



## TIMBER NOTICE OF SALE

**SALE NAME:** GRAY JAY

**AGREEMENT NO:** 30-103863

**AUCTION:** May 25, 2023 starting at 10:00 a.m., **COUNTY:** Skamania  
Pacific Cascade Region Office, Castle Rock, WA

**SALE LOCATION:** Sale located approximately 21 miles northeast of Washougal

**PRODUCTS SOLD  
AND SALE AREA:**

All timber, except leave trees marked with blue paint, trees bound by yellow "Leave Tree Area" tags, all down timber greater than 20 inches diameter bounded by the following:

Unit 1, pink flagging, carsonite posts, reprod, white "Timber Sale Boundary" tags with pink flagging, and yellow "Leave Tree Area" tags with pink flagging;

Unit 2, pink flagging, carsonite posts, reprod, and white "Timber Sale Boundary" tags with pink flagging;

Unit 3, pink flagging, carsonite posts, white "Timber Sale Boundary" tags with pink flagging, and yellow "Leave Tree Area" tags with pink flagging;

Unit 4, pink flagging, white "Timber Sale Boundary" tags with pink flagging, yellow "Leave Tree Area" tags with pink flagging, and the W-1470;

Unit 5, pink flagging, white "Timber Sale Boundary" tags with pink flagging, the W-1470, and the W-1475;

Unit 6, 7, & 8 - ROW, orange "Right of Way" tags

All forest products above located on part(s) of Sections 5 and 6 all in Township 2 North, Range 6 East, Sections 31 and 32 all in Township 3 North, Range 6 East, W.M., containing 194 acres, more or less.

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

**ESTIMATED SALE VOLUMES AND QUALITY:**

Species	Avg DBH	Ring Count	Total MBF	MBF by Grade								UT
				1P	2P	3P	SM	1S	2S	3S	4S	
Douglas fir	18.9	7	6,023						3,812	1,808	380	23
Hemlock	15.2		392						181	148	56	7
Red alder	13.4		341						59	67	193	23
Maple	15.2		31							18	9	5
Sale Total			6,787									

**MINIMUM BID:** \$1,334,000.00

**BID METHOD:** Sealed Bids

**PERFORMANCE**

**SECURITY:** \$100,000.00

**SALE TYPE:** Lump Sum

**EXPIRATION DATE:** October 31, 2025

**ALLOCATION:** Export Restricted



## TIMBER NOTICE OF SALE

**BID DEPOSIT:** \$133,400.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

**HARVEST METHOD:** Cable, Cable-Assist, and Ground based equipment. This sale is estimated to be 69% uphill cable/cable assist harvest systems, 3% downhill cable and 28% ground based harvest systems. Ground based yarding equipment will not be permitted on sustained slopes over 40%. Cable assist equipment will not be permitted on sustained slopes over 70%. For additional harvesting restrictions see Clause H-140 in the contract. Ground Based Yarding will not be permitted from October 1 to April 30 unless authorized in writing by the Contract Administrator.

**ROADS:** 109.42 stations of optional construction. 4.78 stations of optional reconstruction. 140.47 stations of required prehaul maintenance. Rock used in accordance with the quantities on the ROCK LIST may be obtained from the following source on state land at no charge to the Purchaser: W-1475C Pit, W-1475C3 Pit. Purchaser shall obtain written approval from the Contract Administrator for the use of material from any other source.

Purchaser shall conduct rock source development and use at the following sources, in accordance with the written ROCK SOURCE DEVELOPMENT PLAN prepared by the state and included in this road plan: W-1475C Pit and W-1475C3 Pit.

Rock used in accordance with the quantities on the ROCK LIST may be obtained from any commercial source at the Purchaser's expense. Rock sources are subject to written approval by the Contract Administrator before their use. The hauling of forest products will not be permitted from November 1 to April 30 unless authorized in writing by the Contract Administrator.

## ACREAGE DETERMINATION

**CRUISE METHOD:** The sale acres were determined by GPS delineation. Cruise was completed using variable plot cruise methods.

**FEES:** Check in the amount of \$12,950.25 made payable to BTG Pactual PNW Fund IV REIT, Inc. and TTG Forestry Services for RUP, must be provided to DNR within 30 days of auction. DNR will forward the check to BTG Pactual PNW Fund IV REIT, Inc. and TTG Forestry Services.

Check in the amount of \$2,233.88 made payable to McCloskey Creek, LLC. and McCloskey Headworks, LLC. for RUP, must be provided to DNR within 30 days of auction. DNR will forward the check to McCloskey Creek, LLC. and McCloskey Headworks, LLC.

\$115,379.00 is due on day of sale. \$9.00 per MBF is due upon removal. These are in addition to the bid price.

**SPECIAL REMARKS:** This sale contains approximately 622 MBF HQ 2 Saw DF and 465 MBF HQ 3 Saw DF.

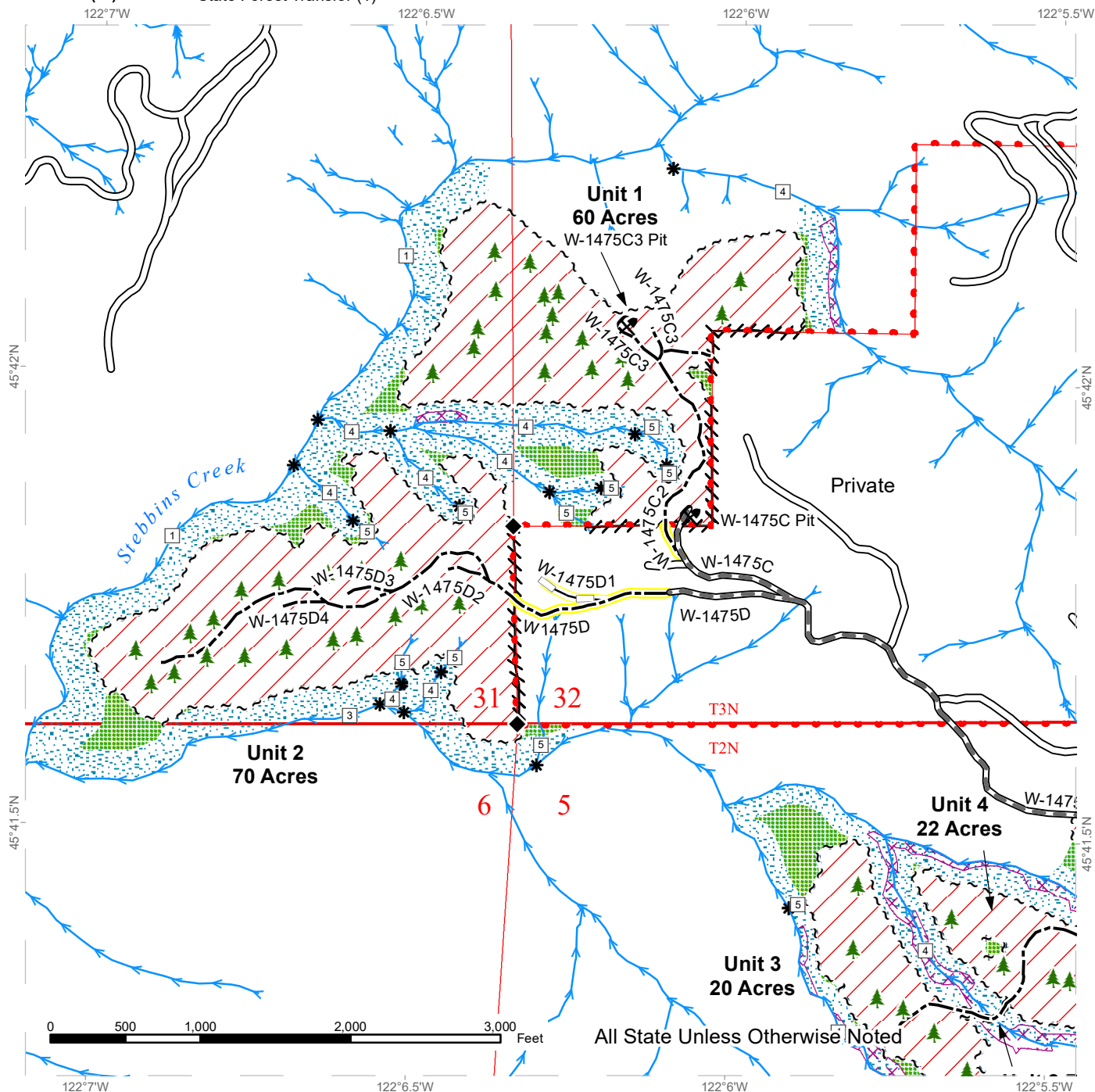
Road use permit between the State and BTG Pactual PNW Fund IV REIT, Inc. and TTG Forestry Services expires October 31, 2025. Ability to operate across BTG Pactual PNW Fund IV REIT, Inc. and TTG Forestry Services property requires the upfront purchase of removed forest products that are required to be felled for operations.

Intermediate supports may be required to facilitate lead end suspension in Units 3 and 4.

# TIMBER SALE MAP

**SALE NAME:** GRAY JAY  
**AGREEMENT #:** 30-103863  
**TOWNSHIP(S):** T2R6E, T3R6E  
**TRUST(S):** State Forest Transfer (1)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Skamania  
**ELEVATION RGE:** 880-2160



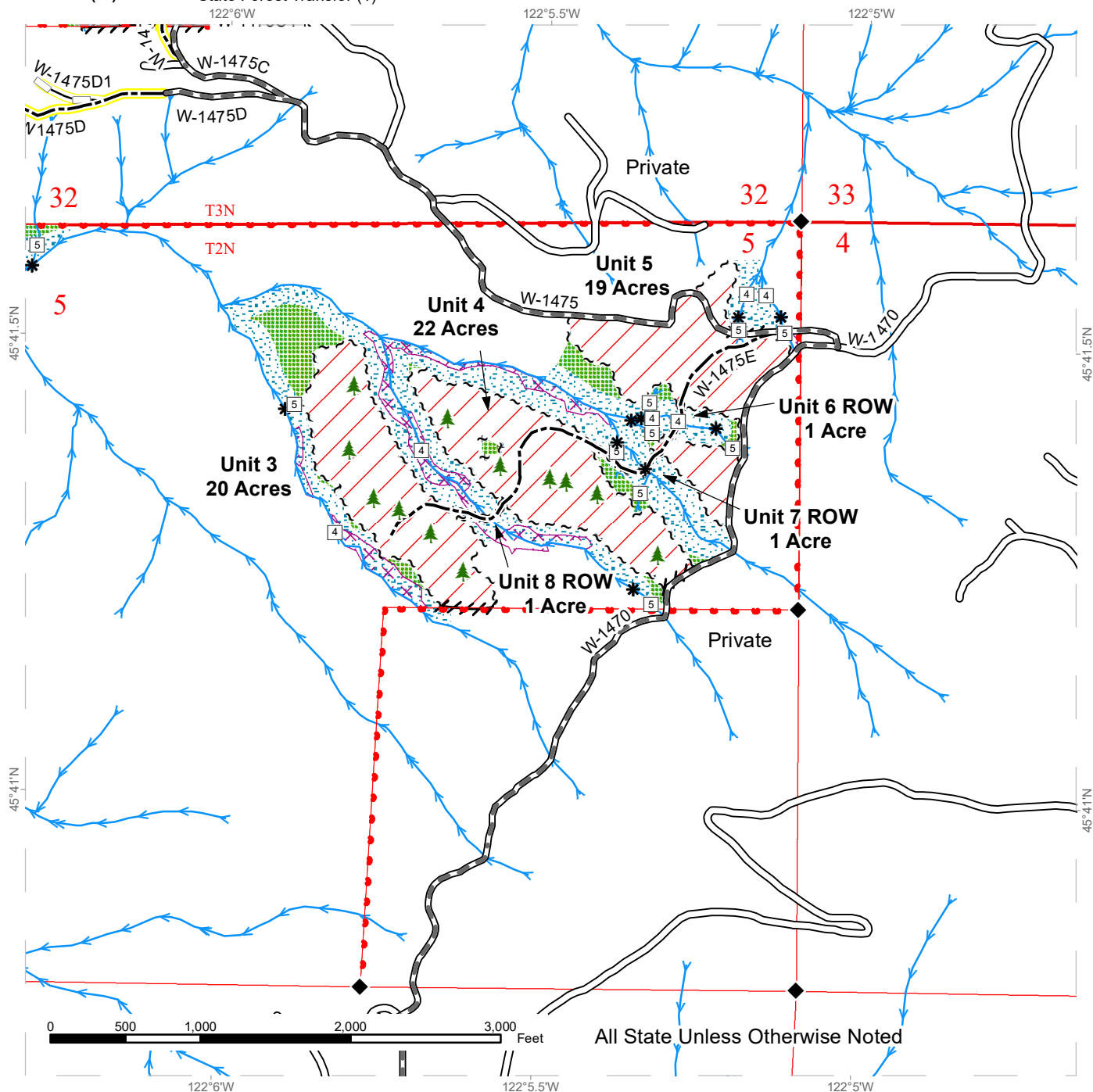
- |                              |                               |                           |
|------------------------------|-------------------------------|---------------------------|
| Variable Retention Harvest   | Leave Tree Tags               | Private Road Construction |
| Leave Tree Area              | Right of Way Tags             | Streams                   |
| Riparian Mgt Zone            | Property Line                 | Stream Type               |
| Potentially Unstable Slopes  | Flag Line                     | Stream Type Break         |
| Public Land Survey Townships | Existing Roads                | Survey Monument           |
| Public Land Survey Sections  | Required Pre-Haul Maintenance | Leave Tree Area <1/4-acre |
| Sale Boundary Tags           | Optional Construction         | Rock Pit                  |
|                              | Optional Reconstruction       |                           |



# TIMBER SALE MAP

**SALE NAME:** GRAY JAY  
**AGREEMENT #:** 30-103863  
**TOWNSHIP(S):** T2R6E, T3R6E  
**TRUST(S):** State Forest Transfer (1)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Skamania  
**ELEVATION RGE:** 880-2160



- |                              |                               |                           |
|------------------------------|-------------------------------|---------------------------|
| Variable Retention Harvest   | Leave Tree Tags               | Private Road Construction |
| Leave Tree Area              | Right of Way Tags             | Streams                   |
| Riparian Mgt Zone            | Property Line                 | Stream Type Break         |
| Potentially Unstable Slopes  | Flag Line                     | Survey Monument           |
| Public Land Survey Townships | Existing Roads                | Leave Tree Area <1/4-acre |
| Public Land Survey Sections  | Required Pre-Haul Maintenance | Rock Pit                  |
| Sale Boundary Tags           | Optional Construction         |                           |
|                              | Optional Reconstruction       |                           |

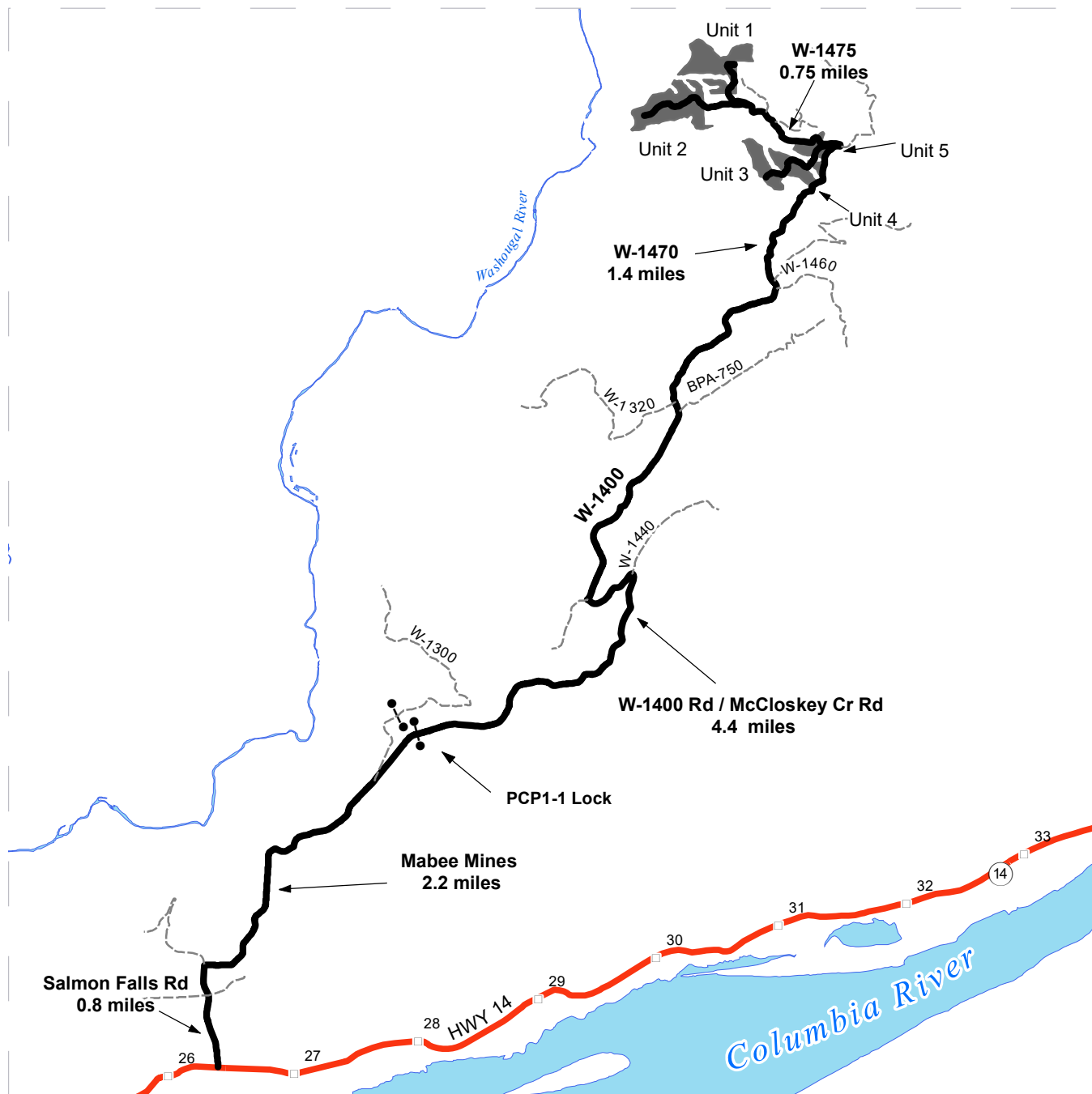




## DRIVING MAP

**SALE NAME:** GRAY JAY  
**AGREEMENT#:** 30-103863  
**TOWNSHIP(S):** T2R6E, T3R6E  
**TRUST(S):** State Forest Transfer (1)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Skamania  
**ELEVATION RGE:** 880-2160



- Timber Sale Unit
- Milepost Markers
- Highway
- Haul Route
- Other Road
- Gate (PCP1-1)

### DRIVING DIRECTIONS:

From Washougal via Highway 14, turn left onto Salmon Falls Rd. After 0.8 miles, turn right onto Mabee Mines Rd for 2.2 miles. Mabee Mines Rd becomes McCloskey Creek rd. Travel for 4.4 Miles on McCloskey Creek/W-1400 road, passing through a gate (PCP1-1) roughly 1 mile after the asphalt ends. At the 4-way intersection, turn left onto the W-1470. Travel for 1.4 miles on the W-1470. Units 3, 4, and 5 will be on your left. Turn left onto the W-1475 and travel for 0.75 miles. Keep left at the fork and travel for an additional 0.25 miles. Taking a left at the fork will bring you to Unit 2 in 0.3 miles. Taking a right at the fork will bring you to Unit 1 in 0.25 miles.



**STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES**

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

**Export Restricted Lump Sum AGREEMENT NO. 30-0103863**

**SALE NAME: GRAY JAY**

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

Section G: General Terms

G-001 Definitions

The following definitions apply throughout this contract;

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

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

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

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

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

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

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

G-011 Right to Remove Forest Products and Contract Area

Purchaser was the successful bidder on May 25, 2023 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 leave trees marked with blue paint, trees bound by yellow "Leave Tree Area" tags, all down timber greater than 20 inches diameter bounded by the following:

Unit 1, pink flagging, carsonite posts, reprod, white "Timber Sale Boundary" tags with pink flagging, and yellow "Leave Tree Area" tags with pink flagging;

Unit 2, pink flagging, carsonite posts, reprod, and white "Timber Sale Boundary" tags with pink flagging;

Unit 3, pink flagging, carsonite posts, white "Timber Sale Boundary" tags with pink flagging, and yellow "Leave Tree Area" tags with pink flagging;

Unit 4, pink flagging, white "Timber Sale Boundary" tags with pink flagging, yellow "Leave Tree Area" tags with pink flagging, and the W-1470;

Unit 5, pink flagging, white "Timber Sale Boundary" tags with pink flagging, the W-1470, and the W-1475;

Unit 6, 7, & 8 - ROW, orange "Right of Way" tags

All forest products above located on approximately 194 acres on part(s) of Sections 5, and 6 all in Township 2 North, Range 6 East, Sections 31, and 32 all in Township 3 North, Range 6 East W.M. in Skamania 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-031 Contract Term**

Purchaser shall complete all work required by this contract prior to October 31, 2025.

**G-040 Contract Term Adjustment - No Payment**

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

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

**G-051 Contract Term Extension - Payment**

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

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

- b. Completion of all required roads and compliance with all contract and regulatory requirements.
- c. For the first extension, not to exceed 1 year, payment of at least 25 percent of the total contract price.

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

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

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

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

- e. Payment of \$1,284.00 per acre per annum for the acres on which an operating release has not been issued Units 1 and 2. \$981.00 per acre for Units 3, 4, 5, 6, 7 and 8.
- 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 program Standard under certificate number: PwC-SFIFM-513.

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

G-120 Responsibility for Work

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

G-121 Exceptions

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

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

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

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

1. Failure of (a) required improvements or roads designated in clause C-050, or (b) required or optional construction completed to the point that authorization to haul has been issued;
2. Caused by a single event from forces beyond the control of Purchaser, its employees, agents, or invitees, including independent contractors; and

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

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

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

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

#### G-140 Indemnity

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

#### G-150 Insurance

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

All insurance and surety bonds should be issued by companies admitted to do business within the State of Washington and have a rating of A-, Class VII or better in the most recently published edition of Best's Reports. If an insurer is not admitted, all insurance

policies and procedures for issuing the insurance policies must comply with Chapter 48.15 RCW and 284-15 WAC.

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

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

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

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

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

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

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

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

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

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

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

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

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

Business Auto Policy (BAP). Purchaser shall maintain business auto liability and, if necessary, commercial umbrella liability insurance with a limit not less than \$1,000,000.00 per accident. Such insurance shall cover liability arising out of "Any Auto". Business auto coverage shall be written on ISO form CA 00 01, or substitute liability form providing equivalent coverage. If necessary the policy shall be endorsed to provide contractual liability coverage and cover a "covered pollution cost or

expense" as provided in the 1990 or later editions of CA 00 01. Purchaser waives all rights against State for the recovery of damages to the extent they are covered by business auto liability or commercial umbrella liability insurance.

G-160 Agents

The State's rights and duties will be exercised by the Region Manager at Castle Rock, 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; W-1400, W-1470, W-1475, W-1475 C, W-1475 C2, W-1475 C3, W-1475 C4, W-1475 D, W-1475 D1, W-1475 D2, W-1475 D3, W-1475 D4, W-1475 EXT and W-1475 E. 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 W-1400 and W-1470, 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:

RUP #55-104212 between BTG Pactual PNW Fund IV REIT, Inc. and TTG Forestry Services and State dated January 31, 2023 and expires October 31, 2025.

RUP #55-104336 between State and McCloskey Creek LLC and McCloskey Headworks LLC dated November 17, 2022 and expires December 31, 2028.

Easement #55-000076 between Weyerhaeuser Timber Holdings, Inc. and State dated December 6, 2022.

**G-396 Public Hauling Permit**

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

**G-430 Open Fires**

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

**G-450 Encumbrances**

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

DATA MISSING

**Section P: Payments and Securities****P-011 Initial Deposit**

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

**P-020 Payment for Forest Products**

Purchaser agrees to pay the total, lump sum contract price of \$176,083.00. The total contract price consists of a \$0.00 contract bid price plus \$176,083.00 in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066

clause. Purchaser shall be liable for the entire purchase price, and will not be entitled to any refunds or offsets unless expressly stated in this contract.

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

P-045 Guarantee of Payment

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

P-050 Billing Procedure

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

P-080 Payment Account Refund

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

P-090 Performance Security

Purchaser agrees to furnish, within 30 days of the confirmation date, security acceptable to the State in the amount of \$100,000.00. The Security provided shall guarantee performance of all provisions of this contract and payment of any damages caused by operations under this contract or resulting from Purchaser's noncompliance with any rule or law. Acceptable performance security may be in the form of a performance bond, irrevocable letter of credit, cash, savings or certificate of deposit account assignments, and must name the State as the obligee or beneficiary. A letter of credit must comply with Title 62A RCW, Article 5. Performance security must remain in full force over the duration of the contract length. Surety bonds issued shall conform to the issuance and rating requirements in clause G-150. The State shall retain the performance security 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

Ground Based Yarding will not be permitted from October 1 to April 30 unless authorized in writing by the Contract Administrator.

H-013 Reserve Tree Damage Definition

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

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

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

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

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

H-015 Skid Trail Requirements

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

Purchaser shall comply with the following during the yarding operation:

- a. Skid trails will not exceed 14 feet in width, including rub trees.
- b. Skid trails shall not cover more than 5 percent of the total acreage on one unit.

- c. Skid trail location will be pre-approved by the Contract Administrator.
- d. Except for rub trees, skid trails shall be felled and yarded prior to the felling of adjacent timber.
- e. Rub trees shall be left standing until all timber tributary to the skid trail has been removed.
- f. Excessive soil damage is not permitted. Excessive soil damage is described in clause H-017.
- g. Skid trails will be water barred at the time of completion of yarding, if required by the Contract Administrator.

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

#### H-017 Preventing Excessive Soil Disturbance

Operations may be suspended when soil rutting exceeds 10 inches as measured from the natural ground line. To reduce soil damage, the Contract Administrator may require water bars to be constructed, grass seed to be placed on exposed soils, or other mitigation measures. Suspended operations shall not resume unless approval to do so has been given, in writing, by the Contract Administrator.

#### H-018 Temporary Stream Crossings

A temporary stream crossing is required to access Right of Way units 6, 7 and 8.

Purchaser shall comply with the following during the yarding operation:

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



- e. Temporary stream crossings shall be removed at the time of completion of yarding as required by the Contract Administrator.

Two seasonal Type 5 streams and three perennial Type 4 streams will need to be crossed while pioneering road construction.

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

H-035 Fall Trees Into Sale Area

Trees shall be felled into the sale area unless otherwise approved by the Contract Administrator.

H-040 Purchaser Harvest Plan

Purchaser shall, as part of the plan of operations, prepare an acceptable harvest plan for All Units. The plan shall address the felling, bucking and yarding, which are part(s) of this contract. The harvest plan shall be approved by the Contract Administrator prior to beginning the harvest operation. Purchaser shall not deviate from the harvest plan without prior written approval by the Contract Administrator.

H-051 Branding and Painting

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

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

H-080 Snags Not to be Felled

Snags not required to be felled for safety reasons may be left standing. Snags felled for safety reasons shall not be removed and must remain where felled.

H-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using Cable, Cable-assist, Shovel, Tracked Skidder and Forwarder. Authority to use other equipment or to operate outside the equipment specifications detailed above must be approved in writing by the State.

H-125 Log Suspension Requirements

Lead-end suspension is required for all yarding activities.

**H-126 Tailholds on State Land**

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

**H-127 Tailholds on Private Land**

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

**H-130 Hauling Schedule**

The hauling of forest products will not be permitted from November 1 to April 30 unless authorized in writing by the Contract Administrator.

**H-140 Special Harvest Requirements**

Purchaser shall accomplish the following during the harvest operations:

A. Active Haul Routes will be posted with CB channels by purchaser.

B. Ground based yarding equipment shall only operate during dry soil conditions.

C. Ground based yarding equipment will not be permitted on sustained slopes over 40 percent.

D. Sediment delivery from roads will not be allowed. Hauling operations will be shut down as needed until conditions improve or work can be completed that eliminates the delivery of sediment.

E. All trees 60 inches Diameter at Breast Height (DBH) and greater shall not be felled unless for safety reasons. If trees 60 inches DBH or greater needs to be felled for safety reasons, trees will be left where felled.

F. Long butts remaining on the sale must be dispersed as directed by the Contract Administrator..

G. Cable assist operations will not be permitted on sustained slopes over 70 percent.

H. Cable-assist will only be allowed in areas where a written harvest plan has been provided to the CA and the CA has provided written approval for cable-assist logging to occur.

I. Intermediate supports may be required to prevent soil rutting in Unit 3 and 4 off the W-1475E road.

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

H-141 Additional Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

A. No Yarding will be permitted through or over areas identified to be potentially unstable on the FPA Slope Stability Form and all maps.

B. Within shovel logging areas, the shovel operator shall break up concentrations of logging debris greater than 10 feet by 10 feet to allow exposure of natural soils to ensure proper reforestation.

C. Any and all snags cut because of safety concerns cannot be removed and must remain where they were felled.

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

H-190 Completion of Settings

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

H-220 Protection of Residual or Adjacent Trees

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

H-250 Additional Falling Requirements

Within all units, all non-merchantable hardwood stems 2 inches DBH or 10 feet tall, shall be felled concurrently with felling operations. Areas of young or immature timber may be excluded from this requirement by the Contract Administrator.

Section C: Construction and Maintenance

C-040 Road Plan

Road construction and associated work provisions of the Road Plan for this sale, dated 8/4/2022 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on W-1470, W-1475, W-1475C, W-1475C2, W-1475C3, W-1475C4, W-1475D, W-1475D1, W-1475D2, W-1475D3, W-1475D4, W-1475 EXT and W-1475E. 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 all 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-030 Landing Debris Clean Up

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

S-035 Logging Debris Clean Up

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

S-050 Cessation of Operations for Low Humidity

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

**S-060 Pump Truck or Pump Trailer**

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

**S-070 Water Supply**

Purchaser shall provide, during the "closed season", a water supply with a minimum capacity of 1000 gallons for rapid filling of pump trucks or trailers at a location designated by the Contract Administrator.

**S-100 Stream Cleanout**

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

**S-110 Resource Protection**

No ground based equipment may operate within 100 feet from Type 4 streams 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 harvest 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

Date: \_\_\_\_\_  
Address: \_\_\_\_\_

\_\_\_\_\_  
Eric Wisch  
Pacific Cascade Region Manager

Date: \_\_\_\_\_

DRAFT

DRAFT

DRAFT

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 \_\_\_\_\_



## PRE-CRUISE NARRATIVE

Sale Name: <b>Gray Jay</b>	Region: <b>Pacific Cascade</b>
Agreement #: <b>30-103863</b>	District: Yacolt
Contact Forester:Nate Hall Phone / Location:(360)751-0405	County(s): Skamania, Choose a county
Alternate Contact:Glynis Gordon Phone / Location:(360)791-4340	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>	28%
Harvest System: Uphill Cable <a href="#">Click here to enter text.</a>	69%
Enter % of sale acres	
Harvest System: Downhill Cable <a href="#">Click here to enter text.</a>	3%

### UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit # Harvest R/W or RMZ WMZ	Legal Description (Enter only one legal for each unit) Sec/Twp/Rng	Grant or Trust	Gross Proposal Acres	Deductions from Gross Acres (No harvest acres)				Net Harvest Acres	Acreage Determina tion  (List method and error of closure if applicable)
				RMZ/ WMZ Acres	Leave Tree Acres	Existing Road Acres	Other Acres (describe)		
1	Sec 32 / T03 / R06E	01	93.9	29.4	4.9	0	1.2 (Potentially unstable slope)	59.6	GPS (Trimble)
2	Sec 31 / T03 / R06E	01	121.1	44.6	6.0	0	0	70.5	GPS (Trimble)
3	Sec 05 / T02 / R06E	01	41.2	15.6	4.8	0	2.7 (Potentially Unstable Slope)	20.8	GPS (Trimble)

4	Sec 05 / T02 / R06E	01	40.6	17.0	1.5	0	0.9 (Potentially Unstable Slope)	22.1	GPS (Trimble)
5	Sec 05 / T02 / R06E	01	33.7	11.4	2.8	0.2	0.2 (Potentially Unstable Slope)	19.5	GPS (Trimble)
6 (ROW)	Sec 05 / T02 / R06E	01	0.3	0	0	0	0	0.3	GPS (Trimble)
7 (ROW)	Sec 05 / T02 / R06E	01	0.5	0	0	0	0	0.5	GPS (Trimble)
8 (ROW)	Sec 05 / T02 / R06E	01	0.8	0	0	0	0.2 (Potentially Unstable Slope)	0.8	GPS (Trimble)
<b>TOTAL ACRES</b>			332.1	118	20.0	0	5.2	194.1	

#### HARVEST PLAN AND SPECIAL CONDITIONS:

Unit#	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
1	Unit 1 is a Variable Retention Harvest bounded by white "Timber Sale Boundary" tags and pink flagging. Property lines are marked with white carsonite posts and pink flagging. Clumped leave trees are bounded by yellow "Leave Tree Area" tags and pink flagging. Individual leave trees are marked with a ring of blue paint.	N/A	558 clumped and scattered leave trees
2	Unit 2 is a Variable Retention Harvest bounded by white "Timber Sale Boundary" tags and pink flagging.	N/A	661 clumped and scattered leave trees

	Property lines are marked with white carsonite posts and pink flagging. Clumped leave trees are bounded by yellow "Leave Tree Area" tags and pink flagging. Individual leave trees are marked with a ring of blue paint.		
3	Unit 3 is a Variable Retention Harvest bounded by white "Timber Sale Boundary" tags and pink flagging. Property lines are marked with white carsonite posts and pink flagging. Clumped leave trees are bounded by yellow "Leave Tree Area" tags and pink flagging. Individual leave trees are marked with a ring of blue paint.	N/A	530 clumped and scattered leave trees
4	Unit 4 is a Variable Retention Harvest bounded by white "Timber Sale Boundary" tags, pink flagging, and the W-1470 road. Property lines are marked with white carsonite posts and pink flagging. Clumped leave trees are bounded by yellow "Leave Tree Area" tags and pink flagging. Individual leave trees are marked with a ring of blue paint.	N/A	218 clumped and scattered leave trees
5	Unit 4 is a Variable Retention Harvest bounded by white "Timber Sale Boundary" tags, pink flagging, and the W-1470 and W-1475 roads. Property lines are marked with white carsonite posts and pink flagging. Clumped leave trees are bounded by yellow "Leave Tree Area" tags and pink flagging. Individual leave trees are marked with a ring of blue paint.	N/A	184 clumped and scattered leave trees
6 (ROW)	Unit 6 is a Right-of-Way harvest through Unit 5 bounded by orange "Right-of-Way" tags. Road centerlines are marked with orange flagging.	N/A	Right-of-Way
7 (ROW)	Unit 7 is a Right-of-Way harvest between Unit 4 and Unit 5 bounded by orange "Right-of-Way" tags. Road centerlines are marked with orange flagging.	N/A	Right-of-Way
8 (ROW)	Unit 8 is a Right-of-Way harvest between Unit 3 and Unit 4 bounded by	N/A	Right-of-Way

	orange "Right-of-Way" tags. Road centerlines are marked with orange flagging.		
--	---	--	--

#### OTHER PRE-CRUISE INFORMATION:

Unit#	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	DF, RA, WH / 2,445 MBF	PCP 1-1 key required for gates on the W-1400 road (McCloskey Creek) or W-1300 road (Mabee Mines).	N/A
2	DF, RA, WH / 2,897 MBF	PCP 1-1 key required for gates on the W-1400 road (McCloskey Creek) or W-1300 road (Mabee Mines).	N/A
3	DF, RA, WH / 926 MBF	PCP 1-1 key required for gates on the W-1400 road (McCloskey Creek) or W-1300 road (Mabee Mines).	N/A
4	DF, RA, WH / 798 MBF	PCP 1-1 key required for gates on the W-1400 road (McCloskey Creek) or W-1300 road (Mabee Mines).	N/A
5	DF, RA, WH, NF / 440 MBF	PCP 1-1 key required for gates on the W-1400 road (McCloskey Creek) or W-1300 road (Mabee Mines).	N/A
6 (ROW)	RA / 5 MBF	PCP 1-1 key required for gates on the W-1400 road (McCloskey Creek) or W-1300 road (Mabee Mines).	N/A
7 (ROW)	RA / 10 MBF	PCP 1-1 key required for gates on the W-1400 road (McCloskey Creek) or W-1300 road (Mabee Mines).	N/A
8 (ROW)	RA / 28 MBF	PCP 1-1 key required for gates on the W-1400 road (McCloskey Creek) or W-1300 road (Mabee Mines).	N/A

TOTAL MBF	7,549	N/A	N/A
--------------	-------	-----	-----

**REMARKS:**

From Highway 14, turn North onto Salmon Falls Rd. After 0.8 miles, turn East onto Mabee Mines Rd. Mabee Mines Rd becomes McloskeyCreek rd. Travel for 6.6 Miles on McClosky Creek/W-1400 road, passing through a gate (PCP-1) roughly 1 mile after the asphalt ends. At the 4-way intersection, turn NW onto the W-1470. Travel for 1.35 miles on the W-1470. Units 3, 4, and 5 will be on your left. Turn West onto the W-1475 and travel for 0.75 miles. At the fork, turning right will take you to unit 1 after 1/4 mile, and turning left will take you to unit 2 after a 1/4 mile.

<b>Prepared By: Nate Hall</b> <b>Date: 06/21/2022</b>	<b>Title: State Lands Forester</b>	<b>CC:</b>
--	------------------------------------	------------

## Timber Sale Cruise Report Gray Jay

**Sale Name:** GRAY JAY

**Sale Type:** LUMP SUM

**Region:** PACIFIC CASC,PACIFIC CASC

**District:** YACOLT,YACOLT

**Lead Cruiser:** AMHerrman

**Other Cruisers:**BWarnstadt, AColeman

**Cruise Narrative:**

Gray Jay timber sale contains five Variable Retention Harvest units (Units 1-5) and three Right-of-Ways (Units 6-8).

The sale is located approximately 14 miles northeast of Washougal, WA. Access is provided via HWY 14, Mabee Mines Rd; and the W-1400 and W-1470 forest roads. Units 2, 3, and 6-8 require short walk-ins to reach.

The bulk of Gray Jay lies in Units 1 and 2, where the dominant timber component is Douglas-fir. Trees show good form. Some contain high quality segments and most appear to have few, if any, spike knots. Terrain is very steep and/or rocky in places. Additional breakage when felling timber should be expected and was accounted for while grading trees.

Units 3, 4, and 5 are located next to one another on more moderate slopes. Unit 3 is conifer dominated and mostly contains Douglas-fir. Unit 4 contains a variable mix of conifers and hardwoods. Unit 5 is hardwood dominated and mostly contains red alder.

A total of 146 plots (142 variable radius, 4 fixed) were used to measure 390 trees. The cruise: count plot ratio for most units is 1:1. Trees were segmented into lengths based on a preference for long logs and taking into account location of defect/expected breakage in each tree cruised. Preferred length for conifers is 40'. Preferred length for hardwoods is 30'.

### Timber Sale Notice Volume (MBF)

Sp	DBH	Rings/In	Age	MBF Volume by Grade				Utility
				All	2 Saw	3 Saw	4 Saw	
DF	18.9	6.6		6,023	3,812	1,808	380	23
WH	15.2			392	181	148	56	7
RA	13.4			341	59	67	193	23
MA	15.2			31		18	9	5
ALL	17.5	6.6		6,787	4,052	2,041	637	57

### Timber Sale Notice Weight (tons)

Sp	Tons by Grade				
	All	2 Saw	3 Saw	4 Saw	Utility
DF	43,785	25,107	15,051	3,463	163
WH	3,674	1,496	1,537	606	34
RA	3,126	423	541	1,956	207
MA	340		140	141	59

Sp	Tons by Grade				
	All	2 Saw	3 Saw	4 Saw	Utility
ALL	50,924	27,027	17,268	6,166	463

### Timber Sale Overall Cruise Statistics (Cut + Leave Trees)

BA (sq ft/acre)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR SE (%)	Net Vol (bf/acre)	Vol SE (%)
230.6	3.2	149.3	1.9	34,965	3.8

### Timber Sale Unit Cruise Design

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
GRAY JAY U1	B1C: VR, 1 BAF (46.94) Measure/ Count Plots, Sighting Ht = 4.5 ft	59.6	64.8	43	22	0
GRAY JAY U2	B1C: VR, 1 BAF (54.44) Measure/ Count Plots, Sighting Ht = 4.5 ft	70.5	76.5	50	26	1
GRAY JAY U3	B1C: VR, 1 BAF (54.44) Measure/ Count Plots, Sighting Ht = 4.5 ft	20.8	25.7	15	8	0
GRAY JAY U4	B1C: VR, 1 BAF (46.94) Measure/ Count Plots, Sighting Ht = 4.5 ft	22.1	23.6	16	8	0
GRAY JAY U5	B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	19.5	22.2	15	10	0
GRAY JAY ROW U6	FX: FR plots (20 tree / acre expansion)	0.3	0.2	2	2	0
GRAY JAY ROW U7	FX: FR plots (20 tree / acre expansion)	0.5	0.5	2	2	0
GRAY JAY ROW U8	B1: VR, 1 BAF (40) Measure All, Sighting Ht = 4.5 ft	0.8	0.5	3	3	0
All		194.1	213.9	146	81	1

### Timber Sale Log Grade x Sort Summary

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
DF	LIVE	2 SAW	Domestic	16.5	38	16,889	16,433	2.7	20,770.7	3,189.7
DF	LIVE	2 SAW	HQ-A	15.3	40	200	200	0.0	248.4	38.9
DF	LIVE	2 SAW	HQ-B	14.2	38	3,027	3,006	0.7	4,088.1	583.5
DF	LIVE	3 SAW	Domestic	8.8	38	7,052	6,919	1.9	11,544.9	1,343.0
DF	LIVE	3 SAW	HQ-B	10.3	38	2,412	2,396	0.7	3,506.3	465.1
DF	LIVE	4 SAW	Domestic	5.6	28	1,985	1,957	1.4	3,463.1	379.9
DF	LIVE	CULL	Cull	6.1	6	161	0	100.0	0.0	0.0
DF	LIVE	UTILITY	Pulp	5.8	13	126	118	6.3	163.2	22.9

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
MA	LIVE	3 SAW	Domestic	10.3	26	96	92	3.5	139.8	17.9
MA	LIVE	4 SAW	Domestic	5.2	33	46	44	4.7	141.3	8.5
MA	LIVE	UTILITY	Pulp	5.0	34	24	24	0.0	58.8	4.7
RA	LIVE	2 SAW	Domestic	14.0	27	336	304	9.7	423.0	58.9
RA	LIVE	3 SAW	Domestic	10.4	30	367	343	6.4	540.5	66.6
RA	LIVE	4 SAW	Domestic	6.2	30	1,025	992	3.3	1,955.6	192.5
RA	LIVE	CULL	Cull	5.1	9	23	0	100.0	0.0	0.0
RA	LIVE	UTILITY	Pulp	5.0	19	117	116	0.5	206.8	22.6
WH	LIVE	2 SAW	Domestic	14.4	40	951	931	2.2	1,496.2	180.6
WH	LIVE	3 SAW	Domestic	8.4	39	778	764	1.7	1,536.9	148.4
WH	LIVE	4 SAW	Domestic	5.1	28	293	290	1.1	606.3	56.3
WH	LIVE	CULL	Cull	5.6	6	9	0	100.0	0.0	0.0
WH	LIVE	UTILITY	Pulp	5.1	14	35	35	0.0	34.1	6.7

### Timber Sale Log Sort x Diameter Bin Summary

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
DF	5 - 7	LIVE	Cull	5.6	5	0	100.0	0.0	0.0
DF	5 - 7	LIVE	Pulp	5.6	13	110	6.8	149.1	21.4
DF	5 - 7	LIVE	Domestic	6.0	31	3,708	1.3	6,538.0	719.7
DF	8 - 11	LIVE	Pulp	8.6	13	8	0.0	14.2	1.5
DF	8 - 11	LIVE	Cull	8.7	8	0	100.0	0.0	0.0
DF	8 - 11	LIVE	Domestic	9.7	36	4,773	2.0	7,916.7	926.4
DF	8 - 11	LIVE	HQ-B	10.2	38	2,396	0.7	3,506.3	465.1
DF	12 - 15	LIVE	HQ-B	13.4	38	2,014	1.0	2,875.0	390.9
DF	12 - 15	LIVE	Cull	13.9	9	0	100.0	0.0	0.0
DF	12 - 15	LIVE	Domestic	13.9	38	5,194	2.4	7,170.4	1,008.2
DF	12 - 15	LIVE	HQ-A	15.4	40	200	0.0	248.4	38.9
DF	16 - 19	LIVE	HQ-B	17.6	38	873	0.0	1,090.2	169.5
DF	16 - 19	LIVE	Domestic	17.8	39	6,577	2.8	8,169.2	1,276.5
DF	20+	LIVE	HQ-B	20.3	40	119	0.0	122.9	23.0
DF	20+	LIVE	Domestic	22.1	39	5,058	3.0	5,984.5	981.8
DF	20+	LIVE	Cull	25.3	16	0	100.0	0.0	0.0
MA	5 - 7	LIVE	Pulp	5.0	34	24	0.0	58.8	4.7
MA	5 - 7	LIVE	Domestic	5.4	34	44	4.7	141.3	8.5
MA	8 - 11	LIVE	Domestic	10.3	26	92	3.5	139.8	17.9
RA	5 - 7	LIVE	Pulp	5.0	19	116	0.5	206.8	22.6
RA	5 - 7	LIVE	Cull	5.1	9	0	100.0	0.0	0.0



Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
RA	5 - 7	LIVE	Domestic	5.7	30	663	2.5	1,325.1	128.6
RA	8 - 11	LIVE	Domestic	9.7	30	672	5.7	1,171.0	130.5
RA	12 - 15	LIVE	Domestic	13.2	29	304	9.7	423.0	58.9
WH	5 - 7	LIVE	Pulp	5.2	14	35	0.0	34.1	6.7
WH	5 - 7	LIVE	Cull	5.6	6	0	100.0	0.0	0.0
WH	5 - 7	LIVE	Domestic	5.7	30	549	1.0	1,174.7	106.5
WH	8 - 11	LIVE	Domestic	9.3	38	505	2.1	968.5	98.1
WH	12 - 15	LIVE	Domestic	13.3	40	616	2.1	1,030.3	119.5
WH	16 - 19	LIVE	Domestic	17.9	40	315	2.2	465.9	61.1

## Cruise Unit Report GRAY JAY U1

### Unit Sale Notice Volume (MBF): GRAY JAY U1

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	17.6	6.6		2,171	1,235	755	175	6
WH	12.9			49	9	28	12	1
RA	17.3			48	27	11	10	
ALL	17.2	6.6		2,268	1,270	795	197	6

### Unit Cruise Design: GRAY JAY U1

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	59.6	64.8	43	22	0

### Unit Cruise Summary: GRAY JAY U1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	106	203	4.7	2
WH	6	7	0.2	0
RA	3	7	0.2	0
ALL	115	217	5.0	2

### Unit Cruise Statistics (Cut + Leave Trees): GRAY JAY 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	221.6	39.0	6.0	164.4	32.1	3.1	36,424	50.6	6.7
WH	7.6	265.7	40.5	108.4	42.2	17.2	829	269.1	44.0
RA	7.6	297.6	45.4	105.5	11.2	6.5	806	297.9	45.8
ALL	236.9	32.6	5.0	160.7	33.5	3.1	38,059	46.8	5.9

### Unit Summary: GRAY JAY U1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	106	ALL	17.6	83	102	37,442	36,424	2.7	131.2	221.6	52.8	2,170.9
RA	LIVE	CUT	3	ALL	17.3	67	82	913	806	11.8	4.7	7.6	1.8	48.0

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	CUT	6	ALL	12.9	58	71	838	829	1.2	8.4	7.6	2.1	49.4
ALL	LIVE	CUT	115	ALL	17.4	81	100	39,194	38,059	2.9	144.3	236.9	56.8	2,268.3
ALL	ALL	ALL	115	ALL	17.4	81	100	39,194	38,059	2.9	144.3	236.9	56.8	2,268.3

## Cruise Unit Report GRAY JAY U2

### Unit Sale Notice Volume (MBF): GRAY JAY U2

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	20.1	6.7		2,470	1,689	656	118	7
WH	13.7			175	61	78	30	6
RA	10.0			38		16	22	
ALL	18.3	6.7		2,682	1,750	750	170	13

### Unit Cruise Design: GRAY JAY U2

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (54.44) Measure/Count Plots, Sighting Ht = 4.5 ft	70.5	76.5	50	26	1

### Unit Cruise Summary: GRAY JAY U2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	102	187	3.7	2
WH	15	23	0.5	0
RA	2	5	0.1	0
ALL	119	215	4.3	2

### Unit Cruise Statistics (Cut + Leave Trees): GRAY JAY 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	203.6	52.9	7.5	172.1	29.7	2.9	35,032	60.6	8.0
WH	25.0	171.3	24.2	98.8	36.2	9.4	2,475	175.1	26.0
RA	5.4	364.2	51.5	97.6	8.6	6.1	531	364.3	51.9
ALL	234.1	42.9	6.1	162.5	34.2	3.1	38,039	54.9	6.8

### Unit Summary: GRAY JAY U2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	102	ALL	20.1	83	105	35,992	35,032	2.7	92.4	203.6	45.4	2,469.8
RA	LIVE	CUT	2	ALL	10.0	38	65	551	531	3.6	10.0	5.4	1.7	37.5

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	CUT	15	ALL	13.7	49	62	2,571	2,475	3.7	24.5	25.0	6.8	174.5
ALL	LIVE	CUT	119	ALL	18.4	73	94	39,114	38,039	2.7	126.9	234.1	53.9	2,681.7
ALL	ALL	ALL	119	ALL	18.4	73	94	39,114	38,039	2.7	126.9	234.1	53.9	2,681.7

## Cruise Unit Report GRAY JAY U3

### Unit Sale Notice Volume (MBF): GRAY JAY U3

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	17.9	6.7		777	457	263	50	9
WH	17.5			134	86	39	9	
RA	16.6			21	10		11	
ALL	17.7	6.7		932	553	301	69	9

### Unit Cruise Design: GRAY JAY U3

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (54.44) Measure/Count Plots, Sighting Ht = 4.5 ft	20.8	25.7	15	8	0

### Unit Cruise Summary: GRAY JAY U3

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	32	63	4.2	1
WH	5	10	0.7	0
RA	3	4	0.3	0
ALL	40	77	5.1	1

### Unit Cruise Statistics (Cut + Leave Trees): GRAY JAY 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	228.6	36.2	9.4	163.5	33.4	5.9	37,377	49.3	11.1
WH	36.3	176.3	45.5	176.8	21.5	9.6	6,416	177.6	46.5
RA	14.5	222.6	57.5	70.9	85.2	49.2	1,029	238.3	75.6
ALL	279.5	32.0	8.3	160.4	36.1	5.7	44,822	48.2	10.0

### Unit Summary: GRAY JAY U3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	32	ALL	17.9	81	103	38,350	37,377	2.5	130.8	228.6	54.0	777.4
RA	LIVE	CUT	3	ALL	16.6	53	64	1,084	1,029	5.1	9.7	14.5	3.6	21.4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	CUT	5	ALL	17.5	86	110	6,485	6,416	1.1	21.7	36.3	8.7	133.5
ALL	LIVE	CUT	40	ALL	17.8	80	102	45,919	44,822	2.4	162.2	279.5	66.3	932.3
ALL	ALL	ALL	40	ALL	17.8	80	102	45,919	44,822	2.4	162.2	279.5	66.3	932.3

## Cruise Unit Report GRAY JAY U4

### Unit Sale Notice Volume (MBF): GRAY JAY U4

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	20.9	6.5		495	369	98	27	2
RA	11.6			89	8	16	43	22
WH	17.5			34	25	3	6	
ALL	16.2	6.5		618	402	117	76	24

### Unit Cruise Design: GRAY JAY U4

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (46.94) Measure/Count Plots, Sighting Ht = 4.5 ft	22.1	23.6	16	8	0

### Unit Cruise Summary: GRAY JAY U4

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	25	48	3.0	1
RA	11	17	1.1	0
WH	3	5	0.3	0
ALL	39	70	4.4	1

### Unit Cruise Statistics (Cut + Leave Trees): GRAY JAY 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	140.8	64.4	16.1	159.2	35.3	7.1	22,418	73.4	17.6
RA	49.9	201.8	50.4	80.9	33.6	10.1	4,034	204.6	51.5
WH	14.7	192.7	48.2	103.5	60.2	34.8	1,518	201.9	59.4
ALL	205.4	34.3	8.6	136.2	44.6	7.1	27,970	56.3	11.2

### Unit Summary: GRAY JAY U4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	23	ALL	19.2	75	96	21,887	21,484	1.8	67.1	135.0	30.8	474.8
DF	LIVE	POLE	2	ALL	15.9	73	94	952	934	1.8	4.3	5.9	1.5	20.6



Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
RA	LIVE	CUT	11	ALL	11.6	40	55	4,135	4,034	2.5	68.0	49.9	14.6	89.2
WH	LIVE	CUT	3	ALL	17.5	50	62	1,530	1,518	0.8	8.8	14.7	3.5	33.5
ALL	LIVE	POLE	2	ALL	15.9	73	94	952	934	1.8	4.3	5.9	1.5	20.6
ALL	LIVE	CUT	37	ALL	15.9	57	74	27,552	27,036	1.9	143.9	199.5	48.9	597.5
ALL	ALL	ALL	39	ALL	15.9	57	75	28,504	27,970	1.9	148.2	205.4	50.4	618.1

## Cruise Unit Report GRAY JAY U5

### Unit Sale Notice Volume (MBF): GRAY JAY U5

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
RA	13.5			133	12	20	100	1
DF	17.1	6.0		97	56	30	11	
MA	15.2			31		18	8	5
ALL	14.5	6.0		261	69	68	119	6

### Unit Cruise Design: GRAY JAY U5

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 4.5 ft	19.5	22.2	15	10	0

### Unit Cruise Summary: GRAY JAY U5

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
RA	23	40	2.7	0
DF	11	17	1.1	1
MA	8	11	0.7	0
ALL	42	68	4.5	1

### Unit Cruise Statistics (Cut + Leave Trees): GRAY JAY U5

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
RA	106.7	73.2	18.9	64.1	43.4	9.1	6,836	85.1	21.0
DF	45.3	188.3	48.6	109.4	25.8	7.8	4,962	190.0	49.2
MA	29.3	158.6	40.9	54.0	50.8	18.0	1,583	166.5	44.7
ALL	181.3	50.6	13.1	73.8	47.0	7.3	13,381	69.1	14.9

### Unit Summary: GRAY JAY U5

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	11	ALL	17.1	48	59	5,006	4,962	0.9	28.4	45.3	11.0	96.8
MA	LIVE	CUT	8	ALL	15.2	41	50	1,638	1,583	3.3	23.3	29.3	7.5	30.9

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
RA	LIVE	CUT	23	ALL	13.5	46	56	7,352	6,836	7.0	107.3	106.7	29.0	133.3
ALL	LIVE	CUT	42	ALL	14.5	45	56	13,996	13,381	4.4	159.0	181.3	47.5	260.9
ALL	ALL	ALL	42	ALL	14.5	45	56	13,996	13,381	4.4	159.0	181.3	47.5	260.9

## Cruise Unit Report GRAY JAY ROW U6

### Unit Sale Notice Volume (MBF): GRAY JAY ROW U6

Sp	DBH	Rings/In	Age	MBF Volume by Grade		
				All	3 Saw	4 Saw
RA	14.0			1	0	1
MA	21.0			0		0
ALL	15.0			2	0	1

### Unit Cruise Design: GRAY JAY ROW U6

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
FX: FR plots (20 tree / acre expansion)	0.3	0.2	2	2	0

### Unit Cruise Summary: GRAY JAY ROW U6

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
RA	7	7	3.5	0
MA	1	1	0.5	0
ALL	8	8	4.0	0

### Unit Cruise Statistics (Cut + Leave Trees): GRAY JAY ROW U6

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 (%)
RA	74.3	65.7	46.4	55.6	47.1	17.8	4,130	80.8	49.7
MA	24.1	141.4	100.0	29.9	0.0	0.0	720	141.4	100.0
ALL	98.4	15.1	10.6	49.3	51.9	18.3	4,850	54.0	21.2

### Unit Summary: GRAY JAY ROW U6

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
MA	LIVE	CUT	1	ALL	21.0	42	50	720	720	0.0	10.0	24.1	5.2	0.2
RA	LIVE	CUT	7	ALL	14.0	43	51	4,130	4,130	0.0	69.5	74.3	19.9	1.2
ALL	LIVE	CUT	8	ALL	15.1	43	51	4,850	4,850	0.0	79.5	98.4	25.1	1.5
ALL	ALL	ALL	8	ALL	15.1	43	51	4,850	4,850	0.0	79.5	98.4	25.1	1.5

## Cruise Unit Report GRAY JAY ROW U7

### Unit Sale Notice Volume (MBF): GRAY JAY ROW U7

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	2 Saw	3 Saw	4 Saw
RA	12.4			5	1	1	4
DF	30.0			3	3	0	
ALL	14.4			8	3	1	4

### Unit Cruise Design: GRAY JAY ROW U7

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
FX: FR plots (20 tree / acre expansion)	0.5	0.5	2	2	0

### Unit Cruise Summary: GRAY JAY ROW U7

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
RA	13	13	6.5	0
DF	1	1	0.5	0
ALL	14	14	7.0	0

### Unit Cruise Statistics (Cut + Leave Trees): GRAY JAY ROW U7

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 (%)
RA	109.5	65.1	46.0	86.1	16.2	4.5	9,430	67.1	46.2
DF	49.1	141.4	100.0	113.5	0.0	0.0	5,570	141.4	100.0
ALL	158.6	1.2	0.8	94.6	16.4	4.4	15,000	16.5	4.5

### Unit Summary: GRAY JAY ROW U7

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	1	ALL	30.0	72	91	6,040	5,570	7.8	10.0	49.1	9.0	2.8
RA	LIVE	CUT	13	ALL	12.4	47	64	9,430	9,430	0.0	130.6	109.5	31.1	4.7
ALL	LIVE	CUT	14	ALL	14.4	48	66	15,470	15,000	3.0	140.6	158.6	40.1	7.5
ALL	ALL	ALL	14	ALL	14.4	48	66	15,470	15,000	3.0	140.6	158.6	40.1	7.5

## Cruise Unit Report GRAY JAY ROW U8

### Unit Sale Notice Volume (MBF): GRAY JAY ROW U8

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	15.8			10	4	6	0	0
RA	16.0			5	1	3	1	
WH	14.0			1		1	0	
ALL	15.7			16	4	10	2	0

### Unit Cruise Design: GRAY JAY ROW U8

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1: VR, 1 BAF (40) Measure All, Sighting Ht = 4.5 ft	0.8	0.5	3	3	0

### Unit Cruise Summary: GRAY JAY ROW U8

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	7	7	2.3	0
RA	5	5	1.7	0
WH	1	1	0.3	0
ALL	13	13	4.3	0

### Unit Cruise Statistics (Cut + Leave Trees): GRAY JAY ROW U8

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	93.3	89.2	51.5	133.2	35.1	13.3	12,434	95.9	53.2
RA	66.7	124.9	72.1	98.2	10.9	4.9	6,550	125.4	72.3
WH	13.3	173.2	100.0	102.9	0.0	0.0	1,372	173.2	100.0
ALL	173.3	13.3	7.7	117.4	32.4	9.0	20,355	35.0	11.8

### Unit Summary: GRAY JAY ROW U8

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	7	ALL	15.8	65	87	13,022	12,434	4.5	68.6	93.3	23.5	9.9
RA	LIVE	CUT	5	ALL	16.0	65	79	7,458	6,550	12.2	47.7	66.7	16.7	5.2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
WH	LIVE	CUT	1	ALL	14.0	63	81	1,372	1,372	0.0	12.5	13.3	3.6	1.1
ALL	LIVE	CUT	13	ALL	15.7	65	84	21,851	20,355	6.8	128.8	173.3	43.7	16.3
ALL	ALL	ALL	13	ALL	15.7	65	84	21,851	20,355	6.8	128.8	173.3	43.7	16.3



A ridgetop that extends across the middle of Unit 2 provides good access to its interior.

