



# **Alberni Valley Community Forest**

## **Harvest of Standing Timber and Road Building REQUEST FOR PROPOSAL #2015-2**

### **Blocks B14, B15 BOOKHOUT CREEK Blocks W14, W16, WEINER CREEK**

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* Cruise Report (see separate attachment)	



# Alberni Valley Community Forest Corporation

7500 Airport Road, Port Alberni, BC, V9Y 8Y9, [manager@communityforest.ca](mailto:manager@communityforest.ca) Phone: 731-7377

## **Request for Proposal #2015-2 Harvest of Standing Timber and Road Building B14, B15, W14, W16**

The Alberni Valley Community Forest Corporation (AVCFC) is the corporate entity entrusted to operate the Alberni Valley Community Forest. The Licence Holder is the City of Port Alberni. The AVCFC is administered by a local Board of Directors and managed by a local Contract Manager.

The AVCFC is seeking bid proposals from B.C. entities interested in purchasing standing timber from the Community Forest Lands. The AVCFC and its Board has a mandate to manage this tenure in a way that is both economically sustainable and provides positive benefits to the community. These benefits include water quality, recreation, local employment, local use of forest products and non timber forests products while maintaining a high level of forest stewardship including high utilization and low levels of waste post harvest.

The AVCFC is requesting interested parties to present bid proposals to harvest approximately **20,750 m<sup>3</sup> of wood by November 15, 2016**. There will be no extensions to the contract due to Cut Control considerations. Please see the attached Information Package for specifications.

Your bid proposal should include the following:

1. Expected destination or customers for the logs produced.
2. Access to, or relationships with, competent and experienced BC Safe Certified logging contractors.
3. Bid price per cubic meter.
4. The expertise and benefits your company can provide to ensure the maximum financial benefit to the AVCFC while ensuring its mandates are met.
5. Methods and assurances on how your company could meet the goals of the AVCFC regarding:
  - high levels of local employment
  - maximum utilization of wood within Port Alberni, on Vancouver Island and within B.C.
6. Any other information you wish to provide, i.e. references etc.

The Manager of the AVCFC, Chris Law, R.F.T., will be happy to discuss your bid proposal, answer any questions or provide clarification if required. Chris can be reached by email at [manager@communityforest.ca](mailto:manager@communityforest.ca) or by phoning (250) 731-7377.

We encourage you to present your bid proposal via email ([manager@communityforest.ca](mailto:manager@communityforest.ca)) so that the Board of the AVCFC can evaluate it. Please visit the AVCFC website at [www.communityforest.ca](http://www.communityforest.ca) for more information. Please submit your bid proposal using the **Bid Proposal Tender Offer Form by June 29, 2015 at @ 16:00 hours (4:00pm)**.

The AVCFC makes no commitments as a result of this Request for Proposal and may, as a result of submissions received, accept or reject a proposal at their sole discretion. Based on the proposals received, the AVCFC may issue a timber sale agreement for volumes in addition to the amount in this proposal.



# REQUEST FOR PROPOSAL 2015-2 SPECIFICS

## Block B14, B15, W14, W16

### 1. Harvesting:

Approximately **20,750m<sup>3</sup>** of second growth (approximately 78% Douglas-fir, 8% cedar, 7% alder, 6% hemlock, 1% balsam).

These blocks have 19.6ha clearcut with one adjacent Wildlife Tree Reserve Area, four Timber Leave Areas and significant adjacent Old Growth Management Area for visual quality management of the block.

Harvest volume is approximately 20,750m<sup>3</sup>, with right-of-way of 0.6 ha, ground based of 43.9ha.

### 2. Road Building:

NEW ROAD		ROAD RECONSTRUCTION	
Name	Length in Lineal Meters	Name	Length in Lineal Meters
		ASH 12A	76
		ASH 12B	232
		ASH 12C	591
WC3	525		
ASH 6B	728	ASH 6	1176
<b>Total</b>	<b>1253</b>		<b>2075</b>

New road of **1253 lineal meters** to be paid for by the successful proponent and constructed to industry standards and road reconstruction **of 2075 lineal meters** constructed to industry standards. Details are found in the Road Construction Information.

The contractor will be responsible for road maintenance from Highway 4 to all roads rehabilitated and newly constructed for the duration of the contract. Any changes to the planned road construction must be approved by the AVCF.

### 3. Completion:

All harvesting and logging cleanup to be completed by **November 15, 2016**. Unharvested volume left on site meeting the contracted harvesting specifications will be charged as per the harvesting contract.

#### 4. Waste and Residue:

The successful bidder will complete at their costs, waste and residue obligations including undertaking a waste survey to determine:

- a. HBS waste billing to be submitted to the Ministry of Forests, Lands and Natural Resource Operations, and
- b. Waste payments for contract purposes. If awarded as part of this bid, the contract will allow for:
  - 1% waste and trim at sort at 0\$/m<sup>3</sup>
  - 20m<sup>3</sup>/ha waste and residue at blocks (roadside and dispersed) at 0\$/m<sup>3</sup>.
  - All other waste wood (excluding X and Y grade) payable at \$/m<sup>3</sup> bid amount.

#### 5. Tendered Bid:

Your bid per cubic meter shall be for all scaled volume, all species, all grades U and better, 10cm top and greater diameter. Trucked and scaled volume all species U, X and Y scaled as PULP grade payable at \$5/m<sup>3</sup>. Your bid is to include all HBS stumpage that is due to the Ministry of Forests, Lands and Natural Resource Operations at the tabular rates.

#### **NOTE: RE: CLAUSES 4 AND 5 ABOVE**

*Waste and residue allows 20m<sup>3</sup>/ha at no pay. Above this level, the total \$/m<sup>3</sup> bid amount applies to all waste U grade and better.*

*If U grade wood (along with X and Y) are removed from the block, trucked and scaled, they will incur a \$5/m<sup>3</sup> payment if sorted and sold as pulp. These clauses are an attempt to stimulate greater utilization of U grade (along with X and Y grade) as pulp and better logs.*

#### 6. Bid Deposit:

The AVCFC will require a deposit in the sum of **\$20,000** for this sale. The amount will be returned upon successful completion of all works. The deposit will be used for payment of works not completed or payments not made by the contractor. The deposit will not be returned if the contractor defaults on the contract.

