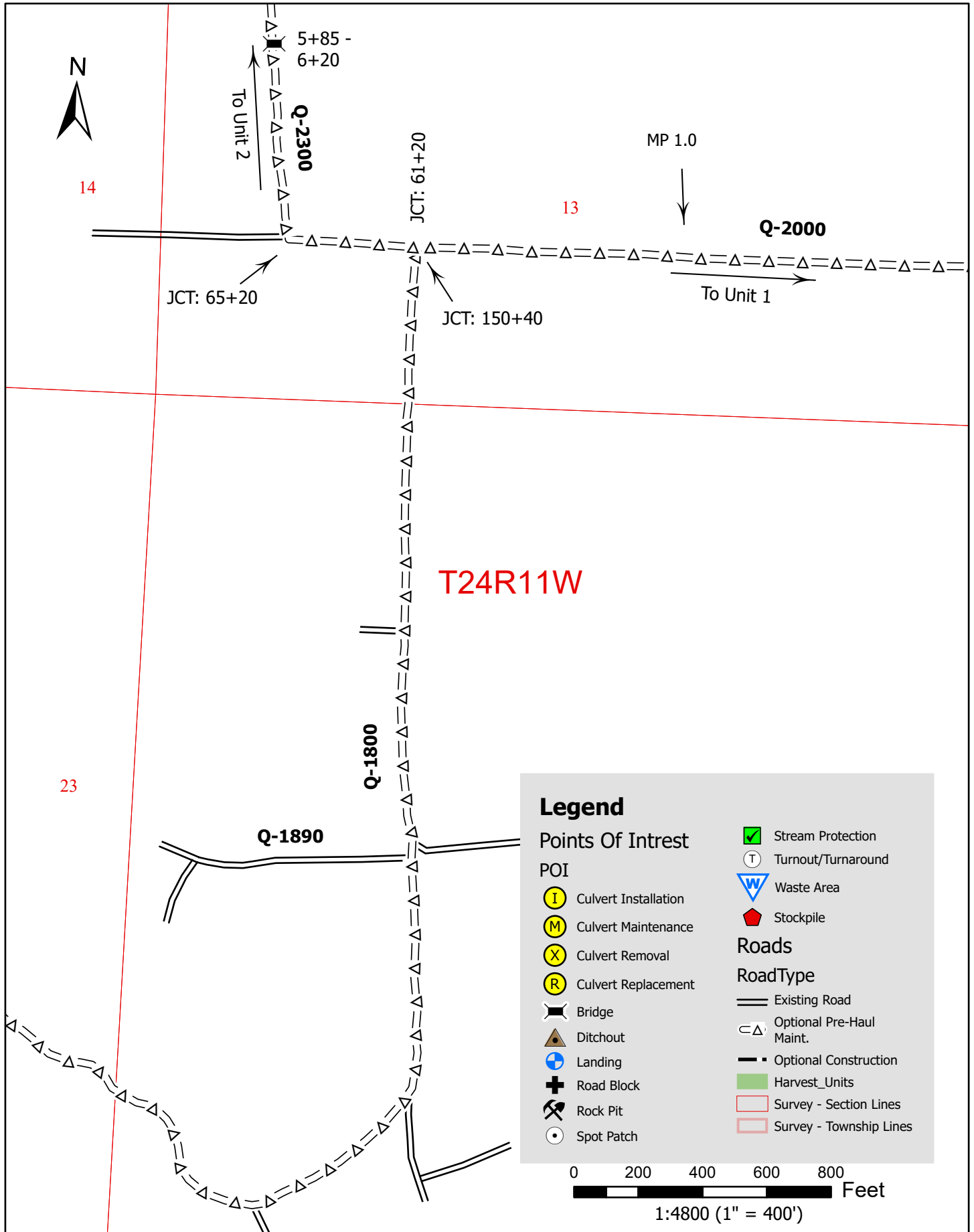
**Legend**

<b>Points Of Intrest</b>	Stream Protection
<b>POI</b>	Turnout/Turnaround
Culvert Installation	Waste Area
Culvert Maintenance	Stockpile
Culvert Removal	<b>Roads</b>
Culvert Replacement	<b>RoadType</b>
Bridge	Existing Road
Ditchout	Optional Pre-Haul Maint.
Landing	Optional Construction
Road Block	Harvest_Units
Rock Pit	Survey - Section Lines
Spot Patch	Survey - Township Lines



1:4800 (1" = 400')

# PLANVIEW - HAUL ROUTE

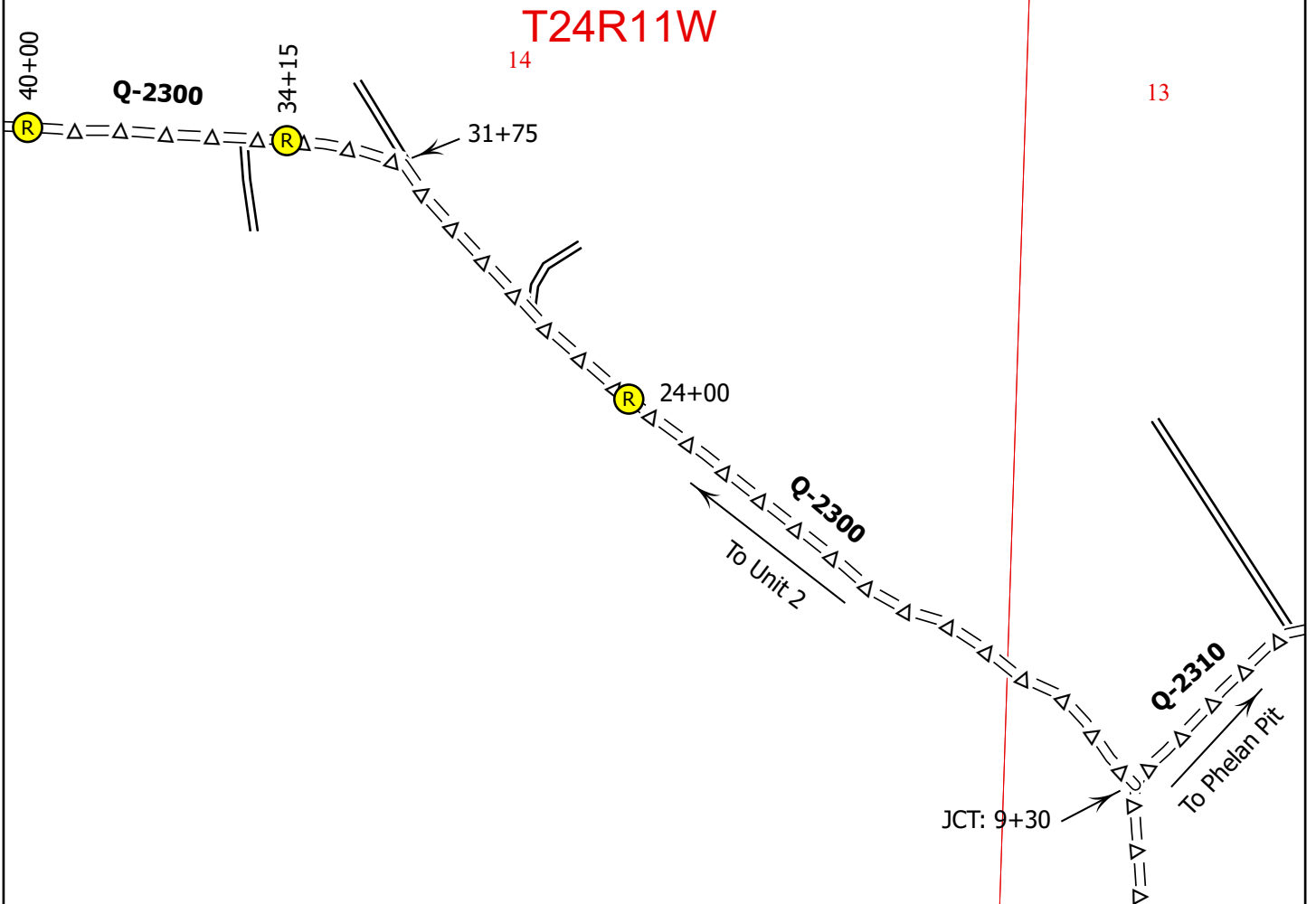
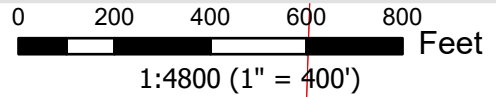


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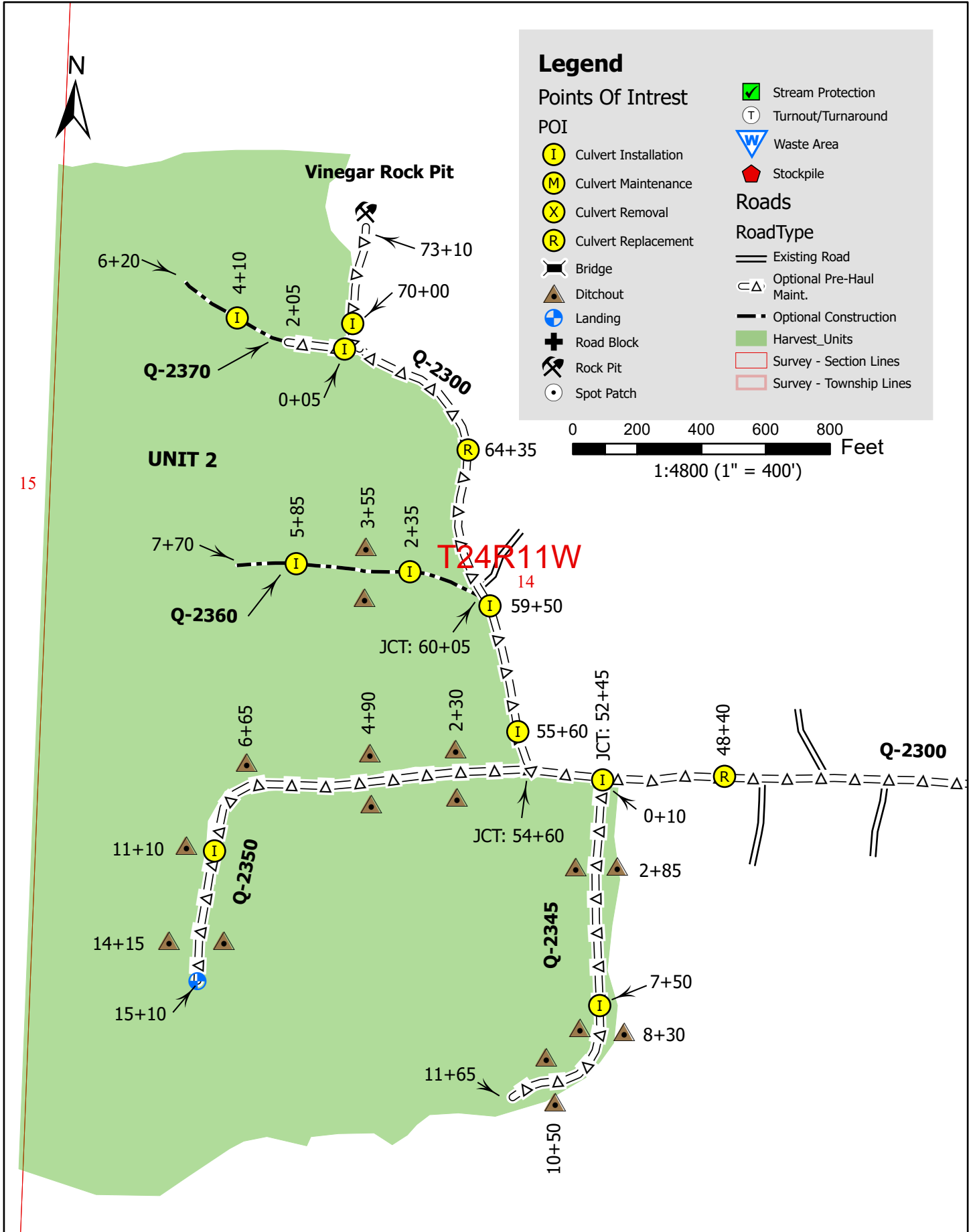


**Legend**

<b>Points Of Intrest</b>	Stream Protection
<b>POI</b>	Turnout/Turnaround
Culvert Installation	Waste Area
Culvert Maintenance	Stockpile
Culvert Removal	<b>Roads</b>
Culvert Replacement	<b>RoadType</b>
Bridge	Existing Road
Ditchout	Optional Pre-Haul Maint.
Landing	Optional Construction
Road Block	Harvest_Units
Rock Pit	Survey - Section Lines
Spot Patch	Survey - Township Lines



# PLANVIEW - UNIT 2

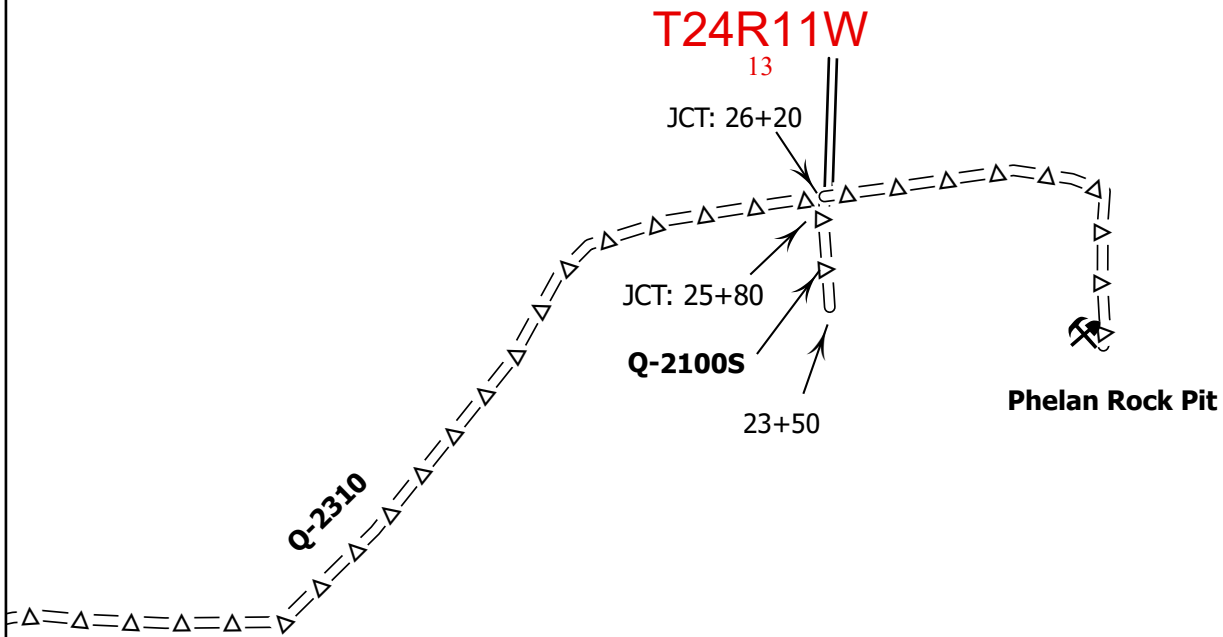
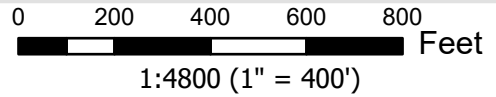


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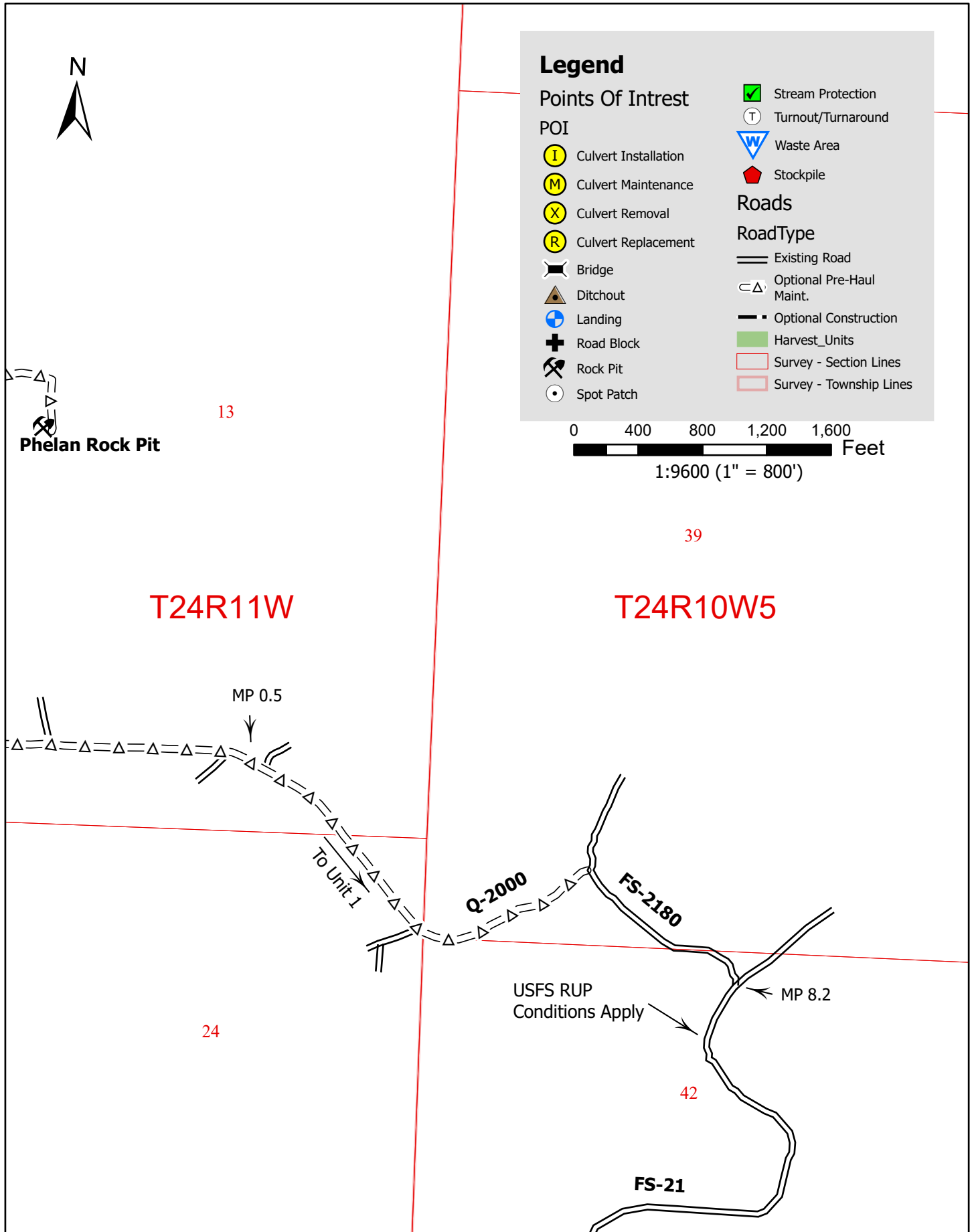


**Legend**

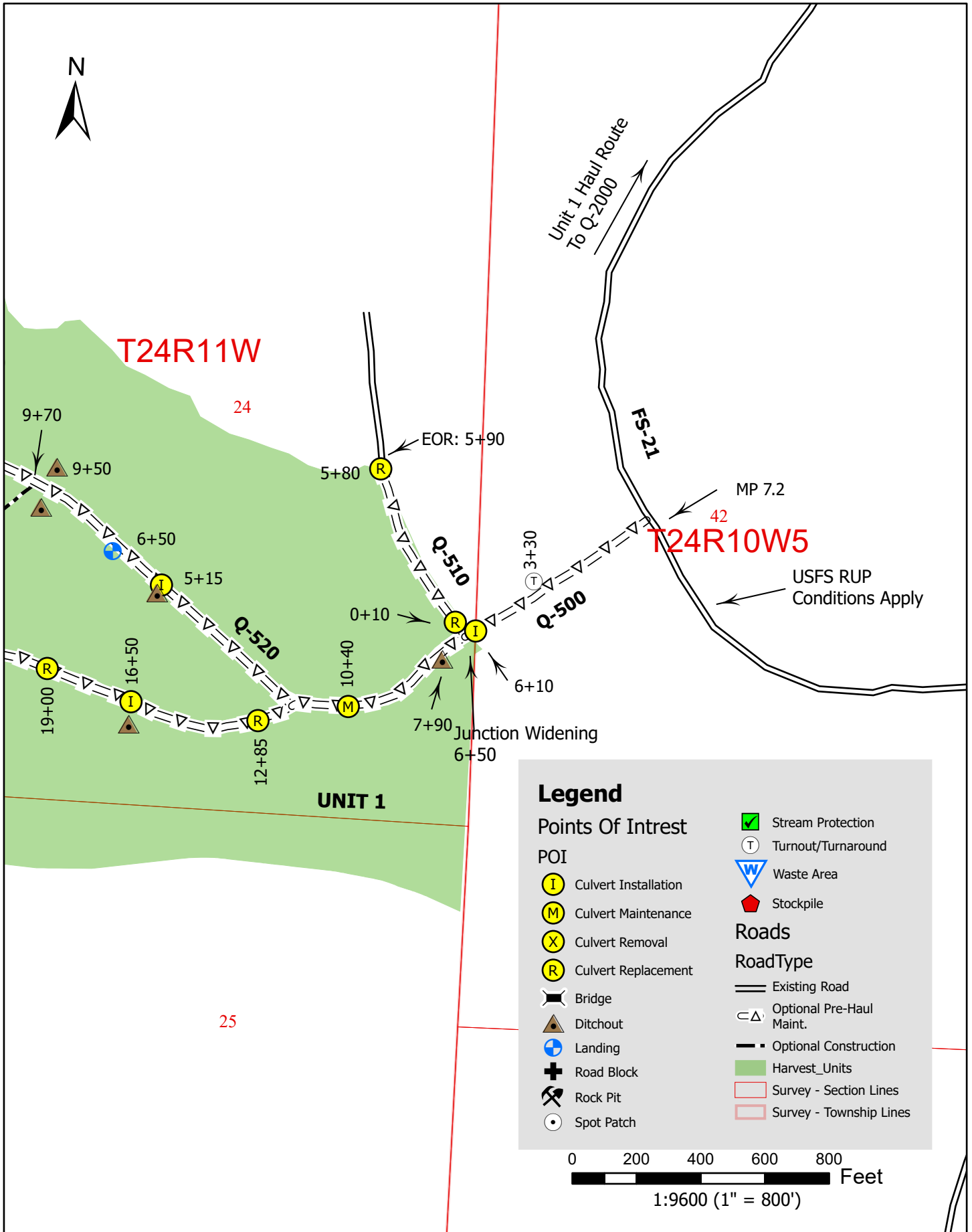
<b>Points Of Intrest</b>	Stream Protection
<b>POI</b>	Turnout/Turnaround
Culvert Installation	Waste Area
Culvert Maintenance	Stockpile
Culvert Removal	<b>Roads</b>
Culvert Replacement	<b>RoadType</b>
Bridge	Existing Road
Ditchout	Optional Pre-Haul Maint.
Landing	Optional Construction
Road Block	Harvest_Units
Rock Pit	Survey - Section Lines
Spot Patch	Survey - Township Lines



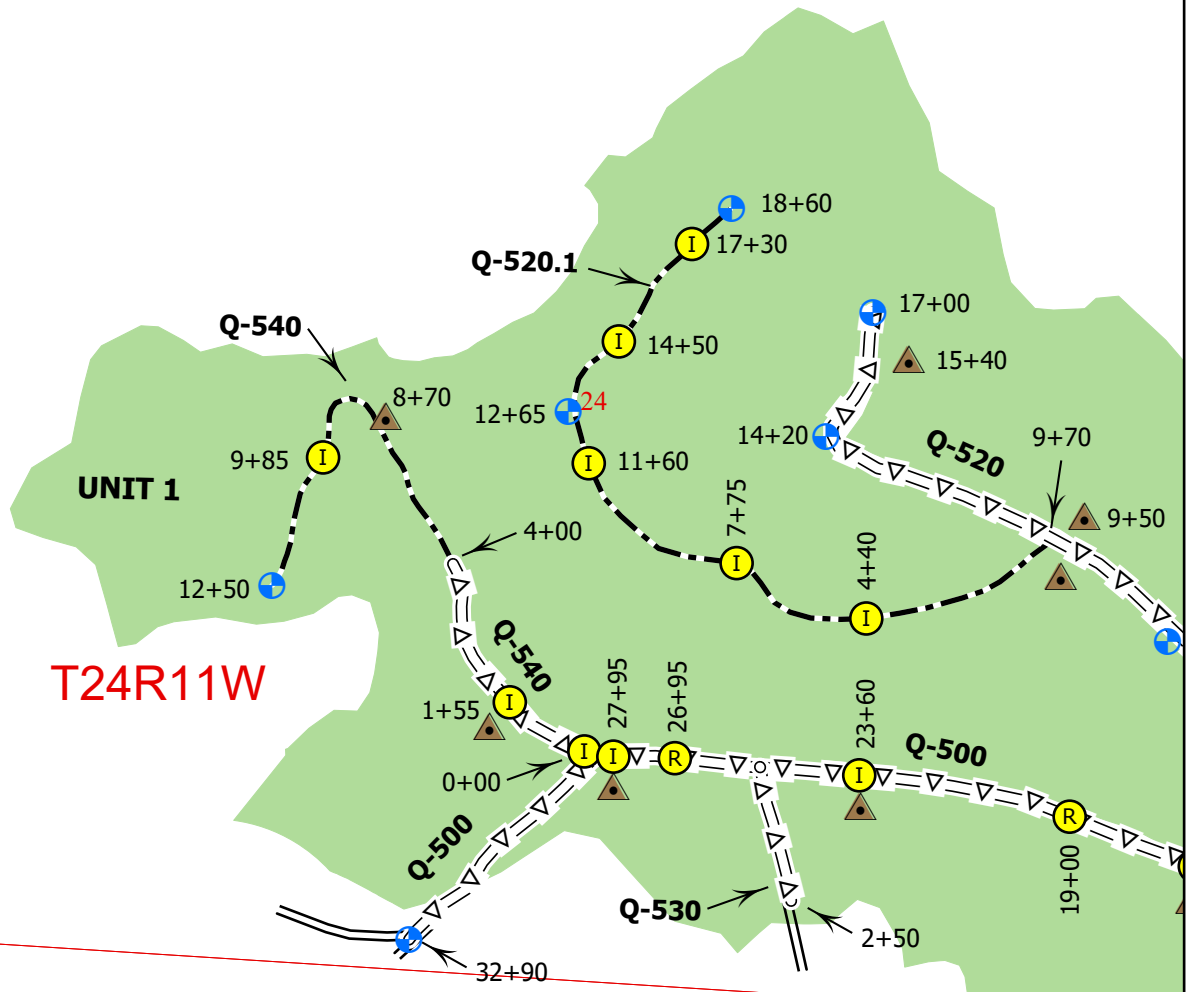
# PLANVIEW - HAUL ROUTE



# PLANVIEW - UNIT 1



# PLANVIEW - UNIT 1



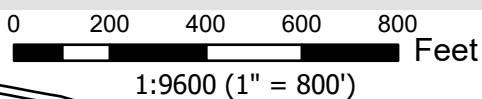
## Legend

### Points Of Intrest

#### POI

- I Culvert Installation
- M Culvert Maintenance
- X Culvert Removal
- R Culvert Replacement
- Bridge
- Ditchout
- Landing
- Road Block
- Rock Pit
- Spot Patch