Large Douglas-firs. Western hemlock occupies the lower canopy and is becoming co-dominant in some places.

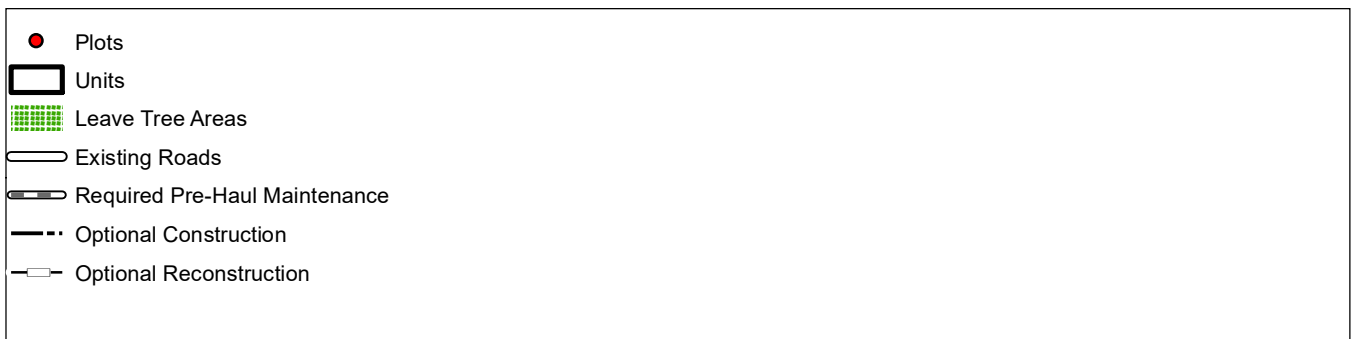
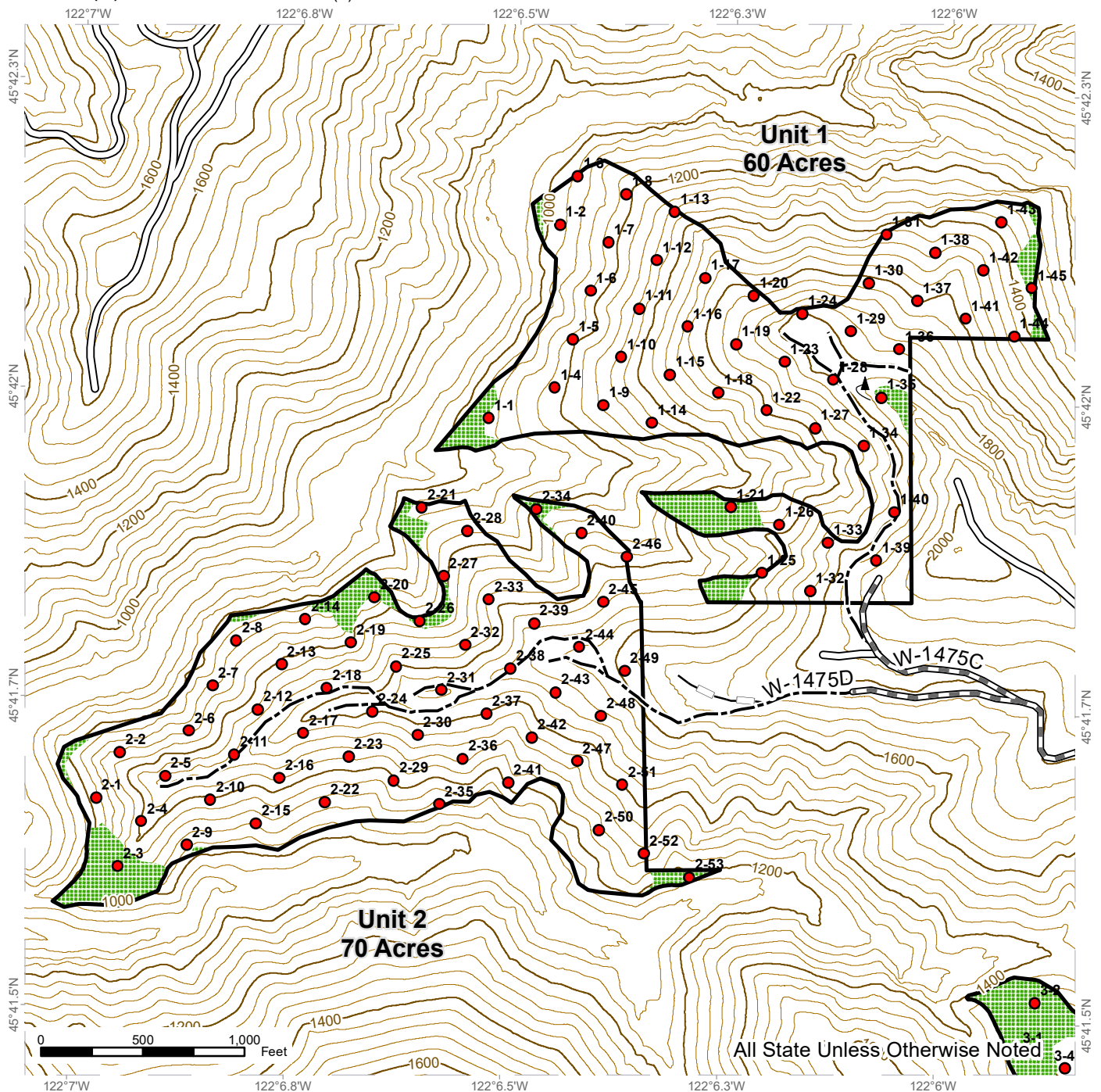
Large standing snags can be found scattered about the units.



# CRUISE MAP

**SALE NAME:** GRAY JAY  
**AGREEMENT#:** None  
**TOWNSHIP(S):** T2R6E, T3R6E  
**TRUST(S):** State Forest Transfer (1)

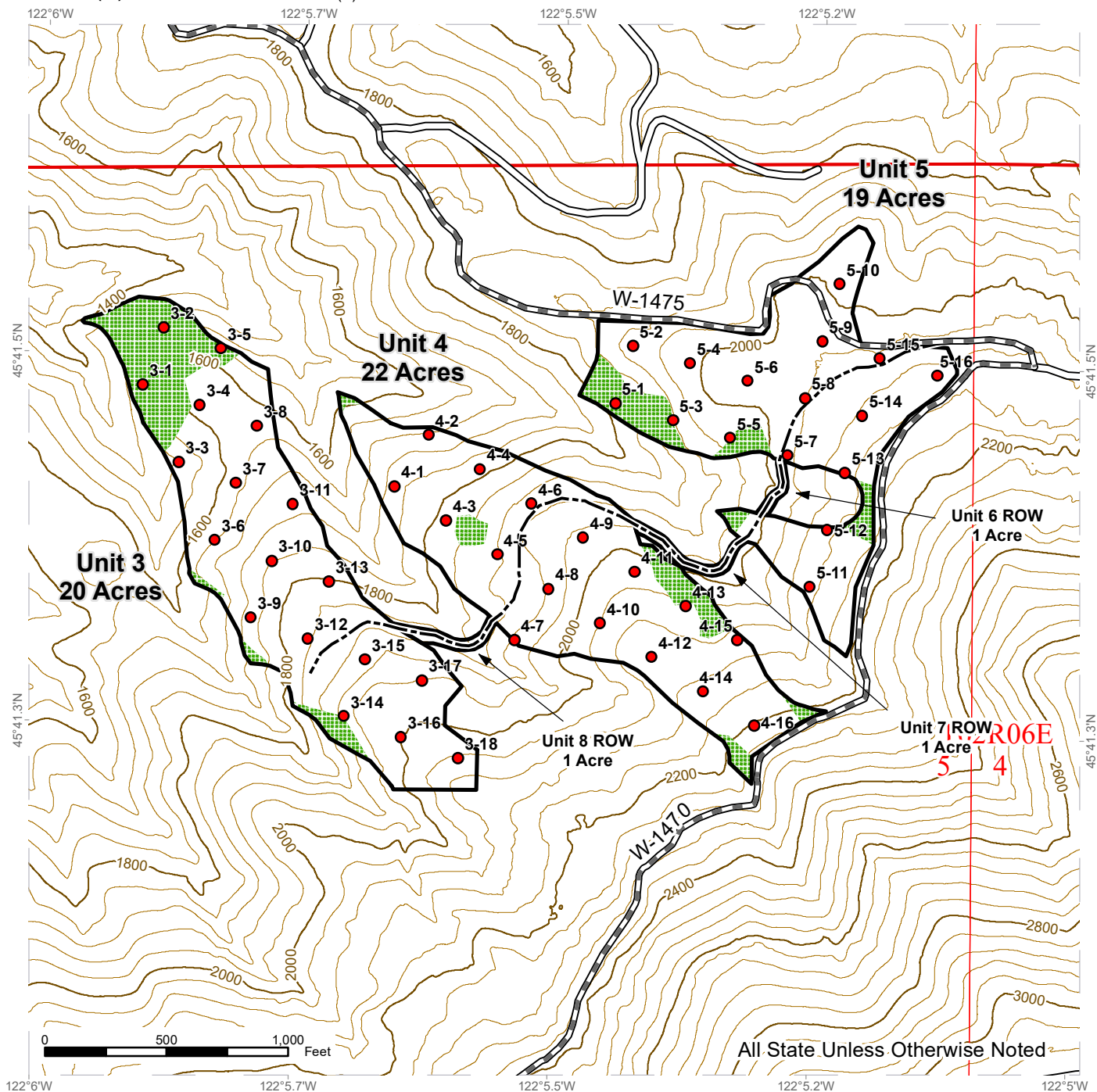
**REGION:** Pacific Cascade Region  
**COUNTY(S):** Skamania  
**ELEVATION RGE:** 880-2160



# CRUISE MAP

**SALE NAME:** GRAY JAY  
**AGREEMENT#:** None  
**TOWNSHIP(S):** T2R6E, T3R6E  
**TRUST(S):** State Forest Transfer (1)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Skamania  
**ELEVATION RGE:** 880-2160





## Forest Practices Application/Notification Notice of Decision

FPA/N No: 2941164

Effective Date: 3/17/2023

Expiration Date: 3/17/2026

Shut Down Zone: . ; 660

EARR Tax Credit: ☒ Eligible ☐ Non-eligible

Reference: 31,32-03-06E; 05,06-02-06E

Gray Jay TBS 30-103863

### 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

No additional conditions.

Note: Apply grass seed and mulch to exposed soils adjacent to stream crossings immediately after construction. See WAC 222-24-030 (4).

Issued By: Michael Rutledge

Region: Pacific Cascade Region

Title: Forest Practices Forester

Date: 3/17/2023

Copies to: ☒ Landowner, Timber Owner and Operator

Issued in person: ☒ LO ☒ TO ☒ OP

By: Jacqui Spahr

Date: 3/17/2023

**Appeal Information**

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

**You must file your appeal at all three addresses below:**

Pollution Control Hearings Board	Office of the Attorney General Natural Resources Division	Department Of Natural Resources Pacific Cascade Region
<u>Physical Address</u> 1111 Israel Road, SW Suite 301 Tumwater, WA 98501	<u>Physical Address</u> 1125 Washington Street, SE Olympia, WA 98504	<u>Physical Address</u> 601 Bond Rd Castle Rock WA 98611
<u>Mailing address</u> Post Office Box 40903 Olympia, WA 98504-0903	<u>Mailing Address</u> Post Office Box 40100 Olympia, WA 98504-0100	<u>Mailing Address</u> Post Office Box 280 Castle Rock, WA 98611-0280

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

**Other Applicable Laws**

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

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

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

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

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

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

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

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

**DNR Declaration of Mailing**

I Jacqui Spahr caused the Notice of Decision for FPA/N No. 2941164 to be placed in the United States mail at Castle Rock, WA, postage paid. I declare under penalty of perjury of the laws of the State of Washington, that the foregoing is true and correct.

3/17/2023  
(Date)

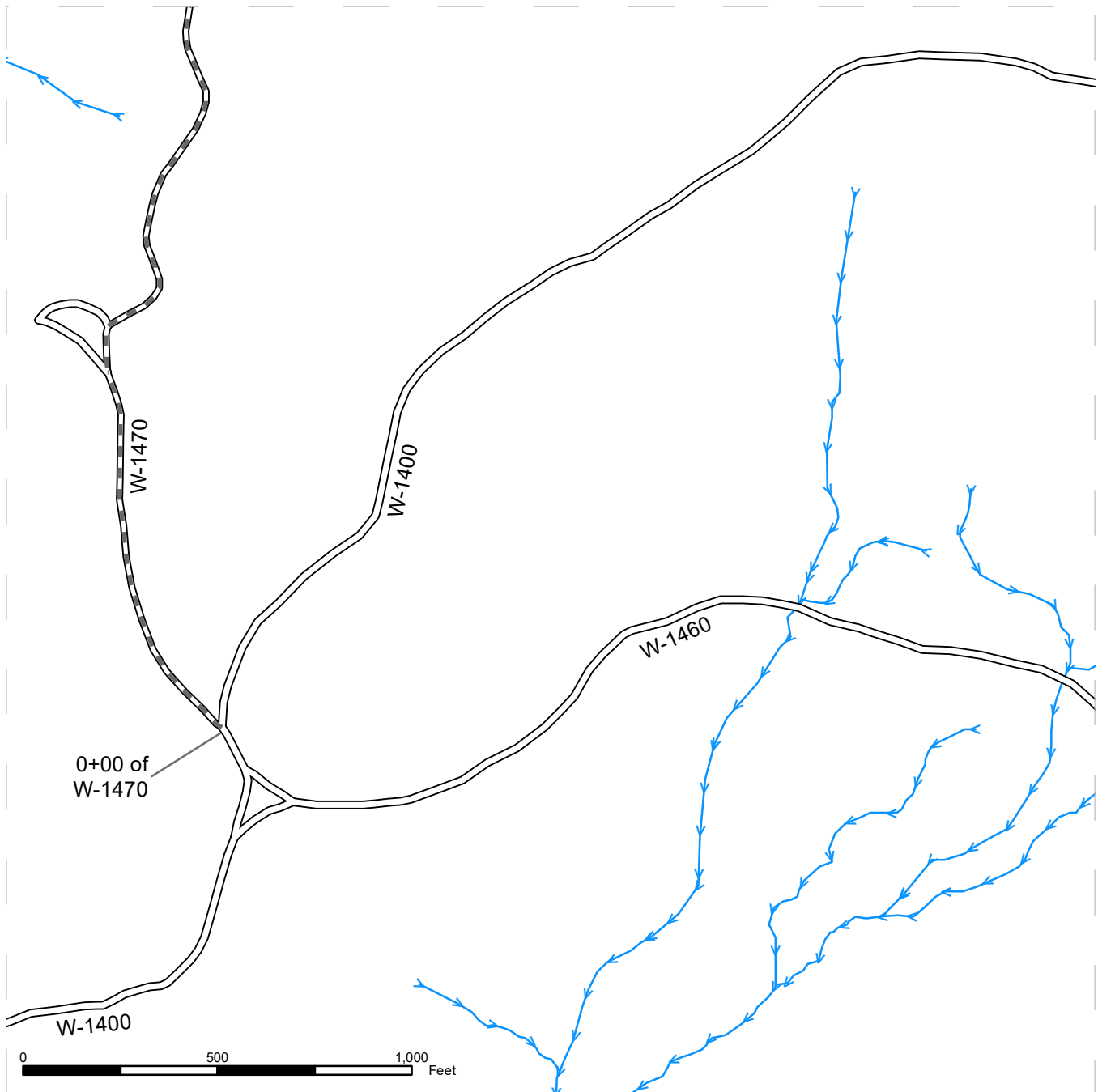
Castle Rock, WA  
(City & State where signed)




Jacqui Spahr  
(Signature)

## ROAD PLAN MAP

**SALE NAME:** GRAY JAY  
**AGREEMENT#:** 30-103863  
**TOWNSHIP(S):** T2R6E, T3R6E  
**TRUST(S):** State Forest Transfer (1)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Skamania  
**ELEVATION RGE:** 880-2160



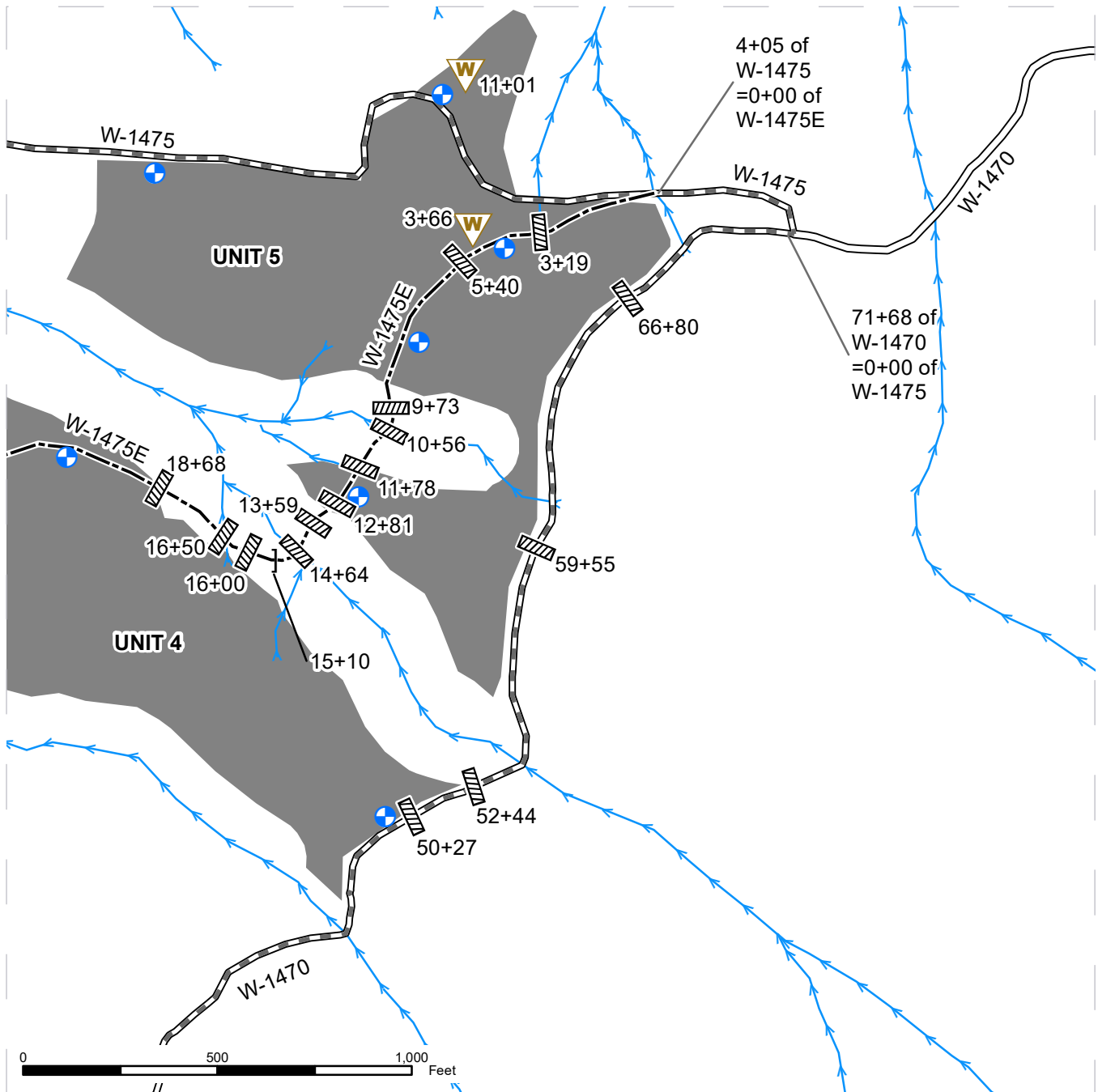
-  Existing Roads
-  Required Pre-Haul Maintenance
-  Streams



# ROAD PLAN MAP

**SALE NAME:** GRAY JAY  
**AGREEMENT#:** 30-103863  
**TOWNSHIP(S):** T2R6E, T3R6E  
**TRUST(S):** State Forest Transfer (1)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Skamania  
**ELEVATION RGE:** 880-2160

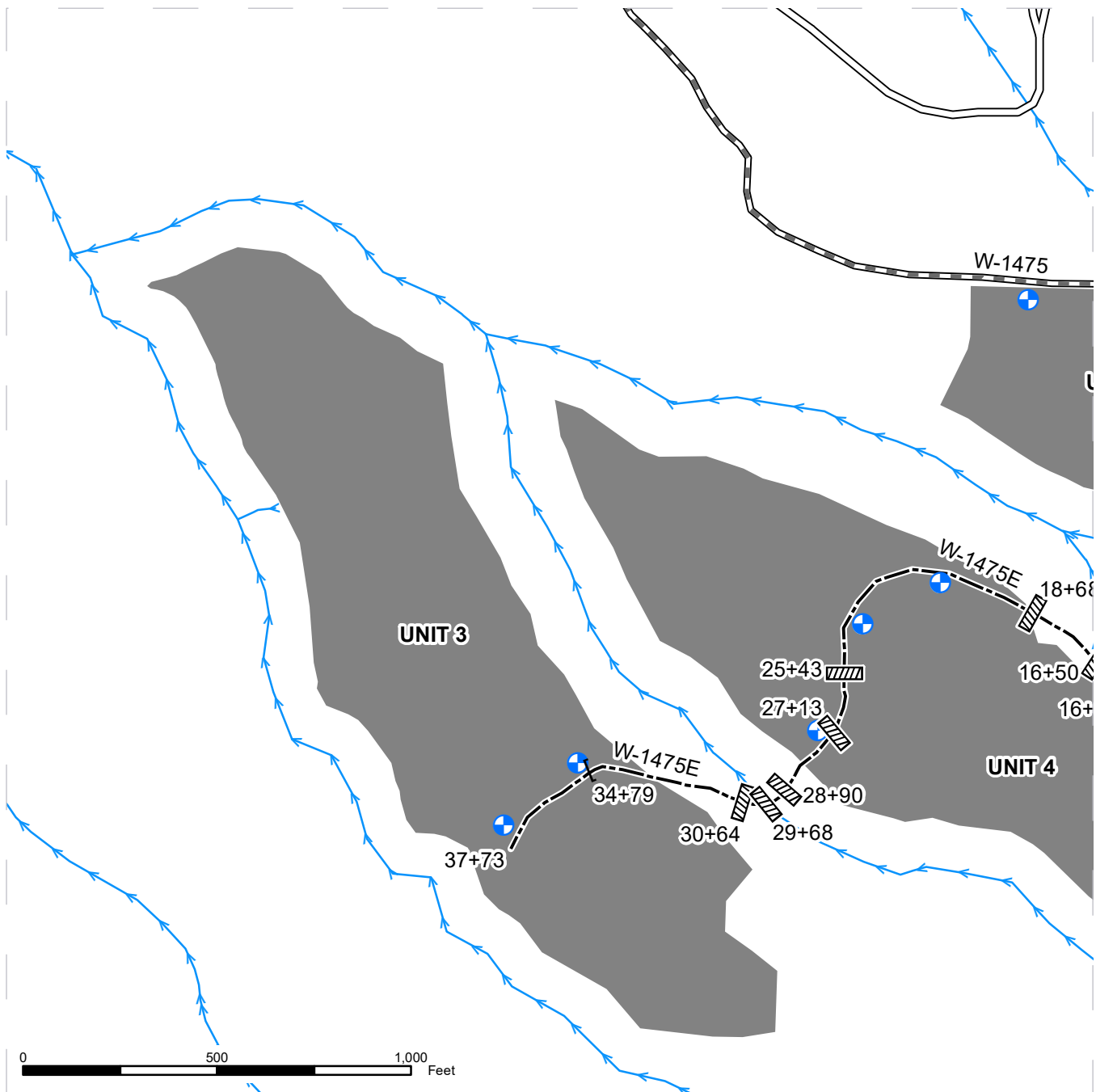


- |                               |                    |              |
|-------------------------------|--------------------|--------------|
| Existing Roads                | End Haul           | Harvest Unit |
| Required Pre-Haul Maintenance | Culvert            | Streams      |
| Optional Construction         | Landing - Proposed |              |
|                               | Waste Area         |              |

# ROAD PLAN MAP

**SALE NAME:** GRAY JAY  
**AGREEMENT#:** 30-103863  
**TOWNSHIP(S):** T2R6E, T3R6E  
**TRUST(S):** State Forest Transfer (1)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Skamania  
**ELEVATION RGE:** 880-2160



- |                               |                    |              |
|-------------------------------|--------------------|--------------|
| Existing Roads                | End Haul           | Harvest Unit |
| Required Pre-Haul Maintenance | Culvert            | Streams      |
| Optional Construction         | Landing - Proposed |              |

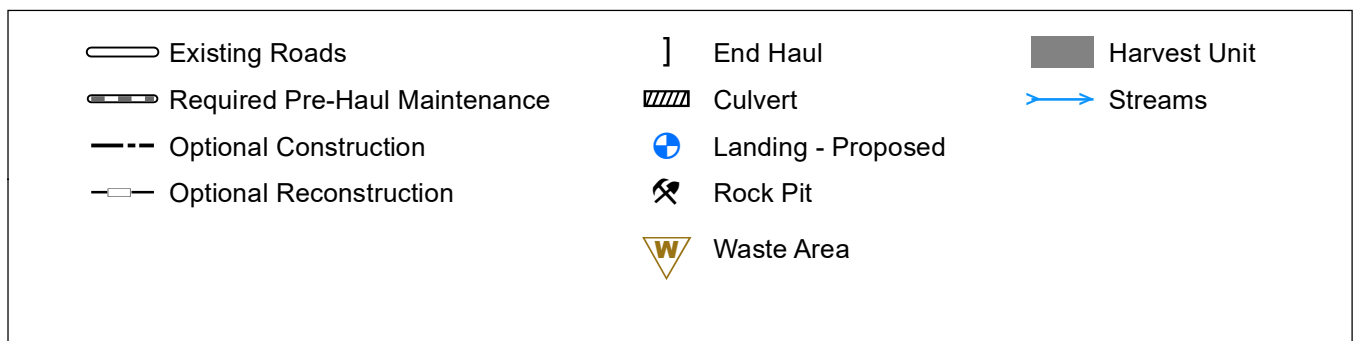
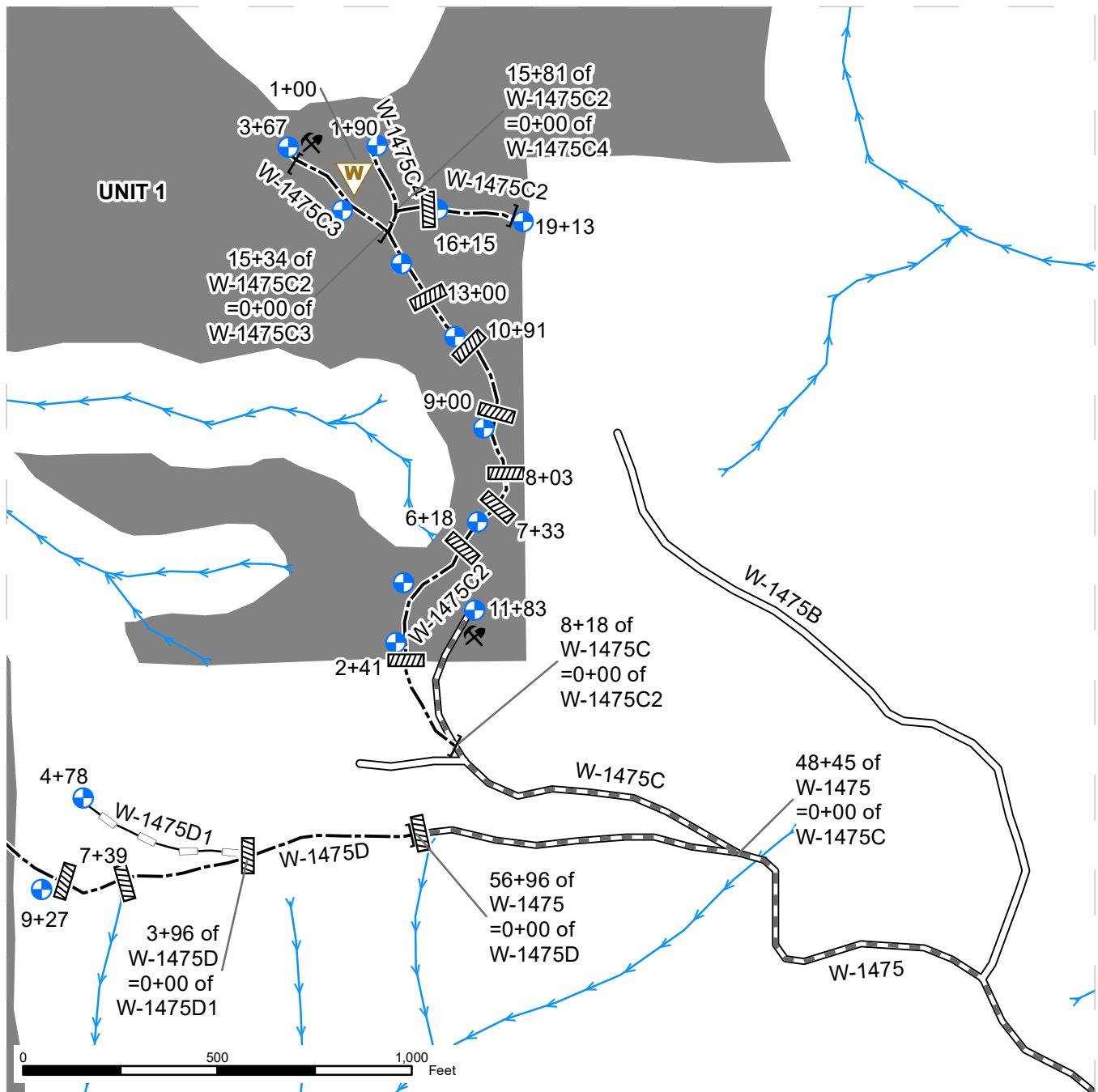




# ROAD PLAN MAP

SALE NAME: GRAY JAY  
 AGREEMENT#: 30-103863  
 TOWNSHIP(S): T2R6E, T3R6E  
 TRUST(S): State Forest Transfer (1)

REGION: Pacific Cascade Region  
 COUNTY(S): Skamania  
 ELEVATION RGE: 880-2160

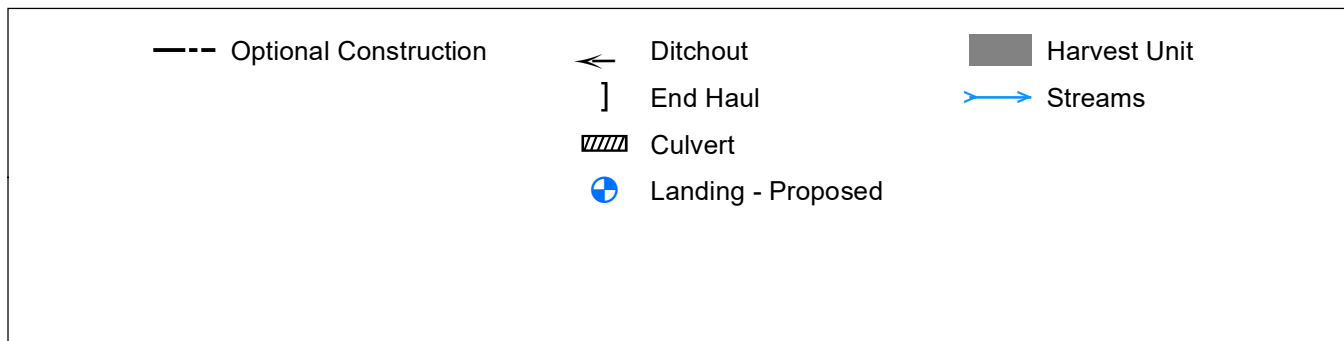
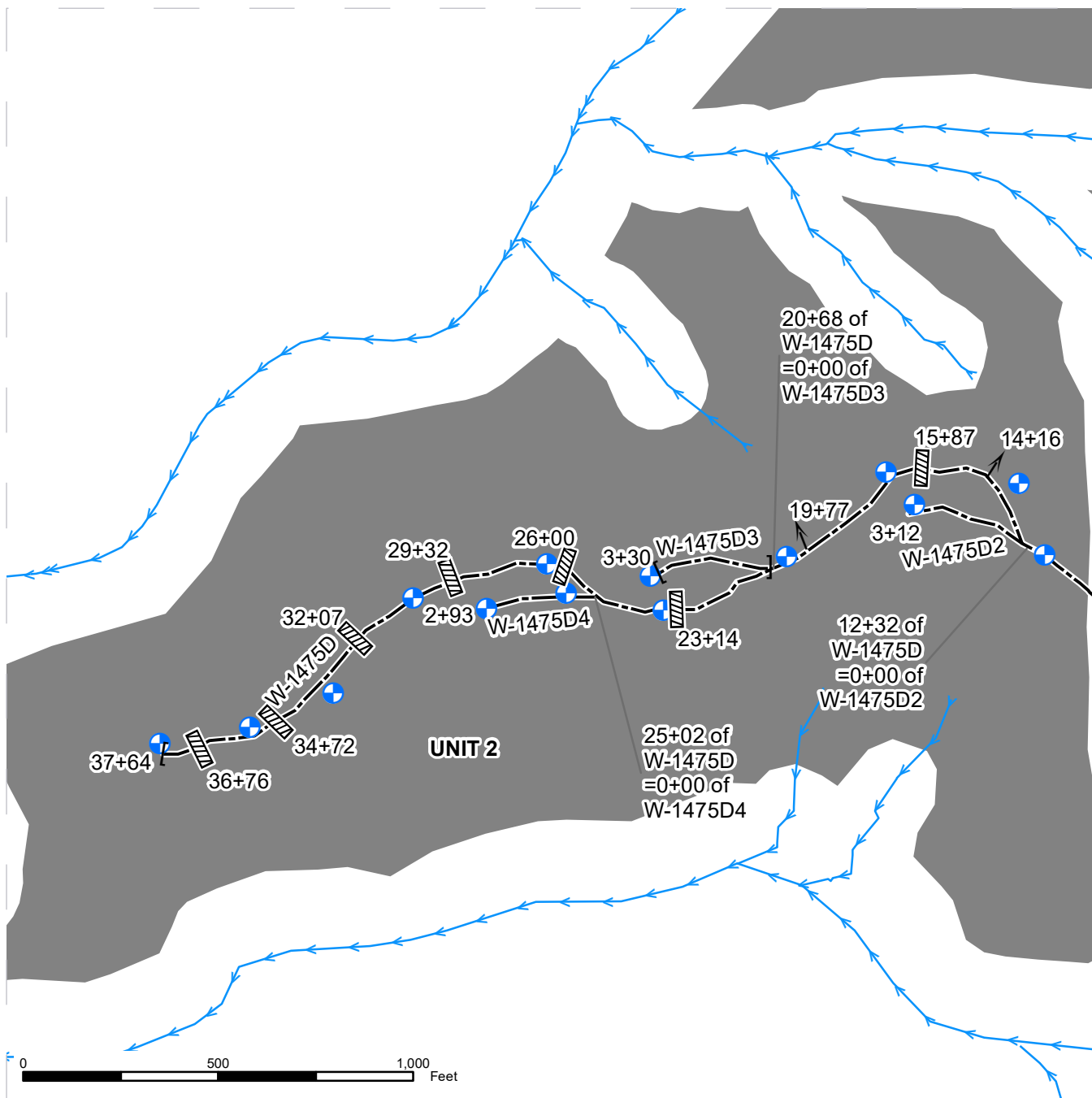




# ROAD PLAN MAP

SALE NAME: GRAY JAY  
 AGREEMENT#: 30-103863  
 TOWNSHIP(S): T2R6E, T3R6E  
 TRUST(S): State Forest Transfer (1)

REGION: Pacific Cascade Region  
 COUNTY(S): Skamania  
 ELEVATION RGE: 880-2160



STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

GRAY JAY TIMBER SALE ROAD PLAN  
SKAMANIA COUNTY  
THREE CORNER ROCK UNIT, YACOLT DISTRICT  
PACIFIC CASCADE REGION

AGREEMENT NO.: 30-103863

STAFF ENGINEER: DAVID STONE

DRAWN & COMPILED BY: ALICIA COMPTON  
& DAVID STONE

SECTION 0 – SCOPE OF PROJECT

**0-1 ROAD PLAN SCOPE**

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

**0-2 REQUIRED ROADS**

The specified work on the following roads is required.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
W-1470	0+00 to 71+68	Pre-haul Maintenance
W-1475	0+00 to 56+96	Pre-haul Maintenance
W-1475C	0+00 to 11+83	Pre-haul Maintenance

**0-3 OPTIONAL ROADS**

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

<u>Road</u>	<u>Stations</u>	<u>Type</u>
W-1475C2	0+00 to 19+13	Construction
W-1475C3	0+00 to 3+67	Construction
W-1475C4	0+00 to 1+90	Construction
W-1475D	0+00 to 37+64	Construction
W-1475D1	0+00 to 4+78	Reconstruction
W-1475D2	0+00 to 3+12	Construction
W-1475D3	0+00 to 3+30	Construction
W-1475D4	0+00 to 2+93	Construction
W-1475E	0+00 to 37+73	Construction

**0-4 CONSTRUCTION**

Construction includes, but is not limited to: clearing; grubbing; right-of-way debris disposal; excavation and embankment to sub-grade; turnout, turnaround and landing construction; acquisition and installation of drainage structures; shaping subgrade; manufacture and application of rock; compaction of earthwork and rock; and acquisition and application of erosion control materials.

**0-5 RECONSTRUCTION**

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
W-1475D1	0+00 to 4+78	Clear, grub, widen subgrade, excavate ditchlines, grade, shape, and compact subgrade surface in accordance to TYPICAL SECTION SHEET. Right-of-way debris disposal. Compact earthwork. Reconstruct road grade according to stakes and reference points marked in the field. Manufacture and apply rock in accordance to ROCK LIST. Grade, shape, and compact rock.

**0-6 PRE-HAUL MAINTENANCE**

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

<u>Road</u>	<u>Stations</u>	<u>Requirements</u>
W-1470	0+00 to 71+68	Grade, shape, and compact existing surface in accordance to TYPICAL SECTION SHEET. Manufacture and apply rock in accordance to ROCK LIST. Grade, shape, and compact rock. Clean and widen ditchlines in accordance to TYPICAL SECTION SHEET at locations specified in Clause 2-7. Acquire and install drainage structures in accordance to CULVERT LIST.
W-1475	0+00 to 56+96	
W-1475C	0+00 to 11+83	

**0-12 DEVELOP ROCK SOURCE**

Purchaser may develop an existing rock source. Rock source development will involve requirements listed in the ROCK SOURCE DEVELOPMENT PLAN. Work for developing rock sources is listed in Section 6 ROCK AND SURFACING.

**SECTION 1 – GENERAL****1-1 ROAD PLAN CHANGES**

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

**1-2 UNFORESEEN CONDITIONS**

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

### 1-3 ROAD DIMENSIONS

Purchaser shall perform road work in accordance with the dimensions shown on the TYPICAL SECTION SHEET and the specifications within this road plan, unless controlled by construction stakes or design data (plan, profile, and cross-sections).

### 1-4 ROAD TOLERANCES

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

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

### 1-5 DESIGN DATA

Road location, cross-section, and design data are available upon request at the Department of Natural Resources Pacific Cascade Region Office in Castle Rock, WA.

### 1-6 ORDER OF PRECEDENCE

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

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

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

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

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

### 1-9 DAMAGED METALLIC COATING

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

### **1-15 ROAD MARKING**

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

- Construction and Reconstruction roads: Centerline stakes with orange flagging, orange paint, and aluminum reference tags.
- Pre-haul Maintenance roads: Orange paint and aluminum reference tags.

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

The Purchaser shall construct the following roads in accordance with the construction stakes and reference points set in the field for grade and alignment. Prior to road construction Purchaser shall reset slope stakes after right-of-way has been cleared.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
W-1475C2	0+00 to 19+13	Centerline stakes, slope stakes, and RPs
W-1475D	0+00 to 37+64	Centerline stakes, slope stakes, and RPs
W-1475E	0+00 to 37+73	Centerline stakes, slope stakes, and RPs

### **1-18 REFERENCE POINT DAMAGE**

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

### **1-21 HAUL APPROVAL**

Purchaser shall not use roads under this road plan for timber hauling, rock hauling, or right-of-way hauling, without written approval from the Contract Administrator.

### **1-22 WORK NOTIFICATIONS**

Purchaser shall notify the Contract Administrator a minimum of 5 calendar days before work begins.

### **1-23 ROAD WORK PHASE APPROVAL**

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

- Subgrade construction and drainage installation
- Waste area construction
- Subgrade compaction
- Rock pit development
- Rock application and compaction

**1-25 ACTIVITY TIMING RESTRICTION**

The specified activities are not allowed during the listed closure periods unless authorized in writing by the Contract Administrator. Restrictions for hauling forest products are specified in Contract Clause H-130 Hauling Schedule.

<u>Road</u>	<u>Activity</u>	<u>Closure Period</u>
All	Construction, Reconstruction, Pre-haul Maintenance, & Rock Source Work	October 1 to April 30

**1-26 OPERATING DURING CLOSURE PERIOD**

If permission is granted to operate during a closure period listed in Clause 1-25 ACTIVITY TIMING RESTRICTION Purchaser shall provide a maintenance plan to include further protection of state resources. Purchaser shall obtain written approval from the Contract Administrator for the maintenance plan, and shall put preventative measures in place before operating during the closure period. Purchaser is required to maintain all haul roads at their own expense including those listed in Contract Clause C-060 DESIGNATED ROAD MAINTAINER. If other operators are using, or desire to use these designated maintainer roads, a joint operating plan must be developed. All parties shall follow this plan.

**1-29 SEDIMENT RESTRICTION**

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

**1-30 CLOSURE TO PREVENT DAMAGE**

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

- Wheel track rutting exceeds 4 inches on jaw run roads.
- Wheel track rutting exceeds 2 inches on crushed rock roads.
- Wheel track rutting exceeds 2 inches on native surface roads.
- Surface or base stability problems persist.
- Weather is such that satisfactory results cannot be obtained in an area of operations.
- When, in the opinion of the Contract Administrator excessive road damage or rutting may occur.

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

### **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, approved in writing by Contract Administrator, must be used. Other methods must meet the following criteria: Material utilized to protect the deck surface from tracked equipment damage must be of substantial thickness, durability and width to support the machine weight and prevent grousers from touching the bridge deck and asphalt surfaces.

If tracked equipment is used on bridge or asphalt surfaces, Purchaser shall immediately cease all road construction and hauling operations. Purchaser shall remove any dirt, rock, or other material tracked or spilled on the bridge or asphalt surfaces and have surfaces evaluated by the District Engineer or their designee for any damage caused by transporting equipment. Any damage to the surfaces will be repaired, at the Purchaser's expense, as directed by the Contract Administrator.

### **1-33 SNOW PLOWING RESTRICTION**

Snowplowing will be allowed after the execution of a SNOW PLOWING AGREEMENT, which is available from the Contract Administrator upon request. 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.

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

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

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

## **SECTION 2 – MAINTENANCE**

### **2-1 GENERAL ROAD MAINTENANCE**

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

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

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

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

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

## **2-4 PASSAGE OF LIGHT VEHICLES**

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

<u>Road</u>	<u>Stations</u>
W-1470	0+00 to 71+68
W-1475	0+00 to 56+96
W-1475C	0+00 to 11+83
W-1475D1	0+00 to 4+78

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

Purchaser shall use a grader to shape the existing surface before applying rock.

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

On the following roads, Purchaser shall clean ditches, headwalls, and catchbasins. Pulling ditch material across the road or mixing in with the road surface is not allowed. Scatter material down slope outside of cleared right-of-way.

<u>Road</u>	<u>Stations</u>
W-1470	0+00 to 71+68
W-1475	0+00 to 56+96
W-1475C	0+00 to 11+83

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

## **3-5 CLEARING**

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

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

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

## **3-8 PROHIBITED DECKING AREAS**

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

- Within the grubbing limits.
- Within 50 feet of any stream.
- In locations that interfere with the construction of the road prism.
- In locations that impede drainage.
- On slopes greater than 45%.
- Against standing trees.
- On slopes above a cut bank.



### **3-10 GRUBBING**

Purchaser shall remove all stumps between the grubbing limits specified on the TYPICAL SECTION SHEET. Purchaser shall also remove stumps with undercut roots outside the grubbing limits. Stumps over 22 inches diameter must be split. Stumps over 40 inches must be quartered. Grubbing must be completed before starting excavation and embankment.

### **3-12 STUMP PLACEMENT**

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

### **3-14 STUMPS WITHIN DESIGNATED WASTE AREAS**

Purchaser is not required to remove stumps within waste areas if they are cut flush with the ground.

### **3-20 ORGANIC DEBRIS DEFINITION**

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

### **3-21 DISPOSAL COMPLETION**

Purchaser shall remove organic debris from the road surface, ditchlines, and culvert inlets and outlets. Purchaser shall complete all disposal of organic debris, before subgrade approval.

### **3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS**

Waste areas for organic debris are located as listed below and at areas approved in writing by the Contract Administrator.

<u>Road</u>	<u>Disposal Location</u>
W-1475C3 Pit, W-1475C2, & W-1475C3	On the Left side of the W-1475C4 at station 1+00
W-1475C Pit, W-1475C2, W-1475D, & W-1475D3	On the Right side of the W-1475 at station 11+01
W-1475D, & W-1475E (15+10 to 34+79)	On the Right side of the W-1475E at station 3+66

### **3-23 PROHIBITED DISPOSAL AREAS**

Purchaser shall not place organic debris in the following areas:

- Within 50 feet of a cross drain culvert.
- Within 100 feet of a live stream, or wetland.
- On road subgrades, or excavation and embankment slopes.
- On slopes greater than 45%.
- Within the operational area for cable landings where debris may shift or roll.
- On locations where brush can fall into the ditch or onto the road surface.
- Against standing timber.
- On slopes above a cut bank.

### **3-24 BURYING ORGANIC DEBRIS RESTRICTED**

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

### **3-25 SCATTERING ORGANIC DEBRIS**

Purchaser shall scatter organic debris outside of the clearing limits in natural openings downhill side of the road, unless otherwise detailed in this road plan and as directed by the Contract Administrator.

### **3-32 END HAULING ORGANIC DEBRIS**

On the following roads and on slopes greater than 45%, Purchaser shall end haul or push organic debris to the designated waste areas specified in Clause 3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS, or to a waste area located by the Contract Administrator.

<u>Road</u>	<u>Stations</u>
W-1475C2	0+00 to 19+13
W-1475C3	0+00 to 3+67
W-1475D	0+00 to 37+64
W-1475D3	0+00 to 3+30
W-1475E	15+10 to 34+79

## **SECTION 4 – EXCAVATION**

### **4-2 PIONEERING**

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

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

### **4-3 ROAD GRADE AND ALIGNMENT STANDARDS**

Purchaser shall follow these standards for road grade and alignment:

- Grade and alignment must have smooth continuity, without abrupt changes in direction.
- Maximum grades may not exceed 18 percent favorable and 13 percent adverse.
- Minimum curve radius is 60 feet at centerline.
- Maximum grade change for sag vertical curves is 6% in 100 feet.
- Maximum grade change for crest vertical curves is 4% in 100 feet.

### **4-4 SWITCHBACK STANDARDS**

A switchback is defined as a curved segment of road between a beginning and end of the same curve, where the change of traffic travel direction is greater than 90 degrees. Purchaser shall follow these standards for switchbacks:

- Maximum adverse grades for switchbacks is 10% of the curve radius.
- Maximum favorable grades for switchbacks is 12%.
- Maximum transition grades entering and leaving switchbacks is a 5% grade change.
- Transition grades required to meet switchback grade limitations must be constructed on the tangents preceding and departing from the switchbacks.

#### 4-5 CUT SLOPE RATIO

Purchaser shall construct excavation slopes no steeper than shown on the following table, unless construction staked or designed:

<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)	$\frac{3}{4}$ :1	133
Common Earth (on slopes over 70%)	$\frac{1}{2}$ :1	200
Fractured or loose rock	$\frac{1}{2}$ :1	200
Hardpan or solid rock	$\frac{1}{4}$ :1	400

#### 4-6 EMBANKMENT SLOPE RATIO

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

<u>Material Type</u>	<u>Embankment Slope Ratio</u>	<u>Embankment Slope Percent</u>
Sandy Soils	2:1	50
Common Earth and Rounded Gravel	$1\frac{1}{2}$ :1	67
Angular Rock	$1\frac{1}{4}$ :1	80

#### 4-7 SHAPING CUT AND FILL SLOPE

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

#### 4-8 CURVE WIDENING

The minimum widening placed on the inside of curves is:

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

#### 4-9 EMBANKMENT WIDENING

The minimum embankment widening is:

- 2 feet for embankment heights at centerline of 3 to 6 feet.
- 4 feet for embankment heights at centerline of greater than 6 feet.

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

#### 4-10 WIDEN THE EXISTING SUBGRADE

On the following roads, Purchaser shall widen the subgrade and fill slopes to the dimensions shown on the TYPICAL SECTION SHEET. If necessary, Purchaser shall reconstruct excavation slopes to provide sufficient width for the road surface and any ditches and turnouts.

<u>Road</u>	<u>Stations</u>
W-1475D1	0+00 to 4+78

#### **4-12 FULL BENCH CONSTRUCTION**

On the following roads, and where side slopes exceed 45%, Purchaser shall use full bench construction for the entire subgrade width. Purchaser shall end haul waste material to the location specified in Clause 4-37 WASTE AREA LOCATION.

<u>Road</u>	<u>Full Bench Location</u>	<u>Comments</u>
W-1475C2	0+00 to 19+13	End haul all material. Material that is devoid of organic debris may be used as fill embankment.
W-1475C3	0+00 to 3+67	
W-1475D	0+00 to 37+64	
W-1475D3	0+00 to 3+30	
W-1475E	15+10 to 34+79	

#### **4-21 TURNOUTS**

Purchaser shall construct non designated turnouts intervisible with a maximum distance of 1000 feet between turnouts. Locations may be adjusted to fit the final subgrade alignment and sight distances. Locations changes are subject to written approval by the Contract Administrator. Minimum dimensions are shown on the ROCK LIST.

#### **4-22 TURNAROUNDS**

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

#### **4-25 DITCH CONSTRUCTION AND RECONSTRUCTION**

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

#### **4-28 DITCH DRAINAGE**

Ditches must drain to cross-drain culverts or ditchouts.

#### **4-29 DITCHOUTS**

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

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

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

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

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

#### 4-37 WASTE AREA LOCATION

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

<u>Road</u>	<u>Waste Area Location</u>	<u>Comments</u>
W-1475C3 Pit, W-1475C2 (12+58 to 19+13), & W-1475C3	On the Left side of the W-1475C4 at station 1+00	Pile Organic material separately from all other waste
W-1475C Pit, W-1475C2 (0+00 to 12+58), W-1475D, & W-1475D3	On the Right side of the W-1475 at station 11+01	
W-1475D, & W-1475E (15+10 to 34+79)	On the Right side of the W-1475E at station 3+66	

#### 4-38 PROHIBITED WASTE DISPOSAL AREAS

Purchaser shall not deposit waste material in the following areas, except as otherwise specified in this plan:

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

#### 4-48 NATIVE MATERIAL

Native material consists of naturally occurring material that is free of organic debris, trash, and rocks greater than 4 inches in any dimension.

#### 4-55 ROAD SHAPING

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

#### 4-56 DRY WEATHER SHAPING

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

#### 4-60 FILL COMPACTION

Purchaser shall compact all embankment and waste material in accordance with the COMPACTION LIST by routing equipment over the entire width of each lift. A plate compactor must be used for areas specifically requiring keyed embankment construction and for embankment, waste area, and 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 rock application and timber haul.

**4-62 DRY WEATHER COMPACTION**

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

**4-63 EXISTING SURFACE COMPACTION**

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

**SECTION 5 – DRAINAGE****5-5 CULVERTS**

Purchaser shall install culverts as part of this contract. Culverts must be installed concurrently with subgrade work and must be installed before subgrade compaction and rock application. Culvert locations and the minimum requirements for culvert length and diameter are designated on the CULVERT LIST. Culvert, downspout, and flume lengths may be adjusted to fit as-built conditions and may not terminate directly on unprotected soil. Culverts must be new material and meet the specifications in Clauses 10-15 through 10-24. Culverts 36 inches and greater in diameter shall be made of corrugated steel.

**5-6 CULVERT TYPE**

Purchaser shall install culverts made of steel or plastic in accordance with Clauses 10-15 through 10-24.

**5-9 BEVELED ENDS**

The following culverts must have the end beveled as specified below.

<u>Road</u>	<u>Stations</u>	<u>Bevel Type</u>
W-1475E	10+56, 14+64, & 29+68	Full 1:1, Inlet only

**5-10 CULVERT MARKER INSTALLATION**

At road locations listed on the CULVERT LIST marked Y, Purchaser shall provide and install culvert markers at the inlet in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL.