#### 7. Other Info:

- Road Permit is approved.
- Cutting Permit is approved.



## **SAFETY HIGHLIGHTS**

### **Alberni Valley Community Forest Block B14, B15, W14, W16**

#### **Recreation and Public Use:**

All roads may be used by members of the public to access recreational opportunities. Warning signs must be well placed and visible during operations.

#### **Access Barriers:**

Access barriers are required for public safety when and where required.

#### **Highway Access:**

Stop signs must be installed at all public road junctions and care must be taken when accessing public roads especially considering vehicles often exceed the speed limit on Highway 4. Log truck turning signs must also be installed on the highway.

#### **Steep Road Grades:**

Favorable road grades equal to or greater than 18% exist on some forest road sections, See Road Details in package.

#### **Working around Transmission Lines:**

Block W14 is located along a BC Hydro Transmission Line. A pre-work startup meeting will need to be held with BC Hydro and Working Around Hydro Line Guidelines will need to be followed.



Alberni Valley Community Forest Corporation

**REQUEST FOR PROPOSAL  
2015-2 TENDER OFFER FORM**

Contract Name/Project: Harvest of Standing Timber and Road Building  
Location: Blocks B14, B15, W14, W16 (Sproat FDU)  
Deadline for Submissions: 16:00 hours (4:00pm PST) June 29, 2015

Tender Submissions submitted to:

Office: AVCFC Office, 7500 Airport Road Port Alberni, B.C. V9Y 8Y9  
Alberni Valley Regional Airport Terminal Building

EMAIL: manager@communityforest.ca

*\* If you send your tender by email please phone (250)731-7377 to confirm it was received.*

NAME OF BIDDER (the bidder): \_\_\_\_\_

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

Telephone Number: \_\_\_\_\_ FAX Number: \_\_\_\_\_

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

WCB #: \_\_\_\_\_ BCFSC Certification: \_\_\_\_\_

Identify how you may maximize local employment and support First Nations participation and/or attach your plan:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**1. THE UNDERSIGNED BIDDER HAVING FULL KNOWLEDGE AND UNDERSTANDING OF:**

- a) the nature and scope of the work described in the Bid Proposal Information Package and the tools and equipment required to complete the services or work (the 'Work');
- b) the contents of all of the bid proposal documents issued by the AVCFC in respect of the Work, including any addenda; and
- c) the locality of the Work and the conditions of the geographical area within which the Work will be carried out (the 'Work Site'), having viewing the Work Site, if required.

## 2. HEREBY OFFERS TO:

- a) undertake all Work and supply all materials, tools, equipment and labour necessary to perform the Work in strict accordance with the Bid Proposal Documents, the provisions of this tender (the 'Tender'), and at the rates and prices specified in this Tender, which rates and prices include all fees, expenses of any kind, cash allowances, contingencies and applicable taxes (excluding the GST);
- b) sign a contract for the Work to be provided by the AVCFC (the 'Contract');
- c) complete all Work to the satisfaction of the AVCFC in accordance with the Contract, including any schedules, specifications, maps or drawings, which form part of the Contract.
- d) not assign, trade or sell the contract without the approval of the AVCFC.

## 3. IN ACCORDANCE WITH THE FOLLOWING PROVISIONS:

- a) This ***Tender is irrevocable for 30 days*** following the tender closing date.

***If the Bidder revokes this Tender within 30 days*** following the tender closing date, or fails to execute the Contract within the time period specified in the Contract award letter:

- i. the AVCFC may pursue any remedy available to it at law or in equity.
- b) if this Tender is accepted, the Bidder will provide the AVCFC with any proof of insurance coverage required in the Contract;
- c) the Bidder will ensure that each member of the workforce who will perform the Work in Canada under the contract is either a Canadian citizen, a permanent resident of Canada, or holds a valid employment visa from the Government of Canada;
- d) any attachments to this Tender, including schedules, information on subcontractors, unit prices, timing of work, drawings and specifications are an integral part of this Tender, as if set out at length in the body of this Tender;
- e) the Bidder hereby certifies that:
  - i. the rates and prices in this Tender have been arrived at independent of any other bidder;
  - ii. the rates and prices in this Tender have not been knowingly disclosed by the Bidder, and will not be disclosed by the Bidder prior to contract award, directly or indirectly, to any other bidder or competitor;
  - iii. no attempt has been made, nor will be made, to induce any other person to submit, or not to submit, a tender, for the purpose of restricting competition; and
  - iv. non-compliance with the requirements of this certification will result in the disqualification of this Tender.

**Table 1 – Unit Prices for Items of Work**

Item #	Description of Work	Rate/m <sup>3</sup>
1	To harvest approximately 20,750m <sup>3</sup> of Second Growth timber and construct approximately 1253 lineal meters of new road construction to Industry Standard and 2075 lineal meters of road reconstruction to Industry Standard	

Bids must be exclusive of GST.

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**THIS TENDER** has been signed by the Bidder or its duly authorized representatives or officers