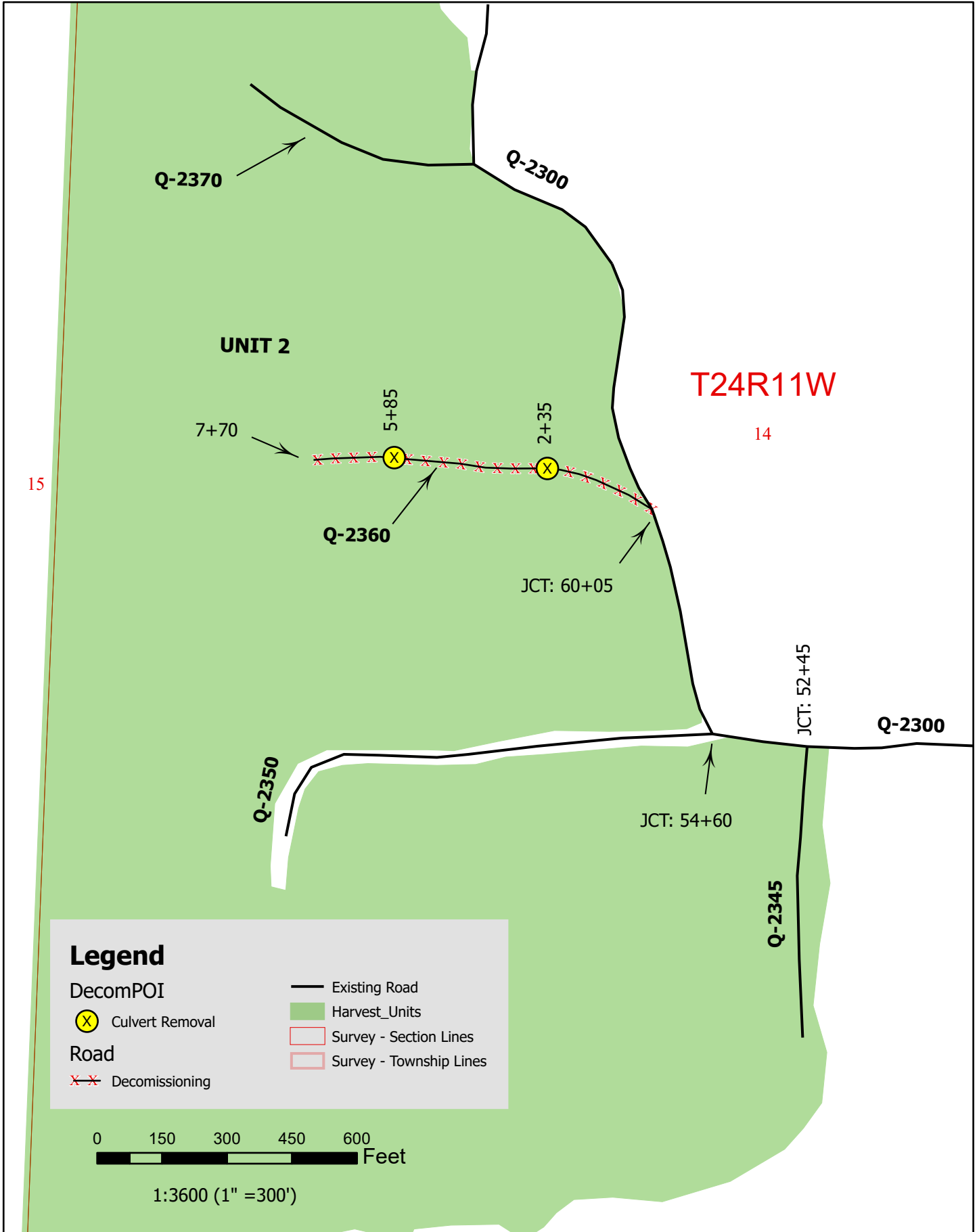
- Stream Protection
  - Turnout/Turnaround
  - Waste Area
  - Stockpile
- ### Roads
- #### RoadType
- Existing Road
  - Optional Pre-Haul Maint.
  - Optional Construction
  - Harvest Units
  - Survey - Section Lines
  - Survey - Township Lines



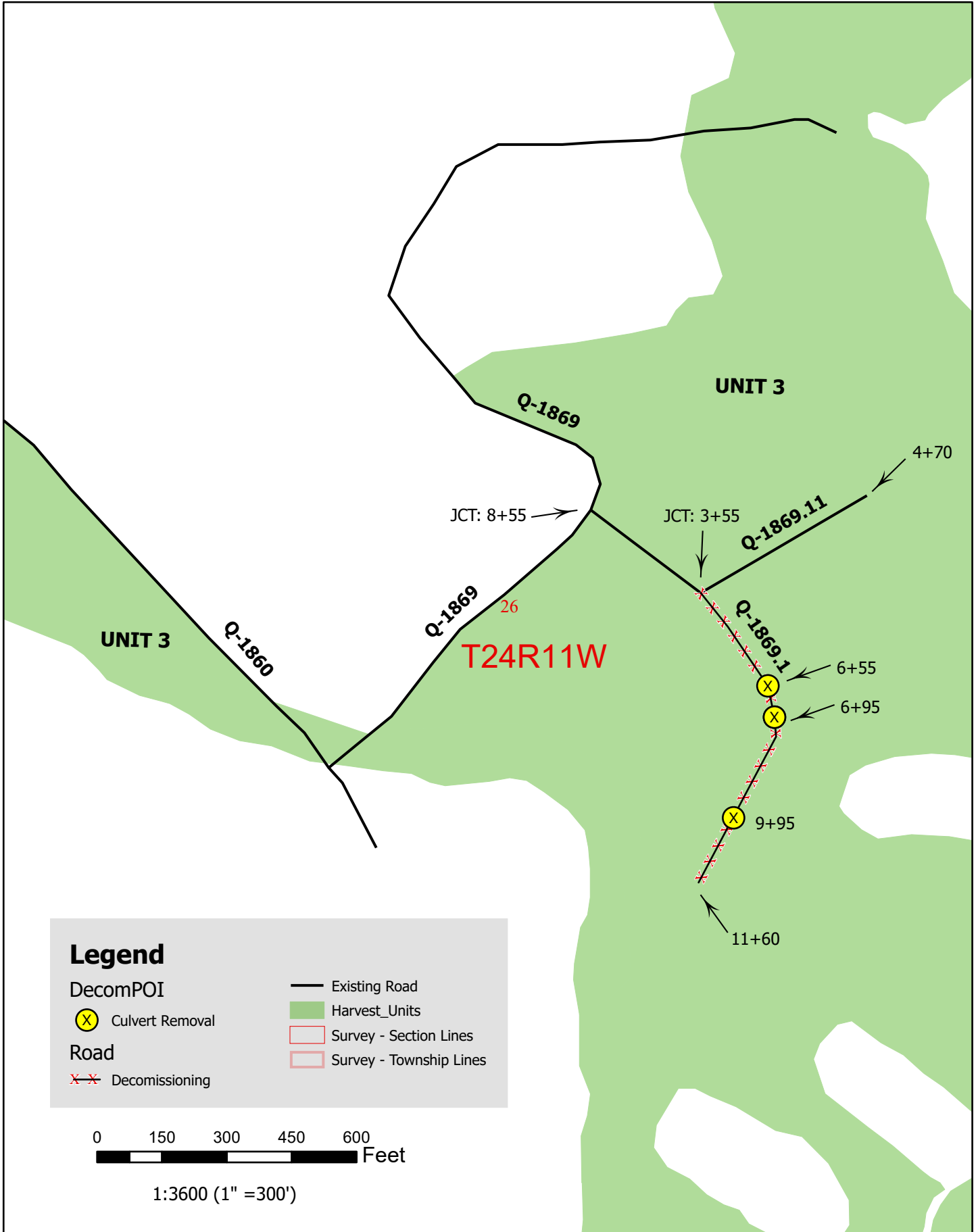
25



# DECOMMISSIONING MAP - UNIT 2



# DECOMMISSIONING MAP - UNIT 3



## 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.

### 0-3 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>
Q-1000	72+65 – 415+05	Pre-Haul Maintenance
Q-1400	0+00 – 103+20	Pre-Haul Maintenance
Q-1800	0+00 – 150+40	Pre-Haul Maintenance
Q-2000	0+00 – 65+20	Pre-Haul Maintenance
Q-1860	0+00 – 45+00	Pre-Haul Maintenance
Q-1866	0+00 – 1+00	Pre-Haul Maintenance
Q-1867	0+00 – 5+40	Pre-Haul Maintenance
Q-1869	0+00 – 16+00	Pre-Haul Maintenance
Q-1869.1	0+00 – 11+60	Construction
Q-1869.11	0+00 – 4+70	Construction
Q-1869.2	0+00 – 6+90	Pre-Haul Maintenance
Q-1869.2	6+90 – 12+80	Construction
Q-1200	0+00 – 90+40	Pre-Haul Maintenance
Q-500	0+00 – 32+90	Pre-Haul Maintenance
Q-510	0+00 – 5+90	Pre-Haul Maintenance
Q-520	0+00 – 17+00	Pre-Haul Maintenance
Q-520.1	0+00 – 18+60	Construction
Q-530	0+00 – 2+50	Pre-Haul Maintenance
Q-540	0+00 – 4+00	Pre-Haul Maintenance
Q-540	4+00 – 12+50	Construction
Q-2300	0+00 – 73+10	Pre-Haul Maintenance
Q-2345	0+00 – 11+65	Pre-Haul Maintenance
Q-2350	0+00 – 15+10	Pre-Haul Maintenance
Q-2360	0+00 – 7+70	Construction
Q-2370	0+00 – 2+05	Pre-Haul Maintenance
Q-2370	2+05 – 6+20	Construction
Q-2310	0+00 – 32+15	Pre-Haul Maintenance
Q-2100S	23+50 – 25+80	Pre-Haul Maintenance

**0-4 CONSTRUCTION**

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
Q-1869.1	0+00 – 11+60	Stumps for puncheon material permitted in accordance with Clause 3-13. Puncheon material may be utilized in accordance with Clause 5-3.
Q-1869.11	0+00 – 4+70	Stumps for puncheon material permitted in accordance with Clause 3-13. Puncheon material may be utilized in accordance with Clause 5-3.
Q-1869.2	6+90 – 12+80	Stumps for puncheon material permitted in accordance with Clause 3-13. Puncheon material may be utilized in accordance with Clause 5-3.
Q-520.1	0+00 – 18+60	See Below
Q-540	4+00 – 12+50	Stumps for puncheon material permitted in accordance with Clause 3-13. Puncheon material may be utilized in accordance with Clause 5-3.
Q-2370	2+05 – 6+20	Stumps for puncheon material permitted in accordance with Clause 3-13. Puncheon material may be utilized in accordance with Clause 5-3.
Q-2360	0+00 – 7+70	Stumps for puncheon material permitted in accordance with Clause 3-13. Puncheon material may be utilized in accordance with Clause 5-3.
<b>Total:</b>	<b>61.15</b>	

Construction includes, but is not limited to:

Clearing, grubbing, right-of-way debris disposal, excavation and/or embankment to subgrade, end hauling material for construction, compacting road surfaces, constructing ditchlines, constructing ditchouts, constructing turnouts and turnarounds, curve widening, acquisition and installation of drainage structures, application of rock, spreading grass seed and hay.

**0-6 PRE-HAUL MAINTENANCE**

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
Q-1000	72+65 – 415+05	Grades, shape, and compact existing road surface in accordance with Clause 2-5. Maintain erosion control structures in accordance with Clause 2-8. Brush road in accordance with Clause 3-1. Conduct bridge maintenance and repair in accordance with Clause 7-30 and associated drawings., Install sediment control structures in accordance with Clause 8-1. Apply rock in accordance with Rock List.
Q-1400	0+00 – 103+20	Grades, shape, and compact existing road surface in accordance with Clause 2-5. Maintain erosion control structures in accordance with Clause 2-8. Brush road in accordance with Clause 3-1. Apply rock in accordance with Rock List.
Q-1800	0+00 – 150+40	Grades, shape, and compact existing road surface in accordance with Clause 2-5. Brush road in accordance with Clause 3-1. Apply rock in accordance with Rock List.
Q-2000	0+00 – 65+20	Grades, shape, and compact existing road surface in accordance with Clause 2-5. Brush road in accordance with Clause 3-1. Apply rock in accordance with Rock List.
Q-1860	0+00 – 45+00	Clean out and/or construct ditches in accordance with Clause 2-7. Remove vegetative material with a minimum loss of rock in accordance with Clause 2-9 and dispose of in accordance with Clause 3-23. Brush road in accordance with Clause 3-1. Construct ditch outs in accordance with Clause 4-29 and 4-38. Install culverts in accordance with Culvert List. Apply rock in accordance with Rock List.
Q-1866	0+00 – 1+00	Remove vegetative material with a minimum loss of rock in accordance with Clause 2-9 and dispose of in accordance with Clause 3-23. Apply rock in accordance with Rock List.
Q-1867	0+00 – 5+40	Remove vegetative material with a minimum loss of rock in accordance with Clause 2-9 and dispose of in accordance with Clause 3-23. Apply rock in accordance with Rock List.
Q-1869	0+00 – 16+00	Clean out and/or construct ditches in accordance with Clause 2-7. Remove vegetative material with a minimum loss of

		rock in accordance with Clause 2-9 and dispose of in accordance with Clause 3-23., Construct ditch outs in accordance with Clause 4-29 and 4-38. Install culverts in accordance with Culvert List. Apply rock in accordance with Rock List.
Q-1869.2	0+00 – 6+90	Clean out and/or construct ditches in accordance with Clause 2-7. Remove vegetative material with a minimum loss of rock in accordance with Clause 2-9 and dispose of in accordance with Clause 3-23. Install culverts in accordance with Culvert List. Apply rock in accordance with Rock List.
Q-1200	0+00 – 90+40	Grades, shape, and compact existing road surface in accordance with Clause 2-5. Clean out and maintain culverts in accordance with Clause 2-6. Clean out and/or construct ditches in accordance with Clause 2-7. Maintain erosion control structures in accordance with Clause 2-8. Brush road in accordance with Clause 3-1. Install sediment control structures in accordance with Clause 8-1. Compact rock in accordance with compaction list. Apply rock in accordance with Rock List.
Q-500	0+00 – 32+90	Clean out and maintain culverts in accordance with Clause 2-6. Clean out and/or construct ditches in accordance with Clause 2-7. Remove vegetative material with a minimum loss of rock in accordance with Clause 2-9 and dispose of in accordance with Clause 3-23. Brush road in accordance with Clause 3-1. Construct ditch outs in accordance with Clause 4-29 and 4-38. Apply rock in accordance with Rock List.
Q-510	0+00 – 5+90	Clean out and/or construct ditches in accordance with Clause 2-7. Remove vegetative material with a minimum loss of rock in accordance with Clause 2-9 and dispose of in accordance with Clause 3-23. See Clause 4-20. Install culverts in accordance with Culvert List. Apply rock in accordance with Rock List.
Q-520	0+00 – 17+00	Clean out and/or construct ditches in accordance with Clause 2-7. Remove vegetative material with a minimum loss of rock in accordance with Clause 2-9 and dispose of in accordance with Clause 3-23. Construct ditch outs in accordance with

		Clause 4-29 and 4-38. Install culvert in accordance with Culvert List. Apply rock in accordance with Rock List.
Q-530	0+00 – 2+50	Remove vegetative material with a minimum loss of rock in accordance with Clause 2-9 and dispose of in accordance with Clause 3-23. Apply rock in accordance with Rock List.
Q-540	0+00 – 4+00	Clean out and/or construct ditches in accordance with Clause 2-7. Remove vegetative material with a minimum loss of rock in accordance with Clause 2-9 and dispose of in accordance with Clause 3-23. Construct ditch outs in accordance with Clause 4-29 and 4-38. Install culverts in accordance with Culvert List. Apply rock in accordance with Rock List.
Q-2300	0+00 – 73+10	Grades, shape, and compact existing road surface in accordance with Clause 2-5. Clean out and/or construct ditches in accordance with Clause 2-7. Brush road in accordance with Clause 3-1. Apply rock in accordance with Rock List.
Q-2345	0+00 – 11+65	Clean out and/or construct ditches in accordance with Clause 2-7. Remove vegetative material with a minimum loss of rock in accordance with Clause 2-9 and dispose of in accordance with Clause 3-23. Construct ditch outs in accordance with Clause 4-29 and 4-38. Install culverts in accordance with Culvert List. Apply rock in accordance with Rock List.
Q-2350	0+00 – 15+10	Clean out and/or construct ditches in accordance with Clause 2-7. Remove vegetative material with a minimum loss of rock in accordance with Clause 2-9 and dispose of in accordance with Clause 3-23. Construct ditch outs in accordance with Clause 4-29 and 4-38. Install culverts in accordance with Culvert List. Apply rock in accordance with Rock List.
Q-2370	0+00 – 2+05	Clean out and/or construct ditches in accordance with Clause 2-7. Remove vegetative material with a minimum loss of rock in accordance with Clause 2-9 and dispose of in accordance with Clause 3-23. Install culverts in accordance with Culvert List. Apply rock in accordance with Rock List.
Q-2310	0+00 – 32+15	Grades, shape, and compact existing road surface in accordance with Clause 2-5.

		Brush road in accordance with Clause 3-1. Apply rock in accordance with Rock List.
Q-2100S	23+50 – 25+80	Grades, shape, and compact existing road surface in accordance with Clause 2-5. Brush road in accordance with Clause 3-1. Apply rock in accordance with Rock List.
Total:	1024.55	

Maintenance includes, but is not limited to:

Brushing right-of-way, right-of-way debris disposal, cleaning ditches, constructing ditches, installing additional culverts, widening road segments, constructing headwalls, cleaning culvert inlets and outlets, cross drain culvert replacement, installing erosion control materials and sediment removal structures, spot rocking, grading and shaping existing road surface and turnouts, constructing additional turnouts, compaction of road surface, application of rock, acquisition and application of grass seed and hay.

**0-7 POST-HAUL MAINTENANCE**

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

**0-12 DEVELOP ROCK SOURCE**

The Purchaser shall develop rock sources at Vinegar Pit and Phelan Pit. Development will involve removing vegetation of approximately 1/2 acre in Vinegar Pit to useable rock as determined by the Contract Administrator. Phelan Pit consists of stripping and removing overburden to usable rock, on approximately 3/4 acres as determined by the Contract Administrator and attached Pit Plan. Purchaser shall also crush 10,000 CY of 4" Jaw run Rock at Phelan Pit. Work for developing rock sources is listed in Section 6 ROCK AND SURFACING.

**0-13 STRUCTURES**

The Purchaser shall acquire and install all structures. Requirements for these structures are listed in Section 7 Structures. Kostly Creek Bridge maintenance and repairs must be completed by October 15, 2025.

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 shall be submitted, in writing, to the Contract Administrator for consideration. The State must approve the submitted plans before road work begins.

**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**

Unless controlled by construction stakes or design data (plan, profile, and cross-sections), road work shall be performed in accordance with the dimensions shown on the Typical Section Sheet and the specifications within this Road Plan.

**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 this Road Plan shall 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.

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**

The Purchaser shall notify the Contract Administrator a minimum of 14 calendar days before the closure of any road. Purchaser shall provide 14 day notice before closing road.

<u>Road</u>	<u>Number of Allowable Closed Days</u>
Q-1000	14 (Bridge Repair)

**1-8 REPAIR OR REPLACEMENT OF DAMAGED MATERIALS**

The Purchaser is responsible for the repair or replacement of all materials, roadway infrastructure, and road components damaged during roadwork or operation activities. Repairs and replacements shall be directed by the Contract Administrator. Repairs to structural materials will be made according to the manufacturer’s recommendation and shall not begin without written approval from the Contract Administrator.

**1-9 DAMAGED METALLIC COATING**

Any 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.

**1-11 FPHP REQUIREMENTS**

The following work is subject to requirements under a Forest Practice Hydraulics Project Approval issued by the State of Washington. Maintenance and repair operations shall occur between June 15 and October 15.

<u>FPA Crossing Identifier</u>	<u>Road</u>	<u>Stations</u>	<u>Work Type</u>
C1	Q-1000	397+50 – 398+70	<b>Bridge Maintenance/Repair</b> Remove and replace existing rails, decking, and cross ties.

**1-12 SURVEY MONUMENTS**

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

SUBSECTION ROAD MARKING

**1-15 ROAD MARKING**

Road work must be in accordance with the State’s marked location. All road work is marked as follows:

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

**1-16 CONSTRUCTION STAKES SET BY STATE**

Purchaser shall perform work on the following road in accordance with the construction stakes and reference points set in the field for grade and alignment.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
Q-1000	397+50 – 398+70	Bridge Maintenance

**1-18 REFERENCE POINT DAMAGE**

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

## SUBSECTION TIMING

### 1-20 COMPLETE BY DATE

Purchaser shall complete pre-haul road work before the start of timber haul. Kostly Creek Bridge maintenance and repair shall be completed by October 15, 2025.

### 1-21 HAUL APPROVAL

The Purchaser shall not use roads under this Road Plan without written approval from the Contract Administrator.

### 1-22 WORK NOTIFICATIONS

On all roads, the Purchaser shall notify the Contract Administrator a minimum of 3 calendar days before work begins.

### 1-23 ROAD WORK PHASE APPROVAL

Written approval by Contract Administrator needs to be given at these phases of road work:

- Subgrade approval
- Drainage installation
- Subgrade compaction
- Rock application
- Rock compaction

## SUBSECTION RESTRICTIONS

### 1-25 ACTIVITY TIMING RESTRICTION

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

<u>Road</u>	<u>Stations</u>	<u>Activity</u>	<u>Closure Period</u>
All Roads	All Stations	All Activities	October 15 <sup>th</sup> – April 15 <sup>th</sup>
Q-1000	Kostly Creek Bridge	Maintenance and Repair	October 15 <sup>th</sup> – June 15 <sup>th</sup>

### 1-26 OPERATING DURING CLOSURE PERIOD

If permission is granted to operate during a closure period listed in Clause 1-25 Activity Timing Restriction, the Purchaser shall provide a maintenance plan to include further protection of State resources. The Contract Administrator must approve the maintenance plan in writing, and preventative measures shall be put in place, before operation in the closure period. The Purchaser shall be required to maintain all haul roads at their own expense including those listed in Contract Clause C-060 Designated Road Maintainer. If other operators are using, or desire to use these designated maintainer roads, a joint operating plan shall be developed. All parties shall follow this plan.

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

On portions of the below listed Roads; Any road work, right-of-way timber falling and yarding, rock pit operations or operation of heavy equipment performed during the marbled murrelet nesting season (April 1 through September 23) is restricted to two hours after sunrise to two hours before sunset. This restriction does not apply to hauling timber, rock or equipment.

<u>Road</u>	<u>Stations</u>
Q-1200	26+30 – 47+75
Q-1800	32+70 – 90+95

**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 shall suspend road work or hauling of right-of-way timber, forest products, or rock under the following conditions:

- 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, the Purchaser will be required to cease operations, or perform corrective maintenance or repairs, subject to specifications within this Road Plan. Before and during any suspension, the Purchaser shall protect the work from damage or deterioration.

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

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

If tracked equipment is used on bridge or asphalt surfaces, Purchaser shall immediately cease all road work and hauling operations. Any dirt, rock, or other material tracked or spilled on bridge or asphalt surface(s) shall be removed immediately. Any damage to the surface(s) shall be repaired at the Purchaser’s expense as directed by the Contract Administrator.

**1-33 SNOW PLOWING RESTRICTION**

On all roads, snow plowing shall be permitted only after the execution of a Snow Plowing Agreement, which is available from the Contact Administrator upon request. Purchaser shall request a Snow Plowing Agreement each time plowing occurs. If damage occurs while plowing, further permission to plow may be revoked by the Contract Administrator.

SUBSECTION OTHER INFRASTRUCTURE

**1-40 ROAD APPROACHES TO COUNTY ROADS AND STATE HIGHWAYS**

At existing road approaches to county roads and state highways, any mud, dirt, rock or other material tracked or spilled on the asphalt surface shall be removed immediately by the Purchaser.

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

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

<u>Road Name</u>
US 101

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

Requirements for the paved road approaches:  
 Purchaser shall build up approaches to allow a smooth grade transition. The top of the rock road surfacing must be kept level with the surface of the paved roads at all times.

SECTION 2 – MAINTENANCE

**2-1 GENERAL ROAD MAINTENANCE**

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

**2-2 ROAD MAINTENANCE – PURCHASER MAINTENANCE**

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

**2-3 ROAD MAINTENANCE – DESIGNATED MAINTAINER**

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

**C-060 Designated Roads**

<u>Road</u>	<u>Stations</u>
Q-1000	0+00 – 415+05
Q-2000	0+00 – 65+20
Q-2300	0+00 – 9+30
Q-2310	0+00 – 32+15
Kostly Creek Pit Road	0+00 – 05+60

**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	All
Q-1400	All
Q-1800	0+00 – 150+40
Q-2000	0+00 – 65+20
Q-2300	All

**2-5 MAINTENANCE GRADING – EXISTING ROAD**

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
Q-1000	72+65 – 415+05	Grade, shape, and compact existing road surface. Remove surface and shoulder vegetation.
Q - 1200	0+00 – 90+40	Grade, shape, and compact existing road surface. Remove surface and shoulder vegetation.
Q-1400	0+00 – 103+20	Grade, shape, and compact existing road surface. Remove surface and shoulder vegetation.
Q-1800	0+00 – 150+40	Grade, shape, and compact existing road surface. Remove surface and shoulder vegetation.
Q-2000	0+00 – 65+20	Grade, shape, and compact existing road surface. Remove surface and shoulder vegetation.
Q-2300	0+00 – 31+75	Grade, shape, and compact existing road surface. Remove surface and shoulder vegetation.
Q-2310	0+00 – 32+15	Grade, shape, and compact existing road surface. Remove surface and shoulder vegetation.
Q-2100S	23+50 – 25+80	Grade, shape, and compact existing road surface. Remove surface and shoulder vegetation.

**2-6 CLEANING CULVERTS**

On the following road(s), all inlets and outlets of culverts shall be cleaned before the start of timber haul and shall be subject to the written approval of the Contract Administrator.

<u>Road</u>	<u>Stations</u>
Q-1200	52+00
Q-1200	56+20
Q-1200	63+80
Q-1200	68+85
Q-1200	74+25
Q-1200	85+80
Q-1200	87+80
Q-500	10+40

**2-7 CLEANING DITCHES, HEADWALLS, AND CATCH BASINS**

On the following road(s), Purchaser shall clean and/or construct the ditches, headwalls, and catch basins. Work shall be completed before the start of timber haul and shall be done in accordance with the Typical Section Sheet. Pulling ditch material across the road or mixing in with the road surface will not be allowed. Ditchlines, headwalls, and catch basins shall not encroach into the existing road.

<u>Road</u>	<u>Stations</u>	<u>Left or Right</u>	<u>Comments</u>
Q-1200	18+90 – 25+65	Left and Right	Ditching
Q-1200	37+25 – 40+35	Right	Ditching
Q-1200	42+75 – 54+90	Left	Ditching
Q-1200	42+75 – 90+40	Right	Ditching
Q-1860	2+70 – 45+00	Left and Right	Ditching
Q-1869	0+00 – 9+40	Right	Ditching
Q-1869	0+00 – 16+00	Left	Ditching
Q-1869	12+85 – 16+00	Right	Ditching
Q-1869.2	0+00 – 6+90	Left and Right	Ditching
Q-500	0+00 – 11+25	Left	Ditching
Q-500	5+00 – 28+25	Right	Ditching
Q-500	28+25 – 32+90	Left and Right	Ditching
Q-510	0+00 – 05+90	Left	Ditching
Q-520	0+00 – 17+00	Right	Ditching
Q-520	0+00 – 9+70	Left	Ditching
Q-540	0+00 – 4+00	Right	Ditching
Q-2300	31+75 – 73+10	Left and Right	Ditching
Q-2345	0+00 – 11+65	Left and Right	Ditching
Q-2350	0+00 – 15+10	Left and Right	Ditching
Q-2370	0+00 – 2+05	Left and Right	Ditching

**2-8 MAINTAINING EROSION CONTROL STRUCTURES**

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

<u>Road</u>	<u>Stations</u>	<u>Work Needed</u>
Q-1000	76+50 – 77+50	Repair and maintain existing silt fence (right and left).
Q-1000	79+70 – 80+70	Repair and maintain existing silt fence (left).
Q-1000	80+00 – 90+00	Repair and maintain existing silt fence (right).
Q-1000	359+55	Repair and maintain existing silt fence installed in ditch (left).
Q-1000	386+70	Repair and maintain existing silt fence installed in ditch (right).
Q-1200	85+50	Maintain existing flume on culvert outlet.
Q-1200	87+80	Maintain existing flume on culvert outlet.
Q-1400	32+60 – 33+60	Repair and maintain existing silt fence (right and left).
Q-1400	68+75 – 73+60	Repair and maintain existing silt fence (left).
Q-1400	68+90 – 69+90	Repair and maintain existing silt fence (right).
Q-1400	73+90 – 74+90	Repair and maintain existing silt fence (right and left).

**2-9 REMOVING VEGETATIVE MATERIAL**

On the following road(s), Purchaser shall remove all vegetative material, dirt, mud, and other debris on the existing road surface with a minimum loss of rock. Material removed shall be disposed of in accordance with Clause 3-21 through Clause 3-25 and Clause 4-36 through Clause 4-38.