**5-12 UNUSED MATERIALS STATE PROPERTY**

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

#### **5-15 CULVERT INSTALLATION**

Culvert installation must be in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL, LIVE STREAM INSTALLATION PROCEDURE DETAIL and the National Corrugated Metal Pipe Association's "Installation Manual for Corrugated Steel Drainage Structures" the Corrugated Polyethylene Pipe Association's "Recommended Installation Practices for Corrugated Polyethylene Pipe and Fittings". Corrugated Polyethylene pipe must be installed in a manner consistent with the manufacturer's recommendations.

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

Purchaser shall obtain written approval from the Contract Administrator for the installation of culverts 36 inches in diameter and over before backfilling.

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

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

#### **5-18 CULVERT DEPTH OF COVER**

All culverts must be installed with a compacted depth of cover over the top of the culvert, as recommended by the culvert manufacture for the type and size of the pipe.

#### **5-20 ENERGY DISSIPATERS**

Purchaser shall install energy dissipaters in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all culverts on the CULVERT LIST that specify the placement of rock. Energy dissipater installation is subject to approval by the Contract Administrator. The type of energy dissipater and the amount of material must be consistent with the specifications listed on the CULVERT LIST. Placement must with a zero-drop-height only. No placement by end dumping or dropping of rock is allowed.

#### **5-25 CATCH BASINS**

Purchaser shall construct catch basins in accordance with CULVERT AND DRAINAGE SPECIFICATION DETAIL. Minimum dimensions of catch basins are 3 feet wide and 4 feet long with back slopes consistent with Clause 4-5 CUT SLOPE RATIO.

#### **5-26 HEADWALLS FOR CROSS DRAIN CULVERTS**

Purchaser shall construct headwalls in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets. Minimum specifications require that rock be placed at a width of one culvert diameter on each side of the culvert opening, and to a height of one culvert diameter above the top of the culvert. Rock may not restrict the flow of water into culvert inlets or catch basins. Rock must be set in place by machine. Placement must be with a zero-drop-height only. No placement by end dumping or dropping of rock is allowed. Rock type must meet the specifications in Clause 6-50 LIGHT LOOSE RIP RAP.

## 5-27 ARMORING FOR STREAM CROSSING CULVERTS

At the following culverts, Purchaser shall place rock in conjunction with construction of the embankment. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets as designated on the CULVERT LIST and as directed by the Contract Administrator. Rock may not restrict the flow of water into culvert inlets or catch basins. Rock must be set in place by machine. Placement must be with a zero-drop-height only. No placement by end dumping or dropping of rock is allowed. Rock type must meet the specifications in Clauses 6-50 LIGHT LOOSE RIP RAP and 6-51 HEAVY LOOSE RIP RAP.

<u>Road</u>	<u>Stations</u>	<u>Rock Type</u>
W-1475E	12+81 & 16+50	LIGHT LOOSE RIP RAP
W-1475E	10+56, 14+64, & 29+68	HEAVY LOOSE RIP RAP

## 5-33 NATIVE SURFACE ROADS

If overwintered, native surface roads must be waterbarred by October 1. Purchaser shall construct waterbars according to the attached NON-DRIVABLE WATERBAR DETAIL at a maximum spacing that will produce a vertical distance of no more than 10 feet between waterbars or between natural drainage paths, and with a maximum spacing of 200 feet.

## SECTION 6 – ROCK AND SURFACING

### 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 on state land at no charge to the Purchaser. Purchaser shall obtain written approval from the Contract Administrator for the use of material from any other source. If other operators are using, or desire to use the rock source, a joint operating plan must be developed. All parties shall follow this plan. Purchaser shall notify the Contract Administrator a minimum of 5 business days before starting any operations in the listed locations.

<u>Source</u>	<u>Location</u>
W-1475C Pit	NW¼ SW¼ Sec. 32, T03N, R06E, W.M.
W-1475C3 Pit	SW¼ NW¼ Sec. 32, T03N, R06E, W.M.

### 6-5 ROCK FROM COMMERCIAL SOURCE

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



## 6-10 ROCK SOURCE DEVELOPMENT PLAN BY STATE

Purchaser shall conduct rock source development and use at the following sources, in accordance with the written ROCK SOURCE DEVELOPMENT PLAN prepared by the state and included in this road plan. Upon completion of operations, the rock source must be left in the condition specified in the ROCK SOURCE PLAN, and approved in writing by the Contract Administrator. Purchaser shall notify the Contract Administrator a minimum of 5 business days before starting any operations in the rock source.

<u>Source</u>	<u>Location</u>
W-1475C Pit	NW¼ SW¼ Sec. 32, T03N, R06E, W.M.
W-1475C3 Pit	SW¼ NW¼ Sec. 32, T03N, R06E, W.M.

## 6-22 FRACTURE REQUIREMENT FOR ROCK

A minimum of 50% by visual inspection of coarse aggregate must have at least one fractured face. Coarse aggregate is the material greater than 1/4-inch in size.

## 6-23 ROCK GRADATION TYPES

Purchaser shall provide or manufacture rock in accordance with the types and amounts listed in the ROCK LIST. Rock must meet the following specifications for gradation and uniform quality during manufacture and placement into a stockpile. The exact point of evaluation for conformance to specifications will be determined by the Contract Administrator. Purchaser shall provide a sieve analysis upon request from the Contract Administrator. Gradation specifications in Clause 6-28, 6-34, 6-50, 6-51 and the Rock Crushing Compliance Procedure.

## 6-28 1 ¼-INCH MINUS CRUSHED ROCK

% Passing 1 ¼" square sieve	100%
% Passing 5/8" square sieve	55 - 75%
% Passing U.S. #4 sieve	20 - 50%

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

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

## 6-34 3-INCH JAW RUN ROCK

% Passing 3" square sieve	100%
% Passing 1 ½" square sieve	45 - 65%

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

Rock may contain no more than 5 percent organic debris and trash. All percentages are by weight.

#### **6-50 LIGHT LOOSE RIP RAP**

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

<u>Quantity</u>	<u>Approximate Size Range</u>
20% to 90%	18" - 28"
15% to 80%	8" - 18"
10% to 20%	3" - 8"

#### **6-51 HEAVY LOOSE RIP RAP**

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

<u>Quantity</u>	<u>Size Range</u>
30% to 90%	28" - 36"
30% to 70%	18" - 28"
20% to 50%	8" - 18"
10% to 20%	3" - 8"

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

Measurement of specified rock depths, are defined as the compacted depths using the compaction methods required in this road plan. Estimated quantities specified in the ROCK LIST are loose yards. Purchaser shall apply adequate amounts of rock to meet the specified rock depths. Specified rock depths are minimum requirements and are not subject to reduction. Unless otherwise stated in Clause 6-75 OPTIONAL ROCK EXCEPTION.

#### **6-56 ROCK MEASUREMENT BY TRUCK VOLUME**

Measurement of Spot Rocking, Culvert Bedding & Back Fill, Landing, Junction, and Rip Rap Rock is on a cubic yard truck measure basis. The Contract Administrator will measure each truck box before rock hauling. An average of such volumes for each truck will be used to tally the volume hauled. The Contract Administrator may periodically require that a load be flattened off and its volume calculated. Purchaser shall maintain load tally sheets for each truck as shown in ROCK ACCOUNTABILITY DETAIL and shall give them to the Contract Administrator or mail them to the Pacific Cascade Region Office on a weekly basis during rocking operations.

#### **6-70 APPROVAL BEFORE ROCK APPLICATION**

Purchaser shall obtain written approval from the Contract Administrator for completed subgrade and drainage installation, including inlet and outlet armor and subgrade compaction, before rock application.

**6-71 ROCK APPLICATION**

Purchaser shall apply rock in accordance with the specifications and quantities shown on the ROCK LIST. Rock must be spread, shaped, and compacted full width concurrent with rock hauling operations. Road surfaces must be compacted in accordance with the COMPACTION LIST by routing equipment over the entire width.

**6-73 ROCK FOR WIDENED PORTIONS**

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

**6-75 OPTIONAL ROCK EXCEPTION**

On the following roads, if hauling takes place from June 1 to September 30 the Purchaser may place less rock than shown on the ROCK LIST when approved in writing by the Contract Administrator.

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

<u>Road</u>	<u>Stations</u>
W-1475C4	0+00 to 1+90
W-1475D	0+00 to 37+64
W-1475D2	0+00 to 3+12
W-1475D3	0+00 to 3+30
W-1475D4	0+00 to 2+93

**6-76 DRY WEATHER ROCK COMPACTION**

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

**SECTION 8 – EROSION CONTROL****8-2 PROTECTION FOR EXPOSED SOIL**

Purchaser shall provide and evenly spread a 4-inch layer of straw to all exposed soils within 100 feet of a stream or wetland. Soils must be covered before the first anticipated storm event. Soils may not sit exposed during any rain event.

**8-15 REVEGETATION**

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

<u>Road</u>	<u>Location</u>	<u>Qty (lbs)*</u>	<u>Abandonment</u>
W-1470	Ditchline work & Landing 0+00 to 71+68	27.3	
W-1475	Ditchline work, Landing, & Waste Area 0+00 to 56+96	101.7	
W-1475C	Ditchline work & Landing 0+00 to 11+83	5.3	
W-1475C2	0+00 to 19+13	41.5	
W-1475C3	0+00 to 3+67	7.0	
W-1475C4	Waste Area & 0+00 to 1+90	62.5	
W-1475D	0+00 to 37+64	79.1	
W-1475D1	0+00 to 4+78	7.3	
W-1475D2	0+00 to 3+12	5.3	
W-1475D3	0+00 to 3+30	6.9	
W-1475D4	0+00 to 2+93	5.8	
W-1475E	Waste Area & 0+00 to 37+73	136.4	
W-1475C Pit	Pit perimeter, Access Road and Bench	2.0	
W-1475C3 Pit	Pit perimeter, Access Road and Bench	5.6	

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

**8-16 REVEGETATION SUPPLY**

The Purchaser shall provide the grass seed.

**8-17 REVEGETATION TIMING**

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

**8-19 ASSURANCE FOR SEEDED AREA**

Purchaser shall ensure the growth of a uniform and dense crop at least 75% coverage of 3-inch tall grass. Purchaser shall reapply the grass seed in areas that have failed to germinate or have been damaged through any cause, restore eroded or disturbed areas, clean up and properly dispose of eroded materials, and reapply the grass seed at no additional cost to the state.

## **8-25 GRASS SEED**

Purchaser shall evenly spread the seed mixture listed below on all exposed soil inside the grubbing limits at a rate of 40 pounds per acre of exposed soil. Grass seed must meet the following specifications:

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

<u>Kind and Variety of Seed in Mixture</u>	<u>% by Weight</u>	<u>Minimum % germination</u>
Perennial Rye	25-35	90
Red Fescue	40-50	90
Highland Bent	5-15	85
Red and White Clover	10-20	90
Inert and Other Crop	0.5	

## **SECTION 9 – POST-HAUL ROAD WORK**

### **9-5 POST-HAUL MAINTENANCE**

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

### **9-10 LANDING DRAINAGE**

Purchaser shall provide for drainage of the landing surface.

### **9-11 LANDING EMBANKMENT**

Purchaser shall slope landing embankments to the original construction specifications.

### **9-12 LANDING EMBANKMENT REMOVAL**

Purchaser shall reduce or relocate the landing embankment. Place excavated material in a waste area designated by the Contract Administrator.

## **SECTION 10 MATERIALS**

### **10-15 CORRUGATED STEEL CULVERT**

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

#### **10-17 CORRUGATED PLASTIC CULVERT**

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

#### **10-21 METAL BAND**

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

#### **10-22 PLASTIC BAND**

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

#### **10-23 RUBBER CULVERT GASKETS**

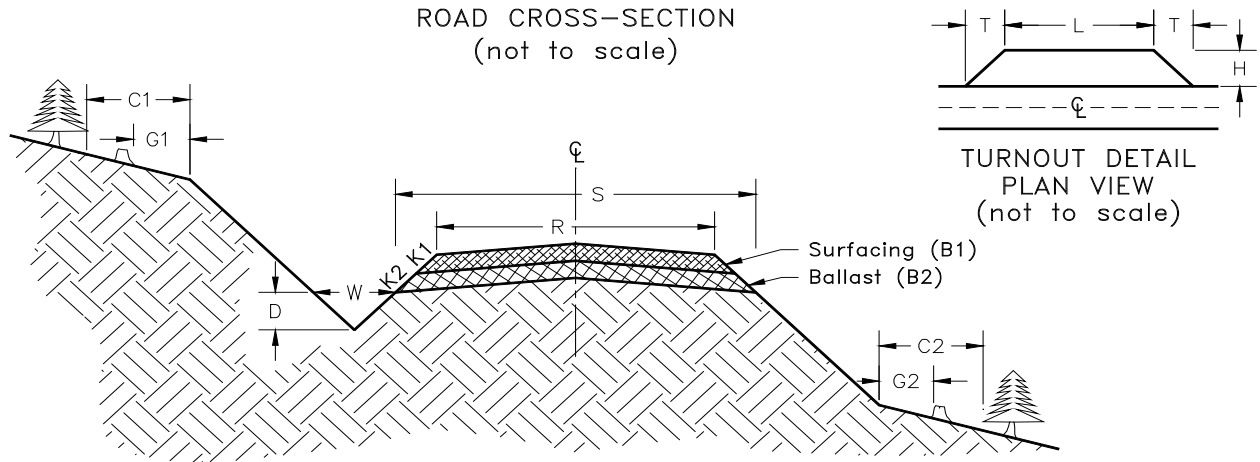
Rubber gaskets must be continuous closed cell, synthetic expanded rubber gaskets conforming to the requirements of ASTM D 1056. Rubber gaskets must be used with all corrugated metal pipe coupling bands on culvert diameters 42 inches and greater.

#### **10-24 GAUGE AND CORRUGATION**

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

<u>Diameter</u>	<u>Gauge</u>	<u>Corrugation</u>
18"	16 (0.064")	2 <sup>2</sup> / <sub>3</sub> " X 1 <sup>1</sup> / <sub>2</sub> "
24" to 48"	14 (0.079")	2 <sup>2</sup> / <sub>3</sub> " X 1 <sup>1</sup> / <sub>2</sub> "
54" to 60"	12 (0.109")	5" X 1"

# TYPICAL SECTION SHEET

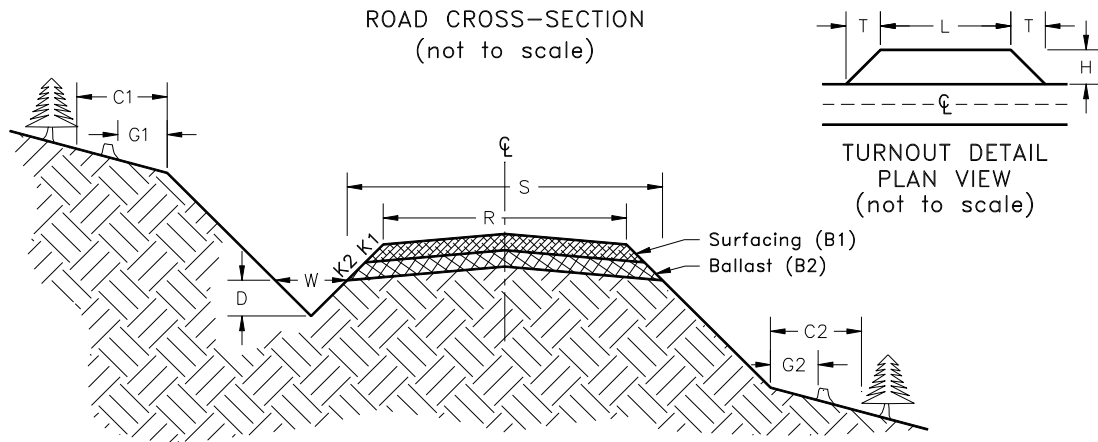


Road Number	From Station	To Station	Tolerance Class	Subgrade Width (feet)	Road Width (feet)	Ditch		Crown at CL (%)	Grubbing Limits (feet)		Clearing Limits (feet)	
						Width (feet)	Depth (feet)		G1	G2	C1	C2
				S	R	W	D					
W-1470	0+00	71+68	A	-	12	3	1	4	NA	NA	NA	NA
W-1475	0+00	56+96	A	-	12	3	1	4	NA	NA	NA	NA
W-1475C	0+00	11+83	A	-	12	3	1	4	NA	NA	NA	NA
* W-1475C2	0+00	19+13	A	16	12	3	1	4	3	3	5	5
* W-1475C3	0+00	3+67	C	16	12	3	1	4	3	3	5	5
* W-1475C4	0+00	1+90	C	16	12	3	1	4	3	3	5	5
* W-1475D	0+00	37+64	A	16	12	3	1	4	3	3	5	5
* W-1475D1	0+00	4+78	C	16	12	3	1	4	3	3	5	5
* W-1475D2	0+00	3+12	C	16	12	3	1	4	3	3	5	5
* W-1475D3	0+00	3+30	C	16	12	3	1	4	3	5	5	5
* W-1475D4	0+00	2+93	C	16	12	3	1	4	3	5	5	5
* W-1475E	0+00	37+73	A	16	12	3	1	4	3	5	5	5

\* Optional Roads

# ROCK LIST

(Page 1 of 4)



## BALLAST

Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth (inches)	C.Y./ Station	# of Stations	C.Y. Subtotal	Rock Source	Turnout		
									Length (feet)	Width (feet)	Taper (feet)
			K2	B2					L	H	T
<b>3" JAW RUN</b>											
W-1475C2	0+00	19+13	1½:1	9	46	19.13	880	W-1475C & W-1475C3 Pits	50	10	25
CURVE	--	--	1½:1	9	--	--	44				
WIDENING	--	--	1½:1	9	28/TO	2 TO's	56				
TURNOUT	--	--	1½:1	9	41/Landing	8 Landings	328				
JUNCTION	0+00	--	--	--	--	--	12				
LANDING	--	--	--	--	--	--	12				
W-1475C3	0+00	3+67	1½:1	9	46	3.67	169				
CURVE	--	--	1½:1	9	--	--	6				
WIDENING	--	--	1½:1	9	--	--	12				
JUNCTION	0+00	--	--	--	--	--	12				
LANDING	--	--	--	--	41/Landing	2 Landings	82				
* W-1475C4	0+00	1+90	1½:1	9	46	1.90	87				
* CURVE	--	--	1½:1	9	--	--	3				
WIDENING	--	--	1½:1	9	--	--	12				
* JUNCTION	0+00	--	--	--	--	--	12				
* LANDING	--	--	--	--	41/Landing	1 Landing	41				
* W-1475D	0+00	37+64	1½:1	9	49	37.64	1,844				
* CURVE	--	--	1½:1	9	--	--	92				
WIDENING	--	--	1½:1	9	28/TO	1 TO's	28		50	10	25
* TURNOUT	--	--	1½:1	9	--	--	12				
* JUNCTION	0+00	--	--	--	--	--	12				
* LANDING	--	--	--	--	41/Landing	11 Landings	451				



**ROCK LIST**  
(Page 2 of 4)

**BALLAST CONTINUED**

Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth (inches)	C.Y./ Station	# of Stations	C.Y. Subtotal	Rock Source	Turnout		
									Length (feet)	Width (feet)	Taper (feet)
			K2	B2					L	H	T
<b>3" JAW RUN</b>											
W-1475D1	0+00	4+78	1½:1	6	30	4.78	143	W-1475C & W-1475C3 Pits			
CURVE	--	--	1½:1	6	--	--	8				
WIDENING											
JUNCTION	0+00		--	--	--	--	8				
LANDING	--	--	--	--	41/Landing	1 Landing	41				
* W-1475D2	0+00	3+12	1½:1	9	46	3.12	144				
* CURVE	--	--	1½:1	9	--	--	8				
WIDENING											
* JUNCTION	0+00		--	--	--	--	12				
* LANDING	--	--	--	--	41/Landing	1 Landing	41				
* W-1475D3	0+00	3+30	1½:1	9	46	3.30	152				
* CURVE	--	--	1½:1	9	--	--	8				
WIDENING											
* JUNCTION	0+00		--	--	--	--	12				
* LANDING	--	--	--	--	41/Landing	1 Landing	41				
* W-1475D4	0+00	2+93	1½:1	9	46	2.93	135				
* CURVE	--	--	1½:1	9	--	--	7				
WIDENING											
* JUNCTION	0+00		--	--	--	--	12				
* LANDING	--	--	--	--	41/Landing	2 Landings	82				
W-1475E	0+00	37+73	1½:1	9	46	37.73	1736				
CURVE	--	--	1½:1	9	--	--	87				
WIDENING											
TURNOUT	--	--	1½:1	9	28/TO	3 TO's	84		50	10	25
JUNCTION	0+00		--	--	--	--	12				
LANDING	--	--	--	--	41/Landing	8 Landings	328				
W-1470	--	--	--	--	41/Landing	1 Landing	41				
LANDING											
W-1475	--	--	--	--	41/Landing	2 Landings	82				
LANDING											
W-1475C	--	--	--	--	41/Landing	1 Landing	41				
LANDING											

\*Optional Rock see Clause 6-75

Required JAW RUN BALLAST TOTAL **4,200** Cubic Yards

Optional JAW RUN BALLAST TOTAL **3,224** Cubic Yards

**ROCK LIST**  
(Page 3 of 4)

**SURFACE**

Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth (inches)	C.Y./ Station	# of Stations	C.Y. Subtotal	Rock Source	Turnout		
									Length (feet)	Width (feet)	Taper (feet)
			K1	B1					L	H	T
					<b>1 1/4-INCH MINUS</b>			<b>W-1475C3 Pit</b>			
W-1470	0+00	71+68	SPOT ROCK		--	--	272				
W-1475	0+00	56+96	SPOT ROCK		--	--	216				
W-1475C	0+00	11+83	SPOT ROCK		--	--	45				
* W-1475D	4+69	16+78	SPOT ROCK		--	--	169				
* W-1475D	26+55	31+33	SPOT ROCK		--	--	67				
W-1475C2	Culvert Bedding & Back Fill				--	--	25				
W-1475D	Culvert Bedding & Back Fill				--	--	70				
W-1475E	Culvert Bedding & Back Fill				--	--	229				

\*Optional Rock see Clause 6-75

Required 1 1/4 -INCH MINUS CRUSHED SURFACE TOTAL **533** Cubic Yards  
Optional 1 1/4 -INCH MINUS CRUSHED SURFACE TOTAL **236** Cubic Yards  
1 1/4 -INCH MINUS Culvert Bedding and Back Fill TOTAL **324** Cubic Yards

ROCK LIST  
(Page 4 of 4)

## RIP-RAP

Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth	C.Y./ Station	# of Stations	C.Y. Total	Rock Source
			K1	B1				
								W-1475C Pit, W-1475C3 Pit, or Rock found during excavation on road Construction and Reconstruction
Culvert headwall, energy dissipators and armor						LIGHT LOOSE RIPRAP		
W-1470 Culverts	--	--	--	--	--	--	11.5	
W-1475C2 Culverts	--	--	--	--	--	--	42.0	
W-1475D Culverts	--	--	--	--	--	--	58.5	
W-1475E Culverts	--	--	--	--	--	--	56.0	
						HEAVY LOOSE RIPRAP		
W-1475E Culverts			--	--	--	--	105.0	

LIGHT LOOSE RIPRAP TOTAL 168.0 Cubic Yards  
HEAVY LOOSE RIPRAP TOTAL 105.0 Cubic Yards

# CULVERT LIST

Road Number	Location	Culvert			Armoring (Cubic Yards)			Backfill Material	Bedding Material	Culvert Marker (Y/N)	Remarks
		Dia. (inches)	Length (feet)	Type	Inlet	Outlet	Type				
W-1470	50+27	18	32	XX	0.5	2.0	LL	NT	NT	Y	Cross drain
	52+44	18	30	XX	0.5	5.0	LL	NT	NT	Y	Cross drain
	59+55	18	30	XX	0.5	2.0	LL	NT	NT	Y	Cross drain
	66+80	18	30	XX	0.5	0.5	LL	NT	NT	Y	Cross drain
W-1475C2	2+41	18	30	XX	0.5	5.0	LL	NT	NT	Y	Cross drain
	6+18	18	30	XX	0.5	5.0	LL	NT	NT	Y	Cross drain
	7+33	18	38	XX	0.5	5.0	LL	NT	NT	Y	Cross drain
	8+03	24	30	XX	1.0	7.0	LL	NT	NT	Y	Spring – no skew
	9+00	18	30	XX	0.5	5.0	LL	NT	NT	Y	Cross drain
	10+91	18	38	XX	0.5	5.0	LL	CR - 10	CR - 5	Y	Cross drain – no skew
	13+00	18	30	XX	0.5	5.0	LL	CR - 5	CR - 5	Y	Cross drain
	16+15	18	38	XX	0.5	0.5	LL	NT	NT	Y	Cross drain
W-1475D	0+00	18	32	XX	0.5	5.0	LL	NT	NT	Y	Cross drain
	3+96	18	30	XX	0.5	5.0	LL	NT	NT	Y	Cross drain
	7+39	18	30	XX	0.5	5.0	LL	CR - 5	CR - 5	Y	Cross drain
	9+27	18	30	XX	0.5	3.0	LL	CR - 5	CR - 5	Y	Cross drain
	14+16	-	-	-	-	-	-	-	-	-	Ditchout right
	15+87	18	32	XX	0.5	5.0	LL	NT	NT	Y	Cross drain
	19+77	-	-	-	-	-	-	-	-	-	Ditchout right
	23+14	18	30	XX	0.5	5.0	LL	NT	NT	Y	Cross drain
	26+00	18	30	XX	0.5	5.0	LL	CR - 5	CR - 5	Y	Cross drain
	29+32	18	30	XX	0.5	5.0	LL	CR - 5	CR - 5	Y	Cross drain
	32+07	18	30	XX	0.5	5.0	LL	CR - 5	CR - 5	Y	Cross drain
	34+72	18	30	XX	0.5	5.0	LL	CR - 5	CR - 5	Y	Cross drain
	36+76	18	30	XX	0.5	5.0	LL	CR - 5	CR - 5	Y	Cross drain – no skew
W-1475E	3+19	18	30	XX	0.5	2.0	LL	NT	NT	Y	Cross drain
	5+40	18	30	XX	0.5	0.5	LL	NT	NT	Y	Cross drain – excavate lead off ditch from outlet
	9+73	18	30	XX	0.5	2.0	LL	NT	NT	Y	Cross drain
	10+56	36	48	AM	10.0	15.0	HL	CR - 42	CR - 8	Y	T4 Creek
	11+78	18	30	XX	0.5	5.0	LL	NT	NT	Y	Cross drain

## CULVERT LIST CONTINUED

Road Number	Location	Culvert			Armoring (Cubic Yards)			Backfill Material	Bedding Material	Culvert Marker (Y/N)	Remarks
		Dia. (inches)	Length (feet)	Type	Inlet	Outlet	Type				
W-1475E	12+81	24	30	XX	2.0	8.0	LL	NT	NT	Y	T5 Creek
	13+59	18	30	XX	0.5	5.0	LL	NT	NT	Y	Cross drain
	14+64	60	52	AM	30.0	50.0	HL	CR - 83	CR - 12	Y	T4 Creek
	16+00	18	30	XX	0.5	5.0	LL	NT	NT	Y	Cross drain
	16+50	24	30	XX	2.0	8.0	LL	NT	NT	Y	T5 Creek
	18+68	18	30	XX	0.5	3.0	LL	NT	NT	Y	Cross drain
	25+43	18	30	XX	0.5	2.0	LL	NT	NT	Y	Cross drain
	27+13	18	34	XX	0.5	0.5	LL	NT	NT	Y	Cross drain
	28+90	18	40	XX	0.5	0.5	LL	NT	NT	Y	Cross drain – excavate lead off ditch from outlet
	29+68	54	50	AM	30.0	50.0	HL	CR - 73	CR - 11	Y	T4 Creek
	30+64	18	30	XX	0.5	5.0	LL	NT	NT	Y	Cross drain

### Key:

- CR - Crushed Rock – 1 ¼ “ minus
- NT - Native (bank run)
- SR - Shot Rock
- SPR - Select Pit Run
- LL - Light Loose Riprap
- HL - Heavy Loose Riprap
- GM - Galvanized Metal
- PS - Polyethylene Pipe Single Wall
- PD - Polyethylene Pipe Dual Wall
- AM - Aluminized Metal
- XX - PD or GM

## COMPACTION LIST

Road	From Station	To Station	Type	Max Depth Per Lift (inches)	Equipment Type	Equipment Weight (lbs)	Minimum Number of Passes	Maximum Operating Speed (mph)
All Waste Areas	All	All	Waste Area	12	Excavation	28,000	3	--
All roads	All	All	Embankment	12	Excavation	28,000	4	--
All roads	All	All	Subgrade	12	Vibratory Smooth Drum	20,000	4	5
All roads	All	All	3 " Jaw Run	12	Vibratory Grid	20,000	4	5
All roads	All	All	1 1/4"Minus	6	Vibratory Smooth Drum	20,000	4	5
All - Culvert Bedding & Backfill Rock	All		1 1/4"Minus	12	Vibratory Plate Compactor	Varies	Varies	

# CULVERT AND DRAINAGE SPECIFICATION DETAIL

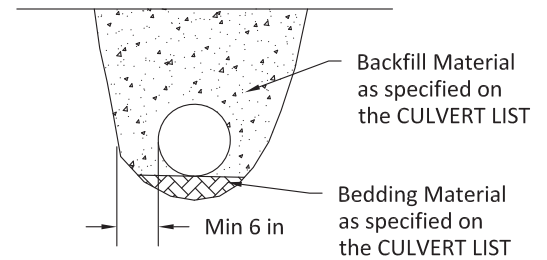
## PAGE 1 OF 2

### INSTALLATION REQUIREMENTS:

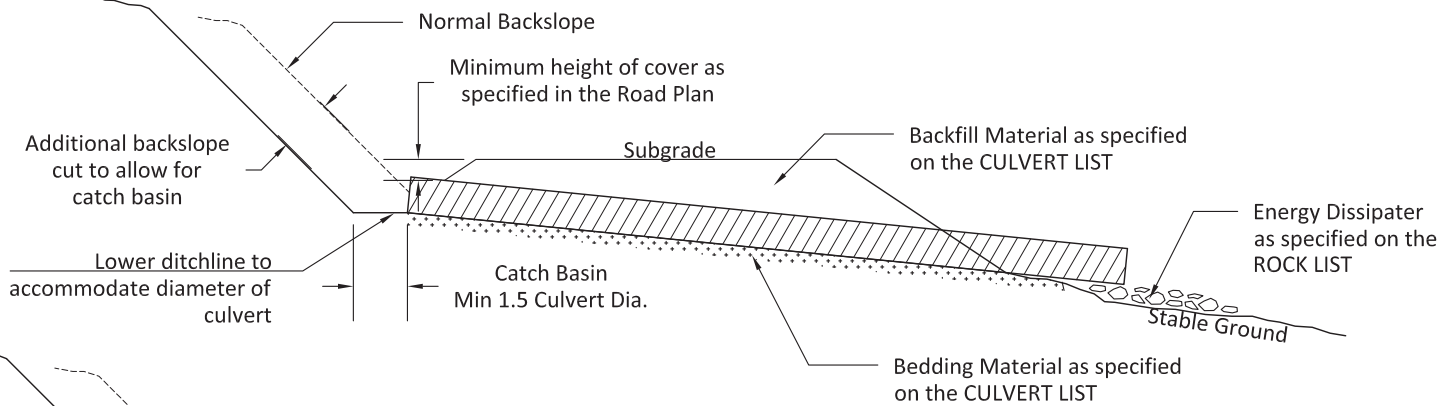
1. Proper preparation of foundation and placement of any required bedding material shall precede the installation of all culverts. This includes necessary leveling of the native trench bottom and compaction of required bedding material to form a uniform, dense, unyielding base. The pipe must be uniformly supported along the barrel.
2. Backfill material shall be compacted under the culvert haunches, around the sides, and above the culvert in accordance with the COMPACTION LIST.

ALL DRAWINGS ARE NOT TO SCALE

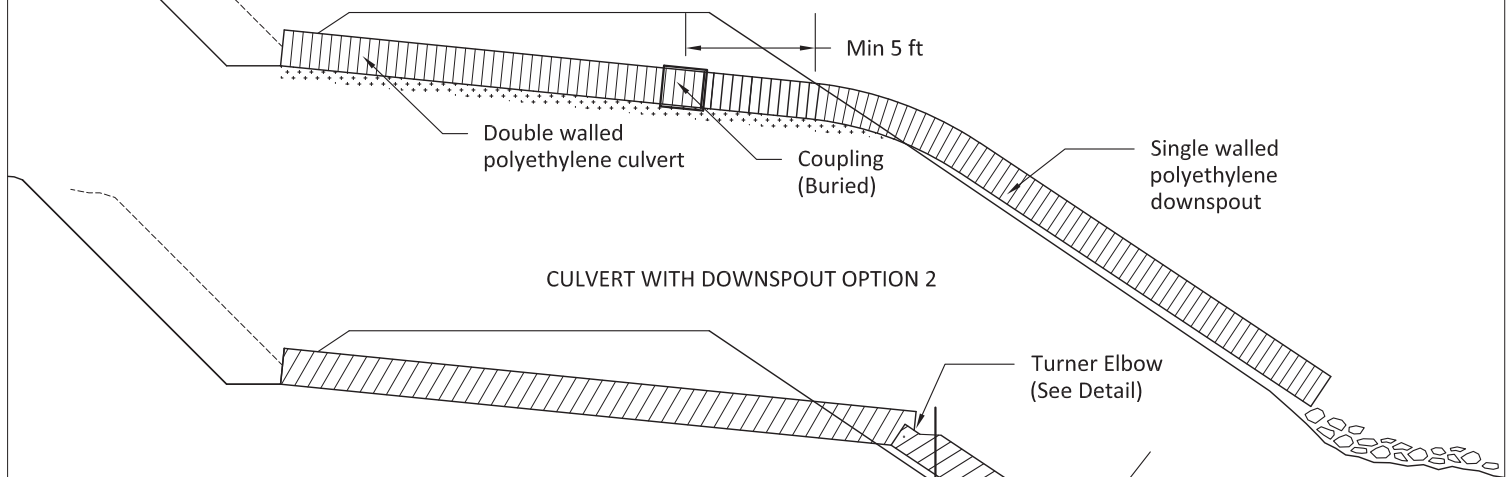
### CROSS SECTION



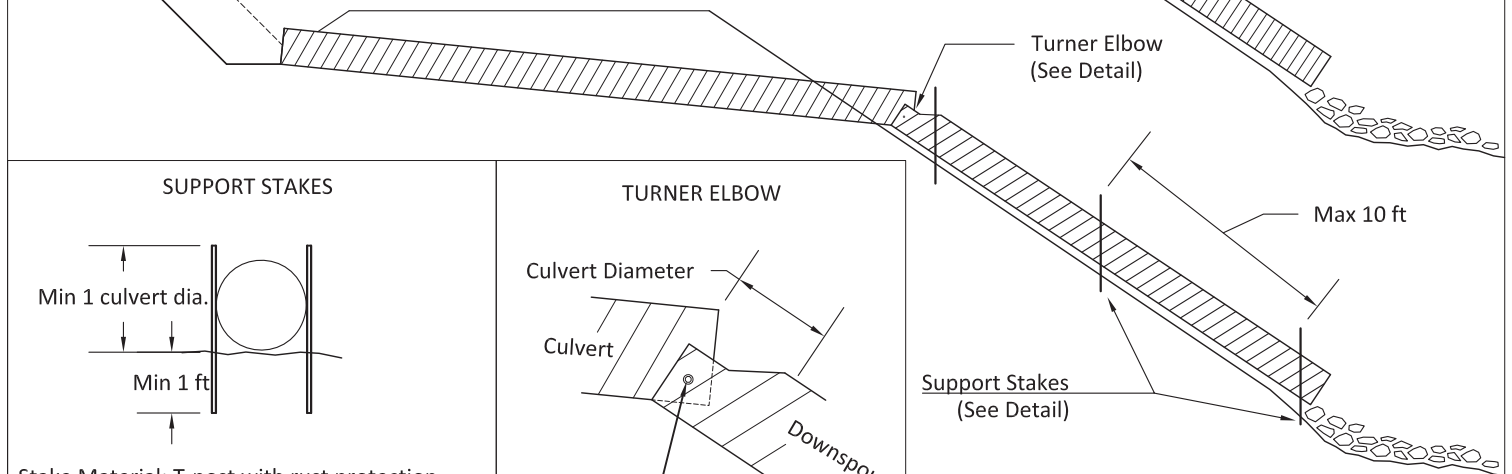
### CULVERT PROFILE (TYPICAL)



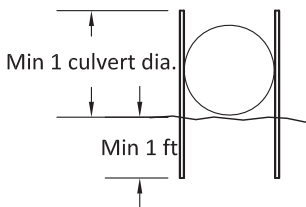
### CULVERT WITH DOWNSPOUT OPTION 1



### CULVERT WITH DOWNSPOUT OPTION 2

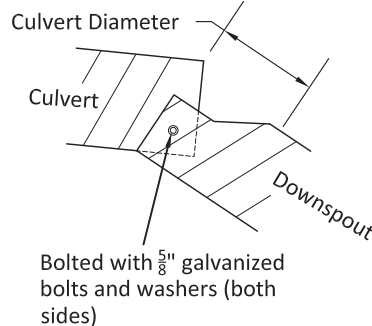


### SUPPORT STAKES



Stake Material: T-post with rust protection coating.  
Connections: Bolt support stakes to the culvert with  $\frac{5}{8}$ " u-bolts, with washers on both the inside and outside of the culvert.  
Alternative staking methods may be approved, in writing, by the Contract Administrator.

### TURNER ELBOW

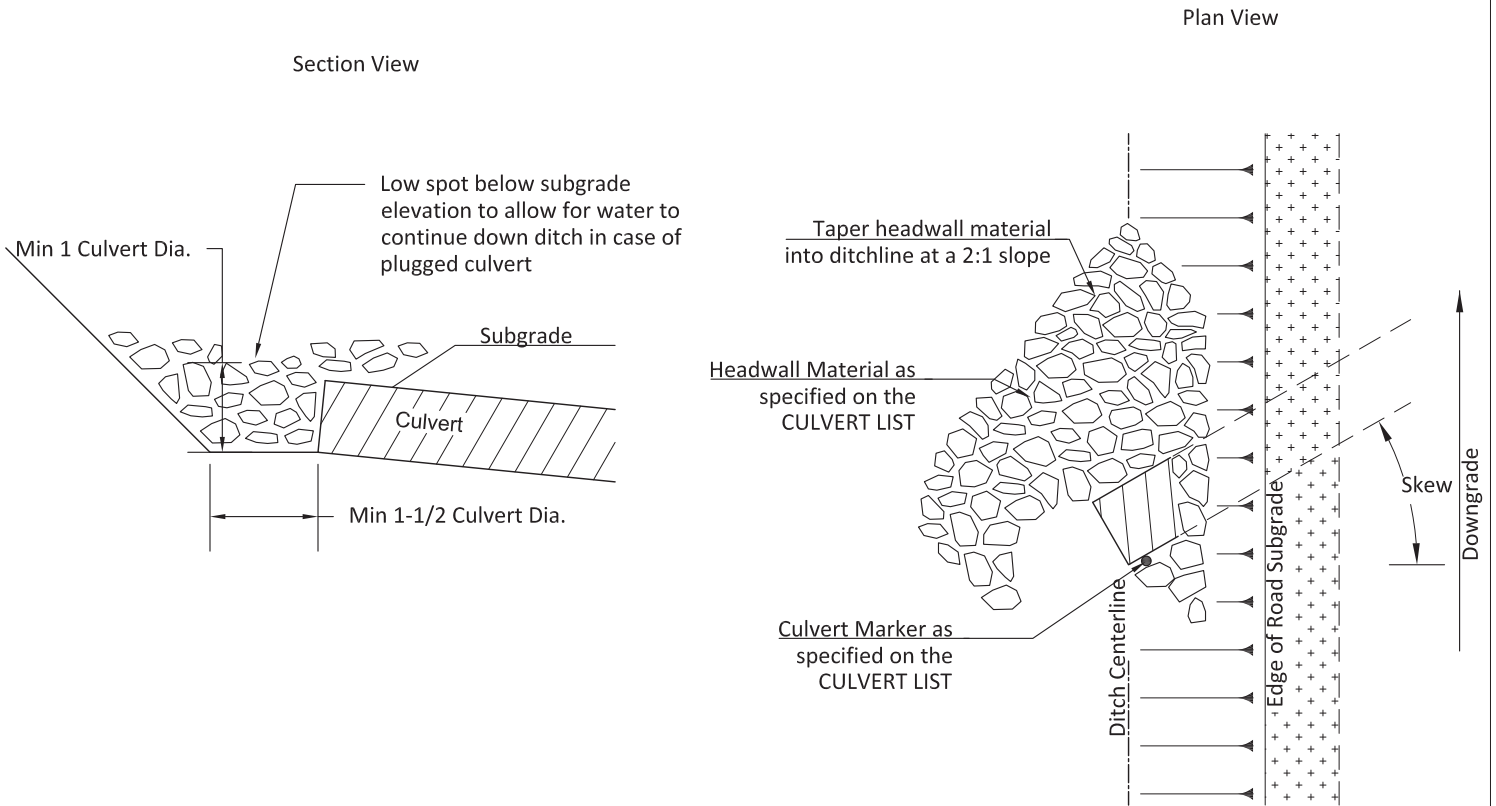


Downspout must be 6 inches larger in diameter than the culvert.

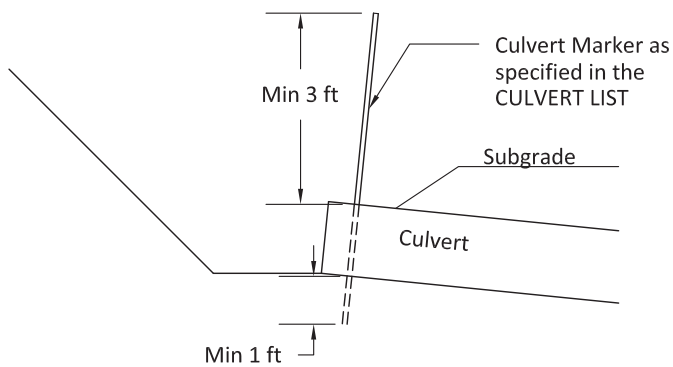
# CULVERT AND DRAINAGE SPECIFICATION DETAIL

## PAGE 2 OF 2

### HEADWALLS

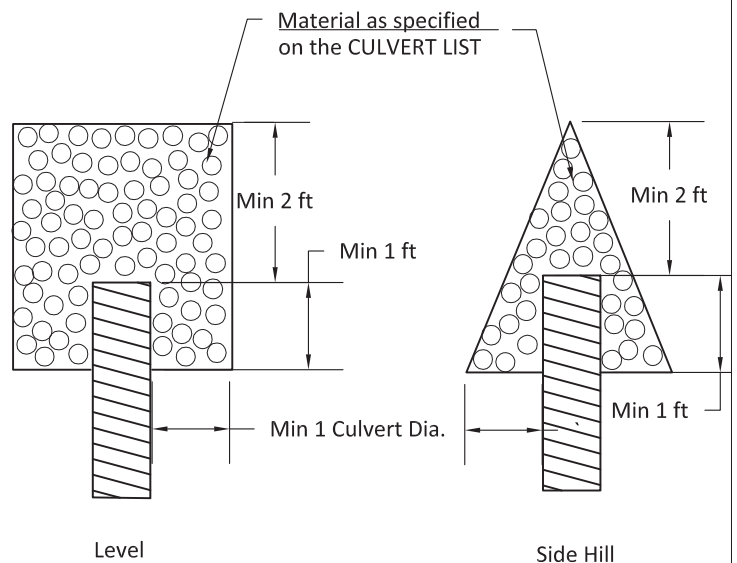


### CULVERT MARKERS



Culvert Marker Material: 1 Inch I.D., Schedule 40 PVC Pipe, White. Marker must be capped on the top.  
 Culvert Marker Placement: Place on uphill side of culvert, between corrugations if possible.  
 Alternative culvert marker types may be approved, in writing, by the Contract Administrator.

### ENERGY DISSIPATERS



Min Energy Dissipater Depth: 1 Culvert Dia.



## FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Page 1 of 2

### 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, with selected material or material approved by the Contract Administrator. Remove overhanging material from the top of cut slopes.
- Waste material from slides or other sources shall be placed and compacted in stable locations identified in the road plan or approved by the Contract Administrator, so that sediment will not deliver to any streams or wetlands.
- Slide material and debris shall not be mixed into the road surface materials, unless approved by the Contract Administrator.

### Surface

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

### Drainage

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

## FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Page 2 of 2

### Preventative Maintenance

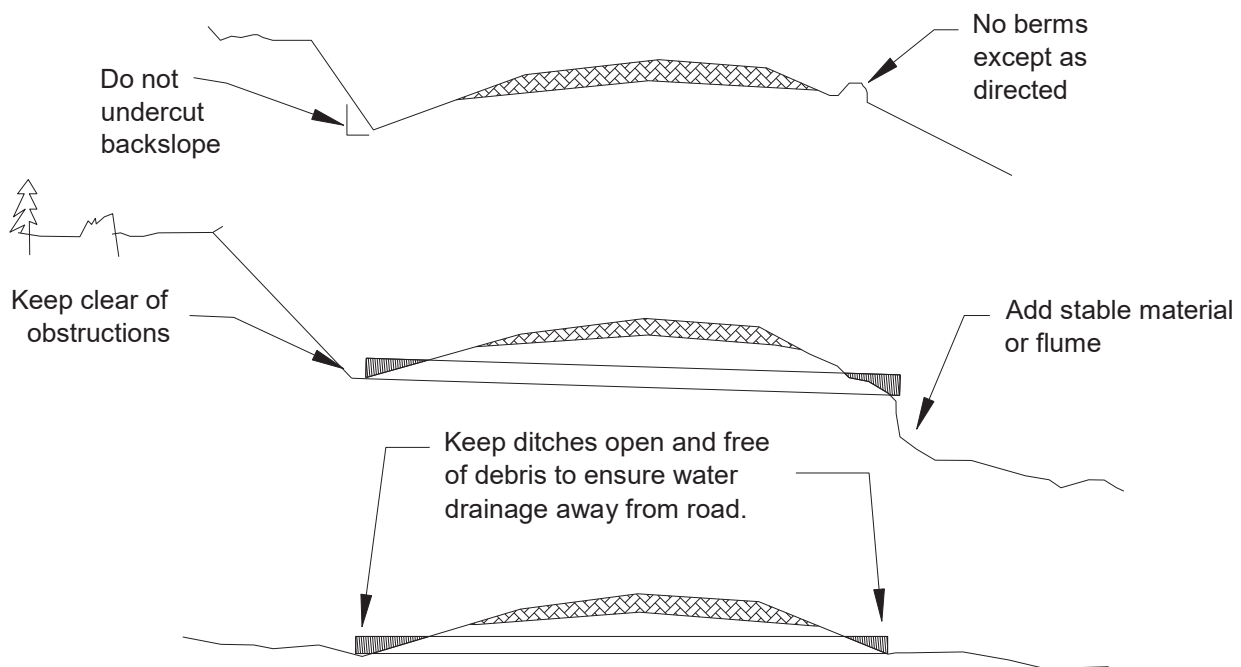
- Perform preventative maintenance work to safeguard against storm damage, such as blading to ensure correct runoff, ditch and culvert cleaning, and waterbar maintenance.

### 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.



## LIVE STREAM INSTALLATION PROCEDURE

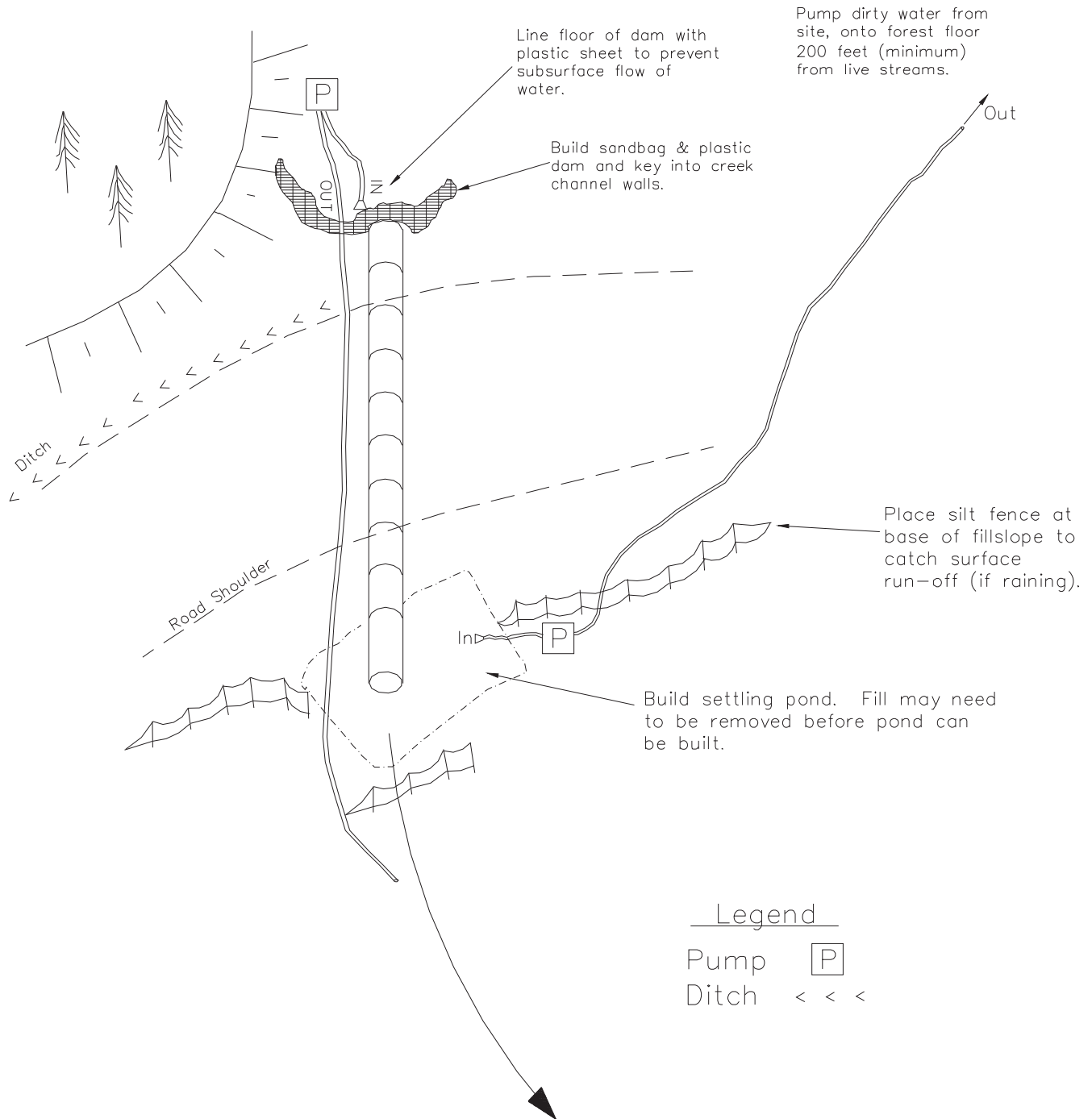
Order of work is as follows, deviations shall be approved, in writing, by the Contract Administrator.

- 1) Purchaser shall notify the State of intent to start project, and a pre-work conference shall be held before move in of equipment. State will designate a representative that will remain on site at all times when work is being performed in creek channel.
- 2) Work period shall be restricted to the permitted times stated in an approved FPA. Work period on Np and Ns streams that are not covered by an FPA shall be permitted only during the dry weather seasonal low flow period between June 1 and October 1; any work outside of this timing restriction may be granted in writing by the Contract Administrator only during unseasonably low flows.
- 3) Assemble the items on the Materials List onsite before proceeding.
- 4) Set up pumps (one as backup).
- 5) Dam up stream with sandbags and line floor of dam with plastic (to prevent sub-surface water flow), place clean rock on plastic to hold in place, and key leading edge of plastic into channel bottom - see SETTLING POND AND PUMP DETAIL. Build a settling pond at culvert outlet. Fill may need to be removed before the settling pond installation due to space limitations. Pump clean water at catch basin around work site and back into stream. Dirty water shall be pumped away from site and onto forest floor a minimum of 200 feet from live streams. Silt fence shall be erected at base of fill slope and bottom edge of fence shall be keyed into slope and held in place with rocks to prevent water from flowing under the silt fence.
- 6) Remove remainder of fill and culvert.
- 7) Remove settling pond.
- 8) Cover exposed soils within 100 feet of all live streams with straw (minimum depth of 4 inches) and grass seed.

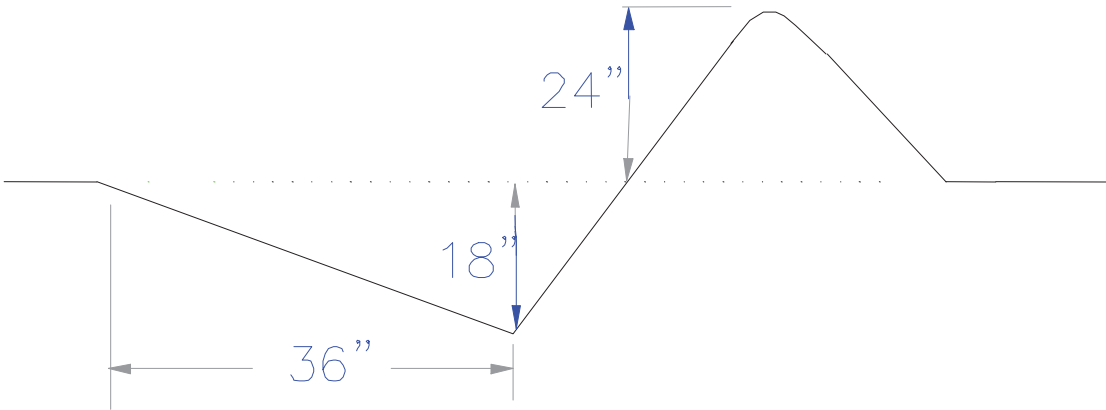
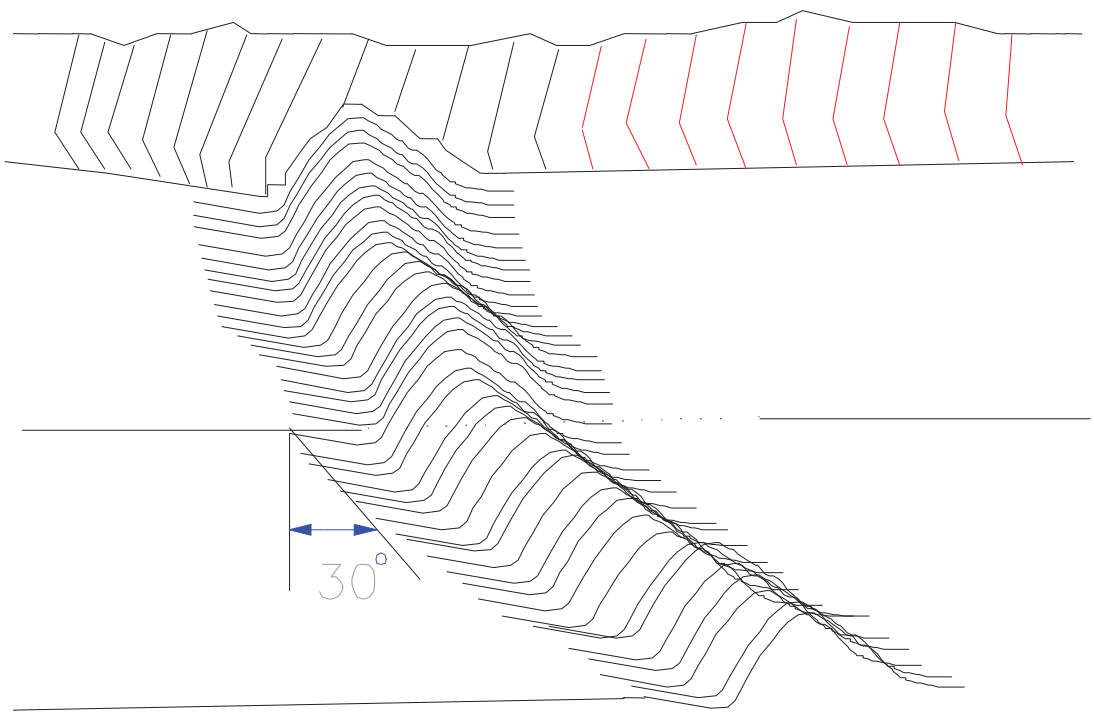
### Materials List:

- 3 pumps, (one as a backup) The clean water pump (dam at culvert catch basin) shall have a minimum capacity of 1200 gallons per minute. The dirty water pump (settling pond) and the backup pump shall each have a minimum capacity of 600 gpm. Culvert removal should not start during rain or threat of rain;
- plastic sheet;
- silt fence and stakes;
- bales of straw

# SETTLING POND AND PUMP DETAIL



NON-DRIVABLE WATER BAR DETAIL



## ROCK ACCOUNTABILITY DETAIL

SALE NAME: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Agreement #: \_\_\_\_\_

Contractor: \_\_\_\_\_

Rock Quarry/Pit: \_\_\_\_\_

Truck No: \_\_\_\_\_

[illegible]

Truck Driver Signature

SIGNATURE

DATE \_\_\_\_\_

# **Rock Crushing Compliance Procedure**

## **Phase I. Equipment Adjustment**

- Step 1:** At start up of crushing operations, the contractor 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 contract administrator and the contractor 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 contract administrator and the contractor 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 1,000 yards thereafter
- a) Any time a sample is out of spec, but is within 5%\*, the contractor 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) Contractors are strongly encouraged to take their own samples regularly and keep their operations in spec to avoid unnecessary expenses.
- \* The 5% will be applied only to sieve specs for 2" to ¼"; rock that is out of spec in larger sizes must be kept separate from the acceptable rock.