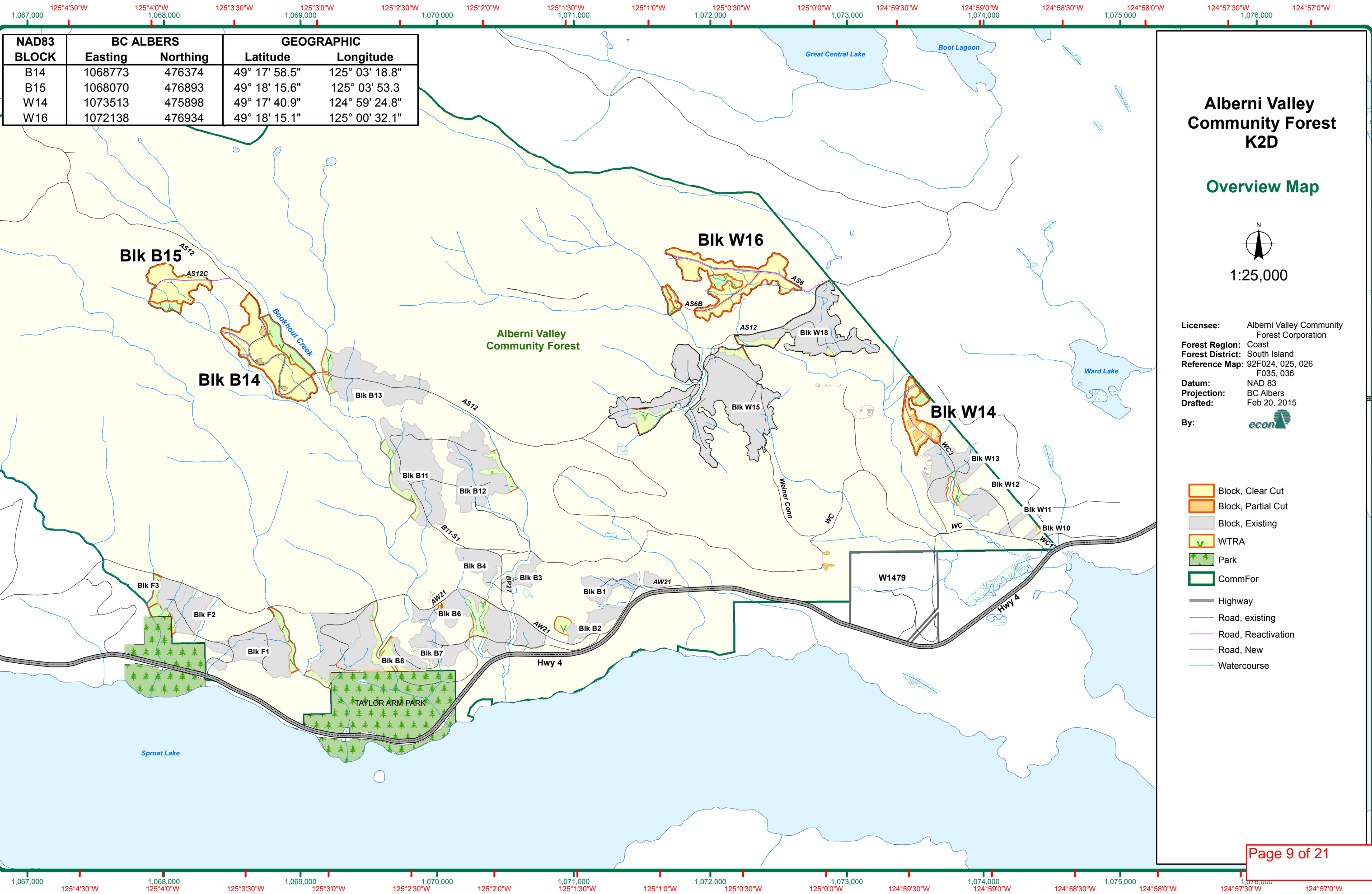
on the \_\_\_\_\_ day of \_\_\_\_\_, 2015

Signature of Bidder or Bidder's Authorized Representative

---

\_\_\_\_\_  
Print or type name and position of Bidder or  
Bidders' Authorized Representative.





NAD83 BLOCK	BC ALBERS		GEOGRAPHIC	
	Easting	Northing	Latitude	Longitude
B14	1068773	476374	49° 17' 58.5"	125° 03' 18.8"
B15	1068070	476893	49° 18' 15.6"	125° 03' 53.3"
W14	1073513	475898	49° 17' 40.9"	124° 59' 24.8"
W16	1072138	476934	49° 18' 15.1"	125° 00' 32.1"

# Alberni Valley Community Forest K2D

## Overview Map



1:25,000

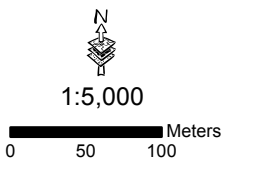
Licensee: Alberni Valley Community Forest Corporation  
 Forest Region: Coast  
 Forest District: South Island  
 Reference Map: 92F024, 025, 026 F035, 036  
 Datum: NAD 83  
 Projection: BC Albers  
 Drafted: Feb 20, 2015

By: econ

- Block, Clear Cut
- Block, Partial Cut
- Block, Existing
- WTRA
- Park
- CommFor
- Highway
- Road, existing
- Road, Reactivation
- Road, New
- Watercourse

**Alberni Valley  
Community Forest  
K2D  
Sprout FDU**

**Harvesting Plan Map  
Block B14**



Licensee: Alberni Valley Community Forest Corporation  
 Forest Region: Coast  
 Forest District: South Island  
 Reference Map: 92F024, 025, 026  
 F035, 036  
 Datum: NAD 83  
 Projection: BC Albers  
 TSA: 38 Arrowsmith  
 TSB: A  
 FIZ: B  
 P.S.Y.U.: 471  
 Inv. Reg.: 5  
 Comp.: 4B (Sprout), 4C (Taylor)  
 Drafted: February 23, 2015

By:

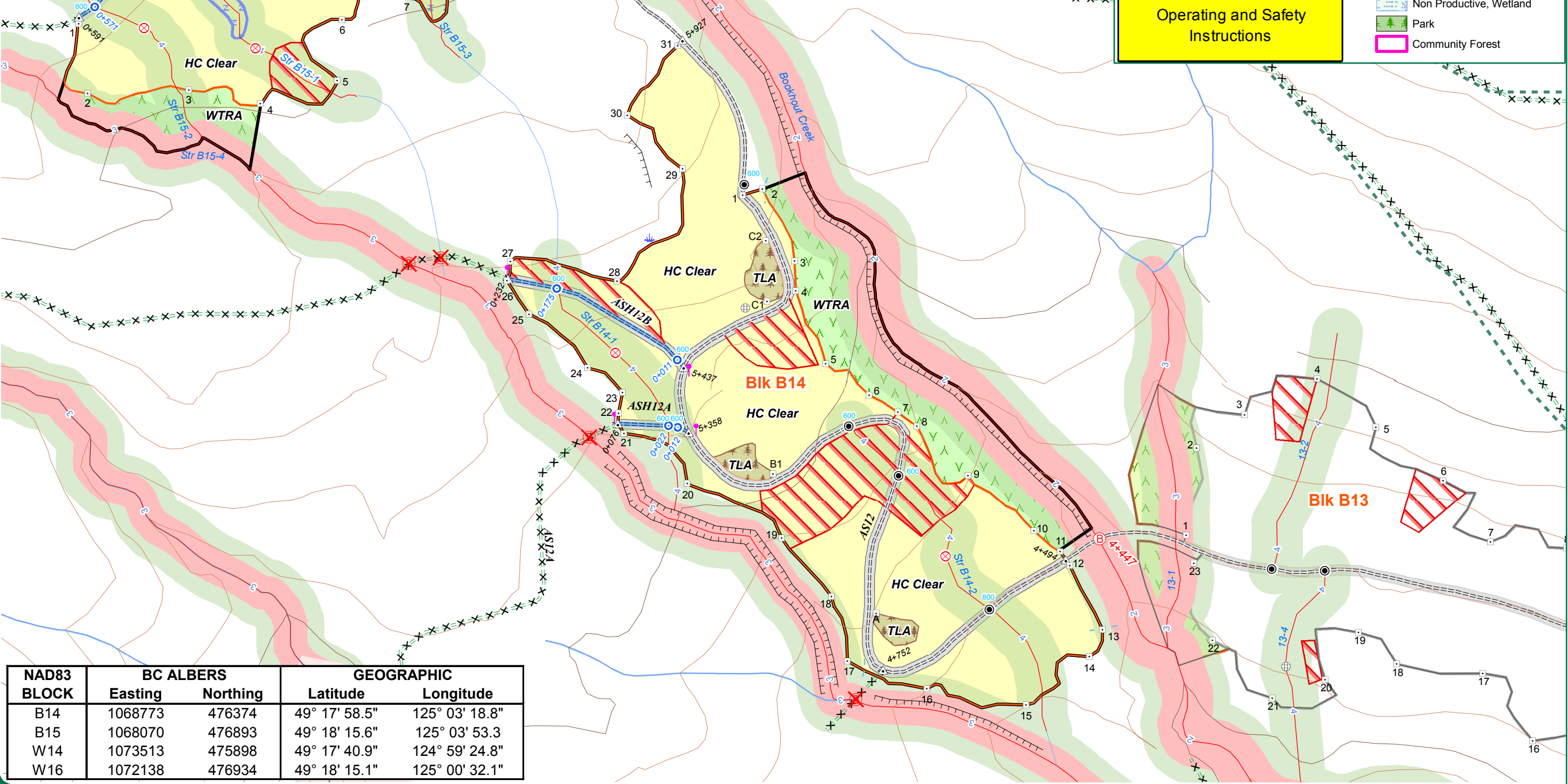
- Falling Corner
- ⊙ Landing, Perm., Temp.
- △ Station
- ⊙ Culvert: New, Existing
- ⊗ Bridge: New, Out
- ⊕ Quarry
- ⊗ Designated Crossing
- ⊙ Spoil Site
- ⊕ Swamp
- 🌲 Wildlife Tree

- Roads & Trails**
- ▬ Highway / FSR
  - ▬▬▬ Road, existing
  - ▬▬▬ Road, engineered
  - ▬▬▬ Road, to be re-activated
  - ▬▬▬ Road, overgrown
  - ▬▬▬ >10% Adverse Grade
  - ▬▬▬ >18% Favourable Grade
  - Old Grade
  - Hiking Trail
  - ▬▬▬ Rock Bluff
  - Hydro Line

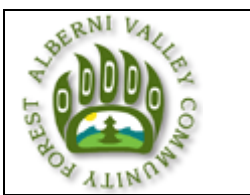
Falling Type	Ha	Volume	HARVEST METHODS		VOLUME BY TIMBERMARK				SPECIES		
Handfalling	0	0	System	Ha	Volume	Timbermark	Type	Ha	Vol	%	%
Mechanical	15.3	8017	RW	0.0	0	K2D 007	CROWN	15.3	8017	Ba	3
<b>TOTAL</b>	<b>15.3</b>	<b>8017</b>	Snorkel	0.0	0				0	Hw	15
<b>CRUISE VOL/HA (m3)</b>	524		Hoe Chuck	15.3	8017				0	Ced	10
<b>ENG VOL/HA (m3)</b>	524		Grapple	0.0	0				0	Cy	
<b>HAUL DISTANCE</b>			High Lead	0.0	0	<b>TOTAL</b>		<b>15.3</b>	<b>8017</b>	Fd	67
			Helicopter	0.0	0	<b>Field Work:</b>	K2 Forestry			Dr	5
			<b>Harvest Area</b>	<b>15.3</b>	<b>8017</b>	<b>Checked By:</b>	G.Knoll, RPF			Pw	
			RW Removed	2.0		AVCF CORP:		DATE		OG	
			WTRA	3.9						SG	100%
			TLA	0.5		AVCF CORP:		DATE		CONTRACTOR	
			<b>Gross Area</b>	<b>21.7</b>	<b>8017</b>						

I certify that I have reviewed this document, and while I did not personally supervise the work described, I have determined that this work has been done to the standard expected of a member of the Association of British Columbia Forest Professionals.

**Attention!**  
Refer to Back for Detailed Operating and Safety Instructions



NAD83 BLOCK	BC ALBERS		GEOGRAPHIC	
	Easting	Northing	Latitude	Longitude
B14	1068773	476374	49° 17' 58.5"	125° 03' 18.8"
B15	1068070	476893	49° 18' 15.6"	125° 03' 53.3"
W14	1073513	475898	49° 17' 40.9"	124° 59' 24.8"
W16	1072138	476934	49° 18' 15.1"	125° 00' 32.1"



# HARVESTING INSTRUCTIONS – OPENING # B14

ACCESS ROAD: AS12

CUTTING PERMIT: NO. 7

TIMBERMARK: K2D 007

## EMPLOYEE REQUIREMENTS

- 1) All employees, supervisors and contractors associated with these Harvesting Instructions shall be fully advised of its contents and requirements.
- 2) All litter including cable, oil buckets, grease tubes, newspapers and lunch garbage is to be removed from the site and disposed of appropriately.

