



TIMBER NOTICE OF SALE

SALE NAME: MELODY THIN

AGREEMENT NO: 30-103808

AUCTION: April 26, 2023 starting at 10:00 a.m., **COUNTY:** Skagit
Northwest Region Office, Sedro Woolley, WA

SALE LOCATION: Sale located approximately 12 miles northeast of Arlington, WA.

**PRODUCTS SOLD
AND SALE AREA:**

All timber as described for removal in Schedule B, bounded by white timber sale boundary tags and the BC-37 abandoned road grade in Unit #1.

All timber as described for removal in Schedule B, bounded by white timber sale boundary tags and the BC-ML, BC-42 and BC-4215 roads in Unit #2.

All timber as described for removal in Schedule B, bounded by white timber sale boundary tags and the BC-3202 Road in Unit #3.

All timber as described for removal in Schedule B, bounded by white timber sale boundary tags and the BC-42 Road in Unit #4.

All timber within the perimeter of the existing right-of-way of the abandoned road grade.

All timber within 20 feet of centerline of the BC-4218 Road.

All forest products above located on part(s) of Sections 28, 29, 30, 31, 32 and 33 all in Township 33 North, Range 7 East, W.M., containing 400 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	Total Tons	Price \$/Ton	MBF by Grade							
						1P	2P	3P	SM	1S	2S	3S	4S
Douglas fir	12.1		2,147	17,275	\$8.30						14812,274	4,113	740
Hemlock	11.3		67	593	\$6.00							472	121
Red alder	12.3		34	337	\$5.00						21		288
Cottonwood	11.9		14	102	\$2.00								102
Sale Total			2,262	18,307									

MINIMUM BID: \$8.3/ton (est. value \$148,000.00)

BID METHOD: Sealed Bids

**PERFORMANCE
SECURITY:**

\$29,600.00

SALE TYPE: Tonnage Scale

EXPIRATION DATE: March 31, 2026

ALLOCATION: Export Restricted

BIDDABLE SPECIES: Douglas fir

BID DEPOSIT: \$14,800.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.



TIMBER NOTICE OF SALE

HARVEST METHOD: Cable or tethered equipment (See below for restrictions); shovel, forwarder, tracked skidder, feller-buncher or rubber-tired skidder or 6-wheeled-rubber-tired-skidders-with-over-the-tire-tracks-spanning-both-sets-of-rear-tires on sustained slopes 30% or less (See below for restrictions); Self-leveling equipment on sustained slopes 50% or less (See below for restrictions).

Purchaser must obtain prior written approval from the Contract Administrator for areas as to where to utilize self-leveling or tethered equipment prior to use. If ground disturbance is causing excessive damage, as determined by the Contract Administrator, the equipment will no longer be authorized.

Purchaser must obtain prior written approval from the Contract Administrator for areas as to where to utilize rubber-tired equipment prior to use. If ground disturbance is causing excessive damage, as determined by the Contract Administrator, the equipment will no longer be authorized. Falling and Yarding will not be permitted from November 1 to March 31 unless authorized in writing by the Contract Administrator (THIS PERTAINS TO GROUND-BASED EQUIPMENT ONLY) to reduce soil damage and erosion.

Additional restrictions apply, see Remarks section below.

ROADS: 99.15 stations of required construction. 441.93 stations of required prehaul maintenance.

Rock may be obtained from the following source(s) on State land at no charge to the Purchaser: BC-4215-01 Hardrock Pit at station 5+57 of the BC-4215 Road. BC-2007 Pit at station 39+44 of the BC-20 Road. BC-2009 Pit at station 49+38 of the BC-20 Road.

Development of existing rock sources will involve clearing, stripping and blasting to generate riprap, shot rock, and 3-inch-minus ballast rock.

An estimated total quantity of rock needed for this proposal: 329 cubic yards of riprap, 30 cubic yards of shot rock and 7,340 cubic yards of ballast rock.

Road work and the hauling of rock will not be permitted from November 1 to March 31 unless authorized in writing by the Contract Administrator to reduce soil damage and siltation. The hauling of forest products will not be permitted from November 1 to March 31 unless authorized in writing by the Contract Administrator to reduce soil damage and siltation.

ACREAGE DETERMINATION

CRUISE METHOD: Acres determined by GPS traverse. Cruise was conducted via variable plot sample type. See Cruise Narrative for further details. Shapefiles of units are available upon request, and on the DNR website after the BNR meeting in which the sale is presented.

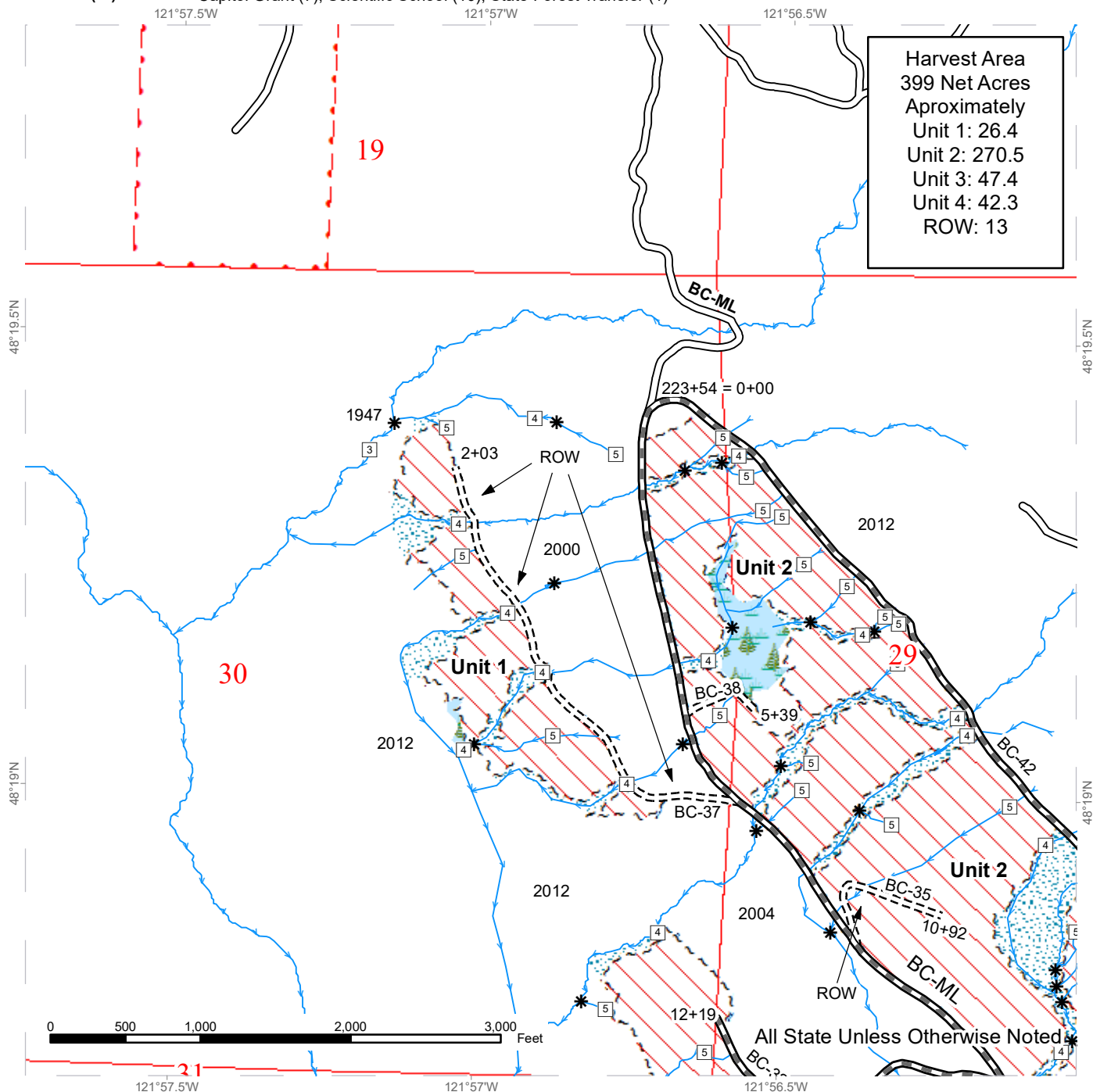
FEES: \$38,454.00 is due on day of sale. \$1.11 per ton is due upon removal. These are in addition to the bid price.

SPECIAL REMARKS: 1. Cutting and yarding shall not be permitted during the bark slippage season unless authorized in writing by the Contract Administrator. This season is estimated to run from April 1 to July 15, but may vary depending on weather conditions. If permission is granted to operate during the bark slippage season the purchaser shall be required to provide a plan outlining mitigation measures.

TIMBER SALE MAP

SALE NAME: Melody Thin
AGREEMENT #: 30-103808
TOWNSHIP(S): T32R7E
TRUST(S): Capitol Grant (7), Scientific School (10), State Forest Transfer (1)

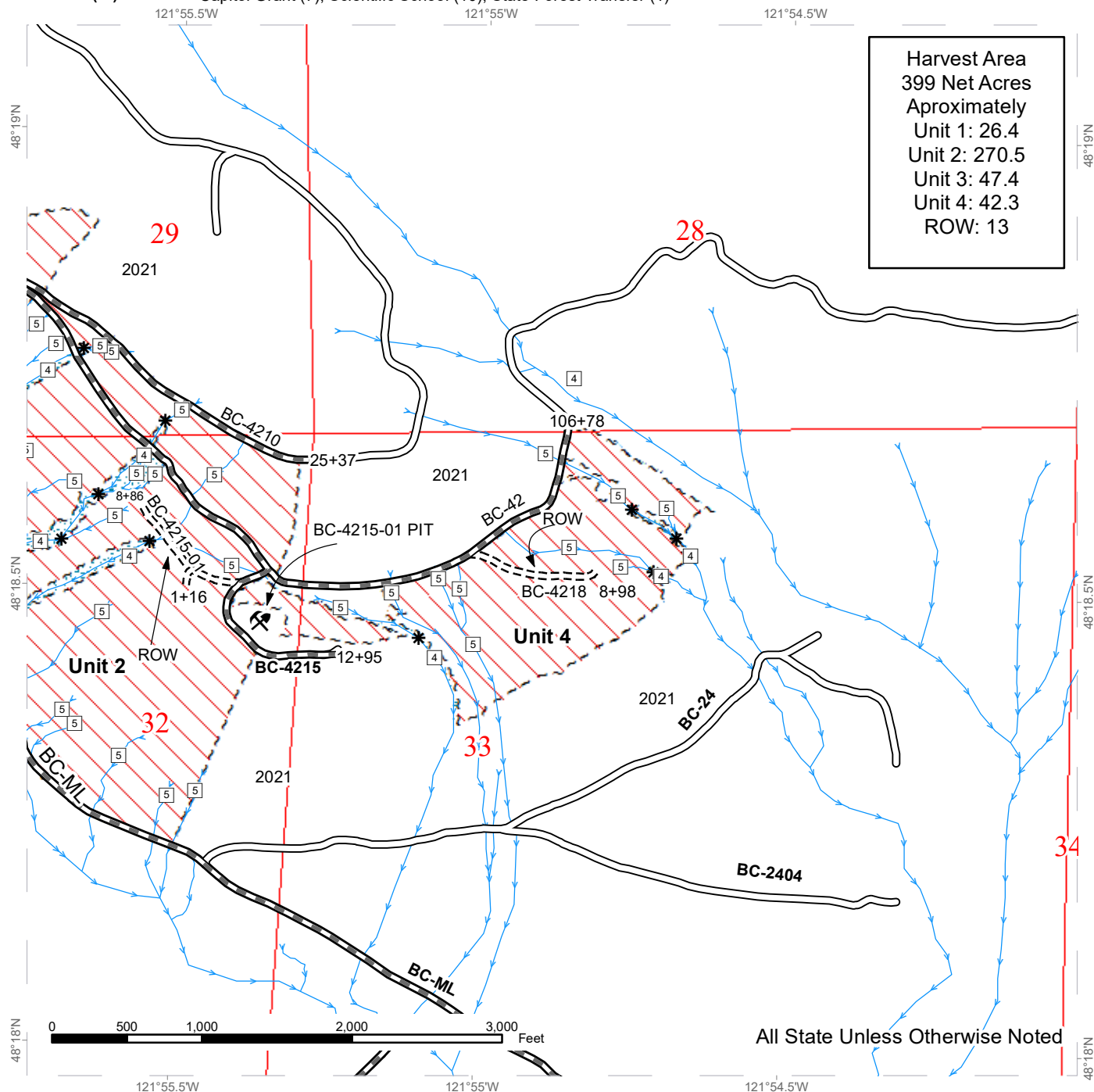
REGION: Northwest Region
COUNTY(S): Skagit
ELEVATION RGE: 1360-1640



TIMBER SALE MAP

SALE NAME: Melody Thin
AGREEMENT #: 30-103808
TOWNSHIP(S): T32R7E
TRUST(S): Capitol Grant (7), Scientific School (10), State Forest Transfer (1)

REGION: Northwest Region
COUNTY(S): Skagit
ELEVATION RGE: 1360-1640

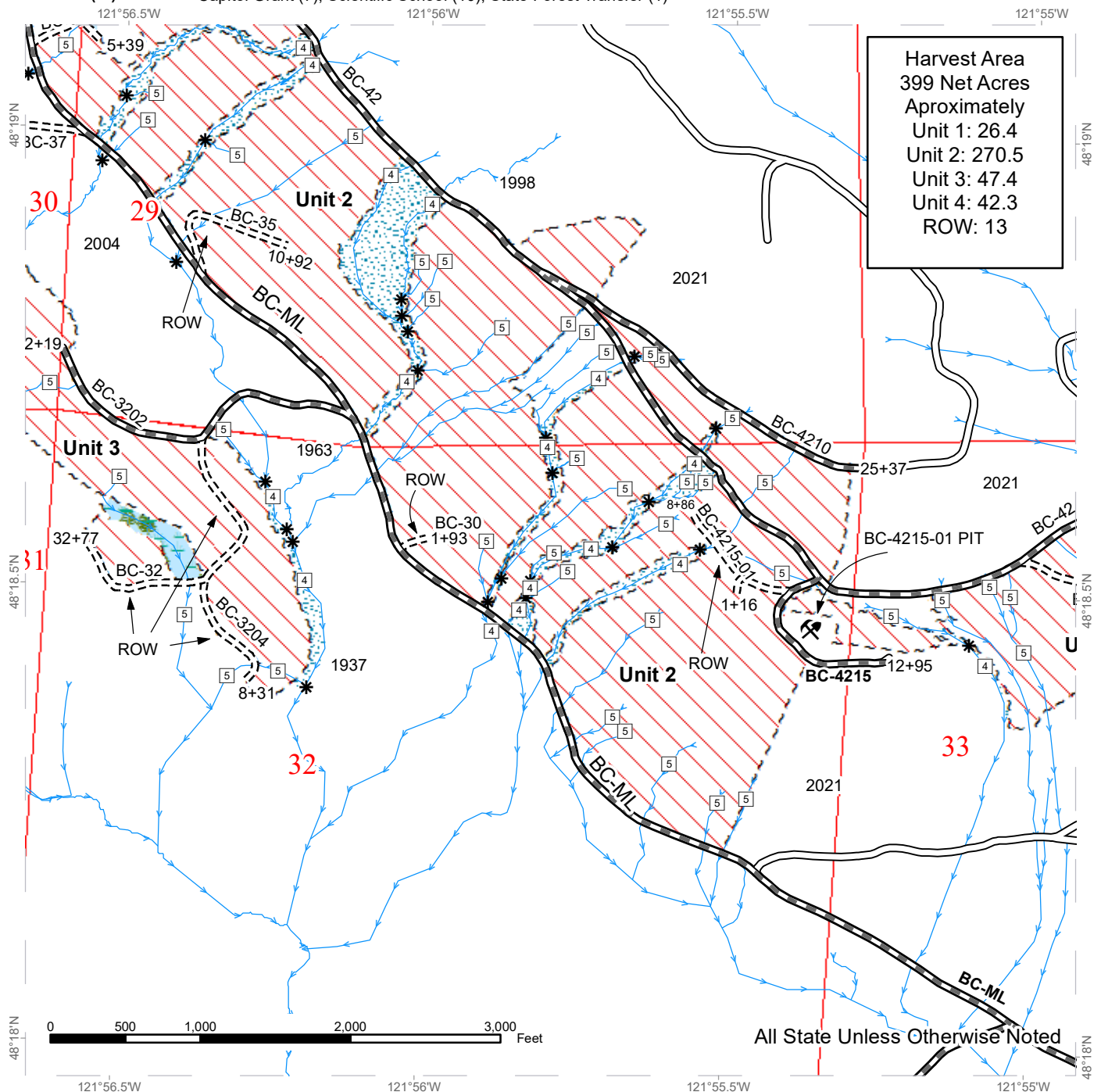


- | | |
|---------------------------|-------------------------------|
| Variable Density Thinning | Forested Wetland |
| Sale Boundary Tags | Existing Roads |
| Streams | New Construction |
| Stream Type 4 | County Road |
| Stream Type 3 | Required Pre-Haul Maintenance |
| Stream Type 5 | |
| Stream Break | |
| Riparian Mgt Zone | |

TIMBER SALE MAP

SALE NAME: Melody Thin
AGREEMENT #: 30-103808
TOWNSHIP(S): T32R7E
TRUST(S): Capitol Grant (7), Scientific School (10), State Forest Transfer (1)

REGION: Northwest Region
COUNTY(S): Skagit
ELEVATION RGE: 1360-1640



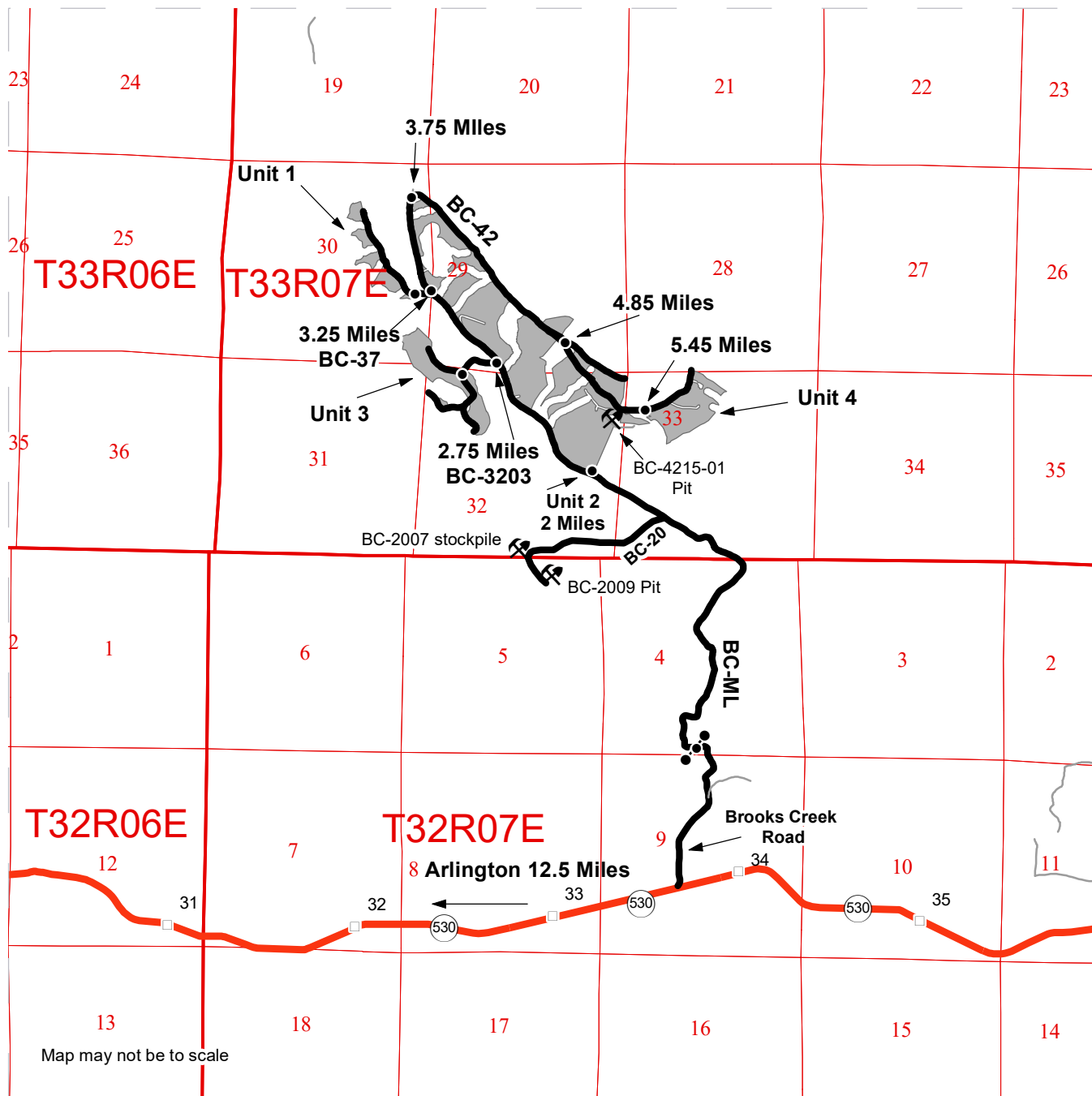
Harvest Area
 399 Net Acres
 Approximately
 Unit 1: 26.4
 Unit 2: 270.5
 Unit 3: 47.4
 Unit 4: 42.3
 ROW: 13



DRIVING MAP

SALE NAME: Melody Thin
AGREEMENT#: 30-103808
TOWNSHIP(S): T32R7E
TRUST(S): State Forest Transfer (1), Capitol Grant (7), Scientific School (10)

REGION: Northwest Region
COUNTY(S): Skagit
ELEVATION RGE: 1360-1640



DRIVING DIRECTIONS:

From Arlington: Head northeast on WA-530 for 12.5 miles. Turn left onto N Brooks Creek road, travel .5 miles, stay left at the Y Intersection. Travel another .3 miles to reach the BC-ML gate. Continue 2 miles on the ML to reach the start of the sale area.

-Unit 2: At the 2 mile point, unit 2 will be on your right hand side.

-Unit 3: At 2.75 miles turn left onto BC-3202. Continue 0.25 miles to reach unit 3

-Unit 1: At 3.25 miles turn left onto BC-3702. Continue 0.10 miles to reach unit 1.

-Unit 4: At 3.75 miles turn right onto BC-42 Continue for 1.7 mile to reach unit 4

**STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES**

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

Export Restricted Tonnage Scale AGREEMENT NO. 30-0103808

SALE NAME: MELODY THIN

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

Section G: General Terms

G-001 Definitions

The following definitions apply throughout this contract;

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

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

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

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

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

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

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

G-010 Products Sold and Sale Area

Purchaser was the successful bidder on April 26, 2023 and the sale was confirmed on _____. The State, as owner, agrees to sell to Purchaser, and Purchaser agrees to purchase, cut, and remove the following forest products: All timber as described for removal in Schedule B, bounded by white timber sale boundary tags and the BC-37 abandoned road grade in Unit #1.

All timber as described for removal in Schedule B, bounded by white timber sale boundary tags and the BC-ML, BC-42 and BC-4215 roads in Unit #2.

All timber as described for removal in Schedule B, bounded by white timber sale boundary tags and the BC-3202 Road in Unit #3.

All timber as described for removal in Schedule B, bounded by white timber sale boundary tags and the BC-42 Road in Unit #4.

All timber within the perimeter of the existing right-of-way of the abandoned road grade.

All timber within 20 feet of centerline of the BC-4218 Road., located on approximately 400 acres on part(s) of Sections 28, 29, 30, 31, 32, and 33 all in Township 33 North, Range 7 East W.M. in Skagit County(s) as shown on the attached timber sale map and as designated on the sale area.

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

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

G-020 Inspection By Purchaser

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

G-025 Schedules

The following attached schedules are hereby incorporated by reference:

Schedule	Title
B	Thinning Prescription

G-030 Contract Term

Purchaser shall remove the forest products conveyed and complete all work required by this contract prior to March 31, 2026.

G-040 Contract Term Adjustment - No Payment

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

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

G-050 Contract Term Extension - Payment

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

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

- b. Completion of all required roads and compliance with all contract and regulatory requirements.
- c. For the first extension, not to exceed 1 year, payment of at least 25 percent of the contract value based on the contract payment rate and advertised volume.

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

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

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

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

- e. Payment of \$3.00 per acre per annum for the acres on which an operating release has not been issued in the sale area.
- f. In no event will the extension charge be less than \$200.00.
- g. Extension payments are non-refundable.

G-053 Surveys - Sensitive, Threatened, Endangered Species

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

G-060 Exclusion of Warranties

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

- a. The MERCHANTABILITY of the forest products. The use of the term "merchantable" in any document is not intended to vary the foregoing.
- b. The CONDITION of the forest products. The forest products will be conveyed "AS IS."

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

G-061 Inadvertent Discovery of Cultural Resources

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

G-062 Habitat Conservation Plan

The State has entered into a Habitat Conservation Plan (HCP) with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (the Services) to address

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

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

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

G-063 Incidental Take Permit Notification Requirements

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

- c. Purchaser shall refer to a specific ITP number, ITP TE812521-1 or ITP 1168 (copies which are located in the region office) in all correspondence and reports concerning permit activities.
- d. Provisions and requirements of the ITP shall be clearly presented and explained to Purchaser by Contract Administrator during the Pre-Work Conference as per contract clause G-330. All applicable provisions of the ITP and this schedule must be presented and clearly explained by Purchaser to all authorized officers, employees, contractors, or agents of Purchaser conducting authorized activities in the timber sale area. Any questions Purchaser may have about the ITP should be directed to the Contract Administrator.