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES  
PACIFIC CASCADE REGION

**INFORMATIONAL BLASTING PLAN**

Timber Sale/Project Name: \_\_\_\_\_ App./Project No.: \_\_\_\_\_

1. Blaster-in-Charge: Name: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

2. Quarry Name/Location: \_\_\_\_\_

3. Total Estimated Cubic Yards in Blast (loose): \_\_\_\_\_

4. Hole Spacing: \_\_\_\_\_

5. Burden: \_\_\_\_\_

6. Hole Diameter: \_\_\_\_\_

7. Hole Depth: \_\_\_\_\_

8. Sub Drill: \_\_\_\_\_

9. Number of Holes: \_\_\_\_\_

10. Stemming Depth: \_\_\_\_\_

11. Explosive (mfg., name, density, %, V.O.D.): \_\_\_\_\_

12. Type and Size of Primer (if applicable): \_\_\_\_\_

13. Total Weight of Primers for Shot: \_\_\_\_\_

14. Calculated Powder Factor/Cubic Yard: \_\_\_\_\_

15. Number of Delays (in M.S.): \_\_\_\_\_

M-126PAC (03/04)



## INFORMATIONAL BLASTING PLAN

Page 2 of 3

16. Number of Holes Fired on Each Delay: \_\_\_\_\_  
\_\_\_\_\_
17. Total Amount of Explosives Fired on Each Delay: \_\_\_\_\_  
\_\_\_\_\_
18. Type of Blasting Machine: \_\_\_\_\_  
\_\_\_\_\_
19. Date, Start Drilling: \_\_\_\_\_
20. Date and Time, Start Loading: \_\_\_\_\_
21. Date and Time of Blast (approx.): \_\_\_\_\_

## INFORMATIONAL BLASTING PLAN

Page 3 of 3

22. Detail drawing of delay system (show hole pattern and delays in milliseconds). Attach additional sheets if required:

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

23. Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_

24. Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Note: Attach copies of manufacturer=s data sheet(s) for explosive and caps.

M-126PAC (03/04)

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES  
PACIFIC CASCADE REGION

**PIT DEVELOPMENT PLAN**

W-1475C Pit – NW ¼ SW ¼ Section 32, Township 03 North, Range 06 East, W.M.  
W-1475C3 Pit – SW ¼ NW ¼ Section 32, Township 03 North, Range 06 East, W.M.

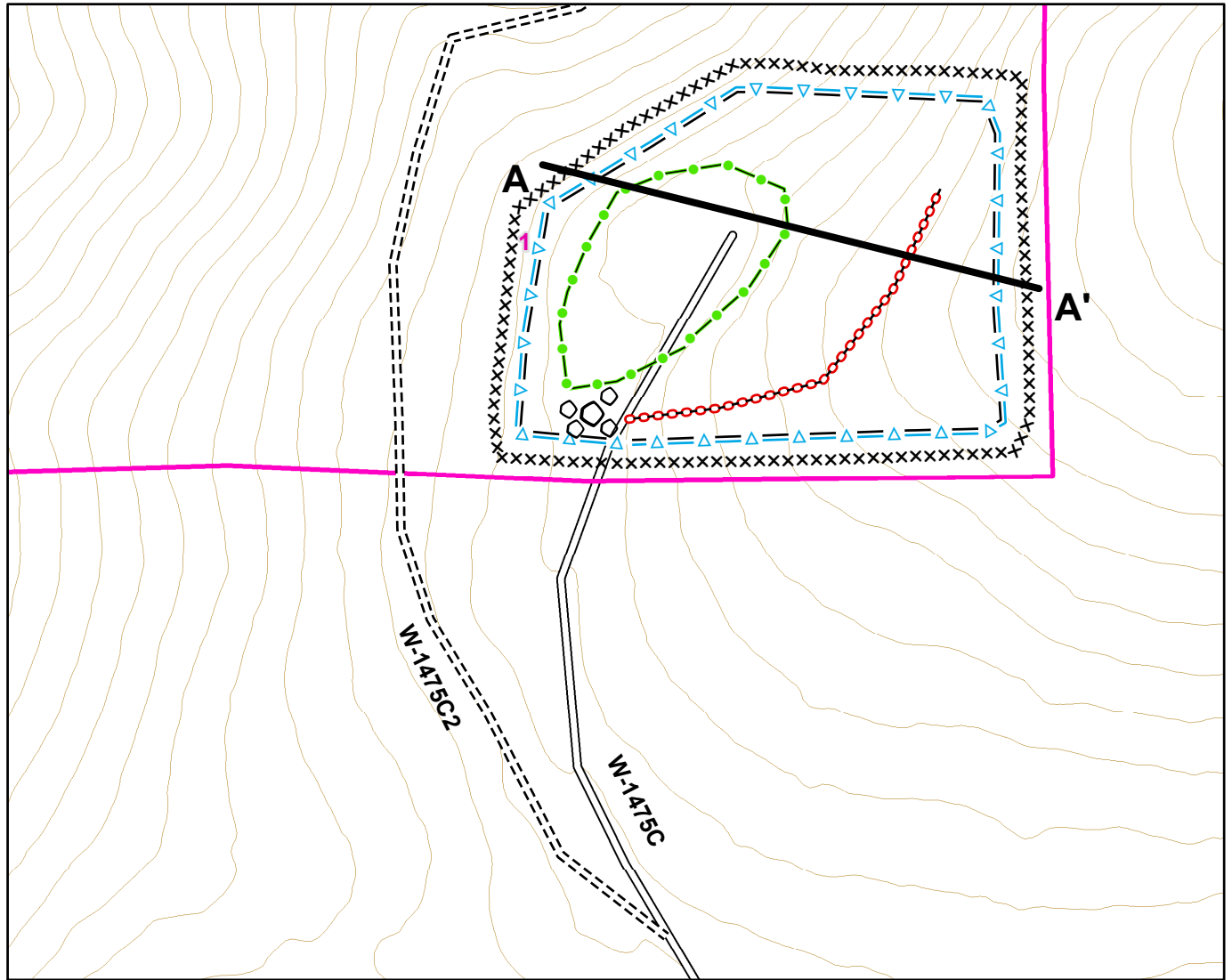
(Page 1 of 3)

1. Development shall take place in mining area as indicated on the Pit Development Plan Maps for the W-1475C Pit and the W-1475C3 Pit.
2. All vegetation including stumps shall be cleared a minimum of 25 feet beyond the top of all working faces. Trees shall be cleared to a minimum of ¼ of the height of the tallest tree adjacent to the pit. The Contractor shall maintain a minimum of 15 foot wide area stripped to rock from the pit face at all times. All Clearing shall be approved in writing by the Contract Administrator prior to overburden removal.
3. Overburden from the W-1475C Pit shall be end hauled to the waste area at Station 11+01 on the W-1475 road. Overburden from the W-1475C3 Pit shall be end hauled to the waste area at Station 1+00 on the W-1475C4 road. All waste material shall be compacted. Minimal acceptable compaction is achieved by placing waste material in 1 foot or shallower lifts and routing excavation equipment over entire width of the lifts. All Overburden removal shall be approved in writing by the Contract Administrator prior to any drilling operation and or rock extraction.
4. Root wads and organic debris larger than one cubic foot in volume shall be separated from overburden material and piled in the designated Waste Area.
5. The Operator shall submit an informational drilling and shooting plan to the Contract Administrator 5 working days prior to any drilling. (Form #M-126PAC)
6. Drilling may begin when the Contract Administrator has approved, in writing, all of the Clearing, Grubbing and Overburden removal. Purchaser shall block access roads and trails before blasting operations.
7. Pit faces shall not exceed 30 feet in height. All pit faces shall be sloped no steeper than ¼:1.
8. Working bench width shall be a minimum of 20 feet.
9. The pit floor shall have continuity of slope and be left in a smooth and neat condition, providing drainage at a minimum of 2 percent. All knobs, bumps, or extrusions shall be removed to the designated floor level by excavation or drill and shoot techniques. The installation of a culvert may be necessary to drain water from the pit floor in locations where the pit floor is adjacent to a road. The location of the culvert shall be subject to approval of the Contract Administrator. No sediment shall enter live water.
10. The location and amount of material to be placed in a temporary stockpile are subject to approval of the Contract Administrator. All stock piled material shall be maintained in a neat and useable condition.
11. Oversize material remaining in the rock source at the conclusion of use shall not exceed 5 percent of the total volume mined during that operation. Oversize material is defined as rock fragments larger than two feet in any direction. At the conclusion of operations, all remaining oversize material shall be placed at the location shown on the Pit Development Plan Map and as directed by the Contract Administrator in a location outside of the future development.
12. At the end of operations, pit faces and walls shall be scaled and cleared of loose and overhanging material and shall not be undermined or over steepened; benches shall have safety berms constructed or access blocked to highway vehicles. Access roads/trails shall have Non-driveable waterbars constructed in accordance with the NON-DRIVEABLE WATER BAR DETAIL as directed by the Contract Administrator. Upon completion of operations in the pit, the area will be left in a condition that will not endanger public safety, damage property, or be hazardous to human life.
13. All exposed soil in the waste area, access roads, and exposed banks shall be grass seeded in accordance with Road Plan Clauses 8-15 and 8-25.
14. All operations shall be carried out in compliance with all regulations of:
  - a. Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations@ (30 CFR) U.S. Department of Labor, Mine Safety and Health Administration.
  - b. "Safety Standards for Construction Work" (296-155 WAC), Washington Department of Labor and Industries.
15. The Operator shall submit an informational drilling and shooting report to the Contract Administrator after blasting has occurred. (Form #M-126PAC)
16. The pit area shall be worked and left in a condition that future operations may proceed in an orderly manner. Upon completion of operations, the site shall be cleared of all temporary structures/equipment and rubbish, access roads shall be blocked with riprap at locations as directed by the Contract Administrator, and shall be left in a neat and presentable condition. At the completion of rock source operations, Contractor shall ask Contract Administrator for written approval of final rock source condition and compliance with the terms of this plan.

# W-1475C PIT

## NW1/4 SW1/4 Sec. 32, T03N, R06E, W.M.

(Page 2 of 3)

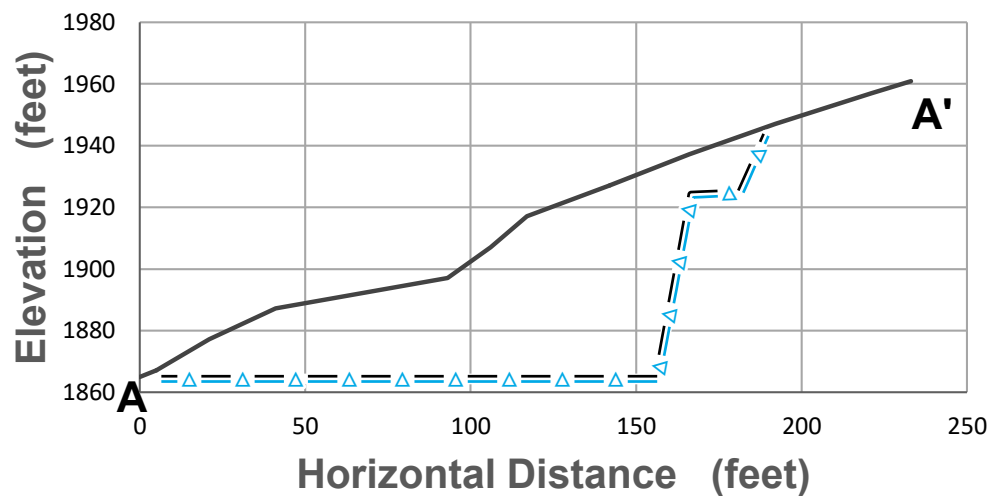


0 25 50 100 150 200 Feet

### Legend

- Access Road
- Existing Pit Floor
- △--- Mining Area
- x----- Rock Pit Boundary
- Optional Construction
- Gray Jay Timber Sale
- Contours 10 ft
- Profile Line
- ○ ○ Oversize Rock Storage Area
- Existing Road

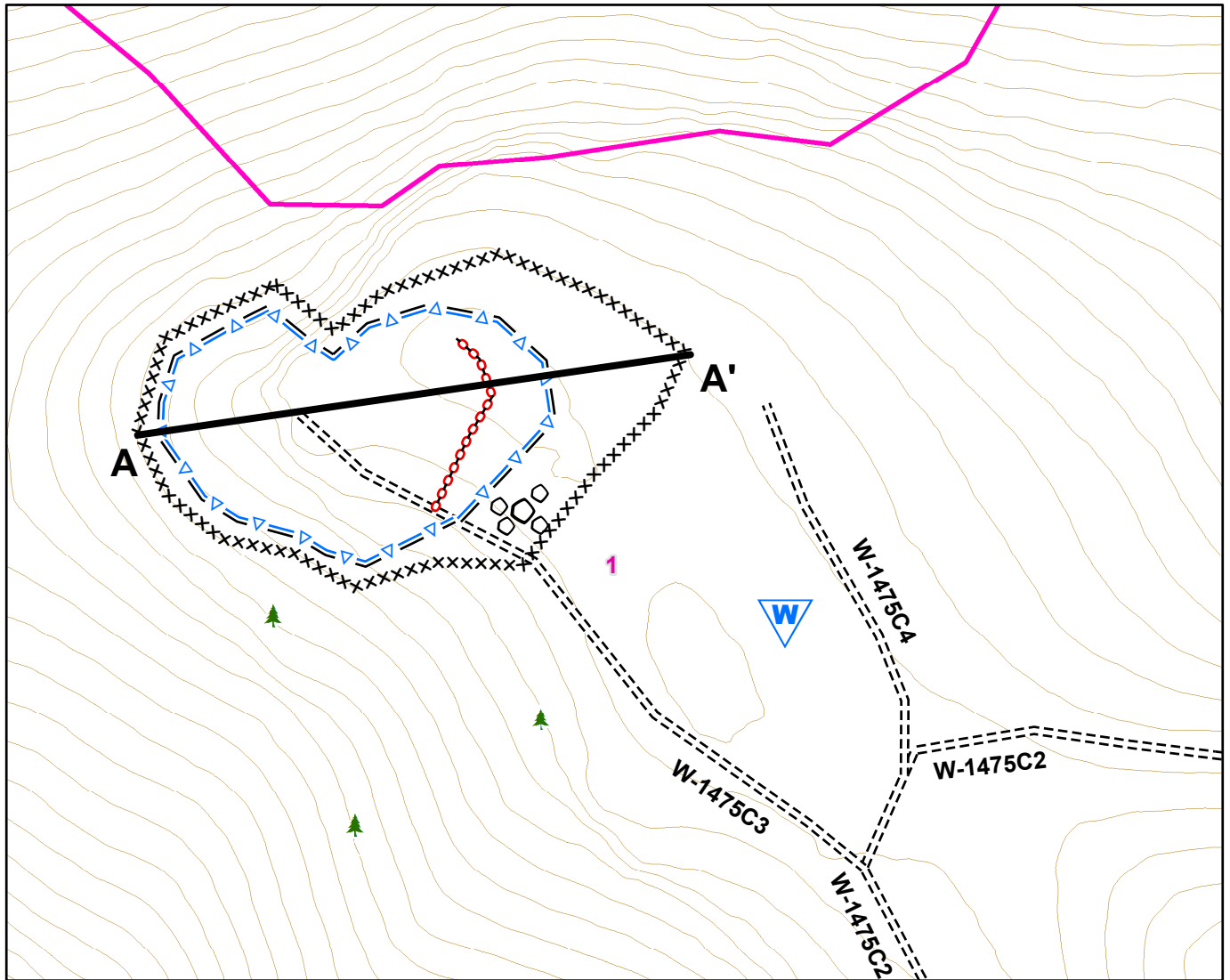
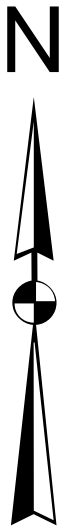
### Profile "A"



# W-1475C3 PIT

## SW1/4 NW1/4 Sec. 32,T03N, R06E, W.M.

(Page 3 of 3)

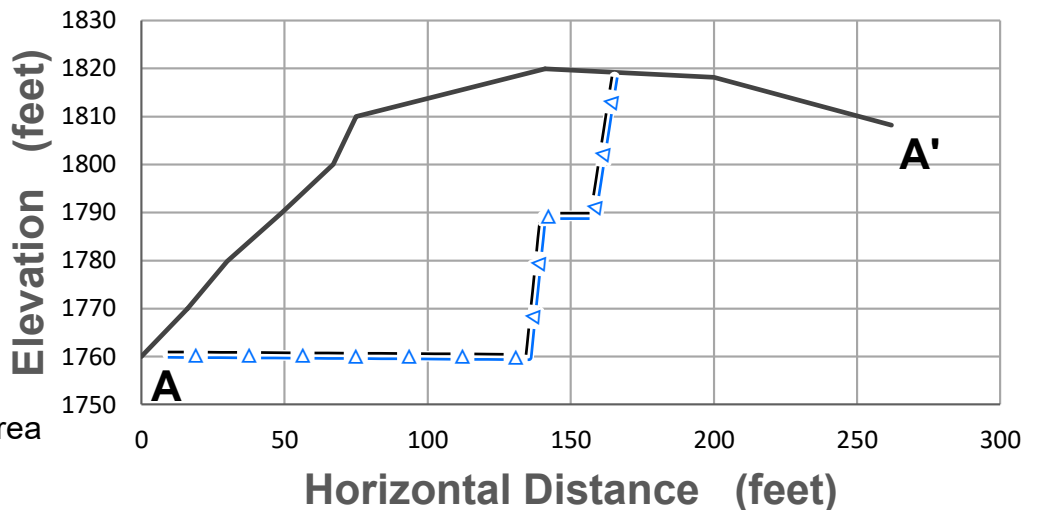


### Legend

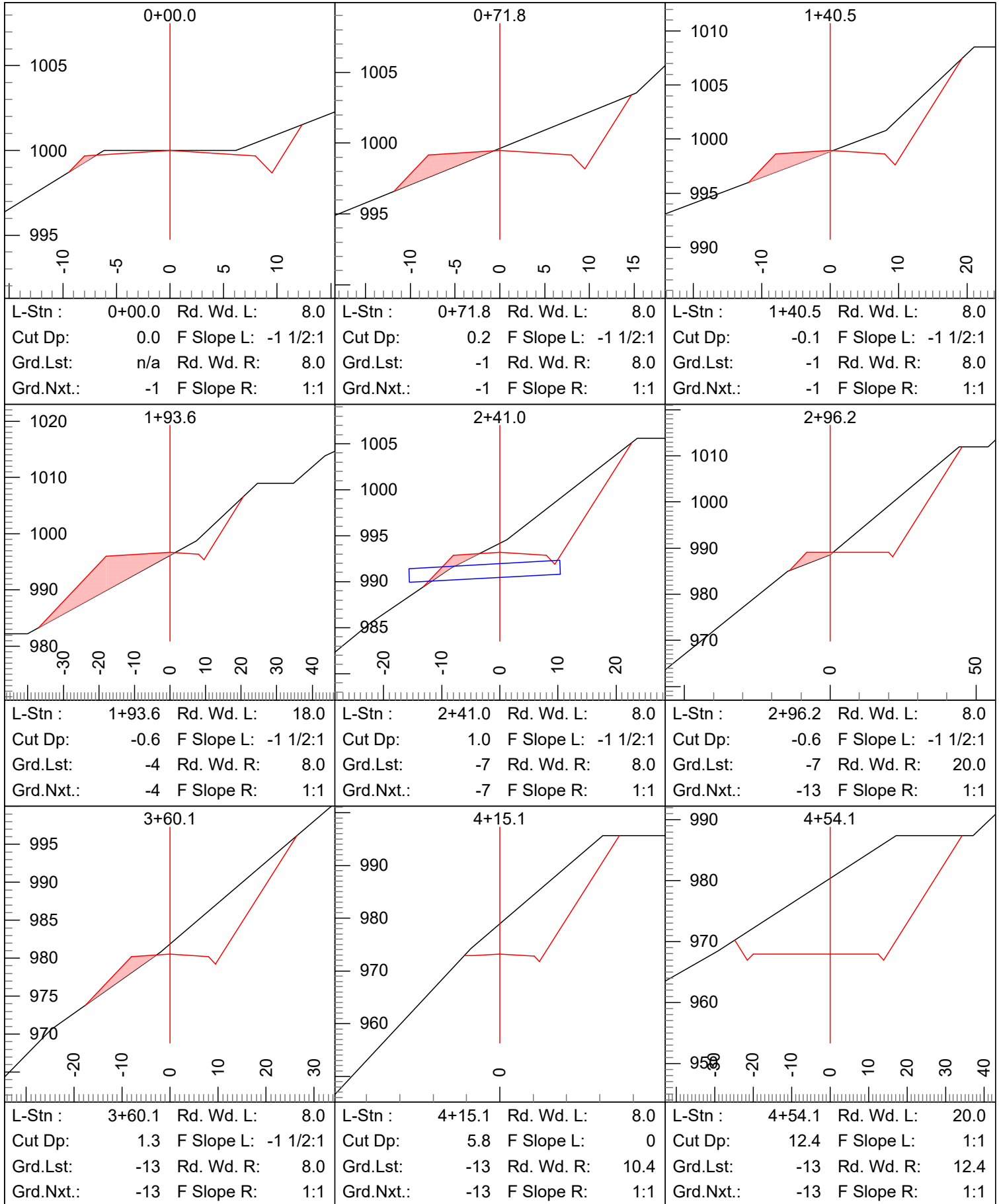
#### W1475C3\_rockpit

- o-o-o- Access Road
- =Δ= Mining Area
- xxxxxx Rock Pit Boundary
- Optional Construction
- Gray Jay Timber Sale
- Contours 10 ft
- Profile Line
- Oversize Rock Storage Area
- ▽W Waste Area

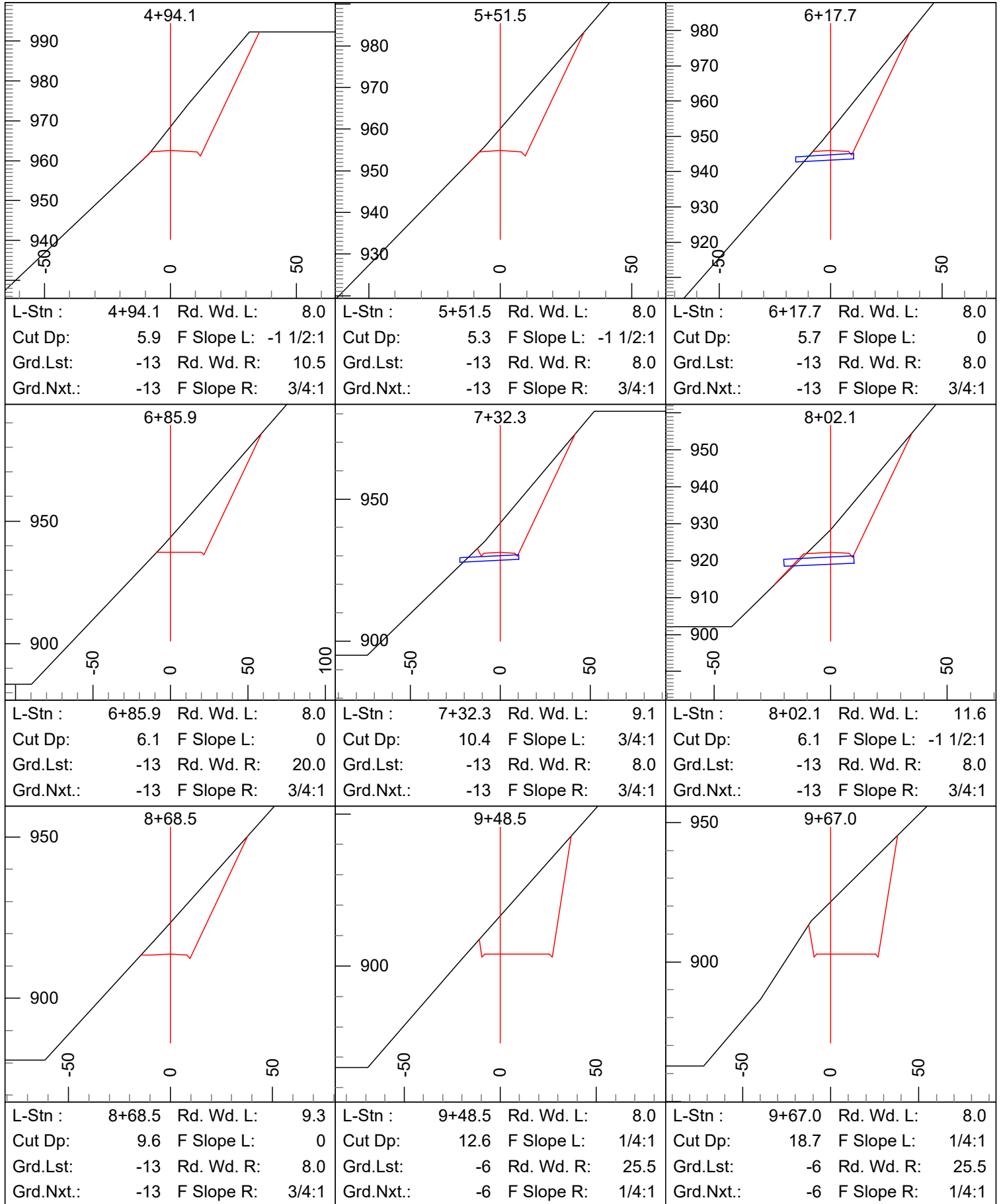
### Profile "A"



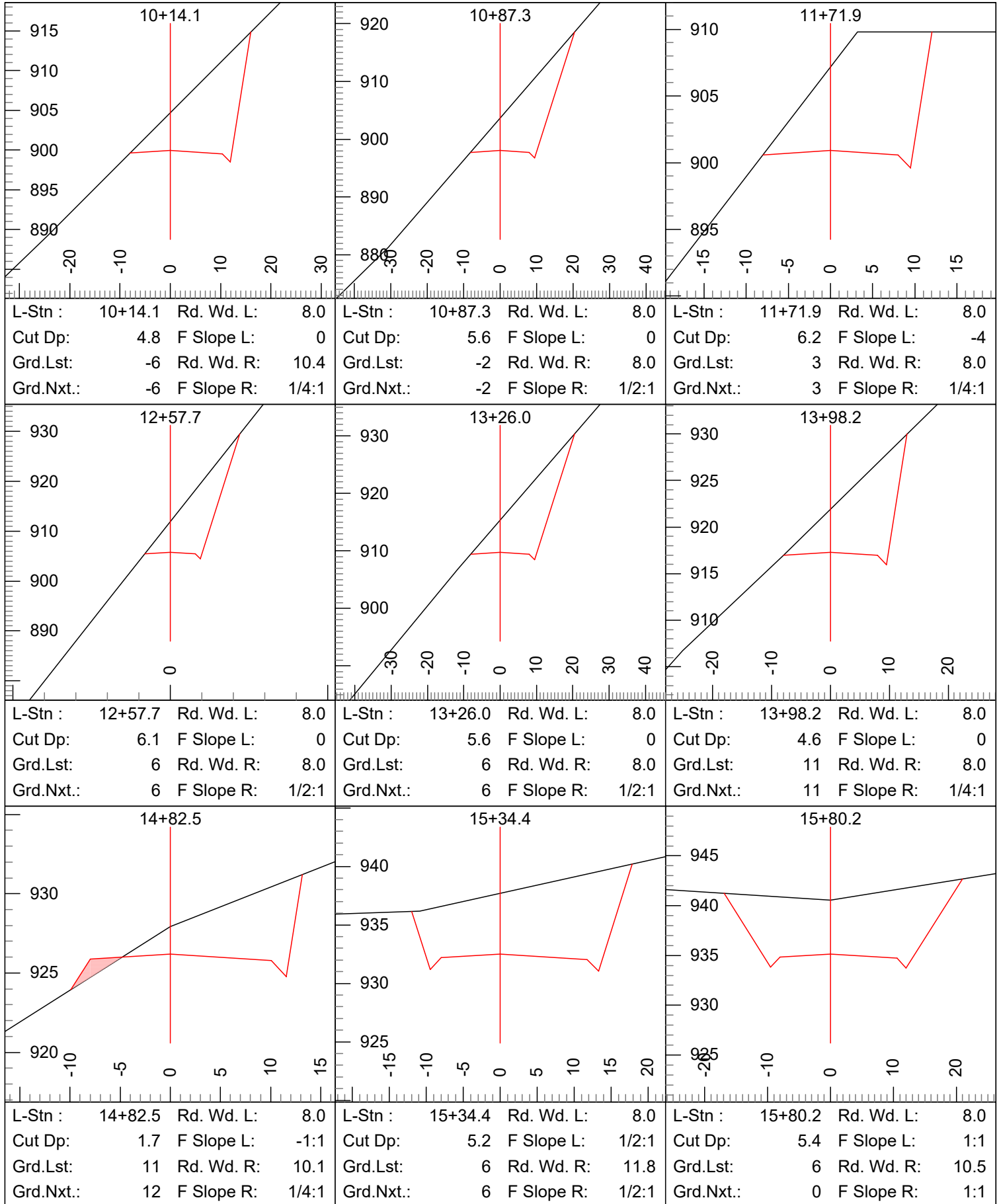
**Page 1 of 8**  
**W-1475C2**  
**CROSS SECTION VIEW**



**Page 2 of 8**  
**W-1475C2**  
**CROSS SECTION VIEW**

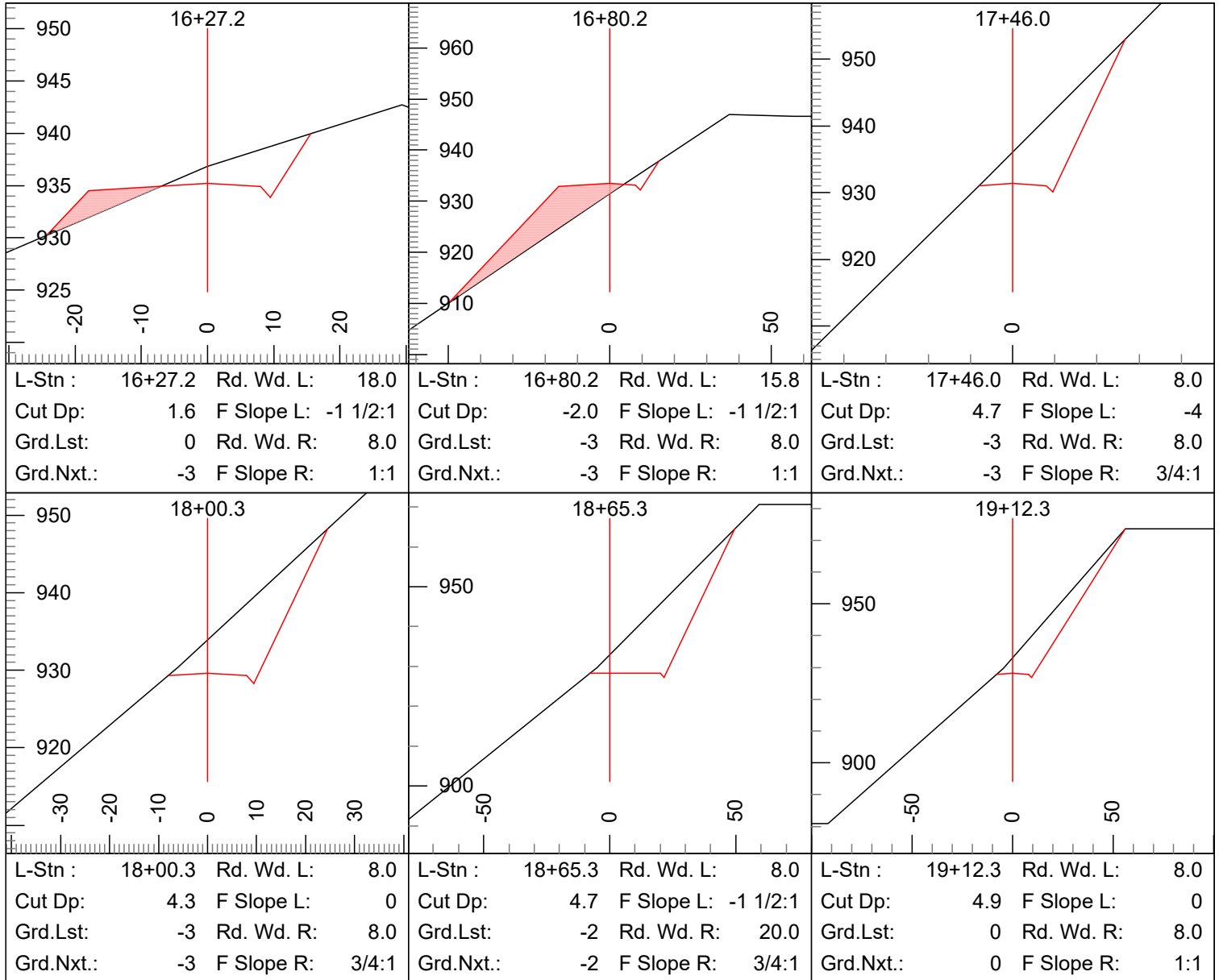


**Page 3 of 8**  
**W-1475C2**  
**CROSS SECTION VIEW**





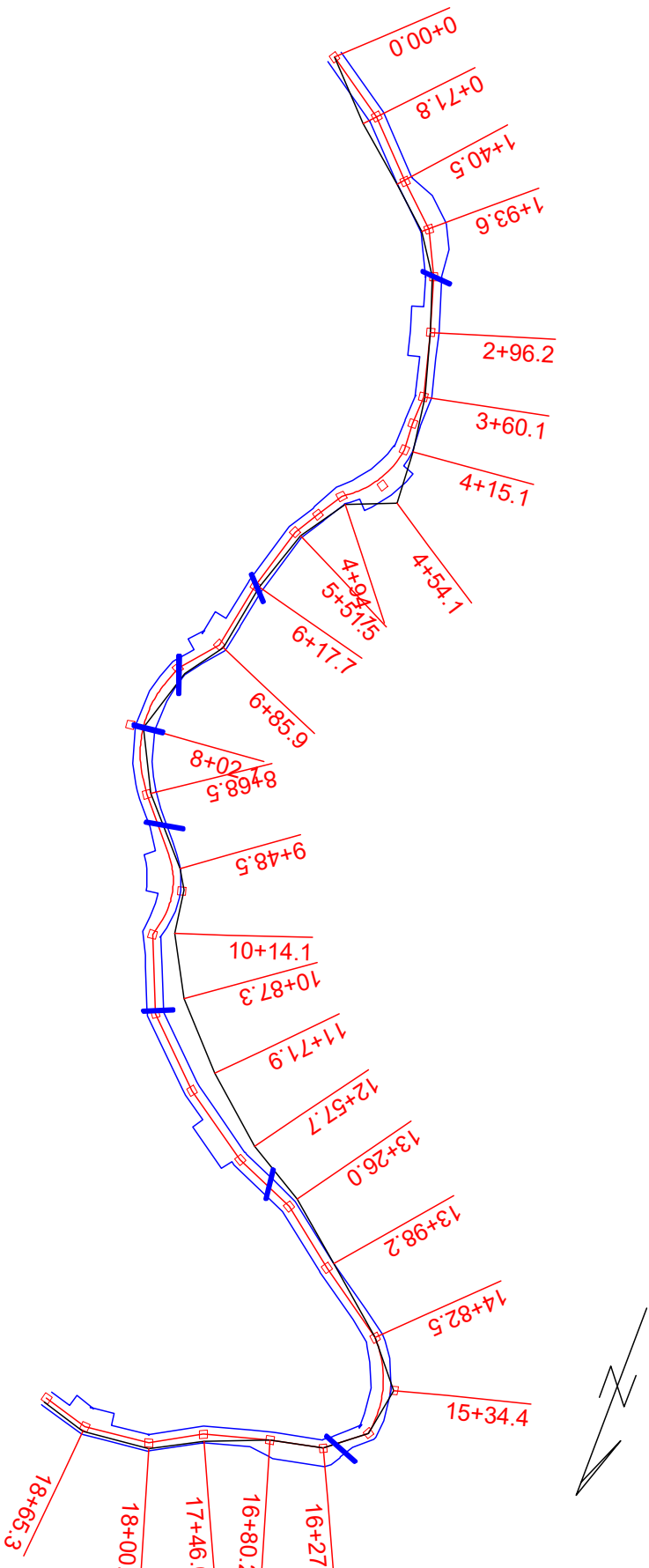
**Page 4 of 8**  
**W-1475C2**  
**CROSS SECTION VIEW**



Legend

- Plan L-line Location
- Plan Road Edges
- Plan Culverts
- Plan P-Line Location

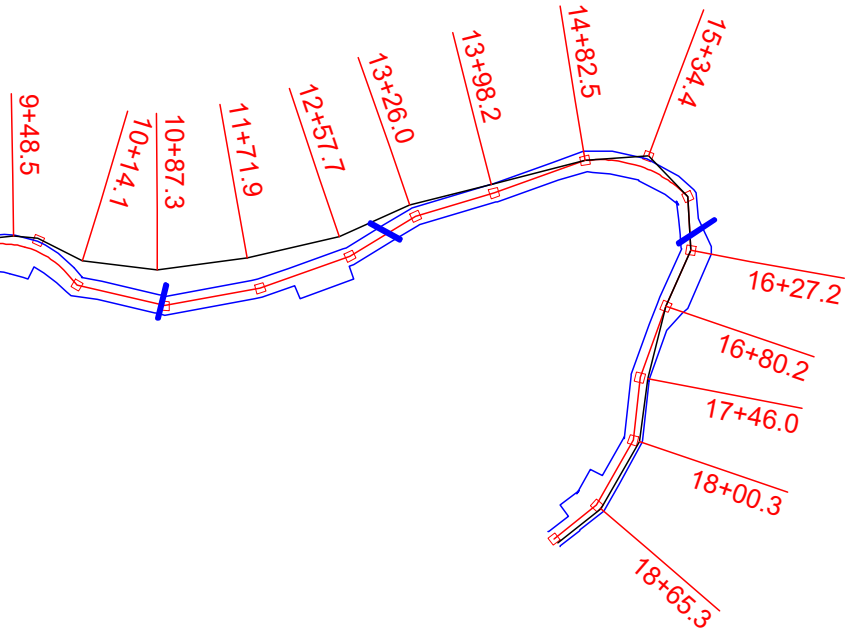
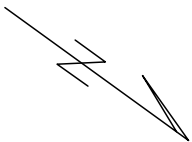
PLAN VIEW  
W-1475C2  
Scale 1:2000



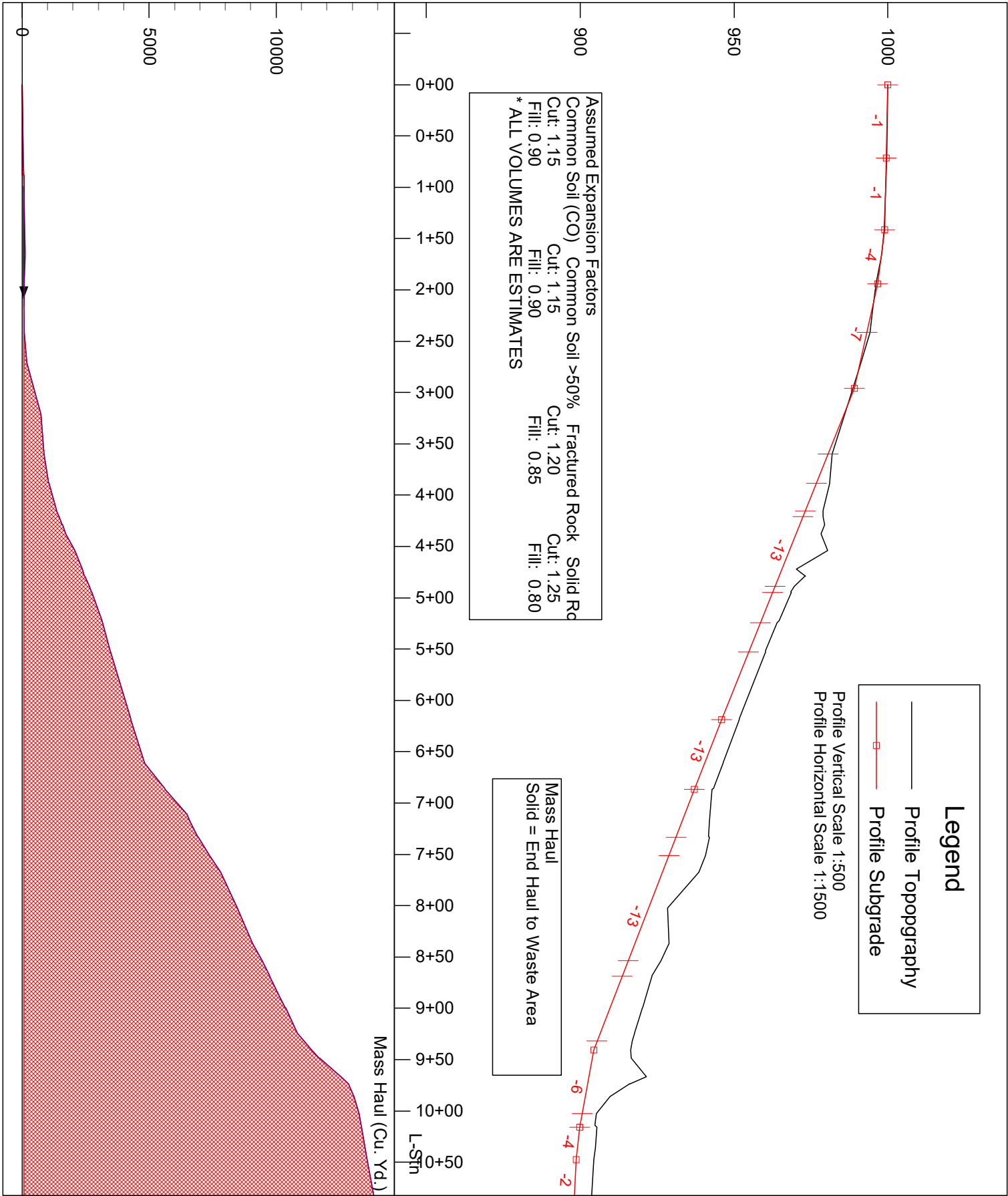
PLAN VIEW  
W-1475C2  
Scale 1:2000

Legend

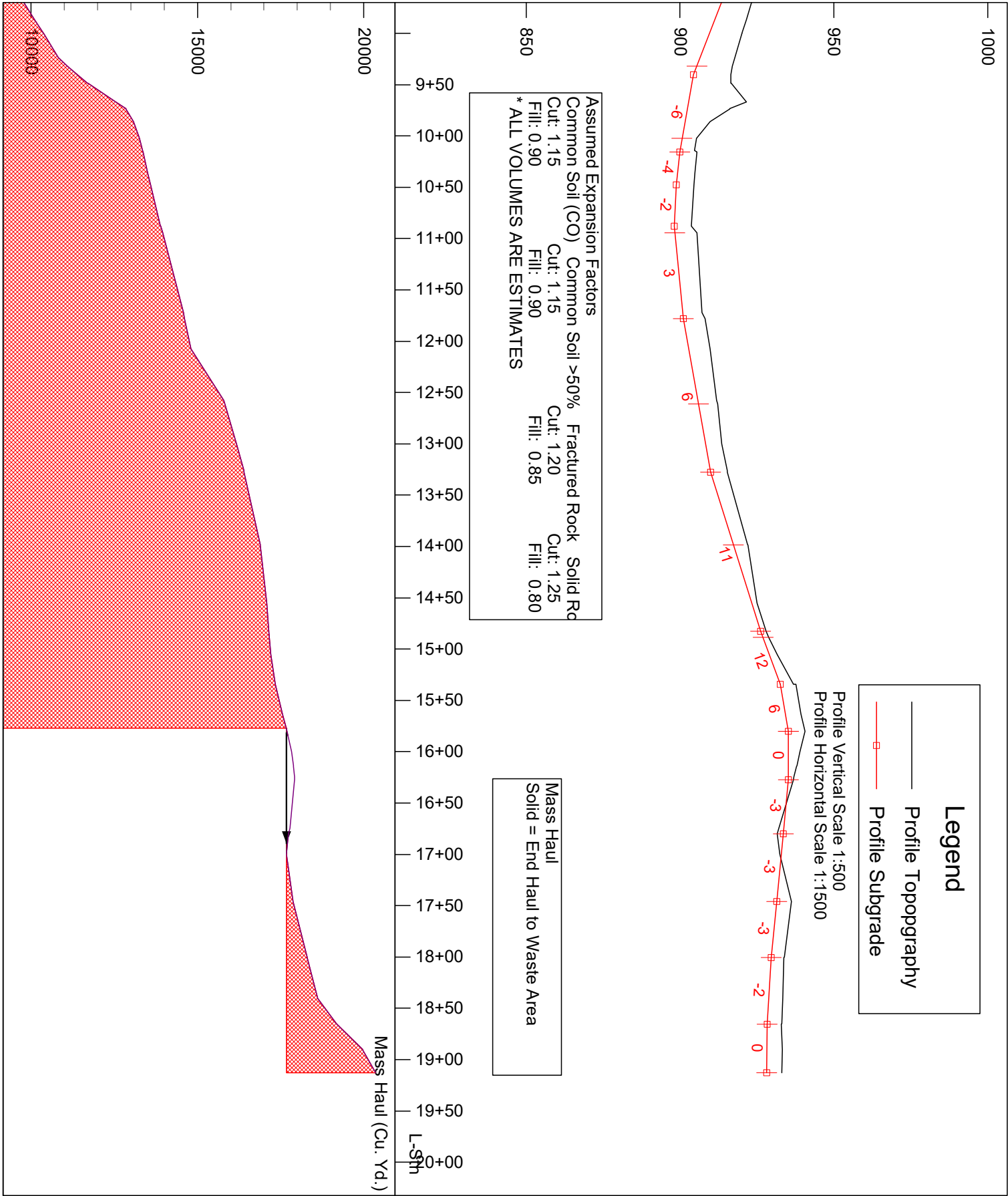
- Plan L-line Location
- Plan Road Edges
- Plan Culverts
- Plan P-Line Location



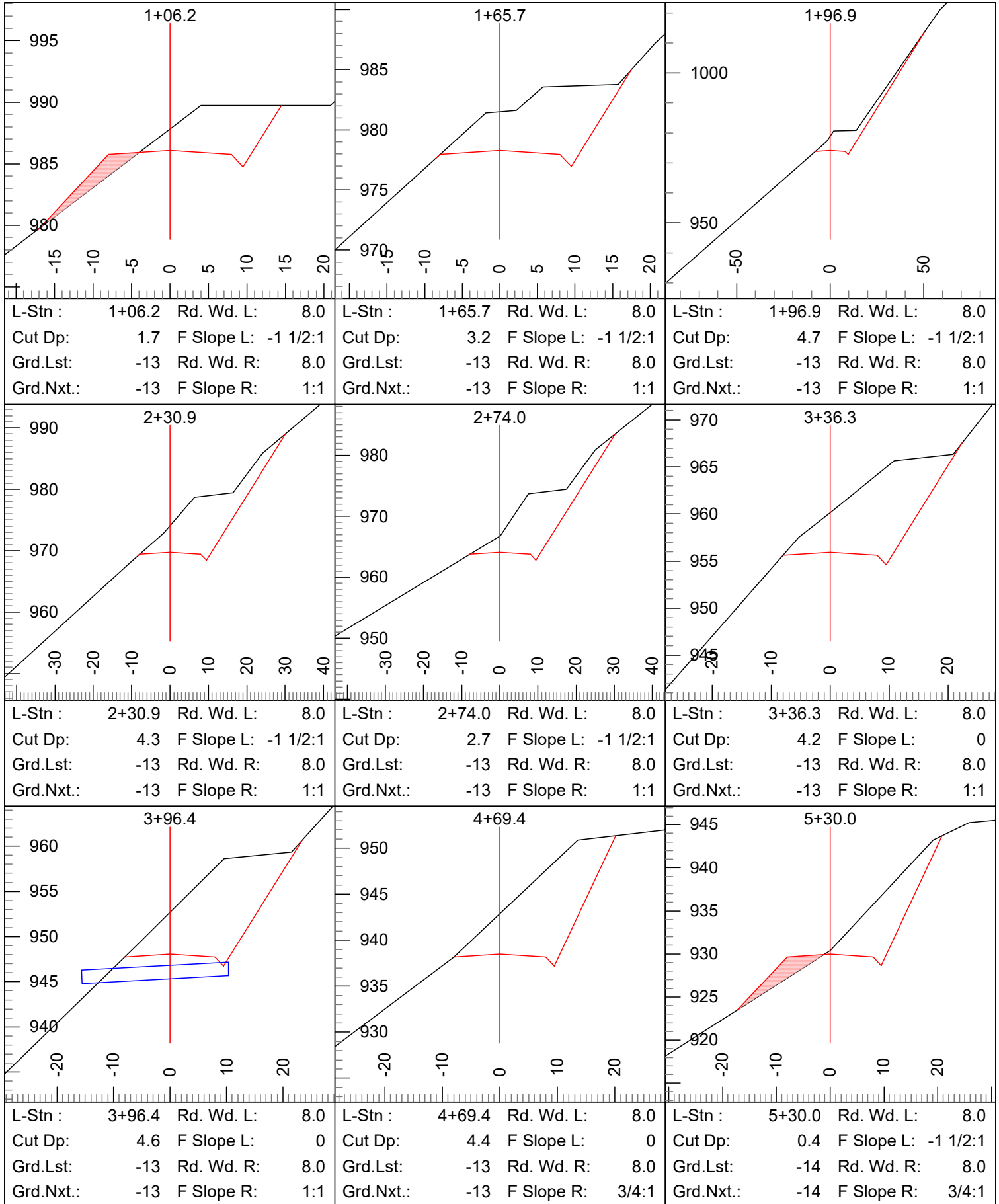
Page 7 of 8  
PROFILE VIEW  
W-1475C2



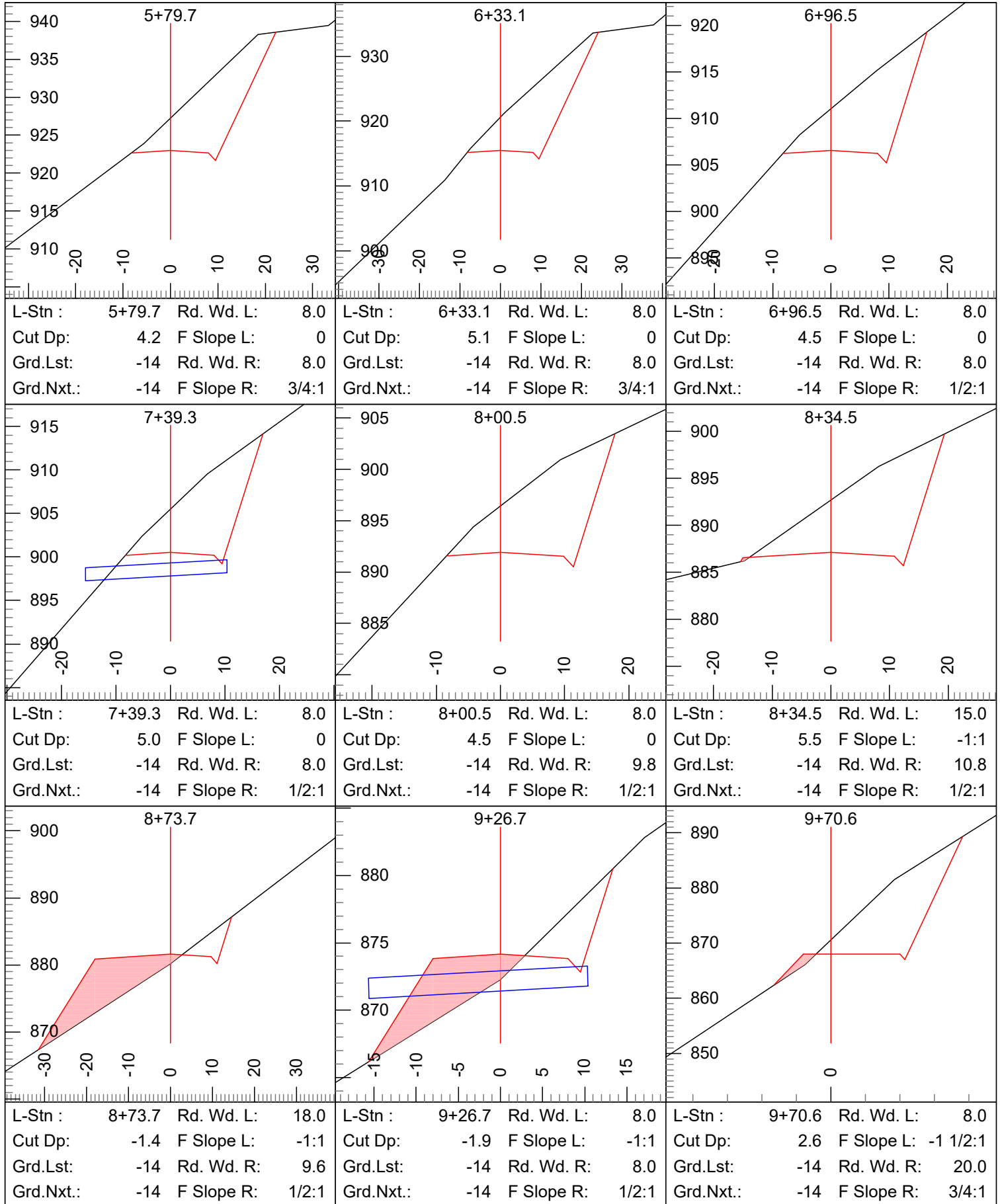
Page 8 of 8  
PROFILE VIEW  
W-1475C2



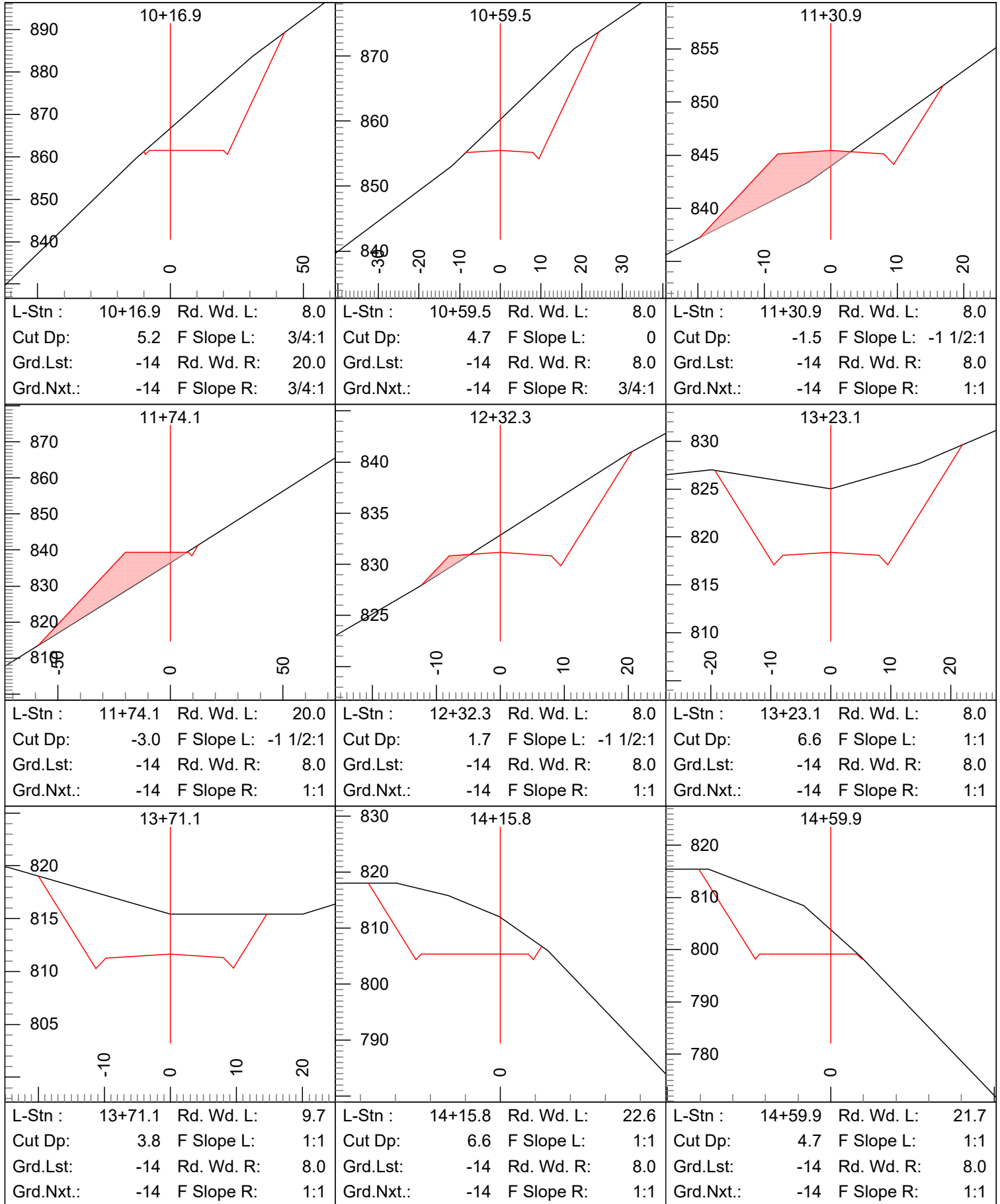
**Page 1 of 15**  
**W-1475D**  
**CROSS SECTION VIEW**