## WATER QUALITY

- 1) The overall objective of this cutblock is timber harvesting without impacting water quality.
- 2) All ditches and culverts **must** remain as free flowing as possible through all phases of harvesting.
- 3) Cutblock B 14 lies within the Sproat Lake Community Watershed, sedimentation into streams is to be minimized to the fullest extent possible.
- 4) Cutblock B 14 is within a Rainfall Shutdown Area with the following shutdown/start-up Criteria:  
**Shutdown Criteria:** Activities must shut down if: The total rainfall reaches **75mm in 24 hours**. Onsite rain gauges should be used and monitored daily.  
**Start-Up Criteria:** Activities may start-up when: The total rainfall is equal to or less than 30mm in 24 hours, or the water balance falls below 75mm. Soil drainage rate is 40mm in 24hrs. Refer to the Return to work guide in the tender document for more information.

## FORESTRY

- 1) Invasive Plants: Broom occurs along sections of the high way on route to the setting. Follow FSP measures for invasive plants. Cut and remove plants in association with road reactivation, clean machinery as required. Monitor and treat broom and other invasive species during early establishment. Grass seed exposed soil on or adjacent to roads, trails, and landing sites as soon as possible following harvest.

## FIRST NATIONS

- 1) This cutblock is in the Hupacusath traditional territory. If any additional potential culturally modified tree (CMT) (whether live or dead and standing or fallen) or any other cultural feature is encountered within the opening during any harvesting phase, operations will cease in the immediate vicinity of the CMT or cultural feature. Hupacusath First Nations is to be notified immediately upon discovery of any potential CMT or cultural feature.

## FALLING of SNAGS and DANGER TREES

- 1) In accordance with WSBC Regulations, snags and danger trees within the cutblock and outside the cutblock boundaries for a distance of not more than 50 meters that endanger workers are approved for falling under the logging plan for this cutblock. Danger trees and snags outside this 50 meter hazard area that are required to be felled should be recorded on a map for future reference. Sanitation falling will proceed if the occasional stem is required to be removed along the cutblock boundary. The Ministry of Forests will be notified if danger trees and/or snags are identified in groups and removal will result in the cutblock boundary being substantially impacted. Snags and danger trees meeting utilization specifications will be recovered.
- 2) If a bear den or raptor nest is encountered during falling operations, the tree will be reserved from falling along with a protection patch of timber surrounding it. AVCF is to be notified immediately. If the bear den tree is partially cut operations will proceed in conformance with WSBC regulations.
- 3) Wildlife Tree Patches or Wildlife Tree Retention Areas have been established, and are marked on the 1:5000 map. Any danger trees felled within the WTP or WTRA will be left as Coarse Woody Debris.

## CUTBLOCK BOUNDARY TREATMENTS

- 1) All marked boundary trees except snags and danger trees must remain standing during and after the completion of harvesting. Trees adjacent to edges that cannot be felled into the setting will require approval from AVCF prior to falling. AVCF is to be notified immediately.
- 2) Leave trees may be substituted if, for safety reasons, a faller feels it is necessary to do so, but alternate leave trees must be retained and should be well rooted and of the same species and diameter

## YARDING and LOADING PRESCRIPTIONS

- 1) No roadside landing of logs within 3 meters of any streambank along all roadsides. All drainage structures will be maintained and remain functional.
  - 2) Avoid excessive ground lead gouging due to surface erosion potential. If soil disturbance occurs, then grass seeding will be required.
  - 3) During the bark peeling stage of growth, the tree bole is highly susceptible to damage. Contact with retention trees during harvesting operation should be avoided between April 1 st and June 15 th.
  - 4) Leave trees may be substituted if, for safety reasons, a faller feels it is necessary to do so, but alternative trees must be retained and should be well rooted and of the same species, diameter and vigor.
  - 5) No more than 10% of the retention trees in the aggregate or dispersed retention areas or single retention trees in this cutblock may have significant damage.
- Significant damage to Hw, Fd, and Cw is defined as a tree with:  
 One or more wounds (i.e. exposed cambium) that girdle more than 1/3 the circumference of the stem.  
 Any wounds on a supporting root within one metre of the stem. A gouge – a wound that penetrates (splintered) into the sapwood or deeper.  
 Additionally, for Hw and Cw only: A wound >400cm<sup>2</sup> on the stem.

## SAFETY

Road and in-block safety hazards associated with block B14 have been identified on the harvest and road instruction maps. In the event additional in-block safety hazards (temporary or permanent) are encountered or develop during road construction or harvesting phases, a plan must be developed to address the hazard. Any identified permanent hazards must be reported back to AVCF (using Hazard/Issue Report Form).

## STEEP GRADES

Road segments with gradients > 18% have been identified on the Overview Map. Prior to commencing log hauling operations the contractor must perform a risk assessment of the current conditions and adjust hauling activities to suit the traction conditions. Hauling for B14 is not permitted when ice and or snow is on the logging roads leading to or in the given setting (very low traction level). This has been determined using FERRIC steep grade decent guidelines. The Ministry of Transportation guidelines are to be followed when hauling on the highway.

## SPECIFIC BLOCK COMMENTS

MACHINE OPERATORS WILL MONITOR SOILS FOR COMPACTION DURING RAIN EVENTS, AND MOVE TO DRIER AREAS WITHIN THE CUTBLOCK SHOULD COMPACTION AND/OR RUTTING OCCUR.