G-064 Permits

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

G-065 Regulatory Disclaimer

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

G-066 Governmental Regulatory Actions

a. Risk

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

b. Sale Area

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

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

c. Adjustment of Price

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

G-070 Limitation on Damage

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

G-080 Scope of State Advice

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

G-090 Sale Area Adjustment

The Parties may agree to adjustments in the sale area boundary. The cumulative changes to the sale area during the term of the contract shall not exceed more than four percent of the original sale area. If the sale area is increased, added forest products become a part of this contract and shall be paid for at the same rate and manner as other forest products under this contract.

G-100 Forest Products Not Designated

Any forest products not designated for removal, which must be removed in the course of operations authorized by the State, shall be approved and designated by the Contract Administrator. Added forest products become a part of this contract and shall be paid for at the same rate and manner as other forest products under this contract.

G-105 Adding Naturally Damaged Forest Products

Any forest products not designated for removal that are seriously damaged by disease, insects or wind, or that may contribute seriously to the spread of insect or disease

damage may be added to this sale by the Contract Administrator. Additions must be in unlogged areas of the sale and added volume shall not exceed an amount equal to 10 percent of the original advertised volume. Added forest products become a part of this contract and shall be paid for at the same rate and manner as other forest products under this contract.

G-110 Title and Risk of Loss

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

G-116 Sustainable Forestry Initiative® (SFI) Certification

Forest products purchased under this contract are certified as being in conformance with the Sustainable Forestry Initiative 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 Sedro Woolley, Washington. The Region Manager will notify Purchaser in writing who is responsible for administering the contract. The Region Manager has sole authority to waive, modify, or amend the terms of this contract in the manner prescribed in clause G-180. No agent, employee, or representative of the State has any authority to bind the State to any affirmation, representation, or warranty concerning the forest products conveyed beyond the terms of this contract.

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

G-170 Assignment and Delegation

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

G-180 Modifications

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

G-190 Contract Complete

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

G-200 Notice

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

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

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

G-210 Violation of Contract

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

G-220 State Suspends Operations

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

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

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

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

G-230 Unauthorized Activity

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

G-240 Dispute Resolution

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

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

G-250 Compliance with All Laws

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

G-260 Venue

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

G-270 Equipment Left on State Land

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

G-280 Operating Release

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

G-310 Road Use Authorization

Purchaser is authorized to use the following State roads and roads for which the State has acquired easements and road use permits; BC-ML (Brooks Creek Mainline), BC-20, BC-31, BC-32, BC-3202, BC-3204, BC-35, BC-37, BC-3706, BC-38, BC-42, BC-4210, BC-4215, BC-4215-01, BC-4215-0101, and BC-4218 roads. 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 BC-ML Road, unless authority is granted in writing by the Contract Administrator.

G-430 Open Fires

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

G-450 Encumbrances

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

DATA MISSING

Section P: Payments and Securities**P-010 Initial Deposit**

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

P-024 Payment for Forest Products

Purchaser agrees to weigh all loads and pay the following rate per ton for forest products conveyed plus \$38,454.00 on day of sale and \$1.11 per ton upon removal in fees. Fees collected shall be retained by the state unless the contract is adjusted via the G-066 clause.

DATA MISSING

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

P-027 Payment for Removal of Optional Forest Products

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

P-040 Weighing and Scaling Costs

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

P-045 Guarantee of Payment

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

P-052 Payment Procedure

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

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

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

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

Forest products included in this agreement which are destroyed, damaged, stolen, lost, or mismatched shall be paid for by Purchaser on demand of the State. The rates contained in clause P-024 shall apply.

P-080 Payment Account Refund

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

P-090 Performance Security

Purchaser agrees to furnish, within 30 days of the confirmation date, security acceptable to the State in the amount of \$29,600.00. The Security provided shall

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

P-100 Performance Security Reduction

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

Section L: Log Definitions and Accountability

L-060 Load Tickets

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

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

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

L-071 Log and Load Reporting Service

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

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

L-110 State Approval of Log Scaling and Weighing Locations

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

Prior to forest products being hauled, the Contract Administrator must authorize in writing the use of State approved measurement and/or weighing facilities that are at or enroute to final destinations. Forest products from this sale shall be measured or weighed at facilities, which are currently approved for use by the State and are currently authorized for this sale. The State reserves the right to verify load volume and weights with State employees or contractors at the State's own expense. The State reserves the right to revoke the authorization of previously approved measurement locations.

Section H: Harvesting Operations**H-001 Operations Outside the Sale Boundaries**

No operations shall occur outside the sale boundaries, as described within the contract, unless approved in writing by the State.

H-010 Cutting and Yarding Schedule

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

H-011 Certification of Fallers and Yarder Operators

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

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

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

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

When leave tree damage exceeds the limits set forth in clause H-012,

Purchaser shall be subject to liquidated damages (clause D-040)

When reserve tree damage exceeds the limits set forth in clause H-013,

Purchaser shall be subject to liquidated damages (clause D-041).

H-012 Leave Tree Damage Definition

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

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

- a. A leave tree has one or more scars on its trunk exposing the cambium layer, which in total exceeds 200 square inches.
- b. A leave tree top is broken or the live crown ratio is reduced below 30 percent.
- c. A leave tree has more than 1/3 of the circumference of its root system injured such that the cambium layer is exposed.

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

H-016 Skid Trail Requirements

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

Purchaser shall comply with the following during the yarding operation:

- a. A skid trail will not exceed 18 feet in width, including rub trees.
- b. Skid trails shall not cover more than 20 percent of the total acreage on one unit.
- c. Location of the skid trails must be marked by Purchaser and approved by the Contract Administrator.
- d. 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. Purchaser will not have more than two skid trails open to active skidding at any one time. All other skid trails used for skidding timber will be closed.
- h. Once a skid trail is closed, Purchaser will not reopen a skid trail unless approved in writing by the Contract Administrator.

- i. Skid trails will be water barred at the time of completion of yarding, if required by the Contract Administrator.

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

H-017 Preventing Excessive Soil Disturbance

Operations may be suspended when soil rutting exceeds 8 inches as measured from the natural ground line. To reduce soil damage, the Contract Administrator may require water bars to be constructed, grass seed to be placed on exposed soils, or other mitigation measures. Suspended operations shall not resume unless approval to do so has been given, in writing, by the Contract Administrator.

H-018 Temporary Stream Crossings

A temporary stream crossing is required to access a portion of Unit 1.

Purchaser shall comply with the following during the yarding operation:

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

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

H-025 Timing Requirements for Timber Removal

All timber must be removed within 4 weeks of being felled.

H-030 Timber Falling

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

H-035 Fall Trees Into Sale Area

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

H-040 Purchaser Harvest Plan

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

H-050 Rub Trees

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

H-052 Branding and Painting

Forest products shall be branded with a brand furnished by the State prior to removal from the landing. All purchased timber shall be branded in a manner that meets the requirements of WAC 240-15-030(2)(a)(i). All timber purchased under a contract designated as export restricted shall also be painted in a manner that meets the requirements of WAC 240-15-030(2)(a)(ii).

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

H-080 Snags Not to be Felled

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

H-110 Stump Height

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

H-120 Harvesting Equipment

Forest products sold under this contract shall be harvested and removed using cable or tethered equipment (See H-141 for restrictions); shovel, forwarder, feller-buncher, tracked skidder, rubber tired skidder or 6-wheeled-rubber-tired-skidders-with-over-the-tire-tracks-spanning-both-sets-of-rear-tires on sustained slopes 30% or less (See H-141 for restrictions); Self-leveling equipment on sustained slopes 50% or less (See H-141

for restrictions). 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. Full suspension is required within 25 feet of streams in the areas of Hazel WAU ARS12.

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-130 Hauling Schedule

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

H-140 Special Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

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

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

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

FORWARDER is defined as a track or rubber tire machine used for transporting logs to a landing by use of a bunk with self loading boom in which logs are carried free of the ground.

RUBBER-TIRED SKIDDER is defined as a skidder mounted on rubber tires used to drag logs to a landing. Logs are generally pulled in groups of six or less, with one end on the ground.

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

B. Equipment shall remain at least 30 feet from all water courses or areas of wet/soft soils, except as necessary to cross at approved locations. Water course crossing structures must be approved by the Contract Administrator.

C. When yarding and loading operations are occurring simultaneously, an additional shovel shall be required for loading to avoid extra trips to the landing. Shovel yarding

shall not be allowed to create ruts or soil puddling. Shovel routes should be dispersed to prevent creation of definable trails.

D. An on-site pre-work meeting that includes the Contract Administrator and Purchaser will be required after operations have been disrupted (leading to a cessation of operations) or operations moved off site for a period of more than two weeks before any activities resume on site.

E. Falling and Yarding shall occur away from all typed waters where possible. Avoid parallel cable yarding in, across, or adjacent to stream channels where possible. All type 5 streams shall have a 30-foot equipment exclusion zone measured from each bank. The limited crossings shall be as close to perpendicular as possible.

F. The Purchaser shall mark and the Contract Administrator must approve all Type 5 stream crossings. Front end suspension is required over all streams.

F. Purchaser shall ensure all gates associated with this project remain closed and locked, during operations with the exception of periods of hauling. When hauling, the Purchaser shall ensure all gates are closed, and locked at the end of each day.

G. Cutting and yarding shall not be permitted during the bark slippage season unless authorized in writing by the Contract Administrator. This season is estimated to run from April 1 to July 15, but may vary depending on weather conditions. If permission is granted to operate during the bark slippage season the Purchaser shall be required to provide a plan outlining mitigation measures.

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

H-141 Additional Harvest Requirements

Purchaser shall accomplish the following during the harvest operations:

A. A copy of the timber sale map, contract, and the FPA shall be present on site during active operations.

B. Purchaser must obtain prior written approval from the Contract Administrator for areas as to where 6-wheeled-rubber-tired-skidders-with-over-the-tire-tracks-spanning-both-sets-of-rear-tires can operate. If ground disturbance is causing excessive damage, as determined by the Contract Administrator, the equipment will no longer be authorized.

C. Prior written approval of the Contract Administrator is required before tethered or self-leveling equipment may be used. If ground disturbance is causing excessive damage, as determined by the Contract Administrator, the use of this equipment will no longer be authorized.

D. Hazel WAU RX

ARS 11- Portions of harvest Units 2 and 4 shall occur in this ARS. The following road techniques shall be utilized:

1. All mineral soils exposed by road constructions/reconstruction shall be grass seeded.
2. During wet conditions, road ballast shall be no more than 500 feet from the pioneering.
3. When road construction crosses stream channels or seeps, the water must be kept in its original location.
4. Road drainage shall be directed away from inner gorge areas.
5. Existing and reconstruction roads shall be upgraded to meet Future Road Construction prescriptions.

ARS 12- Portions of harvest Units 2 and 4 will take place in this ARS. The following general, ground-based operation, and cable operation techniques shall be utilized:

1. Number of stream crossings shall be minimized.
2. Proposed landings shall be located a minimum of 50 feet from any stream channel subject to this ARS.
3. All Type 4 and 5 waters and stream crossings shall be identified on the FPA map and application.
4. 25-foot no-harvest buffers have been applied to all Type 4 streams, with the exception of road crossings.
5. If adjacent to stream channels, harvest techniques should follow standard fall away, yard away practices when feasible.
6. Stream channel integrity shall be maintained during all harvest operations which may require the use of temporary crossing structures when water is present.

Ground-Based Operations:

1. With the exception of pre-approved stream crossings, no equipment shall be allowed within 25 feet of any stream channel.
2. With the exception of pre-approved stream crossings, no skid trails shall be allowed within 50 feet of any stream channel.
3. No ground-based equipment shall operate on slopes greater than 30%.
4. At the conclusion of the operation, skid trail drainage shall be established at intervals not exceeding 200 feet; within 200 feet of any stream channel, skid trail drainage shall be established at intervals not exceeding 75 feet.

Cable Operations:

1. A minimum of front end suspension shall be used on all cable yarding operations, if the use of front end suspension will not ensure the maintenance of stream channel integrity, full suspension must be utilized. No soil disturbance shall be allowed within 25 feet of any stream.

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

H-150 Required Removal of Forest Products

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

Species	Net bd ft	Log length (ft)	Log dib
Conifer	20	12	5

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

H-157 Optional Removal of Forest Products Not Designated

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

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

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

H-160 Mismanufacture

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

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

H-180 Removal of Specialized Forest Products or Firewood

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

H-190 Completion of Settings

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

H-220 Protection of Residual or Adjacent Trees

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

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

Road construction and associated work provisions of the Road Plan for this sale, dated 7/29/2022 are hereby made a part of this contract.

C-050 Purchaser Road Maintenance and Repair

Purchaser shall perform work at their own expense on the BC-31, BC-32, BC-3202, BC-3204, BC-35, BC-37, BC-3706, BC-38, BC-42, BC-4210, BC-4215, BC-4215-01, BC-4215-0101, and BC-4218 roads. 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 the BC-ML and BC-20 roads. Purchaser shall furnish a statement in a form satisfactory to the State showing the costs incurred while performing this work. Costs shall be based on the rates set forth in the equipment rate schedule on file at the Region office or Engineering Division in Olympia. The State shall reimburse Purchaser for said costs within 30 days of receipt and approval of the statement.

C-080 Landing Locations Approved Prior to Construction

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

C-090 Landing Location

Landings shall be built 50 feet off the BC-ML road(s).

C-130 Dust Abatement

Purchaser shall abate dust on the BC-ML (MP 0.0 to MP 0.3 Gate) while hauling.

Section S: Site Preparation and Protection

S-001 Emergency Response Plan

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

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

S-010 Fire Hazardous Conditions

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

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

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

S-030 Landing Debris Clean Up

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

S-035 Logging Debris Clean Up

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

S-050 Cessation of Operations for Low Humidity

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

S-060 Pump Truck or Pump Trailer

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

S-100 Stream Cleanout

Slash or debris which enters any type 5 stream as a result of operations under this contract and which is identified by the Contract Administrator shall be removed and

deposited in a stable position. Removal of slash or debris shall be accomplished in a manner that avoids damage to the natural stream bed and bank vegetation.

S-130 Hazardous Materials

a. Hazardous Materials and Waste - Regulatory Compliance

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

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

b. Hazardous Materials Spill Prevention

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

c. Hazardous Materials Spill Containment, Control and Cleanup

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

d. Hazardous Material Release Reporting

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

-Department of Emergency Management at 1-800-258-5990

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

S-131 Refuse Disposal

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

Section D: Damages

D-010 Liquidated Damages

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

D-021 Failure to Remove Forest Products

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

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

Where:

LD = Liquidated Damage value.

V = The unremoved value at the date of breach of contract. The value is determined by subtracting the removal tonnage to date from the cruised tonnage multiplied by the contract bid rates.

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

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

- C = Charges assessed for contract requirements completed prior to breach of contract but not paid for.
- A = Administrative Fee = \$2,500.00.

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

Where:

- r = daily equivalent of an annual interest at current interest rate as established by WAC 332-100-030.
- LD = Liquidated damage value.
- N = Number of days from date of breach to date payment is received.

D-030 Inadequate Log Accountability

Removal of forest products from the sale area without adequate branding and/or valid load tickets attached to the load and scaling forest products in a location other than the facility approved by the State can result in substantial injury to the State. Failure to properly account for loads and scaling and/or weighing information can result in loss to the State. The potential loss from not having proper branding, ticketing, scaling and/or weighing location and accountability is not readily ascertainable. Purchaser's failure to perform results in a loss of log weight and scale accountability, increases the potential for unauthorized removal of forest products, and increases the State's administration costs, the actual costs of which are difficult to assess.

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

D-040 Leave Tree Excessive Damage

When Purchaser's operations exceed the damage limits set forth in clause H-012, Leave Tree Damage Definition, the trees damaged result in substantial injury to the State. The

DRAFT

DRAFT

DRAFT

value of the damaged leave trees at the time of the breach is not readily ascertainable. Therefore, Purchaser agrees to pay the State as liquidated damages at the rate of \$250.00 per tree for all damaged trees in the sale area.

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: _____

Jay Guthrie

Northwest 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 _____

Schedule B
Thinning Prescription

Thinning Prescription: Units 1-4 (Smallwood Thin)

- Purchaser shall leave a residual stand that will achieve the following evenly distributed across each unit:

Average spacing of 17 feet x 17 feet

To accomplish this prescription, fallers shall harvest trees starting with smallest diameter trees working up to the larger trees (thin from below), with no trees over 14 inches dbh shall be cut. The following take tree preference shall be followed to achieve the desired residual stand spacing:

- 1) All hardwoods
- 2) Western Hemlock
- 3) Defective or diseased Douglas-fir
- 4) Smallest diameter Douglas-fir

- Examples of defect are trees with broken tops and little canopy, well developed spike knots, and highly sinuous forms which should be prioritized for take.
- Where the prescription would leave an opening greater than 30 feet in diameter, the Purchaser must leave a conifer take tree from the largest diameter, largest crown class that has the best form and is undamaged.
- Corridors are limited to 14 feet wide (including rub trees) and no less than 70 feet apart as measured from the center of the corridor. Where possible corridors should be located in a manner that minimizes the chance of damaging or needing to remove any leave trees. No yarding shall take place on slopes greater than 35%.
- Western redcedar is not to be cut without prior approval of the Contract Administrator (CA). Only trees necessary to facilitate harvest operations or those which pose safety hazards shall be considered for approval.

Riparian Forest Restoration Strategy Trees

Purchaser shall mark 5 trees per acre of RMZ for riparian enhancement. These 5 trees must be trees that would otherwise have been cut to meet the prescription. Once approved by the Contract Administrator, the purchaser shall fell 3 per acre towards the stream for Large Woody Debris and the remaining two per acre shall be girdled by the purchaser to create snags. Girdling shall expose the cambium the entire circumference of the tree for a width of no less than

3 inches. Snags created by mechanized equipment shall be at least 20 feet tall and tops are to remain on site. See timber sale maps and the table below for number of trees and locations.

RMZ ----- IDENTIFIER	RMZ ACRES-----	NUMBER OF SNAG ----- CREATION TREES	NUMBER OF FELLED TREES
Unit 1-----	5.8-----	12-----	17
Unit 2-----	37.6-----	75-----	113
Unit 3-----	1.8-----	4-----	5
Unit 4-----	3.8-----	8-----	11
Total-----	49-----	99-----	146



WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

FOREST EXCISE TAX ROAD SUMMARY SHEET

Region:

Timber Sale Name:

Application Number:

EXCISE TAX APPLICABLE ACTIVITIES

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

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

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

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

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

EXCISE TAX EXEMPT ACTIVITIES

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

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

All parties must make their own assessment of the taxable or non-taxable status of any work performed under the timber sale contract. The Department of Revenue bears responsibility for determining forest road excise taxes. The Department of Natural Resources developed this form to help estimate the impact of forest excise taxes. However, the information provided may not precisely calculate the actual amount of taxes due. The Department of Revenue is available for consultation by calling 1.800.548.8829.
(Revised 9/18)

PRE-CRUISE NARRATIVE

Sale Name: Melody Thin	Region: Northwest
Agreement #: 30-103808	District: Clear Lake
Contact Forester: Bailey Vos Phone / Location: 360-815-9227	County(s): Choose a county, Skagit
Alternate Contact: Grant Becker Phone / Location: 360-595-3448	Other information:

Type of Sale: Weight Scale	
Harvest System: Ground based	See logging plan map
Harvest System: Uphill Cable	See logging plan map

UNIT ACREAGES AND METHOD OF DETERMINATION:

Unit # Harvest R/W or RMZ WMZ	Legal Description (Enter only one legal for each unit) Sec/Twp/Rng	Grant or Trust	Gross Proposal Acres	Deductions from Gross Acres (No harvest acres)				Net Harvest Acres	Acreage Determination (List method and error of closure if applicable)
				RMZ/WMZ Acres	Leave Tree Acres	Existing Road Acres	Other Acres (describe)		
1	30/T33R07E	10,7	18.6	0	0	0	0	18.6	GPS (Garmin)
1 RMZ	30/T33R07E	10,7	5.8	0	0	0	0	5.8	Combination
1 WMZ	30/T33R07E	10	2	0	0	0	0	2	Combination
1 ROW	30/T33R07E	10,7	3.8	0	0	0	0	3.8	Combination
2	30/T33R07E 29/T33R07E 32/T33R07E 33/T33R07E	10,7 ,1	227.4	0	0	4.9	0	222.5	GPS (Garmin)
2 RMZ	30/T33R07E 29/T33R07E 32/T33R07E	10,7 ,1	37.6	0	0	0	0	37.6	Combination
2 WMZ	30/T33R07E 29/T33R07E	1,7	10.4	0	0	0	0	10.5	Combination

2 ROW	30/T33R07E 29/T33R07E 32/T33R07E 33/T33R07E	1,7	3.9	0	0	0	0	3.9	Combination
3	30/T33R07E 29/T33R07E 31/T33R07E 32/T33R07E 33/T33R07E	10,1	37.6	0	0	0	0	37.6	GPS (Garmin)
3 RMZ	30/T33R07E 32/T33R07E	1,10	1.8	0	0	0	0	1.8	Combination
3 WMZ	32/T33R07E	1	8	0	0	0	0	8	Combination
3 ROW	32/T33R07E	1,10	4	0	0	0	0	4	Combination
4	33T33R07E 28/T33R07E	1	38.5	0	0	0	0	38.5	GPS (Garmin)
4 RMZ	33/T33R07E	1	3.8	0	0	0	0	3.8	Combination
4 ROW	33/T33R07E	1	1.3	0	0	0	0	1.3	Combination
TOTAL ACRES			404.5	0	0	4.9	0	399.6	

HARVEST PLAN AND SPECIAL CONDITIONS:

Unit #	Harvest Prescription: (Leave, take, paint color, tags, flagging etc.)	Special Management areas:	Other conditions (# leave trees, etc.)
1	Small Wood Thinning. Trees will be thinned as per the prescription listed in the Schedule B.	NA	
1 RMZ	Small Wood Thinning. Trees will be thinned as per the prescription listed in the Schedule B.	NA	
1 WMZ	Small Wood Thinning. Trees will be thinned as per the prescription listed in the Schedule B.	NA	
1 ROW	ROW along abandoned road	NA	
2	Small Wood Thinning. Trees will be thinned as per the prescription listed in the Schedule B.	NA	
2 RMZ	Small Wood Thinning. Trees will be thinned as per the prescription listed in the Schedule B.	NA	

2 WMZ	Small Wood Thinning. Trees will be thinned as per the prescription listed in the Schedule B.	NA	
2 ROW	ROW along abandoned road	NA	
3	Small Wood Thinning. Trees will be thinned as per the prescription listed in the Schedule B.	NA	
3 RMZ	Small Wood Thinning. Trees will be thinned as per the prescription listed in the Schedule B.	NA	
3 WMZ	Small Wood Thinning. Trees will be thinned as per the prescription listed in the Schedule B.	NA	
3 ROW	ROW along abandoned road	NA	
4	Small Wood Thinning. Trees will be thinned as per the prescription listed in the Schedule B.	NA	
4 RMZ	Small Wood Thinning. Trees will be thinned as per the prescription listed in the Schedule B.	NA	
4 ROW	ROW along abandoned road	NA	

OTHER PRE-CRUISE INFORMATION:

Unit #	Primary,secondary Species / Estimated Volume (MBF)	Access information (Gates, locks, etc.)	Photos, traverse maps required
1	DF, WH 190 MBF	Brooks Creek road system, F1-3	
1 RMZ	DF, WH 67 MBF	Brooks Creek road system, F1-3	
1 WMZ	DF, WH 24 MBF	Brooks Creek road system, F1-3	
1 ROW	DF, WH 35 MBF	Brooks Creek road system, F1-3	
2	DF, WH 2350 MBF	Brooks Creek road system, F1-3	
2 RMZ	DF, WH 390 MBF	Brooks Creek road system, F1-3	
2 WMZ	DF, WH 118 MBF	Brooks Creek road system, F1-3	

2 ROW	DF, WH 67 MBF	Brooks Creek road system, F1-3	
3	DF, WH 410 MBF	Brooks Creek road system, F1-3	
3 RMZ	DF, WH 18 MBF	Brooks Creek road system, F1-3	
3 WMZ	DF, WH 90 MBF	Brooks Creek road system, F1-3	
3 ROW	DF, WH 80 MBF	Brooks Creek road system, F1-3	
4	DF, WH 488 MBF	Brooks Creek road system, F1-3	
4 RMZ	DF, WH 51 MBF	Brooks Creek road system, F1-3	
4 ROW	DF, WH 14 MBF	Brooks Creek road system, F1-3	
Total MBF	4,392 MBF		

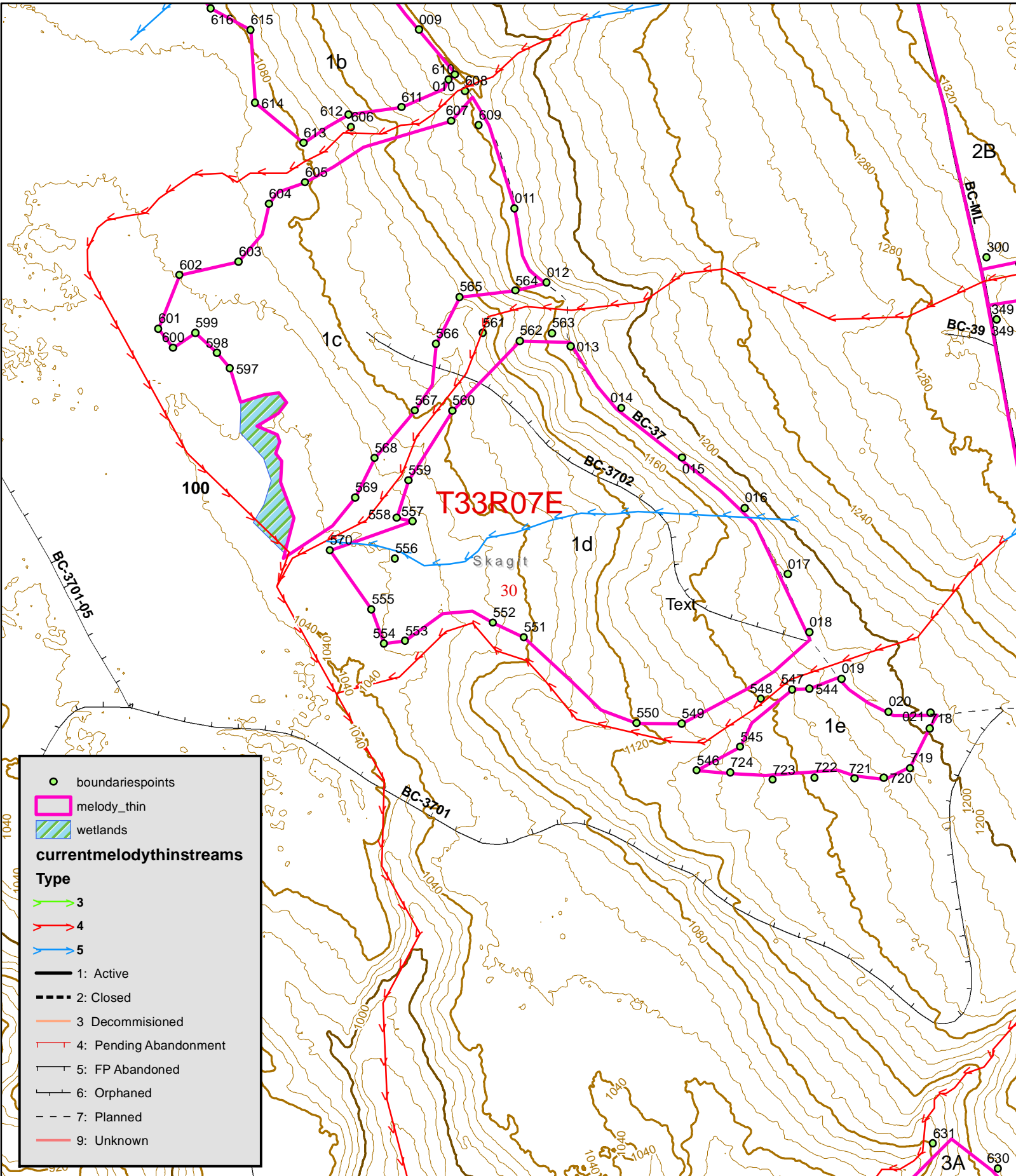
REMARKS:

All ROW: The length of road segments in each unit were measured and multiplied by 60' (30' from centerline on both sides of the road) to calculate the acreage of each ROW.