<u>Road</u>	<u>Stations</u>
Q-1860	8+85 – 45+00
Q-1866	00+00 – 01+00
Q-1867	00+00 – 05+40
Q-1869	00+00 – 16+00
Q-1869.2	00+00 – 06+90
Q-500	05+00 – 32+90
Q-510	00+00 – 05+90
Q-520	00+00 – 17+00
Q-530	00+00 – 02+50
Q-540	00+00 – 04+00
Q-2345	00+00 – 11+65
Q-2350	00+00 – 15+10
Q-2370	00+00 – 02+05

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

**SUBSECTION BRUSHING**

**3-1 BRUSHING**

On the following road(s), vegetative material up to 5 inches in diameter, including limbs, shall be cut as shown on the Brushing Detail. Brushing shall be achieved by mechanical cutting of brush, trees, and branches. Root systems and stumps of cut vegetation shall not be disturbed unless directed by the Contract Administrator.

<u>Road</u>	<u>Stations</u>
Q-1200	18+90 – 25+65
Q-1200	37+25 – 40+35
Q-1200	42+75 – 54+90
Q-1860	0+00 – 8+85
Q-500	0+00 – 5+00
Q-2300	9+30 – 73+10
Q-2310	0+00 – 32+15
Q-2100S	23+50 – 25+80
Q-1000	As needed or directed by CA
Q-1400	As needed or directed by CA
Q-1800	As needed or directed by CA
Q-2000	As needed or directed by CA



**3-2 BRUSHING RESTRICTION**

Pulling, digging, pushing over, and other non-cutting methods used for vegetation removal shall not be used for brushing. Excavator buckets, log loaders and similar equipment shall not be used for brushing.

**3-3 BRUSH REMOVAL**

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

SUBSECTION CLEARING

**3-5 CLEARING**

Purchaser shall fall all vegetative material larger than 5 inches DBH or over 15 feet high between the marked right-of-way boundaries or if not marked in the field, between the clearing limits specified on the TYPICAL SECTION SHEET. Clearing must be completed before starting excavation and embankment.

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

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

**3-8 PROHIBITED DECKING AREAS**

Right-of-way timber shall not be decked in the following areas:

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

SUBSECTION GRUBBING

**3-10 GRUBBING**

Remove all stumps between the grubbing limits specified on the Typical Section Sheet. Those stumps outside the grubbing limits but with undercut roots shall also be removed. Stump removal shall be accomplished using a hydraulic mounted excavator unless authorized, in writing, by the Contract Administrator. Grubbing shall be completed before starting excavation and embankment.

**3-12 STUMP PLACEMENT**

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

**3-13 STUMPS FOR PUNCHEON MATERIAL**

On the following road(s), stumps from within the grubbing limits may be overturned and driven flush with the ground surface for use as subgrade puncheon material.

<u>Road</u>	<u>Stations</u>
Q-1869.1	0+00 – 11+60
Q-1869.11	0+00 – 4+70
Q-1869.2	6+90 – 12+80
Q-540	8+70 – 12+50
Q-2360	0+00 – 7+70
Q-2370	2+05 – 6+20

**SUBSECTION ORGANIC DEBRIS**

**3-20 ORGANIC DEBRIS DEFINITION**

Organic debris is defined as all vegetative material not eligible for removal by Contract Clauses G-010 Products Sold And Sale Area or G-011 Right To Remove Forest Products And Contract Area, that is larger than one cubic foot in volume within the grubbing Typical Section Sheet.

**3-21 DISPOSAL COMPLETION**

All disposal of organic debris, shall be completed before the application of rock.

**3-23 PROHIBITED DISPOSAL AREAS**

Organic debris shall not be deposited in the following areas:

- Within 5 feet of a cross drain culvert.
- Within 50 feet of a live stream, or wetland.
- On road subgrades road prism 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 will fall into the ditch or onto the road surface.
- Against standing timber.

**3-24 BURYING ORGANIC DEBRIS RESTRICTED**

Organic debris shall not be buried unless otherwise stated in this Road Plan.

**3-25 SCATTERING ORGANIC DEBRIS**

Organic debris shall be scattered outside of the grubbing limits in accordance with Clause 3-23 unless otherwise detailed in this Road Plan and as directed by the Contract Administrator.

**SUBSECTION PILE**

**3-31 PILING**

Organic debris shall be piled no closer than 20 feet from standing timber and no higher than 20 feet in areas specified in Clause 3-22 Designated Waste Area For Organic Debris. Piles shall be free of rock and soil.

## SECTION 4 – EXCAVATION

### 4-1 EXCAVATOR CONSTRUCTION

All roads shall be constructed, reconstructed, and maintained using a track mounted hydraulic excavator unless stated otherwise within this Road Plan, or permission to do otherwise is granted in writing by the Contract Administrator.

### 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 shall be taken as pioneering progresses:

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

### 4-3 ROAD GRADE AND ALIGNMENT STANDARDS

The following road grade and alignment standards shall be followed:

- Grade and alignment shall have smooth continuity, without abrupt changes in direction.
- Maximum grade shall not exceed 18 percent favorable and 16 percent adverse.
- Minimum curve radius is 60 feet at centerline.
- Sag vertical curves shall not have a grade change greater than 5% in 100 feet.
- Crest vertical curves shall not have a grade change greater than 4% in 100 feet.

Grade limitations and alignment are modified as follows:

The following road(s) have specific limitations for grade and alignment and are referenced in the table below.

### 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.

The following standards for switchbacks shall be followed:

- Adverse grades on switchbacks shall not exceed 10%.
- Favorable grades through switchbacks shall not exceed 12%.
- Transition grades entering and leaving switchbacks shall not exceed a 5% grade change.
- Transition grades required to meet switchback grade limitations shall be constructed on the tangents preceding and departing from the switchbacks.

**4-5 CUT SLOPE RATIO**

Unless construction staked or designed excavation slopes shall be constructed 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**

Unless construction staked or designed embankment slopes shall be constructed 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**

Excavation and embankment slopes shall be constructed 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.

**4-12 FULL BENCH CONSTRUCTION**

Where side slopes exceed 45%, Purchaser shall use full bench construction for the entire subgrade width.

SUBSECTION INTERSECTIONS, TURNOUTS AND TURNAROUNDS

**4-20 SUBGRADE DIMENSIONS FOR INTERSECTIONS**

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

<u>Road</u>	<u>Stations</u>
Q-510	0+00 – 0+50

**4-21 TURNOUTS**

Turnouts shall be intervisible with maximum of 1,000 feet between turnouts unless shown otherwise on drawings. Locations shall be adjusted to fit the final subgrade alignment and sight distances. Turnout locations shall be subject to written approval by the Contract Administrator.

**4-22 TURNAROUNDS**

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

SUBSECTION DITCH CONSTRUCTION

**4-25 DITCH CONSTRUCTION AND RECONSTRUCTION**

The Purchaser shall construct ditches into the subgrade as specified on the Typical Section Sheet. Excavated slopes shall be consistent with Clause 4-5 Cut Slope Ratio. Ditches shall be constructed concurrently with construction of the subgrade.

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

On all roads, pulling ditch material across the road or mixing in with the road surface will not be allowed. Excavated material shall be disposed of as specified in Clause 4-36 through Clause 4-38.

**4-28 DITCH DRAINAGE**

Ditches must drain to cross-drain culverts or ditchouts.

#### 4-29 DITCHOUTS

Ditchouts shall be constructed at locations shown on the list below, and as needed to fit as built conditions. Ditchouts shall be constructed in a manner that diverts ditch water onto the forest floor and shall have excavation backslopes no steeper than a 1:1 ratio. L or R denotes ditchout left or ditchout right heading in.

<u>Road</u>	<u>Stations</u>
Q-1860	14+60 Left
Q-1860	20+25 Left and Right
Q-1860	34+75 Right
Q-1860	42+50 Left
Q-1860	42+75 Right
Q-1860	43+60 Left and Right
Q-1869	4+55 Left
Q-1869	6+40 Right
Q-1869.1	1+65 Right
Q-500	7+90 Left
Q-500	16+50 Left
Q-500	23+60 Left
Q-500	27+95 Left
Q-520	5+15 Left
Q-520	9+50 Left and Right
Q-520	15+40 Right
Q-540	1+55 Left
Q-540	8+70 Right
Q-2345	2+85 Left and Right
Q-2345	8+30 Left and Right
Q-2345	10+50 Left and Right
Q-2350	2+30 Left and Right
Q-2350	4+90 Left and Right
Q-2350	6+65 Right
Q-2350	11+10 Left
Q-2350	14+15 Left and Right
Q-2360	3+55 Left and Right

## SUBSECTION WASTE MATERIAL (DIRT)

### **4-35 WASTE MATERIAL DEFINITION**

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

### **4-36 DISPOSAL OF WASTE MATERIAL**

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

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

Waste material shall not be deposited in the following areas:

- Within 5 feet of a cross drain culvert.
- Within 50 feet of a live stream or wetland.
- Within a riparian management zone.
- On side slopes steeper than 45%.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- Within the operational area for cable landings.
- Against standing timber.

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

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

## SUBSECTION BORROW

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

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

### **4-46 COMMON BORROW**

Common borrow shall consist of soil, and/or aggregate that is non-plastic and shall contain no more than 5% clay, organic debris, or trash by volume. The material is considered non-plastic if the fines (passes the U.S. #40 sieve) in the sample cannot be rolled between the hand and a smooth surface into a thread at any moisture content.

### **4-47 NATIVE MATERIAL**

Native material shall be excavated material free of organic debris, trash, and rocks greater than 12" in any dimension.

**4-48 BORROW MATERIAL**

Borrow material shall contain no more than 5% clay, organic debris, or trash by volume.

SUBSECTION SHAPING

**4-55 ROAD SHAPING**

The road subgrade and surface shall be shaped as shown on the Typical Section Sheet. The subgrade and surface shape shall ensure runoff in an even, un-concentrated manner, and shall be uniform, firm, and rut-free.

**4-56 DRY WEATHER SHAPING**

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

**4-60 FILL COMPACTION**

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

**4-61 SUBGRADE COMPACTION**

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

**4-62 DRY WEATHER COMPACTION**

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

**4-63 EXISTING SURFACE COMPACTION**

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

**4-64 WASTE MATERIAL COMPACTION**

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

**4-65 CULVERT BACKFILL COMPACTION**

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



**4-66 COMPACTION BY METHOD**

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

**SECTION 5 – DRAINAGE**

**5-3 PUNCHEON PLACEMENT**

On the following road(s), puncheon may be utilized in the subgrade on the following road. Puncheon shall consist of logs of at least 4 inches in diameter and shall be at least 17 feet long.

<u>Road</u>	<u>Stations</u>
Q-1869.1	0+00 – 11+60
Q-1869.11	0+00 – 4+70
Q-1869.2	6+90 – 12+80
Q-540	8+70 – 12+50
Q-2360	0+00 – 7+70
Q-2370	2+05 – 6+20

**5-4 PUNCHEON RESTRICTED**

At no time shall puncheon be used in the subgrade, unless approved by the Contract Administrator or as listed in Clause 5-3.

**SUBSECTION CULVERTS**

**5-5 CULVERTS**

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

**5-6 USED CULVERT MATERIAL**

The Purchaser may install used culverts on the following roads. All other roads shall have new culverts installed.

<u>Road</u>	<u>Stations</u>
Q-1869.1	3+55 – 11+60

**5-11 UNUSED MATERIALS STATE PROPERTY**

On required roads, any materials listed on the Culvert List and Rock List that are not installed shall become the property of the State. Purchaser shall stockpile materials as directed by the Contract Administrator.

**5-12 CONTINGENCY CULVERTS**

The following culverts will be supplied by the Purchaser and will be available for installation on any road listed in the TYPICAL SECTION SHEET as directed by the Contract Administrator. Unused pipes will be located at Phelan Pit or as directed by C/A prior to contract expiration.

<u>Road</u>	<u>Quantity</u>	<u>Size</u>
As Directed By C/A	3	18" x 30'

**SUBSECTION CULVERT INSTALLATION**

**5-15 CULVERT INSTALLATION**

Installation shall be in accordance with the Typical Cross Drain Culvert Installation Detail, Typical Type Ns Np Culvert Installation Detail, the National Corrugated Metal Pipe Association's "Installation Manual for Corrugated Steel Drainage Structures", and the Corrugated Polyethylene Pipe Association's "Recommended Installation Practices for Corrugated Polyethylene Pipe and Fittings". Corrugated Polyethylene pipe shall be installed in a manner consistent with the manufacturer's recommendations.

**5-16 APPROVAL FOR LARGER CULVERT INSTALLATION**

Installation of culverts 30 inches in diameter and over shall be subject to written approval by the District Engineer or their designee before backfilling.

**5-17 CROSS DRAIN SKEW AND SLOPE**

Cross drains on road grades in excess of 3% shall 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. Where the cross drain is at the low point in the road, culverts shall not be skewed. Cross drain culverts shall be installed at a slope steeper than the incoming ditch grade, but not less than 3% or more than 10%.

**5-18 CULVERT DEPTH OF COVER**

Cross drain culverts shall be installed with a depth of cover of not less than 18 inches of compacted depth over the top of the culvert at the shallowest point. Stream crossing culverts shall be installed with a depth of cover specified in the Engineer's design, Type Ns Np Typical Detail Sheet, or to the minimum depth recommended by the culvert manufacturer for the type of cover material over the pipe, whichever is greater.

## SUBSECTION ENERGY DISSIPATERS

### 5-20 ENERGY DISSIPATERS

Energy dissipaters shall be installed to prevent erosion and are subject to approval by the Contract Administrator. Rock shall weigh at least 10 pounds and be placed by zero-drop-height method. Energy dissipater shall extend a minimum of  $\frac{3}{4}$  foot to each side of the culvert at the outlet and a minimum of 2 feet beyond the outlet.

### 5-21 DOWNSPOUTS AND FLUMES

Downspouts and flumes longer than 10 feet shall be staked on both sides at maximum intervals of 10 feet with 6-foot heavy-duty steel posts or 1  $\frac{1}{2}$ " X  $\frac{3}{16}$ " angle iron, and fastened securely to the posts with No. 10 galvanized smooth wire, or bolted using minimum  $\frac{5}{16}$ " bolts and 2 washers per bolt, in accordance with the Culvert Installation Typical Details Page.

## SUBSECTION CATCH BASINS, HEADWALLS, AND ARMORING

### 5-25 CATCH BASINS

Catch basins shall be constructed to resist erosion. Approximate dimensions are 1-2 feet deep, 1-2 feet wide, and 2-4 feet long.

### 5-26 HEADWALLS FOR CROSS DRAIN CULVERTS

Headwalls shall be constructed in accordance with the Typical Cross Drain Culvert Installation Detail at all cross drain culverts that specify the placement of rock. Rock used for headwalls shall consist of oversize or quarry spall material. Rock shall be placed on shoulders, slopes, and around culvert inlets and outlets. Rock shall not restrict the flow of water into culvert inlets or catch basins. No end dumping of rock is allowed.

## SECTION 6 – ROCK AND SURFACING

### SUBSECTION ROCK SOURCE

### 6-2 ROCK SOURCE ON STATE LAND

Rock used in accordance with the quantities on the Rock List may be obtained from the following source(s) on state land at no charge to the Purchaser. Use of material from any other source must have prior written approval from the Contract Administrator. If other operators are using, or desire to use, the rock source(s), a joint operating plan shall be developed. All parties shall follow this plan. The Purchaser shall notify the Contract Administrator a minimum of 5 calendar days before starting any operations in the listed locations.

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>
Kostly Creek Pit	T.24N., R.11W., Sec 36	1 $\frac{1}{2}$ " Crushed, Pit Run, Rip Rap
Phelan Creek Pit	T.24N., R.11W., Sec 11	4" Jaw Run, Pit Run, Oversized
Vinegar Pit	T.24N., R.11W., Sec 14	Pit Run, Oversized

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

Rock used in accordance with the quantities on the Rock List may be obtained from the following existing stockpile(s) on state land at no charge to the Purchaser. Purchaser shall remove no more than 700 CY of 1 1/2" minus crushed rock from Kostly Creek Pit and 500 CY of 1 1/2" minus crushed rock from Q-1800 stockpile unless authorized by the Contract Administrator.

<u>Source</u>	<u>Location</u>	<u>Quantity (yd<sup>3</sup>)</u>
Pit Run	Q-1800 Stockpile STA 70+50	500 yd <sup>3</sup>
1 1/2" Crushed	Kostly Creek Pit	700 yd <sup>3</sup>

**6-5 ROCK FROM COMMERCIAL SOURCE**

Rock used in accordance with the quantities on the Rock List may be obtained from any commercial source at the Purchaser's expense. Rock sources will be subject to written approval by the Contract Administrator before their use.

SUBSECTION ROCK SOURCE DEVELOPMENT

**6-10 ROCK SOURCE DEVELOPMENT PLAN BY STATE**

All rock source development and use shall be in accordance with a written Rock Source Development and Reclamation Plan prepared by the State and included in this Road Plan. Rock source operations shall be conducted as directed by the Contract Administrator and in accordance with the plan. Upon completion of operations, the rock source shall be left in the condition specified in the Rock Source Development and Reclamation Plan, and approved in writing by the Contract Administrator. The Purchaser shall notify the Contract Administrator a minimum of 5 calendar days before starting any operations in the rock source.

**6-12 ROCK SOURCE SPECIFICATIONS**

Rock sources shall be in accordance with the following unless otherwise specified in Rock Source Development and reclamation plan:

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

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

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

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

**6-15 REQUIRED ROCK SOURCE WORK**

The following rock source work is required. Work is to be done according to the approved Rock Source Development And Reclamation Plan and as directed by the Contract Administrator.

<u>Site</u>	<u>Requirements</u>
Vinegar Pit	Remove vegetation as directed by Contract Administrator.
Phelan Pit	Strip ¾ acres to usable rock, crush 10,000 CY of 4” Jaw Run rock.

SUBSECTION ROCK MANUFACTURE

**6-23 ROCK CRUSHING OPERATIONS**

Rock crushing operations shall conform to the following specifications:

- Operations and placement of oversize material shall be conducted in or near the rock source site, as approved in writing by the Contract Administrator.
- The crushing operation shall be concluded within 60 working days from the time it begins.
- All testing and operations shall be performed in accordance with 6-24 Rock Crushing Compliance Procedure.

**6-24 ROCK CRUSHING COMPLIANCE PROCEEDURE**

Phase I. Equipment Adjustment

**Step 1:**

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

**Step 2:**

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

Phase II. Production

**Step 3:**

The Purchaser will continue periodic testing to ensure that rock stays in spec. Testing will take place according to the following schedule:

- After the first 500 yards
- After every 2,000 yards thereafter.

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

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

c) Purchaser is strongly encouraged to take their own samples regularly and keep their operations in spec to avoid unnecessary expenses.

- The 5% will be applied only to sieve specs for 2" to 1/4"; rock that is out of spec in larger sizes must be kept separate from the acceptable rock.

**SUBSECTION ROCK GRADATIONS**

**6-29 1 1/2-INCH MINUS CRUSHED ROCK**

% Passing 1 1/2" square sieve	100%
% Passing 1" square sieve	50 - 85%
% Passing U.S. #4 sieve	30 - 50%
% Passing U.S. #40 sieve	16% maximum
% Passing U.S. #200 sieve	5% maximum

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

**6-39 4-INCH JAW RUN ROCK**

% Passing 4" in one dimension	100%
% Passing 3" square sieve	45 - 65%

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

**6-50 LIGHT LOOSE RIP RAP**

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

<u>At Least/Not More Than</u>	<u>Weight Range</u>	<u>Size Range</u>
20% / 90%	300 lbs. to 1 ton	12" - 36"

**6-52 OVERSIZE**

% Passing 8" square sieve	100%
% Passing 4" square sieve	0%

Rock shall not contain more than 5 percent vegetative debris or trash. All percentages are by weight.

**SUBSECTION ROCK MEASUREMENT**

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

Measurement of specified rock depths are defined as the compacted depth(s) using the compaction methods required in this Road Plan. Estimated quantities specified in the Rock List are estimated truck yards. Purchaser shall apply adequate amounts of rock to meet the specified rock depths. Specified rock depths are minimum requirements and are not subject to reduction.

SUBSECTION ROCK STOCKPILE

**6-67 ROCK STOCKPILE SPECIFICATIONS**

Rock stockpiles listed in Clause 6-65 Rock Stockpile Location shall meet the following specifications:

- Before placing aggregates upon the stockpile site, the site shall be cleared of vegetation, trees, stumps, brush, rocks or other debris and the ground leveled to a smooth, firm, uniform surface.
- When completed, the stockpile shall be neat and regular in shape.
- The stockpile height shall be limited to a maximum of 30 feet.
- Stockpiles in excess of 500 cubic yards shall be built up in layers not more than 8 feet in depth. Stockpile layers shall be constructed by trucks, clamshells, or other methods approved, in writing, by the Contract Administrator.
- Each layer shall be completed over the entire area of the pile before depositing aggregates in the next layer. The aggregates shall not be dumped so that they run down and over the lower layers in the stockpile. The method of dropping from a bucket or spout in one location so as to form a cone shaped pile will not be permitted.
- Stockpiles of different types or sizes of aggregate shall be spaced far enough apart, or separated by suitable walls or partitions, to prevent the mixing of the aggregates.

SUBSECTION ROCK APPLICATION

**6-70 APPROVAL BEFORE ROCK APPLICATION**

Subgrade drainage installation including grading and compaction, shall be completed and approved in writing by the Contract Administrator, before rock application.

**6-71 ROCK APPLICATION**

Rock shall be applied in accordance with the specifications and quantities shown on the Rock List. Rock shall be spread, shaped, and compacted full-width concurrent with rock hauling operations. Rock shall be compacted in accordance with Compaction List, in lifts not to exceed 6 inches.

**6-72 ROCK APPLICATION AFTER HAULING**

On the following road(s), upon completion of all hauling operations, Purchaser shall apply 1 1/2" minus crushed rock in accordance with the quantities shown on the Rock List.

<u>Road</u>	<u>Stations</u>	<u>Amount</u>
Q-1000	As Directed by Contract Administrator	125 cy <sup>3</sup>
Q-1400	As Directed by Contract Administrator	50 cy <sup>3</sup>
Q-1800	As Directed by Contract Administrator	50 cy <sup>3</sup>
Q-2000	As Directed by Contract Administrator	55 cy <sup>3</sup>
Q-2300	As Directed by Contract Administrator	20 cy <sup>3</sup>



**6-73 ROCK FOR WIDENED PORTIONS**

Turnarounds, turnouts, and areas with curve widening shall have rock applied to the same depth and specifications as the traveled way.

**6-78 ROCK FOR SPOT PATCHING**

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

SECTION 7 – STRUCTURES

SUBSECTION SIGNS

**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 Q-1000 closure. Signs shall be at least 2 feet in any direction and shall be orange with black lettering.

<u>Road</u>	<u>Station</u>	<u>Sign</u>
Q-1000	384+80	Road Closure
Q-1000	415+05	Road Closure
Q-1000	272+20	Road Closure Ahead
Q-1000	Kostly Creek Bridge	Reflective Striped Delineators (4)
FS-21	500' before Q-500	Logging Activities Ahead
FS-21	500' after Q-500	Logging Activities Ahead

SUBSECTION STREAM CROSSING STRUCTURES GENERAL

**7-5 STRUCTURE DEBRIS**

The Purchaser shall ensure that debris from the installation or removal of structures does not enter any stream. Components removed from the existing structures(s) shall be placed at designated site(s), as directed in writing by the Contract Administrator. The Purchaser is responsible for maintaining a clean jobsite, with all materials stored away from any high-water mark or other area presenting a risk of the materials entering a stream. Debris entering any stream shall be removed immediately and placed in the site(s) designated for stockpiling or disposal. The Purchaser is responsible for retrieving all material carried downstream from the jobsite by the stream current.

**7-6 STREAM CROSSING INSTALLATION**

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

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

Bank protection shall be designed and constructed to prevent the undermining of the structure.

SUBSECTION ACCEPTANCE

**7-20 REQUIRED NOTIFICATION AND APPROVAL**

Purchaser shall provide the District Engineer or their designee 14-day notification prior to beginning road work on the Kostly Creek Bridge. The Purchaser shall arrange to have the District Engineer or their designee on site during all bridge repair and maintenance. Purchaser shall receive approval from the District Engineer or their designee upon completion of repairs, prior to bridge use. During temporary road closures signs shall be posted as directed by the Contract Administrator, or the District Engineer, advising of any temporary road closures.

SUBSECTION BRIDGE MAINTENANCE

**7-30 BRIDGE MAINTENANCE**

On the following road(s), bridge maintenance, as listed below, is required as part of this contract. All old bridge material shall be removed from State land by the Purchaser before the termination of the contract. Maintenance and repair operations for Kostly Creek Bridge are subject to the requirements under a Forest Practice Hydraulics Project Approval issued by the State of Washington and shall occur only between June 15<sup>th</sup> and October 15<sup>th</sup> unless written approval is obtained from the Contract Administrator. Purchaser shall have 10 business days to complete the required bridge maintenance and repairs. All Bridge maintenance and repairs operations shall be completed by October 15<sup>th</sup> 2025.

Purchaser is required to provide a written plan for demolition, re-construction, and stream protection for the repairs and maintenance of Kostly Creek Bridge to the Contract Administrator and/or District Engineer, 14-days prior to beginning road work on the Kostly Creek Bridge.

See Sheets 83-84: Kostly Creek Re-Decking Drawings for details. (11x17 Drawings available upon request)

<u>Road</u>	<u>Station</u>	<u>Requirements</u>	<u>Detail Sheet</u>
Q-1000	397+50 – 398+70	Remove and replace bottom rails, decking, and cross ties. Remove vegetation.	83-84

**7-31 BRIDGE DECK AND X-TIE REPLACEMENT**

The new deck shall consist of 4"x12" planks covering the entire area. All deck material shall be No. 2 or better Douglas fir. The running planks exposed edge at each end of the bridge deck shall have the top 1/3 beveled at a 45-degree angle. Cross ties shall be treated 8x8 Douglas fir.

To prevent debris, sediment, and/or water from entering Kostly Creek, there shall be no gaps present between the running planks of the newly installed deck.

**7-32 BRIDGE DECK AND CROSS TIE FASTENING (WOOD BRIDGE)**

The running planks shall be fastened to every second cross tie with 8-inch-long lag bolts. The 8"x 8 cross ties shall be fastened with 16-inch-long lag bolts. If lag bolts are used, they shall be screwed into pre-drilled and treated holes. The heads of the lag bolts shall be countersunk flush with the surface. Any untreated areas on the existing structure shall be treated as well.

**7-34 WOOD SHEAR RAIL REPAIR**

The new shear rails and bottom rails shall be constructed of 8"x 8" No. 2 or better Douglas fir and fastened with 34-inch-long lag bolts. Bull rails consist of continuous 8"x8" rails on top and 8"x8"x3 blocks on bottom and shall be secured to both the cross ties. Continuous 2"x4" planks shall be fastened to the inside of the 8"x8"x3" blocks with size 16 galvanized penny nails.

SECTION 8 – EROSION CONTROL

**8-1 SEDIMENT CONTROL STRUCTURES**

On the following road(s), Purchaser shall install sediment control structures as listed below.

<u>Road</u>	<u>Stations</u>	<u>Comments</u>
Q-1000	386+95 – 387+95	Install silt fence (left).
Q-1000	386+95 – 388+95	Install silt fence (right).
Q-1200	55+75 – 56+75	Install silt fence (left).

**8-2 PROTECTION FOR EXPOSED SOIL**

Purchaser shall furnish and evenly spread a 3-inch layer of straw to all exposed soils at stream culvert installations. Soils shall not be allowed to sit exposed during any rain event.

SUBSECTION REVEGETATION

**8-15 REVEGETATION**

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

**8-16 REVEGETATION SUPPLY**

All seed, mulch, hay, matting, etc. will be provided by the Purchaser.

**8-17 REVEGETATION TIMING**

Purchaser shall perform revegetation during the first available opportunity. Soils shall not be allowed to sit exposed for longer than one month without receiving revegetation treatment unless otherwise approved in writing by the Contract Administrator. Soils shall not be allowed to sit exposed during any rain event.

**8-18 PROTECTION FOR SEED**

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

**8-19 ASSURANCE FOR SEEDED AREA**

The Purchaser shall be responsible to ensure a uniform and dense crop of grass. The Purchaser shall reapply the seed and/or mulch in areas that have been damaged through any cause, before approval from the Contract Administrator. The Purchaser shall restore eroded or disturbed areas, clean up and properly dispose of eroded materials, and reapply the seed and/or mulch at no additional cost to the state.