**Page 2 of 15**  
**W-1475D**  
**CROSS SECTION VIEW**

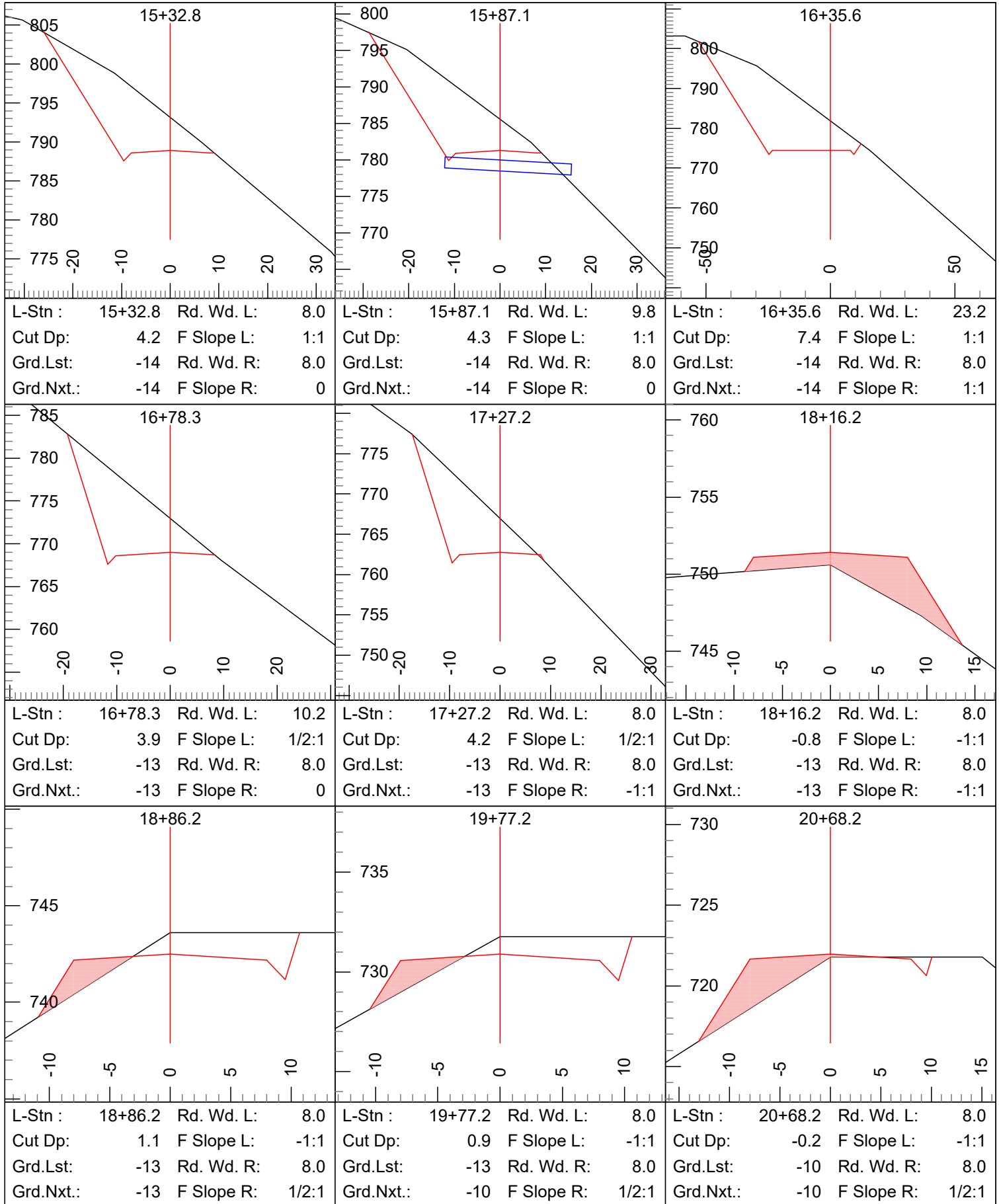


**Page 3 of 15**  
**W-1475D**  
**CROSS SECTION VIEW**

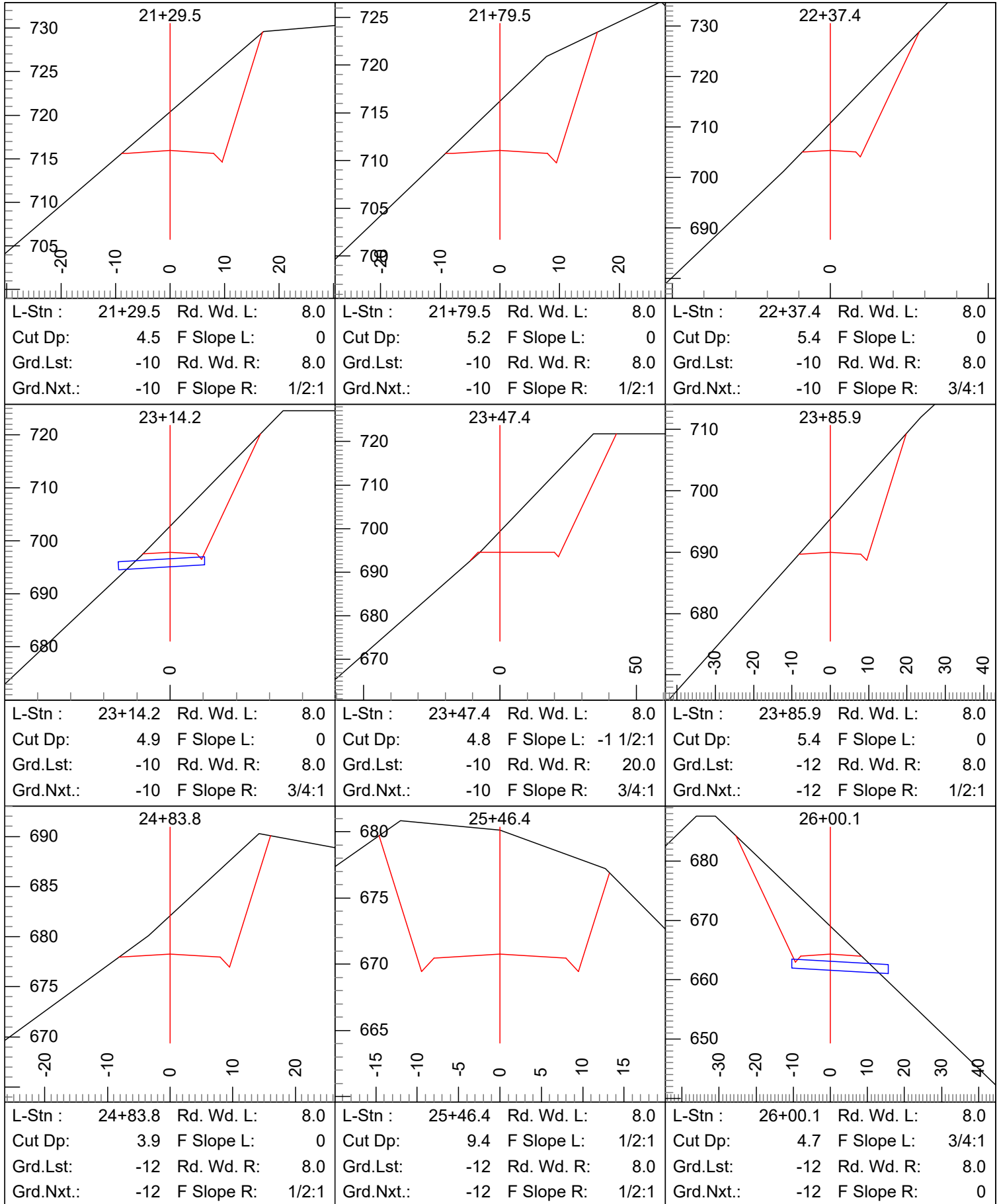




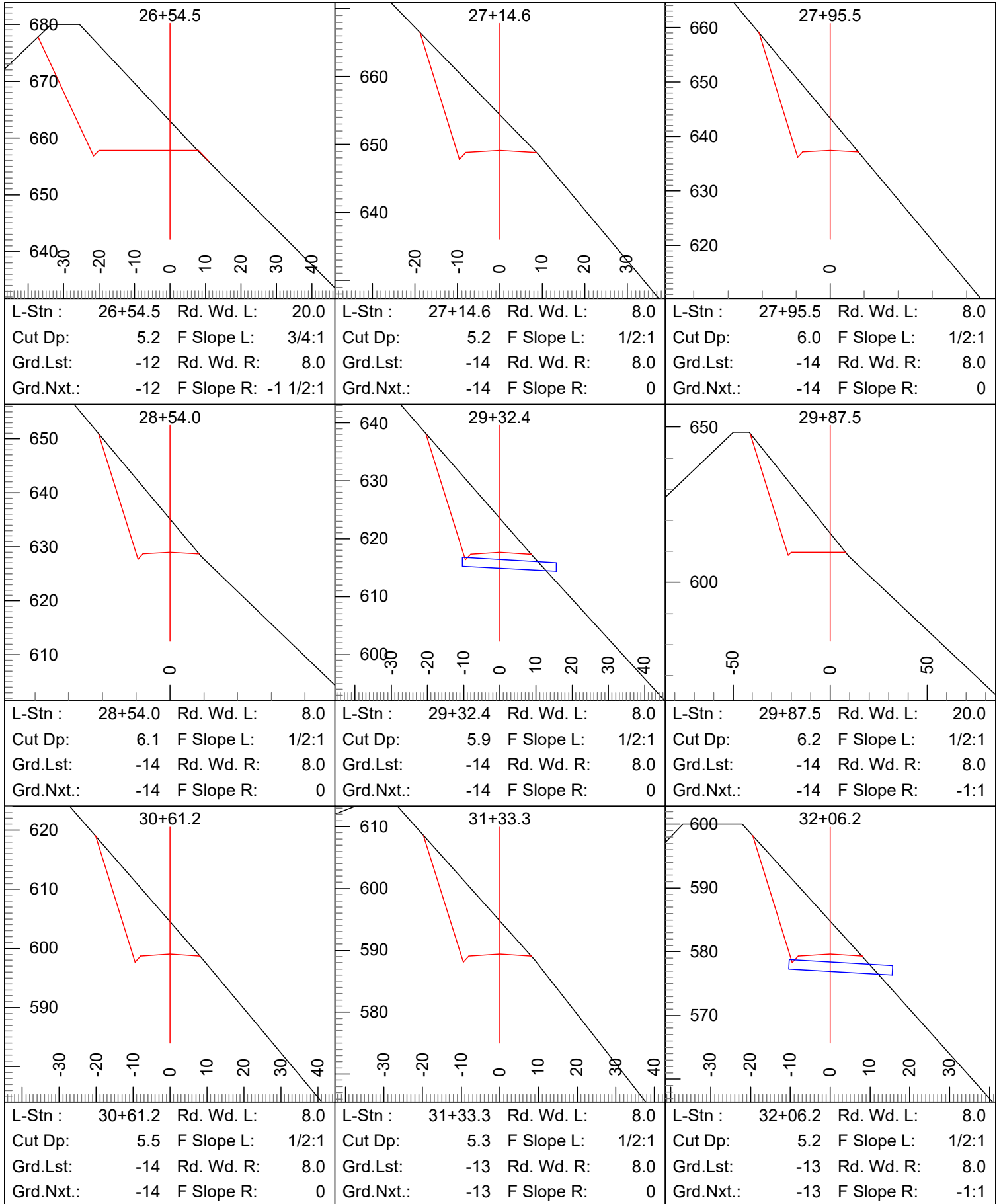
**Page 4 of 15**  
**W-1475D**  
**CROSS SECTION VIEW**



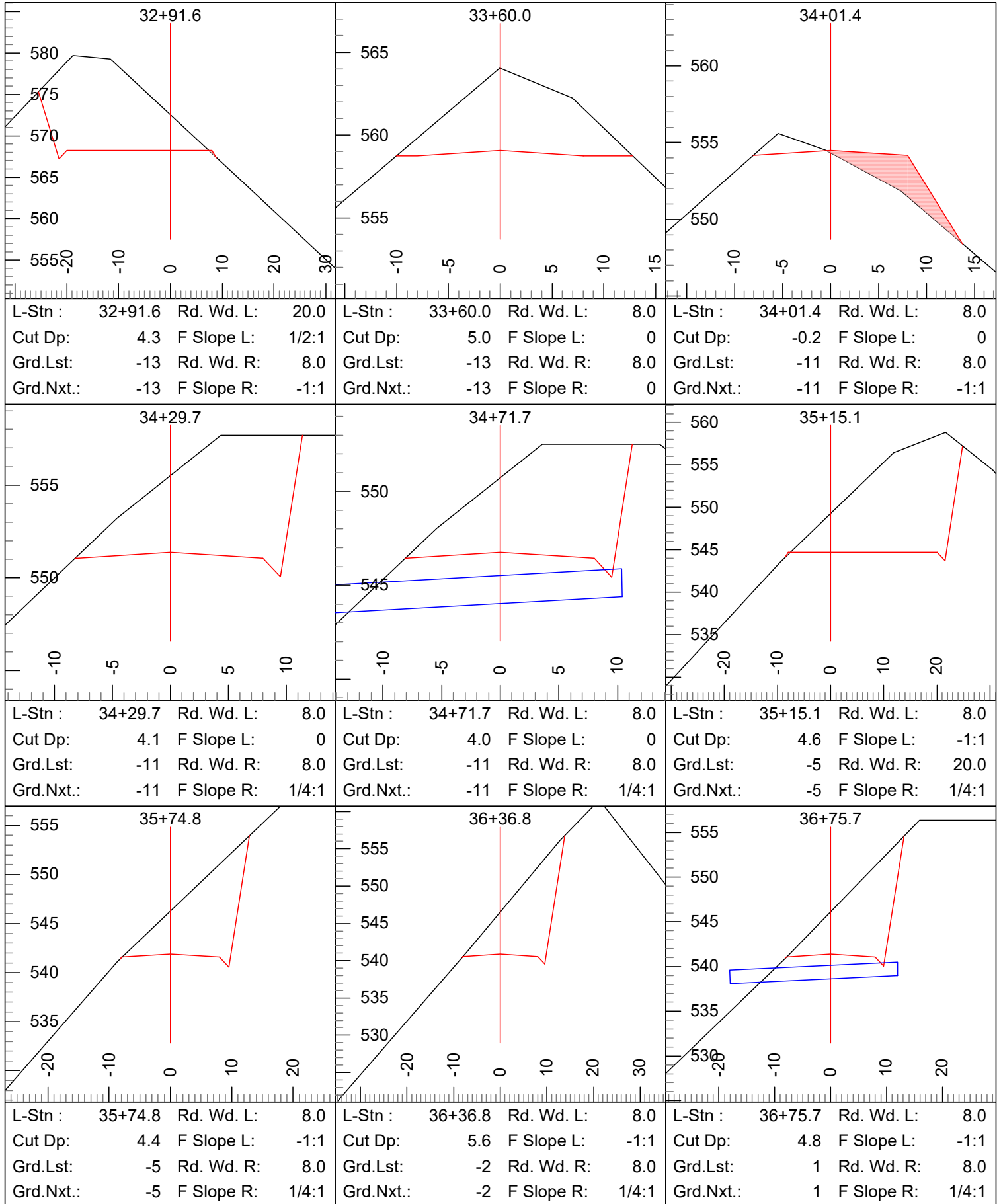
**Page 5 of 15**  
**W-1475D**  
**CROSS SECTION VIEW**



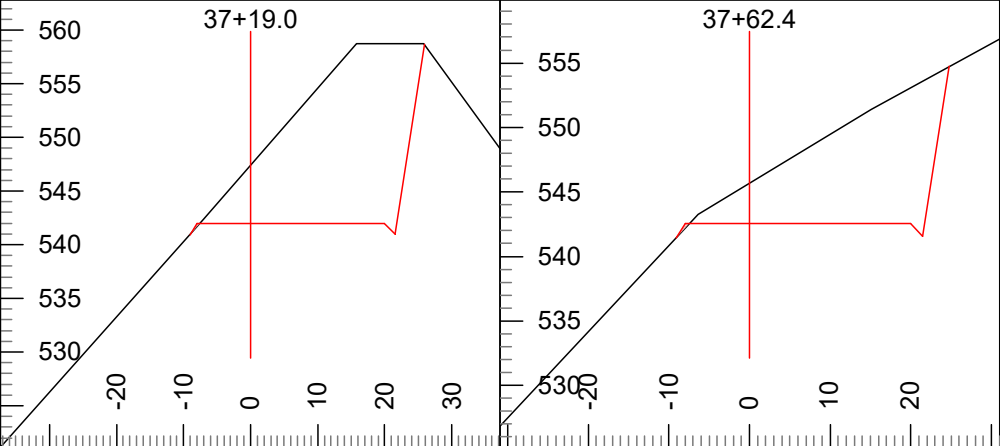
**Page 6 of 15**  
**W-1475D**  
**CROSS SECTION VIEW**



**Page 7 of 15**  
**W-1475D**  
**CROSS SECTION VIEW**



Page 8 of 15  
W-1475D  
CROSS SECTION VIEW

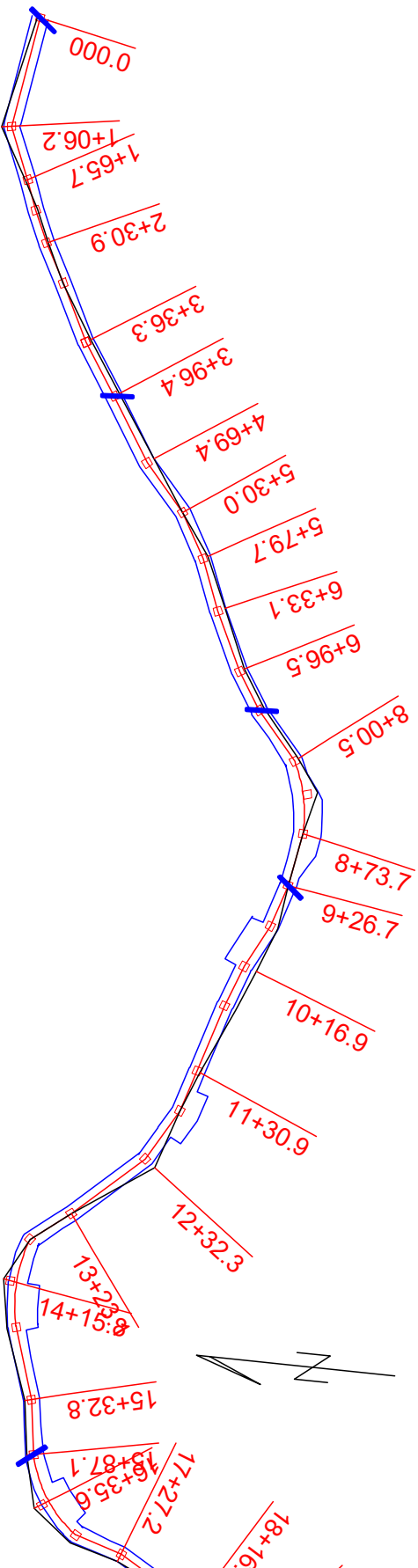


L-Stn :	37+19.0	Rd. Wd. L:	8.0	L-Stn :	37+62.4	Rd. Wd. L:	8.0
Cut Dp:	5.4	F Slope L:	-1:1	Cut Dp:	3.1	F Slope L:	-1:1
Grd.Lst:	1	Rd. Wd. R:	20.0	Grd.Lst:	1	Rd. Wd. R:	20.0
Grd.Nxt.:	1	F Slope R:	1/4:1	Grd.Nxt.:	1	F Slope R:	1/4:1

PLAN VIEW  
W-1475D  
Scale 1:2000

**Legend**

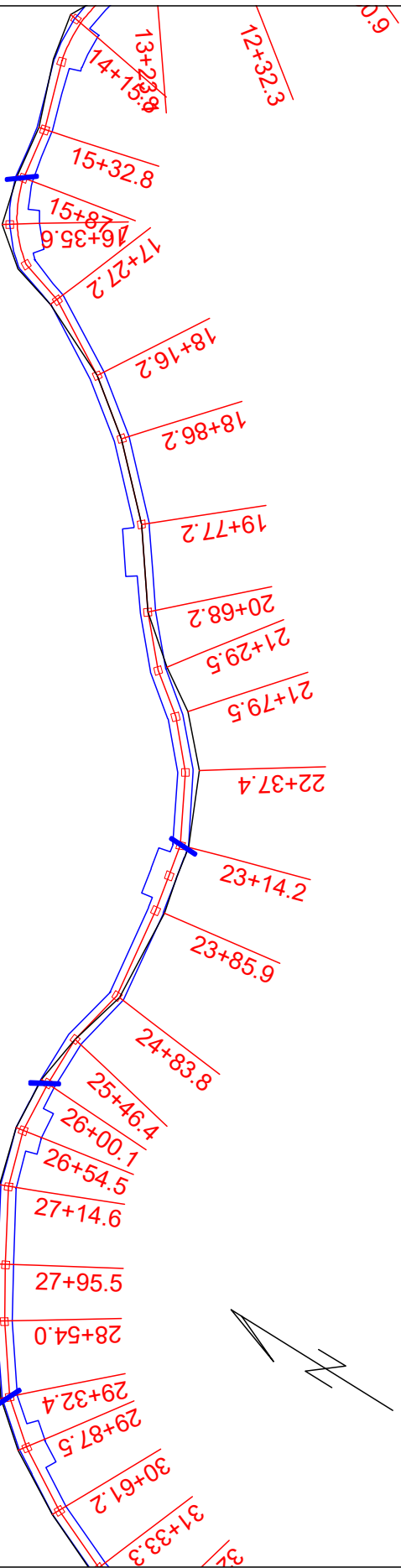
- Plan L-line Location
- Plan Road Edges
- Plan Culverts
- Plan P-Line Location



PLAN VIEW  
W-1475D  
Scale 1:2000

Legend

- Plan L-line Location
- Plan Road Edges
- Plan Culverts
- Plan P-Line Location



Legend

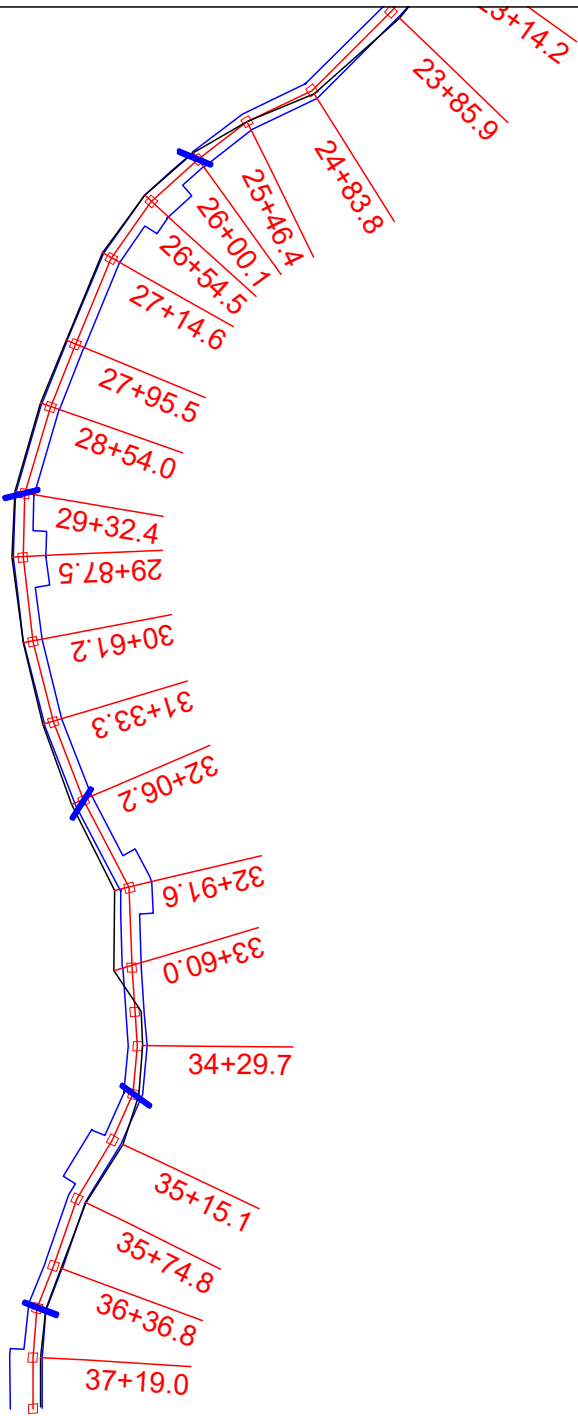
Plan L-line Location

Plan Road Edges

Plan Culverts

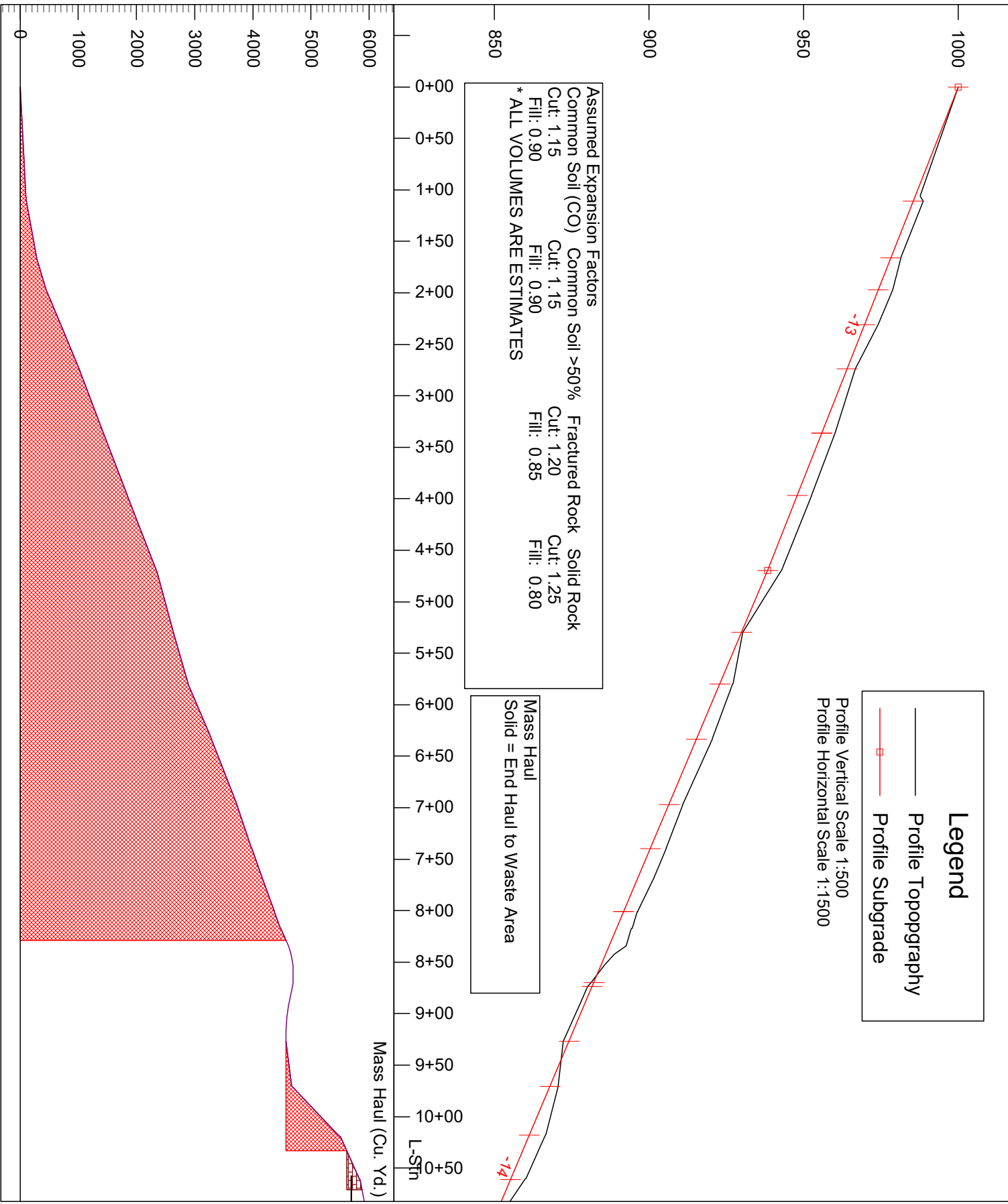
Plan P-Line Location

PLAN VIEW  
W-1475D  
Scale 1:2000





Page 12 of 15  
PROFILE VIEW  
W-1475D



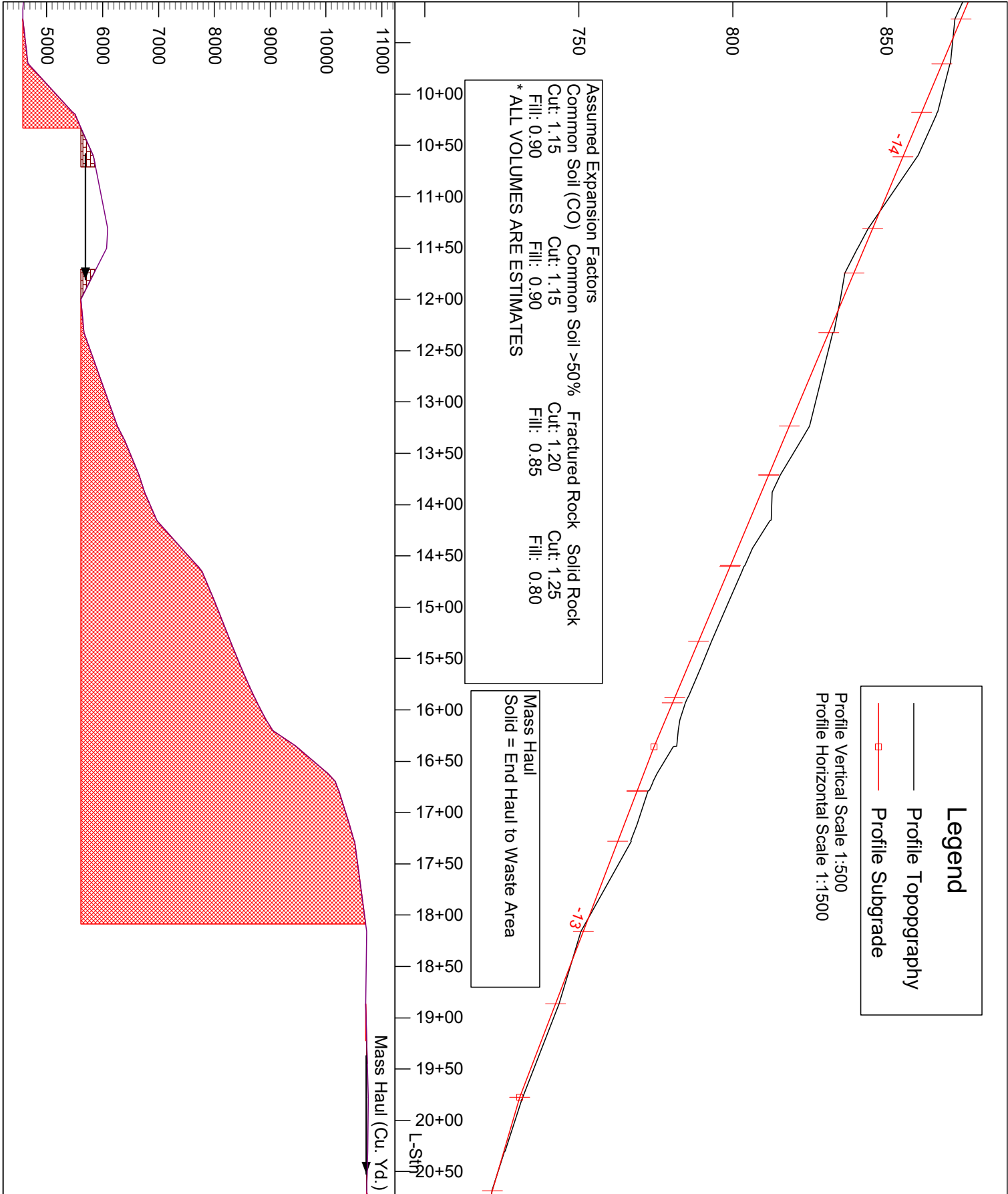
Page 13 of 15  
PROFILE VIEW  
W-1475D

GRAY JAY

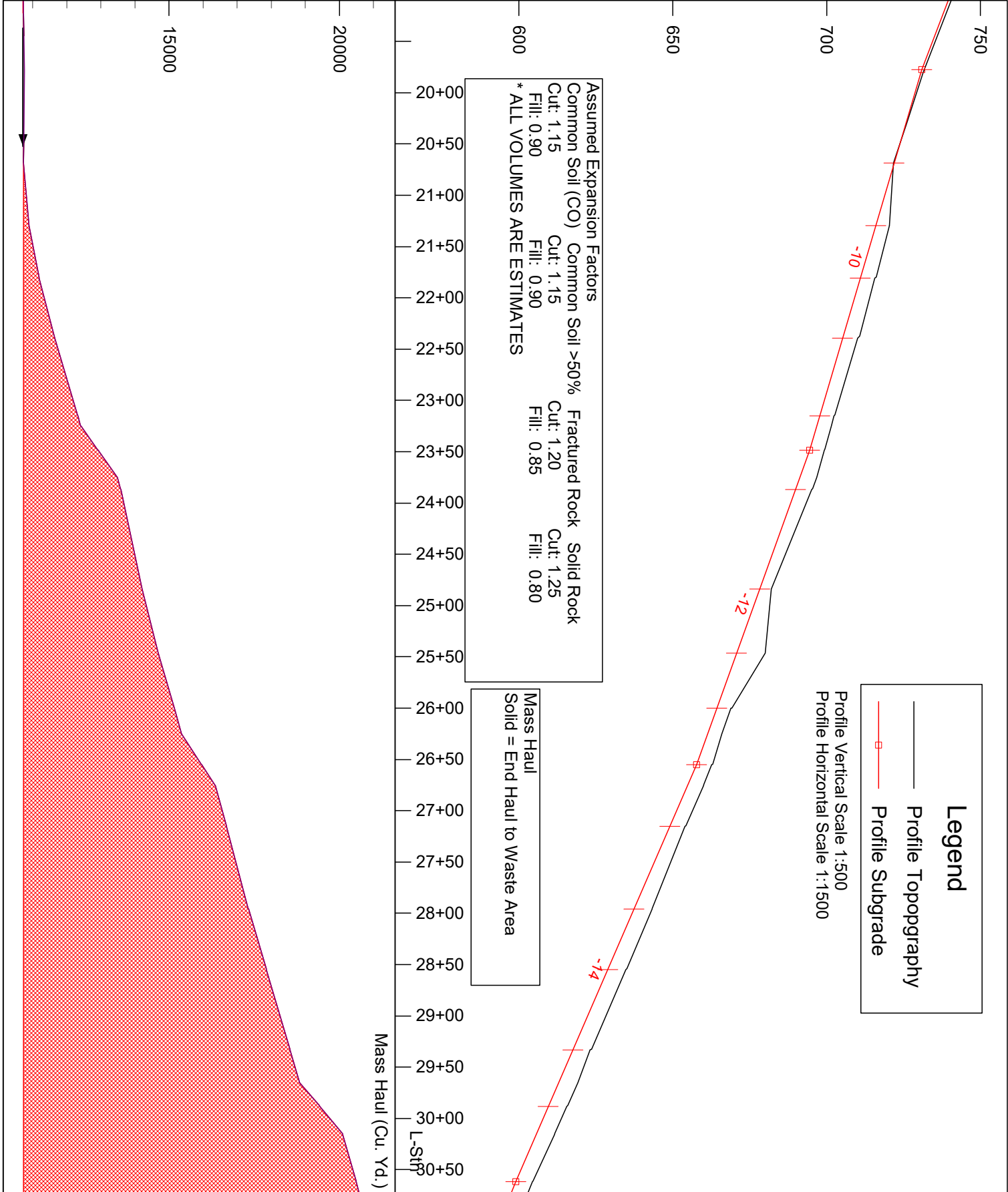
30-103863

AUGUST 04, 2022

Page 70 of 87



Page 14 of 15  
PROFILE VIEW  
W-1475D



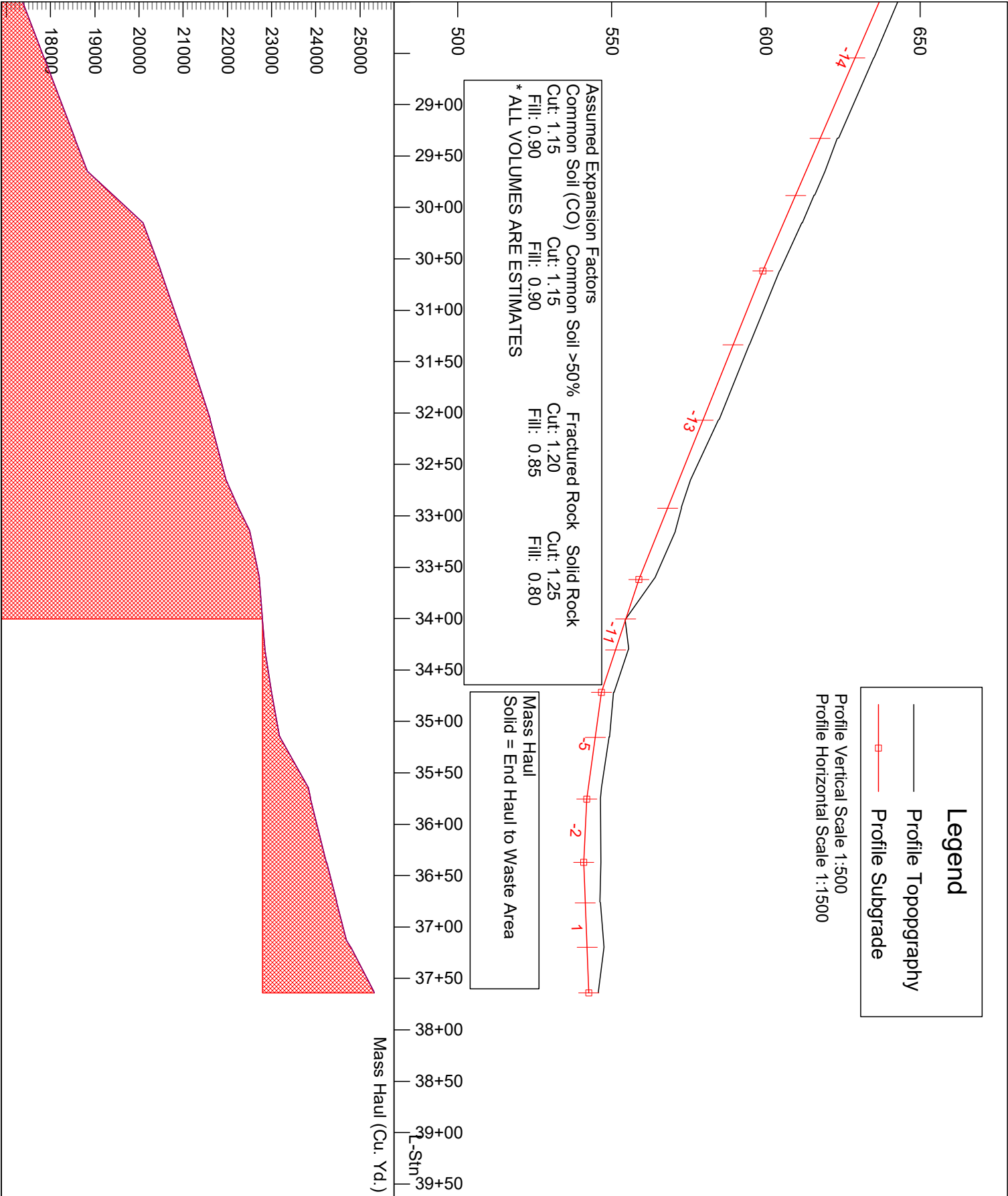
Page 15 of 15  
PROFILE VIEW  
W-1475D

GRAY JAY

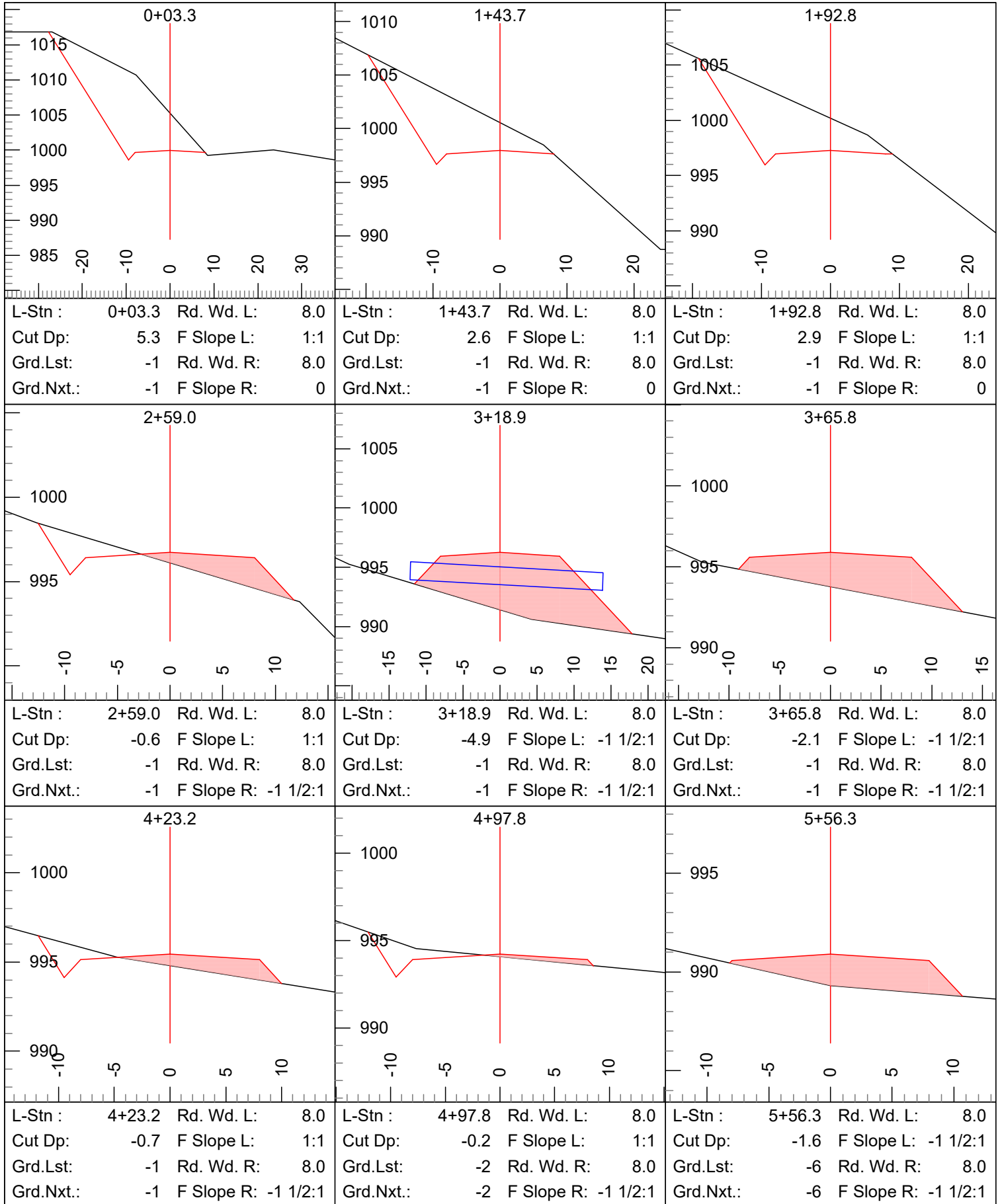
30-103863

AUGUST 04, 2022

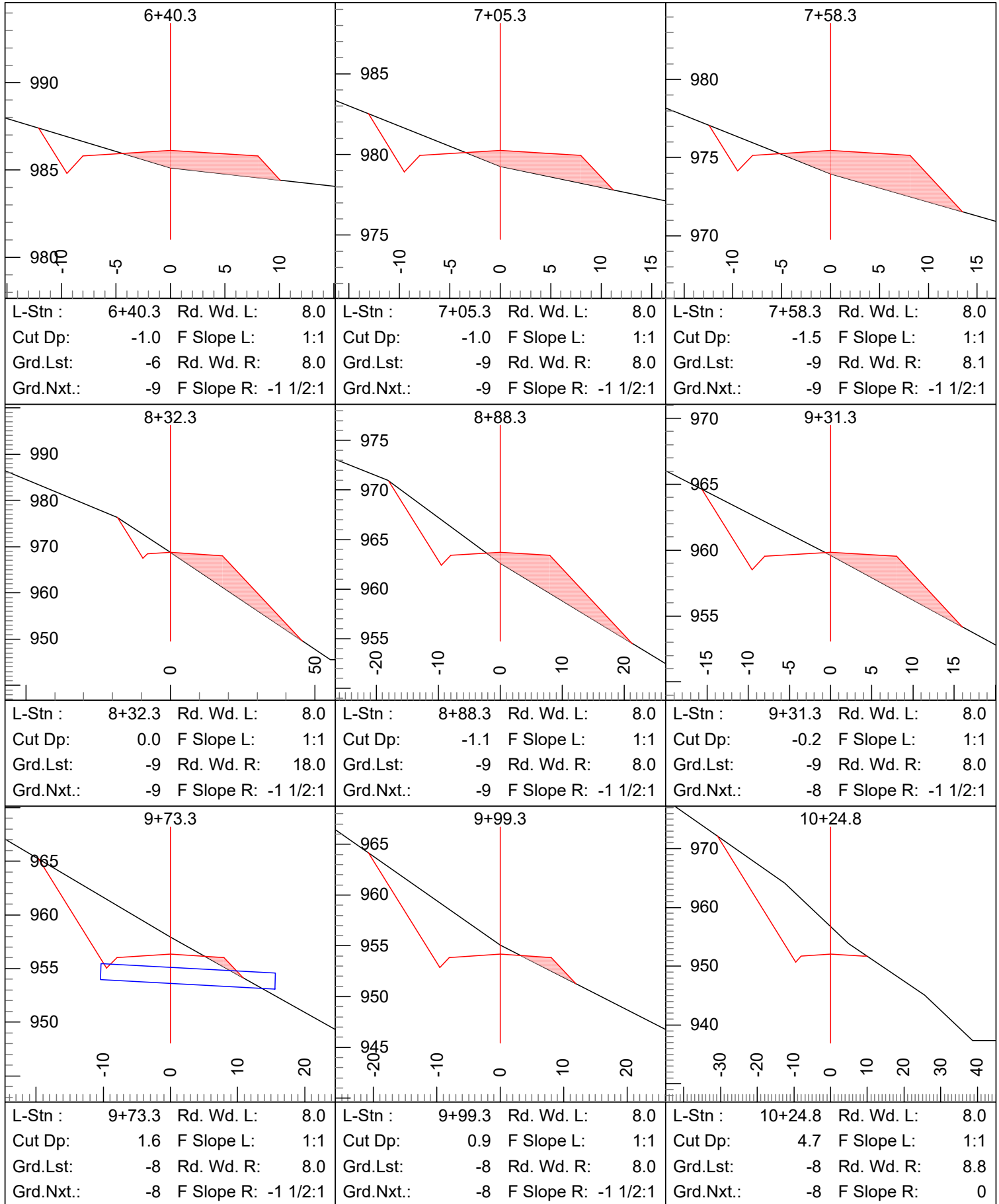
Page 72 of 87



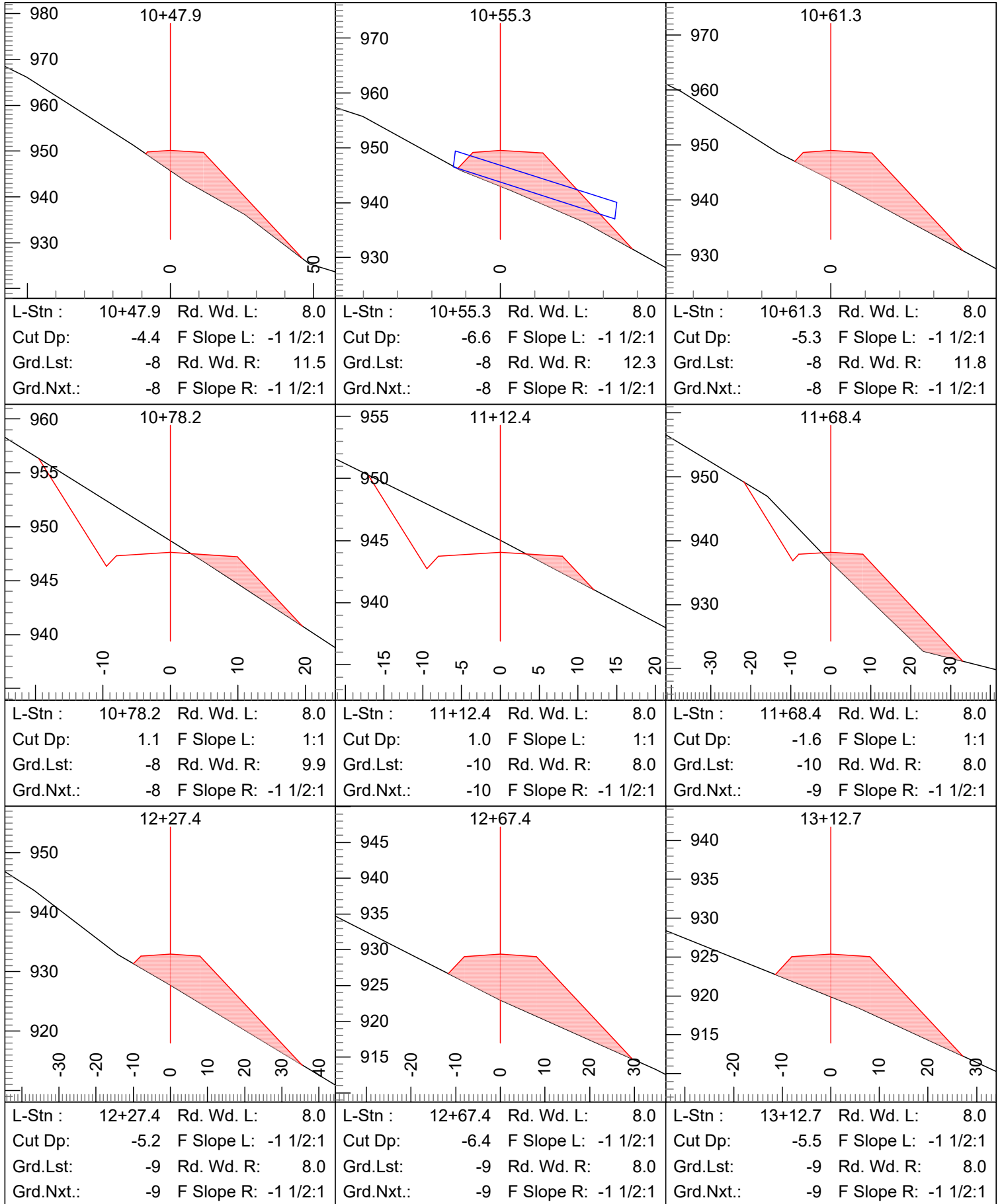
**Page 1 of 15**  
**W-1475E**  
**CROSS SECTION VIEW**



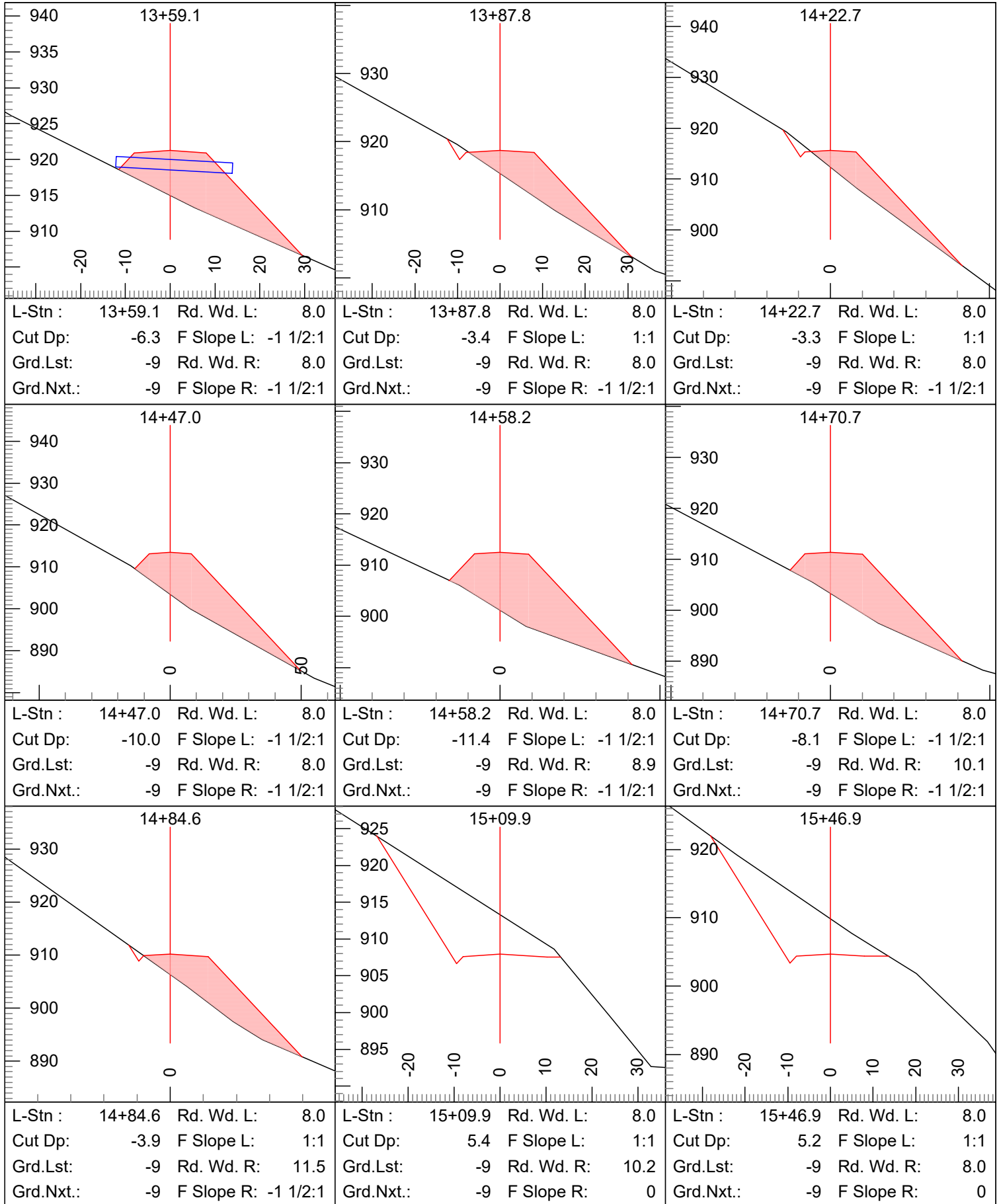
**Page 2 of 15**  
**W-1475E**  
**CROSS SECTION VIEW**