Unit 2: BC-42 road deductions (3184'X60')/43560' = 4.9 Acres

Prepared By: Bailey Vos Date: 8-4-2022	Title: Forester	CC:
---	-----------------	-----

melody thin unit 1



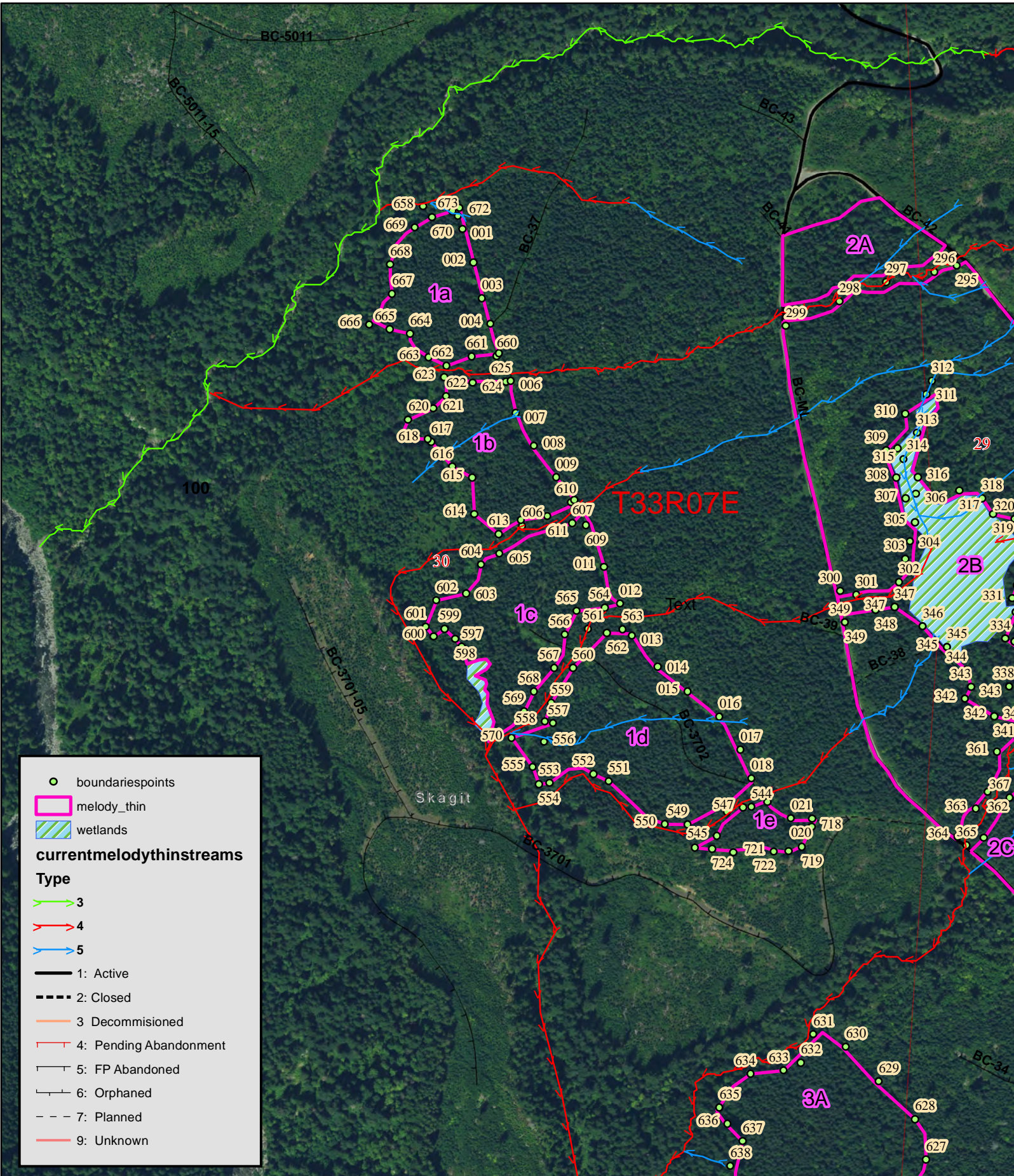
0 125 250 500 Feet

1 inch = 250 feet

Draft date: 8/4/2022



melody thin unit 1



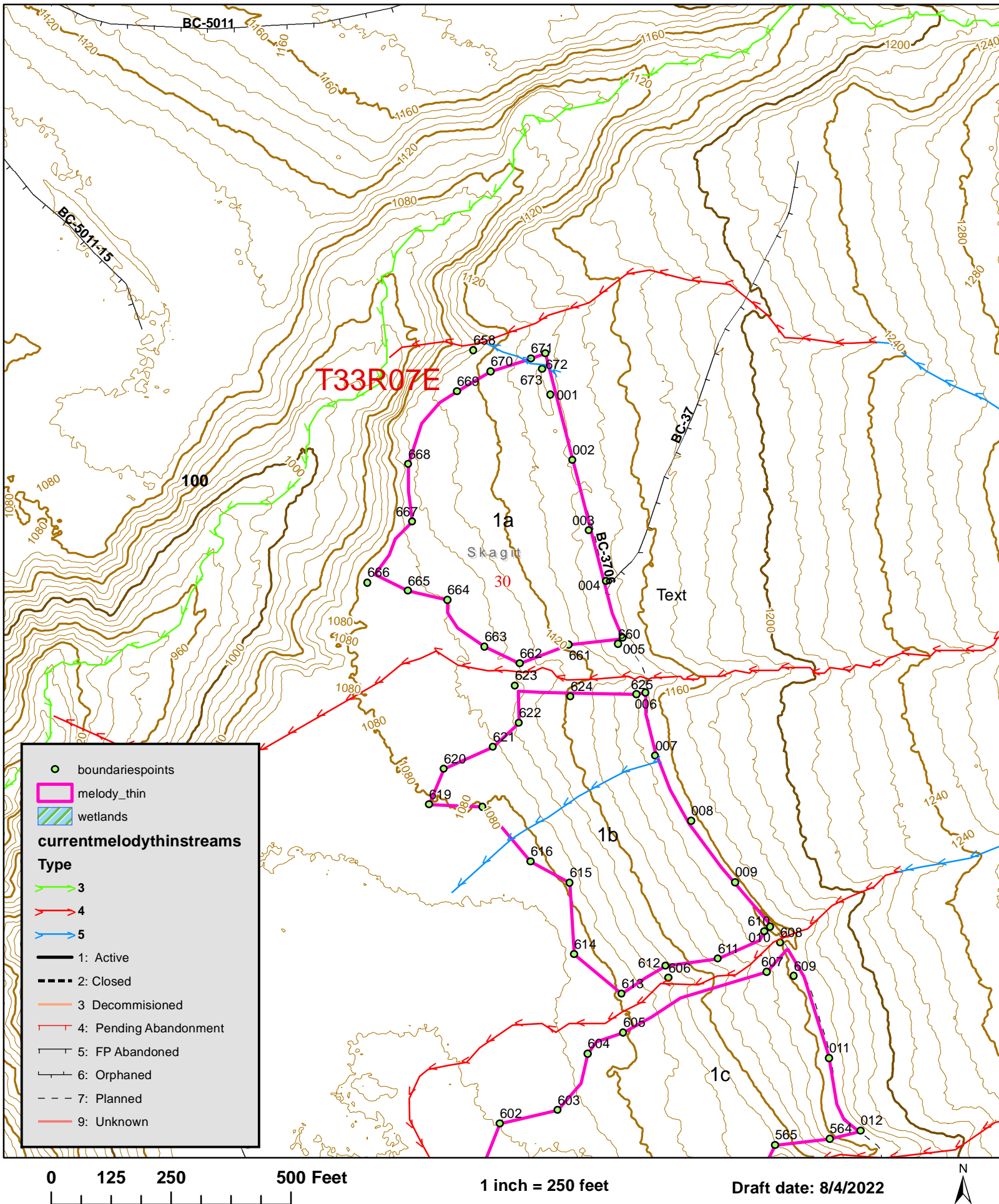
0 250 500 1,000 Feet

1 inch = 500 feet

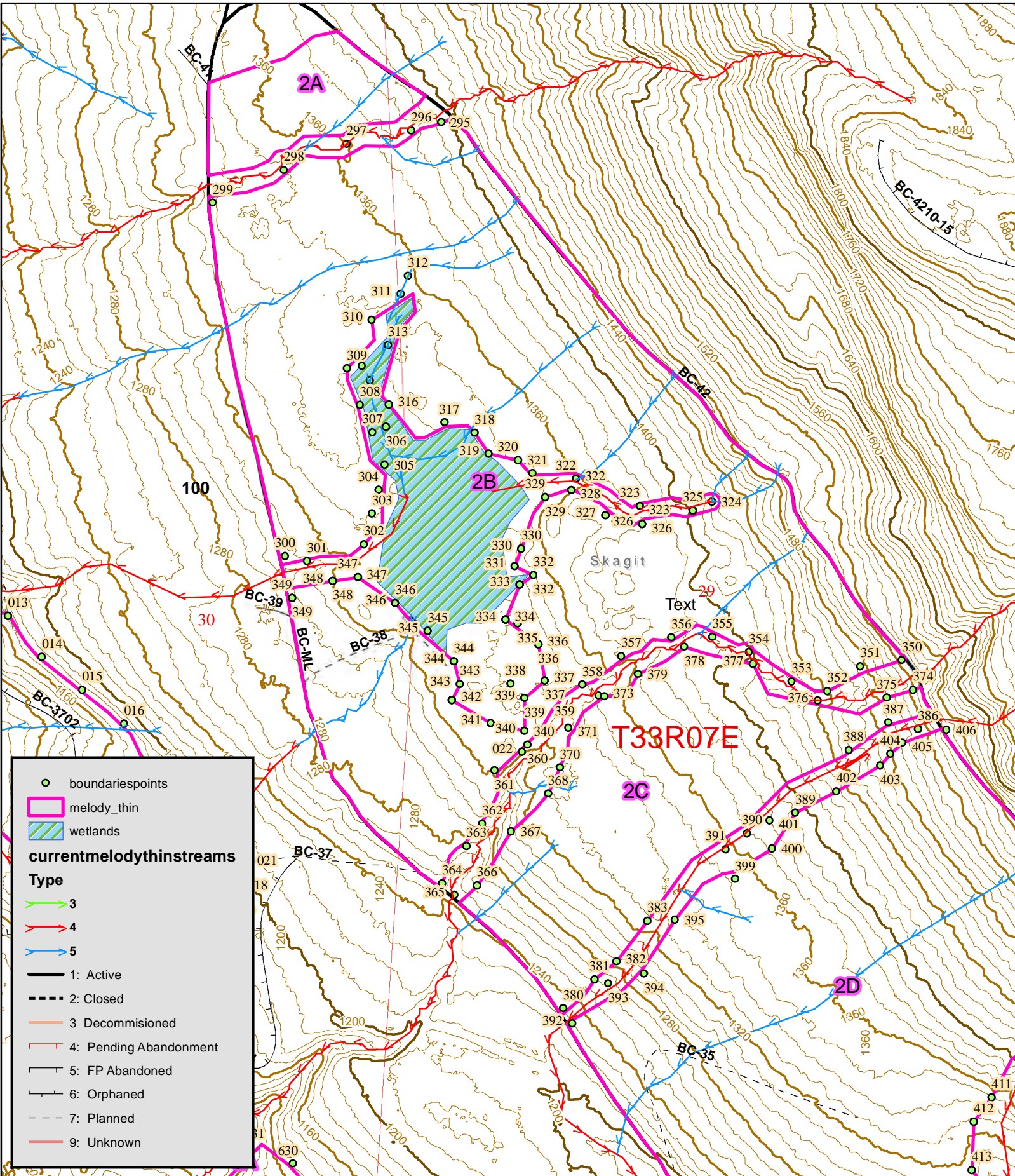
Draft date: 8/4/2022



melody thin unit 1



melody thin



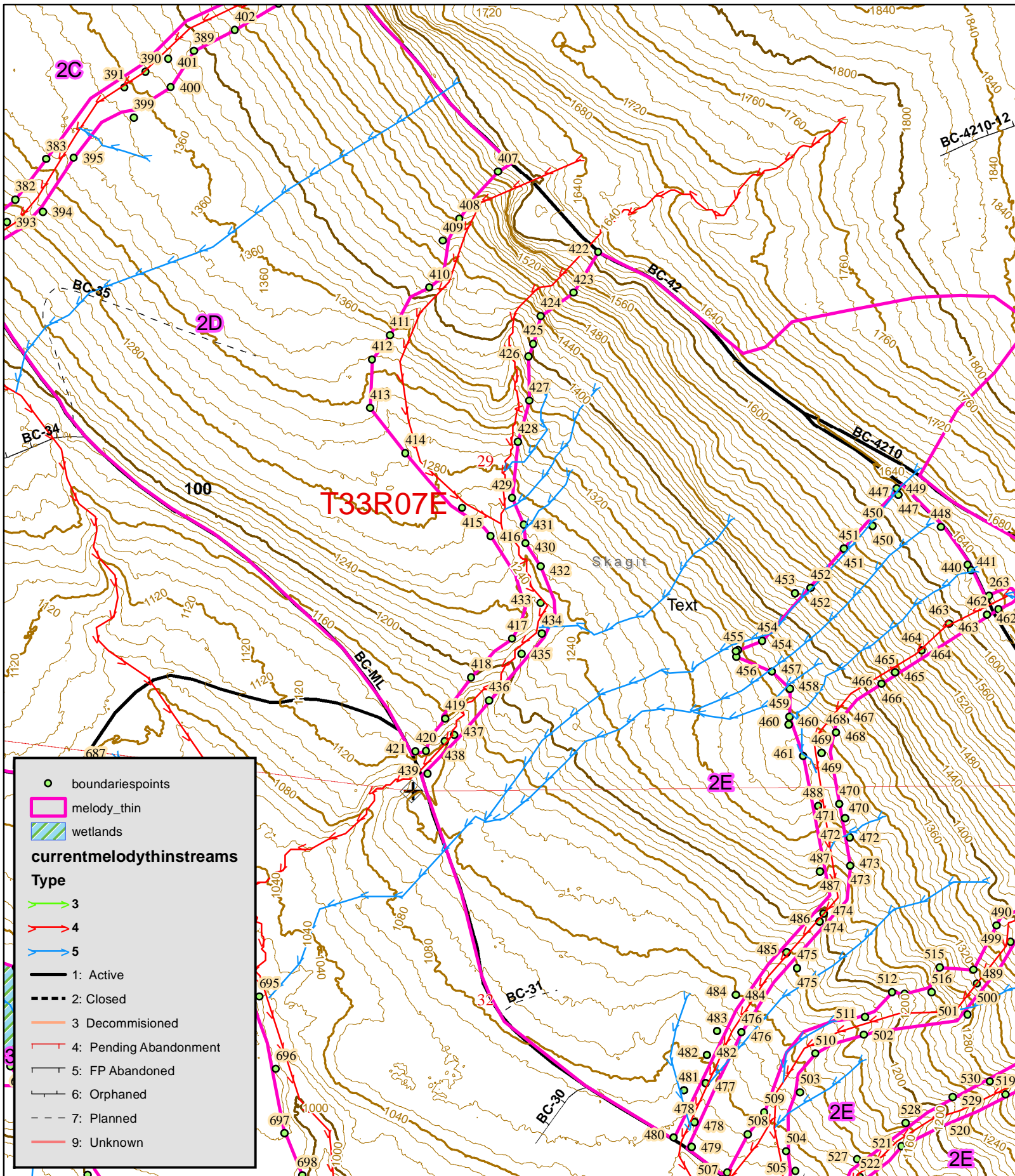
0 190 380 760 Feet

1 inch = 375 feet

Draft date: 8/4/2022



melody thin



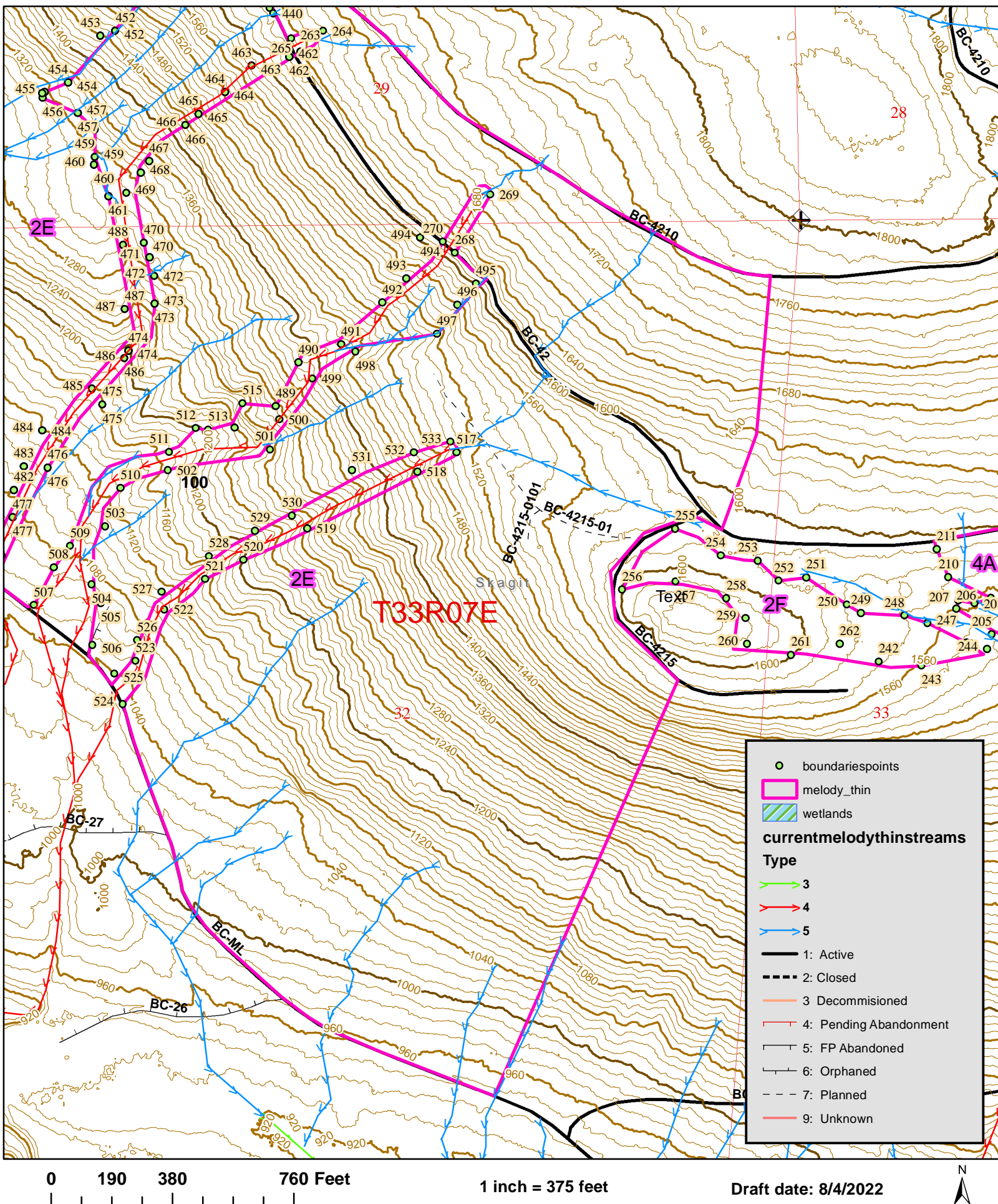
0 190 380 760 Feet

1 inch = 375 feet

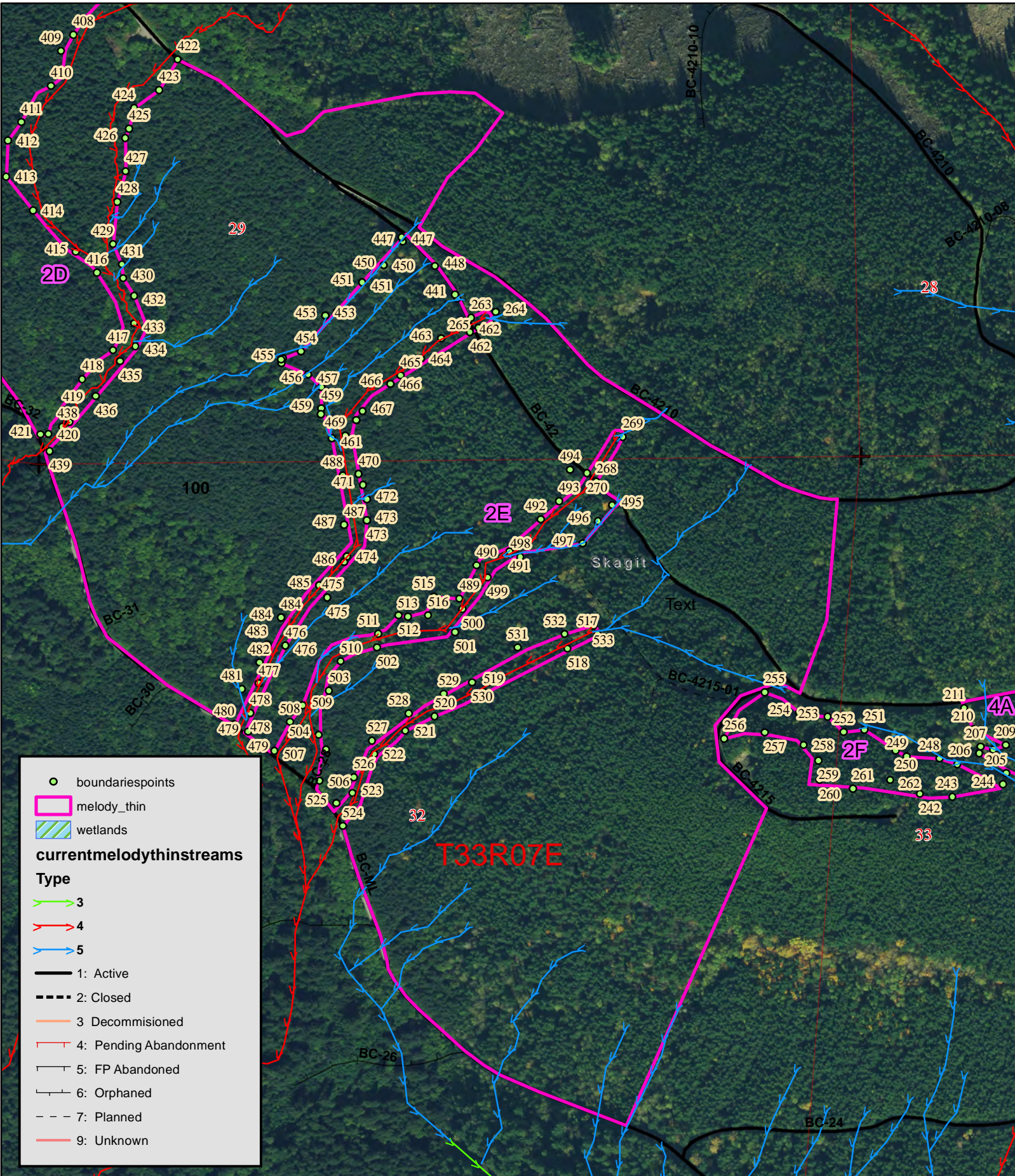
Draft date: 8/4/2022



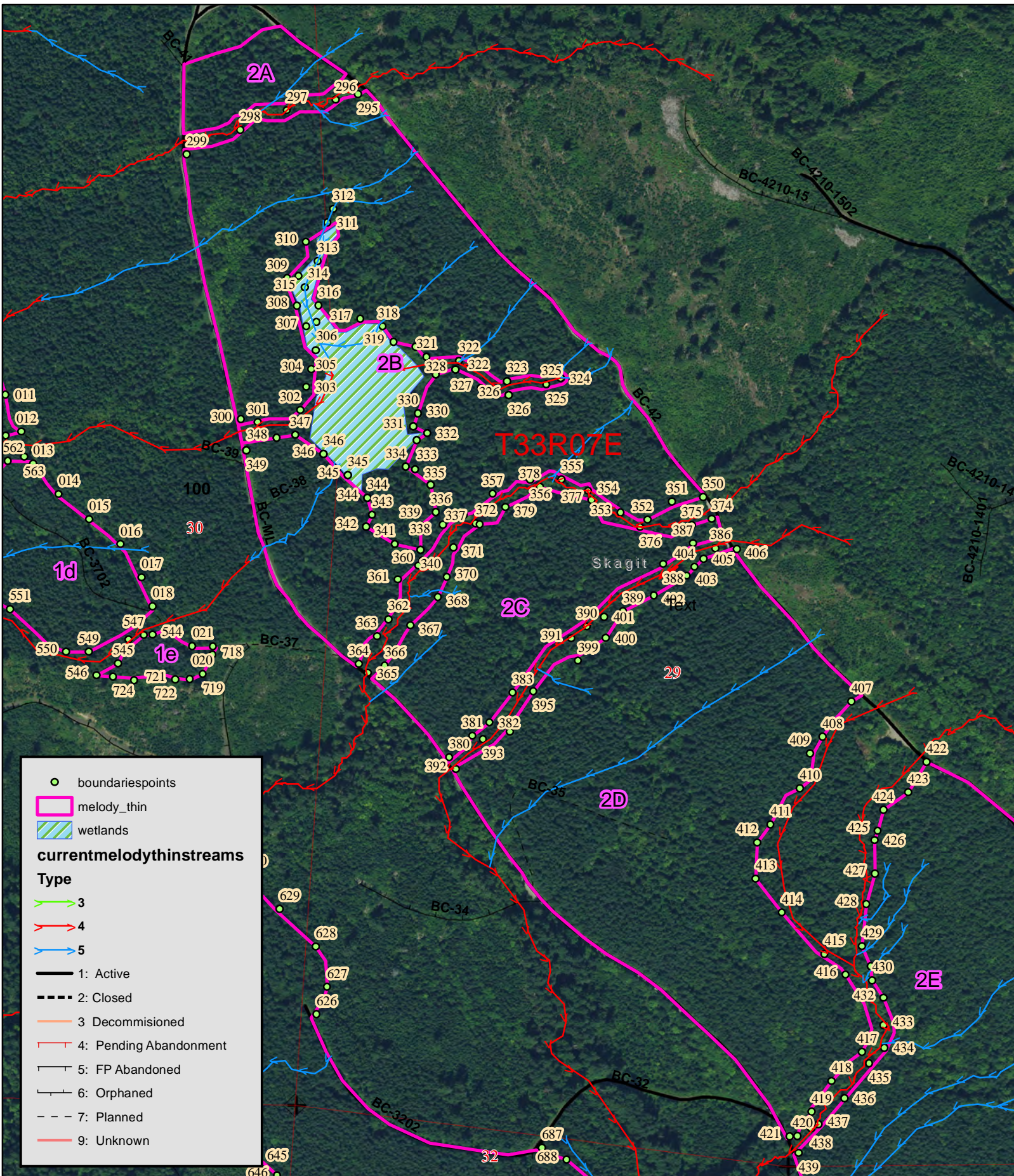
melody thin



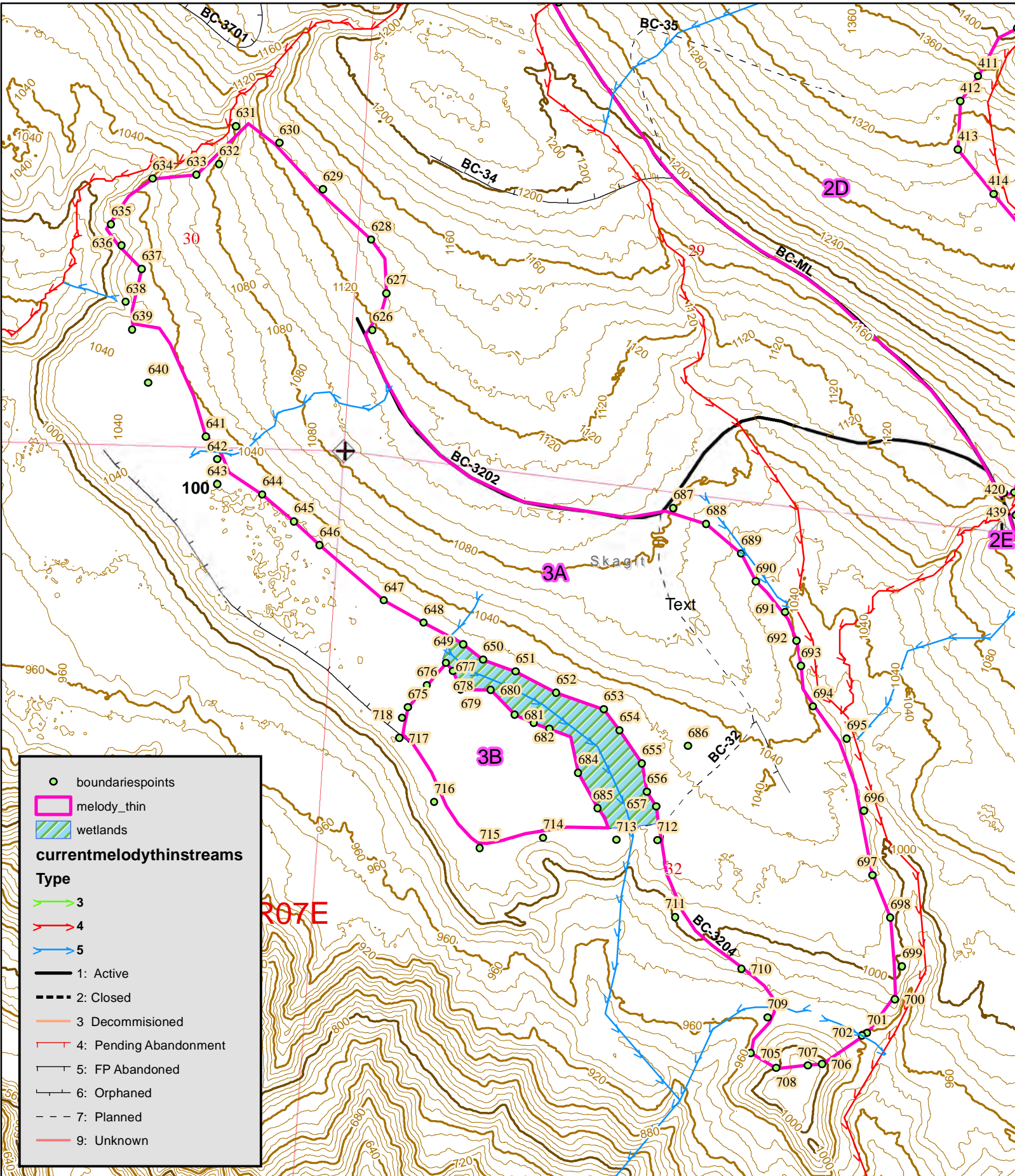
melody thin



melody thin



melody thin



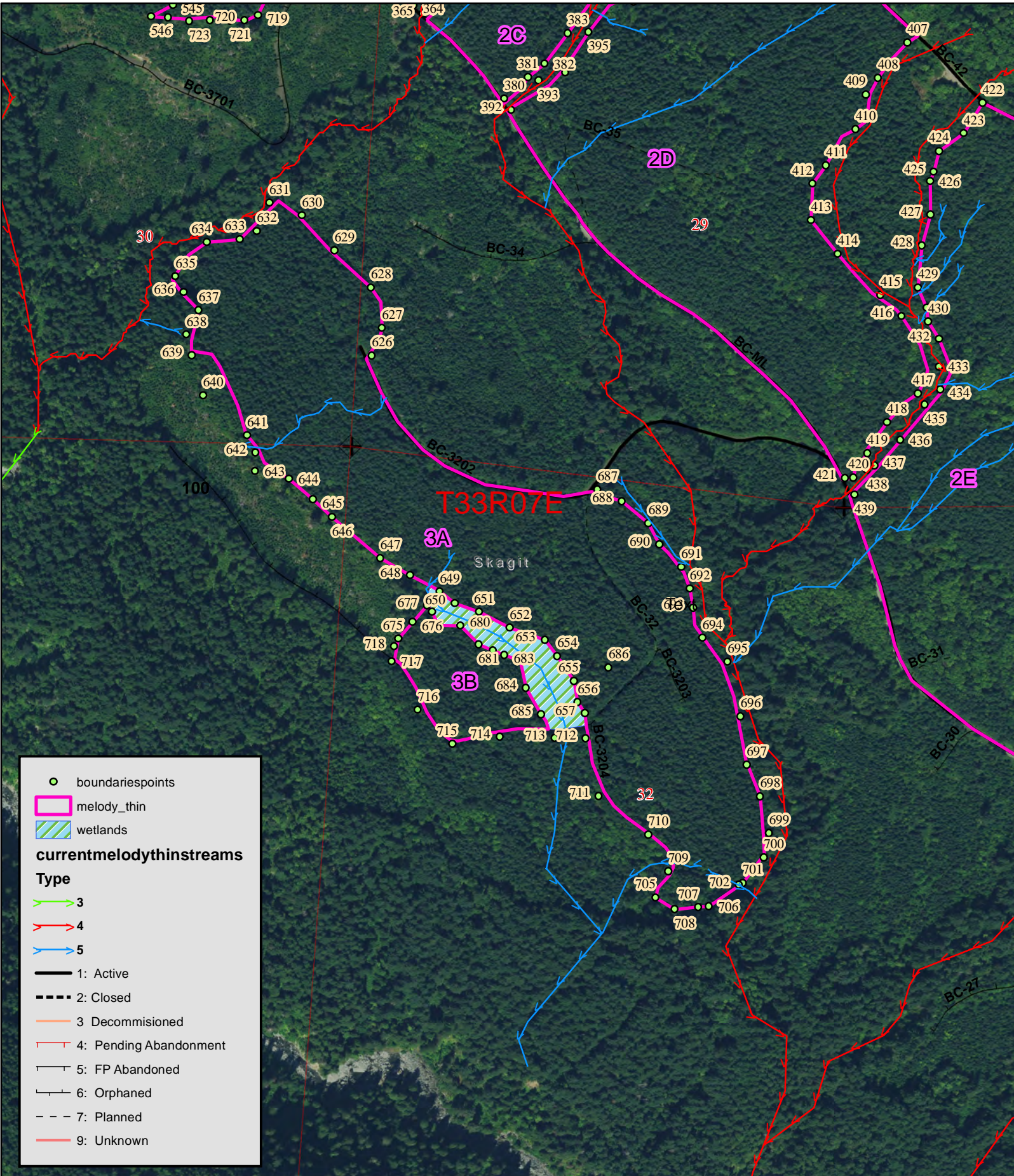
0 190 380 760 Feet

1 inch = 375 feet

Draft date: 8/4/2022



melody thin



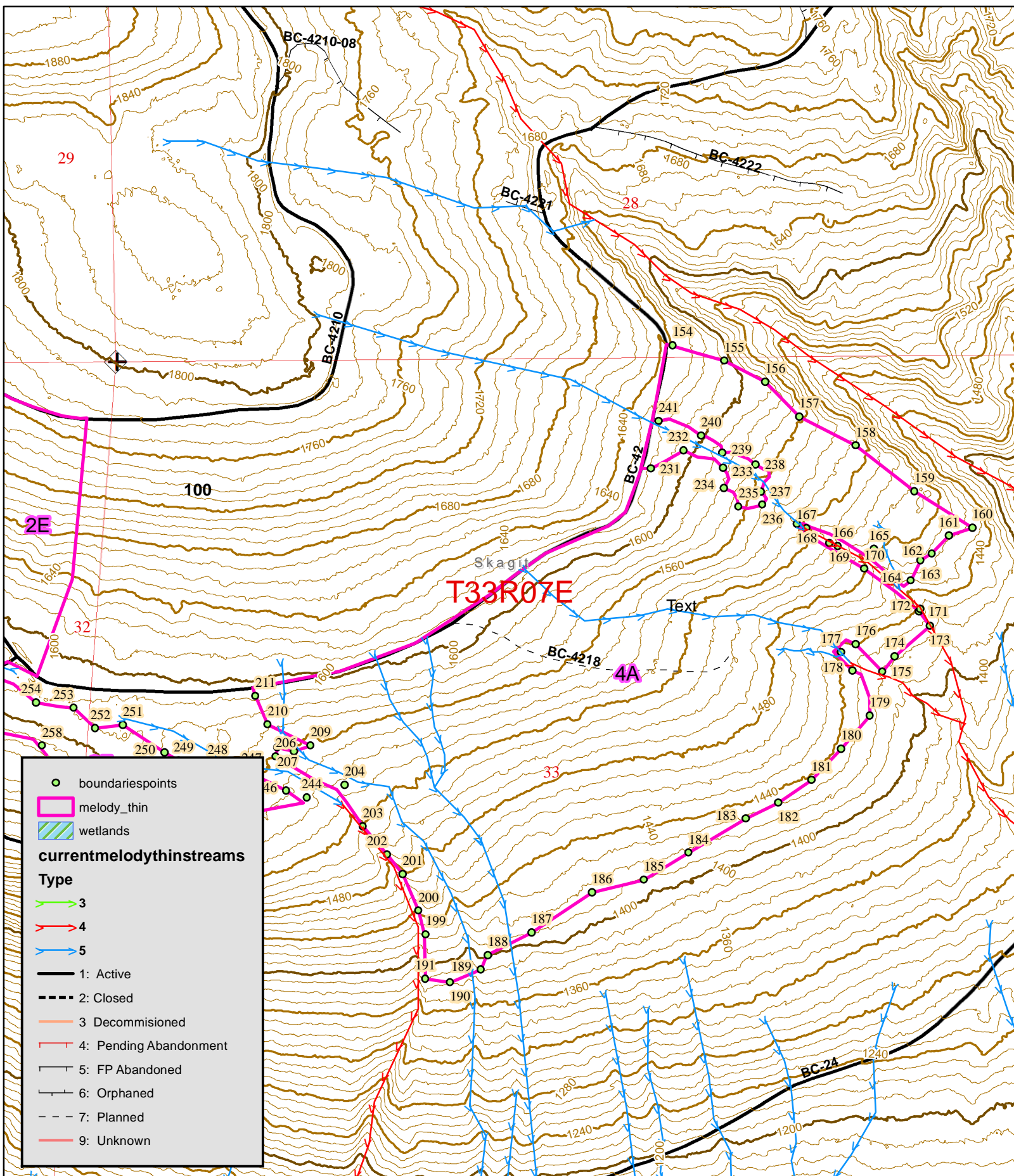
0 250 500 1,000 Feet

1 inch = 500 feet

Draft date: 8/4/2022



melody thin



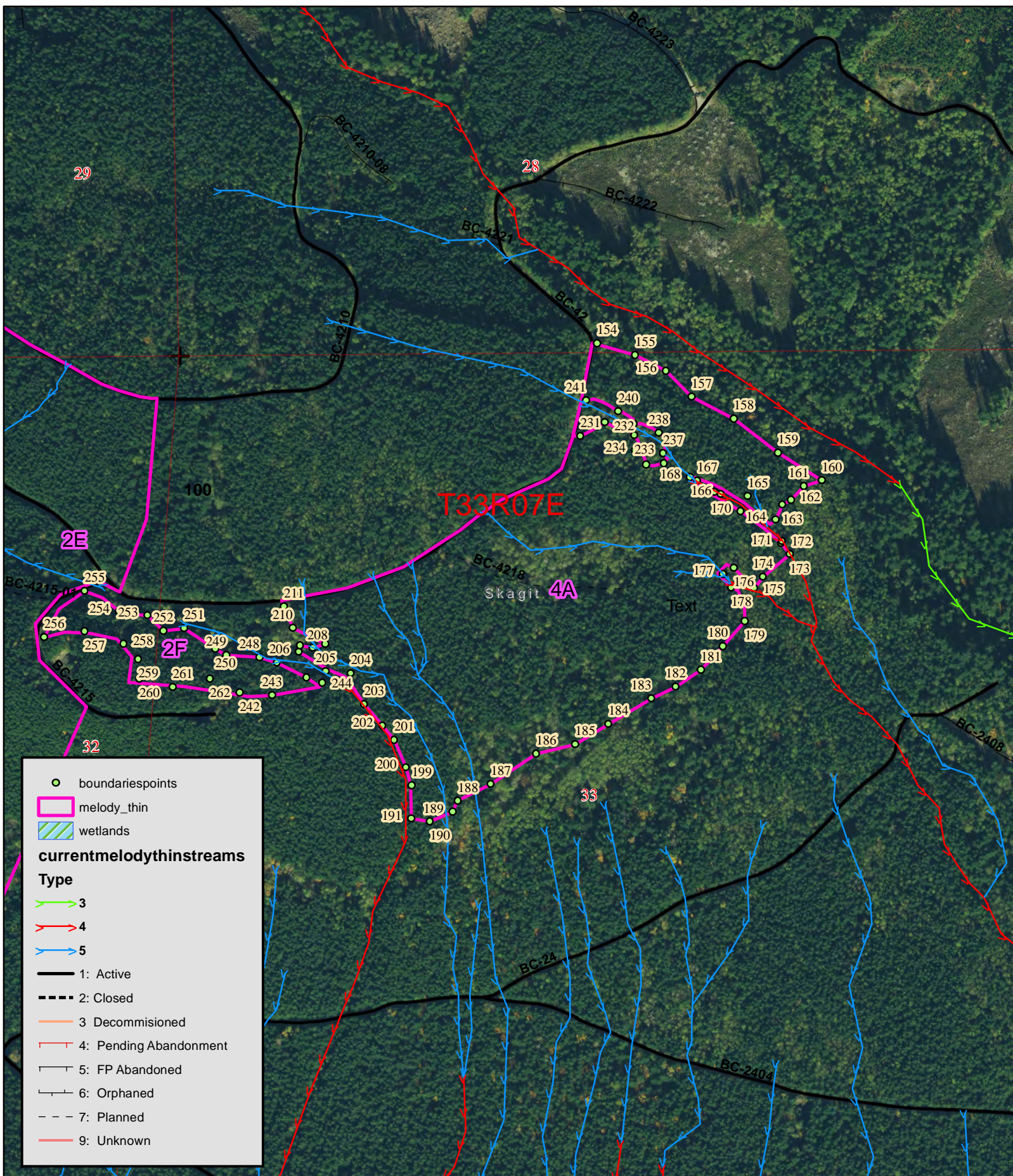
0 190 380 760 Feet

1 inch = 375 feet

Draft date: 8/4/2022



melody thin



0 250 500 1,000 Feet

1 inch = 500 feet

Draft date: 8/4/2022



Timber Sale Cruise Report Melody Thin - NW

Sale Name: MELODY THIN

Sale Type: WEIGHT SCALE

Region: NORTHWEST

District: CLEAR LAKE

Lead Cruiser: Matthew Llobet

Location:

Melody Thin is located 12.5 miles east of Arlington, off the Brooks Creek Road.

Cruise Design:

Melody Thin was cruised using a 40 BAF and a 1:2 sample ratio was applied. The right of way units were cruised using a 40.0 BAF and a cruise-all sample was applied. The smallest merchantable tree cruised throughout the sale had a DBH of 7.0 inches and 5.0 inches at 16 feet.

Conifer log lengths were cruised in 2 foot multiples - maximizing 32-40 ft. lengths. Hardwood log lengths were cruised in 10 foot multiples - no longer than 30 feet long.

All timber was graded in variable log lengths with the Westside/Northwest Scaling bureau log rules. The utility wood was given a board ft. volume. Melody Thin has excellent road access and ranges in elevation from 1,360'-1,640'. Melody Thin consists of a uniform timber type with Douglas fir (95%) being the dominant species. Western Hemlock and scattered hardwoods were observed throughout the sale. All timber throughout the sale showed good form in the first segment with minor defect.

Douglas fir sawlog volume:

- CNS - 1,232 mbf
- 8"+ - 826 mbf

Logging and Stand Conditions:

Melody consists of 74% ground base harvesting and 26% cable harvesting. Melody Thin consists of mild terrain with an open understory - making for productive thinning ground.

Timber Sale Notice Volume (MBF)

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	12.1			2,147	19	1,482	557	89
WH	11.3			67		52	15	
RA	12.3			34	3		28	3
BC	11.9			14			14	
ALL	12.1			2,262	21	1,534	614	93

Timber Sale Notice Weight (tons)

Sp	Tons by Grade				
	All	2 Saw	3 Saw	4 Saw	Utility
DF	17,275	148	12,274	4,113	739
WH	593		472	121	
RA	338	21		288	28
BC	102			102	
ALL	18,307	169	12,746	4,624	767

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 (%)
210.6	2.9	97.0	2.5	20,461	3.9

Timber Sale Unit Cruise Design

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
MELODY THIN U1	B1C: VR, 1 BAF (40) Measure/ Count Plots, Sighting Ht = 4.5 ft	18.6	18.5	14	8	0
MELODY THIN U1 RMZ	B1C: VR, 1 BAF (40) Measure/ Count Plots, Sighting Ht = 4.5 ft	5.8	5.8	5	3	0
MELODY THIN U1 WMZ	B1: VR, 1 BAF (40) Measure All, Sighting Ht = 4.5 ft	2.0	2.0	2	2	0
MELODY THIN U2	B1C: VR, 1 BAF (40) Measure/ Count Plots, Sighting Ht = 4.5 ft	222.5	227.5	49	21	0
MELODY THIN U2 RMZ	B1C: VR, 1 BAF (40) Measure/ Count Plots, Sighting Ht = 4.5 ft	37.6	37.6	12	6	0
MELODY THIN U2 WMZ	B1C: VR, 1 BAF (40) Measure/ Count Plots, Sighting Ht = 0 ft	10.4	10.4	6	6	0
MELODY THIN U3	B1C: VR, 1 BAF (40) Measure/ Count Plots, Sighting Ht = 4.5 ft	37.6	37.5	22	10	0
MELODY THIN U3 RMZ	B1C: VR, 1 BAF (40) Measure/ Count Plots, Sighting Ht = 4.5 ft	1.8	1.8	5	4	0
MELODY THIN U3 WMZ	B1C: VR, 1 BAF (40) Measure/ Count Plots, Sighting Ht = 4.5 ft	8.0	8.0	5	4	0
MELODY THIN U4	B1C: VR, 1 BAF (40) Measure/ Count Plots, Sighting Ht = 4.5 ft	38.5	38.6	19	9	0
MELODY THIN U4 RMZ	B1C: VR, 1 BAF (40) Measure/ Count Plots, Sighting Ht = 4.5 ft	3.8	3.8	5	5	0
MELODY THIN ROW	B1: VR, 1 BAF (40) Measure All, Sighting Ht = 4.5 ft	12.9	13.0	11	11	0

Unit	Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
All		399.5	404.3	155	89	0

Timber Sale Log Grade x Sort Summary

Sp	Status	Grade	Sort	Dia	Len	BF Gross	BF Net	Defect %	Tons	MBF Net
BC	LIVE	4 SAW	Domestic	6.9	24	37	36	1.5	101.7	14.4
DF	LIVE	2 SAW	Domestic	12.9	30	47	46	2.6	148.1	18.5
DF	LIVE	3 SAW	Domestic	7.9	33	3,767	3,710	1.5	12,273.8	1,481.9
DF	LIVE	4 SAW	Domestic	5.3	22	1,409	1,394	1.1	4,113.1	556.8
DF	LIVE	CULL	Cull	13.0	4	2	0	100.0	0.0	0.0
DF	LIVE	UTILITY	Pulp	6.7	25	224	224	0.0	739.4	89.4
RA	LIVE	2 SAW	Domestic	12.7	20	7	7	0.0	21.3	2.9
RA	LIVE	4 SAW	Domestic	8.1	29	72	70	2.3	288.4	28.0
RA	LIVE	UTILITY	Pulp	10.5	30	8	8	0.0	27.8	3.2
WH	LIVE	3 SAW	Domestic	7.6	32	131	131	0.0	472.4	52.2
WH	LIVE	4 SAW	Domestic	5.2	22	37	37	0.0	120.7	14.7