SUBSECTION SEED, FERTILIZER, AND MULCH

**8-25 GRASS SEED**

Purchaser shall evenly spread the seed mixture listed below on all exposed soils at a rate of 60 pounds per acre of exposed soil.

<u>Seed Species</u>	<u>% by Weight</u>
• Perennial Ryegrass	40.00
• Creeping Red Fescue	40.00
• White Dutch Clover	10.00
• Colonial Bentgrass	10.00

Grass seed shall meet the following specifications:

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

SECTION 9 – POST-HAUL ROAD WORK

SUBSECTION STRUCTURES

**9-3 REMOVAL OF CULVERT MATERIAL FROM STATE LAND**

Culvert material removed from roads becomes the property of the Purchaser and must be removed from state land.

SUBSECTION POST-HAUL MAINTENANCE

**9-5 POST-HAUL MAINTENANCE**

Post-haul maintenance shall be performed in accordance with the Forest Access Road Maintenance Specifications and as specified below.

<u>Road</u>	<u>Stations</u>	<u>Additional Requirements</u>
All	All	Clean culverts, clean ditches, grade road shape and compact as directed by the Contract Administrator
Q-1000	All	Apply post haul rock as per Clause 6-72.
Q-1400	All	Apply post haul rock as per Clause 6-72.
Q-1800	All	Apply post haul rock as per Clause 6-72.
Q-2000	All	Apply post haul rock as per Clause 6-72.
All	All	Clean bridge decks

SUBSECTION POST-HAUL LANDING MAINTENANCE

**9-10 LANDING DRAINAGE**

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

**9-11 LANDING EMBANKMENT**

On all roads, landing embankments shall be sloped to original construction specifications.

SUBSECTION DECOMMISSIONING AND ABANDONMENT

**9-20 ROAD DECOMMISSIONING**

The following road(s) shall be decommissioned by the Purchaser before the termination of this contract.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
Q-1869.1	3+55 – 11+60	Light Decommissioning
Q-2360	0+00 – 7+70	Light Decommissioning
Total:	15.75	

## **9-22 LIGHT DECOMMISSIONING**

Decommissioning shall consist of:

1. Remove all culverts. Resulting back slopes shall be 1:1 or shallower for cross drains and 1.5:1, or as specified in approved drawings, for all live stream culvert removals. Material removed shall be placed on the roadbed and compacted, with slopes of 2:1 or shallower, or end-hauled to designated waste areas. Culverts removed shall become the property of the Purchaser and removed from State land.
2. Construct non-drivable water bars as directed by the Contract Administrator. On grades in excess of 3%, non-drivable water bars shall be skewed 30 degrees from the perpendicular of the road centerline.
3. Restore all ditchouts to drain water.
4. Repair or construct ditchlines.
5. Remove any berms, except as directed.
6. Restoration of natural stream channels across road prism, as directed by the Contract Administrator.
7. Removing all fill material as approved by the Contract Administrator.
8. All material from fill removals, culvert removals, and bridge removals shall be placed on roadbed and compacted, except that material listed in Clause 4-37.
9. Purchaser shall furnish and apply grass seed to all areas of exposed soil, including but not limited to: water bars, waste piles, and culvert removal sites. Grass seed shall be applied at a rate of 60 pounds per acre.
10. Block road to vehicular traffic using logs, slash, and stumps, as directed by the Contract Administrator.

SECTION 10 MATERIALS

SUBSECTION GEOTEXTILES

**10-6 GEOTEXTILE FOR TEMPORARY SILT FENCE**

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

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

SUBSECTION CULVERTS

**10-15 CORRUGATED STEEL CULVERT**

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

**10-16 CORRUGATED ALUMINUM CULVERT**

Aluminum culverts shall meet AASHTO M-196 (ASTM A-745) specifications.

**10-17 CORRUGATED PLASTIC CULVERT**

Polyethylene culverts shall meet AASHTO M-294 specifications. Culverts shall be Type S – double walled with a corrugated exterior and smooth interior.

**10-21 METAL BAND**

Metal coupling and end bands shall meet the AASHTO specification designated for the culvert and shall have matching corrugations. On culverts 24 inches and smaller, bands shall have a minimum width of 12 inches. On culverts over 24 inches, bands shall have a minimum width of 24 inches.

**10-22 PLASTIC BAND**

Plastic coupling and end bands shall meet the AASHTO specification designated for the culvert. Only fittings supplied or recommended by the culvert manufacturer shall be used. Couplings shall be split coupling band. Split coupling bands shall have a minimum of four corrugations, two on each side of the pipe joint.

**10-23 RUBBER CULVERT GASKETS**

Rubber gaskets must be continuous closed cell, synthetic expanded rubber gaskets conforming to the requirements of ASTM D 1056. Rubber gaskets must be used with all corrugated metal pipe coupling bands.

**10-24 GAGE AND CORRUGATION**

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

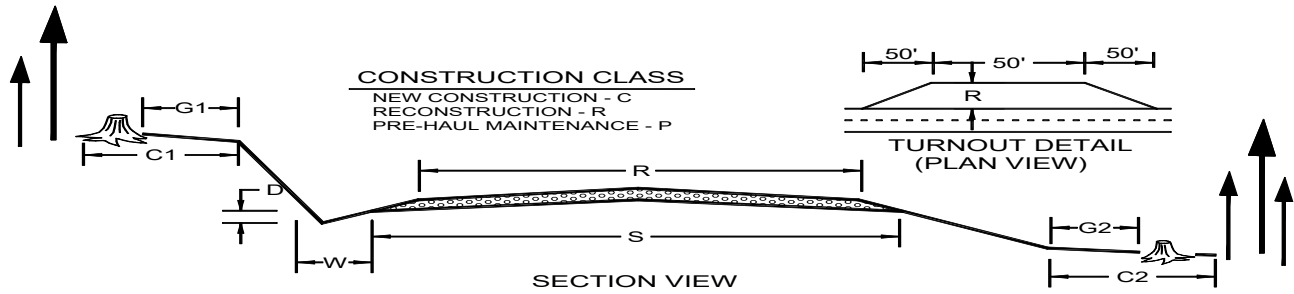
<u>Diameter</u>	<u>Gage</u>	<u>Corrugation</u>
18"	16 (0.064")	2 2/3" X 1/2"
24" to 48"	14 (0.079")	2 2/3" X 1/2"
54"	12	5" X 1"
60" +	10	5" X 1"

**10-50 BRIDGE MATERIAL**

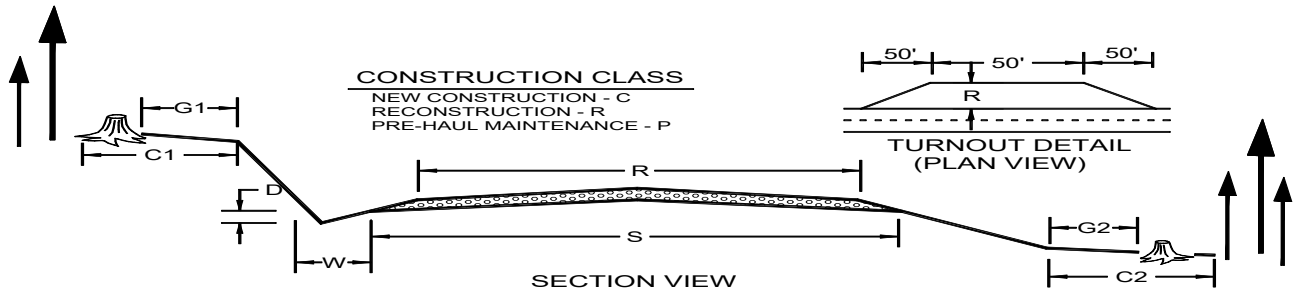
All materials necessary for assembly must be included with the structure and meet the following requirements:

- a. All structural lumber must meet AWPA UC4B Specifications for ground contact/structural use, for critical structural, ground contact, fresh water and saltwater use.
- b. The use of creosote and/or pentachlorophenol is prohibited.
- c. All bolts used to facilitate field assembly will be A325 Type 1 or 2 galvanized. All materials necessary for assembly must be included with the structure. All hardware connections and fasteners must be in accordance with AASHTO Designation ASTM Designation A325 Type 3 weathering steel.



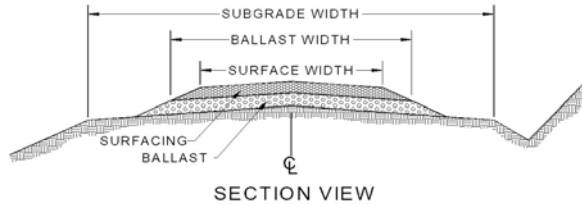


ROAD NAME	START STATION	END STATION	CONSTRUCTION CLASS		SUBGRADE WIDTH (S)	ROAD WIDTH (R)	CROWN AT CL (in)	DITCH WIDTH (W)	DITCH DEPTH (D)	GRUBBING CUT BANK (G1)	GRUBBING FILL TOE (G2)	ROAD CUT CLEARING (C1)	ROAD FILL CLEARING (C2)
Q-1000	0+00	415+00	P		21'	16'	3"	3'	1'	5'	5'	10'	5'
Q-1400	0+00	103+20	P		21'	16'	3"	3'	1'	5'	5'	10'	5'
Q-1800	0+00	105+40	P		21'	16'	3"	3'	1'	5'	5'	10'	5'
Q-2000	0+00	65+20	P		21'	16'	3"	3'	1'	5'	5'	10'	5'
Q-1860	0+00	45+00	P		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-1866	0+00	1+00	P		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-1867	0+00	5+40	P		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-1869	0+00	16+00	P		17'	12'	3"	4'	3'	5'	5'	10'	5'
Q-1869.1	0+00	11+60	C		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-1869.11	0+00	4+70	C		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-1869.2	0+00	6+90	P		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-1869.2	6+90	12+80	C		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-1200	0+00	90+40	P		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-500	0+00	32+90	P		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-510	0+00	5+90	P		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-520	0+00	17+00	P		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-520.1	0+00	18+60	C		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-530	0+00	2+50	P		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-540	0+00	4+00	P		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-540	4+00	8+50	C		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-2300	0+00	73+10	P		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-2345	0+00	11+65	P		17'	12'	3"	2'	1'	5'	5'	10'	5'



ROAD NAME	START STATION	END STATION	CONSTRUCTION CLASS		SUBGRADE WIDTH (S)	ROAD WIDTH (R)	CROWN AT CL (in)	DITCH WIDTH (W)	DITCH DEPTH (D)	GRUBBING CUT BANK (G1)	GRUBBING FILL TOE (G2)	ROAD CUT CLEARING (C1)	ROAD FILL CLEARING (C2)
Q-2350	0+00	15+10	P		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-2360	0+00	7+70	C		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-2370	0+00	2+05	P		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-2370	2+05	6+20	C		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-2310	0+00	32+15	P		17'	12'	3"	2'	1'	5'	5'	10'	5'
Q-2100S	23+50	25+80	P		17'	12'	3"	2'	1'	5'	5'	10'	5'

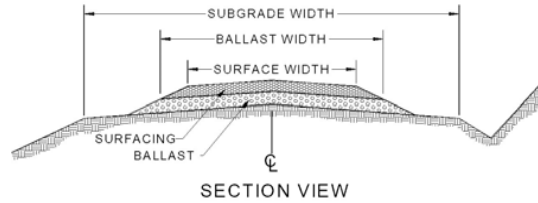
### ROCK LIST SHEET



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ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	Pitrun SOURCE	Pitrun WIDTH (ft)	Pitrun DEPTH (in)	Pitrun Quantity(yd <sup>3</sup> /sta)	Pitrun SUBTOTAL(yd <sup>3</sup> )	Crushed SOURCE	Crushed WIDTH (ft)	Crushed DEPTH (in)	Crushed Quantity (yd <sup>3</sup> /sta)	Crushed Subtotal(yd <sup>3</sup> )	Oversize/ Rip rap Source	Oversize/Rip Rap Quantity(yd <sup>3</sup> )
<b>Q-1000</b>															
Misc. Rock	75+65	415+00							6				220		
Misc. Rock Post-Haul	75+65	415+00							6				125		
<b>Q-1400</b>															
Misc. Rock	0+00	103+20							6				50		
Misc. Rock Post-Haul	0+00	103+20							6				50		
<b>Q-1800</b>															
Misc. Rock	0+00	150+40							6				80		
Misc. Rock Post-Haul	0+00	150+40							6				50		
<b>Q-2000</b>															
Misc. Rock	0+00	65+20							6				55		
Misc. Rock Post-Haul	0+00	65+20							6				55		
<b>Q-2310</b>															
Misc. Rock	0+00	32+15							6				20		
<b>Q-2100S</b>															
Misc. Rock	23+50	25+80							6				10		
<b>Q-1200</b>															
Misc. Rock	0+00	90+40							6				40		
Turn Around	33+80	34+30		7				50							
Culvert (M)	52+00													8	0.5
<b>Totals:</b>								<b>50</b>					<b>755</b>	<b>0.5</b>	

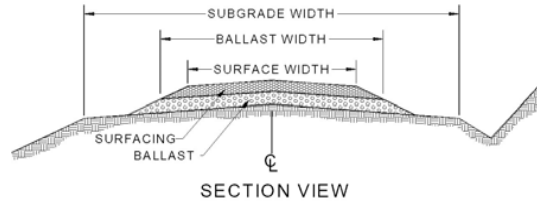
**ROCK LIST SHEET CONTINUED**



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ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	Pitrun SOURCE	Pitrun WIDTH (ft)	Pitrun DEPTH (in)	Pitrun Quantity(yd <sup>3</sup> /sta)	Pitrun SUBTOTAL(yd <sup>3</sup> )	Crushed SOURCE	Crushed WIDTH (ft)	Crushed DEPTH (in)	Crushed Quantity (yd <sup>3</sup> /sta)	Crushed Subtotal(yd <sup>3</sup> )	Oversize/ Rip rap Source	Oversize/Rip Rap Quantity(yd <sup>3</sup> )
<b>Q-1200 (Cont.)</b>															
Culvert (M)	56+20													8	1.25
Culvert (R)	60+25			7				20						8	0.5
Culvert (M)	63+80													8	0.5
Culvert (R)	66+95			7				20						8	0.5
Culvert (M)	68+85													8	0.5
Culvert (M)	74+25													8	0.5
Culvert (R)	77+10			7				20						8	0.5
Culvert (M)	85+80													8	0.5
Culvert (M)	87+80													8	0.5
<b>Q-1860</b>															
Lift	0+00	45+00	17						1	12	8	45	2030		
Landing	45+00			2				50							
Spot Patch	20+75	21+70		2				30							
Culvert (R)	0+60			2				20						3	0.5
Culvert (R)	8+85			2				20						3	0.5
Culvert (I)	12+40			2				20						3	0.5
Culvert (I)	14+60			2				20						3	0.5
Culvert (R)	25+24			2				20						3	0.5
Culvert (R)	28+80			2				20						3	0.5
<b>Totals:</b>								<b>260</b>					<b>2030</b>		<b>8.25</b>

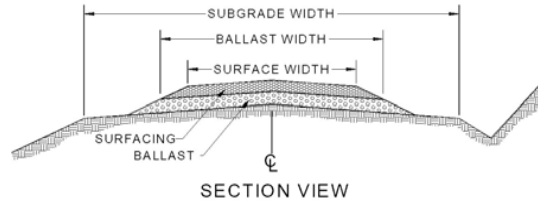
**ROCK LIST SHEET CONTINUED**



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ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	Pitrun SOURCE	Pitrun WIDTH (ft)	Pitrun DEPTH (in)	Pitrun Quantity(yd <sup>3</sup> /sta)	Pitrun SUBTOTAL(yd <sup>3</sup> )	Crushed SOURCE	Crushed WIDTH (ft)	Crushed DEPTH (in)	Crushed Quantity (yd <sup>3</sup> /sta)	Crushed Subtotal(yd <sup>3</sup> )	Oversize/ Rip rap Source	Oversize/Rip Rap Quantity(yd <sup>3</sup> )
<b>Q-1860 (Cont.)</b>															
Culvert (R)	35+45			2				20						3	0.5
Culvert (I)	43+60			2				20						3	0.5
<b>Q-1866</b>															
Lift	0+00	1+00	17						1	12	6	35	40		
<b>Q-1867</b>															
Lift	0+00	5+40	17						1	12	6	35	190		
<b>Q-1869</b>															
Lift	0+00	16+00	17						1	12	8	45	720		
Landing	9+40			2				50							
Culvert (R)	0+60			2				20						3	0.5
Culvert (R)	14+15			2				20						3	0.5
<b>Q-1869.1</b>															
New Construction	0+00	11+60	17	2	12	18	110	1280							
Landing	11+60			2				50							
Culvert (I)	1+65			2				20						3	0.5
Culvert (I)	6+55			2				20						3	0.5
Culvert (I)	6+95			2				20						3	0.5
Culvert (I)	9+95			2				20						3	0.5
<b>Totals:</b>								<b>1540</b>					<b>950</b>		<b>4</b>

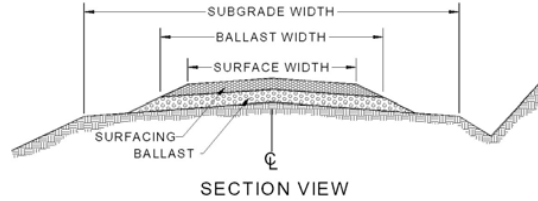
**ROCK LIST SHEET CONTINUED**



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ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	Pitrun SOURCE	Pitrun WIDTH (ft)	Pitrun DEPTH (in)	Pitrun Quantity(yd <sup>3</sup> /sta)	Pitrun SUBTOTAL(yd <sup>3</sup> )	Crushed SOURCE	Crushed WIDTH (ft)	Crushed DEPTH (in)	Crushed Quantity (yd <sup>3</sup> /sta)	Crushed Subtotal(yd <sup>3</sup> )	Oversize/ Rip rap Source	Oversize/Rip Rap Quantity(yd <sup>3</sup> )
<b>Q-1869.11</b>															
New Construction	0+00	4+70	17	2	12	18	110	520							
Landing	4+70			2				50							
Culvert (I)	2+15			2				20						3	0.5
<b>Q-1869.2</b>															
Lift	0+00	6+90	17						1	12	6	35	250		
Landing	12+80			2				50							
New Construction	6+90	12+80	17	2	12	18	110	650							
Culvert (I)	0+90			2				20						3	0.5
Culvert (I)	4+85			2				20						3	0.5
Culvert (I)	8+45			2				20						3	0.5
Culvert (I)	11+40			2				20						3	0.5
<b>Q-500</b>															
Lift	0+00	32+90	17						1	12	6	35	1160		
Turn Around	3+30			2				50							
Junction Widening	6+50								1				50		
Culvert (I)	6+10			2				20						3	0.5
Culvert (M)	10+40													3	0.5
Culvert (R)	12+85			2				20						3	0.5
Culvert (I)	16+50			2				20						3	0.5
<b>Totals:</b>								<b>1480</b>					<b>1460</b>		<b>4.5</b>

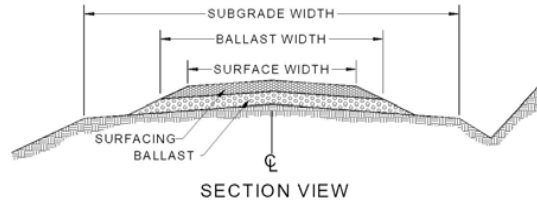
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ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	Pitrun SOURCE	Pitrun WIDTH (ft)	Pitrun DEPTH (in)	Pitrun Quantity(yd <sup>3</sup> /sta)	Pitrun SUBTOTAL(yd <sup>3</sup> )	Crushed SOURCE	Crushed WIDTH (ft)	Crushed DEPTH (in)	Crushed Quantity (yd <sup>3</sup> /sta)	Crushed Subtotal(yd <sup>3</sup> )	Oversize/ Rip rap Source	Oversize/Rip Rap Quantity(yd <sup>3</sup> )
<b>Q-500 (Cont.)</b>															
Culvert (R)	19+00			2				20						3	0.5
Culvert (I)	23+60			2				20						3	0.5
Culvert (R)	26+95			2				20						3	0.5
Culvert (I)	27+95			2				20						3	0.5
<b>Q-510</b>															
Lift	0+00	6+00	17						1	12	6	35	210		
Culvert (R)	0+10			2				20						3	0.5
Culvert (R)	5+80			2				20						3	0.5
<b>Q-520</b>															
Lift	0+00	17+00	17						1	12	6	35	600		
Landing	14+20			2				30							
Landing	17+00			2				40							
Culvert (I)	5+15			2				20						3	0.5
<b>Q-520.1</b>															
New Construction	0+00	18+60	17	2	12	18	110	2050							
Landing	12+65			2				50							
Landing	18+60			2				50							
Culvert (I)	4+40			2				20						3	0.75
Culvert (I)	7+75			2				20						3	0.75
<b>Totals:</b>								<b>2400</b>					<b>810</b>		<b>5</b>

**ROCK LIST SHEET CONTINUED**

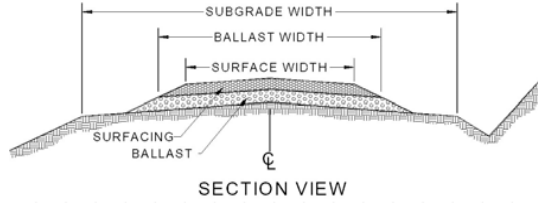


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ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	Pitrun SOURCE	Pitrun WIDTH (ft)	Pitrun DEPTH (in)	Pitrun Quantity(yd <sup>3</sup> /sta)	Pitrun SUBTOTAL(yd <sup>3</sup> )	Crushed SOURCE	Crushed WIDTH (ft)	Crushed DEPTH (in)	Crushed Quantity (yd <sup>3</sup> /sta)	Crushed Subtotal(yd <sup>3</sup> )	Oversize/ Rip rap Source	Oversize/Rip Rap Quantity(yd <sup>3</sup> )
<b>Q-520.1 (Cont.)</b>															
Culvert (I)	11+60			2				20						3	0.75
Culvert (I)	14+50			2				20						3	0.75
Culvert (I)	17+30			2				20						3	0.75
<b>Q-530</b>															
Lift	0+00	2+50	17						1	12	6	35	90		
<b>Q-540</b>															
Lift	0+00	4+00	17						1	12	6	35	140		
New Construction	4+00	12+50	17	2	12	18	110	940							
Landing	12+50			2				50							
Culvert (I)	0+00			2				20						3	0.5
Culvert (I)	1+55			2				20						3	0.5
Culvert (I)	9+85			2				20						3	0.5
<b>Q-2300</b>															
Misc. Rock	0+00	31+75							6				20		
Misc. Rock Post-Haul	0+00	31+75							6				20		
Lift	31+75	73+10	17						1	12	10	55	2280		
Culvert (R)	24+00			4				20						5	0.5
Culvert (R)	34+15			4				20						5	0.5
Culvert (R)	40+00			4				20						5	0.5
<b>Totals:</b>								<b>1170</b>					<b>2550</b>		<b>5.25</b>



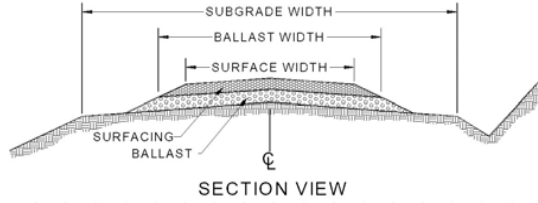
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ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	Pitrun SOURCE	Pitrun WIDTH (ft)	Pitrun DEPTH (in)	Pitrun Quantity(yd <sup>3</sup> /sta)	Pitrun SUBTOTAL(yd <sup>3</sup> )	Crushed SOURCE	Crushed WIDTH (ft)	Crushed DEPTH (in)	Crushed Quantity (yd <sup>3</sup> /sta)	Crushed Subtotal(yd <sup>3</sup> )	Oversize/ Rip rap Source	Oversize/Rip Rap Quantity(yd <sup>3</sup> )
Q-2300 (Cont.)															
Culvert (R)	48+40			4				20						5	0.5
Culvert (I)	55+60			4				20						5	0.5
Culvert (I)	59+50			4				20						5	0.5
Culvert (R)	64+35			4				20						5	0.5
Culvert (I)	70+00			4				20						5	0.5
Q-2345															
Lift	0+00	11+65	17						1	12	8	45	530		
Culvert (I)	0+10			4				20							
Culvert (I)	7+50			4				20						5	0.5
Q-2350															
Lift	0+00	15+10	17						1	12	8	45	680		
Landing	15+10			4				50							
Culvert (I)	11+10			4				20						5	0.5
Q-2360															
New Construction	0+00	7+70	17	4	12	18	110	850							
Culvert (I)	2+35			4				20						5	0.5
Culvert (I)	5+85			4				20						5	0.5
0															
Lift	0+00	2+05	17						1	12	8	45	100		
<b>Totals:</b>								<b>1100</b>					<b>1310</b>		<b>4.5</b>

**ROCK LIST SHEET CONTINUED**



1. Rock quantities, subtotals and totals are "truck measure" estimates. Rock shall be applied to at least the depths listed.
2. All depths are compacted depths.
3. Rock slopes shall be 1½ (H) : 1 (V).
4. All rock sources are subject to approval by the Contract Administrator.
5. Pitrun is defined as pitrun or ballast per Line 6. Crushed is defined as any crushed rock from ¼" minus to 4" minus per Line 6. Oversize is defined as oversize, quarry spalls, light loose rip rap, or heavy loose rip rap per Line 6.
6. Rock sources= 1: Phalen Pit - 4" Jaw, 2: Phalen Pit - Pit Run, 3: Phalen Pit – Rip Rap, 4: Vinegar Pit – Pit Run, 5: Vinegar Pit – Rip Rap, 6: Kostly Pit – 1 1/2" Crushed, 7: Kostly Pit – Pit Run, 8: Kostly Pit – Rip Rap

ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	Pitrun SOURCE	Pitrun WIDTH (ft)	Pitrun DEPTH (in)	Pitrun Quantity(yd <sup>3</sup> /sta)	Pitrun SUBTOTAL(yd <sup>3</sup> )	Crushed SOURCE	Crushed WIDTH (ft)	Crushed DEPTH (in)	Crushed Quantity (yd <sup>3</sup> /sta)	Crushed Subtotal(yd <sup>3</sup> )	Oversize/ Rip rap Source	Oversize/Rip Rap Quantity(yd <sup>3</sup> )
Q-2370 (Cont.)															
Culvert (I)	0+05			4				20						5	0.5
Culvert (I)	4+10			4				20						5	0.5
New Construction	2+05	6+20	17	4	12	18	110	460							
<b>Totals:</b>								<b>500</b>					<b>0</b>		<b>1</b>

## ROCK LIST SHEET GRAND TOTAL

Source	Quantity (yd <sup>3</sup> )
1: Phelan Pit - 4" Jaw Run	9070
2: Phelan Pit - Pit Run	6730
3: Phelan Pit – Oversized	21
4: Vinegar Pit – Pit Run	1660
5: Vinegar Pit – Oversized	7
6: Kostly Pit – 1 1/2" Crushed	795
7: Kostly Pit – Pit Run	110
8: Kostly Pit – Oversized	6

## CULVERT LIST

ROAD NAME	STATION	CULVERT DIAMETER (in)	CULVERT LENGTH (ft)	FLUME LENGTH (ft)	RIP RAP - INLET (cy)	RIP RAP - OUTLET (cy)	BACKFILL MATERIAL	NOTES
Q-1860	0+60	18	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-1860	8+85	18	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-1860	12+40	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-1860	14+60	18	30		0.25	0.25	PR	Install new culvert. Ditch out Left. Add ED.
Q-1860	25+45	18	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-1860	28+80	18	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-1860	35+45	18	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-1860	43+60	18	30		0.25	0.25	PR	Install new culvert. Ditch out Left and Right. Add ED.
Q-1869	4+55	18	30		0.25	0.25	PR	Install new culvert. Ditch out Left. Add ED.
Q-1869	14+15	24	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-1869.1	1+65	18	30		0.25	0.25	PR	Install new culvert. Ditch out Right. Add ED.
Q-1869.1	6+55	24	40		0.25	0.25	PR	Install new culvert. Add ED.
Q-1869.1	6+95	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-1869.1	9+95	24	40		0.25	0.25	PR	Install new culvert. Add ED.
Q-1869.11	2+15	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-1869.2	0+90	24	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-1869.2	4+85	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-1869.2	8+45	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-1869.2	11+40	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-1200*	52+00				0.25	0.25		Clean Inlet and Outlet. Add ED.
Q-1200*	56+20				1	0.25		Cut Inlet back 10'. Clean Inlet and Outlet. Add ED.
Q-1200*	60+25	24	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-1200*	63+80				0.25	0.25		Clean Inlet and Outlet. Add ED.
Q-1200	66+95	18	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-1200	68+85				0.25	0.25		Clean Inlet and Outlet. Add ED.