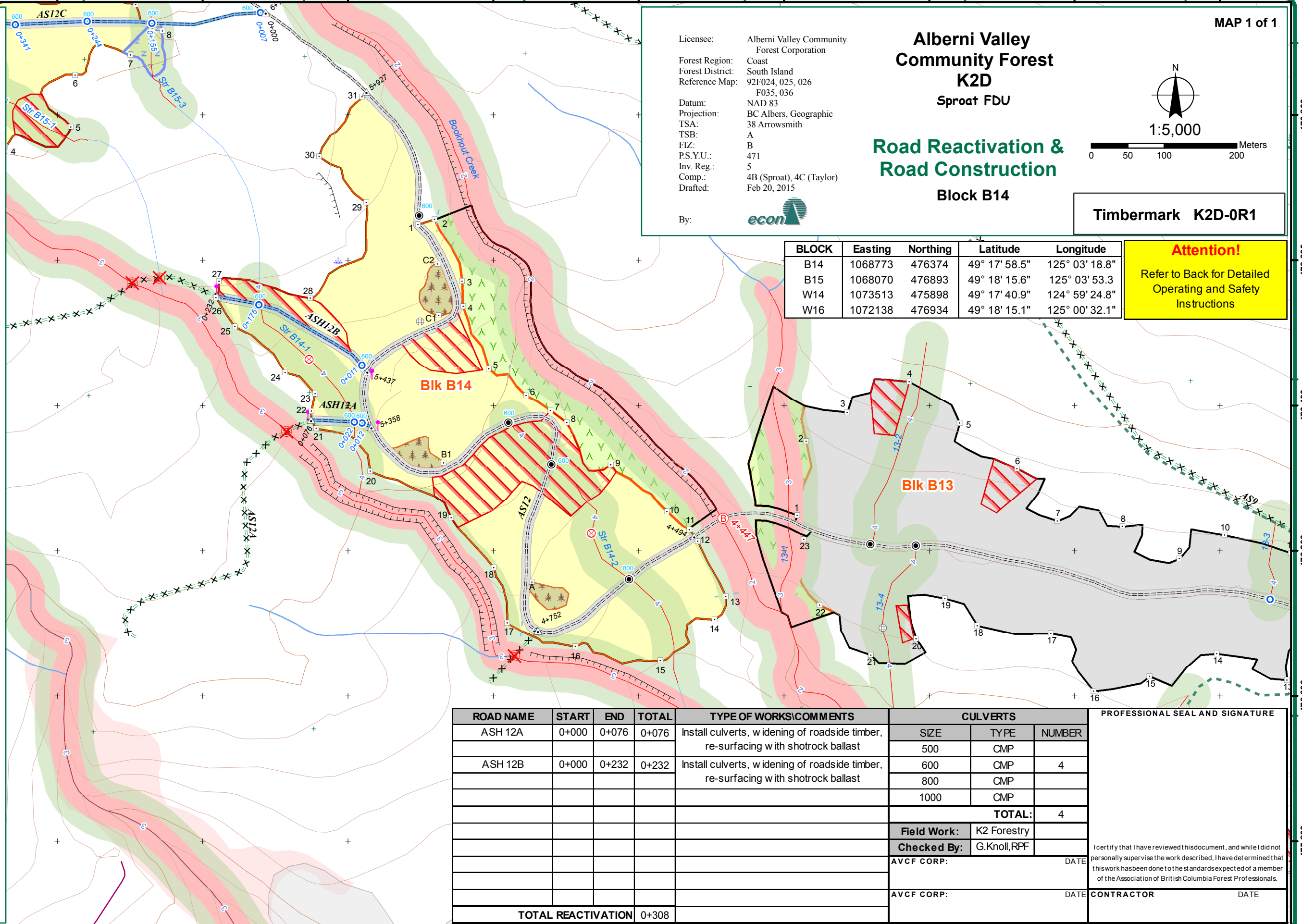
## HARVESTING ISSUES

MACHINE OPERATORS SHOULD BE AWARE OF STEEP HOE CHUCK AREAS WITHIN THE CUTBLOCK FALLING BOUNDARY. THESE AREAS ARE IDENTIFIED ON THE HARVESTING MAP.

## RIPARIAN MANAGEMENT STRATEGIES

Creek I.D.	CLASS	MANAGEMENT STRATEGIES FOR RIPARIAN MANAGEMENT ZONES (RMZ) INCLUDING PROTECTING STREAM
	NCD	<ul style="list-style-type: none"> <li>- NCD(s) within the harvest area will be FX and YX. No RMZ is required.</li> <li>- Note all streams lie within the Sproat Lake Community Watershed, minimize sedimentation at all costs.</li> </ul>
		<b>STREAM REACH AND RMA IS OUTSIDE OF THE HARVEST AREA</b>
		<b>STREAM REACH OUTSIDE HARVEST AREA, PORTIONS OF THE RMA WITHIN THE HARVEST AREA</b>
Bookhout Creek	S2	FA YA NC
B15-4	S3	FA YA NC
		<b>PORTIONS OF STREAM REACH AND RMA ARE WITHIN THE HARVEST AREA</b>
B14-1	S4	FA YA, YX at designated machine crossings only. NC
B14-2	S4	FA YA, YX at designated machine crossings only. NC
		<b>PRESCRIPTION DEFINITIONS</b>
	YX	Yard across Acceptable
	FX	Fall Across Acceptable
	FA/BL	Fall Away. Timber is to be felled away. Leaners and hazard trees that cannot be safely felled away shall be felled and left bridging the stream.
	FA	Fall Away. Timber is to be felled away.
	YA	Yard Away. Timber is to be yarded away. In order to improve deflection, cables are allowed to be suspended above the stream. <b>Non-fish streams:</b> merchantable leaners and danger trees that have been felled across the stream will, by necessity, be yarded across the stream. <b>Fish streams:</b> Leaners and danger trees which have been felled across the stream will be left unless detrimental to the stream.
	HH	100% harvested (no retention of saplings)
	RS	Retain saplings on the streambanks (non-merchantable)
	FE	Feathered edge.
	BPT	Blue painted trees (selected for removal). Faller's choice of alternate tree if unable to fall painted tree safely.
	NHZ	No harvest zone. Trees are to be felled away from the zone. Safe trees that cannot be felled away are to be left as part of the NHZ. Danger trees <b>must</b> be felled and will be left for future LWD or be removed if detrimental to the stream.
	MFZ	Machine free zone.
	MC	Machine Clean transportable introduced large woody debris (LWD) and accumulations concurrent with yarding.
	HC	Hand Clean introduced transportable debris.
	NC	No cleaning required. Keep channel free on introduced debris concurrent with yarding.