Timber Sale Log Sort x Diameter Bin Summary

Sp	Bin	Status	Sort	Dia	Len	BF Net	Defect %	Tons	MBF Net
BC	5 - 7	LIVE	Domestic	6.1	22	19	2.8	49.8	7.6
BC	8 - 11	LIVE	Domestic	9.2	30	17	0.0	52.0	6.8
DF	5 - 7	LIVE	Domestic	5.9	27	3,084	0.7	9,720.1	1,231.9
DF	5 - 7	LIVE	Pulp	6.2	27	200	0.0	643.5	79.9
DF	8 - 11	LIVE	Domestic	8.7	33	2,020	2.5	6,666.8	806.8
DF	8 - 11	LIVE	Pulp	8.8	26	24	0.0	95.9	9.5
DF	12+	LIVE	Domestic	12.9	30	46	2.6	148.1	18.5
DF	12+	LIVE	Cull	13.0	4	0	100.0	0.0	0.0
RA	5 - 7	LIVE	Domestic	6.5	27	33	0.0	122.5	13.2
RA	8 - 11	LIVE	Domestic	9.3	30	37	4.2	165.9	14.8
RA	8 - 11	LIVE	Pulp	10.5	30	8	0.0	27.8	3.2
RA	12+	LIVE	Domestic	12.7	20	7	0.0	21.3	2.9
WH	5 - 7	LIVE	Domestic	5.9	27	118	0.0	417.1	47.2
WH	8 - 11	LIVE	Domestic	8.5	32	49	0.0	176.1	19.7

Cruise Unit Report MELODY THIN U1

Unit Sale Notice Volume (MBF): MELODY THIN U1

Sp	DBH	Rings/In	Age	MBF Volume by Grade		
				All	3 Saw	4 Saw
DF	10.7			109	42	66
RA	9.6			8		8
WH	10.2			8	4	4
ALL	10.4			124	46	78

Unit Cruise Design: MELODY THIN U1

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	18.6	18.5	14	8	0

Unit Cruise Summary: MELODY THIN U1

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	9	68	4.9	0
WH	2	6	0.4	0
RA	2	3	0.2	0
ALL	13	77	5.5	0

Unit Cruise Statistics (Cut + Leave Trees): MELODY THIN 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	194.3	57.6	15.4	88.8	15.7	5.2	17,260	59.7	16.3
WH	17.1	254.2	67.9	73.6	6.5	4.6	1,261	254.3	68.1
RA	8.6	374.2	100.0	73.1	10.2	7.2	627	374.3	100.3
ALL	220.0	37.6	10.0	87.0	15.9	4.4	19,148	40.8	11.0

Unit Summary: MELODY THIN U1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	9	ALL	11.0	52	66	5,856	5,838	0.3	99.6	65.7	19.8	108.6
DF	LIVE	LEA	18	ALL	13.1	57	73	11,458	11,422	0.3	137.4	128.6	35.5	212.4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
RA	LIVE	CUT	2	ALL	9.6	47	79	418	418	0.0	11.4	5.7	1.8	7.8
RA	LIVE	LEA	1	ALL	16.5	46	54	209	209	0.0	1.9	2.9	0.7	3.9
WH	LIVE	CUT	2	ALL	10.2	48	59	420	420	0.0	10.1	5.7	1.8	7.8
WH	LIVE	LEA	4	ALL	15.0	58	72	841	841	0.0	9.3	11.4	3.0	15.6
ALL	LIVE	LEA	23	ALL	13.3	57	73	12,508	12,472	0.3	148.6	142.9	39.2	232.0
ALL	LIVE	CUT	13	ALL	10.8	51	67	6,695	6,676	0.3	121.1	77.1	23.4	124.2
ALL	ALL	ALL	36	ALL	12.2	55	70	19,203	19,148	0.3	269.7	220.0	62.6	356.2

Cruise Unit Report MELODY THIN U1 RMZ

Unit Sale Notice Volume (MBF): MELODY THIN U1 RMZ

Sp	DBH	Rings/In	Age	MBF Volume by Grade		
				All	3 Saw	4 Saw
DF	10.5			49	26	24
WH	13.0			5	4	1
ALL	10.8			54	29	25

Unit Cruise Design: MELODY THIN U1 RMZ

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	5.8	5.8	5	3	0

Unit Cruise Summary: MELODY THIN U1 RMZ

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	7	28	5.6	0
WH	1	2	0.4	0
ALL	8	30	6.0	0

Unit Cruise Statistics (Cut + Leave Trees): MELODY THIN U1 RMZ

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	224.0	27.1	12.1	88.7	22.0	8.3	19,880	34.9	14.7
WH	16.0	136.9	61.2	102.0	0.0	0.0	1,632	136.9	61.2
ALL	240.0	23.6	10.5	89.6	20.9	7.4	21,512	31.5	12.9

Unit Summary: MELODY THIN U1 RMZ

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	7	ALL	10.3	53	67	8,520	8,520	0.0	165.9	96.0	29.9	49.4
DF	LIVE	LEA	8	ALL	12.7	57	71	11,360	11,360	0.0	145.5	128.0	35.9	65.9
WH	LIVE	CUT	1	ALL	13.0	60	74	816	816	0.0	8.7	8.0	2.2	4.7
WH	LIVE	LEA	1	ALL	16.6	55	67	816	816	0.0	5.3	8.0	2.0	4.7
ALL	LIVE	LEA	9	ALL	12.9	57	70	12,176	12,176	0.0	150.8	136.0	37.9	70.6

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	LIVE	CUT	8	ALL	10.5	53	67	9,336	9,336	0.0	174.6	104.0	32.1	54.1
ALL	ALL	ALL	17	ALL	11.6	55	69	21,512	21,512	0.0	325.4	240.0	70.0	124.8

Cruise Unit Report MELODY THIN U1 WMZ

Unit Sale Notice Volume (MBF): MELODY THIN U1 WMZ

Sp	DBH	Rings/In	Age	MBF Volume by Grade		
				All	3 Saw	4 Saw
DF	12.2			15	10	6
ALL	12.2			15	10	6

Unit Cruise Design: MELODY THIN U1 WMZ

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	2.0	2.0	2	2	0

Unit Cruise Summary: MELODY THIN U1 WMZ

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	4	12	6.0	0
ALL	4	12	6.0	0

Unit Cruise Statistics (Cut + Leave Trees): MELODY THIN U1 WMZ

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	240.0	23.6	16.7	96.5	18.1	9.1	23,168	29.7	19.0
ALL	240.0	23.6	16.7	96.5	18.1	9.1	23,168	29.7	19.0

Unit Summary: MELODY THIN U1 WMZ

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	4	ALL	12.2	57	79	7,723	7,723	0.0	98.5	80.0	22.9	15.4
DF	LIVE	LEA	8	ALL	14.0	56	74	15,445	15,445	0.0	149.7	160.0	42.8	30.9
ALL	LIVE	CUT	4	ALL	12.2	57	79	7,723	7,723	0.0	98.5	80.0	22.9	15.4
ALL	LIVE	LEA	8	ALL	14.0	56	74	15,445	15,445	0.0	149.7	160.0	42.8	30.9
ALL	ALL	ALL	12	ALL	13.3	57	76	23,168	23,168	0.0	248.2	240.0	65.7	46.3

Cruise Unit Report MELODY THIN U2

Unit Sale Notice Volume (MBF): MELODY THIN U2

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	3 Saw	4 Saw	Utility
DF	12.2			1,111	786	258	67
WH	12.0			22	16	6	
RA	14.0			9		9	
ALL	12.3			1,142	802	272	67

Unit Cruise Design: MELODY THIN U2

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	222.5	227.5	49	21	0

Unit Cruise Summary: MELODY THIN U2

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	29	261	5.3	1
WH	1	1	0.0	0
RA	1	2	0.0	0
ALL	31	264	5.4	1

Unit Cruise Statistics (Cut + Leave Trees): MELODY THIN 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	213.1	33.3	4.8	98.7	20.9	3.9	21,023	39.3	6.1
WH	0.8	700.0	100.0	119.7	0.0	0.0	98	700.0	100.0
RA	1.6	489.8	70.0	50.5	0.0	0.0	82	489.8	70.0
ALL	215.5	31.2	4.5	98.4	22.5	4.0	21,204	38.4	6.0

Unit Summary: MELODY THIN U2

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	29	ALL	12.2	57	77	5,087	4,994	1.8	62.3	50.6	14.5	1,111.2
DF	LIVE	LEA	76	ALL	14.2	59	80	16,328	16,029	1.8	147.7	162.4	43.1	3,566.5

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
RA	LIVE	CUT	1	ALL	14.0	47	56	43	41	3.6	0.8	0.8	0.2	9.2
RA	LIVE	LEA	1	ALL	17.8	50	60	43	41	3.6	0.5	0.8	0.2	9.2
WH	LIVE	CUT	1	ALL	12.0	63	78	98	98	0.0	1.0	0.8	0.2	21.7
ALL	LIVE	CUT	31	ALL	12.2	57	77	5,228	5,133	1.8	64.1	52.2	14.9	1,142.1
ALL	LIVE	LEA	77	ALL	14.2	59	80	16,371	16,071	1.8	148.2	163.3	43.3	3,575.7
ALL	ALL	ALL	108	ALL	13.6	59	79	21,598	21,204	1.8	212.3	215.5	58.2	4,717.8

Cruise Unit Report MELODY THIN U2 RMZ

Unit Sale Notice Volume (MBF): MELODY THIN U2 RMZ

Sp	DBH	Rings/In	Age	MBF Volume by Grade		
				All	3 Saw	4 Saw
DF	11.7			190	157	33
ALL	11.7			190	157	33

Unit Cruise Design: MELODY THIN U2 RMZ

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	37.6	37.6	12	6	0

Unit Cruise Summary: MELODY THIN U2 RMZ

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	6	66	5.5	0
ALL	6	66	5.5	0

Unit Cruise Statistics (Cut + Leave Trees): MELODY THIN U2 RMZ

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	220.0	22.6	6.5	101.2	16.0	6.5	22,268	27.7	9.2
ALL	220.0	22.6	6.5	101.2	16.0	6.5	22,268	27.7	9.2

Unit Summary: MELODY THIN U2 RMZ

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	6	ALL	12.0	55	75	5,061	5,061	0.0	63.7	50.0	14.4	190.3
DF	LIVE	LEA	21	ALL	14.5	59	76	17,207	17,207	0.0	148.3	170.0	44.6	647.0
ALL	LIVE	CUT	6	ALL	12.0	55	75	5,061	5,061	0.0	63.7	50.0	14.4	190.3
ALL	LIVE	LEA	21	ALL	14.5	59	76	17,207	17,207	0.0	148.3	170.0	44.6	647.0
ALL	ALL	ALL	27	ALL	13.8	58	76	22,268	22,268	0.0	212.0	220.0	59.1	837.3

Cruise Unit Report MELODY THIN U2 WMZ

Unit Sale Notice Volume (MBF): MELODY THIN U2 WMZ

Sp	DBH	Rings/In	Age	MBF Volume by Grade		
				All	3 Saw	4 Saw
DF	11.2			73	49	25
ALL	11.2			73	49	25

Unit Cruise Design: MELODY THIN U2 WMZ

Design	Cruise Acres	FMA Acres	N Plots	N Cruise Plots	N Void Plots
B1C: VR, 1 BAF (40) Measure/Count Plots, Sighting Ht = 0 ft	10.4	10.4	6	6	0

Unit Cruise Summary: MELODY THIN U2 WMZ

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	5	35	5.8	0
ALL	5	35	5.8	0

Unit Cruise Statistics (Cut + Leave Trees): MELODY THIN U2 WMZ

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	233.3	25.2	10.3	96.1	18.5	8.3	22,426	31.3	13.2
ALL	233.3	25.2	10.3	96.1	18.5	8.3	22,426	31.3	13.2

Unit Summary: MELODY THIN U2 WMZ

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	5	ALL	11.9	52	73	7,048	7,048	0.0	94.9	73.3	21.3	73.3
DF	LIVE	LEA	12	ALL	13.9	60	79	15,378	15,378	0.0	151.8	160.0	42.9	159.9
ALL	LIVE	LEA	12	ALL	13.9	60	79	15,378	15,378	0.0	151.8	160.0	42.9	159.9
ALL	LIVE	CUT	5	ALL	11.9	52	73	7,048	7,048	0.0	94.9	73.3	21.3	73.3
ALL	ALL	ALL	17	ALL	13.2	57	77	22,426	22,426	0.0	246.7	233.3	64.2	233.2

Cruise Unit Report MELODY THIN U3

Unit Sale Notice Volume (MBF): MELODY THIN U3

Sp	DBH	Rings/In	Age	MBF Volume by Grade		
				All	3 Saw	4 Saw
DF	11.7			188	136	52
WH	11.0			30	27	2
ALL	11.6			218	163	55

Unit Cruise Design: MELODY THIN U3

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	37.6	37.5	22	10	0

Unit Cruise Summary: MELODY THIN U3

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	14	106	4.8	0
WH	3	6	0.3	0
ALL	17	112	5.1	0

Unit Cruise Statistics (Cut + Leave Trees): MELODY THIN 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	192.7	36.6	7.8	91.6	14.9	4.0	17,648	39.5	8.8
WH	10.9	231.4	49.3	87.2	23.2	13.4	951	232.6	51.1
ALL	203.6	32.6	6.9	91.3	15.7	3.8	18,599	36.2	7.9

Unit Summary: MELODY THIN U3

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	14	ALL	11.4	56	70	4,995	4,995	0.0	77.0	54.5	16.2	187.8
DF	LIVE	LEA	33	ALL	13.2	61	77	12,653	12,653	0.0	145.4	138.2	38.0	475.8
WH	LIVE	CUT	3	ALL	10.2	49	59	793	793	0.0	16.0	9.1	2.8	29.8
WH	LIVE	LEA	1	ALL	14.0	65	80	159	159	0.0	1.7	1.8	0.5	6.0
ALL	LIVE	CUT	17	ALL	11.2	55	68	5,787	5,787	0.0	93.0	63.6	19.0	217.6

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	LIVE	LEA	34	ALL	13.2	61	77	12,812	12,812	0.0	147.1	140.0	38.5	481.7
ALL	ALL	ALL	51	ALL	12.5	59	74	18,599	18,599	0.0	240.1	203.6	57.5	699.3

Cruise Unit Report MELODY THIN U3 RMZ

Unit Sale Notice Volume (MBF): MELODY THIN U3 RMZ

Sp	DBH	Rings/In	Age	MBF Volume by Grade		
				All	3 Saw	4 Saw
DF	12.8			17	14	4
WH	9.4			3	1	1
ALL	11.7			20	15	5

Unit Cruise Design: MELODY THIN U3 RMZ

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	1.8	1.8	5	4	0

Unit Cruise Summary: MELODY THIN U3 RMZ

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	7	25	5.0	0
WH	2	2	0.4	0
ALL	9	27	5.4	0

Unit Cruise Statistics (Cut + Leave Trees): MELODY THIN U3 RMZ

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	200.0	20.0	8.9	108.7	13.5	5.1	21,746	24.1	10.3
WH	16.0	223.6	100.0	97.6	31.1	22.0	1,562	225.8	102.4
ALL	216.0	16.6	7.4	107.9	16.1	5.4	23,308	23.1	9.1

Unit Summary: MELODY THIN U3 RMZ

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	7	ALL	12.7	61	77	9,568	9,568	0.0	100.0	88.0	24.7	17.2
DF	LIVE	LEA	8	ALL	11.6	59	76	12,178	12,178	0.0	152.6	112.0	32.9	21.9
WH	LIVE	CUT	2	ALL	9.4	50	61	1,562	1,562	0.0	33.2	16.0	5.2	2.8
ALL	LIVE	LEA	8	ALL	11.6	59	76	12,178	12,178	0.0	152.6	112.0	32.9	21.9
ALL	LIVE	CUT	9	ALL	12.0	58	73	11,130	11,130	0.0	133.2	104.0	29.9	20.0

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	ALL	ALL	17	ALL	11.8	59	75	23,308	23,308	0.0	285.8	216.0	62.8	42.0

Cruise Unit Report MELODY THIN U3 WMZ

Unit Sale Notice Volume (MBF): MELODY THIN U3 WMZ

Sp	DBH	Rings/In	Age	MBF Volume by Grade		
				All	3 Saw	4 Saw
DF	11.9			64	50	13
ALL	11.9			64	50	13

Unit Cruise Design: MELODY THIN U3 WMZ

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	8.0	8.0	5	4	0

Unit Cruise Summary: MELODY THIN U3 WMZ

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	6	26	5.2	0
ALL	6	26	5.2	0

Unit Cruise Statistics (Cut + Leave Trees): MELODY THIN U3 WMZ

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	208.0	16.1	7.2	110.2	12.9	5.3	22,914	20.6	8.9
ALL	208.0	16.1	7.2	110.2	12.9	5.3	22,914	20.6	8.9

Unit Summary: MELODY THIN U3 WMZ

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	6	ALL	11.9	57	80	7,932	7,932	0.0	93.2	72.0	20.9	63.5
DF	LIVE	LEA	8	ALL	12.8	66	84	14,982	14,982	0.0	152.2	136.0	38.0	119.9
ALL	LIVE	LEA	8	ALL	12.8	66	84	14,982	14,982	0.0	152.2	136.0	38.0	119.9
ALL	LIVE	CUT	6	ALL	11.9	57	80	7,932	7,932	0.0	93.2	72.0	20.9	63.5
ALL	ALL	ALL	14	ALL	12.5	62	83	22,914	22,914	0.0	245.4	208.0	58.9	183.3

Cruise Unit Report MELODY THIN U4

Unit Sale Notice Volume (MBF): MELODY THIN U4

Sp	DBH	Rings/In	Age	MBF Volume by Grade			
				All	3 Saw	4 Saw	Utility
DF	11.8			207	132	56	20
ALL	11.8			207	132	56	20

Unit Cruise Design: MELODY THIN U4

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	38.5	38.5	19	9	0

Unit Cruise Summary: MELODY THIN U4

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
RA		7	0.4	0
DF	12	87	4.6	1
ALL	12	94	4.9	1

Unit Cruise Statistics (Cut + Leave Trees): MELODY THIN 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 (%)
RA	14.7	274.6	63.0						
DF	183.2	50.1	11.5	94.8	28.1	8.1	17,357	57.4	14.1
ALL	197.9	37.8	8.7	94.8	28.1	8.1	18,754	47.1	11.9

Unit Summary: MELODY THIN U4

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	12	ALL	11.7	57	73	5,556	5,387	3.0	76.1	56.8	16.6	207.4
DF	LIVE	LEA	27	ALL	13.4	59	75	12,347	11,971	3.0	129.0	126.3	34.5	460.9
RA	LIVE	LEA	7	ALL	12.2	57	70				18.2	14.7	4.2	
ALL	LIVE	LEA	34	ALL	13.3	59	74	12,347	11,971	3.0	147.2	141.1	38.7	460.9
ALL	LIVE	CUT	12	ALL	11.7	57	73	5,556	5,387	3.0	76.1	56.8	16.6	207.4
ALL	ALL	ALL	46	ALL	12.7	58	74	17,903	17,357	3.0	223.3	197.9	55.3	668.3

Cruise Unit Report MELODY THIN U4 RMZ

Unit Sale Notice Volume (MBF): MELODY THIN U4 RMZ

Sp	DBH	Rings/In	Age	MBF Volume by Grade		
				All	3 Saw	4 Saw
DF	12.7			28	21	6
ALL	12.7			28	21	6

Unit Cruise Design: MELODY THIN U4 RMZ

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	3.8	3.8	5	5	0

Unit Cruise Summary: MELODY THIN U4 RMZ

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	6	28	5.6	0
ALL	6	28	5.6	0

Unit Cruise Statistics (Cut + Leave Trees): MELODY THIN U4 RMZ

Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	224.0	34.8	15.6	100.5	19.4	7.9	22,520	39.8	17.5
ALL	224.0	34.8	15.6	100.5	19.4	7.9	22,520	39.8	17.5

Unit Summary: MELODY THIN U4 RMZ

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
DF	LIVE	CUT	6	ALL	12.8	61	76	7,475	7,239	3.2	80.6	72.0	20.1	27.5
DF	LIVE	LEA	14	ALL	13.6	60	74	15,781	15,282	3.2	150.7	152.0	41.2	58.1
ALL	LIVE	LEA	14	ALL	13.6	60	74	15,781	15,282	3.2	150.7	152.0	41.2	58.1
ALL	LIVE	CUT	6	ALL	12.8	61	76	7,475	7,239	3.2	80.6	72.0	20.1	27.5
ALL	ALL	ALL	20	ALL	13.3	60	74	23,256	22,520	3.2	231.3	224.0	61.3	85.6

Cruise Unit Report MELODY THIN ROW

Unit Sale Notice Volume (MBF): MELODY THIN ROW

Sp	DBH	Rings/In	Age	MBF Volume by Grade				
				All	2 Saw	3 Saw	4 Saw	Utility
DF	15.4			95	19	60	15	2
RA	12.7			17	3		11	3
BC	11.9			14			14	
ALL	14.3			127	21	60	41	5

Unit Cruise Design: MELODY THIN ROW

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	12.9	12.9	11	11	0

Unit Cruise Summary: MELODY THIN ROW

Sp	Cruised Trees	All Trees	Trees/Plot	Ring-Count Trees
DF	20	20	1.8	0
RA	6	6	0.5	0
BC	3	3	0.3	0
ALL	29	29	2.6	0

Unit Cruise Statistics (Cut + Leave Trees): MELODY THIN ROW

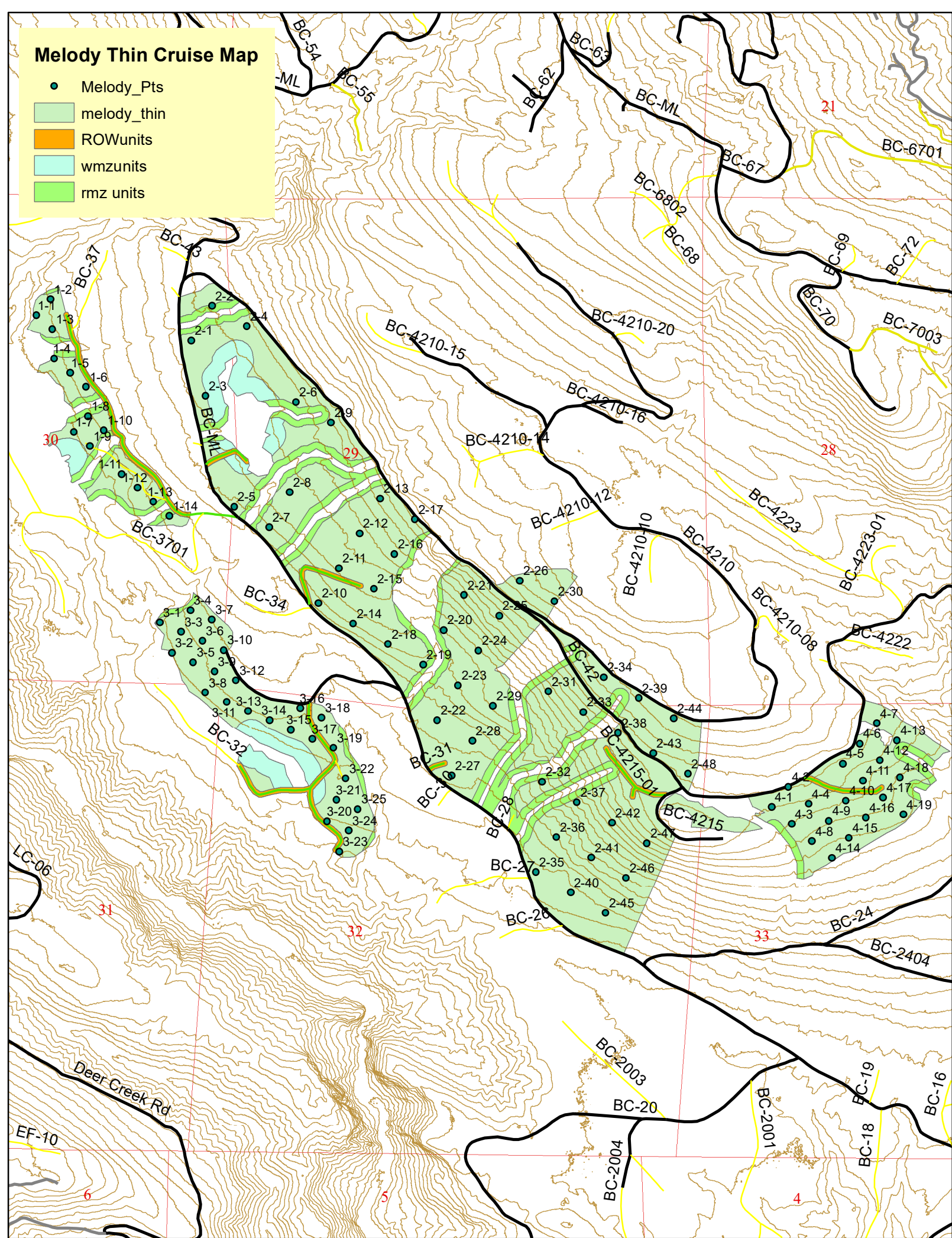
Sp	BA (sq ft/acre)	BA CV (%)	BA SE (%)	V-BAR (bf/sq ft)	V-BAR CV (%)	V-BAR SE (%)	Net Vol (bf/acre)	Vol CV (%)	Vol SE (%)
DF	72.7	80.9	24.4	101.2	14.8	3.3	7,363	82.2	24.6
RA	21.8	237.1	71.5	60.8	9.5	3.9	1,327	237.3	71.6
BC	10.9	331.7	100.0	102.3	19.4	11.2	1,116	332.2	100.6
ALL	105.5	51.7	15.6	93.0	23.2	4.3	9,807	56.6	16.2

Unit Summary: MELODY THIN ROW

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
BC	LIVE	CUT	3	ALL	11.9	61	75	1,133	1,116	1.5	14.1	10.9	3.2	14.4
DF	LIVE	CUT	20	ALL	15.4	59	74	7,539	7,363	2.3	56.2	72.7	18.5	95.0
RA	LIVE	CUT	6	ALL	12.7	51	61	1,351	1,327	1.8	24.8	21.8	6.1	17.1

Sp	Status	Rx	N	D	DBH	BL	THT	BF Gross	BF Net	Defect %	TPA	BA	RD	MBF Net
ALL	LIVE	CUT	29	ALL	14.3	57	71	10,023	9,807	2.2	95.1	105.5	27.8	126.5
ALL	ALL	ALL	29	ALL	14.3	57	71	10,023	9,807	2.2	95.1	105.5	27.8	126.5

- Melody_Pts
- melody_thin
- ROWunits
- wmzunits
- rmz units





Forest Practices Application/Notification Notice of Decision

FPA/N No: 2818867

Effective Date: 2/3/2023

Expiration Date: 2/3/2026

Shut Down Zone: 658

EARR Tax Credit: ☒ Eligible ☐ Non-eligible

Reference: Melody Thin

Decision

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

FPA/N Classification

☐ Class II ☐ Class III ☐ Class IVG ☒ Class IVS

Number of Years Granted on Multi-Year Request

☐ 4 years ☐ 5 years

Conditions on Approval/Reasons for Disapproval

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

No timing limitations apply.