**All rip rap shall be Oversize unless specified in the Rock List, or in the field.**  
**All backfill shall be native material (NT) unless specified otherwise. CR= 1 ¼"- crushed rock,**  
**PR = pit run. Asterisk (\*) indicates live water culvert.**

**CULVERT LIST**  
**CULVERT LIST Continued**

ROAD NAME	STATION	CULVERT DIAMETER (in)	CULVERT LENGTH (ft)	FLUME LENGTH (ft)	RIP RAP - INLET (cy)	RIP RAP - OUTLET (cy)	BACKFILL MATERIAL	NOTES
Q-1200*	74+25				0.25	0.25		Clean Inlet and Outlet. Add ED.
Q-1200	77+10	24	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-1200	85+80				0.25	0.25		Clean Inlet and Outlet. Add ED.
Q-1200	87+80				0.25	0.25		Clean Inlet and Outlet. Add ED.
Q-500	6+10	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-500	10+40				0.25	0.25		Clean Inlet and Outlet. Add ED.
Q-500	12+85	18	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-500	16+50	18	30		0.25	0.25	PR	Install new culvert. Ditch out Left. Add ED.
Q-500	19+00	18	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-500	23+60	18	30		0.25	0.25	PR	Install new culvert. Ditch out Left. Add ED.
Q-500	26+95	18	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-500	27+95	18	30		0.25	0.25	PR	Install new culvert. Ditch out Left. Add ED.
Q-510	0+10	24	60		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-510	5+80	24	30		0	0.5	PR	Replace existing culvert. Add ED.
Q-520	5+15	18	30		0.25	0.25	PR	Install new culvert. Ditch out Left.
Q-520.1	4+40	18	30		0.25	0.5	PR	Install new culvert. Add ED.
Q-520.1	7+75	18	30		0.25	0.5	PR	Install new culvert. Add ED.
Q-520.1	11+60	18	30		0.25	0.5	PR	Install new culvert. Add ED.
Q-520.1	14+50	18	30		0.25	0.5	PR	Install new culvert. Add ED.
Q-520.1	17+30	18	30		0.25	0.5	PR	Install new culvert. Add ED.
Q-540	0+00	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-540	1+55	24	30		0.25	0.25	PR	Install new culvert. Ditch out Left. Add ED.
Q-540	9+85	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-2300	24+00	18	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-2300	34+15	18	30		0.25	0.25	PR	Replace existing culvert. Add ED.

**All rip rap shall be Oversize unless specified in the Rock List, or in the field.**  
**All backfill shall be native material (NT) unless specified otherwise. CR= 1 ¼"- crushed rock,**  
**PR = pit run. Asterisk (\*) indicates live water culvert.**

**CULVERT LIST**  
**CULVERT LIST Continued**

ROAD NAME	STATION	CULVERT DIAMETER (in)	CULVERT LENGTH (ft)	FLUME LENGTH (ft)	RIP RAP - INLET (cy)	RIP RAP - OUTLET (cy)	BACKFILL MATERIAL	NOTES
Q-2300	40+00	18	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-2300	48+40	18	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-2300	55+60	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-2300	59+50	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-2300	64+35	18	30		0.25	0.25	PR	Replace existing culvert. Add ED.
Q-2300	70+00	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-2345	0+10	18	50		0	0	PR	Install new culvert. Add ED.
Q-2345	7+50	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-2350	11+10	18	30		0.25	0.25	PR	Install new culvert. Ditch out Right. Add ED.
Q-2360	2+35	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-2360	5+85	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Q-2370	0+05	18	40		0.25	0.25	PR	Install new culvert. Add ED.
Q-2370	4+10	18	30		0.25	0.25	PR	Install new culvert. Add ED.
Contingency		18	30					Contingency Pipe
Contingency		18	30					Contingency Pipe
Contingency		18	30					Contingency Pipe

**All rip rap shall be Oversize unless specified in the Rock List, or in the field.**  
**All backfill shall be native material (NT) unless specified otherwise. CR= 1 ¼" - crushed rock,**  
**PR = pit run. Asterisk (\*) indicates live water culvert.**

### COMPACTION LIST

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

DEPARTMENT OF NATURAL RESOURCES

FORM 9-87(Rev. 01-08)

SUMMARY - Road Development Costs

SALE NAME: Fish and Chips

CONTRACT#: 30-104840

REGION: Olympic

DISTRICT: Olympic

LEGAL DESCRIPTION:

	Q-1869.1	Q-1869.11	Q-1869.2	Q-520.1	Q-540	Q-2370	Q-2360	Q-1869.2	Q-1200	Q-500	Q-510	TOTAL:	SHEET #2-4	
ROAD NAME:														
ROAD TYPE:	Construction	Construction	Construction	Construction	Construction	Construction	Construction	Prehaul	Prehaul	Prehaul	Prehaul			
NUMBER OF STATIONS:	11.60	4.70	5.90	18.60	4.50	4.15	7.70	6.90	90.40	32.90	5.90	193.25	1,768.50	
SIDESLOPE:	0%	0%	0%	35%	20%	0%	0%	0%	0%	0%	0%	55%	0%	
CLEARING AND GRUBBING:	1,322	536	673	4,357	626	577	1,071	0	0	0	0	\$9,162	\$0	
ROAD BRUSHING:	0	0	0	0	0	0	0	0	608	136	0	\$744	\$2,672	
EXCAVATION AND FILL:	1,311	531	667	6,305	1,017	469	870	0	0	0	0	\$11,170	\$0	
ROAD GRADING:	0	0	0	0	0	0	0	0	1,875	0	0	\$1,875	\$14,651	
DITCH CLEANING/CONSTRUCTION:	0	0	0	0	0	0	0	538	2,980	1,708	230	\$5,456	\$6,669	
ROCK TOTALS (Cu. Yds.)/ROCK COSTS	0	0	0	0	0	0	0							
Ballast: 8500	8,500	1410	590	740	2250	1010	480	890	40	110	190	40	7750	420
	\$18,823.50	\$7,729.00	\$10,086.20	\$23,625.00	\$10,655.50	\$4,181.24	\$8,259.20	\$539.60	\$1,021.90	\$1,951.30	\$405.20	\$928.80	\$3,735.90	
Surface: 9860	9,865	0	0	0	0	0	0	250	40	1210	210	1710	5120	
(Includes Jaw Run Rock)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,310.00	\$361.60	\$12,124.20	\$2,074.80		\$54,193.65	
Oversize: 34	33	2	1	1	4	1	1	1	6	4	1	21	8	
	\$27.20	\$6.80	\$13.88	\$40.31	\$5.40	\$3.86	\$8.78	\$13.74	\$57.24	\$42.08	\$10.38	\$229.67	\$77.20	
CULVERTS AND FLUMES:	\$3,960.80	\$780.00	\$1,560.00	\$3,900.00	\$780.00	\$780.00	\$1,560.00	\$1,680.30	\$2,460.30	\$5,460.00	\$2,700.90	\$25,622.30	\$15,720.30	
STRUCTURES:	0	0	0	0	0	0	0	0	0	0	0	\$0	\$60,000	
MISC. EXPENSES:	88	27	35	109	26	24	85	672	842	2,820	574	\$5,301	\$10,446	
OVERHEAD:	2,043	769	1,043	3,067	1,049	483	948	540	816	1,939	480	\$13,177	\$13,596	
TOTAL COSTS:	27,575	10,379	14,077	41,404	14,159	6,518	12,802	7,294	11,022	26,181	6,475	\$177,886	\$254,873	
COST PER STATION:	2,377	2,208	2,386	2,226	3,146	1,571	1,663	1,057	122	796	1,098	\$920	144.1183047	

MOBILIZATION:

\$16,800

ROAD DEACTIVATION AND ABANDONMENT COSTS:

\$2,451

Pit Work

\$95,000

NOTE: This appraisal has no allowance for profit and risk.

Sheet 1 of 3

Plans to be furnished by: Austen Dooley

Road Standard	Const.	Reconst.	Prehaul	Posthaul	TOTAL (All Roads) =	\$554,610
Total Costs =	132,514	0	306,253	10,865	SALE VOLUME MBF =	8,879
Total Sta. =	57	0	1,170	1,170	TOTAL COST PER MBF =	\$62.46
Cost per Sta. =	2,319	0	262	9	TOTAL COST PER STATION=	\$282.71
Compiled by:	Austen Dooley				Date:	8/27/24



SUMMARY - Road Development Costs

SALE NAME: Fish and Chips      CONTRACT#: 30-104840      REGION: Olympic      DISTRICT: Olympic  
 LEGAL DESCRIPTION: 0

ROAD NAME:	Q-520	Q-530	Q-540	Q-2300	Q-2300	Q-2345	Q-2350	Q-2370	Q-2310	Q-2100S	Q-1000	Q-1400	Q-1800	Q-2000	Q-1860	Q-1866	Q-1867	Q-1869
ROAD TYPE:	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul	Prehaul
NUMBER OF STATIONS:	17	3	4	73	73	12	15	2	32	2	415	103	150	65	45	1	5	16
SIDESLOPE:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CLEARING AND GRUBBING:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROAD BRUSHING:	0	0	0	0	1,735	0	0	0	874	63	0	0	0	0	241	0	0	0
EXCAVATION AND FILL:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROAD GRADING:	0	0	0	0	658	0	0	0	667	90	7,977	2,140	3,119	1,352	0	0	0	0
DITCH CLEANING/CONSTRUCTION:	1,041	0	156	3,225	0	909	1,178	160	0	0	0	0	0	0	3,299	0	0	1,113
ROCK TOTALS (Cu. Yds.)/ROCK COSTS:																		
Ballast:	90	0	40	0	160	40	70	20	0	0	0	0	0	0	240	0	0	90
	929	0	420	0	1,307	338	592	150	0	0	0	0	0	0	2,969	0	0	1,731
Surface:	600	90	140	20	2,280	530	680	100	20	10	220	50	80	55	2,030	40	190	720
	6,042	1,040	1,435	321	22,960	5,136	6,657	1,007	319	162	2,528	606	1,238	1,606	24,604	496	2,369	13,666
Oversize:	1	0	1	0	4	1	1	1	1	0	0	0	0	0	4	0	0	1
	5	0	11	0	34	4	4	11	8	0	0	0	0	0	50	0	0	19
CULVERTS AND FLUMES:	780	0	1,680	0	6,240	2,080	780	1,040	0	0	3,120	0	0	0	6,240	0	0	1,680
STRUCTURES:	0	0	0	0	0	0	0	0	0	0	60,000	0	0	0	0	0	0	0
MISC. EXPENSES:	1,735	243	429	0	186	1,254	1,630	200	188	13	2,885	804	880	381	3,658	97	526	1,597
OVERHEAD:	843	103	331	284	2,650	778	867	205	164	26	6,121	284	419	267	3,285	47	232	1,585
TOTAL COSTS:	11,375	1,386	4,462	3,830	35,770	10,498	11,708	2,773	2,221	354	82,630	3,834	5,657	3,607	44,346	641	3,126	21,391
COST PER STATION:	669	555	1,115	52	489	901	775	1,353	69	154	199	37	38	55	985	641	579	1,337

Sheet 2 of 3

	Total
Costs	\$249,608
Stations	1034.20
Cost/station	\$241.35

**SUMMARY - Road Development Costs**

SALE NAME: Fish and Chips

CONTRACT#: 30-104840

REGION: Olympic

DISTRICT: Olympic

LEGAL DESCRIPTION: 0

ROAD NAME:

ROAD TYPE:

NUMBER OF STATIONS:

SIDESLOPE:

CLEARING AND GRUBBING:

ROAD BRUSHING:

EXCAVATION AND FILL:

ROAD GRADING:

DITCHing:

ROCK TOTALS (Cu. Yds.)/ROCK COSTS:

Ballast: 0

Surface: 40

Oversize: 0

CULVERTS AND FLUMES:

STRUCTURES:

MISC. EXPENSES:

OVERHEAD:

TOTAL COSTS:

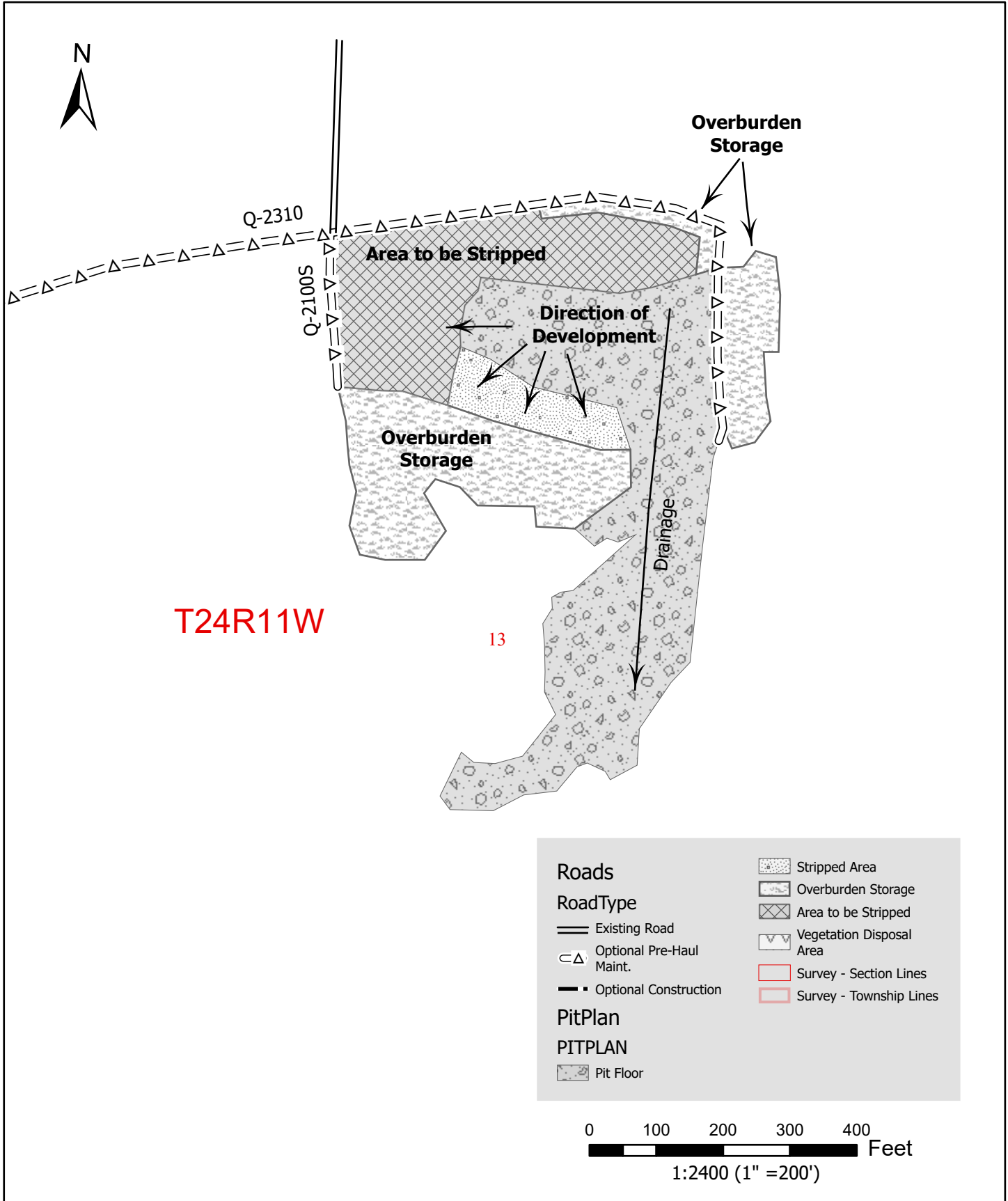
COST PER STATION:

	Q-1000	Q-1400	Q-1800	Q-2000	Q-2300
	Posthaul	Posthaul	Posthaul	Posthaul	Posthaul
NUMBER OF STATIONS:	342.40	103.20	150.40	65.20	73.10
SIDESLOPE:	0%	0%	0%	0%	0%
CLEARING AND GRUBBING:	\$0	\$0	\$0	\$0	\$0
ROAD BRUSHING:	\$0	\$0	\$0	\$0	\$0
EXCAVATION AND FILL:	\$0	\$0	\$0	\$0	\$0
ROAD GRADING:	\$0	\$0	\$0	\$0	\$0
DITCHing:	\$0	\$0	\$0	\$0	\$0
ROCK TOTALS (Cu. Yds.)/ROCK COSTS:					
Ballast: 0	\$0	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0	\$0
Surface: 40	\$125	\$50	\$50	\$55	\$20
	\$1,436	\$606	\$774	\$1,606	\$321
Oversize: 0	\$0	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0	\$0
CULVERTS AND FLUMES:	\$0	\$0	\$0	\$0	\$0
STRUCTURES:	\$0	\$0	\$0	\$0	\$0
MISC. EXPENSES:	\$0	\$0	\$0	\$0	\$0
OVERHEAD:	\$158	\$67	\$85	\$177	\$35
TOTAL COSTS:	\$1,594	\$673	\$859	\$1,783	\$356
COST PER STATION:	\$5	\$7	\$6	\$27	\$5

Sheet 3 of 3

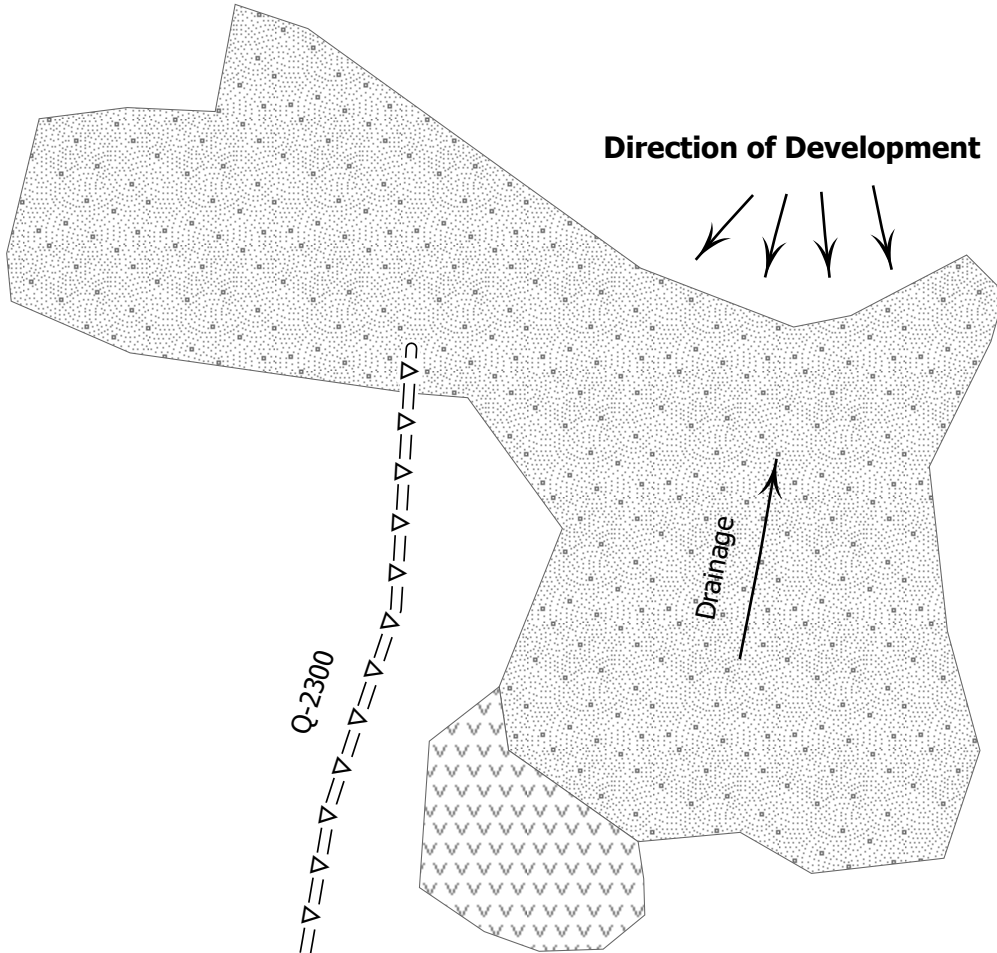
Total  
Costs \$5,265  
Stations 734.30  
Cost/station \$7.17

# PIT DEVELOPMENT PLAN - PHELAN PIT



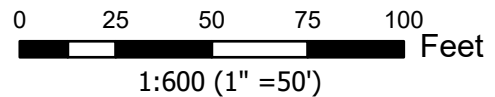
# PIT DEVELOPMENT PLAN - VINEGAR PIT

\* REMOVE VEGETATION AS DIRECTED BY CONTRACT ADMINISTRATOR AND DESPOSE OF IN DESIGNATED VEGETATION DISPOSAL AREA



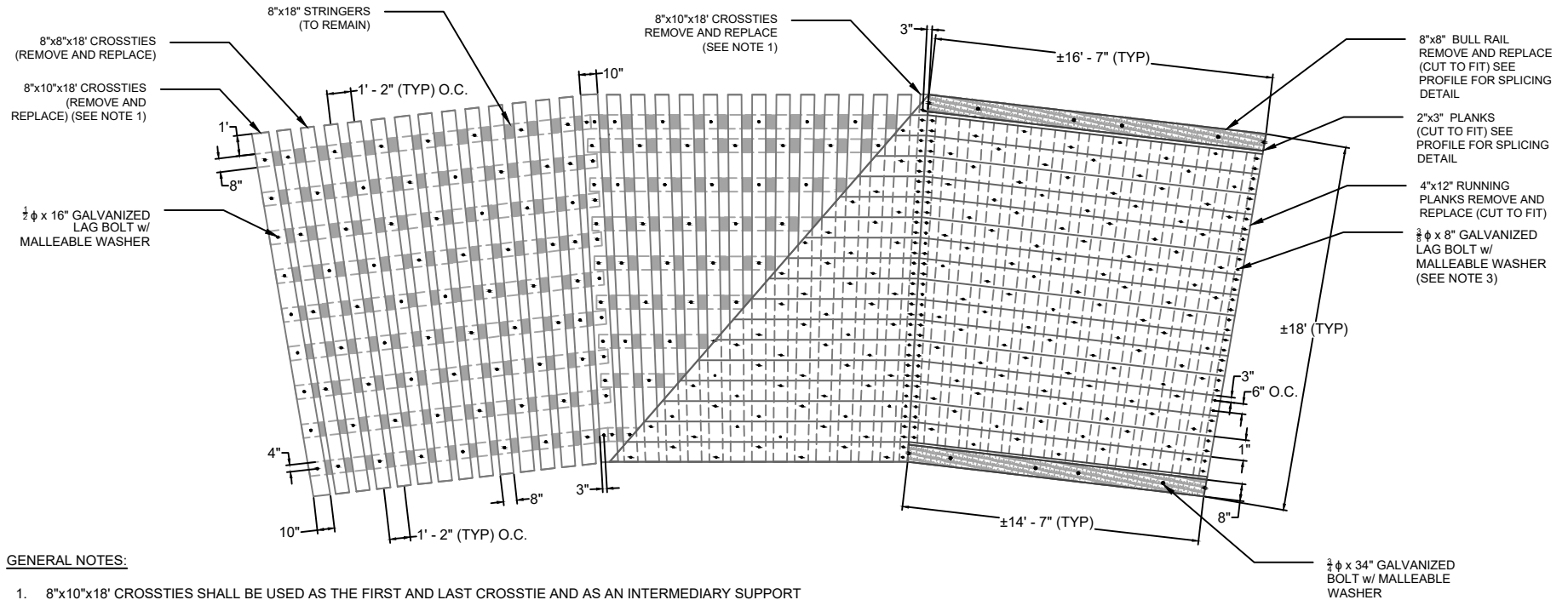
<sup>14</sup>  
**T24R11W**

<b>Roads</b>	Stripped Area
<b>RoadType</b>	Overburden Storage
Existing Road	Area to be Stripped
Optional Pre-Haul Maint.	Vegetation Disposal Area
Optional Construction	Survey - Section Lines
<b>PitPlan</b>	Survey - Township Lines
<b>PITPLAN</b>	
Pit Floor	



# KOSTLY CREEK RE-DECKING

## PLANVIEW



### GENERAL NOTES:

- 8"x10"x18' CROSSSTIES SHALL BE USED AS THE FIRST AND LAST CROSSSTIE AND AS AN INTERMEDIARY SUPPORT DIVIDING EACH BRIDGE SECTION. **ALL OTHER CROSS TIES SHALL BE 8"x8"x18'**
- ALL CROSSSTIES SHALL BE SPACED APPROXIMATELY 1'-2" ON CENTER AND SECURED TO EXISTING STRINGERS WITH 1/2" x 16", COUNTER SUNK, GALVANIZED LAG BOLTS W/ MALLEABLE WASHER. COUNTER SUNK HOLES SHALL BE FILLED W/ ROOF JACK TAR OR EQUIVALENT.
- 4"x12" RUNNING PLANKS SHALL BE SECURED TO THE CROSSSTIES USING 3/8" x 8", COUNTER SUNK, GALVANIZED LAG BOLTS W/ MALLEABLE WASHER. ALL LAG BOLTS SHALL BE PLACES A MINIMUM OF 3" FROM THE EDGE OF THE RUNNING PLANK AND EACH PLANK SHALL HAVE TWO LAG BOLT SECURING EACH END.
- BULL RAILS SHALL BE COMPRISED OF 8"x8" CONTINUOUS BEAMS ON TOP AND 8"x8"x3' BLOCKS ON BOTTOM. THE 8"x8"x3' BLOCKS SHALL BE SPACED APPROXIMATELY 4' APART FROM END TO END AND CENTERED OVER 3 CONSECUTIVE CROSSSTIES. BEAMS AND BLOCKS SHALL BE SECURED TO THE RUNNING PLANKS AND CROSS TIES USING 3/4" x 34" GALVANIZED BOLTS W/ MALLEABLE WASHER. WHERE TO 8"x8" CONTINUOUS BEAMS MEET, THEY SHALL JOINED USING A BULL RAIL SLICE (SEE DETAIL) AND CENTERED OVER A 8"x8"x3' BLOCK. CONTINUOUS 2"x4" PLANKS SHALL BE FASTENED TO THE INSIDE OF THE 8"x8"x3' BLOCKS WITH SIZE 16 GALVANIZED PENNY NAILS.
- THE DISTRICT ENGINEER OR THEIR DESIGNEE SHALL BE ON SITE DURING ALL BRIDGE REPAIR AND MAINTENANCE.