**Page 3 of 15**  
**W-1475E**  
**CROSS SECTION VIEW**

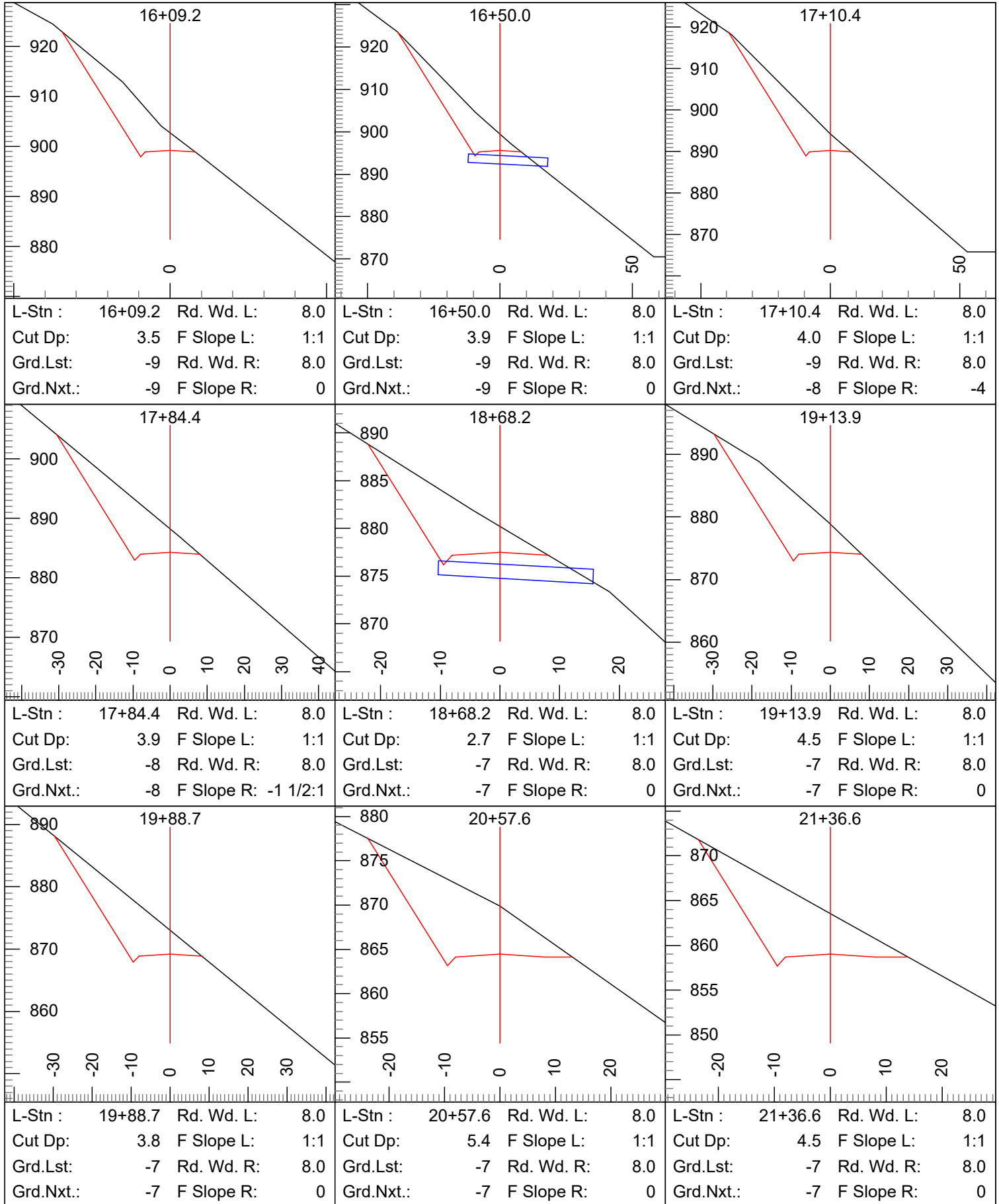


**Page 4 of 15**  
**W-1475E**  
**CROSS SECTION VIEW**

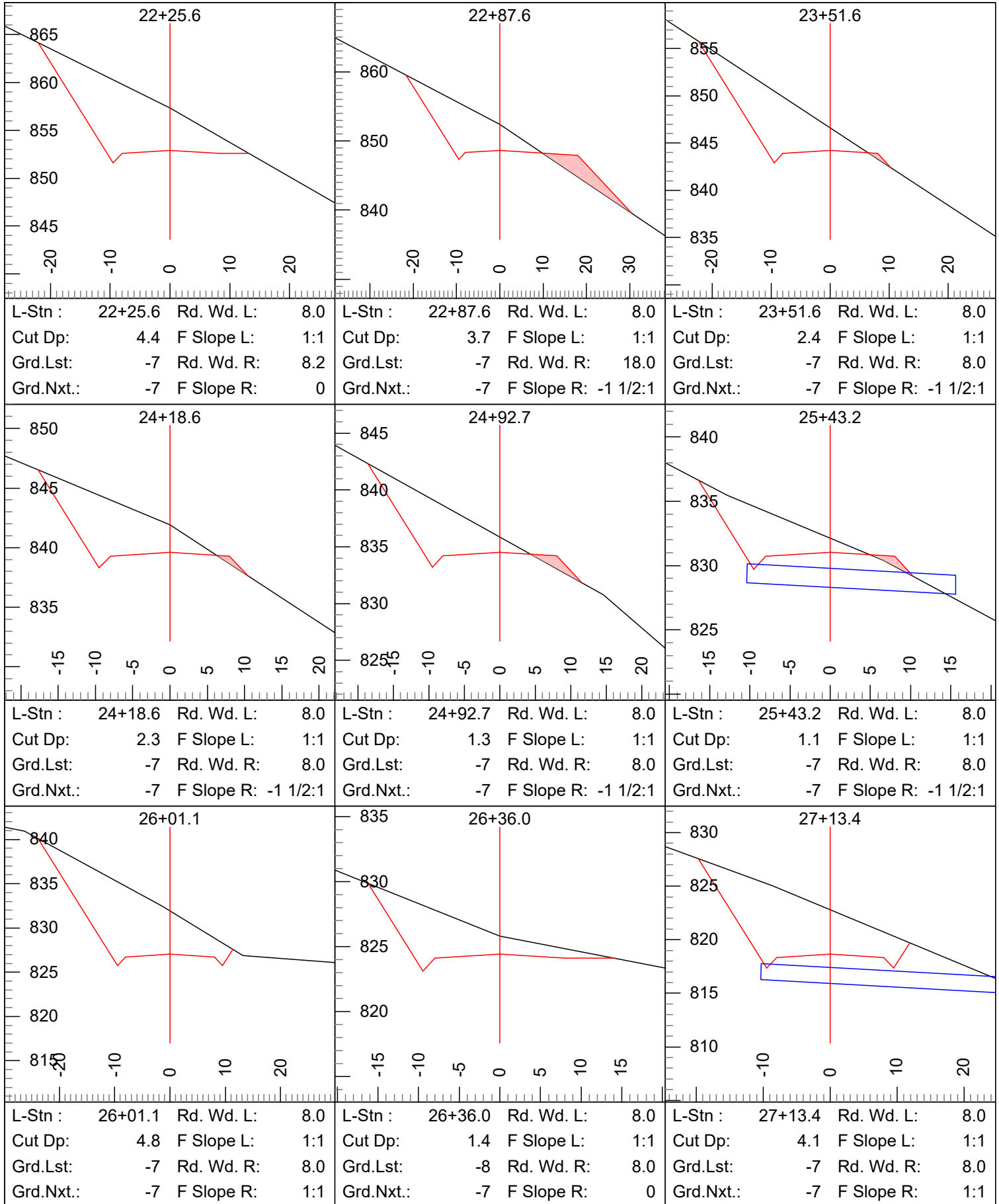




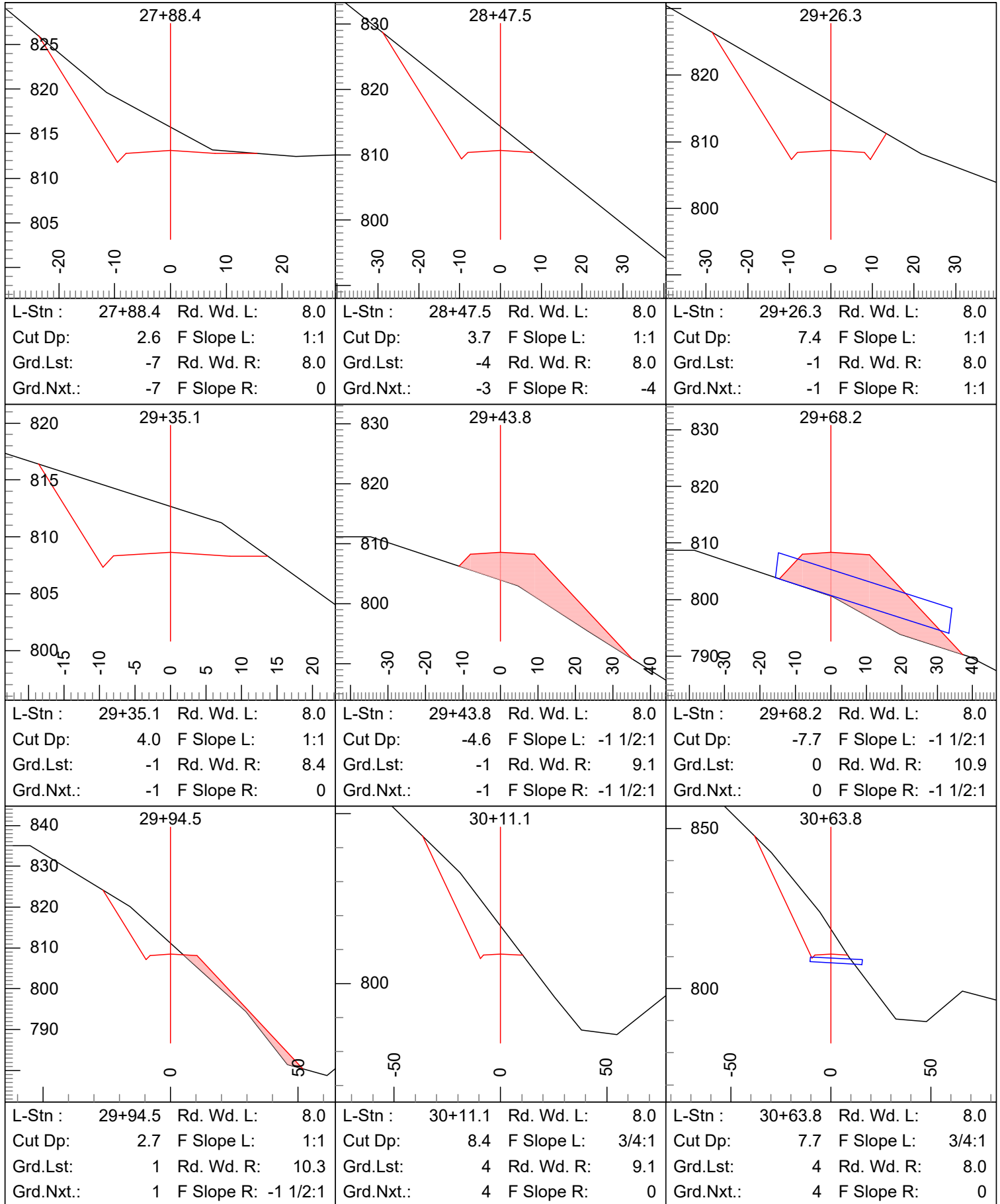
**Page 5 of 15**  
**W-1475E**  
**CROSS SECTION VIEW**



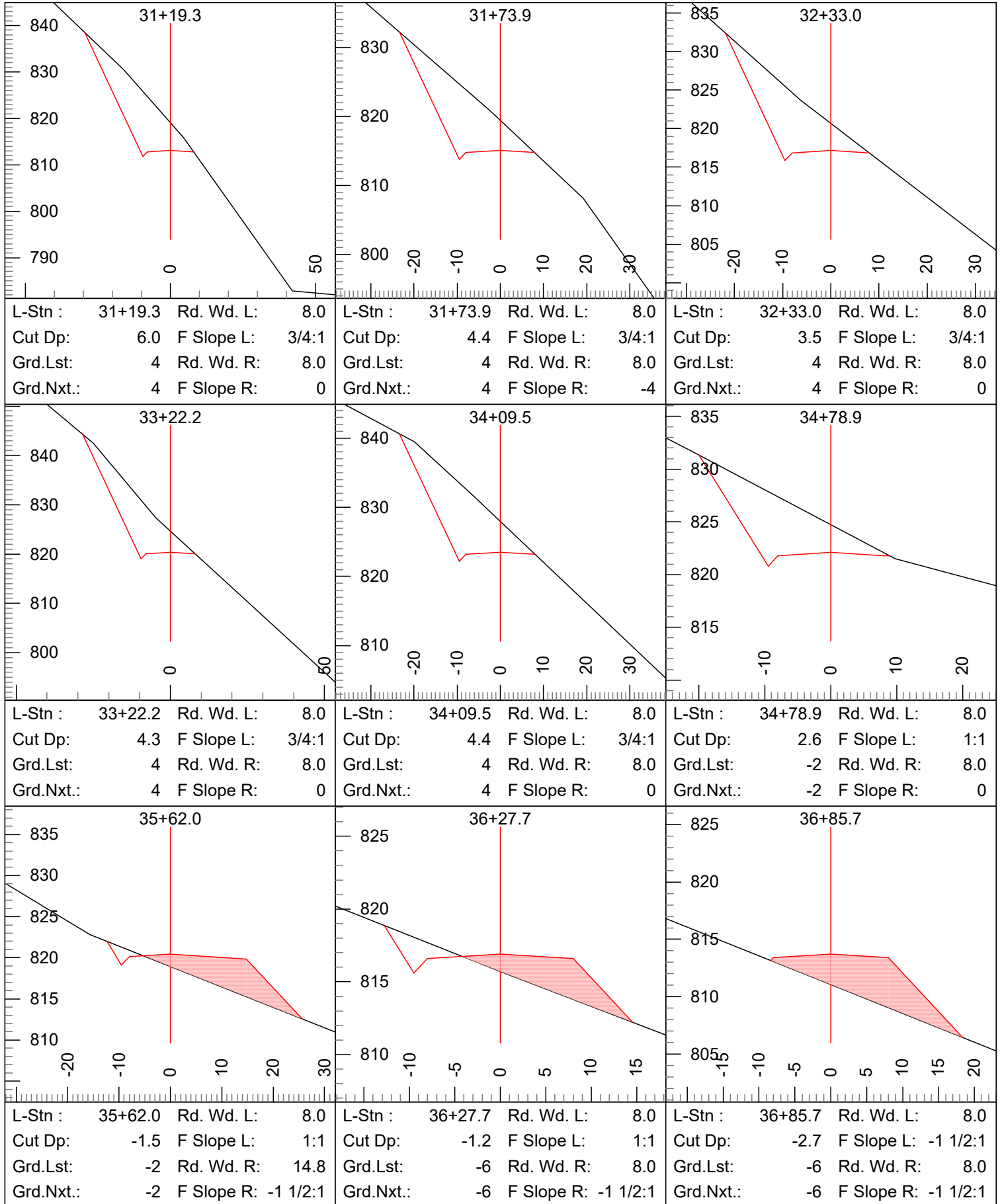
**Page 6 of 15**  
**W-1475E**  
**CROSS SECTION VIEW**

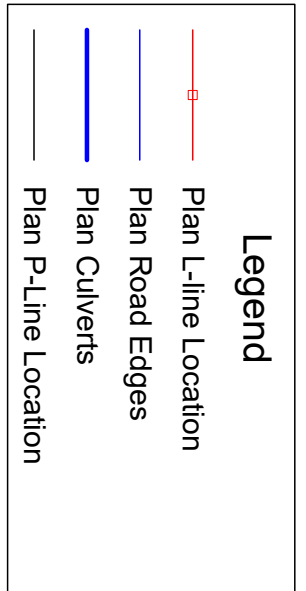


**Page 7 of 15**  
**W-1475E**  
**CROSS SECTION VIEW**

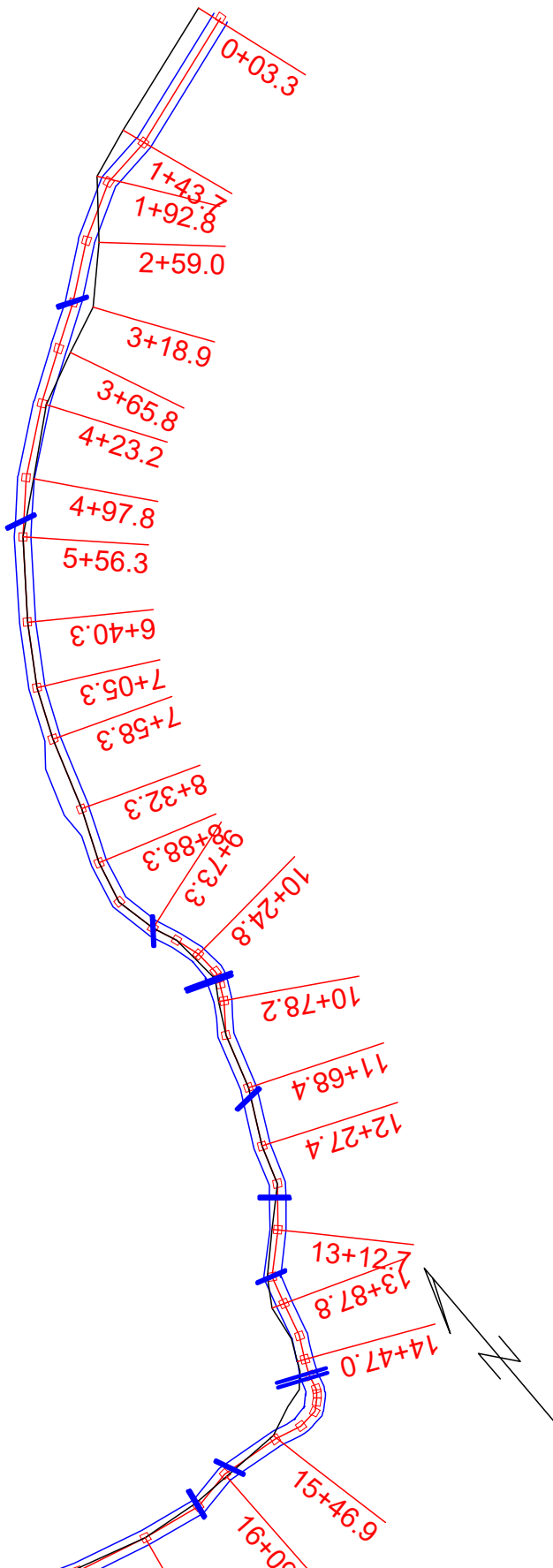


**Page 8 of 15**  
**W-1475E**  
**CROSS SECTION VIEW**





PLAN VIEW  
W-1475E  
Scale 1:2000

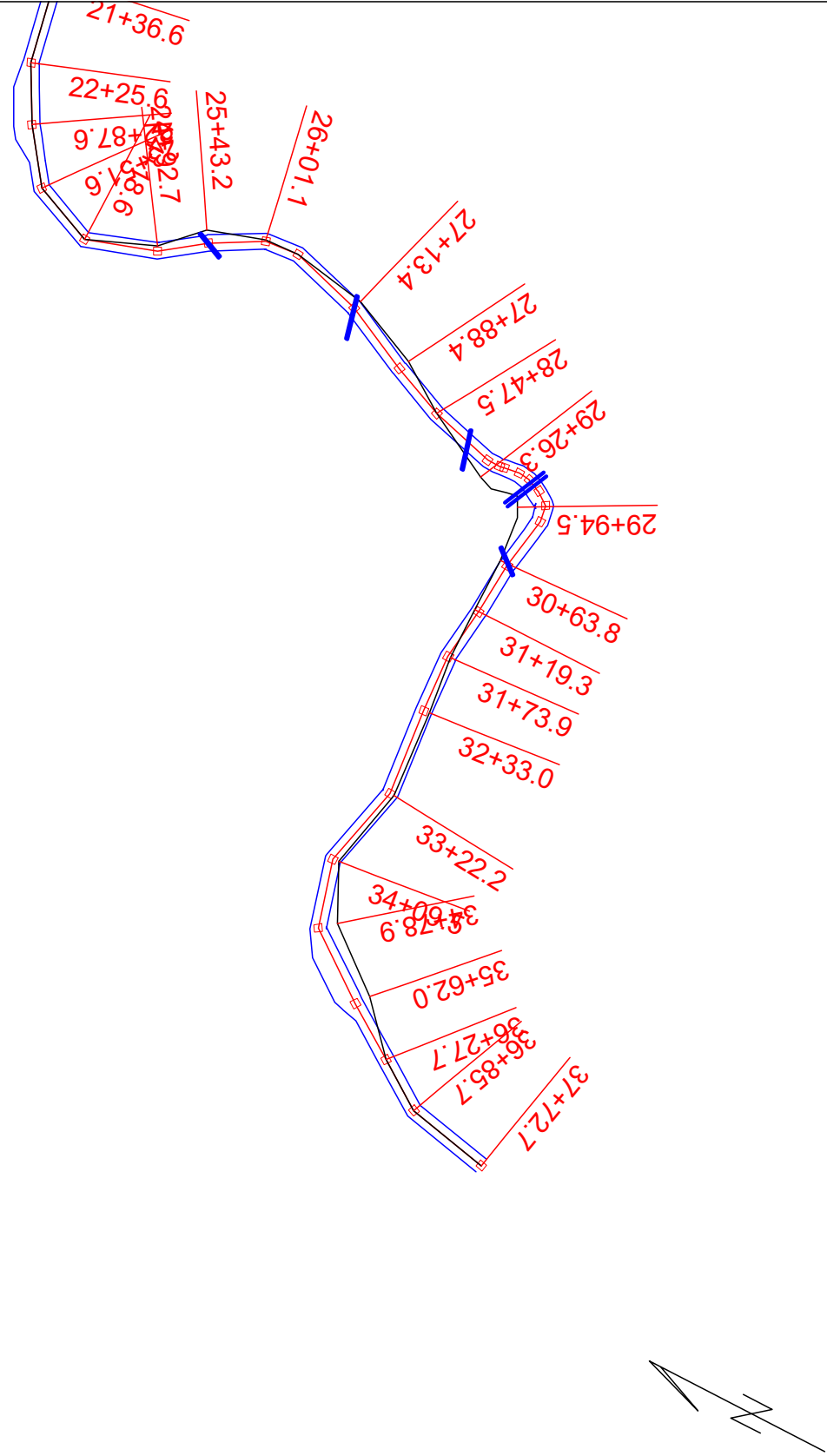




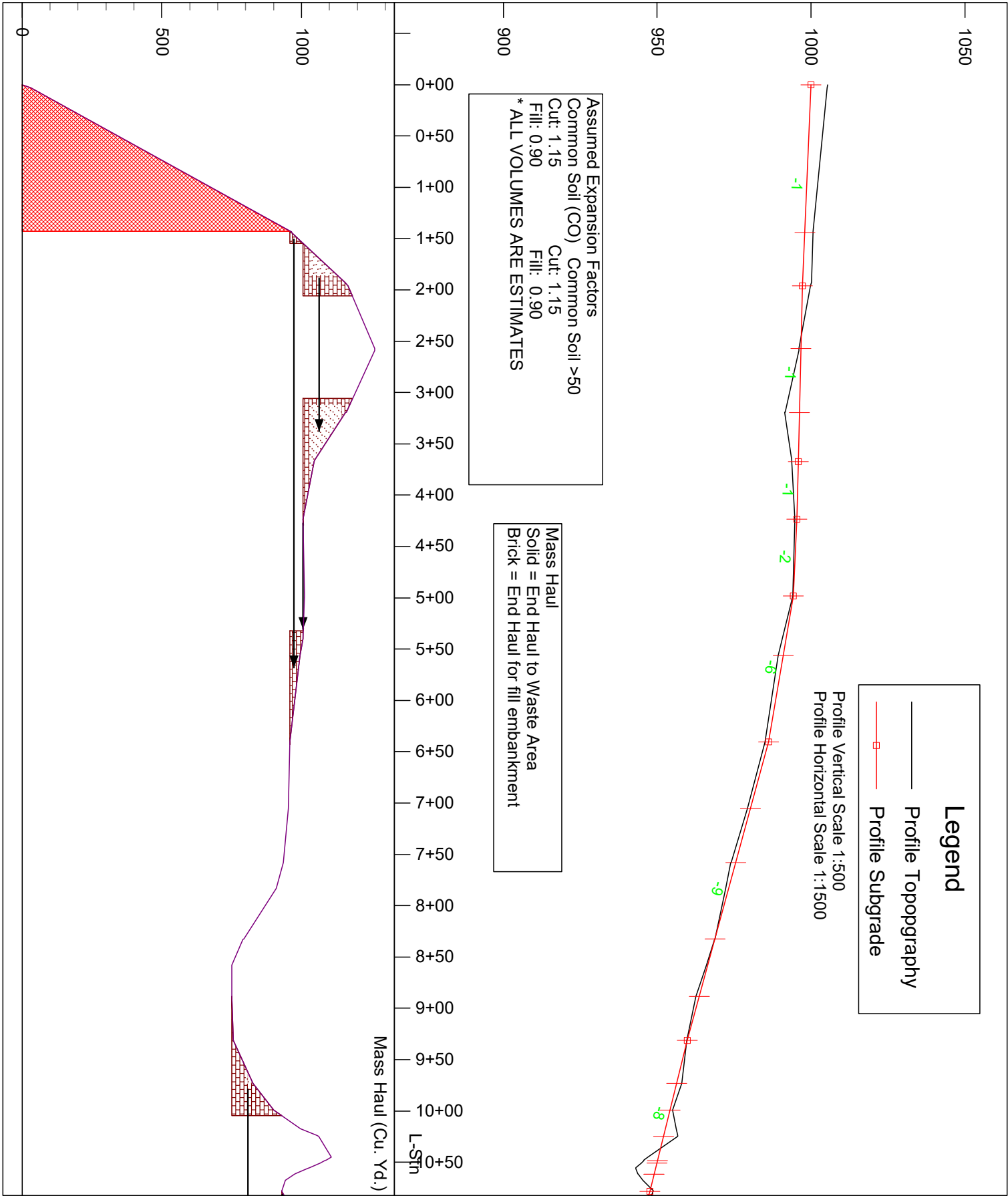
**Legend**

- Plan L-line Location
- Plan Road Edges
- Plan Culverts
- Plan P-Line Location

PLAN VIEW  
W-1475E  
Scale 1:2000

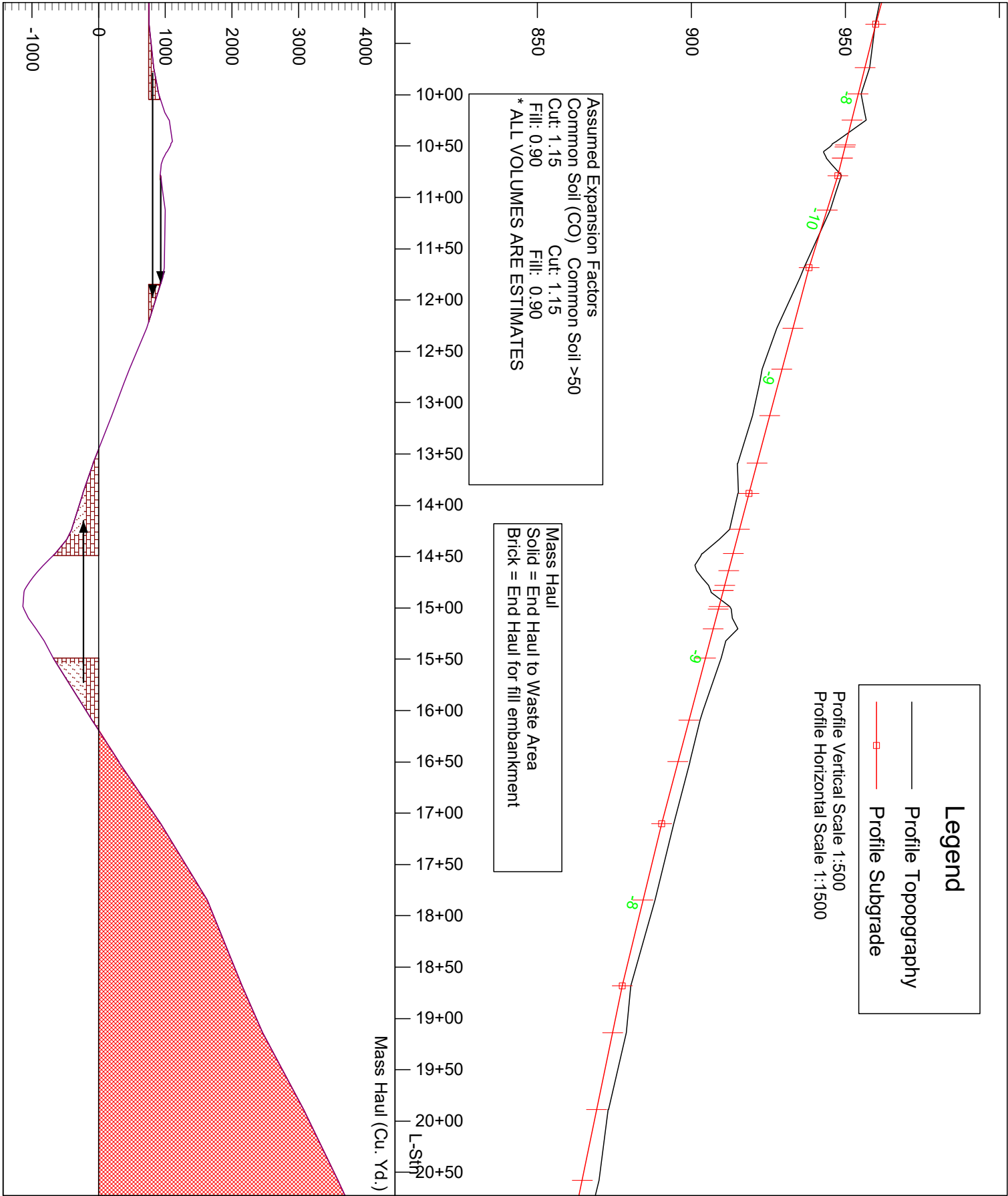


Page 12 of 15  
PROFILE VIEW  
W-1475E

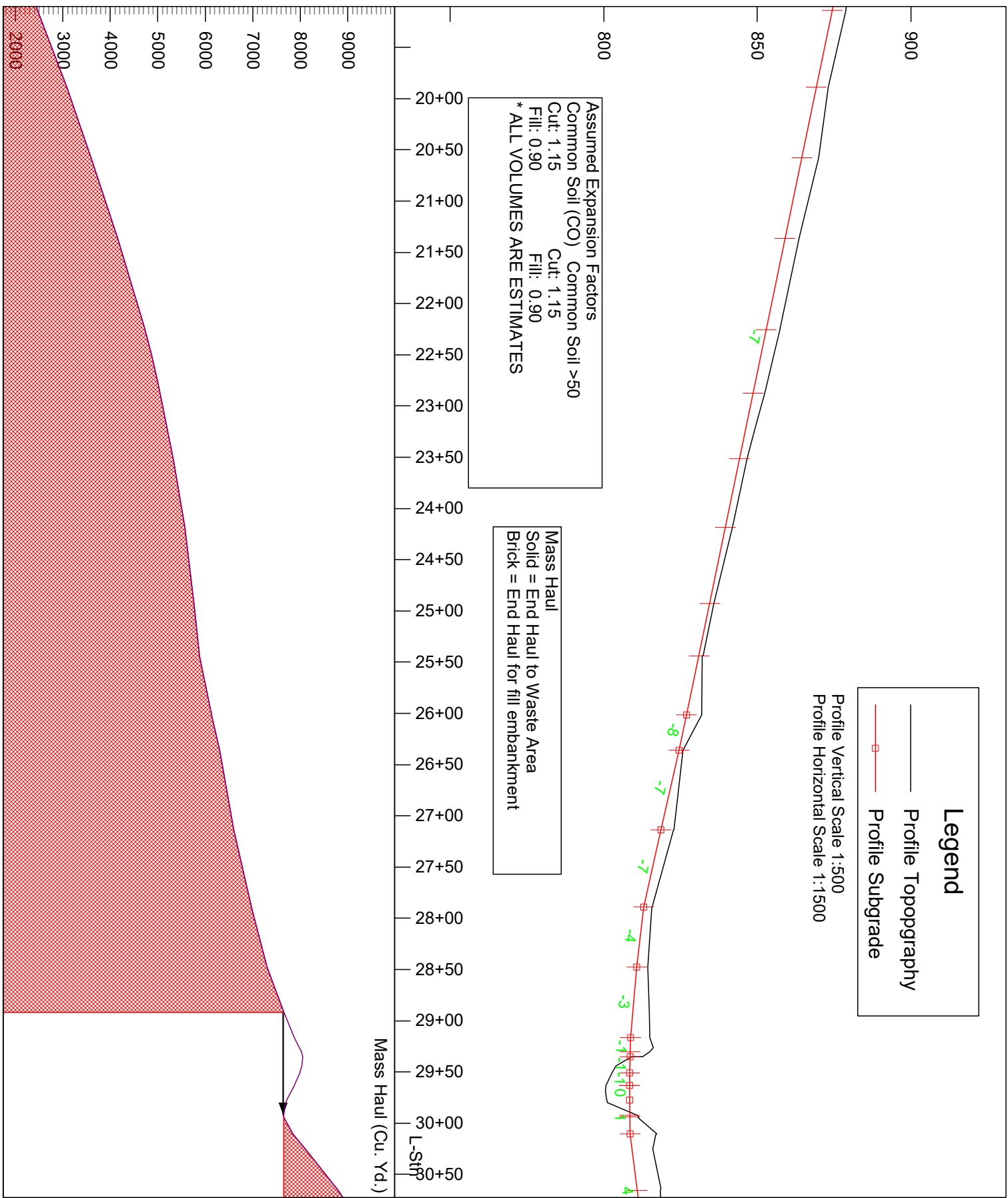




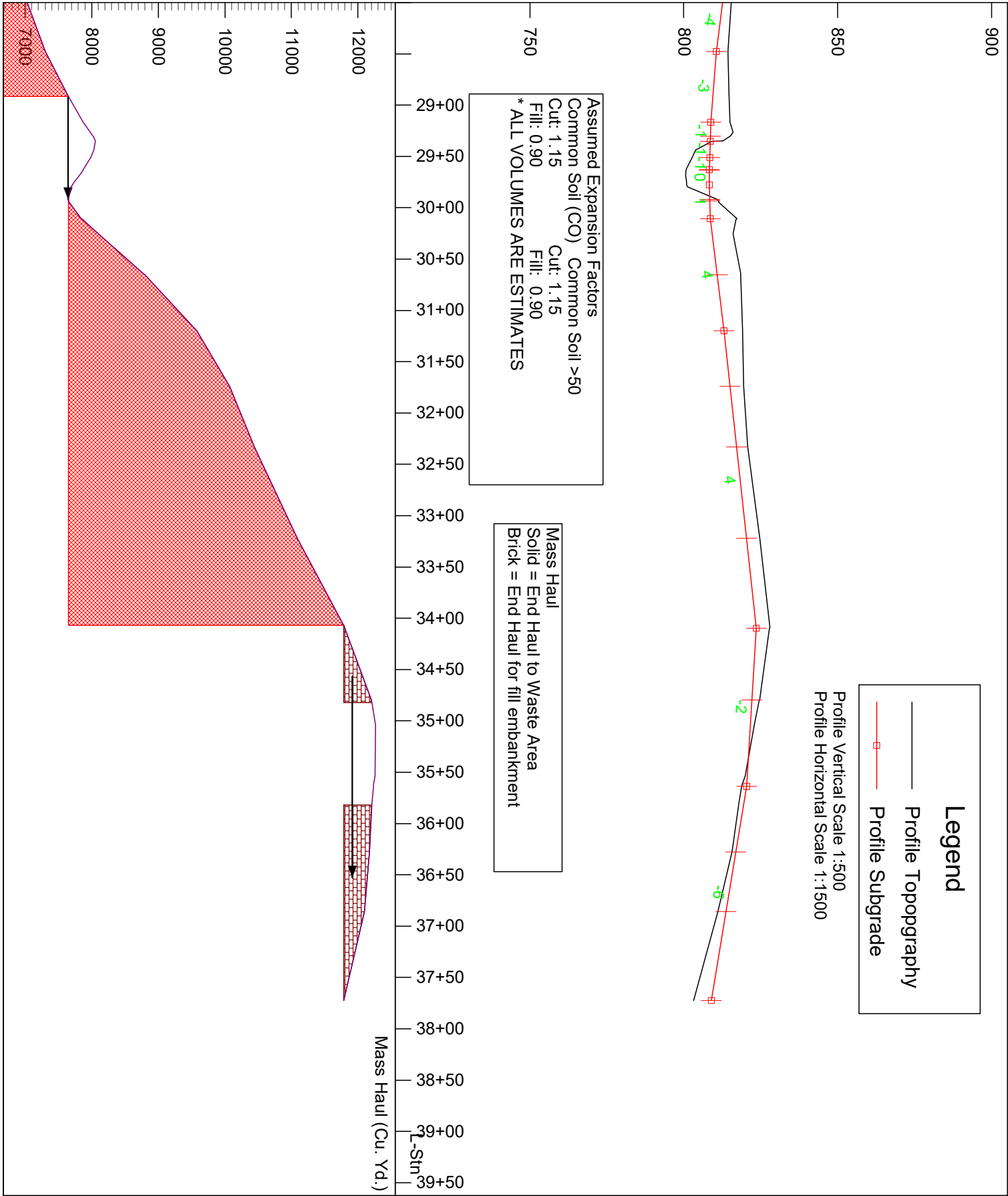
Page 13 of 15  
PROFILE VIEW  
W-1475E



Page 14 of 15  
PROFILE VIEW  
W-1475E



Page 15 of 15  
PROFILE VIEW  
W-1475E



## SUMMARY - Road Development Costs

REGION: Pacific Cascade

DISTRICT: Yacolt

SALE/PROJECT NAME: Gray Jay

AGREEMENT #: 30-103863

ROAD NUMBERS:	W-1475C2, W-1475C3, W-1475C4, W-1475D, W-1475D2, W-1475D3, W-1475D4, & W-1475E	W-1475D1	W-1470, W-1475, & W-1475C
ROAD STANDARD:	Construction	Reconstruction	Maintenance
NUMBER OF STATIONS:	109.42	4.78	140.47
CLEARING & GRUBBING, EXCAVATION AND FILL, MISC.:	\$386,567.66	\$1,449.23	\$10,436.04
ROAD ROCK:			
	Optional:	\$47,128.94	\$2,504.00
	Required:	\$58,283.89	\$0.00
	Total:	\$105,412.83	\$10,483.92
STOCKPILE/PIT DEVELOPMENT:	\$0.00	\$0.00	\$0.00
CULVERTS AND FLUMES:	\$57,565.38	\$0.00	\$3,071.22
STRUCTURES:	\$0.00	\$0.00	\$0.00
DUST ABATEMENT	\$0.00	\$0.00	\$0.00
MOBILIZATION:	\$4,313.86	\$45.41	\$181.63
TOTAL COSTS:	\$553,859.73	\$3,998.64	\$24,172.81
COST PER STATION:	\$5,062	\$837	\$172
ROAD DEACTIVATION & ABANDONMENT COSTS:	\$0.00	\$0.00	\$0.00
10% OVERHEAD AND GENERAL EXPENSE =			\$58,203.12
TOTAL (All Roads) =			\$640,234.30
TOTAL (Minus Optional Rock) =			\$590,601.36
SALE VOLUME MBF =			7,000
TOTAL \$/MBF =			\$91.46
TOTAL \$/MBF (Minus Optional Rock) =			\$84.37

Profit and Risk costs are accounted on an individual basis.

Compiled by: David Stone

Date: August 4, 2022

## SUMMARY OF ROAD

Sale:		<b>Gray Jay</b>		Road:		<b>W-1470</b>	
Required	<div><div></div></div>			Required	<div><div></div></div>		
Pre-Haul Maintenance-	<div>71+68</div>	stations		Reconstruction -	<div></div>	stations	
	<div>1.36</div>	miles			<div>0.00</div>	miles	
Required	<div><div></div></div>			Optional	<div><div></div></div>		
Abandonment-	<div></div>	stations		Reconstruction -	<div></div>	stations	
	<div>0.00</div>	miles			<div>0.00</div>	miles	

### PRE-HAUL MAINTENANCE

#### CLEARING

#### EXCAVATION

Excavate ditchline and scatter material/ clean ditch -	71.68	stations @	\$26.60	per station	\$1,906.69
--	-------	------------	---------	-------------	------------

#### MISC.

Grade and shape existing road surface -	71.68	stations @	\$18.80	per station	\$1,347.58
Roll shaped road surface w/ vibratory roller prior to rocking -	71.68	stations @	\$9.10	per station	\$652.29
Construct landing -	1.0	@	\$142.50	each	\$142.50
Grass seed -	27.3	lbs @	\$6.00	per lb	\$163.80

#### ENDHAUL

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.	<b>\$4,212.86</b>
---	-------------------

### RECONSTRUCTION

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.	<b>\$0.00</b>
---	---------------

### CONSTRUCTION

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.	<b>\$0.00</b>
---	---------------

### CULVERTS - MATERIALS & INSTALLATION

Culverts & Bands					
122	LF of 18"	\$3,039.22	0	LF of 24"	\$0.00
0	LF of 30"	\$0.00	0	LF of 36"	\$0.00 w/bevel
0	LF of 42"	\$0.00 w/gasket-bevel	0	LF of 48"	\$0.00
0	LF of 54"	\$0.00	0	LF of 60"	\$0.00
0	LF of 66"	\$0.00	0	LF of 72"	\$0.00
		\$3,039.22			\$0.00
Half Rounds					
0	LF of 24"	\$0.00	0	LF of 30"	\$0.00
0	LF of 36"	\$0.00	0	LF of 42"	\$0.00
		\$0.00			\$0.00
Culvert Stakes & Markers					
0	stakes	\$0.00			
4	markers	\$32.00			
		\$32.00			
				TOTAL CULVERTS	<b>\$3,071.22</b>

### ROCK

0+00 to 71+68 Spot Rock	272	cy. of	1 1/4" Minus	@	\$16.74	per c.y.=	\$4,553.28
Landing	41	cy. of	3" Jaw Run	@	\$12.25	per c.y.=	\$502.25
Energy Dissipator/Headwall - culverts	11.5	cy. of	Riprap LL	@	\$14.25	per c.y.=	\$163.88
TOTAL ROCK							<b>\$5,219.41</b>

### ADDITIONAL REQUIREMENTS

TOTAL ADDITIONAL REQUIREMENTS	<b>\$0.00</b>
-------------------------------	---------------

### ABANDONMENT

TOTAL ABANDONMENT	<b>\$0.00</b>
-------------------	---------------

Required Pre-Haul Maintenance-	<div>\$12,503.49</div>	Required Reconstruction -	<div>\$0.00</div>	SUBTOTAL	<b>\$12,503.49</b>
Required Abandonment-	<div>\$0.00</div>	Optional Reconstruction -	<div>\$0.00</div>		
Required Construction -	<div>\$0.00</div>	Optional Construction -	<div>\$0.00</div>	TOTAL	<b>\$12,503.49</b>
COST PER STATION					<b>\$174.43</b>

# SUMMARY OF ROAD

Sale:	Gray Jay			Road:	W-1475		
Required			Required			Required	
Pre-Haul Maintenance-	56+96	stations	Reconstruction -		stations	Construction -	
	1.08	miles		0.00	miles		0.00
Required Abandonment-		stations	Optional		stations	Optional	
	0.00	miles	Reconstruction -		miles	Construction -	
				0.00			0.00

## PRE-HAUL MAINTENANCE

### CLEARING

#### EXCAVATION

Construct waste area, includes clearing grubbing & piling of organic debris -	3.5	hours @	\$299.20	per hour	\$1,047.20
Excavate ditchline and scatter material/ clean ditch -	56.96	stations @	\$26.60	per station	\$1,515.14

#### MISC.

Grade and shape existing road surface -	56.96	stations @	\$18.80	per station	\$1,070.85
Roll shaped road surface w/ vibratory roller prior to rocking -	56.96	stations @	\$9.10	per station	\$518.34
Construct landings -	1.00	@	\$142.50	each	\$142.50
Grass seed -	101.7	lbs @	\$6.00	per lb	\$610.20

### ENDHAUL

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.	\$5,311.87
---	------------

## RECONSTRUCTION

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.	\$0.00
---	--------

## CONSTRUCTION

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.	\$0.00
---	--------

## CULVERTS - MATERIALS & INSTALLATION

Culverts					
0	LF of 18"	\$0.00	0	LF of 24"	\$0.00
0	LF of 30"	\$0.00	0	LF of 36"	\$0.00
0	LF of 42"	\$0.00	0	LF of 48"	\$0.00
0	LF of 54"	\$0.00	0	LF of 60"	\$0.00
0	LF of 66"	\$0.00	0	LF of 72"	\$0.00
		\$0.00			\$0.00
Half Rounds					
0	LF of 24"	\$0.00	0	LF of 30"	\$0.00
0	LF of 36"	\$0.00	0	LF of 42"	\$0.00
		\$0.00			\$0.00
Culvert Stakes & Markers					
0	stakes	\$0.00			
0	markers	\$0.00			
		\$0.00			
			TOTAL CULVERTS		\$0.00

## ROCK

0+00 to 56+96 Spot Rock	216	cy. of	1 1/4" Minus	@	\$15.29	per c.y.=	\$3,302.64
Landing	82	cy. of	3" Jaw Run	@	\$11.03	per c.y.=	\$904.46
							TOTAL ROCK
							\$4,207.10

## ADDITIONAL REQUIREMENTS

TOTAL ADDITIONAL REQUIREMENTS	\$0.00
-------------------------------	--------

## ABANDONMENT

			TOTAL ABANDONMENT		\$0.00
Required		Required			
Pre-Haul Maintenance-	\$9,518.97	Reconstruction -	\$0.00		
				SUBTOTAL	\$9,518.97
Required Abandonment-	\$0.00	Optional			
		Reconstruction -	\$0.00		
Required Construction -	\$0.00	Optional			
		Construction -	\$0.00		
			TOTAL		\$9,518.97
			COST PER STATION		\$167.12

# SUMMARY OF ROAD

Sale:	Gray Jay		Road:	W-1475C	
Required		Required		Required	
Pre-Haul Maintenance-	11+83 stations 0.22 miles	Reconstruction -	0.00 stations 0.00 miles	Construction -	0.00 stations 0.00 miles
Required Abandonment-	0+00 stations 0.00 miles	Optional		Optional	
		Reconstruction -	0+00 stations 0.00 miles	Construction -	0.00 stations 0.00 miles

## PRE-HAUL MAINTENANCE

### CLEARING

#### EXCAVATION

Excavate ditchline and scatter material/ clean ditch - 11.83 stations @ \$26.60 per station \$314.68

#### MISC.

Grade and shape existing road surface - 11.83 stations @ \$26.60 per station \$314.68  
Roll shaped road surface w/ vibratory roller prior to rocking - 11.83 stations @ \$9.10 per station \$107.65  
Construct landing - 1.00 @ \$142.50 each \$142.50  
Grass seed - 5.30 lbs @ \$6.00 per lb \$31.80

#### ENDHAUL

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. \$911.31

## RECONSTRUCTION

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. \$0.00

## CONSTRUCTION

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. \$0.00

## CULVERTS - MATERIALS & INSTALLATION

Culverts						
0	LF of 18"	\$0.00	0	LF of 24"	\$0.00	
0	LF of 30"	\$0.00	0	LF of 36"	\$0.00	
0	LF of 42"	\$0.00	0	LF of 48"	\$0.00	
0	LF of 54"	\$0.00	0	LF of 60"	\$0.00	
0	LF of 66"	\$0.00	0	LF of 72"	\$0.00	
		\$0.00			\$0.00	
Half Rounds						
0	LF of 24"	\$0.00	0	LF of 30"	\$0.00	
0	LF of 36"	\$0.00	0	LF of 42"	\$0.00	
		\$0.00			\$0.00	
Culvert Stakes & Markers						
0	stakes	\$0.00				
0	markers	\$0.00				
		\$0.00				
TOTAL CULVERTS						\$0.00

## ROCK

0+00 to 11+83 Spot Rock 45 cy. of 1 1/4" Minus @ \$14.15 per c.y.= \$636.75  
Landing 41 cy. of 3" Jaw Run @ \$10.26 per c.y.= \$420.66  
TOTAL ROCK \$1,057.41

## ADDITIONAL REQUIREMENTS

TOTAL ADDITIONAL REQUIREMENTS \$0.00

## ABANDONMENT

TOTAL ABANDONMENT \$0.00

Required		Required			
Pre-Haul Maintenance-	\$0.00	Reconstruction -	\$0.00		
Required Abandonment-	\$0.00	Optional		SUBTOTAL	\$1,968.72
		Reconstruction -	\$1,968.72		
Required Construction -	\$0.00	Optional			
		Construction -	\$0.00		
TOTAL					\$1,968.72
COST PER STATION					\$166.42

## SUMMARY OF ROAD

Sale:	<u>Gray Jay</u>			Road:	<u>W-1475C2</u>		
Required	<div><div></div></div>	Required	<div><div></div></div>	Required	<div><div></div></div>		
Pre-Haul Maintenance-	stations	Reconstruction -	stations	Construction -	stations		
	<div>0.00</div> miles		<div>0.00</div> miles		<div>0.00</div> miles		
Required	<div><div>0+00</div></div>	Optional	<div><div></div></div>	Optional	<div><div>19+13</div></div>		
Abandonment-	stations	Reconstruction -	stations	Construction -	stations		
	<div>0.00</div> miles		<div>0.00</div> miles		<div>0.36</div> miles		

### PRE-HAUL MAINTENANCE

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$0.00**

### RECONSTRUCTION

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$0.00**

### CONSTRUCTION

#### CLEARING/GRUBBING

Endhaul and pile organic debris at waste area -	2.20	acres @	\$1,500.00	per acre	\$3,300.00
Remove large stumps -	9	@	\$90.00	each	\$810.00

#### EXCAVATION - includes drift endhaul

Grade and shape subgrade -	19.13	stations @	\$15.65	per station	\$299.38
Earthwork - Common- ≤ 55%slope	3,662	cy. @	\$1.55	per c.y.=	\$5,676.10
Earthwork - Common > 55%slope	11,443	cy. @	\$1.85	per c.y.=	\$21,169.55
Earthwork - Fractured Rock	2124	cy. @	\$3.85	per c.y.=	\$8,177.40
Earthwork - Solid Rock - drill & shoot	3876	cy. @	\$6.00	per c.y.=	\$23,256.00

#### FILL

Earthwork embankment- spread w/cat and compact w/roller	754	cy. @	\$1.40	per c.y.	\$1,055.60
Waste Area Compaction - earthwork and organic debris	20,878	cy. @	\$0.40	per c.y.	\$8,351.20

#### MISC.

Roll subgrade w/ vibratory roller prior to rocking -	19.13	stations @	\$11.40	per station	\$218.08
Construct turnouts -	2	@	\$73.00	each	\$146.00
Construct landings -	7	@	\$142.50	each	\$997.50
Grass seed -	41.5	lbs @	\$6.00	per lb	\$249.00

#### ENDHAUL

To Waste Area @ 11+01 on W-1475 - 0+00 to 12+58	15,796	cy. @	\$2.99	per c.y.=	\$47,230.04
To Waste Area @ 1+00 on W-1475C4 -12+58 to 19+13	4,555	cy. @	\$1.09	per c.y.=	\$4,964.95
Organic Debris - To Waste Area @ 11+01 on W-1475	348	cy. @	\$4.15	per c.y.	\$1,444.20
Organic Debris - To Waste Area @ 1+00 on W-1475C4	179	cy. @	\$1.76	per c.y.	\$315.04

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$127,660.04**

### CULVERTS - MATERIALS & INSTALLATION

#### Culverts

234	LF of 18"	\$5,815.76	30	LF of 24"	\$860.20
0	LF of 30"	\$0.00	0	LF of 36"	\$0.00
0	LF of 42"	\$0.00	0	LF of 48"	\$0.00
0	LF of 54"	\$0.00	0	LF of 60"	\$0.00
0	LF of 66"	\$0.00	0	LF of 72"	\$0.00
		\$5,815.76			\$860.20

#### Half Rounds

0	LF of 24"	\$0.00	0	LF of 30"	\$0.00
0	LF of 36"	\$0.00	0	LF of 42"	\$0.00
		\$0.00			\$0.00

#### Culvert Stakes & Markers

0 stakes	\$0.00
8 markers	\$64.00
	\$64.00

TOTAL CULVERTS **\$6,739.96**

### ROCK

Energy Dissipator/Headwall - culverts	42.0	cy. of	Riprap LL	@	\$14.19	per c.y.=	\$595.98
0+00 to 19+13	1,320	cy. of	3" Jaw Run	@	\$13.66	per c.y.=	\$18,031.20
Bedding/Backfill- culverts	25	cy. of	1 1/4" Minus	@	\$12.82	per c.y.=	\$320.50
							TOTAL ROCK

**\$18,947.68**

### ADDITIONAL REQUIREMENTS

Compact backfill material -	25	c.y. @	\$0.60	per c.y.	\$15.00
					TOTAL ADDITIONAL REQUIREMENTS

**\$15.00**

### ABANDONMENT

TOTAL ABANDONMENT **\$0.00**

Required Pre-Haul Maintenance-	<div>\$0.00</div>	Required Reconstruction -	<div>\$0.00</div>
Required Abandonment-	<div>\$0.00</div>	Optional Reconstruction -	<div>\$0.00</div>
Required Construction -	<div>\$0.00</div>	Optional Construction -	<div>\$153,362.68</div>

SUBTOTAL **\$153,362.68**

TOTAL **\$153,362.68**

COST PER STATION **\$8,016.87**



## SUMMARY OF ROAD

Sale:	<u>Gray Jay</u>		Road:	<u>W-1475C3</u>	
Required	<div><div></div><div>0.00</div></div>	stations miles	Required	<div><div></div><div>0.00</div></div>	stations miles
Pre-Haul Maintenance-			Reconstruction -		
Required	<div><div></div><div>0.00</div></div>	stations miles	Optional	<div><div></div><div>0.00</div></div>	stations miles
Abandonment-			Reconstruction -		
			</		

### PRE-HAUL MAINTENANCE

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$0.00**

### RECONSTRUCTION

#### CLEARING/GRUBBING

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$0.00**

### CONSTRUCTION

#### CLEARING/GRUBBING

Endhaul Organic Debris	0.34	acres @	\$1,500.00	per acre	\$510.00
Remove large stumps -	3	@	\$90.00	each	\$270.00

#### EXCAVATION

Road Construction Earthwork - includes embankment work	3.67	sta. @	\$130.09	per sta. =	\$477.43
Grade and shape subgrade -	3.67	stations @	\$15.65	per station	\$57.44

#### FILL

Waste Area compaction - earthwork and organic debris	0.6	hours @	\$150.00	per hour	\$90.00
--	-----	---------	----------	----------	---------

#### MISC.

Roll subgrade w/ vibratory roller prior to rocking -	3.67	stations @	\$11.40	per station	\$41.84
Construct landings -	2	@	\$142.50	each	\$285.00
Grass seed -	7.0	lbs @	\$6.00	per lbs	\$42.00

#### ENDHAUL

To Waste Area @ 1+00 on W-1475C4	6	hours @	97.00	per hour =	\$582.00
----------------------------------	---	---------	-------	------------	----------

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$2,355.71**

### CULVERTS - MATERIALS & INSTALLATION

#### Culverts

0	LF of 18"	\$0.00	0	LF of 24"	\$0.00
0	LF of 30"	\$0.00	0	LF of 36"	\$0.00
0	LF of 42"	\$0.00	0	LF of 48"	\$0.00
0	LF of 54"	\$0.00	0	LF of 60"	\$0.00
0	LF of 66"	\$0.00	0	LF of 72"	\$0.00
		\$0.00			\$0.00

#### Half Rounds

0	LF of 24"	\$0.00	0	LF of 30"	\$0.00
0	LF of 36"	\$0.00	0	LF of 42"	\$0.00
		\$0.00			\$0.00

#### Culvert Stakes & Markers

0	stakes	\$0.00
0	markers	\$0.00
		\$0.00

TOTAL CULVERTS **\$0.00**

### ROCK

0+00	to	3+67	269	cy. of	3" Jaw Run	@	\$13.41	per c.y.=	\$3,607.29
------	----	------	-----	--------	------------	---	---------	-----------	------------

TOTAL ROCK **\$3,607.29**

### ADDITIONAL REQUIREMENTS

TOTAL ADDITIONAL REQUIREMENTS **\$0.00**

### ABANDONMENT

TOTAL ABANDONMENT **\$0.00**

Required Pre-Haul Maintenance-	<div><div>\$0.00</div></div>	Required Reconstruction -	<div><div>\$0.00</div></div>	SUBTOTAL	<b>\$5,963.00</b>
Required Abandonment-	<div><div>\$0.00</div></div>	Optional Reconstruction -	<div><div>\$0.00</div></div>		
Required Construction -	<div><div>\$0.00</div></div>	Optional Construction -	<div><div>\$5,963.00</div></div>		
				TOTAL	<b>\$5,963.00</b>
				COST PER STATION	<b>\$1,624.80</b>

SUMMARY OF ROAD

Sale:	<u>Gray Jay</u>				Road:	<u>W-1475C4</u>			
Optional Pre-Haul Maintenance-	<div><div></div><div>0.00</div></div>	stations miles	Required Reconstruction -	<div><div></div><div>0.00</div></div>	stations miles	Required Construction -	<div><div></div><div>0.00</div></div>	stations miles	
Required Abandonment-	<div><div></div><div>0.00</div></div>	stations miles	Optional Reconstruction -	<div><div></div><div>0.00</div></div>	stations miles	Optional Construction -	<div><div>1+90</div><div>0.04</div></div>	stations miles	

PRE-HAUL MAINTENANCE

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. \$0.00

RECONSTRUCTION

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. \$0.00

CONSTRUCTION

CLEARING/GRUBBING

Scattering Organic Debris	0.17	acres	@	\$1,010.00	per acre	\$171.70
Remove large stumps -	2		@	\$90.00	each	\$180.00

EXCAVATION

Road Construction Earthwork - includes embankment work	1.90	sta.	@	\$99.73	per sta. =	\$189.49
Construct waste area, includes clearing grubbing & piling of organic debris -	2.0	hours	@	\$299.20	per hour	\$598.40
Grade and shape subgrade -	1.90	stations	@	\$15.65	per station	\$29.74

FILL

MISC.