Condition(s) required for approval/disapproval:

- No additional conditions apply.

Notes:

Issued By: Jared Coleman

Region: Northwest Region

Title: Resource Protection Forester

Date: 2/3/2023

Copies to: ☐ Landowner, Timber Owner and Operator

Issued in person: ☒ LO ☒ TO ☒ OP By:  Date: 2/3/2023

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](http://www.wa.gov/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 Northwest Region
Physical Address 1111 Israel Road SW Suite 301 Tumwater, WA 98501 Mailing address Post Office Box 40903 Olympia, WA 98504-0903	Physical Address 1125 Washington Street, SE Olympia, WA 98504 Mailing Address Post Office Box 40100 Olympia, WA 98504-0100	Physical Address 919 North Township Street Sedro-Woolley, WA 98284 Mailing Address 919 North Township Street Sedro-Woolley, WA 98284

Information regarding the Pollution Control Hearings Board can be found at: <https://elaho.wa.gov/content/11>

Other Applicable Laws

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

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

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

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

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

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

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

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

DNR Declaration of Mailing

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

Click or tap to enter
a date.

(Date)

Sedro-Woolley, WA

(City & State where signed)

(Signature)

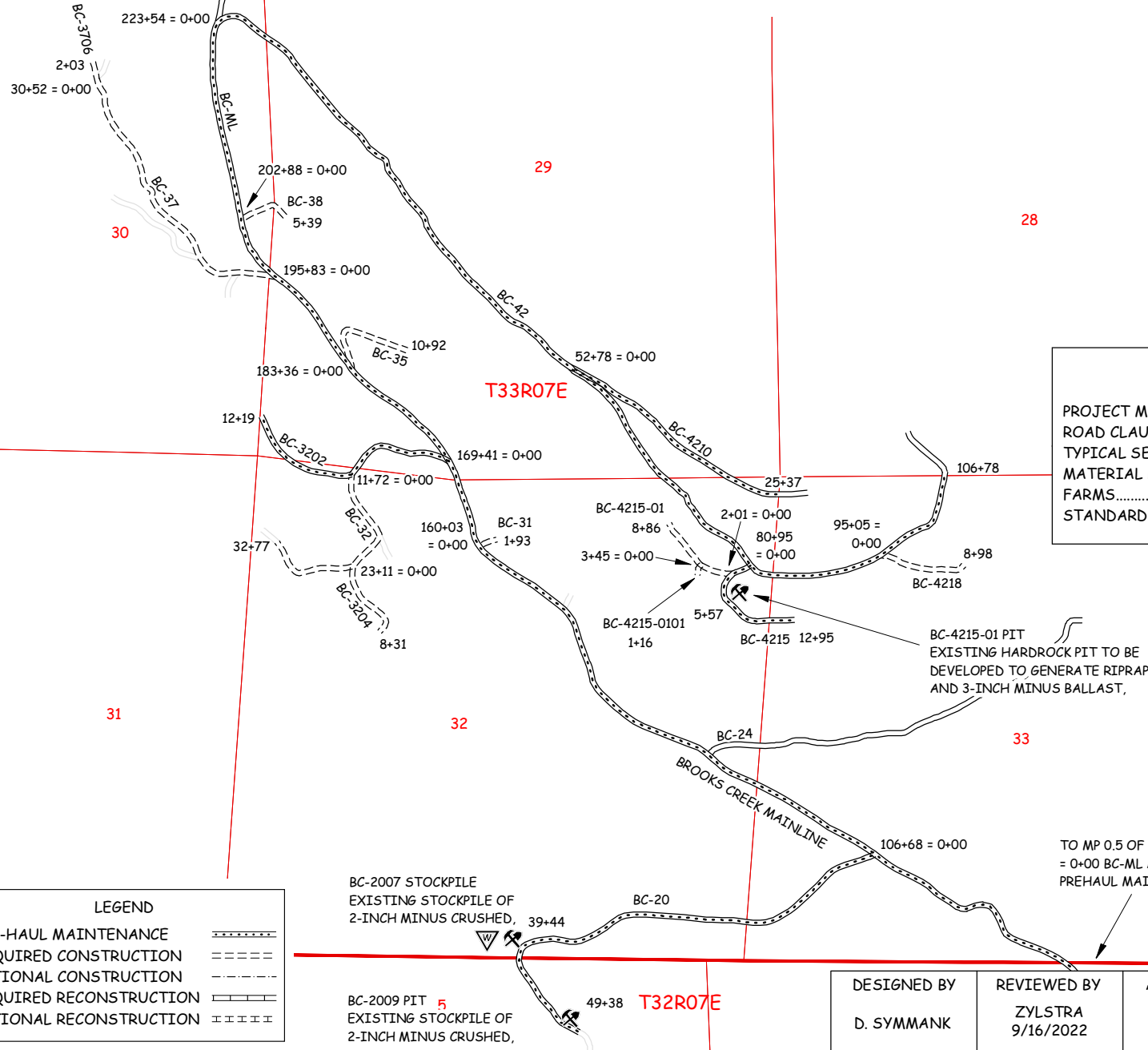
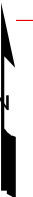


WASHINGTON STATE
DEPT. OF NATURAL RESOURCES
NORTHWEST REGION

ROAD PLAN AND SPECIFICATIONS #30-103808 MELODY THIN TIMBER SALE

21

22



SHEET INDEX

PROJECT MAP.....	1
ROAD CLAUSES	2-21
TYPICAL SECTION.....	22-24
MATERIAL LIST.....	25-26
FARMS.....	27-28
STANDARD DETAILS.....	29-31

LEGEND

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

BC-2007 STOCKPILE
EXISTING STOCKPILE OF
2-INCH MINUS CRUSHED,

BC-2009 PIT
EXISTING STOCKPILE OF
2-INCH MINUS CRUSHED,

TO MP 0.5 OF N BROOKS CREEK RD
= 0+00 BC-ML AND START OF
PREHAUL MAINTENANCE

SCALE
0 1,000

DESIGNED BY D. SYMMANK	REVIEWED BY ZYLSTRA 9/16/2022	APPROVED BY ZYLSTRA 9/16/2022	PLAN DATE 7/29/2022	SHEET 1 OF 31
---------------------------	-------------------------------------	-------------------------------------	------------------------	------------------

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

MELODY VRH TIMBER SALE ROAD PLAN
SNOHOMISH COUNTY
CLEAR LAKE DISTRICT
NORTHWEST REGION

AGREEMENT NO.: 30-103808

STAFF ENGINEER: D. SYMMANK

DATE: JULY 29, 2022

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>
BC-ML	0+00 to 223+54	PRE-HAUL MAINTENANCE
BC-20	0+00 to 49+38	PRE-HAUL MAINTENANCE
BC-31*	0+00 to 1+93	CONSTRUCTION
BC-32	0+00 to 11+72	PRE-HAUL MAINTENANCE
BC-32*	11+72 to 32+77	CONSTRUCTION
BC-3202*	0+00 to 12+19	PRE-HAUL MAINTENANCE
BC-3204*	0+00 to 8+31	CONSTRUCTION
BC-35*	0+00 to 10+92	CONSTRUCTION
BC-37*	0+00 to 30+52	CONSTRUCTION
BC-3706*	0+00 to 2+03	CONSTRUCTION
BC-38*	0+00 to 5+39	CONSTRUCTION
BC-42	0+00 to 106+78	PRE-HAUL MAINTENANCE
BC-4210	0+00 to 25+37	PRE-HAUL MAINTENANCE
BC-4215	0+00 to 12+95	PRE-HAUL MAINTENANCE
BC-4215-01*	0+00 to 8+86	CONSTRUCTION
BC-4215-0101*	0+00 to 1+16	CONSTRUCTION
BC-4218	0+00 to 8+98	CONSTRUCTION

* Construction is on previously abandoned road grade.

0-4 CONSTRUCTION

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

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>
BC-ML	0+00 to 5+00	Cut and remove trees marked with a pink "T". Repair road and/or replace surface from any damage by equipment use.

Pre-haul maintenance includes, brushing, blading, shaping, and ditching the road surface, culvert installation, and application of 3-inch minus ballast.

0-7 POST-HAUL MAINTENANCE

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

0-12 DEVELOP ROCK SOURCE

Purchaser may develop existing rock sources. Rock source development may involve clearing, stripping and blasting. 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 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

1-6 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.

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.

1-18 REFERENCE POINT DAMAGE

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

1-21 HAUL APPROVAL

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

1-25 ACTIVITY TIMING RESTRICTION

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

<u>Activity</u>	<u>Closure Period</u>
Rock hauling, construction, or reconstruction	November 1 to March 31

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

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

1-31 SPEED LIMITS

On the following road, speeds are limited to 10 mph.

<u>Road</u>	<u>Mile Post</u>	<u>Remarks</u>
BC-ML	0.0 to 0.3 Gate	To limit dust around residences

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.

2-5 MAINTENANCE GRADING – EXISTING ROAD

On PRE-HAUL MAINTENANCE roads, Purchaser shall use a grader to shape the existing surface before hauling.

2-7 CLEANING DITCHES, HEADWALLS, AND CATCH BASINS

Purchaser shall clean ditches, headwalls, and catchbasins. Work must be completed before application of rock and must be done in accordance with the TYPICAL SECTION. Pulling ditch material across the road or mixing in with the road surface is not allowed.

2-8 MAINTAINING EROSION CONTROL STRUCTURES

Purchaser shall clean and maintain all erosion control structures. Work must be completed before hauling of rock or timber and must be done as approved by the Contract Administrator. Excavated material must be scattered outside the grubbing limits.

SECTION 3 – CLEARING, GRUBBING, AND DISPOSAL

3-1 BRUSHING

On the following roads, Purchaser shall cut vegetative material up to 6 inches in diameter, including limbs, as shown on the BRUSHING DETAIL. Brushing must be achieved by manual or mechanical cutting of brush, trees, and branches. Root systems and stumps of cut vegetation may not be disturbed unless directed by the Contract Administrator. Purchaser shall remove brushing debris from the road surface, ditchlines, and culvert inlets and outlets.

<u>Road</u>	<u>Stations</u>
BC-ML	0+00 to 223+54
BC-20	0+00 to 49+38
BC-32	0+00 to 11+72
BC-3202	0+00 to 12+19
BC-42	0+00 to 106+78
BC-4210	0+00 to 25+37
BC-4215	0+00 to 12+95

3-5 CLEARING

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

3-8 PROHIBITED DECKING AREAS

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

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

3-10 GRUBBING

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

3-20 ORGANIC DEBRIS DEFINITION

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

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 application of rock.

3-22 DESIGNATED WASTE AREA FOR ORGANIC DEBRIS

Waste areas for organic debris are located as listed.

<u>Road</u>	<u>Disposal Location</u>
BC-20	39+44

3-23 PROHIBITED DISPOSAL AREAS

Purchaser shall not place organic debris in the following areas:

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

3-24 BURYING ORGANIC DEBRIS RESTRICTED

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

3-25 SCATTERING ORGANIC DEBRIS

Purchaser shall scatter organic debris outside of the clearing limits in natural openings unless otherwise detailed in this road plan.

3-32 END HAULING ORGANIC DEBRIS

On the following road Purchaser shall end haul 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>	<u>Remarks</u>
BC-ML	0+00 to 5+00	Tops and limbs may be scattered on fillslope

SECTION 4 – EXCAVATION

4-2 PIONEERING

Pioneering may not extend past construction that will be completed during the current construction season. Pioneering may not extend more than 500 feet beyond completed construction unless approved in writing by the Contract Administrator. In addition, the following actions must be taken as pioneering progresses:

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

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 12 percent adverse.
- Minimum curve radius is 60 feet at centerline.
- Maximum grade change for sag vertical curves is 5% in 100 feet.
- Maximum grade change for crest vertical curves is 4% in 100 feet.

4-5 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, unless construction staked or designed:

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

4-7 SHAPING CUT AND FILL SLOPE

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

4-8 CURVE WIDENING

The minimum widening placed on the inside of curves is:

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

4-9 EMBANKMENT WIDENING

The minimum embankment widening is:

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

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

4-21 TURNOUTS

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

4-22 TURNAROUNDS

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

4-25 DITCH CONSTRUCTION AND RECONSTRUCTION

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

4-28 DITCH DRAINAGE

Ditches must drain to cross-drain culverts or ditchouts.

4-29 DITCHOUTS

Purchaser shall construct ditchouts as identified on the MATERIALS LIST and as needed. 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 50% if the waste material is compacted and free of organic debris. On side slopes greater than 50%, 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 areas identified or approved by the Contract Administrator.

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

4-55 ROAD SHAPING

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

4-60 FILL COMPACTION

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

4-61 SUBGRADE COMPACTION

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

4-63 EXISTING SURFACE COMPACTION

Purchaser shall compact maintained road surfaces 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 MATERIAL LIST. Culvert, downspout, and flume lengths may be adjusted to fit as-built conditions and may not terminate directly on unprotected soil. Culverts may be new or used material and meet the specifications in Clauses 10-15 through 10-24.

5-12 UNUSED MATERIALS STATE PROPERTY

On required roads, any materials listed on the MATERIAL 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 and the National Corrugated Metal Pipe Association's "Installation Manual for Corrugated Steel Drainage Structures" and the Corrugated Polyethylene Pipe Association's "Recommended Installation Practices for Corrugated Polyethylene Pipe and Fittings". Corrugated Polyethylene pipe must be installed in a manner consistent with the manufacturer's recommendations. Culverts over 18 inches diameter shall be banded using lengths of no less than 10 feet, and no more than one length less than 16 feet. Shorter section of banded culvert shall be installed at the inlet end.

5-16 APPROVAL FOR LARGER CULVERT INSTALLATION

Purchaser shall obtain written approval from the Contract Administrator for the installation of culverts 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 depth of cover of not less than 1 foot of compacted subgrade over the top of the culvert at the shallowest point. Stream crossing culverts must be installed with a depth of cover recommended by the culvert manufacturer for the type and size of the pipe.

5-20 ENERGY DISSIPATERS

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

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

5-21 DOWNSPOUTS AND FLUMES

Downspouts and flumes must be staked on both sides at a maximum interval of 10 feet with 6-foot heavy-duty steel posts, and fastened securely to the posts in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL.

5-25 CATCH BASINS

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

5-26 HEADWALLS FOR CROSS DRAIN CULVERTS

Purchaser shall construct headwalls in accordance with the CULVERT AND DRAINAGE SPECIFICATION DETAIL at all cross drain culverts. Rock used for headwalls must weigh at least 50 pounds. Rock must be placed on shoulders, slopes, and around culvert inlets and outlets. Minimum specifications require that rock be placed at a width of one culvert diameter on each side of the culvert opening, and to a height of one culvert diameter above the top of the culvert. Rock may not restrict the flow of water into culvert inlets or catch basins. No placement by end dumping or dropping of rock is allowed.

5-27 ARMORING FOR STREAM CROSSING CULVERTS

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

SECTION 6 – ROCK AND SURFACING

6-2 ROCK SOURCE ON STATE LAND

Rock used in accordance with the quantities on the TYPICAL SECTION and MATERIALS LIST may be obtained from the following sources on state land at no charge to the Purchaser. Purchaser shall obtain written approval from the Contract Administrator for the use of material from any other source. If other operators are using, or desire to use the rock sources, a joint operating plan must be developed. All parties shall follow this plan.

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>
BC-4215-01 Hardrock Pit	BC-4215 5+57	3-inch minus ballast and Rip rap

6-3 ROCK SOURCE STATE LAND, EXISTING STOCKPILE

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

<u>Source</u>	<u>Location</u>	<u>Rock Type</u>	<u>Use requirements</u>
BC-2007	BC-20 39+44	2-inch crushed	Road maintenance use only with prior permission required.
BC-2009	BC-20 49+38	2-inch crushed	Road maintenance use only with prior permission required.

6-5 ROCK FROM COMMERCIAL SOURCE

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

6-11 ROCK SOURCE DEVELOPMENT PLAN BY PURCHASER

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

<u>Source</u>
BC-4215-01 Hardrock Pit

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

- Rock source location.
- Rock source overview showing access roads, development areas, stockpile locations, waste areas, and floor drainage.
- Rock source profiles showing development areas, bench locations including widths, and wall faces including heights.

6-12 ROCK SOURCE SPECIFICATIONS

Rock sources must be in accordance with the following specifications:

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

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

- Pit walls must be maintained in a condition to minimize the possibility of the walls sliding or failing.
- The width of pit benches must be a minimum of 1.5 times the maximum length of the largest machine used.
- The surface of pit floors and benches must be uniform and free-draining at a minimum 2% outslope gradient.
- All operations must be carried out in compliance with all regulations of the Regulations and Standards Applicable to Metal and Nonmetal Mining and Milling Operations (30 CFR) U.S. Department of Labor, Mine Safety and Health

6-23 ROCK GRADATION TYPES

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

6-34 3-INCH MINUS BALLAST ROCK

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

Rock may contain no more than 5 percent organic debris, dirt, and trash. 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%	300 lbs. to 1 ton (18" - 36")
15% to 80%	50 lbs. to 500 lbs. (8" - 18")
10% to 20%	50 lbs. max (3" - 8")

6-51 HEAVY LOOSE RIP RAP

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

<u>Quantity</u>	<u>Size Range</u>
30% to 90%	1 ton to 3 ton (36" - 54")
70% to 90%	500 lbs. to 1½ ton (24" - 42")
10% to 30%	50 lbs. max (3" - 8")

6-55 ROCK APPLICATION MEASURED BY COMPACTED DEPTH

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

6-70 APPROVAL BEFORE ROCK APPLICATION

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

6-71 ROCK APPLICATION

Purchaser shall apply rock in accordance with the specifications and quantities shown on the TYPICAL SECTION. Rock must be spread, shaped, and compacted full width concurrent with rock hauling operations. The Contract Administrator will direct locations for rock that is to be applied as spot patching. Road surfaces must be compacted 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.

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 25 feet of a stream or wetland. Soils must be covered before the first anticipated storm event.

8-15 REVEGETATION

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

8-16 REVEGETATION SUPPLY

The Purchaser shall provide the seed and fertilizer.

8-17 REVEGETATION TIMING

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

8-18 PROTECTION FOR SEED

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

8-19 ASSURANCE FOR SEEDED AREA

Purchaser shall ensure the growth of a uniform and dense crop (at least 50% coverage) of 3-inch tall grass. Purchaser shall reapply the grass seed and fertilizer in areas that have failed to germinate or have been damaged through any cause, restore eroded or disturbed areas, clean up and properly dispose of eroded materials, and reapply the grass seed and fertilizer 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 50 pounds per acre of exposed soil. Grass seed must meet the following specifications:

1. Weed seed may not exceed 0.5% by weight.
2. All seed species must have a minimum 90% germination rate, unless otherwise specified.
3. Seed must be certified.
4. Seed must be furnished in standard containers showing the following information:
 - a. Common name of seed
 - b. Net weight
 - c. Percent of purity
 - d. Percentage of germination
 - e. Percentage of weed seed and inert material
5. Seed must conform to the following mixture <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>
Creeping Red Fescue	50
Elf Perennial Rye Grass	25
Highland Colonial Bentgrass	15
White Clover	10
Inert and Other Crop	0.5

8-27 FERTILIZER

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

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

SECTION 9 – POST-HAUL ROAD WORK**9-3 CULVERT MATERIAL REMOVED FROM STATE LAND**

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

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.

9-12 LANDING EMBANKMENT REMOVAL

The Purchaser shall reduce or relocate landing embankment, in a manner approved, in writing, by the Contract Administrator. Excavated material shall be placed 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 galvanized (zinc coated meeting AASHTO M-218).

10-16 CORRUGATED ALUMINUM CULVERT

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

10-17 CORRUGATED PLASTIC CULVERT

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

10-20 FLUME AND DOWNSPOUT

Downspouts and flumes must meet the AASHTO specification designated for the culvert. Plastic downspouts and flumes must be Type C – corrugated single walled pipe.

10-21 METAL BAND

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

10-22 PLASTIC BAND

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

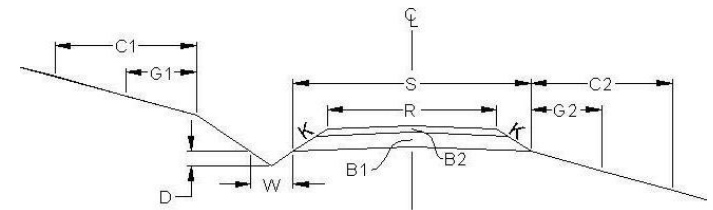
10-24 GAUGE AND CORRUGATION

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

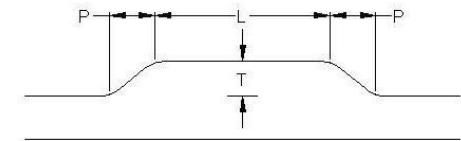
<u>Diameter</u>	<u>Gauge</u>	<u>Corrugation</u>
18"	16 (0.064")	2 ² / ₃ " X 1 ¹ / ₂ "
24" to 48"	14 (0.079")	2 ² / ₃ " X 1 ¹ / ₂ "
54" to 96"	12 (0.109")	3" X 1"

ROAD #		BC-ML	BC-ML	BC-20	BC-31 ³
REQUIRED / OPTIONAL		Required	Required	Required	Required
CONSTRUCT / RECONSTRUCT		Pre-Haul	Pre-Haul	Pre-Haul	Construction
TOLERANCE CLASS (A/B/C)		C	C	C	C
STATION / MP TO		0+00	5+00	0+00	0+00
STATION / MP		5+00	223+54	49+38	1+93
ROAD WIDTH	R	12	16	12	12
CROWN (INCHES @ C/L)		3	3	3	3
DITCH WIDTH	W	3	3	3	3
DITCH DEPTH	D	1	1	1	1
TURNOUT LENGTH	L	50	50	50	50
TURNOUT WIDTH	T	10	10	10	10
TURNOUT TAPER	P	25	25	25	25
GRUBBING	G1	--	--	--	5
	G2	--	--	--	5
CLEARING	C1	--	--	--	10
	C2	10 ¹	--	--	10
ROCK FILLSLOPE	K:1	1½	1½	1½	1½
❖ BALLAST DEPTH	B1	--	--	--	12
CUBIC YARDS / STATION		--	--	--	72
➤ TOTAL CY BALLAST		--	10 ²	--	139
❖ SURFACING DEPTH	B2	--	--	--	--
CUBIC YARDS / STATION		--	--	--	--
➤ TOTAL CY SURFACING		--	--	--	--
➤ TOTAL CUBIC YARDS		--	10	--	139
SUBGRADE WIDTH	S	--	--	--	15
BRUSHCUT (Y/N)		Y	Y	Y	N/A
BLADE, SHAPE, & DITCH (Y/N)		Y	Y	Y	Y

TYPICAL SECTION



TURNOUT DETAIL (PLAN VIEW)



SYMBOL NOTES

- ❖ Specified Rock Depth is FINISHED COMPACTED DEPTH in inches.
 - Specified Rock Quantity is LOOSE MEASURE (Truck Cubic Yards) needed to accomplish specified FINISHED COMPACTED DEPTH. Rock quantities include volume for turnouts, curve widening and landings.
- 1 Cut and remove trees on left marked with pink "T".
2 Spot ballast for culvert installation.
3 Previously abandoned road grade.