SCALE = 1:8



DESIGNED BY:	AED
DRAWN BY:	AED
DATE:	SEPTEMBER 16, 2024
LOCATION:	SECTION 36 T24N R11W
LOCATION:	47.54137, -124.06429
SCALE:	1:8

## KOSTLY CREEK RE-DECKING

PLANVIEW

FIGURE 1 of 1

TIMBER SALE: FISH AND CHIPS

FISCAL YEAR: 2025

SHEET NUMBER

1 of 2



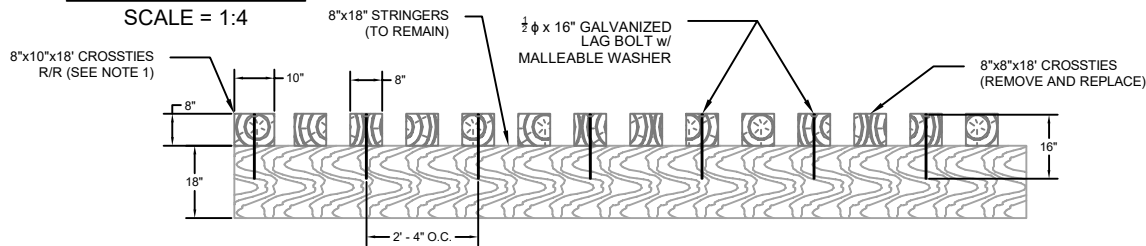
WASHINGTON STATE DEPT OF  
**NATURAL  
RESOURCES**

# KOSTLY CREEK RE-DECKING

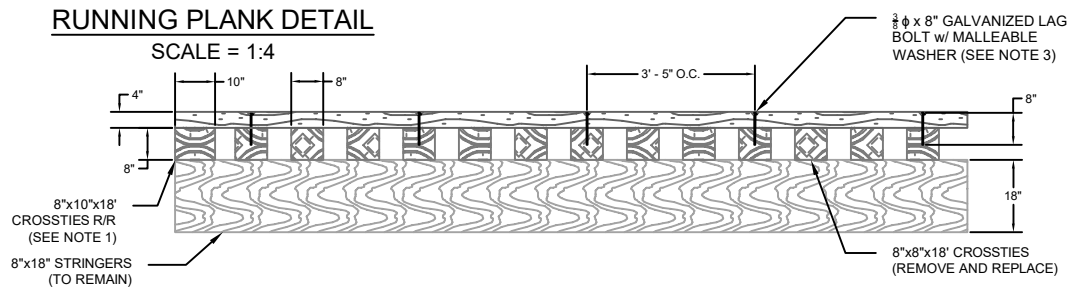
## PROFILE VIEW

## FULL PROFILE DETAIL SCALE = 1:3

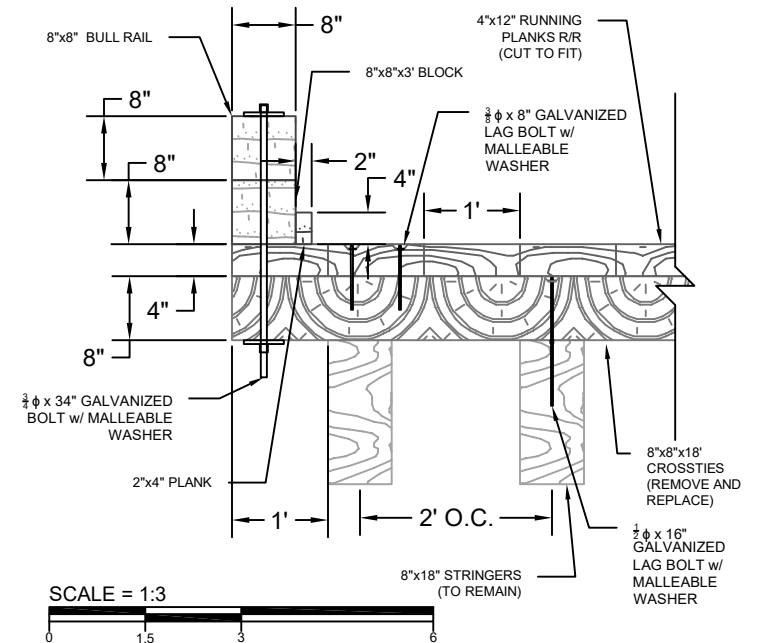
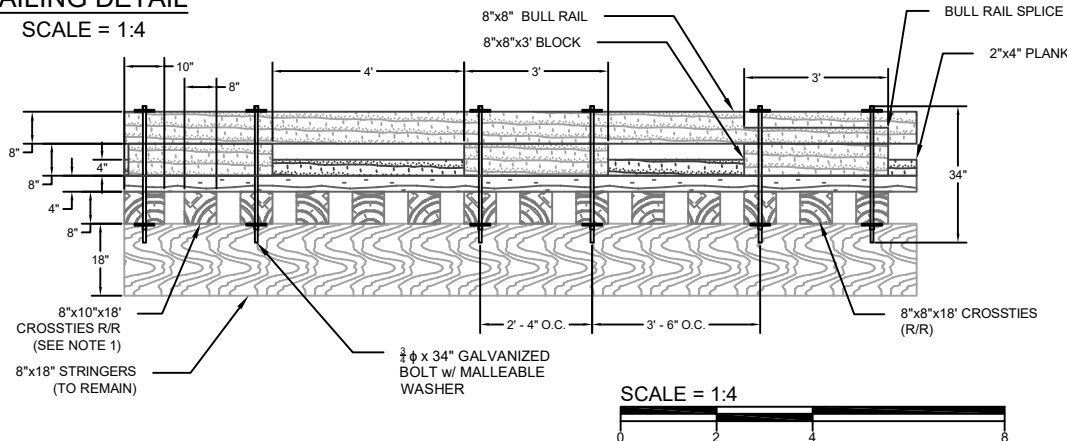
### CROSSTIE DETAIL SCALE = 1:4



### RUNNING PLANK DETAIL SCALE = 1:4



### RAILING DETAIL SCALE = 1:4



#### GENERAL NOTES:

- 8"x10"x18" CROSSTIES SHALL BE USED AS THE FIRST AND LAST CROSSTIE AND AS AN INTERMEDIARY SUPPORT DIVIDING EACH BRIDGE SECTION. **ALL OTHER CROSS TIES SHALL BE 8"x8"x18"**.
- ALL CROSSTIES SHALL BE SPACED APPROXIMATELY 1'-2" ON CENTER AND SECURED TO EXISTING STRINGERS WITH 1/2" x 16", COUNTER SUNK, GALVANIZED LAG BOLTS W/ MALLEABLE WASHER. COUNTER SUNK HOLES SHALL BE FILLED W/ ROOF JACK TAR OR EQUIVALENT.
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- THE DISTRICT ENGINEER OR THEIR DESIGNEE SHALL BE ON SITE DURING ALL BRIDGE REPAIR AND MAINTENANCE.

DESIGNED BY:	AED
DRAWN BY:	AED
DATE:	SEPTEMBER 16, 2024
LOCATION:	SECTION 36 T24N R11W
LOCATION:	47.54137, -124.06429
SCALE:	VARIES

## KOSTLY CREEK RE-DECKING

PLANVIEW

FIGURE 2 of 2

TIMBER SALE: FISH AND CHIPS

FISCAL YEAR: 2025

SHEET NUMBER

2 of 2

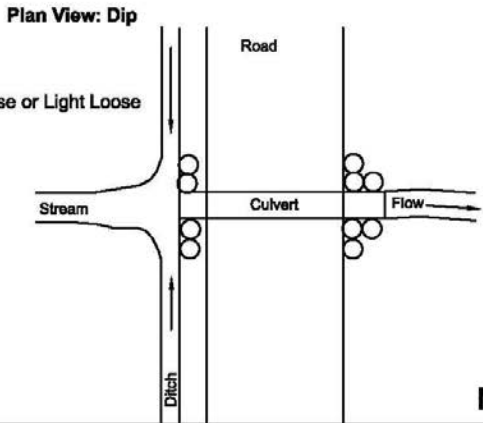
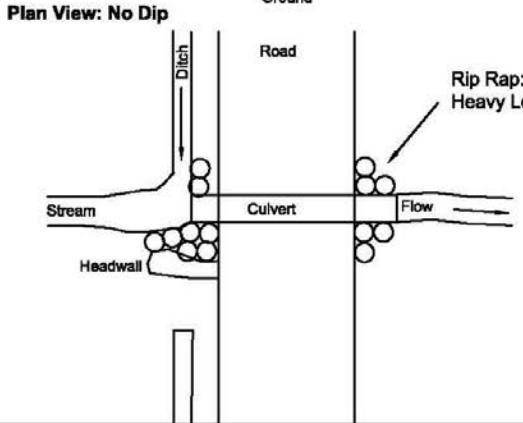
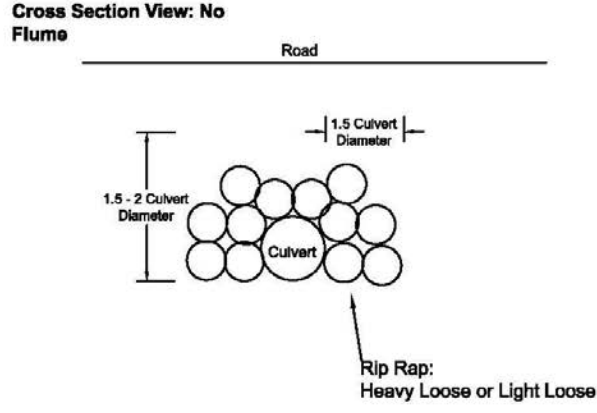
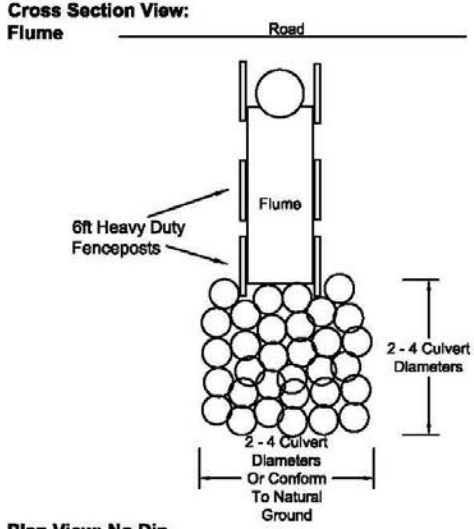
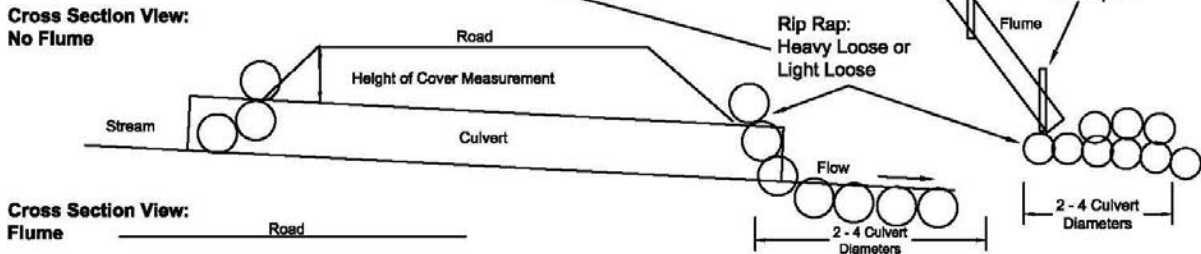
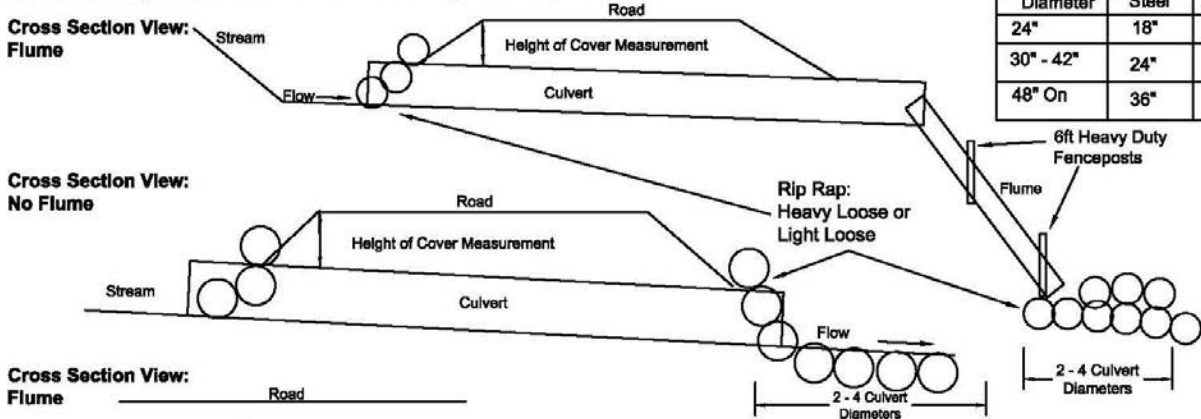


WASHINGTON STATE DEPT OF  
**NATURAL  
RESOURCES**

## Typical Type Ns, Np Culvert Installation Detail Sheet.

- Water shall be diverted away from the work site before any "in stream" work begins, and shall continue until culvert installation is complete.
- Culvert lay shall match stream gradient up to 5%.
- Flumes longer than 10ft shall be staked on both sides at maximum intervals of 10ft with 6ft heavy duty steel fence posts, and fastened securely to the posts with No. 10 galvanized smooth wire or bolted to the fence posts.
- Rip rap shall be placed using a "zero height drop method", and shall be set in conjunction with the culvert installation.
- Rip rap shall be placed at headwalls, along the fill at the inlet, and at the end off flumes in accordance with this Detail. On culverts with no flume rip rap shall be placed along the fill at the outlet, unless there is stream drop or it is called for in the Road Plan, at which point it will be installed as an energy dissipater at the end of the culvert as specified in this Detail. All rip rap distance to be determined by the Contract Administrator or the District Engineer.
- Backfill compaction shall be achieved using a jumping jack, walk behind vibratory roller, or plate compactor on lifts not to exceed 8in. 3 complete passes per lift is required for compaction. Backfill shall be placed and compacted evenly on both sides of the culvert. Care shall be taken to ensure adequate compaction of backfill material under the haunches of the pipe. Excavation trench width shall be at least culvert diameter plus 3 times the width of the compactor footprint used.

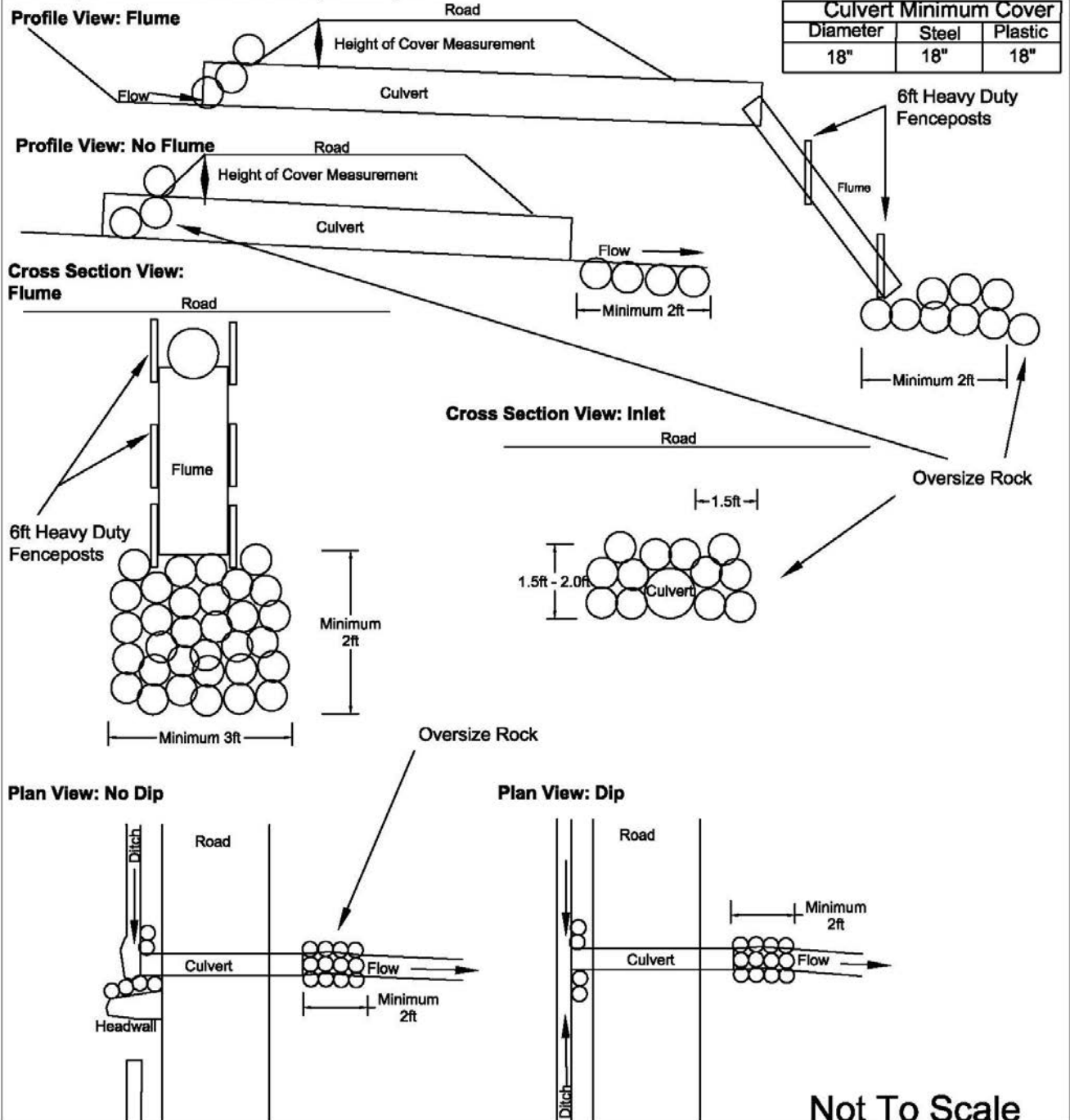
Culvert Minimum Cover		
Diameter	Steel	Plastic
24"	18"	24"
30" - 42"	24"	24"
48" On	36"	36"



**Not To Scale**

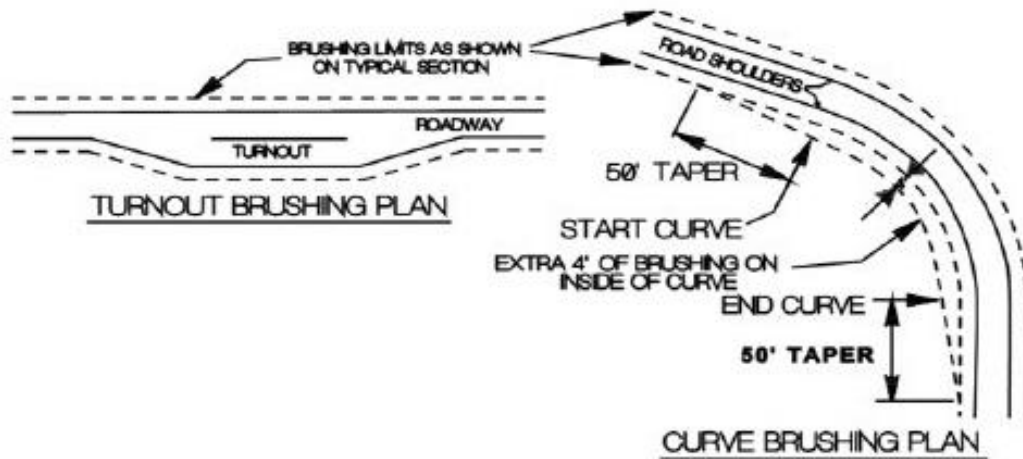
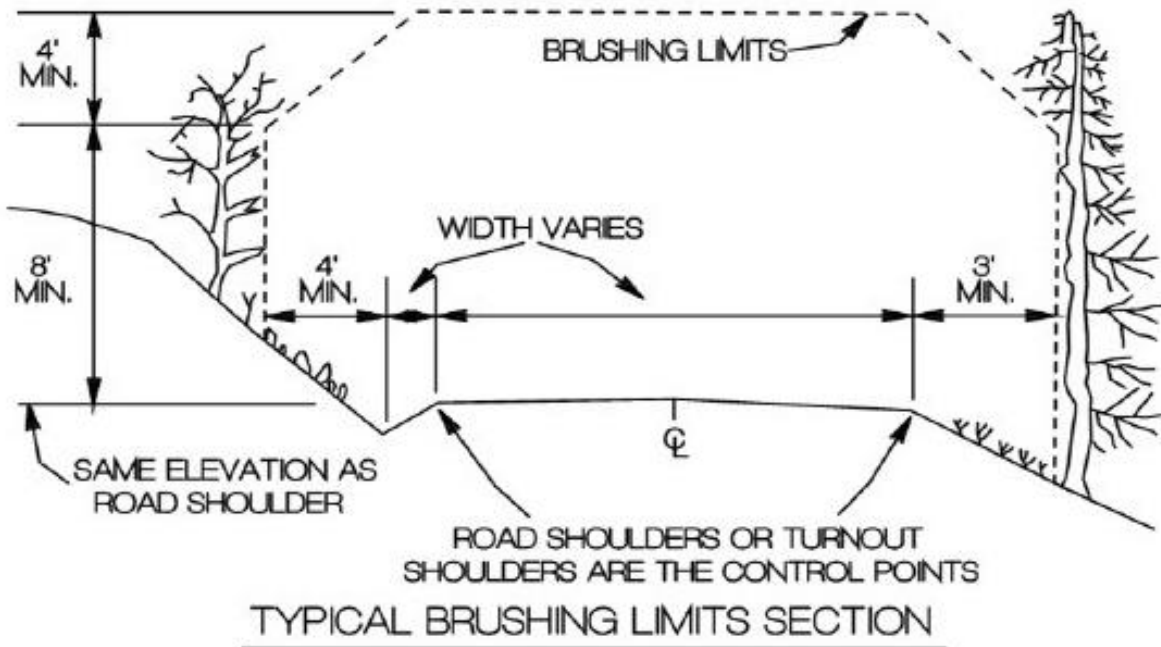
# Typical Cross Drain Culvert Installation Detail Sheet

- Culvert lay shall not exceed 10%.
- Flumes longer than 10ft shall be staked on both sides at maximum intervals of 10ft with 6ft heavy duty steel fence posts, and fastened securely to the posts with No. 10 galvanized smooth wire or bolted to the fence posts.
- Oversize shall be placed using a "zero height drop method", and shall be set in conjunction with the culvert installation.
- Oversize shall be placed at headwalls, along the fill at the inlet, and at the end off flumes in accordance with this Detail. On culverts with no flume oversize shall be placed at the outlet as an energy dissipater as specified in this Detail. All oversize distance to be determined by the Contract Administrator.
- Backfill compaction for installations on existing roads shall be achieved using a jumping jack, or plate compactor on lifts not to exceed 8in. 3 complete passes per lift is required for compaction. Backfill shall be placed and compacted evenly on both sides of the culvert. Care shall be taken to ensure adequate compaction of backfill material under the haunches of the pipe. Excavation trench width shall be at least culvert diameter plus at least the width of the compactor footprint used..



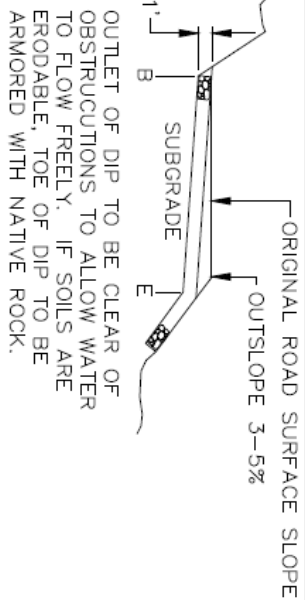
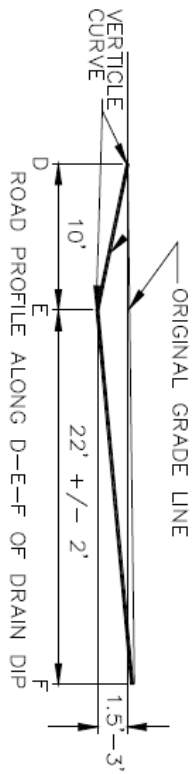
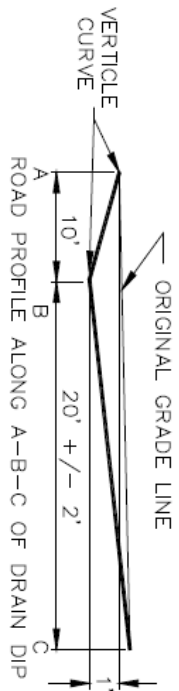


# BRUSHING DETAIL

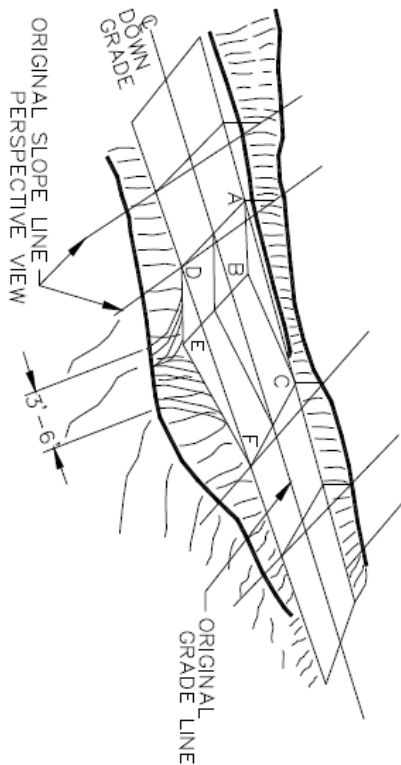


- 1) ALL VEGETATION WITHIN THE BRUSHING LIMITS SHALL BE CUT TO WITHIN 8' OF THE GROUND, UNLESS OTHERWISE DIRECTED BY THE CONTRACT ADMINISTRATOR.
- 2) ALL BRUSH, TREES, LIMBS, ETC. SHALL BE REMOVED FROM THE ROAD SURFACE.
- 3) ALL BRUSH, TREES, LIMBS, ETC. THAT MAY RESTRICT THE FLOW OF WATER SHALL BE REMOVED FROM THE DITCH LINE.
- 4) ALL DEBRIS THAT MAY ROLL OR MIGRATE INTO THE DITCHLINE SHALL BE REMOVED.

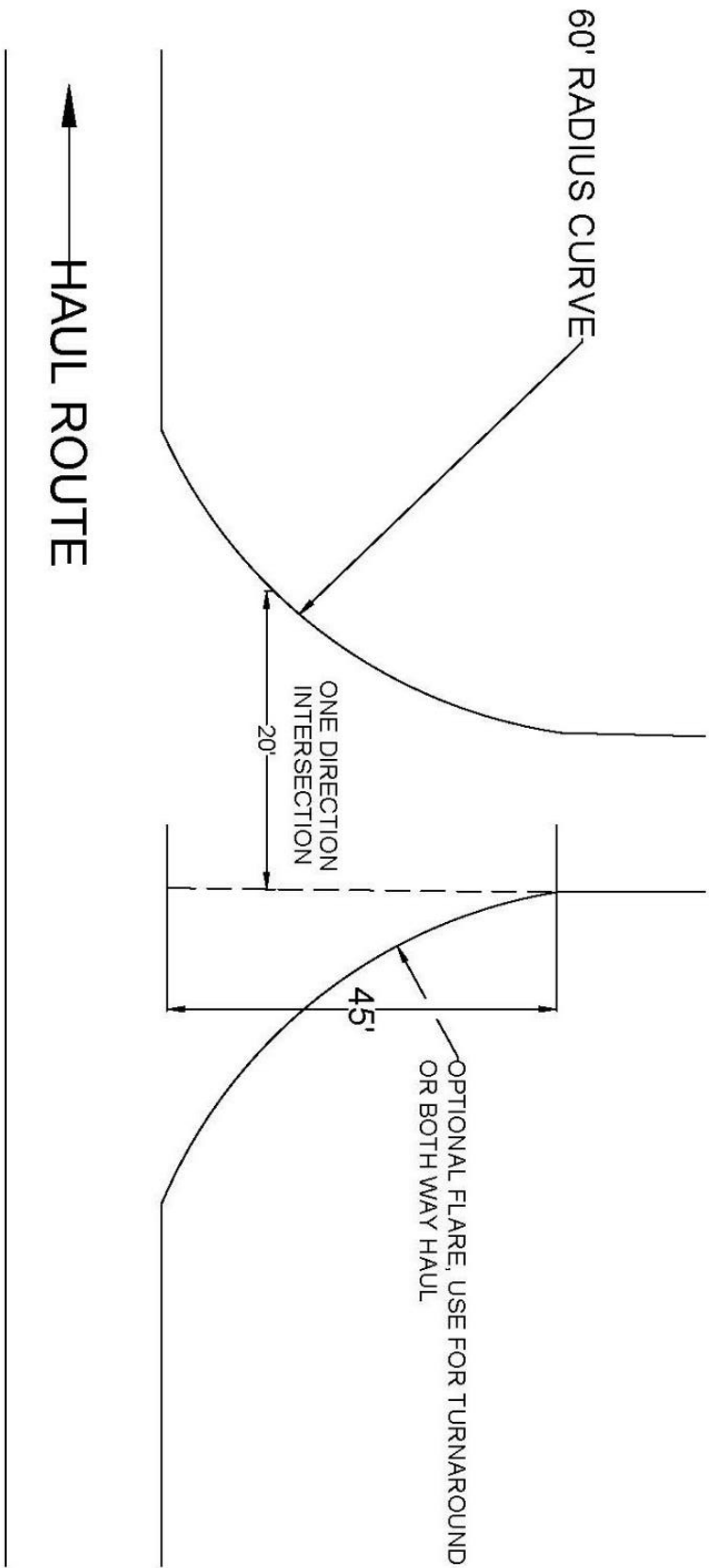
# ROLLING DIP DETAIL



NOTE: PLAN OF DIP SHOWN IS FOR OUTSLOPED ROLLING DIP. DIPS MAY BE EITHER INSLOPED OR OUTSLOPED. WHEN INSLOPED, DIPS SHALL DRAIN FREELY INTO DITCHES OR CULVERT INLETS. WHEN OUTSLOPED, THEY SHALL DRAIN FREELY ONTO NATURAL GROUND. WHERE SOILS ARE ERODABLE, OUTLET SHALL BE ARMORED WITH NATIVE ROCK. THE MINIMUM CROSS GRADE FROM "B" TO "E" IS 4% GREATER THAN THE ROAD SURFACE SLOPE. SKEW LINE B-E TO FIT LOW POINT IN DRAIN, IF LOCATED IN NATURAL DRAIN.