- Falling Corner
  - ⊙ Landing, Perm., Temp.
  - △ Station
  - ● Culvert: New, Existing
  - ⊗ Bridge: New, Out
  - ⊕ Quarry
  - ⊗ Designated Crossing
  - ⊙ Spoil Site
  - ⊕ Swamp
  - 🌲 Wildlife Tree
- Ditch Cleaning
  - End Haul
  - >10% Adverse Grade
  - >18% Favourable Grade
  - Road, to be constructed
  - Road, to be re-activated
  - Steep Areas, >35% in Ground Based Areas
  - Sensitive Soils Area
- Road Feature**
- Highway
  - Road, existing
  - Road, temporary
  - Trail, existing
  - Trail, temp
  - Old Grade
  - Recreation Trail
- Water Feature**
- S1-S4 Stream
  - S5-S6 Stream
  - NCD Non Classified Drainage
  - Unclassified Creek
  - Wetland
  - Lake
- Other Feature**
- Block, new
  - Block, existing
  - Riparian Management Zone
  - Riparian Reserve Zone
  - Wildlife Tree Retention Area
  - Timber Leave Area
  - Park
  - Community Forest



**MAP 1 of 1**

**Alberni Valley  
Community Forest  
K2D  
Sproat FDU**

**Road Reactivation &  
Road Construction**

**Block B14**

**Timbermark K2D-0R1**

Licensee: Alberni Valley Community Forest Corporation  
 Forest Region: Coast  
 Forest District: South Island  
 Reference Map: 92F024, 025, 026  
 Datum: NAD 83  
 Projection: BC Albers, Geographic  
 TSA: 38 Arrowsmith  
 TSB: A  
 FIZ: B  
 P.S.Y.U.: 471  
 Inv. Reg.: 5  
 Comp.: 4B (Sproat), 4C (Taylor)  
 Drafted: Feb 20, 2015

By:

1:5,000

BLOCK	Easting	Northing	Latitude	Longitude
B14	1068773	476374	49° 17' 58.5"	125° 03' 18.8"
B15	1068070	476893	49° 18' 15.6"	125° 03' 53.3"
W14	1073513	475898	49° 17' 40.9"	124° 59' 24.8"
W16	1072138	476934	49° 18' 15.1"	125° 00' 32.1"

**Attention!**  
Refer to Back for Detailed Operating and Safety Instructions

ROAD NAME	START	END	TOTAL	TYPE OF WORKS/COMMENTS	CULVERTS		
					SIZE	TYPE	NUMBER
ASH 12A	0+000	0+076	0+076	Install culverts, w widening of roadside timber, re-surfacing w with shotrock ballast	500	CMP	
ASH 12B	0+000	0+232	0+232	Install culverts, w widening of roadside timber, re-surfacing w with shotrock ballast	600	CMP	4
					800	CMP	
					1000	CMP	
					<b>TOTAL:</b>		
					Field Work:	K2 Forestry	
					Checked By:	G. Knoll, RPF	
					AVCF CORP:		DATE
					AVCF CORP:		DATE
<b>TOTAL REACTIVATION</b>					0+308		

**PROFESSIONAL SEAL AND SIGNATURE**

I certify that I have reviewed this document, and while I did not personally supervise the work described, I have determined that this work has been done to the standard expected of a member of the Association of British Columbia Forest Professionals.

\_\_\_\_\_  
DATE

\_\_\_\_\_  
DATE

**CONTRACTOR** \_\_\_\_\_ **DATE** \_\_\_\_\_



## ROAD INSTRUCTIONS – OPENING # B14

ACCESS ROAD: AS12

ROAD PERMIT: R18553

TIMBERMARK: K2D 0R1

### ROAD CONSTRUCTION SUMMARY

Road Name	Start Station	End Station	Type of Works/Comments
AS 12A	0+000	0+076	Re-construction. Install culverts, widening of roadside timber, re-surfacing with shotrock ballast.
AS 12B	0+000	0+232	Re-construction. Install culverts, widening of roadside timber, re-surfacing with shotrock ballast.

### STREAM CROSSINGS and CULVERT INSTALLATIONS

Road Name	Station	Riparian ID	Riparian Class	Debris Transport Potential	Culvert/ Bridge Size	Designed Peak Flow	Special instructions for operations within or adjacent to RMA
AS 12A	0+012	-	-	-	600	X-Drain	OPENING B14 LIES WITHIN THE SPROAT LAKE COMMUNITY WATERSHED. ALL STREAM CROSSINGS ARE TO BE ARMORED WITH COARSE ROCK MATERIAL TO MINIMIZE THE TRANSPORT OF FINES DOWN STREAM.
AS 12A	0+022	B14-1	S4	Low	600	Q100	
AS 12B	0+011	-	-	-	600	X-Drain	
AS 12B	0+175	B14-1	S4	Low	600	Q100	

### EMPLOYEE REQUIREMENTS

- All employees, supervisors and contractors associated with these Road Instructions shall be fully advised of its contents and requirements.
- All litter including cable, oil buckets, grease tubes, newspapers and lunch garbage is to be removed from the site and disposed of appropriately.

### WATER QUALITY

- The overall objective of this cutblock is timber harvesting without impacting water quality.
- Cutblock B 14 lies within the Sproat Lake Community Watershed, sedimentation into streams is to be minimized to the fullest extent possible, follow the listed SOP's below:
  - Ditch Cleaning:** where needed, ditches are to be cleaned when conditions are dry. Ditchspoil is not to be windrowed along the road shoulder. On moderate slopes, the ditchspoil could be thinly spread on the slope below the road, but not heaped or piled against trees. Where the road is on steep slopes, the ditchspoil should be endhauled to a suitable spoil site.
  - Culvert replacement:** Where required culvert replacements are to be done during dry weather (except for emergency repairs or replacements). The inlet and outlet areas on new culverts, and the adjacent fill slopes, are to be armoured to prevent erosion or sloughing into the creek.
  - Rock Ballasting of road surface:** For new road construction, where the road is close to a stream channel, the road surface is to be ballasted with clean rock. The road surface is also to be rock ballasted for 30 metres either side of stream culverts.
  - Road grading practices:** grading is to be avoided during heavy rain. e. Shutdown or harvest completion: In preparation for a shutdown for a period longer than 30 days or at a harvest completion, the following measures will be taken:
    - No excavated or endhauled material will be left piled in such a way as to become unstable during the shutdown period. Spoil sites, piles and fills will be sloped uniformly to prevent instability.
    - Ditches and culverts will be left clear and functional, with adequate inlet basins to minimize the potential for plugging.
    - On sections of steep grades, cross ditches and back-up swales will be constructed where needed to minimize ditch erosion.
    - If road construction has reached a drainage course but a drainage structure has not been installed prior to shutdown, the drainage course will be left open and unimpeded.
    - Where exposed silty soils could erode and enter surface streams or ditches connected to streams, silt fences, hay bales or erosion blankets will be applied as needed for temporary protection.
- Cutblock B 14 is within a Rainfall Shutdown Area with the following shutdown/start-up Criteria:
 