Roll subgrade w/ vibratory roller prior to rocking -	1.90	stations	@	\$11.40	per station	\$21.66
Construct landing -	1		@	\$142.50	each	\$142.50
Grass seed -	62.5	lbs	@	\$6.00	per lbs	\$375.00

ENDHAUL

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. \$1,708.49

CULVERTS - MATERIALS & INSTALLATION

Culverts						
0	LF of 18"	\$0.00	0	LF of 24"	\$0.00	
0	LF of 30"	\$0.00	0	LF of 36"	\$0.00	
0	LF of 42"	\$0.00	0	LF of 48"	\$0.00	
0	LF of 54"	\$0.00	0	LF of 60"	\$0.00	
0	LF of 66"	\$0.00	0	LF of 72"	\$0.00	
		\$0.00			\$0.00	
Half Rounds						
0	LF of 24"	\$0.00	0	LF of 30"	\$0.00	
0	LF of 36"	\$0.00	0	LF of 42"	\$0.00	
		\$0.00			\$0.00	
Culvert Stakes & Markers						
0	stakes	\$0.00				
0	markers	\$0.00				
		\$0.00				
TOTAL CULVERTS						\$0.00

ROCK

0+00	to	1+90	143	cy. of	3" Jaw Run	@	\$13.49	per c.y. =	\$1,929.07	TOTAL ROCK	\$1,929.07
------	----	------	-----	--------	------------	---	---------	------------	------------	------------	------------

ABANDONMENT

TOTAL ABANDONMENT \$0.00

Optional Pre-Haul Maintenance-	<div><div>\$0.00</div></div>	Required Reconstruction -	<div><div>\$0.00</div></div>		
Required Abandonment-	<div><div>\$0.00</div></div>	Optional Reconstruction -	<div><div>\$0.00</div></div>	SUBTOTAL	
Required Construction -	<div><div>\$0.00</div></div>	Optional Construction -	<div><div>\$3,637.56</div></div>		
				TOTAL	\$3,637.56
				COST PER STATION	\$1,914.51

## SUMMARY OF ROAD

Sale:	<u>Gray Jay</u>	Road:	<u>W-1475D</u>		
Required Pre-Haul Maintenance-	<div><div></div><div>0.00</div></div> stations miles	Required Reconstruction -	<div><div></div><div>0.00</div></div> stations miles	Required Construction -	<div><div></div><div>0.00</div></div> stations miles
Required Abandonment-	<div><div></div><div>0.00</div></div> stations miles	Optional Reconstruction -	<div><div>0+00</div><div>0.00</div></div> stations miles	Optional Construction -	<div><div>37+64</div><div>0.71</div></div> stations miles

### PRE-HAUL MAINTENANCE

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$0.00**

### RECONSTRUCTION

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$0.00**

### CONSTRUCTION

#### CLEARING/GRUBBING

Endhaul and pile organic debris at waste area -	4.32	acres @	\$1,500.00	per acre	\$6,480.00
Remove large stumps -	14	@	\$90.00	each	\$1,260.00

#### EXCAVATION

Construct ditchouts -	2	@	\$73.00	each	\$146.00
Grade and shape subgrade -	37.64	stations @	\$15.65	per station	\$589.07
Earthwork - Common- ≤ 55% slope	6,867	cy. @	\$1.55	per c.y.=	\$10,643.85
Earthwork - Common > 55% slope	6,288	cy. @	\$1.85	per c.y.=	\$11,632.80
Earthwork - Fractured Rock	10,713	cy. @	\$3.85	per c.y.=	\$41,245.05
Earthwork - Solid Rock - drill & shoot	2,618	cy. @	\$6.00	per c.y.=	\$15,708.00

#### FILL

Earthwork embankment- spread w/cat and compact w/roller	1159	cy. @	\$1.40	per c.y.=	\$1,622.60
Waste Area Compaction - earthwork and organic debris	25,989	cy. @	\$0.40	per c.y.=	\$10,395.60

#### MISC.

Roll subgrade w/ vibratory roller prior to rocking -	37.64	stations @	\$11.40	per station	\$429.10
Construct turnout -	1	@	\$73.00	each	\$73.00
Construct landing -	11	@	\$142.50	each	\$1,567.50
Grass seed -	79.1	lbs @	\$6.00	per lbs	\$474.60

#### ENDHAUL

To Waste Area @ 11+01 on W-1475	25,327	cy. @	\$2.79	per c.y.=	\$70,662.33
Organic Debris - To Waste Area @ 11+01 on W-1475	662	cy. @	\$4.46	per c.y.=	\$2,952.52

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$175,882.02**

### CULVERTS - MATERIALS & INSTALLATION

#### Culverts & Bands

334	LF of 18"	\$8,321.48	0	LF of 24"	\$0.00
0	LF of 30"	\$0.00	0	LF of 36"	\$0.00
0	LF of 42"	\$0.00	0	LF of 48"	\$0.00
0	LF of 54"	\$0.00	0	LF of 60"	\$0.00
0	LF of 66"	\$0.00	0	LF of 72"	\$0.00
		\$8,321.48			\$0.00

#### Half Rounds

0	LF of 24"	\$0.00	0	LF of 30"	\$0.00
0	LF of 36"	\$0.00	0	LF of 42"	\$0.00
		\$0.00			\$0.00

#### Culvert Stakes & Markers

0 stakes	\$0.00
11 markers	\$88.00
	\$88.00

TOTAL CULVERTS **\$8,409.48**

### ROCK

4+69 to 16+78 Spot Rock	169	cy. of	1 1/4" Minus	@	\$15.09	per c.y.=	\$2,550.21
26+55 to 31+33 Spot Rock	67	cy. of	1 1/4" Minus	@	\$15.59	per c.y.=	\$1,044.53
Energy Dissipator/Headwall - culverts	58.5	cy. of	Riprap LL	@	\$13.53	per c.y.=	\$791.51
0+00 to 37+64	2,427	cy. of	3" Jaw Run	@	\$12.90	per c.y.=	\$31,308.30
Bedding/Backfill- culverts	70	cy. of	1 1/4" Minus	@	\$14.69	per c.y.=	\$1,028.30
							TOTAL ROCK

**\$36,722.85**

### ADDITIONAL REQUIREMENTS

Compact backfill material -	70	c.y. @	\$0.60	per c.y.	\$42.00
					TOTAL ADDITIONAL REQUIREMENTS

**\$42.00**

### ABANDONMENT

TOTAL ABANDONMENT **\$0.00**

Required Pre-Haul Maintenance-	<div>\$0.00</div>	Required Reconstruction -	<div>\$0.00</div>		
Required Abandonment-	<div>\$0.00</div>	Optional Reconstruction -	<div>\$0.00</div>	SUBTOTAL	<b>\$221,056.35</b>
Required Construction -	<div>\$0.00</div>	Optional Construction -	<div>\$221,056.35</div>	TOTAL	<b>\$221,056.35</b>
				COST PER STATION	<b>\$5,872.91</b>

# SUMMARY OF ROAD

Sale:	<u>Gray Jay</u>		Road:	<u>W-1475D1</u>	
Required		Required		Required	
Pre-Haul Maintenance-	<div>stations miles</div>	Reconstruction -	<div>stations miles</div>	Construction -	<div>stations miles</div>
	0.00		0.00		0.00
Required Abandonment-	<div>stations miles</div>	Optional		Optional	
	0.00	Reconstruction -	<div>4+78 stations miles</div>	Construction -	<div>stations miles</div>
			0.09		0.00

## PRE-HAUL MAINTENANCE

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.

\$0.00

## RECONSTRUCTION

### CLEARING/GRUBBING

Scattering Organic Debris	0.07	acres @	\$1,010.00	per acre	\$70.70
Remove large stumps -	2	@	\$90.00	each	\$180.00

### EXCAVATION

Reconstruct and Widen Road Prism/with ditchline - includes embankment	2.78	stations @	\$118.91	per station	\$330.57
Reconstruct and Widen Road Prism/with ditchline - includes embankment	2.00	stations @	\$276.18	per station	\$552.36
Grade and shape subgrade -	4.78	stations @	\$15.65	per station	\$74.81

### FILL

### MISC.

Roll subgrade w/ vibratory roller prior to rocking -	4.78	stations @	\$11.40	per station	\$54.49
Construct landing -	1	@	\$142.50	each	\$142.50
Grass seed -	7.3	lbs @	\$6.00	per lbs	\$43.80

### ENDHAUL

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.

\$1,449.23

## CONSTRUCTION

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.

\$0.00

## CULVERTS - MATERIALS & INSTALLATION

<u>Culverts &amp; Bands</u>					
0	LF of 18"	\$0.00	0	LF of 24"	\$0.00
0	LF of 30"	\$0.00	0	LF of 36"	\$0.00
0	LF of 42"	\$0.00	0	LF of 48"	\$0.00
0	LF of 54"	\$0.00	0	LF of 60"	\$0.00
0	LF of 66"	\$0.00	0	LF of 72"	\$0.00
		\$0.00			\$0.00
<u>Half Rounds</u>					
0	LF of 24"	\$0.00	0	LF of 30"	\$0.00
0	LF of 36"	\$0.00	0	LF of 42"	\$0.00
		\$0.00			\$0.00
<u>Culvert Stakes &amp; Markers</u>					
0	stakes	\$0.00			
0	markers	\$0.00			
		\$0.00			
				TOTAL CULVERTS	\$0.00

## ROCK

0+00	to	4+78	200	cy. of	3" Jaw Run	@	\$12.52	per c.y.=	<div>\$2,504.00</div>	
										TOTAL ROCK
										\$2,504.00

## ADDITIONAL REQUIREMENTS

TOTAL ADDITIONAL REQUIREMENTS

\$0.00

## ABANDONMENT

TOTAL ABANDONMENT

\$0.00

Required		Required			
Pre-Haul Maintenance-	<div>\$0.00</div>	Reconstruction -	<div>\$0.00</div>		
Required Abandonment-	<div>\$0.00</div>	Optional		SUBTOTAL	\$3,953.23
		Reconstruction -	<div>\$0.00</div>		
Required Construction -	<div>\$0.00</div>	Optional			
		Construction -	<div>\$3,953.23</div>		
					TOTAL
					\$3,953.23
					COST PER STATION
					\$827.04

Sale:		<u>Gray Jay</u>		Road:		<u>W-1475D2</u>	
Required	Pre-	<div><div></div><div>0.00</div></div> stations miles	Required	<div><div></div><div>0.00</div></div> stations miles	Required	<div><div></div><div>0.00</div></div> stations miles	
Haul Maintenance-			Reconstruction -		Construction -		
Required Abandonment-		<div><div></div><div>0.00</div></div> stations miles	Optional	<div><div></div><div>0.00</div></div> stations miles	Optional	<div><div>3+12</div><div>0.06</div></div> stations miles	
			Reconstruction -		Construction -		

TOTAL CLEARING, GRUBBING, EXCAVATION, <u>FILL, and MISC.</u>	<b>\$0.00</b>
--	---------------

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.	<b>\$0.00</b>
---	---------------

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.	<b>\$659.86</b>
---	-----------------

<u>Culverts</u>					
0	LF of 18"	\$0.00	0	LF of 24"	\$0.00
0	LF of 30"	\$0.00	0	LF of 36"	\$0.00 w/bevel
0	LF of 42"	\$0.00	0	LF of 48"	\$0.00
0	LF of 54"	\$0.00 w/gasket-bevel	0	LF of 60"	\$0.00 w/gasket-bevel
0	LF of 66"	<u>\$0.00</u>	0	LF of 72"	<u>\$0.00</u>
		\$0.00			\$0.00
<u>Half Rounds</u>					
0	LF of 24"	\$0.00	0	LF of 30"	\$0.00
0	LF of 36"	<u>\$0.00</u>	0	LF of 42"	<u>\$0.00</u>
		\$0.00			\$0.00
<u>Culvert Stakes &amp; Markers</u>					
0	stakes	\$0.00			
0	markers	<u>\$0.00</u>			
		\$0.00			
			<u>TOTAL CULVERTS</u>		

0+00	to	3+12	205	cy. of	3" Jaw Run	@	\$12.74	per c.y.=	<u>\$2,611.70</u>	
									TOTAL ROCK	<b>\$2,611.70</b>

TOTAL ADDITIONAL REQUIREMENTS	\$0.00
-------------------------------	--------

TOTAL ABANDONMENT	\$0.00
-------------------	--------

Required	Pre-		Required			
Haul Maintenance-		\$0.00	Reconstruction -	\$0.00		
					SUBTOTAL	\$3,271.56
Required Abandonment-		\$0.00	Optional			
			Reconstruction -	\$0.00		
Required Construction -		\$0.00	Optional			
			Construction -	\$3,271.56		
					TOTAL	\$3,271.56
					COST PER STATION	\$1,048.52

# SUMMARY OF ROAD

Sale:	Gray Jay		Road:	W-1475D3	
Required Pre-Haul Maintenance-	<div><div></div><div>0.00</div></div> stations miles	Required Reconstruction -	<div><div></div><div>0.00</div></div> stations miles	Required Construction -	<div><div></div><div>0.00</div></div> stations miles
Required Abandonment-	<div><div></div><div>0.00</div></div> stations miles	Optional Reconstruction -	<div><div></div><div>0.00</div></div> stations miles	Optional Construction -	<div><div>3+30</div><div>0.06</div></div> stations miles

## PRE-HAUL MAINTENANCE

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.

\$0.00

## RECONSTRUCTION

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.

\$0.00

## CONSTRUCTION

### CLEARING/GRUBBING

Endhaul Organic Debris	0.38	acres	@	\$1,500.00	per acre	\$570.00
Remove large stumps -	3		@	\$90.00	each	\$270.00

### EXCAVATION

Road Construction Earthwork - includes embankment work	3.30	sta.	@	\$166.22	per sta. =	\$548.53
Grade and shape subgrade -	3.30	stations	@	\$15.65	per station	\$51.65

### FILL

Waste Area compaction - earthwork and organic debris	1.0	hours	@	\$150.00	per hour	\$150.00
--	-----	-------	---	----------	----------	----------

### MISC.

Roll subgrade w/ vibratory roller prior to rocking -	3.30	stations	@	\$11.40	per station	\$37.62
Construct landings -	1		@	\$142.50	each	\$142.50
Grass seed -	6.9	lbs	@	\$6.00	per lbs	\$41.40

### ENDHAUL

To Waste Area @ 11+01 on W-1475	10	hours	@	97.00	per hour =	\$970.00
TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.						\$2,781.70

## CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>							
0	LF of 18"	\$0.00		0	LF of 24"	\$0.00	
0	LF of 30"	\$0.00		0	LF of 36"	\$0.00	
0	LF of 42"	\$0.00		0	LF of 48"	\$0.00	
0	LF of 54"	\$0.00		0	LF of 60"	\$0.00	
0	LF of 66"	\$0.00		0	LF of 72"	\$0.00	
		<u>\$0.00</u>				<u>\$0.00</u>	
<u>Half Rounds</u>							
0	LF of 24"	\$0.00		0	LF of 30"	\$0.00	
0	LF of 36"	\$0.00		0	LF of 42"	\$0.00	
		<u>\$0.00</u>				<u>\$0.00</u>	
<u>Culvert Stakes &amp; Markers</u>							
0	stakes	\$0.00					
0	markers	\$0.00					
		<u>\$0.00</u>					
							<u>TOTAL CULVERTS</u>

## ROCK

0+00	to	3+30	213	cy. of	3" Jaw Run	@	\$13.00	per c.y. =	\$2,769.00
TOTAL ROCK									\$2,769.00

## ABANDONMENT

TOTAL ABANDONMENT

\$0.00

Required Pre-Haul Maintenance-	<div><div>\$0.00</div></div>	Required Reconstruction -	<div><div>\$0.00</div></div>	SUBTOTAL	\$5,550.70	
Required Abandonment-	<div><div>\$0.00</div></div>	Optional Reconstruction -	<div><div>\$0.00</div></div>			
Required Construction -	<div><div>\$0.00</div></div>	Optional Construction -	<div><div>\$5,550.70</div></div>			
TOTAL					\$5,550.70	
COST PER STATION					\$1,682.03	

SUMMARY OF ROAD

Sale:	Gray Jay			Road:	W-1475D4		
Required Pre-Haul Maintenance-	<div><div></div><div>0.00</div></div> stations miles	Required Reconstruction -	<div><div></div><div>0.00</div></div> stations miles	Required Construction -	<div><div></div><div>0.00</div></div> stations miles		
Required Abandonment-	<div><div></div><div>0.00</div></div> stations miles	Optional Reconstruction -	<div><div></div><div>0.00</div></div> stations miles	Optional Construction -	<div><div>2+93</div><div>0.06</div></div> stations miles		

PRE-HAUL MAINTENANCE

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. \$0.00

RECONSTRUCTION

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. \$0.00

CONSTRUCTION

CLEARING/GRUBBING

Scattering Organic Debris 0.34 acres @ \$1,010.00 per acre \$343.40

EXCAVATION

Road Construction Earthwork - includes embankment work 2.93 sta. @ \$166.22 per sta. = \$487.02  
Grade and shape subgrade - 2.93 stations @ \$15.65 per station \$45.85

FILL

MISC.

Roll subgrade w/ vibratory roller prior to rocking - 2.93 stations @ \$11.40 per station \$33.40  
Construct landings - 2 @ \$142.50 each \$285.00  
Grass seed - 5.80 lbs @ \$6.00 per lbs \$34.80

ENDHAUL

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. \$1,229.47

CULVERTS - MATERIALS & INSTALLATION

Culverts						
0	LF of 18"	\$0.00	0	LF of 24"	\$0.00	
0	LF of 30"	\$0.00	0	LF of 36"	\$0.00	
0	LF of 42"	\$0.00	0	LF of 48"	\$0.00	
0	LF of 54"	\$0.00	0	LF of 60"	\$0.00	
0	LF of 66"	\$0.00	0	LF of 72"	\$0.00	
		\$0.00			\$0.00	
Half Rounds						
0	LF of 24"	\$0.00	0	LF of 30"	\$0.00	
0	LF of 36"	\$0.00	0	LF of 42"	\$0.00	
		\$0.00			\$0.00	
Culvert Stakes & Markers						
0	stakes	\$0.00				
0	markers	\$0.00				
		\$0.00				
			TOTAL CULVERTS			\$0.00

ROCK

0+00 to 2+93 236 cy. of 3" Jaw Run @ \$13.12 per c.y.= \$3,096.32  
TOTAL ROCK \$3,096.32

ADDITIONAL REQUIREMENTS

TOTAL ADDITIONAL REQUIREMENTS \$0.00

ABANDONMENT

TOTAL ABANDONMENT \$0.00

Required Pre-Haul Maintenance-	\$4,325.79	Required Reconstruction -	\$0.00		
Required Abandonment-	\$0.00	Optional Reconstruction -	\$0.00	SUBTOTAL	
Required Construction -	\$0.00	Optional Construction -	\$0.00		
				TOTAL	\$4,325.79
				COST PER STATION	\$1,476.38

## SUMMARY OF ROAD

Sale:	<u>Gray Jay</u>	Road:	<u>W-1475E</u>		
Required	<div><div></div><div>0.00</div></div> stations miles	Required	<div><div></div><div>0.00</div></div> stations miles	Required	<div><div></div><div>0.00</div></div> stations miles
Pre-Haul Maintenance-		Reconstruction -		Construction -	
Required Abandonment-	<div><div></div><div>0.00</div></div> stations miles	Optional	<div><div></div><div>0.00</div></div> stations miles	Optional	<div><div>37+73</div><div>0.71</div></div> stations miles
		Reconstruction -		Construction -	

### PRE-HAUL MAINTENANCE

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$0.00**

### RECONSTRUCTION

TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC. **\$0.00**

### CONSTRUCTION

#### CLEARING/GRUBBING

Scattering Organic Debris	1.66	acres @	\$1,010.00	per acre	\$1,676.60
Endhaul and pile organic debris at waste area -	1.80	acres @	\$1,500.00	per acre	\$2,700.00
Remove large stumps -	20	@	\$90.00	each	\$1,800.00

#### EXCAVATION - includes drift endhaul

Construct waste area, includes clearing grubbing & piling of organic debris -	2.5	hours @	\$299.20	per hour	\$748.00
Grade and shape subgrade -	37.73	stations @	\$15.65	per station	\$590.47
Earthwork - Common- ≤ 55% slope	12,099	cy. @	\$1.55	per c.y.=	\$18,753.45
Earthwork - Common > 55% slope	4,355	cy. @	\$1.85	per c.y.=	\$8,056.75

#### FILL

Earthwork embankment- spread w/cat and compact w/roller	3,202	cy. @	\$1.40	per c.y.	\$4,482.80
Waste Area Compaction - earthwork and organic debris	13,663	cy. @	\$0.40	per c.y.	\$5,465.20

#### MISC.

Roll subgrade w/ vibratory roller prior to rocking -	37.73	stations @	\$11.40	per station	\$430.12
Construct turnouts -	3	@	\$73.00	each	\$219.00
Construct landings -	8	@	\$142.50	each	\$1,140.00
Grass seed -	136.40	lbs @	\$6.00	per lbs	\$818.40

#### ENDHAUL

To Waste Area @ 3+66 on W-1475E - 15+10 to 34+79	13,252	cy. @	\$1.93	per c.y.=	\$25,576.36
Organic Debris - To Waste Area @ 3+66 on W-1475E - 15+10 to 34+79	411	cy. @	\$2.42	per c.y.=	\$994.62
TOTAL CLEARING, GRUBBING, EXCAVATION, FILL, and MISC.					<b>\$73,451.77</b>

### CULVERTS - MATERIALS & INSTALLATION

#### Culverts

344	LF of 18"	\$8,563.98	60	LF of 24"	\$1,720.40
0	LF of 30"	\$0.00	48	LF of 36"	\$5,286.78 w/bevel
0	LF of 42"	\$0.00	0	LF of 48"	\$0.00
50	LF of 54"	\$12,264.90 w/gasket-bevel	52	LF of 60"	\$14,451.88 w/gasket-bevel
0	LF of 66"	\$0.00	0	LF of 72"	\$0.00
		\$20,828.88			\$21,459.06

#### Half Rounds

0	LF of 24"	\$0.00	0	LF of 30"	\$0.00
0	LF of 36"	\$0.00	0	LF of 42"	\$0.00
		\$0.00			\$0.00

#### Culvert Stakes & Markers

0 stakes	\$0.00
16 markers	\$128.00
	\$128.00

TOTAL CULVERTS **\$42,415.94**

### ROCK

Energy Dissipator/Headwall/Armor - culverts	105	cy. of	Riprap HL	@	\$14.73	per c.y.=	\$1,546.65
Energy Dissipator/Headwall - culverts	56	cy. of	Riprap LL	@	\$14.43	per c.y.=	\$808.08
0+00 to 37+73	2,247	cy. of	3" Jaw Run	@	\$13.48	per c.y.=	\$30,289.56
Bedding/Backfill 0+00	229	cy. of	1 1/4" Minus	@	\$13.47	per c.y.=	\$3,084.63
					TOTAL ROCK		<b>\$35,728.92</b>

### ADDITIONAL REQUIREMENTS

Live stream diversion at culvert installation sites -	20.0	hours @	\$20.00	per hour	\$400.00
Compact backfill material -	229	c.y. @	\$0.60	per c.y.	\$137.40
Straw Mulching near streams -	0.37	acres @	\$660.00	per acre	\$244.20
TOTAL ADDITIONAL REQUIREMENTS					<b>\$781.60</b>

### ABANDONMENT

TOTAL ADDITIONAL REQUIREMENTS **\$0.00**

Required Pre-Haul Maintenance-	<div>\$0.00</div>	Required Reconstruction -	<div>\$0.00</div>	SUBTOTAL	<b>\$152,378.23</b>
Required Abandonment-	<div>\$0.00</div>	Optional Reconstruction -	<div>\$0.00</div>		
Required Construction -	<div>\$0.00</div>	Optional Construction -	<div>\$152,378.23</div>	TOTAL	<b>\$152,378.23</b>
COST PER STATION					<b>\$4,038.65</b>



## ROCK DEVELOPMENT COST SUMMARY

Pit:	W-1475C	Location:	NW¼ SW¼ Sec. 32, T03N, R06E, W.M.
Sale:	<b>Gray Jay</b>	Road:	5923 c.y.
Swell:	1.30	Stockpile:	c.y.
Shrinkage	0.00	Total Truck Loads:	5923 c.y.
Drill Pct.:	100%	In Place Total:	4556 c.y.

Access Road Construction	2 Stations	\$166.22 /Station	\$332.44
Pit Development & Cleanup including Clearing and grubbing of			
Waste Area @ adjacent to pit, place overburden			
in Waste Area, spread and co	\$3.87 /cu.yd x	1455 cu.yds.	\$5,630.85
Drill & Shoot:	\$3.00 /cu.yd x	4556 cu.yds.	\$13,668.00
Rip Rock:	\$2.00 /cu.yd x	0 cu.yds.	\$0.00
Push Rock:	\$1.00 /cu.yd x	5923 cu.yds.	\$5,923.00
Load Crusher:	\$0.60 /cu.yd x	5692 cu.yds.	\$3,415.20
Crush 3" Jaw Run Rock:	\$3.10 /cu.yd x	5692 cu.yds.	\$17,645.20
Load Dump Truck:	\$0.60 /cu.yd x	5692 cu.yds.	\$3,415.20
Load Rip Rap:	\$2.00 /cu.yd x	231 cu.yds.	\$462.00
Purchase Rip Rap	\$0.00 /ton x	0 tons =	\$0.00
Purchase 3" Minus Crushed	\$0.00 /ton x	0 tons =	\$0.00
Purchase 1 1/4" Minus Crushed	\$0.00 /cu.yd x	0 cu.yds.	\$0.00
Oversize Reduction:	\$5.50 /cu.yd x	0 cu.yds.	\$0.00
		Subtotal	\$50,491.89

(All Move in equipment is from W-1475C3 Pit)

Move In/Set-up Jaw	1	@	\$313.85	=	\$313.85
Move In/Set-up 2 Stage Crusher	0	@	\$0.00	=	\$0.00
Move In/Set-up 3 Stage Crusher	0	@	\$0.00	=	\$0.00
Move In and set up Drill and	1	@	\$75.78	=	\$75.78
Move in Roller and Compacto	0	@	\$330.72	=	\$0.00
Move in Grader	0	@	\$301.95	=	\$0.00
Move in D-8	1	@	\$97.29	=	\$97.29
Move in Loader	1	@	\$97.29	=	\$97.29
Move in Excavator	2	@	\$91.14	=	\$182.28
Move in Trucks	5	@	\$24.31	=	\$121.55
Move in Water Truck	0	@	\$0.00	=	\$0.00
			Subtotal		\$888.04

TOTAL PRODUCTION COSTS \$51,379.93

Base Cost = \$8.67 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	Speed (Mi/hr.)	One-way Dist (ft)	ROCK COST
W-1470 Landing 3" Jaw Run	\$2.98	\$0.60	\$8.67	\$12.25	41	15	8196	\$502.25
W-1470 LL Energy Dissipator/Headwall - culverts	\$3.78	\$1.80	\$8.67	\$14.25	11.5	12	7591	\$163.88
W-1475 Landing 3" Jaw Run	\$1.76	\$0.60	\$8.67	\$11.03	82	15	3245	\$904.46
W-1475C Landing 3" Jaw Run	\$0.99	\$0.60	\$8.67	\$10.26	41	12	50	\$420.66
W-1475D LL Energy Dissipator/Headwall - culverts	\$3.06	\$1.80	\$8.67	\$13.53	58.5	12	5237	\$791.51
W-1475D 0+00 to 37+64 3" Jaw Run	\$2.78	\$1.45	\$8.67	\$12.90	2427	12	4860	\$31,308.30
W-1475D1 0+00 to 4+75 3" Jaw Run	\$2.40	\$1.45	\$8.67	\$12.52	200	12	3610	\$2,504.00
W-1475D2 0+00 to 3+12 3" Jaw Run	\$2.62	\$1.45	\$8.67	\$12.74	205	12	4321	\$2,611.70
W-1475D3 0+00 to 3+30 3" Jaw Run	\$2.88	\$1.45	\$8.67	\$13.00	213	12	5171	\$2,769.00
W-1475D4 0+00 to 2+93 3" Jaw Run	\$3.00	\$1.45	\$8.67	\$13.12	236	12	5577	\$3,096.32
W-1475E HL Energy Dissipator/Headwall/Armor - culvert	\$3.86	\$2.20	\$8.67	\$14.73	105.0	12	7839	\$1,546.65
W-1475E LL Energy Dissipator/Headwall - culverts	\$3.96	\$1.80	\$8.67	\$14.43	56.0	12	8166	\$808.08
W-1475E 0+00 to 37+73 3" Jaw Run	\$3.36	\$1.45	\$8.67	\$13.48	2247	15	8453	\$30,289.56
					Total C.Y.	5923.0	Sub Total	\$77,716.37

## ROCK DEVELOPMENT COST SUMMARY

Pit:	W-1475C3	Location:	SW¼ NW¼ Sec. 32, T03N, R06E, W.M.
Sale:	<b>Gray Jay</b>	Road:	2867. CY
Swell:	1.30	Stockpile:	c.y.
Shrinkage	0.00	Total Truck Loads:	2867. CY
Drill Pct.:	100%	In Place Total:	2205 c.y.

Access RoadConstruction	1 Stations	\$166.22 /Station	\$166.22
Pit Development & Cleanup including Clearing and Grubbing of			
Waste Area, Endhaul and place overburden, grass seeding.			
in Waste Area, spread and compact.	\$4.04 /cu.yd x	707.0 cu.yds.	\$2,856.28
Drill & Shoot:	\$3.00 /cu.yd x	2205.0 cu.yds.	\$6,615.00
Rip Rock:	\$2.00 /cu.yd x	0 cu.yds.	\$0.00
Push Rock:	\$1.00 /cu.yd x	2867.0 cu.yds.	\$2,867.00
Load Crusher:	\$0.60 /cu.yd x	2825.0 cu.yds.	\$1,695.00
Crush 3" Jaw Run Rock:	\$3.10 /cu.yd x	1732 cu.yds.	\$5,369.20
Crush 1½" Minus Rock:	\$4.10 /cu.yd x	1093 cu.yds.	\$4,481.30
Load Dump Truck:	\$0.60 /cu.yd x	2825.0 cu.yds.	\$1,695.00
Load Rip Rap	\$2.00 /cu.yd x	42.0 cu.yds.	\$84.00
	\$0.00 /ton x	0 tons =	\$0.00
	\$0.00 /ton x	0 tons =	\$0.00
	\$0.00 /ton x	0 tons =	\$0.00
	\$0.00 /cu.yd x	0 cu.yds.	\$0.00
		Subtotal	\$25,829.00

Move In/Set-up Mobile Jaw	1	@	\$770.12	=	\$770.12
Move In/Set-up Mobile 2 Stage Crusher	1	@	\$970.12	=	\$970.12
Move In/Set-up 3 Stage Crusher	0	@	\$0.00	=	\$0.00
Move In and set up Drill and Compressor	1	@	\$367.89	=	\$367.89
Move in Roller and Compactor	0	@	\$319.72	=	\$0.00
Move in Grader	0	@	\$285.45	=	\$0.00
Move in D-8	1	@	\$471.96	=	\$471.96
Move in Loader	1	@	\$471.96	=	\$471.96
Move in Excavator	2	@	\$441.21	=	\$882.42
Move in Trucks	5	@	\$116.72	=	\$583.60
Move in Water Truck	0	@	\$0.00	=	\$0.00
				Subtotal	\$4,518.07

TOTAL PRODUCTION COSTS \$30,347.07

Base Cost = \$10.58 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	Speed (Mi/hr.)	One-Way Dist (ft)	ROCK COST
W-1470 0+00 to 71+68 Spot Rock 1 1/4" Minus	\$4.46	\$1.70	\$10.58	\$16.74	272	15	12940	\$4,553.28
W-1475 0+00 to 56+96 Spot Rock 1 1/4" Minus	\$3.01	\$1.70	\$10.58	\$15.29	216	15	6991	\$3,302.64
W-1475C 0+00 to 11+83 Spot Rock 1 1/4" Minus	\$1.87	\$1.70	\$10.58	\$14.15	45	15	2345	\$636.75
W-1475C2 LL Energy Dissipator/Headwall - culverts	\$1.81	\$1.80	\$10.58	\$14.19	42.0	12	1168	\$595.98
W-1475C2 0+00 to 19+13 3" Jaw Run	\$1.63	\$1.45	\$10.58	\$13.66	1320	12	1085	\$18,031.20
W-1475C2 Bedding/Backfill- culverts 1 1/4" Minus	\$1.34	\$0.90	\$10.58	\$12.82	25	12	691	\$320.50
W-1475C3 0+00 to 3+67 3" Jaw Run	\$1.38	\$1.45	\$10.58	\$13.41	269	12	281	\$3,607.29
W-1475C4 0+00 to 1+90 3" Jaw Run	\$1.46	\$1.45	\$10.58	\$13.49	143	12	557	\$1,929.07
W-1475D 4+69 to 16+78 Spot Rock 1 1/4" Minus	\$2.81	\$1.70	\$10.58	\$15.09	169	12	4946	\$2,550.21
W-1475D 26+55 to 31+33 Spot Rock 1 1/4" Minus	\$3.31	\$1.70	\$10.58	\$15.59	67	12	6584	\$1,044.53
W-1475D Bedding/Backfill- culverts 1 1/4" Minus	\$3.21	\$0.90	\$10.58	\$14.69	70	12	6773	\$1,028.30
W-1475E Bedding/Backfill- culverts 1 1/4" Minus	\$1.99	\$0.90	\$10.58	\$13.47	229	15	3500	\$3,084.63
			Total C.Y.		2867.0		Sub Total	\$40,684.38

TOTAL ROCKING COSTS \$40,684.38

## Road Building Move-In Calculations

Sale: **Gray Jay** \_\_\_\_\_

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
26.4	Highway	50
7.4	County/ Mainline	17
2.2	Steep Grades	10

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area			Within		
				Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Area Cost	Total Cost
0	Brush Cutter	\$227.24		\$11.00	0.00	0.00	0	\$0.00	\$0.00
1	Graders	\$451.12		\$13.75	0.00	0.00	3	\$41.25	\$492.37
0	Loader (Small)	\$227.24		\$9.00	0.00	0.00	0	\$0.00	\$0.00
0	Loader (Med. & Large)	\$451.12		\$11.00	0.00	0.00	0	\$0.00	\$0.00
1	Rollers & Compactors	\$227.24		\$16.43	0.00	0.00	3	\$49.29	\$276.53
0	Drill & Compressor	\$227.24		\$22.00	0.00	0.00	0	\$0.00	\$0.00
1	Excavators (Small)	\$227.24		\$34.40	0.00	0.00	3	\$103.20	\$330.44
2	Excavators (Large)	\$535.29	2	\$46.00	0.00	0.00	3	\$276.00	\$1,670.74
0	Tired Backhoes/Skidlers	\$451.12		\$9.25	0.00	0.00	0	\$0.00	\$0.00
0	Tractors (D6)	\$451.12		\$21.43	0.00	0.00	0	\$0.00	\$0.00
0	Tractors (D7)	\$451.12		\$30.00	0.00	0.00	0	\$0.00	\$0.00
1	Tractor (D8)	\$535.29	2	\$42.74	0.00	0.00	3	\$128.22	\$711.67
5	Dump Truck (10 cy +)	\$114.78		\$6.47	0.00	0.00	3	\$97.05	\$1,059.15
0	Dump Truck (Off Hiway)	\$435.41		\$9.00	0.00	0.00	0	\$0.00	\$0.00
0	Water Truck (1500 Gal)	\$118.33		\$8.33	0.00	0.00	0	\$0.00	\$0.00
0	Water Truck (2500 Gal)	\$124.25		\$8.75	0.00	0.00	0	\$0.00	\$0.00

	<b>TOTAL MOVE-IN COSTS: \$4,540.90</b>
--	--



## WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

### FOREST EXCISE TAX ROAD SUMMARY SHEET

**Region:** Pacific Cascade

**Timber Sale Name:** Gray Jay

**Application Number:** 30- 103863

#### EXCISE TAX APPLICABLE ACTIVITIES

**Construction:** 10,942 linear feet  
*Road to be constructed (optional and required) but not abandoned*

**Reconstruction:** 478 linear feet  
*Road to be reconstructed (optional and required) but not abandoned*

**Abandonment:** 0 linear feet  
*Abandonment of existing roads not reconstructed under the contract*

**Decommission:** 0 linear feet  
*Road to be made undriveable but not officially abandoned.*

**Pre-Haul Maintenance:** 14,047 linear feet  
*Existing road to receive maintenance work (optional and required) prior to haul*

#### EXCISE TAX EXEMPT ACTIVITIES

**Temporary Construction:** 0 linear feet  
*Roads to be constructed (optional and required) and then abandoned*

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

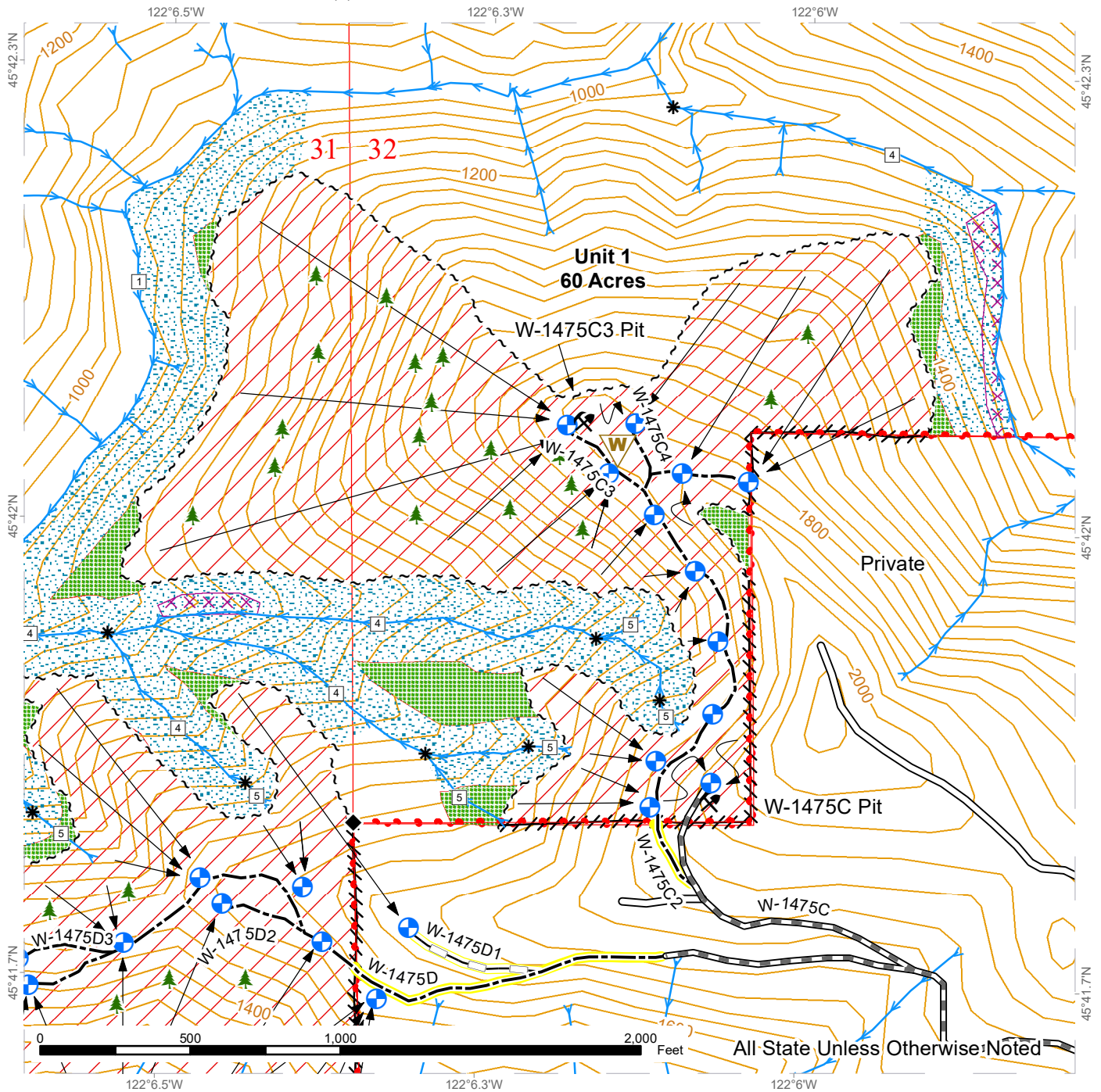
All parties must make their own assessment of the taxable or non-taxable status of any work performed under the timber sale contract. The Department of Revenue bears responsibility for determining forest road excise taxes. The Department of Natural Resources developed this form to help estimate the impact 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)

# LOGGING PLAN MAP

**SALE NAME:** GRAY JAY  
**AGREEMENT#:** 30-103863  
**TOWNSHIP(S):** T2R6E, T3R6E  
**TRUST(S):** State Forest Transfer (1)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Skamania  
**ELEVATION RGE:** 880-2160



Ground	Leave Tree Tags	Private Road Construction	Survey Monument
Leave Tree Area	Right of Way Tags	Streams	Landing - Proposed
Riparian Mgt Zone	Property Line	Stream Type	Leave Tree Area <1/4-acre
Potentially Unstable Slopes	Flag Line	Stream Type Break	Rock Pit
Cable Harvest	Existing Roads		Waste Area
Ground Harvest	Required Pre-Haul Maintenance		
Sale Boundary Tags	Optional Construction		
	Optional Reconstruction		

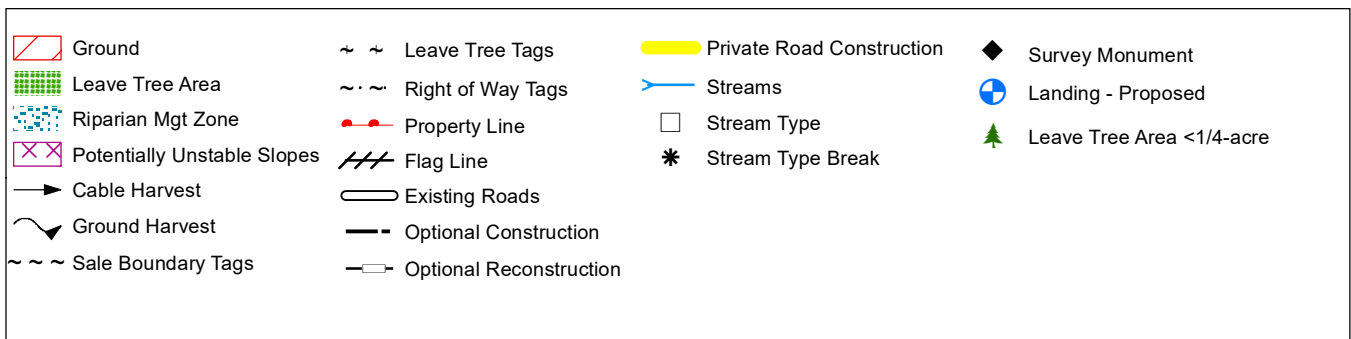
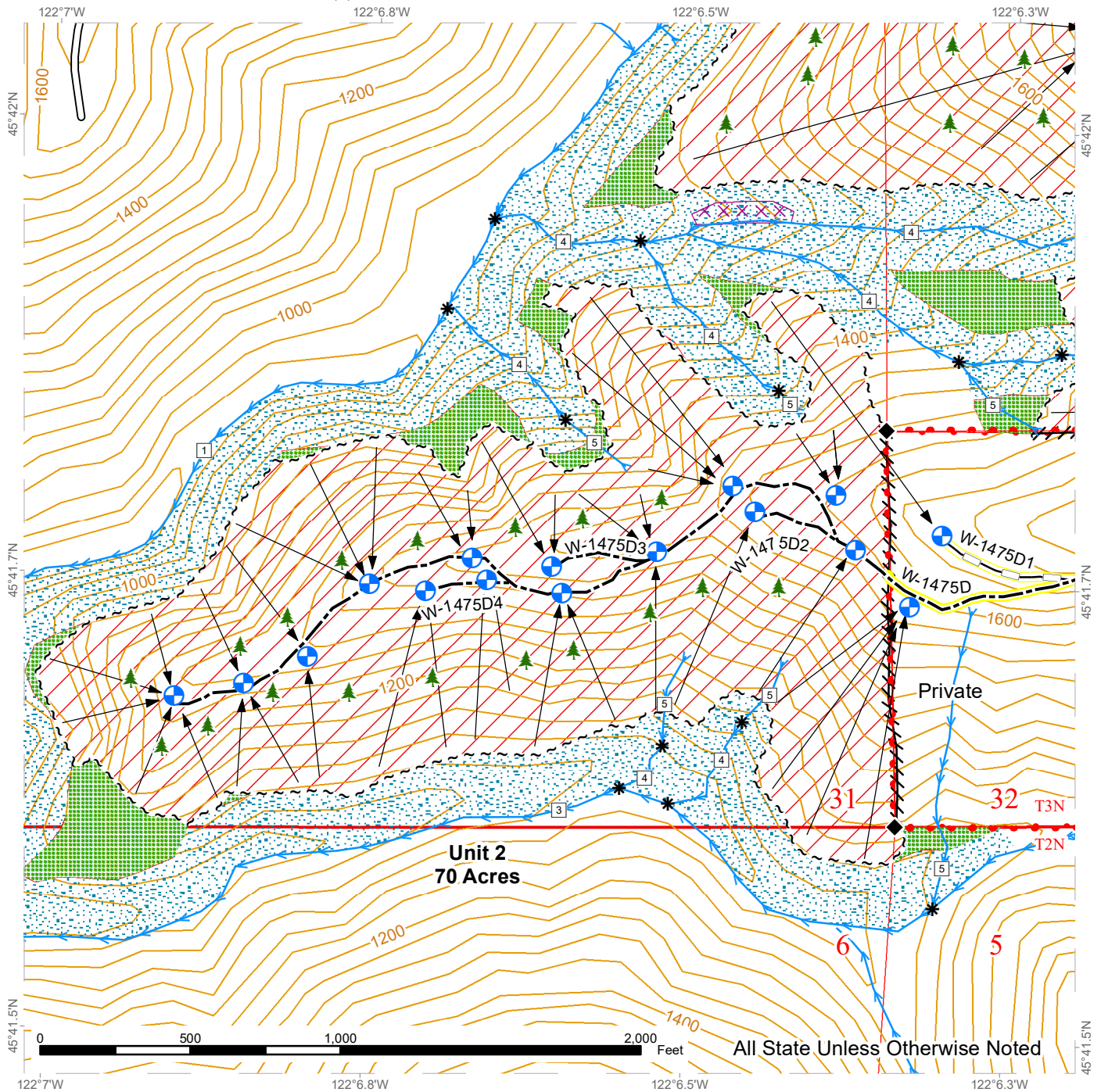




# LOGGING PLAN MAP

**SALE NAME:** GRAY JAY  
**AGREEMENT#:** 30-103863  
**TOWNSHIP(S):** T2R6E, T3R6E  
**TRUST(S):** State Forest Transfer (1)

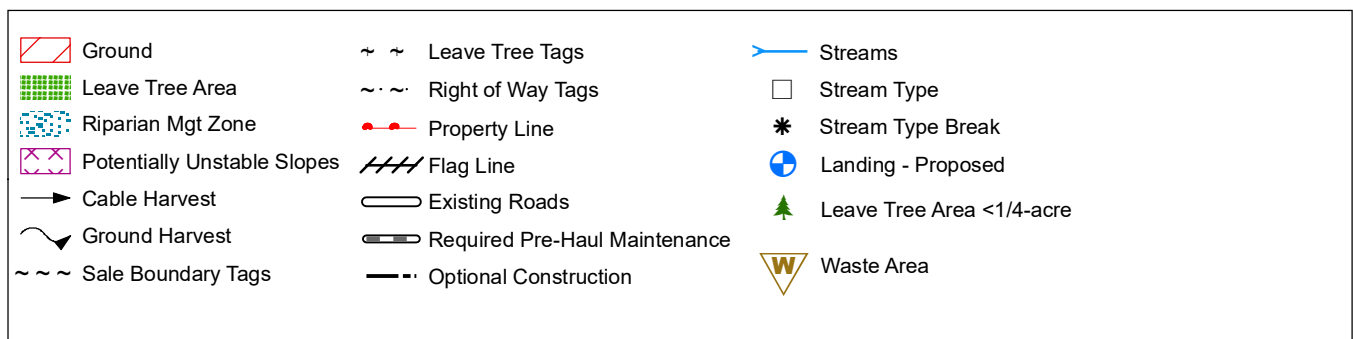
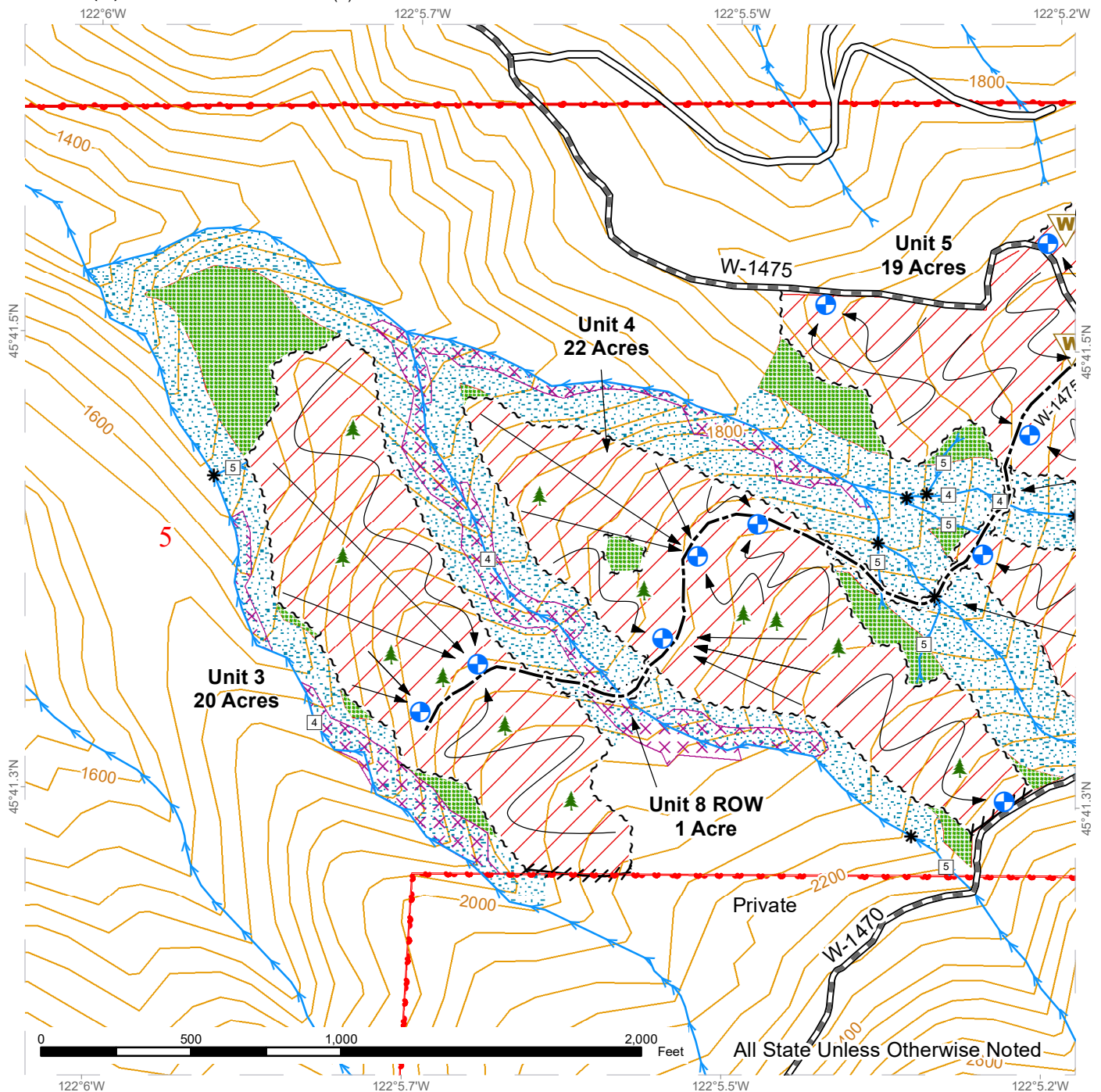
**REGION:** Pacific Cascade Region  
**COUNTY(S):** Skamania  
**ELEVATION RGE:** 880-2160



# LOGGING PLAN MAP

**SALE NAME:** GRAY JAY  
**AGREEMENT#:** 30-103863  
**TOWNSHIP(S):** T2R6E, T3R6E  
**TRUST(S):** State Forest Transfer (1)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Skamania  
**ELEVATION RGE:** 880-2160

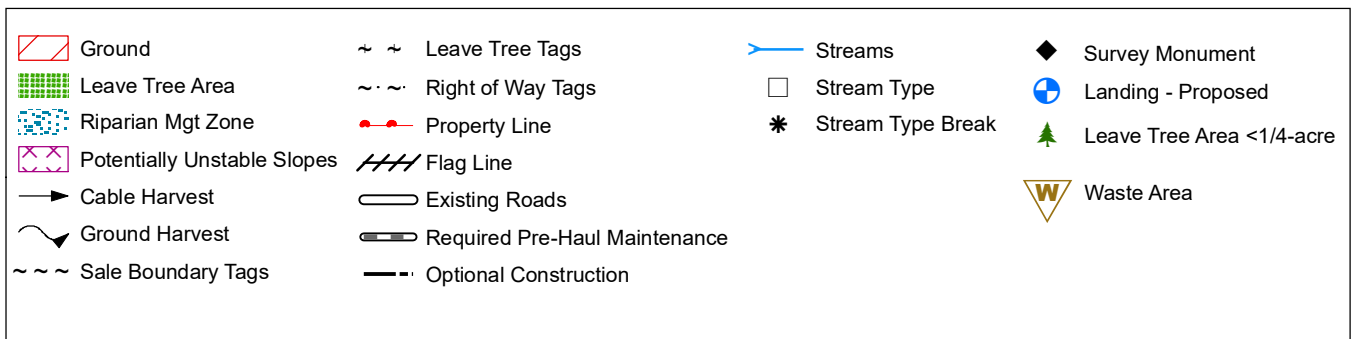
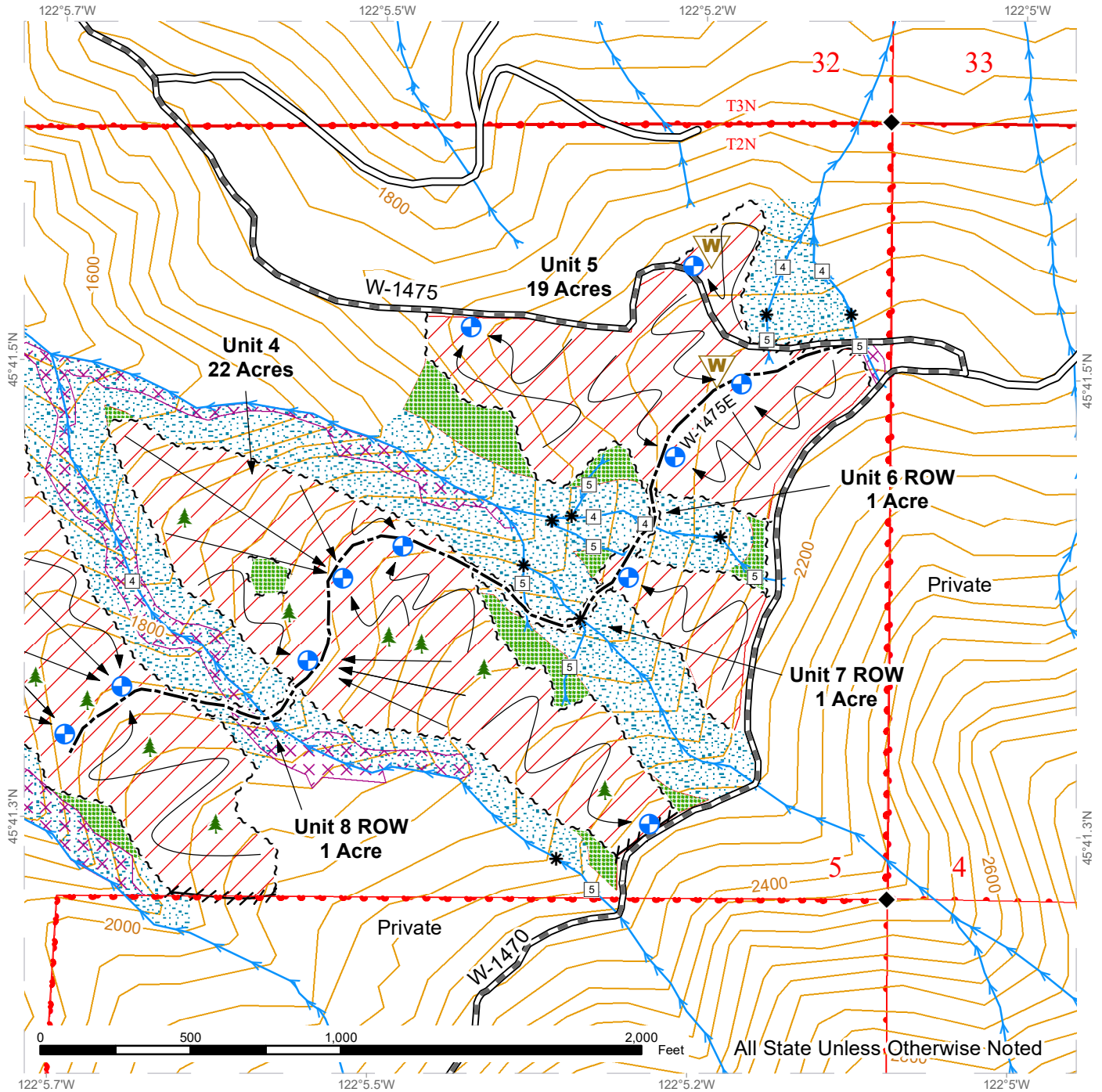




# LOGGING PLAN MAP

**SALE NAME:** GRAY JAY  
**AGREEMENT#:** 30-103863  
**TOWNSHIP(S):** T2R6E, T3R6E  
**TRUST(S):** State Forest Transfer (1)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** Skamania  
**ELEVATION RGE:** 880-2160





## ROAD USE PERMIT

**Permit No. 55-104212**

**THIS PERMIT**, made and entered into this 31<sup>st</sup> day of January 2023, by and between the State of Washington, acting by and through the Department of Natural Resources (herein called the "Grantee") and BTG Pactual PNW Fund IV REIT, Inc., a Delaware Corporation (herein called the "Grantor").