# TYPICAL INTERSECTION



NOT TO SCALE

## FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

### Cuts and Fills

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

### Surface

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

### Drainage

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

### Preventative Maintenance

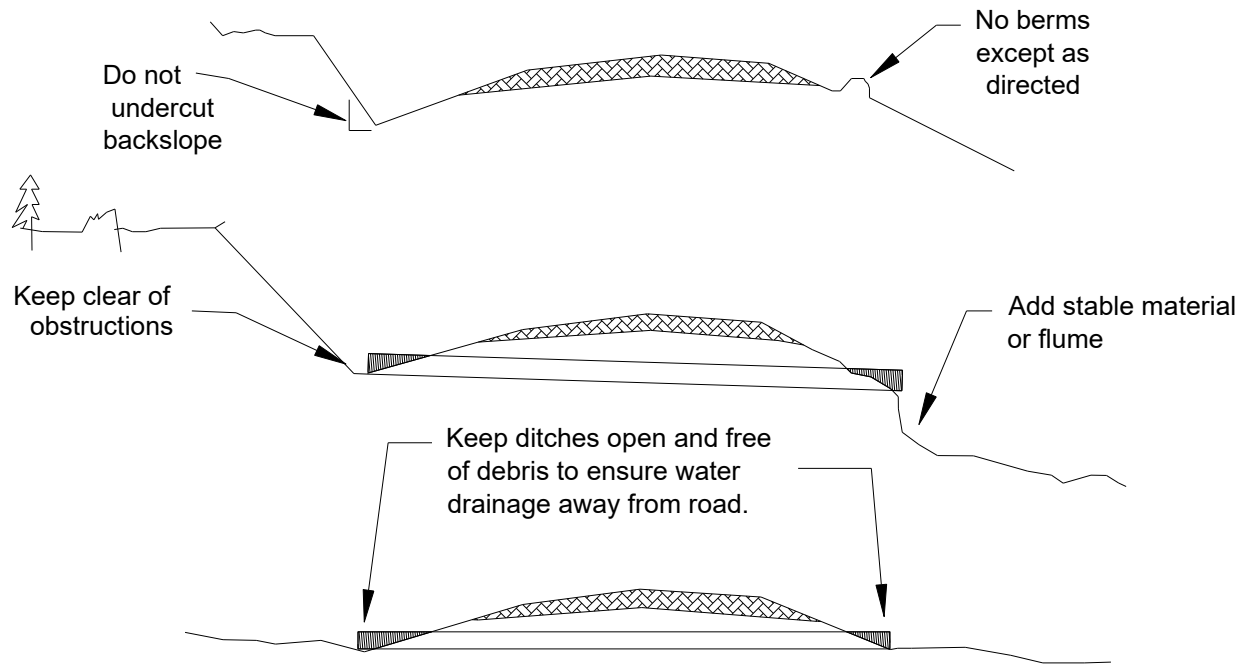
Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

### Termination of Use or End of Season

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

## Debris

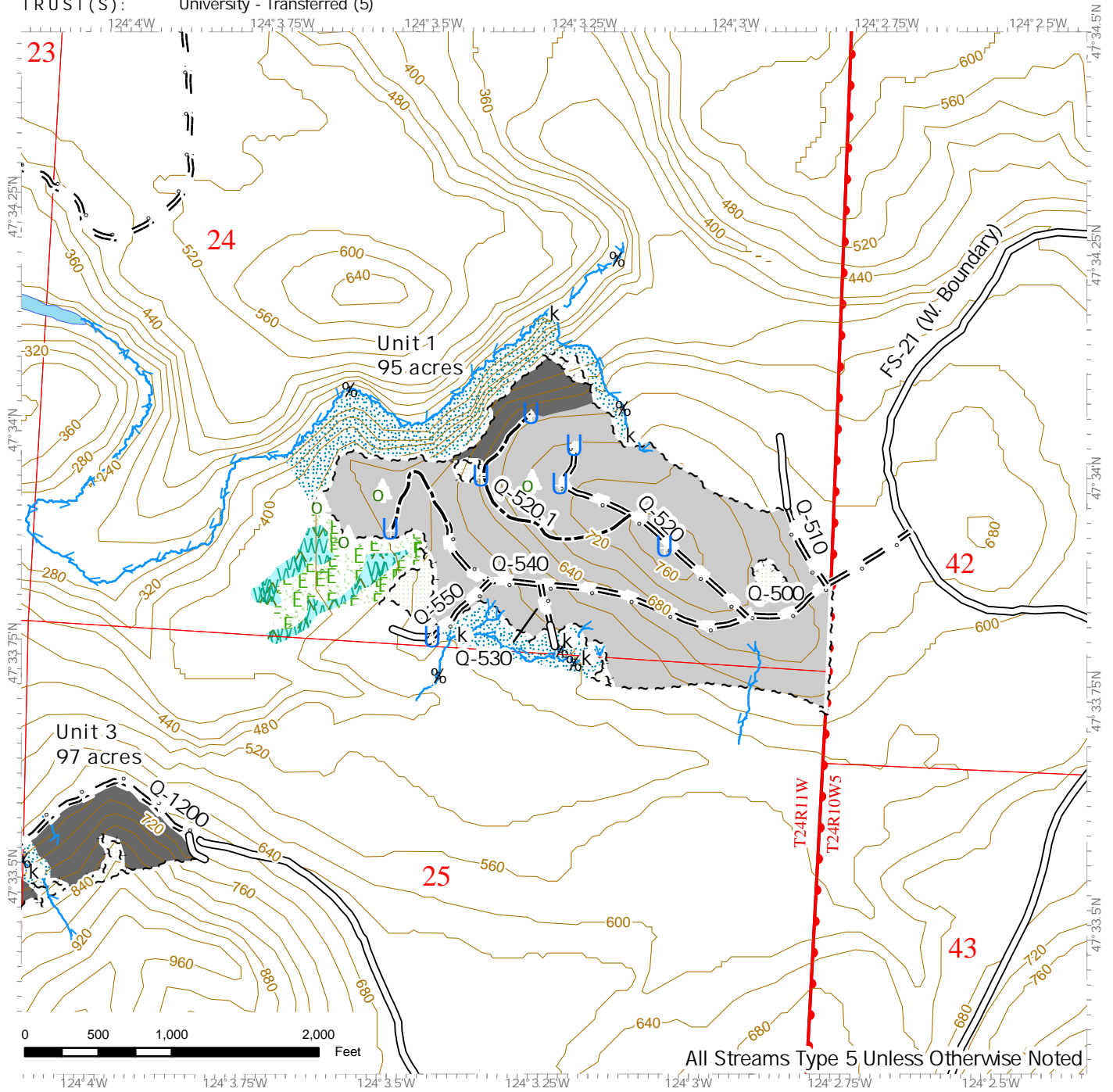
Remove fallen timber, limbs, and stumps from the slopes, roadway, ditchlines, and culvert inlets.



# LOGGING PLAN MAP

SALE NAME: FISH AND CHIPS  
 AGREEMENT #: 30-104810  
 TOWNSHIP(S): T24R11W  
 TRUST(S): University - Transferred (5)

REGION: Olympic Region  
 COUNTY(S): Jefferson  
 ELEVATION RGE: 370-920

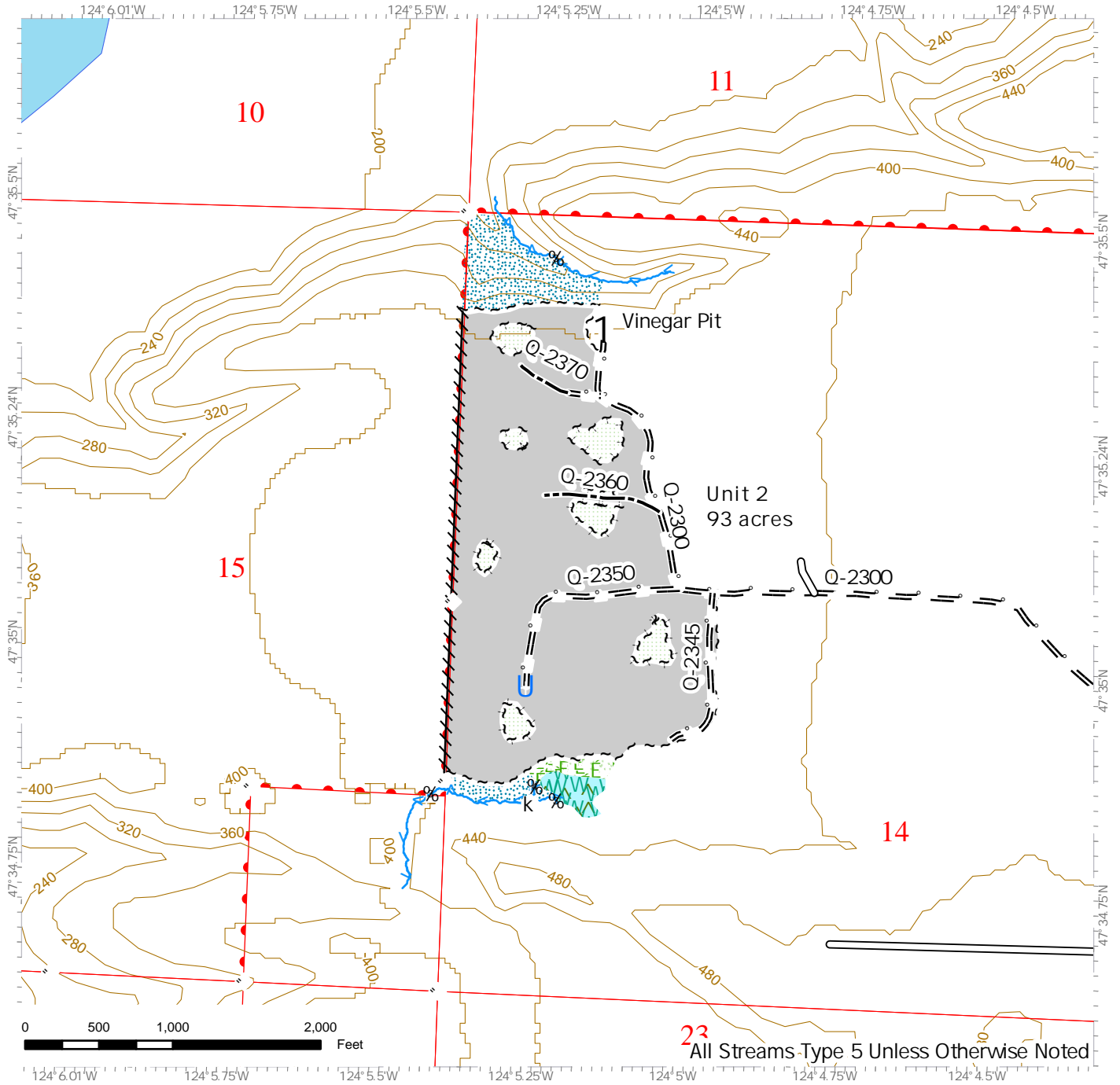


Cable	Sale Boundary Tags	Leave Tree Area < 1/4-acre
Ground	Leave Tree Tags	Landing
Leave Tree Area	Existing Road	Public Land Survey Townships
Forested Wetland	Optional Construction	Public Land Survey Sections
Wetland Mgt Zone	Optional Pre-Haul Maint.	DNR Managed Lands
Riparian Mgt Zone	Contours 40 ft	
	Stream Type	
	Stream Break	

# LOGGING PLAN MAP

SALE NAME: FISH AND CHIPS  
 AGREEMENT #: 30-104810  
 TOWNSHIP(S): T24R11W  
 TRUST(S): University - Transferred (5)

REGION: Olympic Region  
 COUNTY(S): Jefferson  
 ELEVATION RGE: 370-920

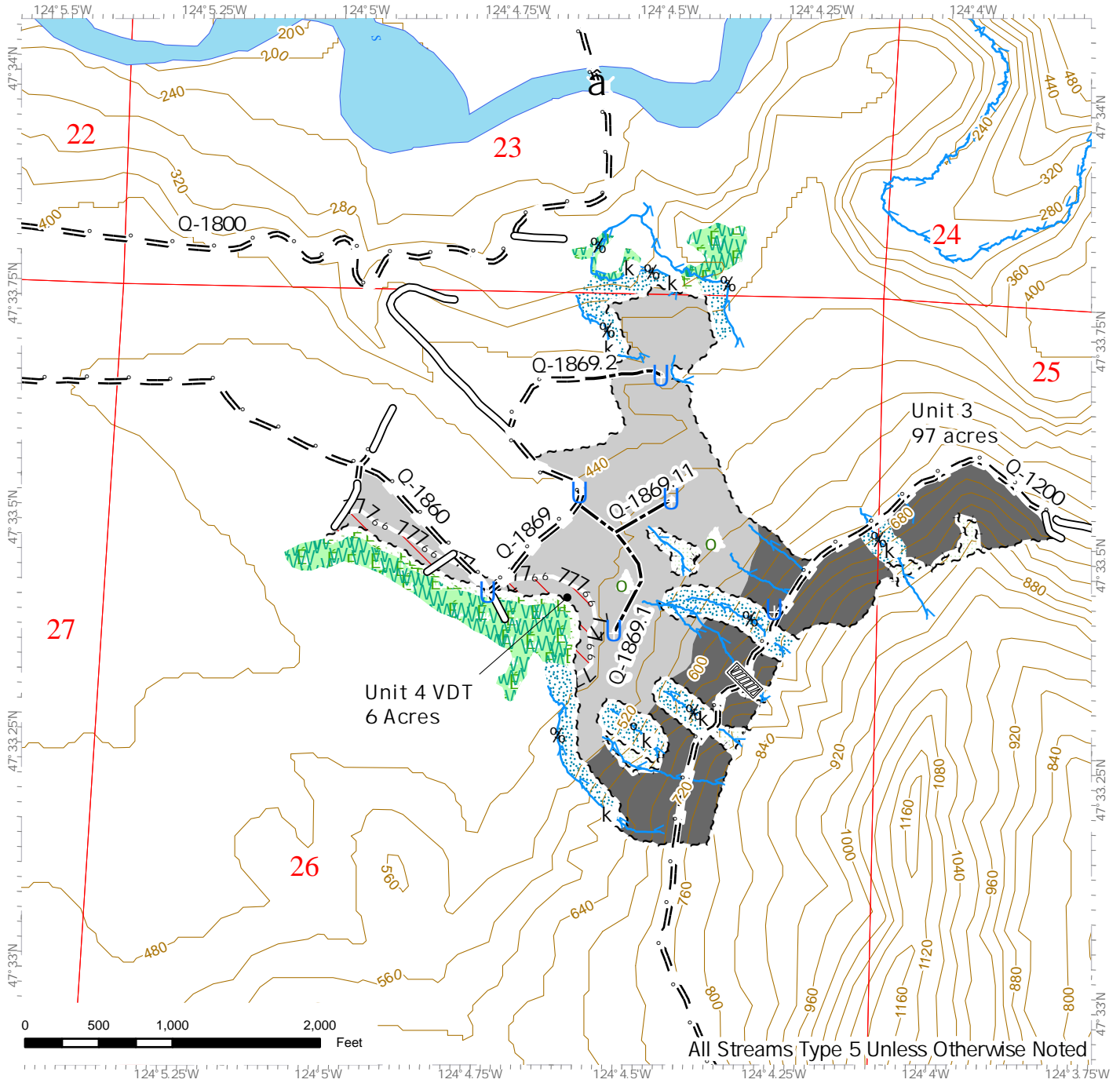


Ground	Sale Boundary Tags	Stream Break
Leave Tree Area	Leave Tree Tags	Survey Monument
Forested Wetland	Flag Line	Landing
Wetland Mgt Zone	Existing Road	Rock Pit
Riparian Mgt Zone	Optional Construction	Public Land Survey Townships
	Optional Pre-Haul Maint.	Public Land Survey Sections
	Contours 40 ft	DNR Managed Lands
	Stream Type	

# LOGGING PLAN MAP

SALE NAME: FISH AND CHIPS  
 AGREEMENT #: 30-104810  
 TOWNSHIP(S): T24R11W  
 TRUST(S): University - Transferred (5)

REGION: Olympic Region  
 COUNTY(S): Jefferson  
 ELEVATION RGE: 370-920



All Streams Type 5 Unless Otherwise Noted

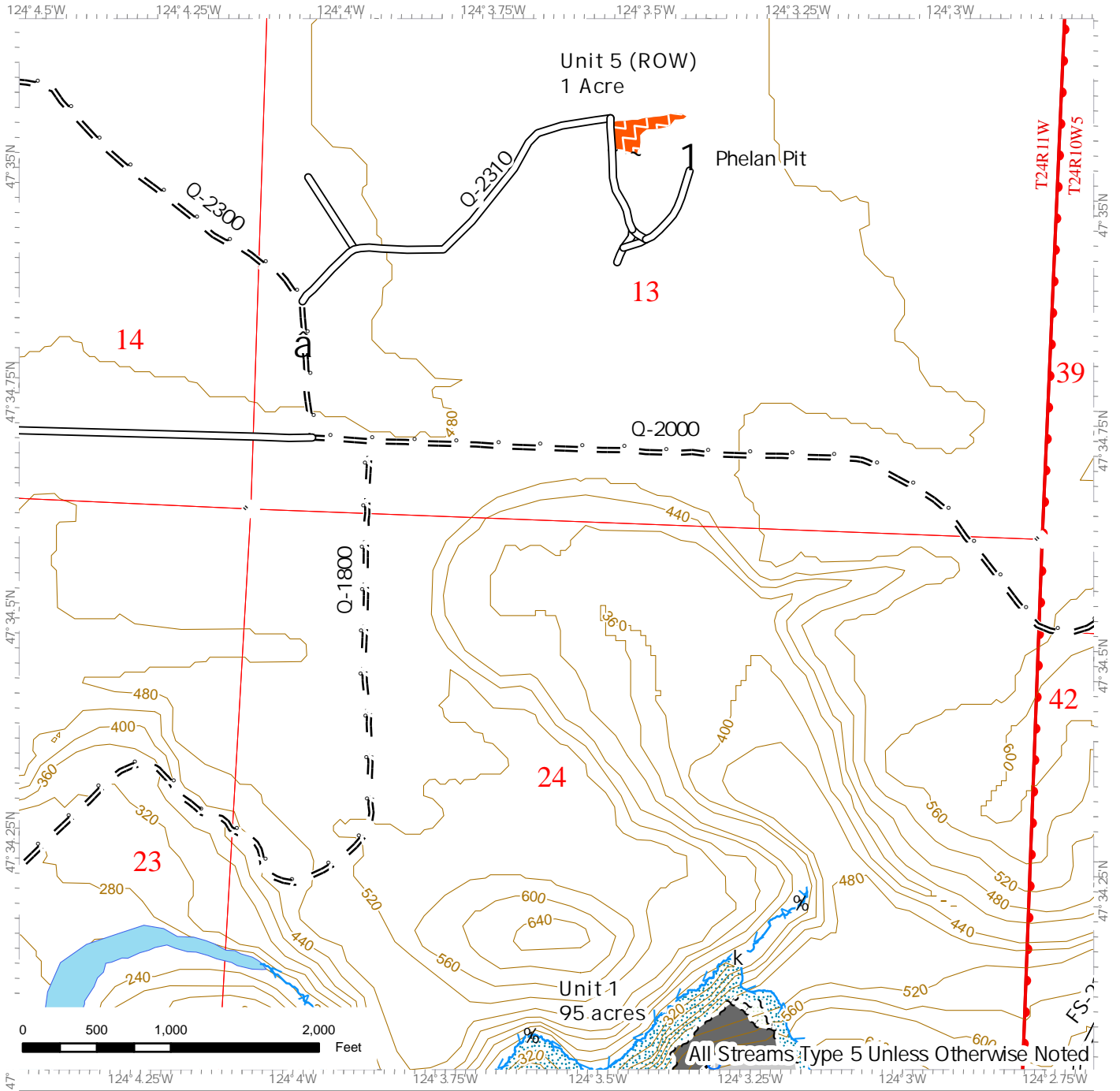
Cable	Sale Boundary Tags	Stream Break
Ground	Leave Tree Tags	Culvert
Leave Tree Area	Special Mgmt Area	Leave Tree Area < 1/4-acre
Forested Wetland	Existing Road	Bridge
Wetlands - Non-forested	Optional Construction	Landing
Wetland Mgt Zone	Optional Pre-Haul Maint.	Public Land Survey Townships
Riparian Mgt Zone	Contours 40 ft	Public Land Survey Sections
Variable Density Thinning	Stream Type	DNR Managed Lands



# LOGGING PLAN MAP

SALE NAME: FISH AND CHIPS  
 AGREEMENT #: 30-104810  
 TOWNSHIP(S): T24R11W  
 TRUST(S): University - Transferred (5)

REGION: Olympic Region  
 COUNTY(S): Jefferson  
 ELEVATION RGE: 370-920



All Streams Type 5 Unless Otherwise Noted

	Cable		Sale Boundary Tags		Stream Break
	Ground		Leave Tree Tags		Survey Monument
	Leave Tree Area		Right of Way Tags		Bridge
	Riparian Mgt Zone		Existing Road		Landing
	Right-of-Way Harvest		Optional Construction		Rock Pit
			Optional Pre-Haul Maint.		Public Land Survey Townships
			Contours 40 ft		Public Land Survey Sections
			Stream Type		DNR Managed Lands

SS-000389

206950

RE- ESTATE EXCISE TAX

By *Don F. Smith* Paid 7-15-68  
DON F. SMITH, TREASURER  
Grays Harbor County, Montesano, Wash.  
By *Deputy* Deputy

5649

DK  
800

EASEMENT

THIS AGREEMENT, made and entered into as of the 5th day of July, 1968, by and between MORRISON LOGGING COMPANY, a Washington corporation, herein called "Grantor", and STATE OF WASHINGTON, acting by and through the Department of Natural Resources, herein called "Grantee", WITNESSETH:

Grantor for and in consideration of Nine Thousand Dollars (\$9,000.00) and other valuable consideration, in hand paid, receipt thereof is hereby acknowledged, grants and conveys to the STATE OF WASHINGTON, DEPARTMENT OF NATURAL RESOURCES, Grantee, its successors and assigns, a permanent non-exclusive easement over and across the following described lands in Grays Harbor and Jefferson Counties, State of Washington, to-wit:

A strip of land 100 feet in width over and across:  
Government Lots 1, 2, 3 and 6, Section 3, Township 23 North, Range 12 West, W.M., in Grays Harbor County, Washington, and Government Lots 5, 6 and 7, Section 36, Township 24 North, Range 12 West, W.M., in Jefferson County, Washington; being 50 feet on each side of the centerline located approximately as shown on attached plats marked Exhibits A and B.  
Subject, however, to all matters of public record.

11

The parties hereto hereby agree that the rights hereinabove granted shall be subject to the following terms and conditions:

1. This easement is conveyed for the purposes of reconstruction, use, and maintenance of an existing road for the purpose of hauling forest products and other valuable materials and to provide access to and from lands now owned or hereafter acquired by the Grantee for land management and administrative activities.
2. Grantor reserves for itself, its successors and assigns, the right at all times and for any purpose to go upon, cross and recross at any place on grade or otherwise said right of way on lands owned by it and use the road on said right of way in a manner that will not unreasonably interfere with the rights granted to the Grantee hereunder.

106915  
RECORDED AT Jefferson  
Vol. 4 of Public Records  
Page 20 of 4 Request of State of Washington  
JUL 31 1968  
BETTY J. TEMPLE, Jefferson County Auditor  
By Deputy Deputy  
Recorded 2 Indexed 2 Proof Road 2

*APM*

Dept of Natural Resources  
Box 168  
Olympia, Wash. 98501

Jefferson  
4 of 420

GENERAL Sharp Harbor  
VOL 20 PAGE 295

3. Grantor may grant to third parties, upon such terms as it chooses, any or all of the rights reserved by it herein; provided, that use by such party shall be subject to the terms and conditions of this easement and shall not unreasonably interfere with the rights granted to the Grantee hereunder.

4. Grantee herein may permit its respective contractors, licensees, purchasers of timber or other valuable materials, and their agents, hereinafter collectively referred to as "Permittees", to exercise the rights granted to it herein.

5. The cost of road maintenance and resurfacing shall be allocated on the basis of respective uses of said road. When any party uses the road, that party shall perform or cause to be performed, or contribute or cause to be contributed, that share of maintenance and resurfacing occasioned by such use as hereinafter provided. During periods when the road is being used solely by one party, such party shall maintain that portion of said road so used to the standards existing at the time use is commenced. During periods when more than one party is using the road, or any portion thereof, the parties hereto shall meet and establish necessary maintenance provisions. Such provisions shall include, but shall not be limited to:

(a) the appointment of a maintainer, which may be one of the parties hereto or any third party, who will perform or cause to be performed at a reasonable and agreed upon rate the maintenance and resurfacing of the road or the portion thereof being used; and

(b) a method of payment by which each party using said road or a portion thereof, shall pay its pro rata share of the cost incurred by said maintainer in maintaining or resurfacing said road or portion thereof.

6. Each party using any portion of a road shall repair or cause to be repaired at its sole cost and expense that damage to said road occasioned by

it which is in excess of that which it would cause through normal and prudent usage of said road.

7. Grantor reserves to itself all timber now on or hereafter growing within the rights of way; provided, that such trees that are necessary to cut to satisfy the purpose of this easement may be removed upon obtaining written consent and payment, in advance of felling, of the appraised value thereof.

8. Each party hereto shall require each of its Permittees, before using the road to:

(a) obtain and during the term of such use maintain a policy of liability insurance in a form generally acceptable in the trade and customary in the area of said right of way, insuring said Permittee against liability arising out of its operations, including use of vehicles. Minimum amounts of insurance shall be One Hundred Thousand Dollars (\$100,000.00) for injury to one person, Three Hundred Thousand Dollars (\$300,000.00) for any one occurrence, and One Hundred Thousand Dollars (\$100,000.00) property damage for any one occurrence; and

(b) deliver to each party hereto a certificate from the insurer of said Permittee certifying that coverage is not less than the above named amounts is in force and that in the event of cancellation or modification of such coverage, the insurer will give each party hereto ten (10) days' written notice prior to any cancellation or modification.

9. Grantee shall include in each contract for the sale of and in each sale of land, timber or other valuable material provisions requiring the purchaser of said land, timber or other valuable material to indemnify and hold harmless Grantor from all loss, cost, liability, damage or expense of any kind for injury to or death of persons or damage to or loss of property arising out of or connected with the use or occupancy by said purchaser and his agents, employees and contractors of the above-described easement and the

road to be constructed thereon, and requiring said purchaser and his agents, employees and contractors to comply with each and every term and condition hereof.

IN WITNESS WHEREOF, the parties hereto have executed this instrument, in duplicate, as of the day and year first above written.

MORRISON LOGGING COMPANY

By *May D. Morrison* Title  
*President*

By *E. J. Morrison* Title  
*Deputy James.*

STATE OF WASHINGTON  
acting by and through the  
Department of Natural Resources

By *Bert Cole*  
BERT L. COLE  
Commissioner of Public Lands



STATE OF WASHINGTON )  
COUNTY OF Grays Harbor ) ss.

On this 5th day of July, 1968, before me personally appeared Wesley J. Morrison, C.V. Morrison to me known to be the President - Secretary-Treasurer, respectively of Morrison Logging Company, the corporation that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that they were authorized to execute said instrument and that the seal affixed is the corporate seal of said corporation.

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

Lester T. Pooker  
Notary Public in and for the State of Washington, residing at Abandon.

STATE OF WASHINGTON )  
COUNTY OF THURSTON ) ss.