Rock Totals Summary

Type	Quantity (Cubic Yards)
Shot rock	30
Rip Rap	329
3-inch minus ballast	7,340

ROAD #		BC-32	BC-32 ³	BC-3202	BC-3204 ³	BC-35 ³	BC-37 ³	BC-3706 ³	BC-38 ³
REQUIRED / OPTIONAL		Required	Required	Required	Required	Required	Required	Required	Required
CONSTRUCT / RECONSTRUCT		Pre-Haul	Construction	Pre-Haul	Construction	Construction	Construction	Construction	Construction
TOLERANCE CLASS (A/B/C)		C	C	C	C	C	C	C	C
STATION / MP TO		0+00	11+72	0+00	0+00	0+00	0+00	0+00	0+00
STATION / MP		11+72	32+77	12+19	8+31	10+92	30+52	2+03	5+39
ROAD WIDTH	R	12	12	12	12	12	12	12	12
CROWN (INCHES @ C/L)		3	3	3	3	3	3	3	3
DITCH WIDTH	W	3	3	3	3	3	3	3	3
DITCH DEPTH	D	1	1	1	1	1	1	1	1
TURNOUT LENGTH	L	50	50	50	50	50	50	50	50
TURNOUT WIDTH	T	10	10	10	10	10	10	10	10
TURNOUT TAPER	P	25	25	25	25	25	25	25	25
GRUBBING	G1	--	5	--	5	5	5	5	5
	G2	--	5	--	5	5	5	5	5
CLEARING	C1	--	10	--	10	10	10	10	10
	C2	--	10	--	10	10	10	10	10
ROCK FILL SLOPE	K:1	1½	1½	1½	1½	1½	1½	1½	1½
❖ BALLAST DEPTH	B1	6	6	6	12	12	12	12	6
CUBIC YARDS / STATION		34	34	34	72	72	72	72	34
➤ TOTAL CY BALLAST		399	716	415	599	787	2,198	147	184
❖ SURFACING DEPTH	B2	--	--	--	--	--	--	--	--
CUBIC YARDS / STATION		--	--	--	--	--	--	--	--
➤ TOTAL CY SURFACING		--	--	--	--	--	--	--	--
➤ TOTAL CUBIC YARDS		399	716	415	599	787	2,198	147	184
SUBGRADE WIDTH	S	13.5	13.5	13.5	15	15	15	15	13.5
BRUSH CUT (Y/N)		Y	N/A	Y	N/A	N/A	N/A	N/A	N/A
BLADE, SHAPE, & DITCH (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y

ROAD #		BC-42	BC-4210	BC-4215	BC-4215-01 ³	BC-4215-0101 ³	BC-4218		
REQUIRED / OPTIONAL		Required	Required	Required	Required	Required	Required		
CONSTRUCT / RECONSTRUCT		Pre-Haul	Pre-Haul	Pre-Haul	Construction	Construction	Construction		
TOLERANCE CLASS (A/B/C)		C	C	C	C	C	C		
STATION / MP TO		0+00	0+00	0+00	0+00	0+00	0+00		
STATION / MP		106+78	25+37	12+95	8+86	1+16	8+98		
ROAD WIDTH	R	12	12	12	12	12	12		
CROWN (INCHES @ C/L)		3	3	3	3	3	3		
DITCH WIDTH	W	3	3	3	3	3	3		
DITCH DEPTH	D	1	1	1	1	1	1		
TURNOUT LENGTH	L	50	50	50	50	50	50		
TURNOUT WIDTH	T	10	10	10	10	10	10		
TURNOUT TAPER	P	25	25	25	25	25	25		
GRUBBING	G1	--	--	--	5	5	5		
	G2	--	--	--	5	5	5		
CLEARING	C1	--	--	--	10	10	10		
	C2	--	--	--	10	10	10		
ROCK FILL SLOPE	K:1	1½	1½	1½	1½	1½	1½		
❖ BALLAST DEPTH	B1	--	--	--	12	12	18		
CUBIC YARDS / STATION		--	--	--	72	72	114		
➤ TOTAL CY BALLAST		--	--	--	638	84	1,024		
❖ SURFACING DEPTH	B2	--	--	--	--	--	--		
CUBIC YARDS / STATION		--	--	--	--	--	--		
➤ TOTAL CY SURFACING		--	--	--	--	--	--		
➤ TOTAL CUBIC YARDS		--	--	--	638	84	1,024		
SUBGRADE WIDTH	S	--	--	--	15	15	16.5		
BRUSH CUT (Y/N)		Y	Y	Y	N/A	N/A	N/A		
BLADE, SHAPE, & DITCH (Y/N)		Y	Y	Y	Y	Y	N/A		

MATERIALS LIST

LOCATION		CULVERT			DWNSPT		RIPRAP			FILL TYPE	TOLERANCE	REMARKS
ROAD #	STATION	DIAMETER	LENGTH	TYPE	LENGTH	TYPE	INLET	OUTLET	TYPE			<u>Note:</u> Galvanized metal culverts shall conform to the following specifications for gage and corrugation as a function of the diameter:
												<u>Diameter</u> 18" 24" – 48" 54" – 96"
BC-ML	203+18	18	40	PD	--	--	2	3	L	NT	C	Install at junction with BC-38. Cut and grub RC clump at culvert outlet.
BC-31	0+17	18	36	PD	--	--	2	3	L	NT	C	
BC-32	16+99	18	30	PD	--	--	2	3	L	NT	C	
	20+51	18	30	PD	--	--	2	3	L	NT	C	
	23+98	30	30	PD	--	--	3	6	H/L	NT	C	Stream
	28+26	18	30	PD	--	--	2	3	L	NT	C	
BC-3204	2+16	18	30	PD	--	--	2	3	L	NT	C	
	4+20	18	30	PD	--	--	2	3	L	NT	C	
	6+48	18	30	PD	--	--	2	3	L	NT	C	
	7+24	24	30	PD	--	--	3	6	H/L	NT	C	Stream
BC-35	2+42	24	35	PD	--	--	3	6	H/L	NT	C	Stream
	2+90	18	30	PD	--	--	2	3	L	NT	C	
	4+51	--	--	--	--	--	0	3	L	NT	C	Ditchout Left
	5+57	24	30	PD	--	--	3	6	H/L	NT	C	Stream
	6+14	18	35	PD	--	--	2	3	L	NT	C	
	9+31	18	30	PD	--	--	2	3	L	NT	C	
BC-37	2+35	18	30	PD	--	--	2	3	L	NT	C	
	4+90	18	30	PD	--	--	2	3	L	NT	C	
	6+99	18	40	PD	--	--	2	3	L	NT	C	
	7+76	30	30	PD	--	--	6	10	H/L	NT	C	Stream
	10+69	18	30	PD	--	--	2	3	L	NT	C	

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

MATERIALS LIST

LOCATION		CULVERT			DWNSPT		RIPRAP			FILL TYPE	TOLERANCE	REMARKS		
ROAD #	STATION	DIAMETER	LENGTH	TYPE	LENGTH	TYPE	INLET	OUTLET	TYPE			<u>Note:</u> Galvanized metal culverts shall conform to the following specifications for gage and corrugation as a function of the diameter:		
												<u>Diameter</u>	<u>Gage</u>	<u>Corrugation</u>
												18"	16	2 2/3" x 1/2"
												24" – 48"	14	2 2/3" x 1/2"
												54" – 96"	14	3" x 1"
BC-37 Cont.	13+44	18	30	PD	--	--	2	3	L	NT	C	Install at junction with BC-38		
	15+77	18	30	PD	--	--	2	3	L	NT	C			
	16+88	18	30	PD	--	--	2	6	L	NT	C			
	17+31	48	40	GM	--	--	15	30	H/L	NT	C	Stream		
	19+73	18	30	PD	--	--	2	3	L	NT	C			
	20+51	18	30	PD	--	--	2	3	L	NT	C			
	21+81	18	30	PD	--	--	2	3	L	NT	C			
	22+30	30	36	PD	--	--	5	10	H/L	NT	C	Stream		
	25+05	18	30	PD	--	--	2	3	L	NT	C			
	26+82	18	30	PD	--	--	2	3	L	NT	C			
	27+92	18	30	PD	--	--	2	3	L	NT	C			
	28+57	48	40	GM	--	--	10	30	H/L	SR/NT	C	Stream. Compact 30 yd³ shot rock at fillslope.		
	29+60	18	30	PD	--	--	2	3	L	NT	C			
	30+52	18	30	PD	--	--	2	3	L	NT	C			
BC-38	3+83	24	30	PD	--	--	3	6	H/L	NT	C	Stream. Remove existing culvert.		
BC-4215-01	2+38	--	--	--	--	--	2	2	L	NT	C	Ditchout Left and Right		
	6+25	24	30	PD	--	--	3	6	H/L	NT	C	Stream		
	6+50	24	30	PD	--	--	3	6	H/L	NT	C	Stream. Remove culvert garbage.		
	7+30	18	30	PD	--	--	2	3	L	NT	C			
BC-4218	3+80	18	30	PD	--	--	2	3	L	NT	C			

GM – Galvanized Metal PS – Polyethylene Pipe Single Wall
H – Heavy Loose Riprap L – Light Loose Riprap

PD – Polyethylene Pipe Dual Wall
SR – Shot Rock

AM – Aluminized Metal C – Concrete XX – PD or GM
NT – Native (Bank Run) QS – Quarry Spalls

FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Cuts and Fills

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

Surface

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

Drainage

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

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.

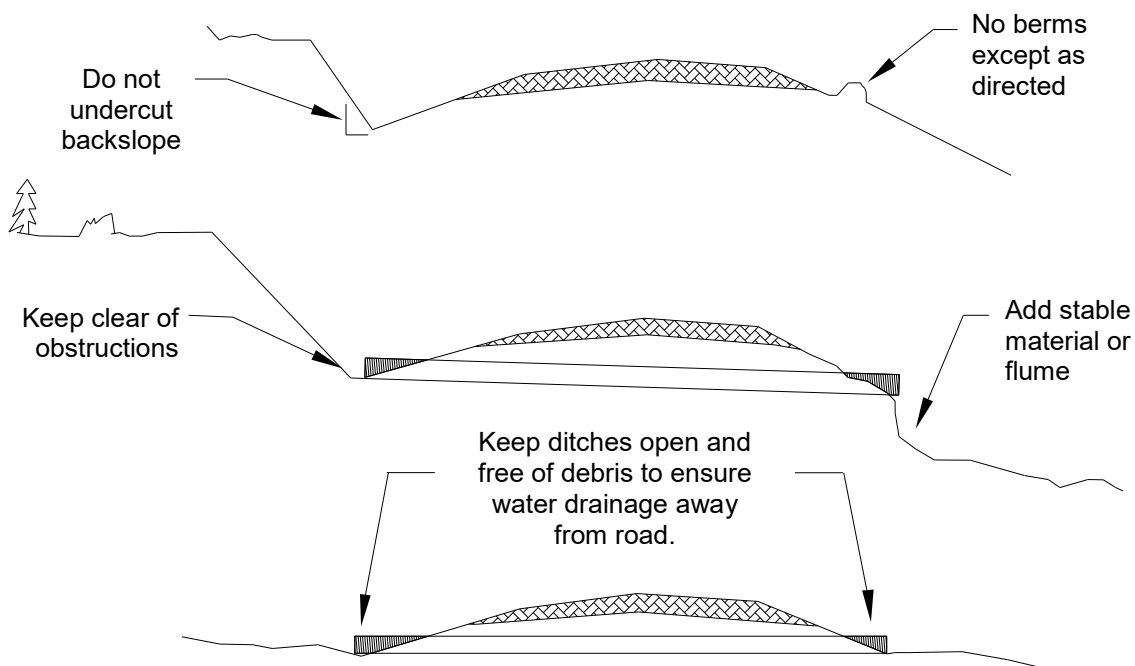
FOREST ACCESS ROAD MAINTENANCE SPECIFICATIONS

Termination of Use or End of Season

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

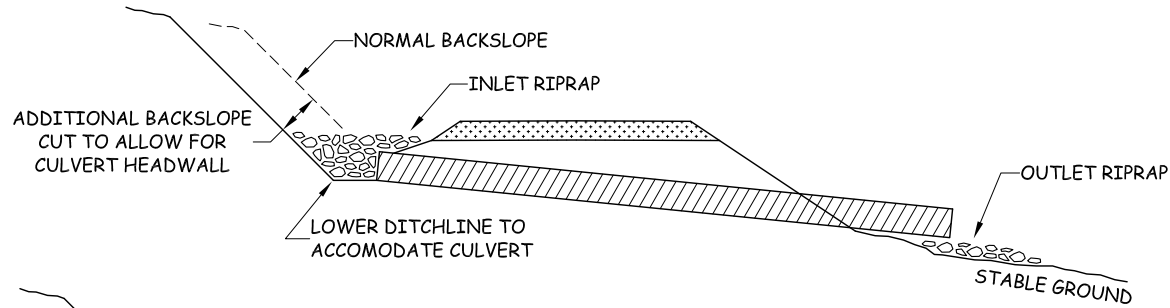
Debris

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

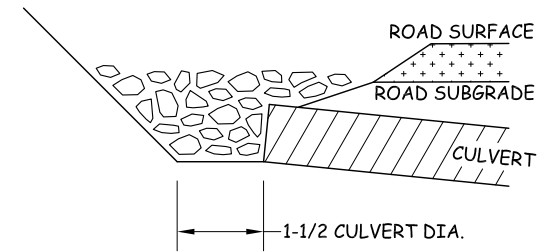


CULVERT AND DRAINAGE SPECIFICATIONS

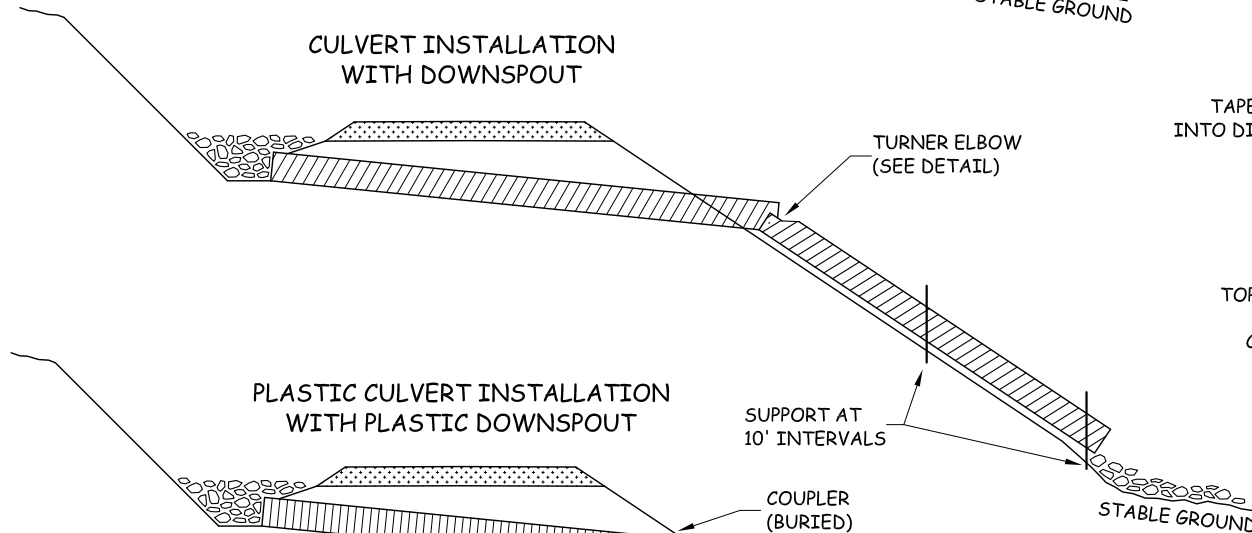
CULVERT INSTALLATION (TYPICAL)



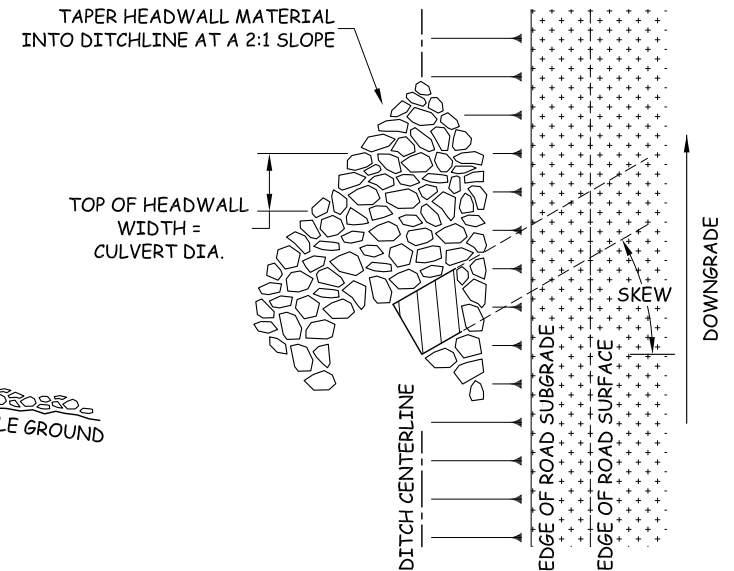
CULVERT HEADWALL - SECTION VIEW



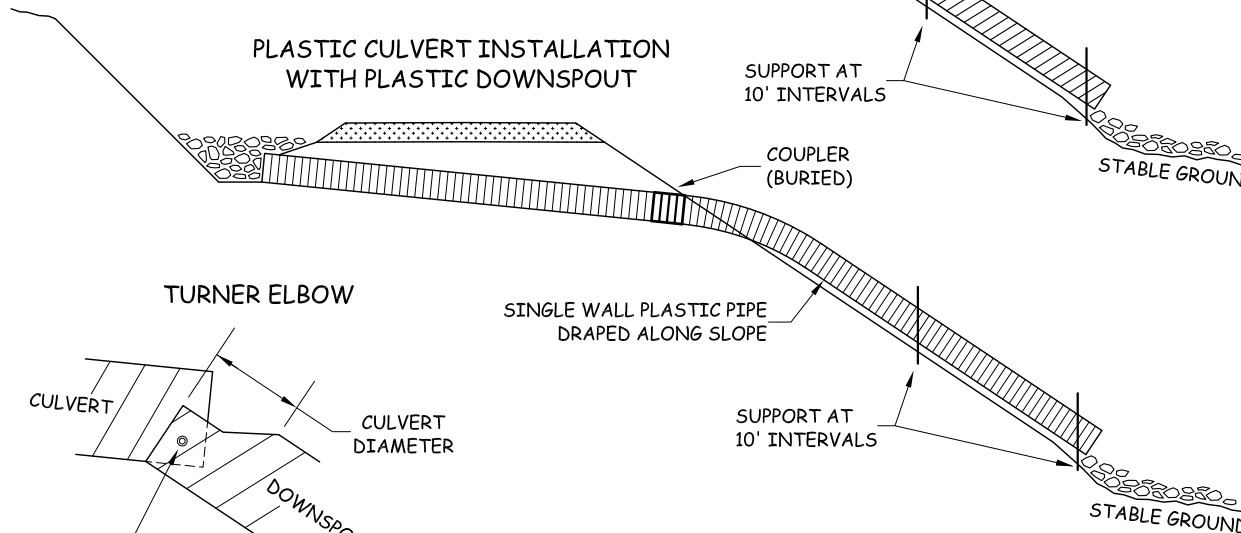
CULVERT INSTALLATION WITH DOWNSPOUT



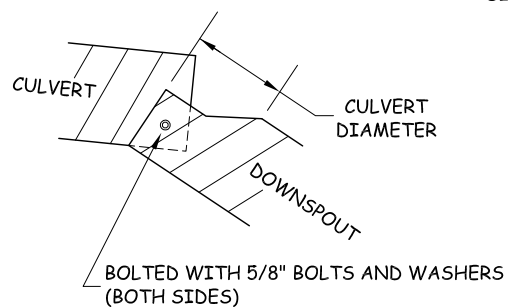
CULVERT HEADWALL - PLAN VIEW



PLASTIC CULVERT INSTALLATION WITH PLASTIC DOWNSPOUT



TURNER ELBOW



HEADWALL NOTE:

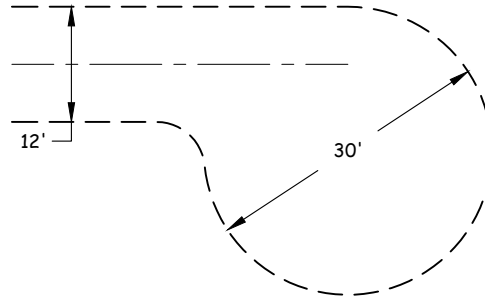
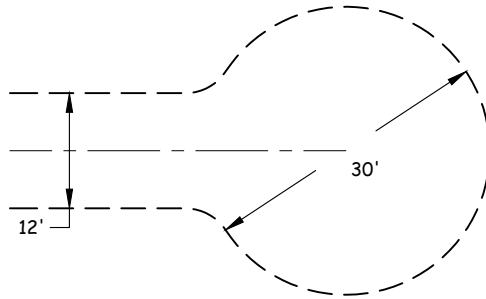
HEADWALL TO BE CONSTRUCTED OF IMPERVIOUS MATERIAL THAT WILL RESIST EROSION AND ARMORED WITH RIPRAP QUANTITY SPECIFIED IN ROAD PLAN.

CONTRACT #
30-103808

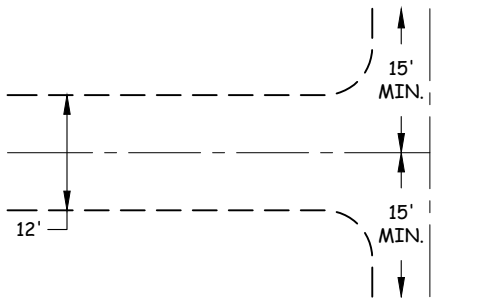
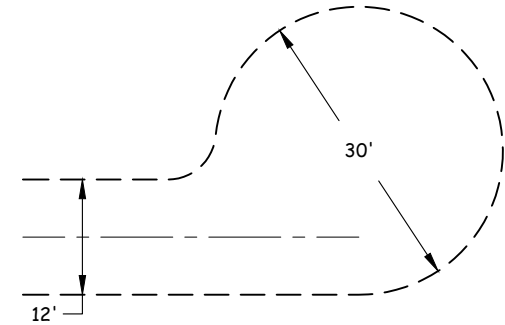
PROJECT
MELODY THIN

SHEET
29 OF 31

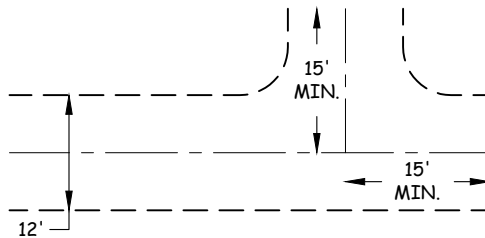
TURNAROUND DETAILS



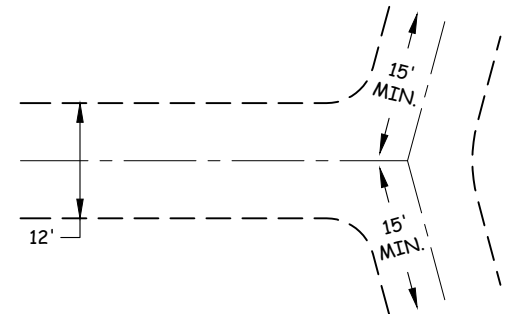
CUL-DE-SAC



HAMMERHEAD



3-POINT SIDE



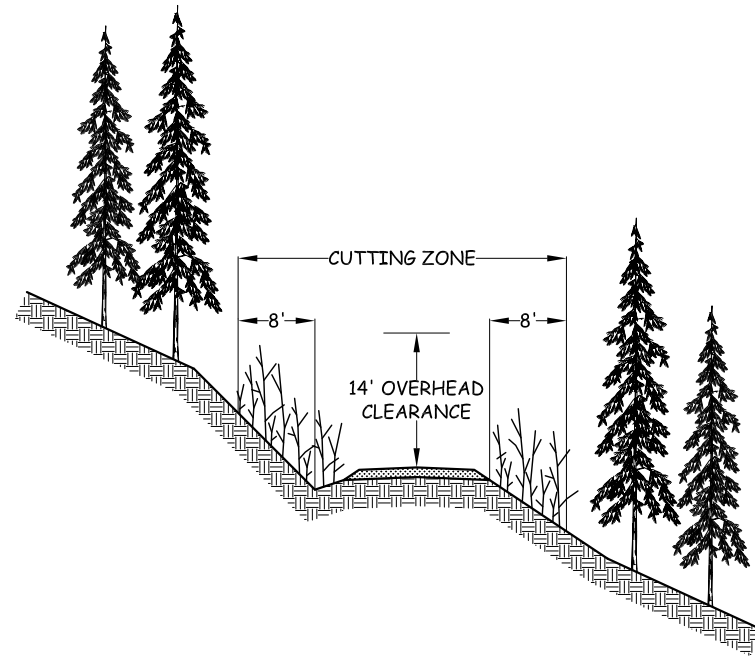
3-POINT WYE

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

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

CONTRACT #	PROJECT	SHEET
30-103808	MELODY THIN	30 OF 31

ROAD BRUSHING DETAILS



SPECIFICATIONS

BRUSH SHALL BE CUT ON THE ROAD SURFACE AND 8 ft. BACK FROM ROAD DITCH AND OUTSIDE EDGE OF RUNNING SURFACE.

ON THE INSIDE OF SWITCHBACKS AND TIGHT CURVES, BRUSH SHALL BE CUT BACK 16 ft. FOR VISIBILITY.

ON TRUCK TURNOUTS, BRUSH SHALL BE CUT 8 ft. BACK FROM OUTSIDE EDGE.

BRUSH SHALL BE CUT TO PROVIDE AN OVERHEAD CLEARANCE OF 14 ft. ABOVE THE ROAD RUNNING SURFACE.

BRUSH SHALL BE CUT TO WITHIN 6 in. OF THE GROUND.

SLASH SHALL BE REMOVED FROM CUT SLOPES ABOVE THE ROAD AND SCATTERED ON EMBANKMENT SLOPES.

DITCHES SHALL BE CLEARED OF WOODY DEBRIS.

CULVERT INLETS AND OUTLETS SHALL BE CLEANED A MINIMUM DISTANCE OF TWO PIPE DIAMETERS AWAY.