**Conveyance.** Grantor, for and in consideration of the terms and conditions specified herein, hereby grants and conveys to the Grantee, for the purpose of hauling forest products, a non-exclusive permit to build use a road over and across a strip of land 60 feet in width, hereinafter defined as the "premises," in portions of the NW1/4SW1/4 and the SE1/4NE1/4 of Section 19 Township 02 North, Range 06 East and portions of the SW1/4NE1/4 and the SW1/4SW1/4 of Section 32 Township 03 North Range 06 East, W.M. in Skamania County, State of Washington. The location of said premises located approximately as shown on Exhibit A attached hereto. The word premises when used herein means a strip of land whether or not there is an existing road located thereon. The word "road" shall mean roads now existing or hereafter constructed on the premises, or any segment of such road.

The permit is subject to the terms and conditions hereinafter set out.

### **Consideration.**

The consideration paid by the Grantee to Grantor is as follows: **\$12,950.25**. Consideration is not due until thirty days after the Grantee enters into a timber sale contract for the Gray Jay Timber Sale. Prior to payment, Grantee shall be limited to administrative use of the road. No commercial hauling will occur until the consideration is paid in full. Consideration is for hauling of forest products across existing road, removal of 24 MBF of Grantors timber to construct a landing and yarding corridor adjacent to Unit 1 of the TBS, and land out of production value for 2 additional landings through Grantor's plantation.

**Term-Date of Expiration.** This permit shall begin on **05/01/2023** and terminate on **12/31/2028**, or earlier when requested by the Grantee; provided, however, that this permit may be suspended or terminated upon the breach of any of the conditions herein.

**Reservations.** Grantor reserves all rights incident to fee ownership of the premises and the profits thereon (including timber) and the right of use for any purpose including but not limited to the right to remove profits within the premises; the right, at all times, to cross and re-cross the premises at any place on grade or otherwise; and the right to use, maintain, patrol, reconstruct or repair the premises. Grantor may grant to third parties, any and all rights reserved.

**Compliance with Laws.** For all activities conducted pursuant to this Permit, each party shall, at its own expense, comply with all applicable laws in effect now and as hereafter modified.

**Permittees.** The Grantee may permit its respective employees, agents, contractors, licensees, lessees, purchasers of timber or other profits and their agents, herein individually referred to as "Permittee" and collectively referred to as "Permittees", to exercise the rights granted to the Grantee herein. Acts or omissions of the Permittees operating under this Permit shall be deemed

an act of the Grantee. Restrictions or requirements placed on the Grantee herein shall apply equally to the Permittees.

**Maintenance.** Maintenance is defined as work normally necessary to preserve and keep the roads in their present condition or as hereafter improved. At a minimum, the roads will be maintained to meet applicable forest practice standards set forth in Chapter 222-24 WAC as now written or hereafter amended.

When a road is being used solely by one party; that party shall be solely responsible for maintaining that portion of the road so used to the standards existing at the time sole use is commenced. During periods when either party and/or other parties with an easement or license jointly use the road(s), or any portion thereof, the cost of maintenance and resurfacing shall be allocated among such users on the basis of their respective use including that of their Permittees.

During periods of joint maintenance, the users shall meet at times to be set by mutual agreement and establish necessary maintenance provisions. Such provisions shall include, but not be limited to the following:

The appointment of a maintainer, which may be one of the parties or any third party, to perform or contract the maintenance;

The extent of resurfacing necessary to keep the road safe and to reduce environmental impacts; and

A method of payment by which each party using the road or a portion thereof shall pay its pro-rata share of the cost of maintenance and resurfacing.

**Repairs.** Grantee shall repair, or cause to be repaired at its sole cost, that damage to the Road arising out of its use which is in excess of that which it would cause through normal and prudent usage. Damage caused by an unauthorized user shall be repaired at the expense of the Grantee if the Grantee is the sole user of the road, the Grantor if the Grantor is the sole user of the road and shared jointly if there is joint use of the road.

**Improvements.** Unless the parties agree in writing to share the cost of improvements in advance of such improvements being made, such improvements shall be solely for the account of the improver.

**Prior rights.** This permit is subject to any rights and valid claims previously conveyed by Grantor, and to any rights and valid claims pending on said premises. Grantee rights herein are subject to all matters of public record and to all prior unrecorded or recorded easements, permits, leases and options affecting said lands or Grantee rights across, over or upon such lands. Grantee rights herein are also subject to the rights of the Grantor to use its own lands for any and all legal purposes including the use of the land by third parties with the permission of the Grantor.

**Operational Restrictions.** Site-specific operational requirements are listed in Exhibit C. Non-compliance with these requirements shall constitute a breach of contract and may result in the Grantor suspending operations until the breach is remedied.

**Damage.** Grantee shall take all reasonable precautions to protect Grantor-owned timber, crops and improvements. The Grantee must notify the Grantor two (2) weeks in advance of

completion of said operations for the purpose of inspection for compliance with the terms hereof. Grantee shall pay Grantor for any damage to timber, crops and improvements not identified and paid for under the terms and conditions of this Permit. Grantor shall appraise the damage at market value at the time of damage and bill Grantee for said damages at said value.

**Waste.** Grantee shall not cause nor permit any filling activity to occur in or on the premises, except by prior written approval of the Grantor. Grantee shall not deposit refuse, garbage, or other waste matter or use, store, generate, process, transport, handle, release, or dispose of any hazardous substance, or other pollutants in or on the premises except in accordance with all applicable laws. The term hazardous substance means any substance or material as those terms are now or are hereafter defined or regulated under any federal, state, or local law including but not limited to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA 42 USC 9601 *et seq.*), or the Washington Model Toxic Control Act (MTCA RCW 70.105D.010.). Grantee shall immediately notify the Grantor if the Grantee becomes aware of any release or threatened release of hazardous substance on the premises or adjoining property. If a release of hazardous substance occurs in, on, under, or above the premises arising out of any action of the Grantee, its contractors, subcontractors, invitees, agents, employees, licensees, or permittees, the Grantee shall, at its sole expense, promptly take all actions necessary or advisable to clean up, contain, and remove the hazardous substance in accordance with applicable laws.

**Survey Markers.** Grantee shall not destroy any land survey monuments marking local control points, geodetic control points, and land boundary survey corners without prior written approval from the landowner, which shall not be unreasonably withheld. Land survey monuments that must necessarily be disturbed or destroyed during construction or maintenance activities must be adequately referenced and replaced, at the Grantee's expense, under the direction of a Professional Land Surveyor, licensed in the State of Washington, in accordance with all applicable laws of the State of Washington in force at the time of construction, including but not limited to RCW 58.24, and all Department of Natural Resources regulations pertaining to preservation of such monuments. As directed under Chapter 332-120 WAC, a Land Surveyor or Engineer must submit an application with the Department of Natural Resources for permission to temporarily remove or destroy a survey monument.

**Fire Prevention and Control.** The Grantee shall be responsible for satisfying the requirements of the laws of the State of Washington pertaining to Forest Protection and, in addition thereto, the Grantee shall during the closed season of April 15 through October 15 contact Grantor who shall determine any extra requirements pertaining to burning procedure, blasting, watchman, extra patrol, pumpers, tankers, fire hoses, fire tools, etc., which are deemed necessary for prevention and suppression of fire which may result from the Grantee's operations.

**Insurance by the State.** The State of Washington, including all its agencies and departments, is self-insured for all exposures to tort liability, general liability, property damage liability and vehicle liability, as provided in statute, but only as respects the negligence of the State.

The limits of insurance shall not be less than as follows:

Commercial General Liability (CGL) insurance with a limit of not less than \$1,000,000 per each occurrence or Personal Liability insurance, as applicable, under a personal liability policy, commercial liability insurance policy, or package property and liability insurance policy. If such CGL insurance contains aggregate limits, the general aggregate limits shall be at least twice the "each occurrence" limit, and the products-completed operations aggregate limit shall be

at least twice the "each occurrence" limit.

Employer's liability ("Stop Gap") insurance, and if necessary, commercial umbrella liability insurance with limits not less than \$1,000,000 each accident for bodily injury by accident or \$1,000,000 each employee for bodily injury by disease.

Business Auto Policy (BAP) insurance, and if necessary, commercial umbrella liability insurance with a limit of not less than \$1,000,000 per accident, with such insurance covering liability arising out of "Any Auto".

All contractors, subcontractors, or other permittees of the State must comply with all State of Washington workers' compensation statutes and regulations.

All insurance should be purchased on an occurrence basis and should be issued by companies admitted to do business within the State of Washington and have a rating of A- or better in the most recently published edition of Best's Reports. Any exception to the State's requirements shall be reviewed and approved in advance by the Risk Manager for the Department of Natural Resources. 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.

Before using any said rights granted herein, Grantee shall furnish Grantor with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements specified above. Certificate(s) must reference the State's permit number.

Contractors, sub-contractors and permittees of Grantee must comply with all insurance requirements stated herein. Failure of contractors, sub-contractors and permittees to comply with State's insurance requirements does not limit Grantee liability or responsibility.

Grantee shall furnish upon request certificates of insurance and endorsements for any or all Permittees.

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

**Indemnity by the State.** State shall defend, indemnify and hold harmless the Grantor from all claims that arise out of the negligence of the State or its Permittees in the use of the permit. A "claim" as used in this section means any financial loss, claim, suit, action, damage, or expense, including but not limited to attorneys' fees, attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property including the resulting loss of use. Notwithstanding the foregoing, State's obligation to defend, indemnify, and hold harmless the Grantor from any judgment, decree or arbitration award shall extend only to the percentage of negligence of Grantee and its Permittee in contribution to such claim. State waives its immunity under Title 51 RCW only to the extent it is required to indemnify, defend and hold harmless Grantor and its Permittee. This indemnification shall survive the expiration or termination of the permit.

**Notice.** Unless otherwise specified herein, any notices required or permitted under this Permit may be delivered personally, sent by facsimile machine or mailed certified, return receipt requested, to the following addresses or to such other place as the parties hereafter direct. Notice will be deemed given upon delivery or upon confirmation of facsimile, whichever is applicable.

To Grantee:  
DEPARTMENT OF NATURAL RESOURCES  
Pacific Cascade Region  
Attn: ROW  
P.O. Box 280  
Castle Rock, WA 98611  
360.827.0595  
renee.wend@dnr.wa.gov

To Grantor:  
BTG Pactual PNW Fund IV REIT, Inc.  
TTG Forestry Services (its Agent)  
Attn: Matt Roscoe  
3606 Main Street Suite 100  
Vancouver WA 98663  
360.562.5522  
matt.roscoe@ttgforestry.com

**Integrated Agreement; Modification.** This Permit constitutes the entire agreement and understanding of the parties with respect to the subject matter of the Permit and supersedes all prior negotiations and representations. This Permit may not be modified except in writing signed by the parties. The parties agree to execute any additional documents reasonably necessary to effectuate the provisions and purposes of this Permit.

**Severability.** If any provision of this Permit is held to be invalid or unenforceable, this provision shall not affect or invalidate the remainder of this Permit, and to this end the provisions of this Permit are declared to be severable. If any such invalidity becomes known or apparent to the parties, the parties agree to negotiate promptly in good faith in an attempt to amend such provision as nearly as possible to be consistent with the intent of this Permit.

**Waiver.** Failure of either party to insist upon the strict performance of any of the terms and conditions of this Permit, or failure to exercise any rights or remedies provided in this Permit or by law, or to notify the other party in the event of breach, shall not release the other party of any of its obligations under this Permit, nor shall any purported oral modification or rescission of this Permit by either party operate as a waiver of any of the terms hereof. No waiver by either party of any breach, default, or violation of any term, warranty, representation, agreement, covenant, right, condition, or provision of this Permit shall constitute waiver of any subsequent breach, default, or violation of the same or other term, warranty, representation, agreement, covenant, right, condition, or provision.

**Assignment.** This Permit, and any of the rights granted herein, shall not be assigned without prior written consent of Grantor, except that said rights granted herein may be used by any Permittee, while engaged in the Grantee's operations.

**Construction.** The terms of this Permit shall be given their ordinary meaning unless defined herein and shall not be presumptively construed against either party.

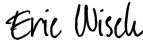
**Exhibits.** All exhibits referred to in this Permit are deemed to be incorporated in this Permit in their entirety.

**Headings.** The headings in this Permit are for convenience only and are not intended to, and shall not be construed to, limit, enlarge, or affect the scope or intent of this Permit nor the meaning of any of its provisions.

**Counterparts.** This Permit may be executed in one or more counterparts, each of which shall be deemed an original, and all of which counterparts together shall constitute the same instrument which may be sufficiently evidenced by one counterpart. Execution of this Permit at different times and places by the parties shall not affect its validity so long as all the parties execute a counterpart of this Permit.

**IN WITNESS WHEREOF**, the parties hereto have caused this Permit to be executed as below subscribed.

**WASHINGTON STATE DEPARMENT OF  
NATURAL RESOURCES**

DocuSigned by:  
  
F093C1068AD04F4...

By: Eric Wisch

Title: Pacific Cascade Region Manager

Address: P.O. Box 280  
Castle Rock, WA 98611

Phone No. 360-577-2025

Date: 2/1/2023

Date: \_\_\_\_\_

**BTG PACTUAL PNW FUND IV REIT, INC**

DocuSigned by:  
  
77A5EFF483F5435...

By: Matt Roscoe

Title: Regional Manager

Address: 3606 Main Street Suite 100  
Vancouver, WA 98663

Phone No. 360-562-5522

Date: 2/2/2023

Date: \_\_\_\_\_

**Exhibit A**  
**Legal Description**

Portions of the NW1/4SW1/4 and the SE1/4NE1/4 of Section 19 Township 02 North, Range 06 East and portions of the SW1/4NE1/4 and the SW1/4SW1/4 of Section 32 Township 03 North Range 06 East in Skamania County, State of Washington.



LOGGING PLAN MAP

SALE NAME: GRAY JAY

AGREEMENT#: None

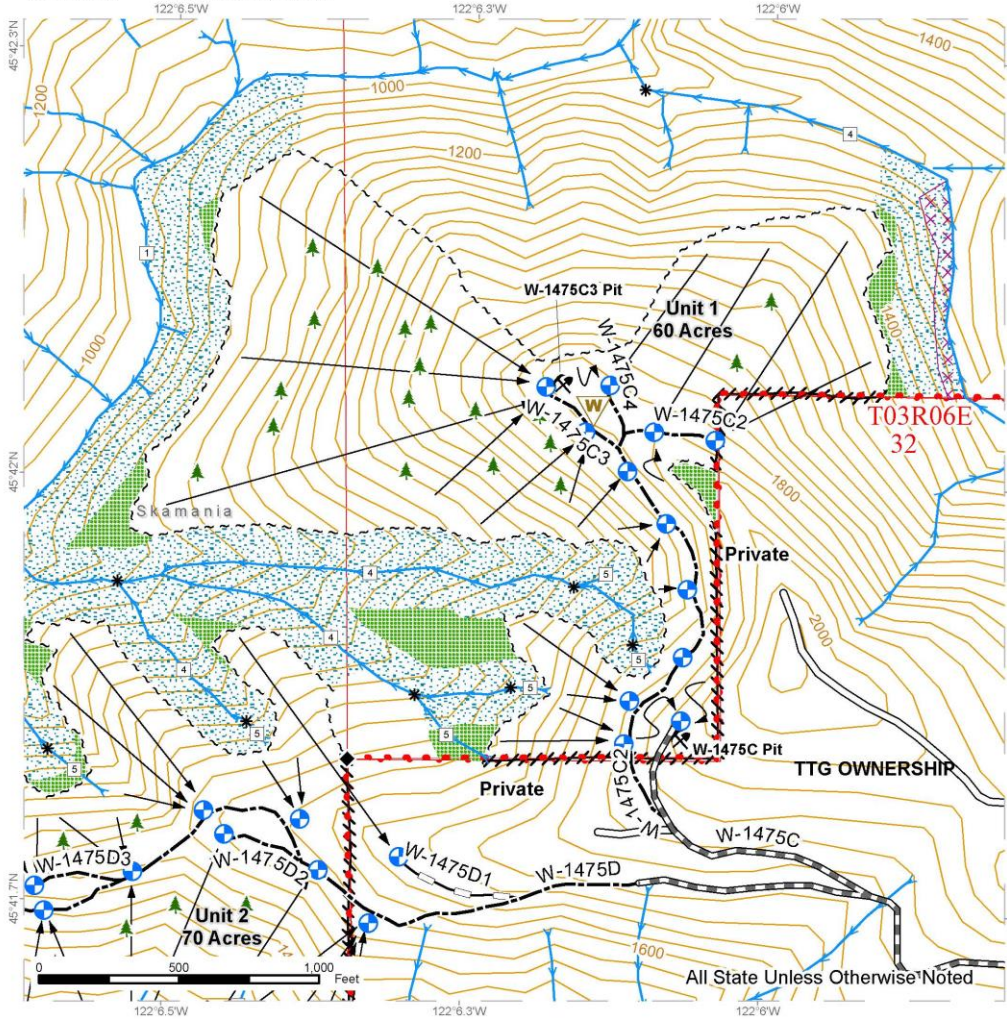
TOWNSHIP(S): T2R6E, T3R6E

TRUST(S): State Forest Transfer (1)

REGION: Pacific Cascade Region

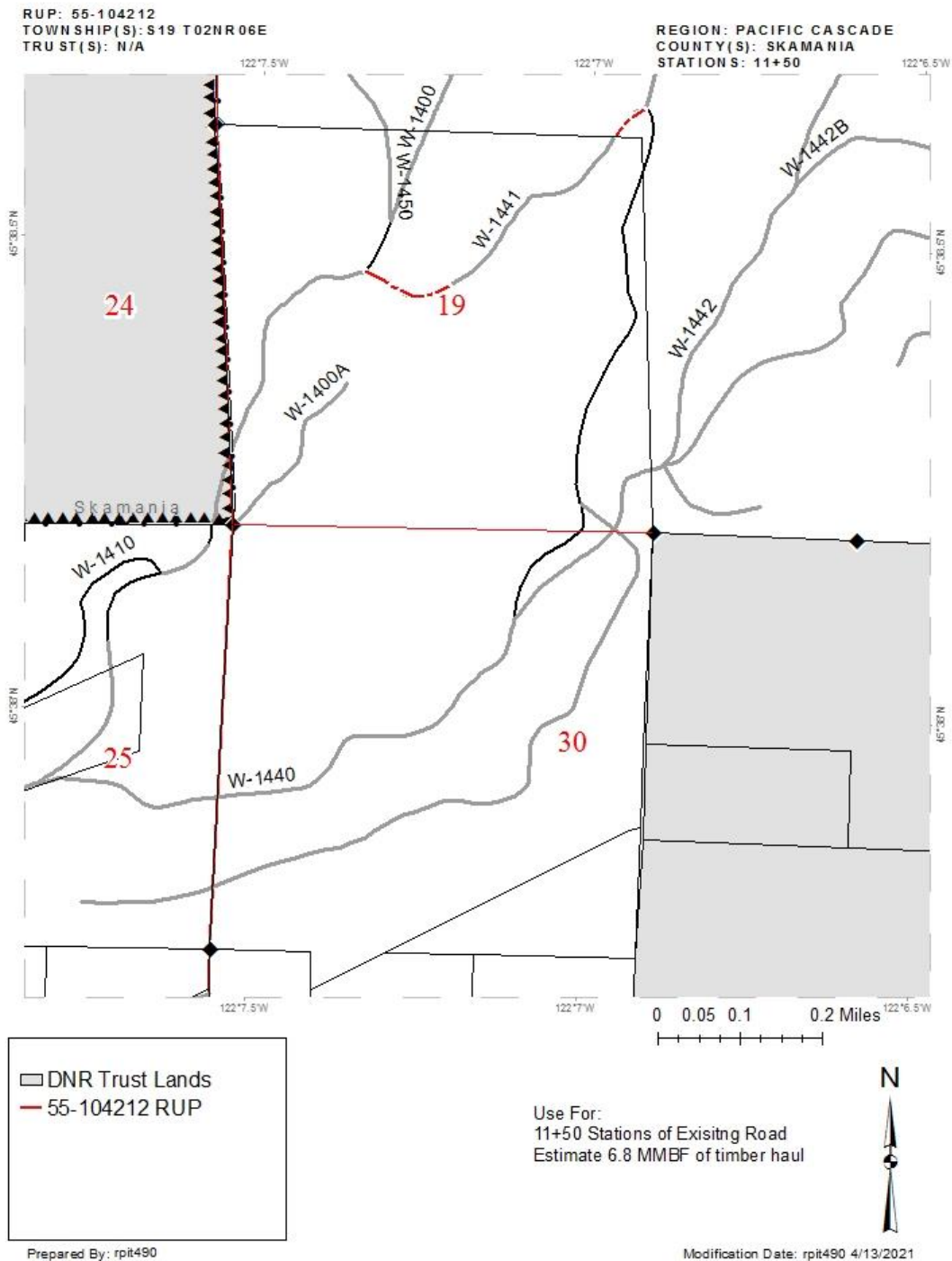
COUNTY(S): Skamania

ELEVATION RGE: 880-2160



Cable Harvest	Streams	Riparian Mgt Zone	Sale Boundary Tags
Ground Harvest	Stream Type	Potentially Unstable Slopes	Special Mgmt Area
Existing Roads	Stream Type Break	Landing - Proposed	Leave Tree Tags
Required Pre-Haul Maintenance	Survey Monument	Leave Tree Area <1/4-acre	Right of Way Tags
Optional Construction	Leave Tree Area	Rock Pit	Property Line
Optional Reconstruction		Waste Area	Flag Line

## EXHIBIT B



## **EXHIBIT "C"**

### Operational Restrictions

#### ***Sale-specific harvest identification***

Washington State DNR FPA/N: 2941128

Timber Sale Name: Gray Jay

#### ***Operations***

1. Harvested timber shall be tree-length yarded to Grantor owned landings, where practical. Landing slash shall be piled for later burning or other appropriate disposal as directed by Grantor. All slash will be removed within 100 feet of County Roads and 200 feet from any residential or commercial structure per WAC 33-24-650.
2. If slash is scattered within the logging unit, slash will be scattered in a manner that allows ten feet by ten feet (10' x 10') planting spacing to be achieved.
3. Grantee shall not remove any downed logs that have been on the ground for more than two years as evidenced by the lack of needles, unless specifically directed to do so by Grantor.
4. All existing snags exceeding 12" dbh shall be left standing unless they pose a threat to worker safety.
5. Grantee shall keep ditches and culverts open to allow water to run freely. At the completion of yarding to any landing, all slash shall be removed from ditches.
6. Grantee is responsible for leaving the sale area on Grantor's property in a plantable condition following harvest operations. This may require Grantee to pile slash and/or use whole tree yarding techniques to achieve the required plantable condition.
7. Grantee is responsible for reforestation of yarding corridors and any plantable area on Grantor's property where seedlings and/or plantation was damaged by Grantee's operations. Seedlings will be Douglas fir of the same type and size that Grantee is planting on the Gray Jay timber sale area.

#### ***Roads***

1. Haul routes approved by Grantor are shown on the location maps attached at **Exhibit B**. Upon termination of log hauling, Grantee shall at Grantee's expense return all sale area roads to an equal or better condition than existed prior to commencement of operations. This includes, at a minimum, grading and ditching roads within the Agreement Area.
2. Grantee assumes responsibility for the condition of all roads pertaining to the Agreement. Grantee shall maintain haul roads in better than or equal to the condition existing on the Effective Date, and in a condition meeting the Forest Practices Act, at all times.
3. Grantee will follow any access control measures implemented by Grantor on the Property, including closing and locking any gates on the Property after passing through. If Grantee is given keys or combinations to any gates on the Property, Grantee shall promptly return the same to Grantor following completion of harvest activities and will not duplicate or share such keys or combinations without the prior written consent of Grantor.

#### ***Forest protection, stewardship, and legal compliance***

1. Grantee shall comply with all federal, state, and local laws and regulations.
2. Grantee is responsible for meeting or exceeding all state Forest Protection Laws, Forest

Practices Administrative Rules, Best Management Practices, Sustainable Forestry Initiative Standards, Guidelines and Rules, and the Forest Practices Act.

3. Grantee shall provide a copy of current certification from the appropriate State logger certification agency to Grantor, and a copy of the certification shall be maintained onsite at all times.
4. Grantee shall utilize logging methods and equipment that will minimize impact to the sale area. It is the intent of Grantor to allow winter shovel logging on the sale area as long as the operation of equipment is not causing rutting or excessive soil compaction. Grantor may temporarily suspend operations whenever, in Grantor's judgment, operations will cause excessive damage to lands, water quality, water quantity, or roads.
5. Grantee will maintain and ensure fully functional spill kits in each piece of logging equipment onsite to contain and remove any diesel, oil, hydraulic fluid, or other materials that may spill during routine maintenance or accidents.
6. All refuse, such as food waste and containers, filters, cable, broken parts, etcetera, originating or generated by Grantee shall be removed from the Property at Grantee's sole cost and expense at the completion of the Agreement.
7. Should rare, threatened, or endangered species be observed within or adjacent to the property and/or logging area by Grantee, harvest operations shall cease immediately, and Grantor shall be promptly notified.
8. Should archeological materials or human remains be observed during project activities, all work in the immediate vicinity shall be halted, the area shall be secured, and Grantee will immediately notify Grantor.
9. Grantee will keep the property free of any liens resulting from its activities or the activities of its permitted contractors or agents under this Agreement and will immediately discharge any such liens at Grantee's sole expense.
10. Grantee will not release any hazardous substances on the Property and will indemnify and hold Grantor harmless from any loss, costs or liabilities (including cleanup or remediation obligations under environmental laws) caused by the acts or omissions of Grantee or its permitted contractors or agents on the Property.

### ***Safety compliance***

1. Grantee shall adhere to all OSHA logging Safety Standards, including possession and use of required Personal Protective Equipment (PPE).
2. Grantee shall take all necessary safety precautions in locations where log trucks enter a public road and create a safety hazard. Grantee is fully responsible for responding to any complaints regarding debris or mud on state roads and shall repair, or cause to be repaired, the haul route in order to eliminate tracking and debris on state roads.
3. During fire season, Grantee shall have a water tank and functional pump and hose onsite at all times, with a minimum capacity of 300 gallons. Working fire extinguishers will be located on each piece of equipment onsite. Grantee will halt all activities any time relative humidity is below 30%.

## ROAD USE PERMIT

**Permit No. 55-104336**

**THIS PERMIT**, made and entered into this day 11/17/2022 by and between the State of Washington, acting by and through the Department of Natural Resources (herein called the "Grantee") and McCloskey Creek LLC and McCloskey Headworks LLC (herein called the "Grantor")

**Conveyance.** Grantor, for and in consideration of the terms and conditions specified herein, hereby grants and conveys to the Grantee, for the purpose of hauling forest products, a non-exclusive permit to build use a road over and across a strip of land 60 feet in width, hereinafter defined as the "premises," in portions of the S ½ of the NE ¼ of Section 25, Township 02 North, Range 05 East, W.M. in Skamania County, State of Washington. The location of said premises located approximately as shown on Exhibit A attached hereto. The word premises when used herein means a strip of land whether or not there is an existing road located thereon. The word "road" shall mean roads now existing or hereafter constructed on the premises, or any segment of such road.

The permit is subject to the terms and conditions hereinafter set out.

**Consideration.**

The consideration paid by the Grantee to Grantor is as follows: **\$2,233.88**. The consideration is not due until thirty days after the Grantee enters into a timber sale contract for the Grey Jay TBS. Prior to payment, Grantee shall be limited to administrative use of the road. No commercial hauling will occur until the consideration is paid in full. Consideration is for use of 18+05 stations of existing road.

In the event that the Grantee is granted a perpetual easement over this road within two (2) years of the termination date of this permit, the Grantee shall be entitled to a credit in the amount (\$2,233.88) which shall be applied to the consideration to be paid for the perpetual easement.

**Term-Date of Expiration.** This permit shall begin on **05/01/2023** and terminate on **12/31/2028**, or earlier when requested by the Grantee; provided, however, that this permit may be suspended or terminated upon the breach of any of the conditions herein.

**Reservations.** Grantor reserves all rights incident to fee ownership of the premises and the profits thereon (including timber) and the right of use for any purpose including but not limited to the right to remove profits within the premises; the right at all times to cross and re-cross the premises at any place on grade or otherwise; and the right to use, maintain, patrol, reconstruct or

repair the premises. Grantor may grant to third parties any and all rights reserved.

**Compliance with Laws.** For all activities conducted pursuant to this Permit, each party shall, at its own expense, comply with all applicable laws in effect now and as hereafter modified.

**Permittees.** The Grantee may permit its respective employees, agents, contractors, licensees, lessees, purchasers of timber or other profits and their agents, herein individually referred to as "Permittee" and collectively referred to as "Permittees", to exercise the rights granted to the Grantee herein. Acts or omissions of the Permittees operating under this Permit shall be deemed an act of the Grantee. Restrictions or requirements placed on the Grantee herein shall apply equally to the Permittees.

**Maintenance.** Maintenance is defined as work normally necessary to preserve and keep the roads in their present condition or as hereafter improved. At a minimum, the roads will be maintained to meet applicable forest practice standards set forth in Chapter 222-24 WAC as now written or hereafter amended.

When a road is being used solely by one party; that party shall be solely responsible for maintaining that portion of the road so used to the standards existing at the time sole use is commenced. During periods when either party and/or other parties with an easement or license jointly use the road(s), or any portion thereof, the cost of maintenance and resurfacing shall be allocated among such users on the basis of their respective use including that of their Permittees.

During periods of joint maintenance, the users shall meet at times to be set by mutual agreement and establish necessary maintenance provisions. Such provisions shall include, but not be limited to the following:

The appointment of a maintainer, which may be one of the parties or any third party, to perform or contract the maintenance;

The extent of resurfacing necessary to keep the road safe and to reduce environmental impacts; and

A method of payment by which each party using the road or a portion thereof shall pay its pro rata share of the cost of maintenance and resurfacing.

**Repairs.** Grantee shall repair, or cause to be repaired at its sole cost, that damage to the Road arising out of its use which is in excess of that which it would cause through normal and prudent usage. Damage caused by an unauthorized user shall be repaired at the expense of the Grantee if the Grantee is the sole user of the road, the Grantor if the Grantor is the sole user of the road and shared jointly if there is joint use of the road.

**Improvements.** Unless the parties agree in writing to share the cost of improvements in advance of such improvements being made, such improvements shall be solely for the account of the improver.

**Prior rights.** This permit is subject to any rights and valid claims previously conveyed by Grantor, and to any rights and valid claims pending on said premises. Grantee rights herein are subject to all matters of public record and to all prior unrecorded or recorded easements, permits, leases and options affecting said lands or Grantee rights across, over or upon such lands. Grantee rights herein are also subject to the rights of the Grantor to use its own lands for any and all legal purposes including the use of the land by third parties with the permission of the Grantor.

**Operational Restrictions.** Site-specific operational requirements are listed in Exhibit C. Non-compliance with these requirements shall constitute a breach of contract and may result in the Grantor suspending operations until the breach is remedied.

**Damage.** Grantee shall take all reasonable precautions to protect Grantor-owned timber, crops and improvements. The Grantee must notify the Grantor two (2) weeks in advance of completion of said operations for the purpose of inspection for compliance with the terms hereof. Grantee shall pay Grantor for any damage to timber, crops and improvements not identified and paid for under the terms and conditions of this Permit. Grantor shall appraise the damage at market value at the time of damage and bill Grantee for said damages at said value.

**Waste.** Grantee shall not cause nor permit any filling activity to occur in or on the premises, except by prior written approval of the Grantor. Grantee shall not deposit refuse, garbage, or other waste matter or use, store, generate, process, transport, handle, release, or dispose of any hazardous substance, or other pollutants in or on the premises except in accordance with all applicable laws. The term hazardous substance means any substance or material as those terms are now or are hereafter defined or regulated under any federal, state, or local law including but not limited to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA 42 USC 9601 *et seq.*), or the Washington Model Toxic Control Act (MTCA RCW 70.105D.010.). Grantee shall immediately notify the Grantor if the Grantee becomes aware of any release or threatened release of hazardous substance on the premises or adjoining property. If a release of hazardous substance occurs in, on, under, or above the premises arising out of any action of the Grantee, its contractors, subcontractors, invitees, agents, employees, licensees, or permittees, the Grantee shall, at its sole expense, promptly take all actions necessary or advisable to clean up, contain, and remove the hazardous substance in accordance with applicable laws.

**Survey Markers.** Grantee shall not destroy any land survey monuments marking local control points, geodetic control points, and land boundary survey corners without prior written approval from the landowner, which shall not be unreasonably withheld. Land survey monuments that must necessarily be disturbed or destroyed during construction or maintenance activities must be adequately referenced and replaced, at the Grantee's expense, under the direction of a



Professional Land Surveyor, licensed in the State of Washington, in accordance with all applicable laws of the State of Washington in force at the time of construction, including but not limited to RCW 58.24, and all Department of Natural Resources regulations pertaining to preservation of such monuments. As directed under Chapter 332-120 WAC, a Land Surveyor or Engineer must submit an application with the Department of Natural Resources for permission to temporarily remove or destroy a survey monument.

**Fire Prevention and Control.** The Grantee shall be responsible for satisfying the requirements of the laws of the State of Washington pertaining to Forest Protection and, in addition thereto, the Grantee shall during the closed season of April 15 through October 15 contact Grantor who shall determine any extra requirements pertaining to burning procedure, blasting, watchman, extra patrol, pumpers, tankers, fire hoses, fire tools, etc., which are deemed necessary for prevention and suppression of fire which may result from the Grantee's operations.

**Insurance by the State.** The State of Washington, including all its agencies and departments, is self-insured for all exposures to tort liability, general liability, property damage liability and vehicle liability, as provided in statute, but only as respects the negligence of the State.

The limits of insurance shall not be less than as follows:

Commercial General Liability (CGL) insurance with a limit of not less than \$1,000,000 per each occurrence or Personal Liability insurance, as applicable, under a personal liability policy, commercial liability insurance policy, or package property and liability insurance policy. If such CGL insurance contains aggregate limits, the general aggregate limits shall be at least twice the "each occurrence" limit, and the products-completed operations aggregate limit shall be at least twice the "each occurrence" limit.

Employer's liability ("Stop Gap") insurance, and if necessary, commercial umbrella liability insurance with limits not less than \$1,000,000 each accident for bodily injury by accident or \$1,000,000 each employee for bodily injury by disease.

Business Auto Policy (BAP) insurance, and if necessary, commercial umbrella liability insurance with a limit of not less than \$1,000,000 per accident, with such insurance covering liability arising out of "Any Auto".

All contractors, subcontractors, or other permittees of the State must comply with all State of Washington workers' compensation statutes and regulations.

All insurance should be purchased on an occurrence basis and should be issued by companies admitted to do business within the State of Washington and have a rating of A- or better in the most recently published edition of Best's Reports. Any exception to the State's requirements shall be reviewed and approved in advance by the Risk Manager for the



Department of Natural Resources. 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.

Before using any said rights granted herein, Grantee shall furnish Grantor with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements specified above. Certificate(s) must reference the State's permit number.

Contractors, sub-contractors and permittees of Grantee must comply with all insurance requirements stated herein. Failure of contractors, sub-contractors and permittees to comply with State's insurance requirements does not limit Grantee liability or responsibility.

Grantee shall furnish upon request certificates of insurance and endorsements for any or all Permittees.

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

**Indemnity by the State.** State shall defend, indemnify and hold harmless the Grantor from all claims that arise out of the negligence of the State or its Permittees in the use of the permit. A "claim" as used in this section means any financial loss, claim, suit, action, damage, or expense, including but not limited to attorneys' fees, attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property including the resulting loss of use. Notwithstanding the foregoing, State's obligation to defend, indemnify, and hold harmless the Grantor from any judgment, decree or arbitration award shall extend only to the percentage of negligence of Grantee and its Permittee in contribution to such claim. State waives its immunity under Title 51 RCW only to the extent it is required to indemnify, defend and hold harmless Grantor and its Permittee. This indemnification shall survive the expiration or termination of the permit.

**Notice.** Unless otherwise specified herein, any notices required or permitted under this Permit may be delivered personally, sent by facsimile machine or mailed certified, return receipt requested, to the following addresses or to such other place as the parties hereafter direct. Notice will be deemed given upon delivery or upon confirmation of facsimile, whichever is applicable.

To Grantee:  
DEPARTMENT OF NATURAL RESOURCES  
Pacific Cascade Region  
Attn: ROW  
P.O. Box 280  
Castle Rock, WA 98611  
360-577-2025

To Grantor:  
McCloskey Creek LLC  
Attn: Brent Rotschy  
7408 NE 113<sup>th</sup> Cir  
Vancouver, WA 98662  
360.344.3100

**Integrated Agreement; Modification.** This Permit constitutes the entire agreement and understanding of the parties with respect to the subject matter of the Permit and supersedes all prior negotiations and representations. This Permit may not be modified except in writing signed by the parties. The parties agree to execute any additional documents reasonably necessary to effectuate the provisions and purposes of this Permit.

**Severability.** If any provision of this Permit is held to be invalid or unenforceable, this provision shall not affect or invalidate the remainder of this Permit, and to this end the provisions of this Permit are declared to be severable. If any such invalidity becomes known or apparent to the parties, the parties agree to negotiate promptly in good faith in an attempt to amend such provision as nearly as possible to be consistent with the intent of this Permit.

**Waiver.** Failure of either party to insist upon the strict performance of any of the terms and conditions of this Permit, or failure to exercise any rights or remedies provided in this Permit or by law, or to notify the other party in the event of breach, shall not release the other party of any of its obligations under this Permit, nor shall any purported oral modification or rescission of this Permit by either party operate as a waiver of any of the terms hereof. No waiver by either party of any breach, default, or violation of any term, warranty, representation, agreement, covenant, right, condition, or provision of this Permit shall constitute waiver of any subsequent breach, default, or violation of the same or other term, warranty, representation, agreement, covenant, right, condition, or provision.

**Assignment.** This Permit, and any of the rights granted herein, shall not be assigned without prior written consent of Grantor, except that said rights granted herein may be used by any Permittee, while engaged in the Grantee's operations.

**Construction.** The terms of this Permit shall be given their ordinary meaning unless defined herein and shall not be presumptively construed against either party.

**Exhibits.** All exhibits referred to in this Permit are deemed to be incorporated in this Permit in their entirety.

**Headings.** The headings in this Permit are for convenience only and are not intended to, and shall not be construed to, limit, enlarge, or affect the scope or intent of this Permit nor the meaning of any of its provisions.

**Counterparts.** This Permit may be executed in one or more counterparts, each of which shall be deemed an original, and all of which counterparts together shall constitute the same instrument which may be sufficiently evidenced by one counterpart. Execution of this Permit at different times and places by the parties shall not affect its validity so long as all the parties execute a counterpart of this Permit.

**IN WITNESS WHEREOF,** the parties hereto have caused this Permit to be executed as below

subscribed.

**WASHINGTON STATE DEPARMENT OF  
NATURAL RESOURCES**

DocuSigned by:

*Eric Wisch*

F093C1068AD04F4...

By: Eric Wisch

Title: Pacific Cascade Region Manager

Address: P.O. Box 280  
Castle Rock, WA 98611

Phone No. 360-577-2025

Date: 11/28/2022

**GRANTOR**

DocuSigned by:

*Brent A. Rotschy*

330B5EF26EAC493...

By: Brent Rotschy

Title: Member

Address: 7408 NE 113<sup>th</sup> Cir  
Vancouver, WA 98662

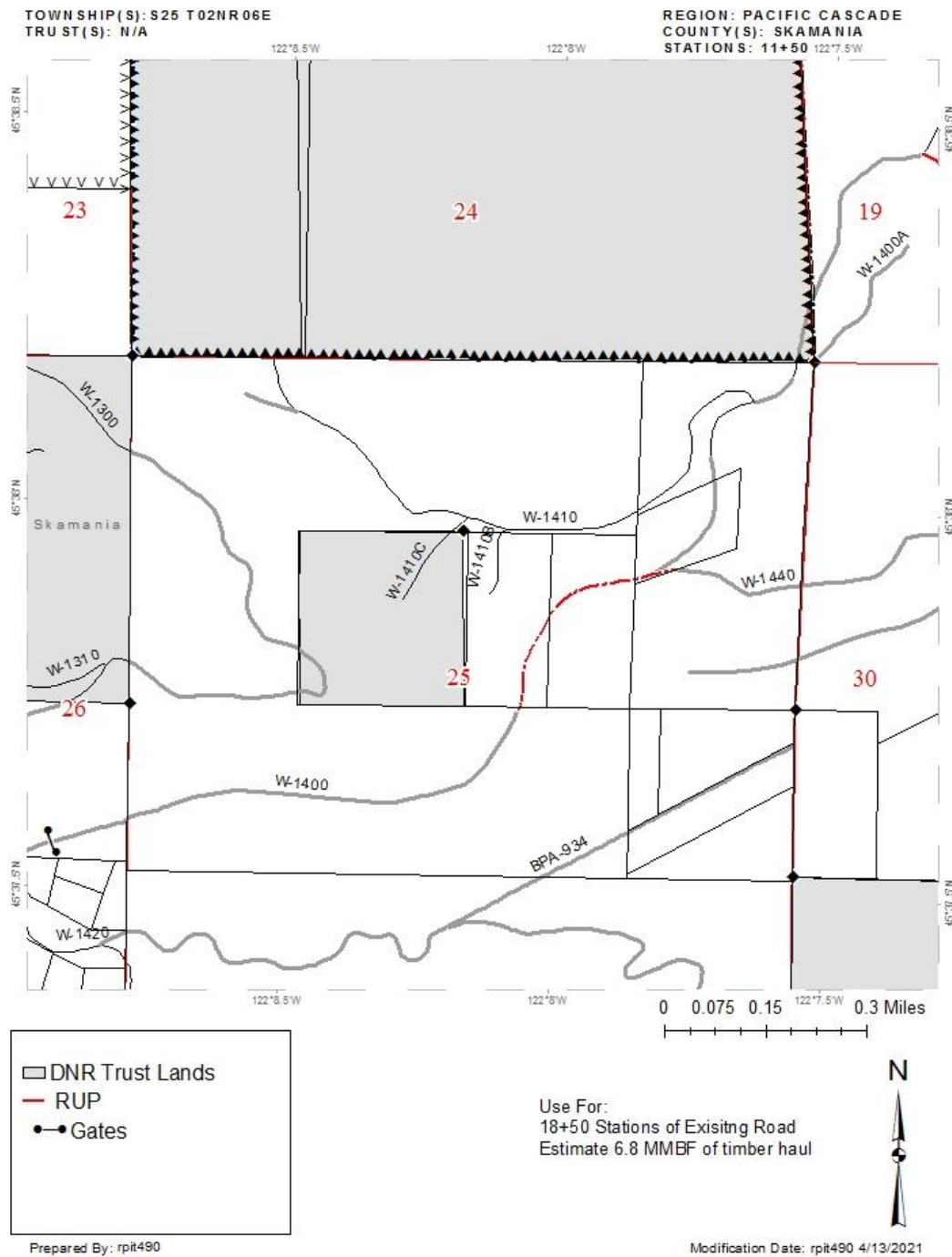
Phone No. 360-344-3100

Date: 11/28/2022

**Exhibit A**

**Legal Description**

**Portions of the S  $\frac{1}{2}$  of the NE  $\frac{1}{4}$  of Section 25, Township 02 North, Range 05 East, W.M.  
Skamania County, State of Washington**

**EXHIBIT B**

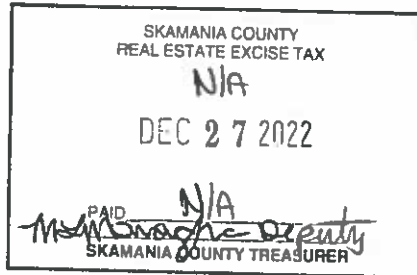
2022-002410

12/27/2022 12:44 PM



**When recorded return to:**

Department of Natural Resources  
Pacific Cascade Region  
Attn: Renee Wend  
PO Box 280  
Castle Rock, WA 98611



Grantor(s): WEYERHAEUSER TIMBER HOLDINGS, INC.

Grantee(s): STATE OF WASHINGTON, DEPARTMENT OF NATURAL RESOURCES

Legal Description: SE1/4NE1/4 of Section 25, Township 2 North, Range 6 East, W.M.; E1/2SW1/4 and SW1/4NE1/4 in Section 19; and the E1/2NW1/4 and Government Lots 1 and 2 in Section 30, Township 2 North, Range 6 East, W.M., Skamania County, Washington

Assessor's Property Tax Parcel or Account Number: 020600004100, 020600004000, 02052500010000

Cross Reference: AFN 98520, AFN 196474, AFN 8412270133

DNR Easement No. 55-000076

**THIRD EASEMENT AMENDMENT**

This Third Easement Amendment (this "Amendment"), is effective as DEC 6, 2022 ("Effective Date") by and between WEYERHAEUSER TIMBER HOLDINGS, INC., a Delaware corporation, successor by merger to Longview Fibre Company ("Weyerhaeuser") and STATE OF WASHINGTON, acting by and through the Department of Natural Resources ("State"). Weyerhaeuser and the State are referred to herein individually as a "Party", and collectively as, the "Parties".

**RECITALS**

WHEREAS, Weyerhaeuser and the State are parties to that certain easement supplement dated November 7, 1984, recorded November 26, 1984, in Volume 84 of Deeds, Pages 98-127 under Auditor's File No. 98520, and in the records of Klickitat County, Washington on December 10, 1984, in Volume 229 of Deeds, Pages 67-96 under Auditor's File No. 196474, and in the records of Clark County, Washington, on December 27, 1984, Pages 163-192 under Auditor's File No. 8412270113; and supplemented by Easement Supplement dated February 9, 1995, recorded February 16, 1995, in Volume 148, Pages 306-903; and amended by Easement Amendment dated November 20, 1995, recorded November 30, 1995, Volume 153, Pages 988-991 (collectively the "Amended Easement").

WHEREAS, Weyerhaeuser and State now desire to amend the Amended Easement pursuant to the terms and conditions set forth in this Amendment, and the Parties agree as follows:

### **AGREEMENT**

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties, the parties agree as follows:

A. The Amended Easement is hereby amended to delete access over a portion of the W-1400 which is located in the NE1/4NE1/4 of Section 25, Township 2 North, Range 6 East, W.M., Skamania County, Washington, which was abandoned in the 1990's, as shown on the attached Exhibit A.

B. The Amended Easement is hereby amended to add a new route over the W-1440 and W-1441 which is located in the SE1/4NE1/4 of Section 25, Township 2 North, Range 6 East, W.M.; E1/2SW1/4 and SW1/4NE1/4 in Section 19; and the E1/2NW1/4 and Government Lots 1 and 2 in Section 30, Township 2 North, Range 6 East, W.M., Skamania County, Washington as shown on the attached Exhibit A.

C. The recitals set forth above constitute an integral part of this Amendment and are incorporated herein by this reference with the same force and effect as if set forth herein.

D. Any capitalized terms not defined in this Amendment shall have the same meaning as set forth in the Easement.

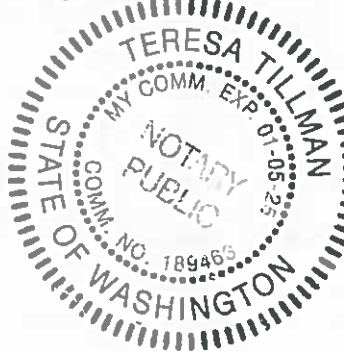
E. All remaining terms and conditions of the Easement not specifically modified by the terms of this Amendment shall continue in full force and effect.

*Remainder of page intentionally left blank*



By: Kristy Harlan  
Name: Kristy Harlan  
Its: Senior Vice President

Personally appeared before me, the undersigned authority in and for said county and state, on this 16<sup>th</sup> day of November, 2022, within my jurisdiction, the within named Kristy Harlan, who acknowledged that s/he is Senior Vice President of **WEYERHAEUSER TIMBER HOLDINGS, INC.**, a Delaware corporation, and that for and on behalf of the said corporation, and as its act and deed s/he executed the above and foregoing instrument, after first having been duly authorized by said corporation so to do.



Weyerhaeuser/State of Washington DNR  
T2021-92ps/T0210225244/55-000076

IN WITNESS WHEREOF, this Amendment is executed on the date of the acknowledgment below but shall be effective for all purposes as of the Effective Date.

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



By: Todd Welker fr

Name: Todd Welker  
Title: Acting Deputy Supervisor for State Uplands  
Date: 12/6/2022  
P.O. Box 7000  
1111 Washington Street SE  
Olympia WA 98504-7000  
Phone (360) 902-1000

STATE OF WASHINGTON

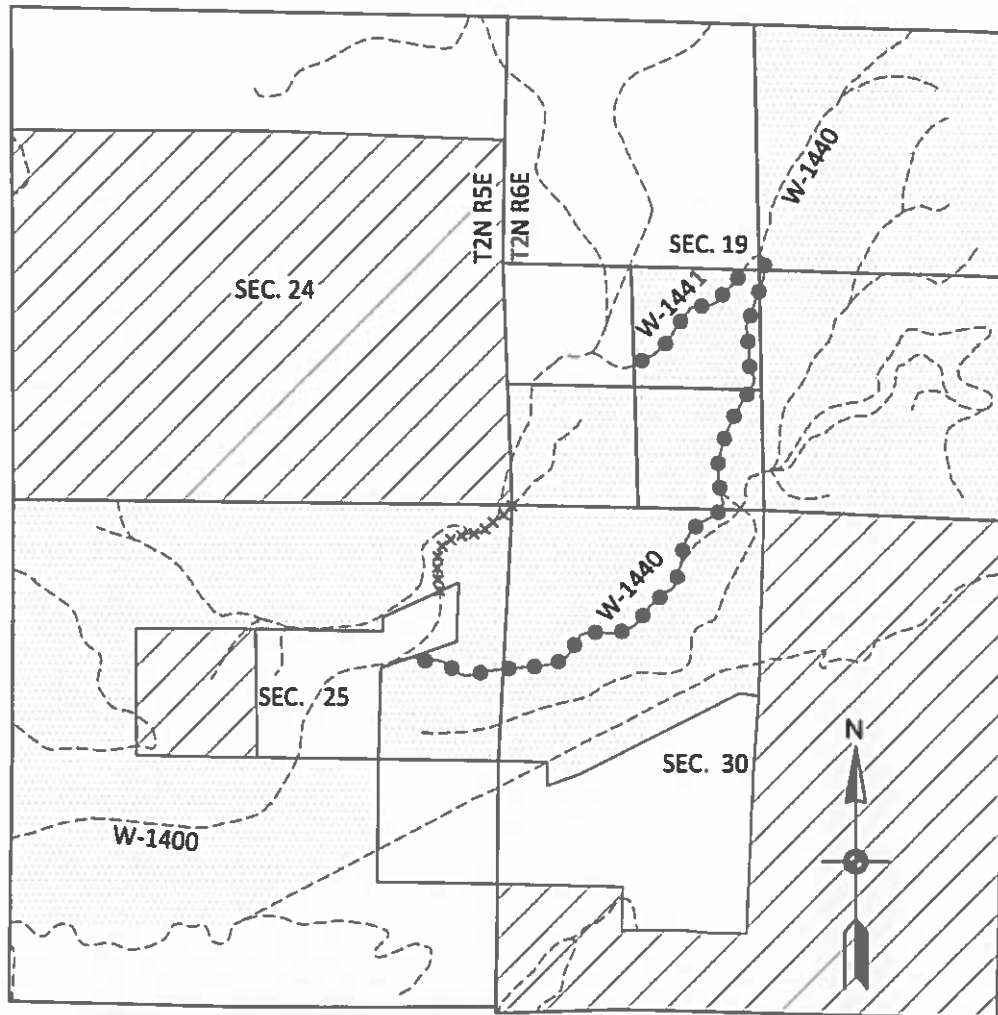
COUNTY OF Thurston

Personally appeared before me, the undersigned authority in and for said county and state, on this 6 day of December, 2022, within my jurisdiction, the within named TODD WELKER, who acknowledged that he is the Acting Deputy Supervisor for State Uplands of **STATE OF WASHINGTON, acting by and through the Department of Natural Resources** and that for and on behalf of the said corporation, and as its act and deed s/he executed the above and foregoing instrument, after first having been duly authorized by said corporation so to do.



Tami K Kellogg  
Notary Public for the State of Washington  
Print Name: Tami K Kellogg  
Residing at: McLean  
My appointment expires: 11/28/2024



## EXHIBIT A



MAP PREPARED: 7/29/2022



### LEGEND

- ROADS
-  WEYERHAEUSER
-  DNR
- EASEMENT AREA
- \*\*\*\*\* ABANDONED EASEMENT