On this 11th day of July, 1968, before me personally appeared Bert L. Cole, to me known to be the Commissioner of Public Lands, and ex officio administrator of the Department of Natural Resources of the State of Washington, the Department that executed the within and foregoing instrument on behalf of the State of Washington, and acknowledged said instrument to be the free and voluntary act and deed of the State of Washington for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the official seal of the Commissioner of Public Lands for the State of Washington.

IN WITNESS WHEREOF, I have hereunto set my hand and seal the day and year set forth above.

Helen A. Bourgeois  
Notary Public in and for the State of Washington, residing at Olympia.

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

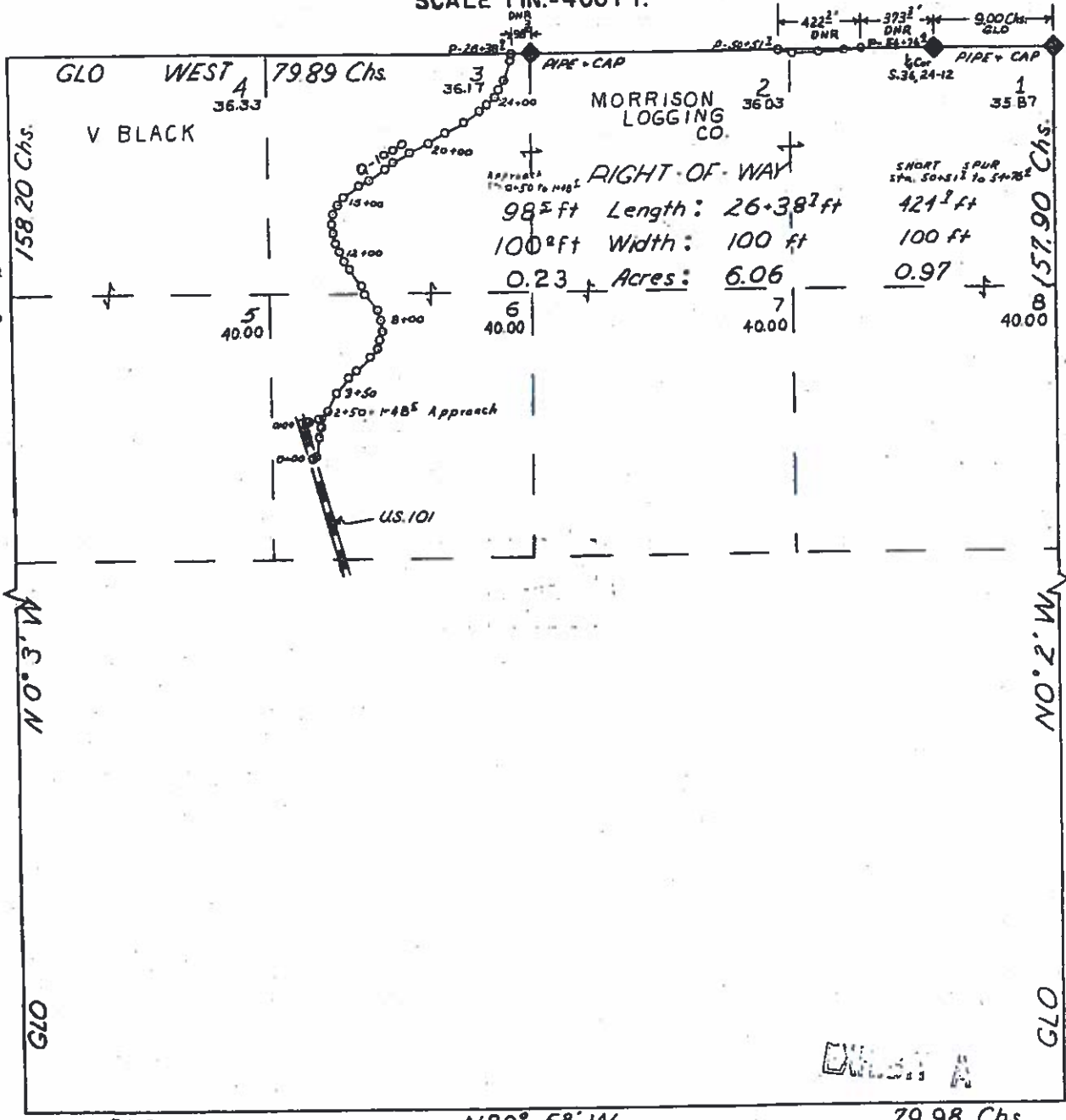
50-512 5750 462  
51-18 48826 190  
51-58 48726 128  
53-86 4880 303  
54-762 4880 303

RIGHT OF WAY PLAT  
FR-Q-1000 ROAD  
SEC. 3 T.23N. R.12W. W.M.  
GRAYS HARBOR COUNTY WASH.

SCALE 1 IN. = 400 FT.

0+00 N88E 15  
0+16 N11E 120  
1+15 N12E 50  
1+65 N20E 85  
2+50 N28E 100  
3+50 N30E 100  
4+50 N35E 50  
5+00 N40E 100  
6+00 N40E 50  
6+50 N20E 100  
7+00 N15E 50  
7+50 N45W 50  
8+00 N18W 50  
9+50 N15W 100  
9+50 N25W 50  
10+00 N23W 100  
11+00 N22W 50  
11+50 N28W 50  
12+00 N22W 50  
12+50 N14W 50  
13+00 N15W 50  
13+50

2+50 N88E 50  
3+00 N20E 50  
4+00 N18E 50  
5+00 N54E 100  
6+00 N52E 50  
7+00 N52E 100  
8+00 N52E 50  
9+00 N52E 100  
10+00 N52E 50  
11+00 N52E 100  
12+00 N52E 50  
13+00 N52E 100  
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21+00 N52E 100  
22+00 N52E 50  
23+00 N52E 100  
24+00 N52E 50  
25+00 N52E 100  
26+00 N52E 50  
26+18



158.20 Chs  
172E 32'  
372E 62'  
0+00  
154E 53'  
14+82 2+50  
Q-1000

GLO

N89° 58' W

79.98 Chs.



DECLINATION 22 1/2° E  
TRAVERSED BY: G. C. WATTERS  
DRAWN BY: G. C. WATTERS  
DATE: 6-27-67  
APPLICATION NUMBER 37356

VOL 4 PAGE 425  
GENERAL  
VOL 20 PAGE 300

I, WILLIAM G. MURDOCK, SUPERVISOR OF FOREST ENGINEERING, DO HEREBY CERTIFY THAT THIS MAP ACCURATELY REPRESENTS THE LOCATION OF SAID ACCESS ROAD ACROSS SECTION 3 TOWNSHIP 23 NORTH, RANGE 12 WEST WILLAMETTE MERIDIAN

William G. Murdock  
SUPERVISOR OF FOREST ENGINEERING

STATE OF WASHINGTON  
 DEPARTMENT OF NATURAL RESOURCES  
 RIGHT OF WAY PLAT

FR-Q-1000 ROAD  
 SEC. 36 T.24N. R.12W. W.M.  
 JEFFERSON COUNTY WASH.  
 SCALE 1 IN. = 400 FT.

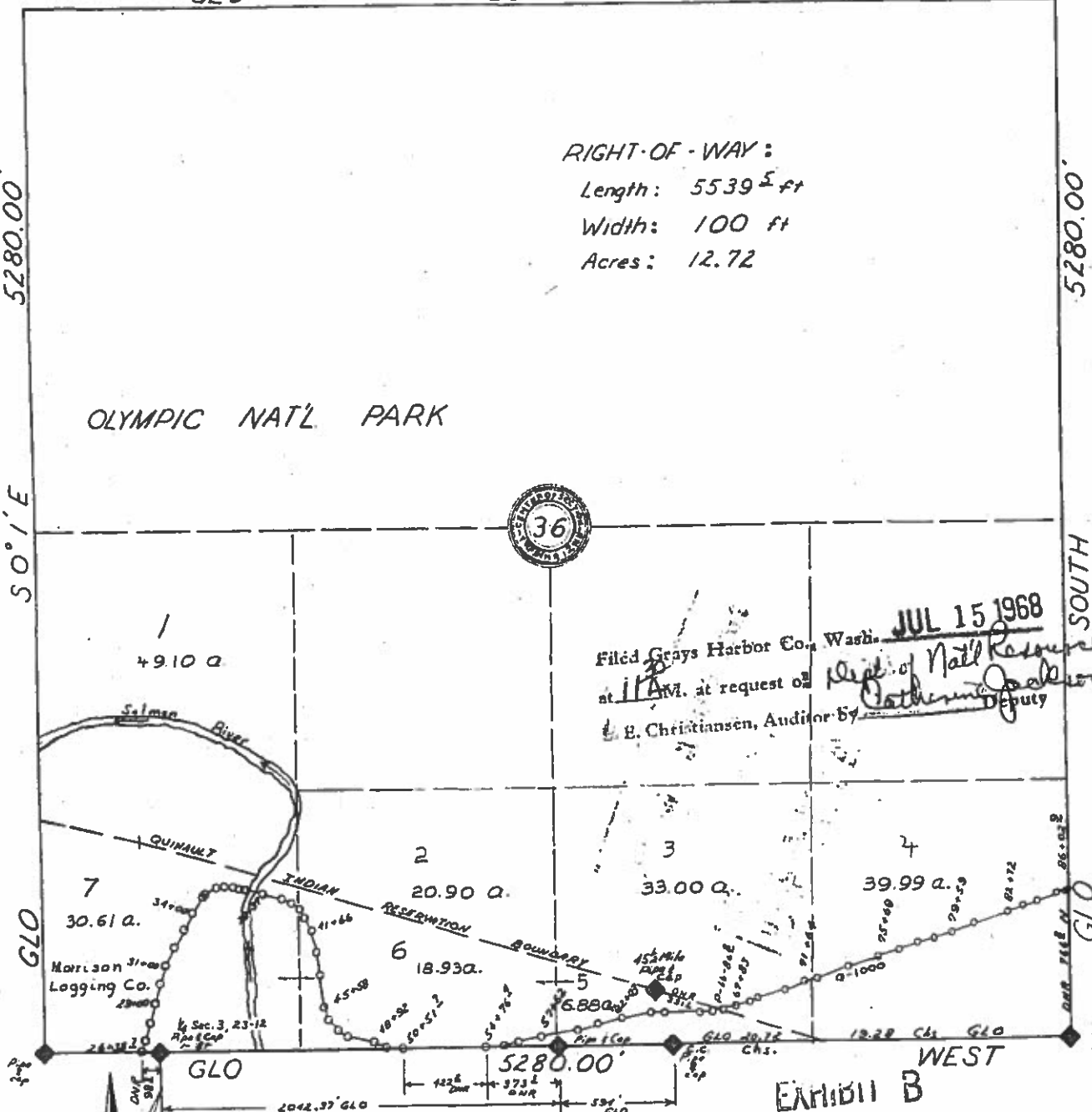
34+76.2	N82° 31' 4"	74+64	N72° 33'
35+48	N75° 02'	75+37	N72° 16.7'
36+50	N75° 11.2'	76+04	N72° 16.5'
37+42	N75° 18.7'	77+40	N72° 10.6'
38+59	N77° 10.5'	78+76	N72° 39'
39+64	N77° 13.0'	79+73	N72° 0.5'
40+03	N80° 48' 12.4"	80+48	N72° 31'
41+37	N80° 48' 31'	81+50	N72° 13.0'
42+28	333° 177'	82+09	N72° 18.3'
43+06	N80° 48' 58'	83+72	N72° 7.8'
44+43	N83° 48' 65'	84+54	N72° 0.5'
45+28	N72° 55'	85+35	N72° 11.2'
46+83	N72° 73'	86+47	N72° 38'
47+56	N72° 18'	87+85	N72° 17.2'
48+04	N72° 58.2'	88+00	N72° 17.2'
49+42	N72° 83.5'		
50+52	N72° 112'		
51+64			

1+18	N42° 31'
2+00	N173° 100'
3+30	N53° 100'
4+10	N176° 100'
5+00	N194° 100'
6+00	N234° 100'
7+00	N285° 100'
8+00	N304° 100'
9+10	N122° 100'
10+00	N53° 27'
11+27	N61° 58'
12+85	N80° 48' 41'
13+26	335° 48' 18'
14+74	372° 46' 31'
15+05	325° 48' 35'
16+10	371° 31'
17+37	306° 31'
18+08	302° 59'
19+57	341° 50'
20+37	

40+37	333° 48' 53'
40+80	324° 28' 76'
41+66	313° 48' 107'
42+73	303° 48' 185'
43+88	308° 160'
45+58	317° 70'
46+28	340° 60'
46+88	355° 48' 60'
47+48	374° 144'
48+92	363° 48' 70'
49+42	375° 80.2'
50+51	

GLO N 89° 41' W 5261.52'

RIGHT-OF-WAY:  
 Length: 5539.5 ft  
 Width: 100 ft  
 Acres: 12.72



Filed Grays Harbor Co., Wash. JUL 15 1968  
 at 11 A.M. at request of Dept. of Nat'l Resources  
 E. Christiansen, Auditor By Catherine Jackson Deputy

EXHIBIT B

WILLIAM G. MURDOCK, SUPERVISOR OF FOREST ENGINEERING, DO HEREBY CERTIFY THAT THIS MAP ACCURATELY REPRESENTS THE LOCATION OF SAID ACCESS ROAD ACROSS SECTION 36 TOWNSHIP 24 NORTH, RANGE 12 WEST WILLAMETTE MERIDIAN

William G. Murdock  
 SUPERVISOR OF FOREST ENGINEERING



**RECORD SEARCH**  
**ROAD USE PERMIT**

**Application No:** 55-081615  
**Region:** OLYMPIC  
**County:** JEFFERSON  
**Grantee:** STATE OF WASHINGTON  
**Grantor:** USDA - FOREST SERVICE  
**Address:** 803 W 2<sup>ND</sup>, CLE ELUM, WA 98922  
**Telephone:**  
**UBI/DNR#:**

**Miles: 0.10 ± Acres: 1.13 ±**

**Description**

<b>Portions of:</b>	<b>Sec.</b>	<b>Twp.</b>	<b>Rge</b>	<b>Trust</b>	<b>Parcel #</b>
W½SW¼	14 <u>42</u>	24N	10.5W	Private	00

**Encumbrances**

<b>Class Number</b>	<b>Event</b>	<b>ExpireDt</b>	<b>Grantee</b>	<b>DateGtd</b>
No encumbrances of record.				

**Pending Applications**

<b>Class Number</b>	<b>Event</b>	<b>Grantor</b>	<b>DateAppd</b>
No pending applications of record.			

**Special Notations**

No special notations of record.

**Title Examiner:** John Graham

**Date:** September 24, 2007

**Application:** \_\_\_\_\_  
**Register/TB**

**Document:** \_\_\_\_\_  
**Register/TB**

*DS* 9/24/2007

DUPLICATE

United States Department of Agriculture Forest Service		NAME OF PERMITTEE State of Washington DNR		KIND OF USE ROAD
SPECIAL USE PERMIT (Road)		DATE OF PERMIT October 1, 1969		ROAD PERMIT CLASS E <i>11/11/69</i>
		REGION 06	STATE Washington	FOREST Olympia

Permission is hereby granted to State of Washington, Department of Natural Resources  
of Box 168, Olympia, Washington 98501  
hereinafter called the permittee, to use, subject to the conditions set out below, the following described  
lands:

Lot 4, Sec. 14, T. 24N., R. 10W., W.M. A strip of land 80 ft. wide from the west link of Sec. 14 for a distance of approximately 614 feet to the West Boundary Road #240.

This permit covers a right-of-way 0.1 miles in length and containing approximately 1.1 acres and is issued for the purpose of constructing, reconstructing, maintaining, and using a road for the protection, administration, management and utilization of lands and the resources thereof now or hereafter owned or controlled by the permittee.

1. This permit is subject to all valid rights existing on this date.
2. The permittee in exercising the privileges granted by this permit shall comply with all applicable State and Federal laws, Executive Orders, and Federal rules and regulations.
3. The permittee shall cut only such timber as necessary in clearing for road construction, reconstruction, and maintenance. Timber so cut shall, unless otherwise agreed to, be cut into logs of lengths specified by the Forest Service and decked along the road for disposal by the Forest Service.
4. The permittee shall do everything reasonably within his power to prevent forest fires, and will not dispose of material by burning in open fires during the closed season established by law or regulation without a written permit from the Forest Service.
5. The permittee shall fully repair all damage, other than ordinary wear and tear, to National Forest roads and trails caused by the permittee in exercise of the privileges granted by this permit.
6. No member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this agreement or to any benefit that may arise herefrom unless it is made with a corporation for its general benefit.
7. This permit may be terminated or suspended upon breach of any of the conditions herein or at the discretion of the Regional Forester or the Chief, Forest Service.

8. The right-of-way covered by this permit shall be 40 feet on each side of the centerline as shown on the attached plat with such additional width as required for accommodation and protection of cuts and fills.

9. In consideration for this use the permittee has granted reciprocal rights-of-way to the United States.

10. Construction of the road shall be in accordance with the specifications set forth in Exhibit A and map in Exhibit B, attached hereto.

11. The permittee shall provide maintenance so that at the termination of this permit, the road will be in a condition equal to that normally prevailing on roads of like standard, and unless otherwise agreed to, lead-off drainage and water barriers to prevent erosion will be constructed on the road as directed by the Forest Service.

12. Use of roads constructed under authority of this permit shall be subject to control by the permittee, except that they shall at all times be open to use by Forest Service employees on official business.

13. In the event the road constructed on the right-of-way herein granted is subsequently included in a cooperative agreement for joint construction, the permittee's construction costs will be treated as incurred under the agreement. In this event this permit will be replaced by an easement as provided by regulations of the Secretary of Agriculture (36 CFR 212.10c).

The exercise of any of the privileges granted hereby constitutes acceptance of all conditions of this permit.

<u>OCT 1 1969</u>	<u>Orin E. Harnett</u>	<u>Acting Forest Supervisor</u>
Date	Signature of Issuing Officer	Title

This permit is accepted subject to the conditions herein set forth.

<u>9-18-69</u>	<u>[Signature]</u>	<u>Asst. Supervisor</u>
Date	Signature of Permittee	Title
	<u>for Dept of Natural Resources</u>	

# EXHIBIT A

61 09.02

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

6002 09.02

## MINIMUM SPECIFICATIONS FOR MANAGEMENT ROAD

### CLEARING

Fell timber on right of way as marked to adequate width to construct a road and not cover residual timber stand with earth or debris. Minimum width shall be 30 feet. Fell all danger trees, leaners and snags, as directed by the State, that are outside the right of way, on State Land, which could fall and hit the road. Deck all merchantable logs within ownership in neat workmanlike decks.

### GRUBBING

1. Stumps - Remove stumps within a 14-foot subgrade and those which are undercut at the top of slope.
2. Debris
  - a. On slopes under 50%, pile in clean, burnable piles. Large chunks over 12 inches in diameter and less than merchantable length may be scattered outside the right of way on State Land where natural openings exist, but not against standing timber. No scattering will be permitted on National Forest land for first 615 feet of this road.
  - b. On slopes over 50%, bury with sidecast excavation or burn with logging slash.
  - c. At the termination of removing the timber, clean debris from cut slopes and roadway.

### DRAINAGE

1. Culverts - Corrugated steel of standard gauge installed, as directed by the State under clause number 12-2-23, in accordance with National Corrugated Metal Pipe Association manual. Culverts will be placed prior to removal of timber from cutting units. Purchaser may be relieved in writing if logging will damage the culvert installation. Culvert will be required at road intersection with Forest Service Road #240.
2. Ditches - Construct a 2-foot ditch 6" deep along edge of roadway on all sidehill sections and along both sides on through cut sections at termination of log hauling. Ditch is cut from 14' subgrade. Outsloping optional with Districts on Eastside.

EXHIBIT A (CONT.)

GRADING

Grading will follow the State's marked location. Grade and alignment will have smooth continuity without breaks or jogs.

1. Subgrade - Sidehill - Width 14 feet; Thru cut - 16 feet; minimum radius curve is 50 feet; maximum grades - favorable 18%, adverse 12%; excavate to full bench on slopes over 50%.
2. Cut Slopes -  $\frac{1}{2}$ :1 or flatter.
3. Blade roadway to smooth surface at termination of hauling.
4. Crown: 4-inch minimum if surfaced.

BALLAST

As provided in the contract under Clause 12-2-22: 12 feet width. If required, ballast will be applied prior to removal of timber.

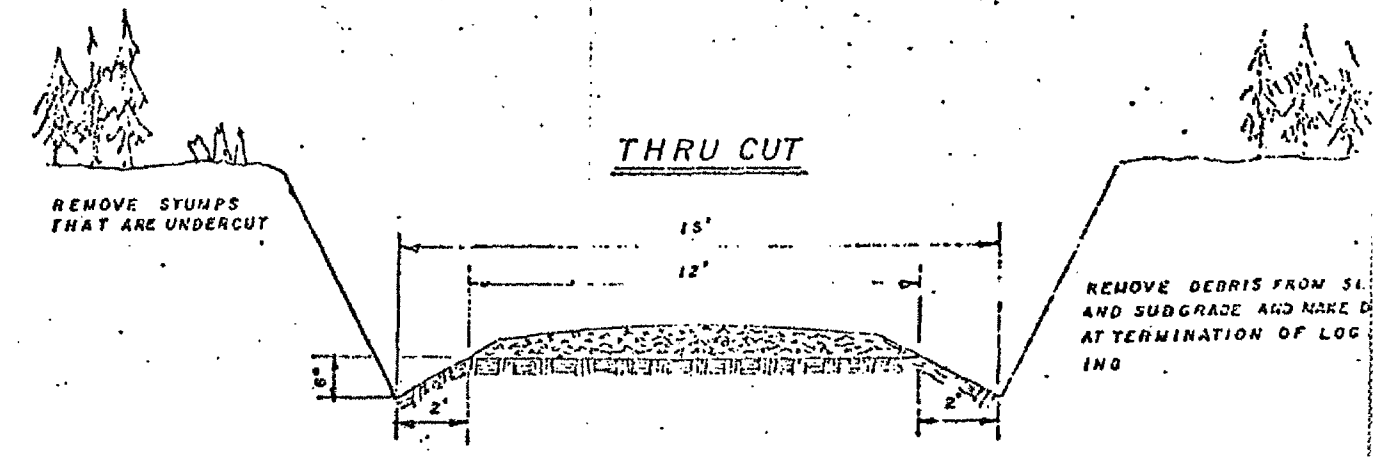
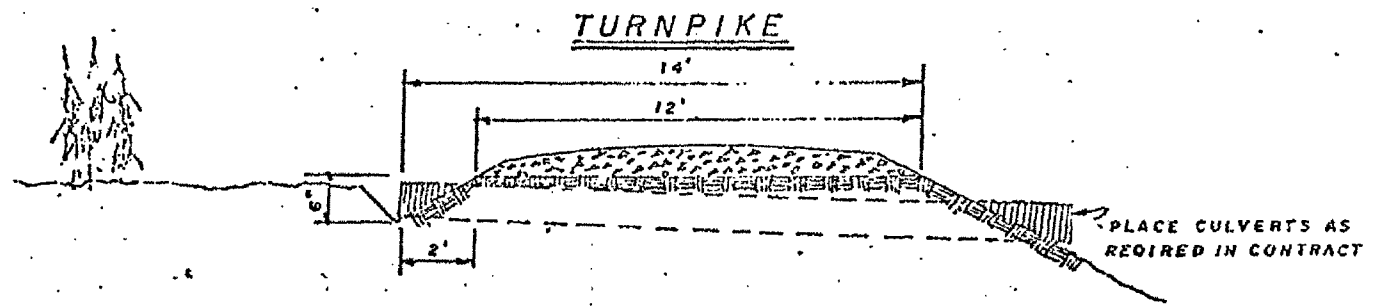
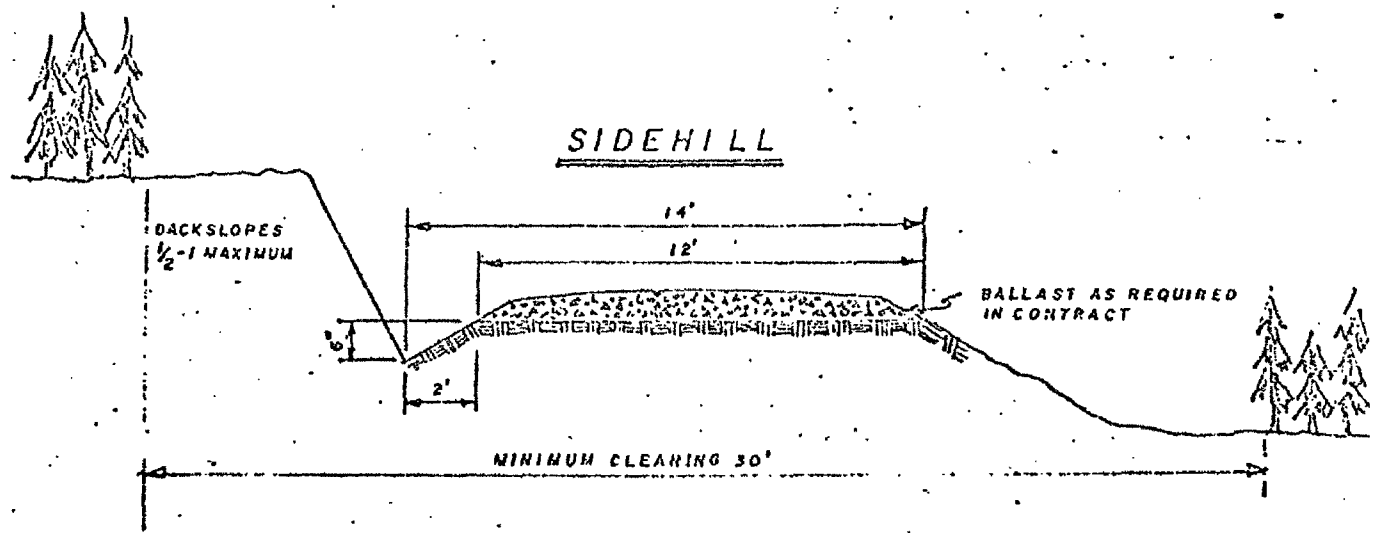
TURNOUTS

Intervisible or with a maximum distance between turnabouts of 1,500 feet, minimum length of 50 feet, double width.

SWITCHBACKS

- 1. Maximum grade of ~~12%~~ <sup>3% or less in this case</sup> with 100-foot grade transition on both ends.
2. Minimum radius of 50 feet.
  3. Four-foot extra curve widening on the inside.

MINIMUM SPECIFICATIONS FOR  
MANAGEMENT ROAD



5280

N 2° 30' E  
DNR

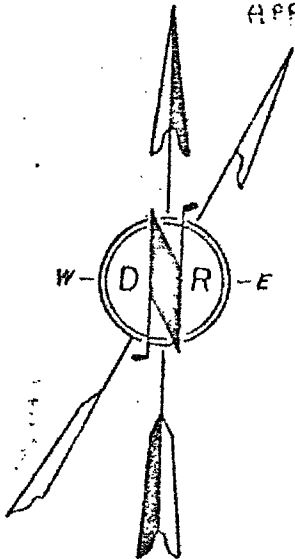
2664 DNR

USFS - unsurveyed

FR-0-0500  
3-15-69  
2+32

6+14 1/2

POST DNR  
APPROX.



DECLINATION 23

TRAVERSED BY: C. Cain

DRAWN BY : D. Maxfield

DATE 1-22-69

APPLICATION NUMBER \_\_\_\_\_

APPROVED: Jan 27-69

AREA ENGINEER [Signature]

DIVISION, OLYMPIA [Signature]

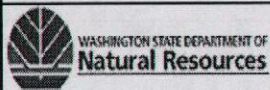
# ArcIMS HTML Viewer Map



- Major Cities
- Transportation (DNR)
- Paved Road
- Unpaved Road
- Trail
- Railroad
- Transportation (DOT)
- Interstate
- US Highway
- State Route
- Local Route
- Major Water Bodies (USGS)
- Open Water
- Flats/Gravel Bars
- Ice
- Wet Area
- Man Made Feature
- Major Streams (USGS)
- Section Lines
- Counties

Approximate Scale 1:83318 NAD 83 Lambert Conformal Conic 8/28/2007 1:03:56 PM

T24N R10.5W



Extreme care was used during the compilation of this map to ensure accuracy. However, due to changes in data and the need to rely on outside information, the Department of Natural Resources cannot accept responsibility for errors or omissions, and therefore, there are no warranties which accompany this material.