CONTRACT #	PROJECT	SHEET
30-103808	MELODY THIN	31 OF 31

SUMMARY - Road Development Costs

REGION: Northwest

DISTRICT: Clear Lake

SALE/PROJECT NAME: Melody Thin

CONTRACT #: 30-103808

ROAD NUMBERS: BC-31, BC-32, BC-3204, BC-35, BC-37, BC-3706, BC-38, BC-4215-01, BC-4215-0101

BC-ML, BC-20, BC-32, BC-42, BC-4210, BC-4215

ROAD STANDARD:	Construction	Reconstruction	Maintenance
NUMBER OF STATIONS:	99+15	0+00	441+93
CLEARING & GRUBBING:	\$23,612	\$0	\$700
EXCAVATION AND FILL:	\$49,831	\$0	\$915
MISC. MAINTENANCE:	\$0	\$0	\$15,481
ROAD ROCK:	\$89,666	\$0	\$11,120
ROCK STOCKPILE PROD:	\$0	\$0	\$0
CULVERTS AND FLUMES:	\$38,396	\$0	\$920
STRUCTURES:	\$0	\$0	\$0
MOBILIZATION:	\$4,806	\$0	\$3,194
 TOTAL COSTS:	 \$206,311	 \$0	 \$32,331
 COST PER STATION:	 \$2,081	 \$0	 \$62
ROAD DEACTIVATION & ABANDONMENT COSTS:		\$0	

	TOTAL (All Roads)	=	\$238,642
Pre-Cruise Estimate	SALE VOLUME MBF	=	4,389
	TOTAL \$/MBF	=	\$54

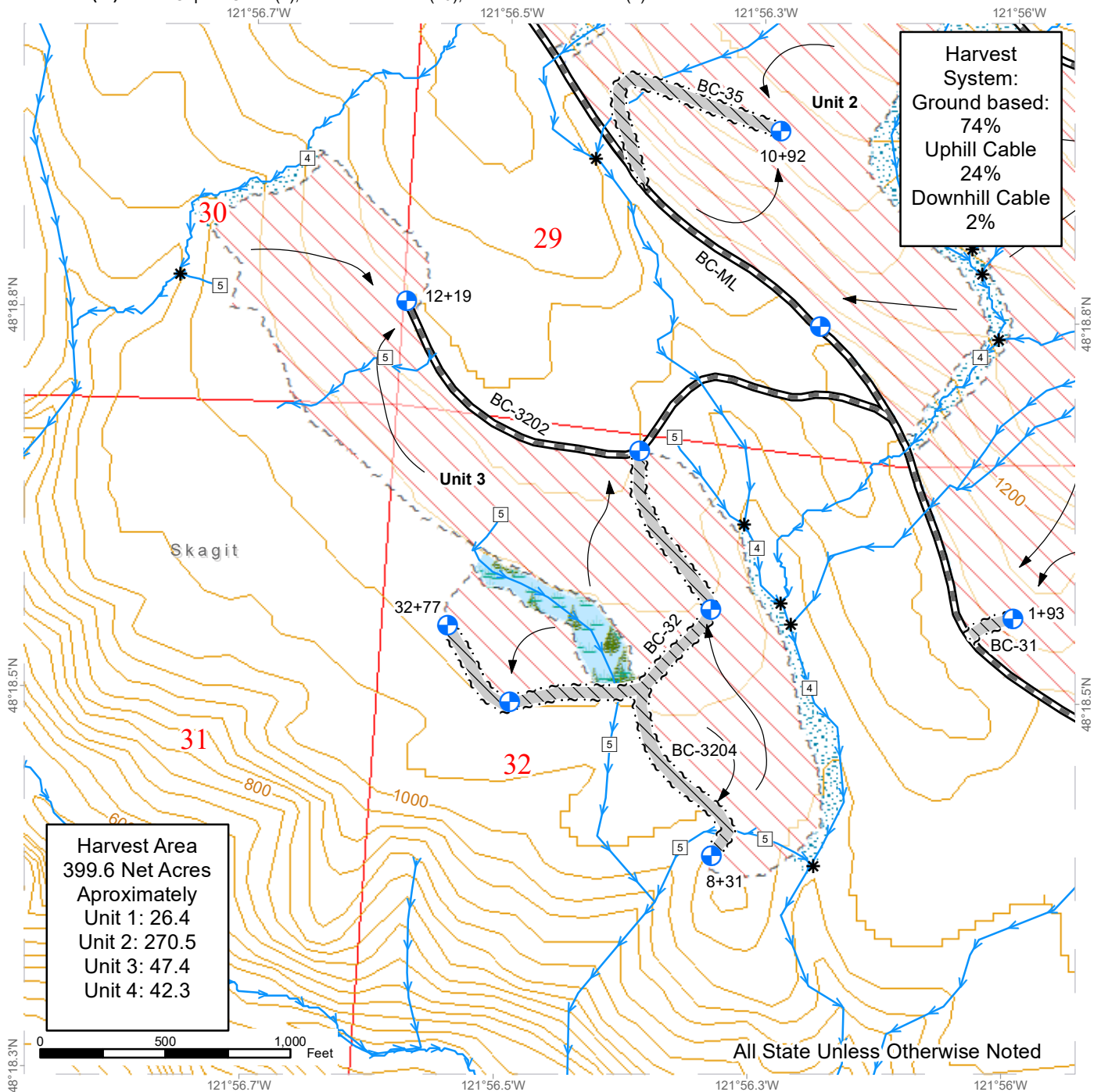
Compiled by: Symmank

Date: 09/14/22

LOGGING PLAN MAP

SALE NAME: Melody Thin
AGREEMENT#: 30-103808
TOWNSHIP(S): T33R7E
TRUST(S): Capitol Grant (7), Scientific School (10), State Forest Transfer (1)

REGION: Northwest Region
COUNTY(S): Skagit
ELEVATION RGE: 1360-1640

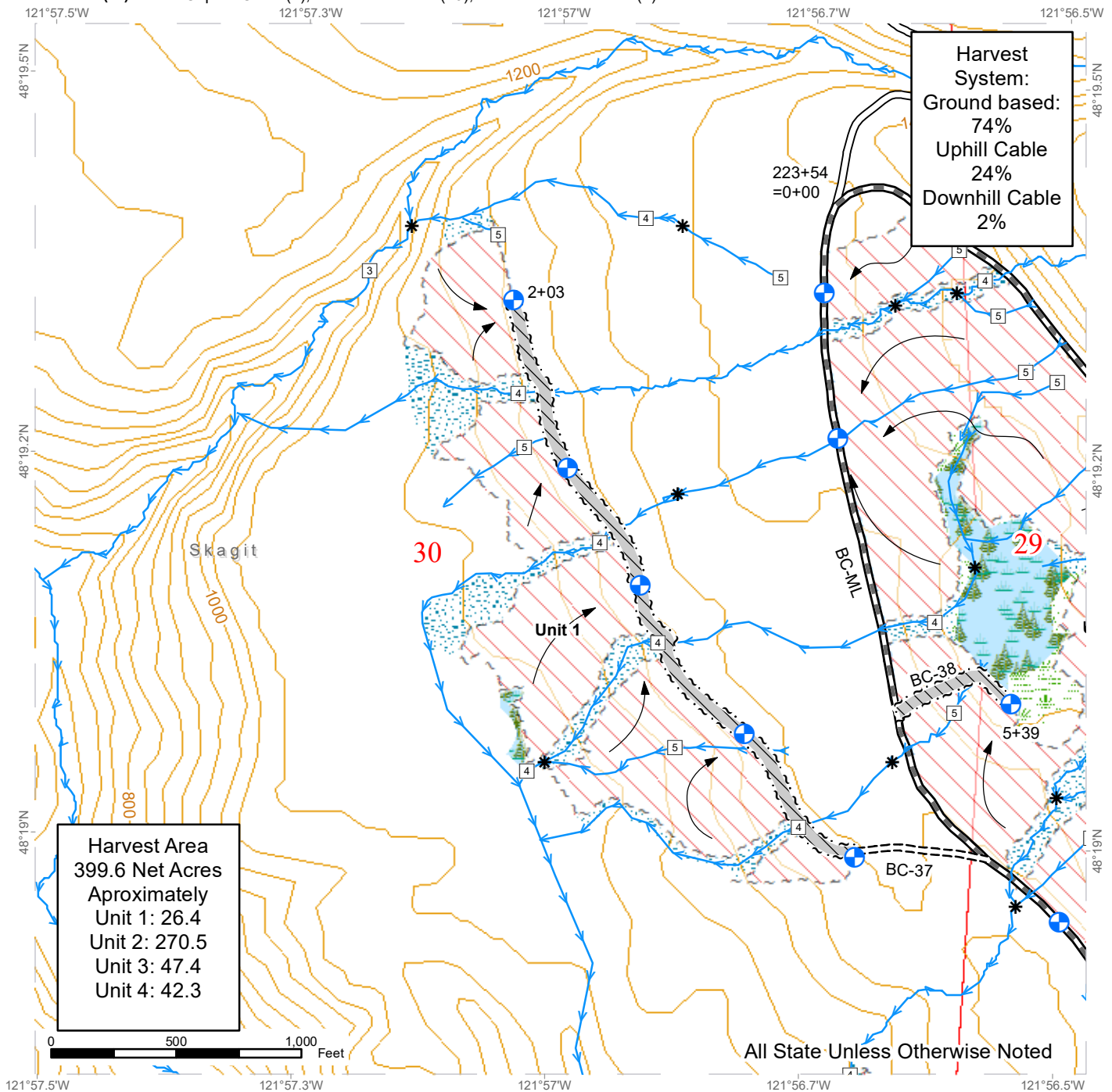


- | | |
|-------------------|-------------------------------|
| Sale Area | Stream Break |
| ROW | Landing - Proposed |
| Contours 40-foot | Ground Harvest |
| Riparian Mgt Zone | Cable Harvest |
| Forested Wetland | Existing Roads |
| Streams | Required Pre-Haul Maintenance |
| Stream Type 4 | New Construction |
| Stream Type 5 | |

LOGGING PLAN MAP

SALE NAME: Melody Thin
AGREEMENT#: 30-103808
TOWNSHIP(S): T33R7E
TRUST(S): Capitol Grant (7), Scientific School (10), State Forest Transfer (1)

REGION: Northwest Region
COUNTY(S): Skagit
ELEVATION RGE: 1360-1640



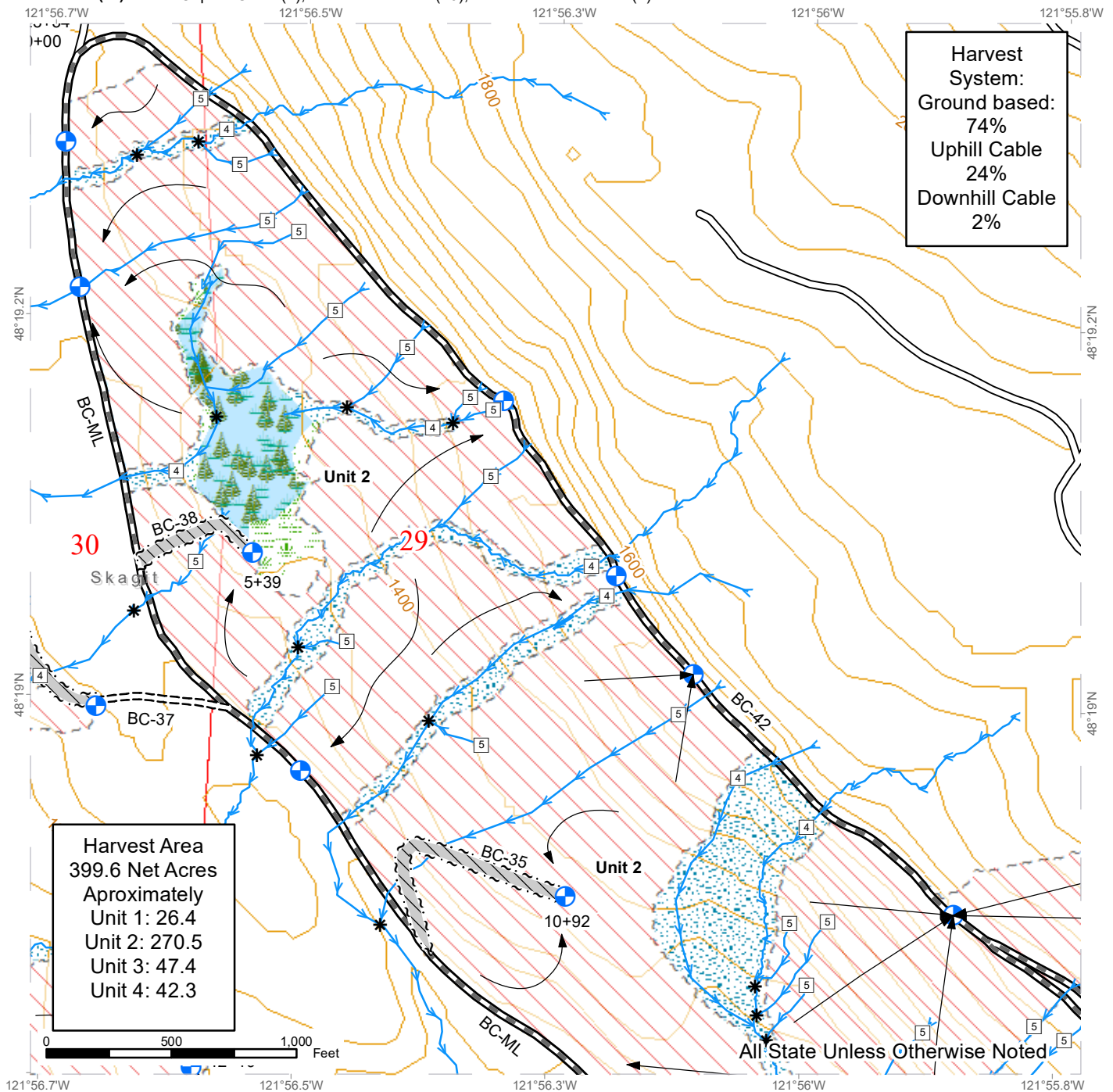
- | | |
|-------------------|-------------------------------|
| Sale Area | Stream Type 4 |
| ROW | Stream Type 5 |
| Contours 40-foot | Stream Break |
| Riparian Mgt Zone | Landing - Proposed |
| Forested Wetland | Ground Harvest |
| Wetland Mgt Zone | Existing Roads |
| Streams | Required Pre-Haul Maintenance |
| Stream Type 3 | New Construction |



LOGGING PLAN MAP

SALE NAME: Melody Thin
AGREEMENT#: 30-103808
TOWNSHIP(S): T33R7E
TRUST(S): Capitol Grant (7), Scientific School (10), State Forest Transfer (1)

REGION: Northwest Region
COUNTY(S): Skagit
ELEVATION RGE: 1360-1640



Harvest
System:
Ground based:
74%
Uphill Cable
24%
Downhill Cable
2%

Harvest Area
399.6 Net Acres
Aproximately
Unit 1: 26.4
Unit 2: 270.5
Unit 3: 47.4
Unit 4: 42.3

0 500 1,000 Feet

- | | |
|-------------------|-------------------------------|
| Sale Area | Stream Type 5 |
| ROW | Stream Break |
| Contours 40-foot | Landing - Proposed |
| Riparian Mgt Zone | Ground Harvest |
| Forested Wetland | Cable Harvest |
| Wetland Mgt Zone | Existing Roads |
| Streams | Required Pre-Haul Maintenance |
| Stream Type 4 | New Construction |

All State Unless Otherwise Noted



LOGGING PLAN MAP

SALE NAME: Melody Thin
AGREEMENT#: 30-103808
TOWNSHIP(S): T33R7E
TRUST(S): Capitol Grant (7), Scientific School (10), State Forest Transfer (1)

REGION: Northwest Region
COUNTY(S): Skagit
ELEVATION RGE: 1360-1640

Harvest System:
 Ground based: 74%
 Uphill Cable 24%
 Downhill Cable 2%

Harvest Area
 399.6 Net Acres
 Aproximately
 Unit 1: 26.4
 Unit 2: 270.5
 Unit 3: 47.4
 Unit 4: 42.3

0 500 1,000 Feet
 121°56.3'W 121°56'W 121°55.8'W 121°55.5'W

- | | |
|-------------------|-------------------------------|
| Sale Area | Landing - Proposed |
| ROW | Rock Pit |
| Contours 40-foot | ARS12 |
| Riparian Mgt Zone | Ground Harvest |
| Streams | Cable Harvest |
| Stream Type 4 | Existing Roads |
| Stream Type 5 | Required Pre-Haul Maintenance |
| Stream Break | New Construction |

All State Unless Otherwise Noted

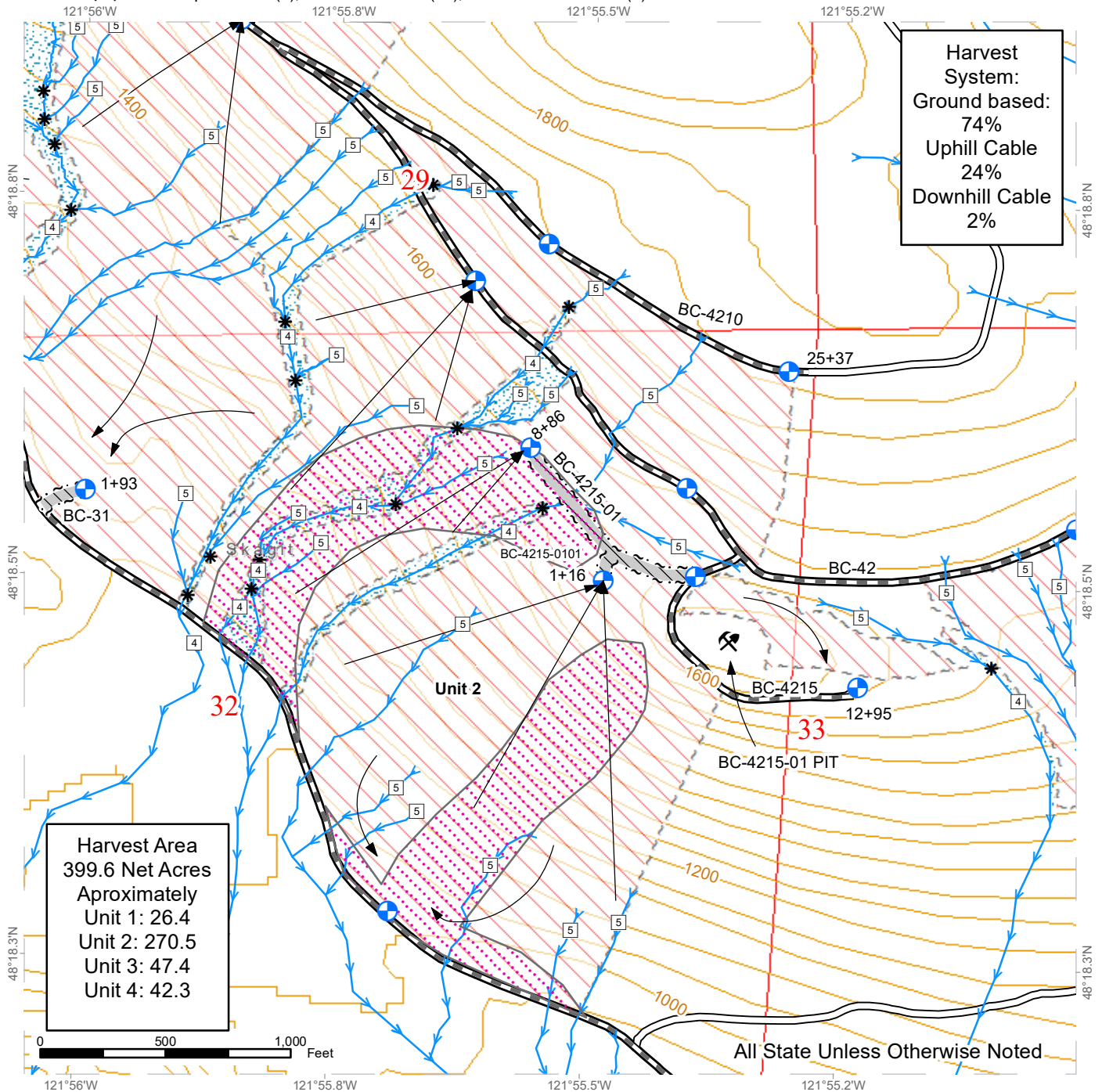


LOGGING PLAN MAP

SALE NAME: Melody Thin
AGREEMENT#: 30-103808
TOWNSHIP(S): T33R7E
TRUST(S): Capitol Grant (7), Scientific School (10), State Forest Transfer (1)

REGION: Northwest Region
COUNTY(S): Skagit
ELEVATION RGE: 1360-1640

Harvest System:
 Ground based: 74%
 Uphill Cable 24%
 Downhill Cable 2%

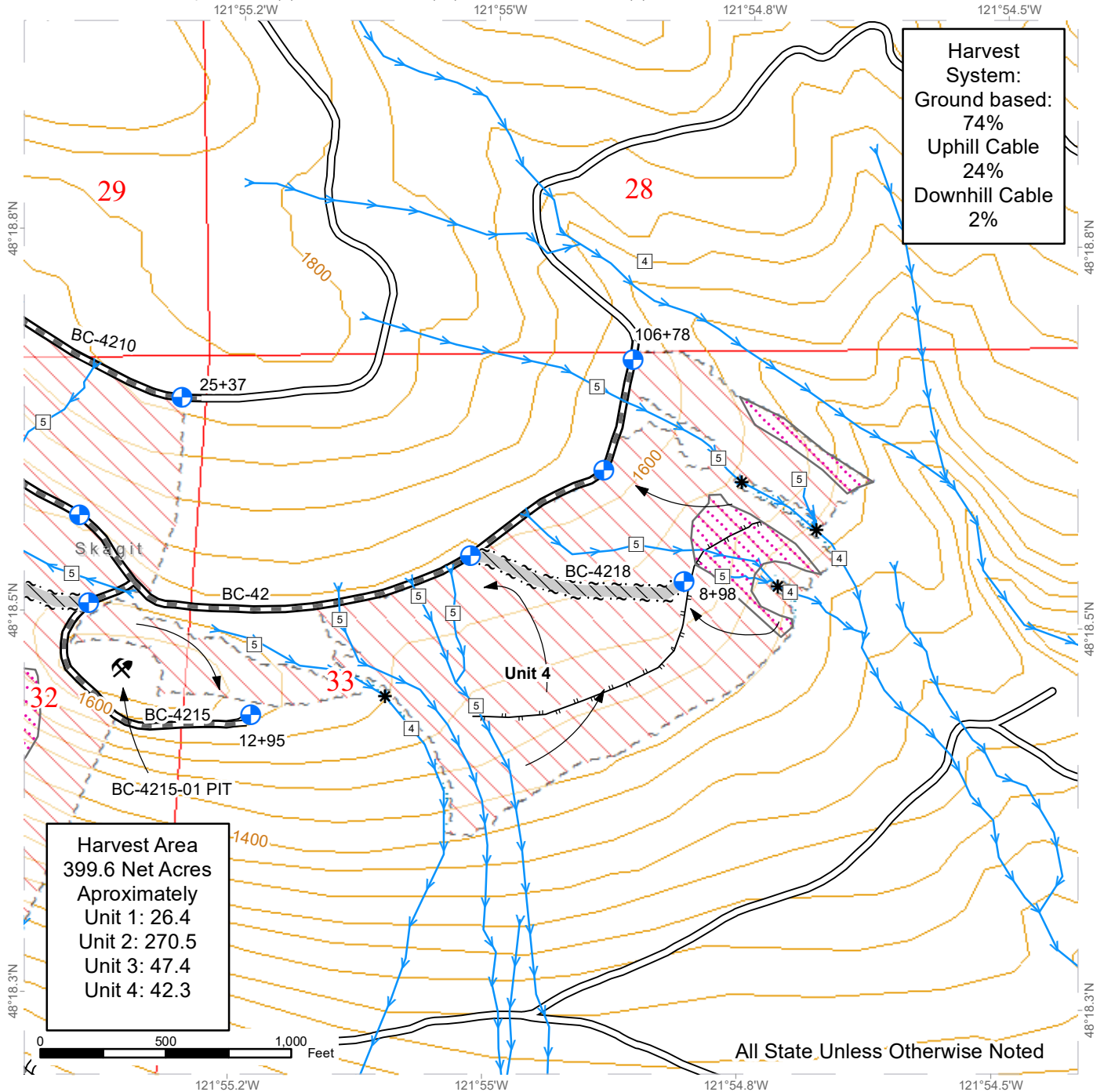


LOGGING PLAN MAP

SALE NAME: Melody Thin
AGREEMENT#: 30-103808
TOWNSHIP(S): T33R7E
TRUST(S): Capitol Grant (7), Scientific School (10), State Forest Transfer (1)

REGION: Northwest Region
COUNTY(S): Skagit
ELEVATION RGE: 1360-1640

Harvest System:
 Ground based: 74%
 Uphill Cable 24%
 Downhill Cable 2%



Harvest Area
 399.6 Net Acres
 Aproximately
 Unit 1: 26.4
 Unit 2: 270.5
 Unit 3: 47.4
 Unit 4: 42.3

All State Unless Otherwise Noted

- | | |
|-------------------|-------------------------------|
| Sale Area | Landing - Proposed |
| ROW | Rock Pit |
| Contours 40-foot | ARS12 |
| Riparian Mgt Zone | Ground Harvest |
| Streams | Existing Roads |
| Stream Type 4 | Required Pre-Haul Maintenance |
| Stream Type 5 | New Construction |
| Stream Break | Designated Skid Trail |