**Shutdown Criteria:** Activities must shut down if: The total rainfall reaches **75mm in 24 hours**. Onsite rain gages should be used and monitored daily.

**Start-Up Criteria:** Activities may start-up when: The total rainfall is equal to or less than 30mm in 24 hours, or the water balance falls below 75mm. Soil drainage rate is 40mm in 24hrs. Refer to the Return to work guide in the tender document for more information.

### FORESTRY

- Invasive Plants: Broom occurs along sections of the high way on route to the setting. Follow FSP measures for invasive plants. Cut and remove plants in association with road reactivation, clean machinery as required. Monitor and treat broom and other invasive species during early establishment. Grass seed exposed soil on or adjacent to roads, trails, and landing sites as soon as possible following harvest.

### FIRST NATIONS

- This cutblock is in the Hupacusath traditional territory. If any additional potential culturally modified tree (CMT) (whether live or dead and standing or fallen) or any other cultural feature is encountered within the opening during any harvesting phase, operations will cease in the immediate vicinity of the CMT or cultural feature. Hupacusath First Nations is to be notified immediately upon discovery of any potential CMT or cultural feature.

### FALLING of SNAGS and DANGER TREES

- In accordance with the WCB Regulations, snags and danger trees within the cutblock and outside the cutblock boundaries for a distance of not more than 50 meters that endanger workers are approved for falling under the logging plan for this cutblock. Danger trees and snags outside this 50 meter hazard area that are required to be felled should be recorded on a map for future reference. Sanitation falling will proceed if the occasional stem is required to be removed along the cutblock boundary. The Ministry of Forests will be notified if danger trees and/or snags are identified in groups and removal will result in the cutblock boundary being substantially impacted. Snags and danger trees meeting utilization specifications will be recovered.
- If a bear den or raptor nest is encountered during falling operations, the tree will be reserved from falling along with a protection patch of timber surrounding it. AVCF is to be notified immediately. If the bear den tree is partially cut operations will proceed in conformance with WCB regulations.
- Wildlife Tree Patches or Wildlife Tree Retention Areas have been established, and are marked on the 1:5000 map. Any danger trees felled within the WTP or WTRA will be left as Coarse Woody Debris.

### CUTBLOCK BOUNDARY TREATMENTS

- All marked boundary trees except snags and danger trees must remain standing during and after the completion of harvesting. Trees adjacent to edges that cannot be felled into the setting will require approval from AVCF prior to falling. AVCF is to be notified immediately.
- Leave trees may be substituted if, for safety reasons, a faller feels it is necessary to do so, but alternate leave trees must be retained and should be well rooted and of the same species and diameter

### ROAD CONSTRUCTION PRESCRIPTIONS

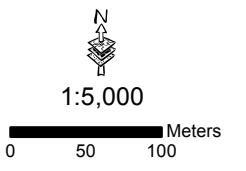
- R/W clearing widths to be 20 meters unless a larger width is required for safety or otherwise prescribed.
- Prior approval must be obtained from AVCF if falling beyond right-of-way clearing is required for spoil sites or quarries.
- Proposed cross-drain culvert locations are approximate. Site specific installation to within ±25m is acceptable. Installation beyond this distance constitutes a 'change of plan' and requires prior approval from AVCF.
- Equipment must not be fuelled or serviced within the riparian management area (RMA) of a stream, lake or wetland. Do not park any equipment within an RMA overnight.
- Ensure that licensed water works are notified of road activities 48 hours prior to activity.
- RMA distances:** STREAMS: S1 - 70 meters, S2 - 50 meters, S3 - 40 meters, S4 - 30 meters, S5 - 30 meters, S6 - 20 meters, LAKES: L1 - 10 meters, L3 - 30 meters, WETLANDS: W1, W5 - 50meters, W3 - 30 meters.
- Avoid quarry locations within the RMA of any stream; where avoidance is not practical, quarries may be located within the RMA of a S6 stream if no impacts (i.e. increased sedimentation) will occur to the stream. All other streams (i.e. S1 to S5) require prior approval from AVCF before a quarry may be located within its RMA. Do not deck or process wood within RMA's.

### SAFETY

Road and in-block safety hazards associated with block B14 have been identified on the harvest and road instruction maps. In the event additional in-block safety hazards (temporary or permanent) are encountered or develop during road construction or harvesting phases, a plan must be developed to address the hazard. Any identified permanent hazards must be reported back to AVCF (using Hazard/Issue Report Form).

**Alberni Valley  
Community Forest  
K2D  
Sprout FDU**

**Harvesting Plan Map  
Block B15**



Licensee: Alberni Valley Community Forest Corporation  
 Forest Region: Coast  
 Forest District: South Island  
 Reference Map: 92F024, 025, 026  
 F035, 036  
 Datum: NAD 83  
 Projection: BC Albers  
 TSA: 38 Arrowsmith  
 TSB: A  
 FIZ: B  
 P.S.Y.U.: 471  
 Inv. Reg.: 5  
 Comp.: 4B (Sprout), 4C (Taylor)  
 Drafted: February 23, 2015

- By:
- Falling Corner
  - ⊙ Landing, Perm., Temp.
  - △ Station
  - Culvert: New, Existing
  - ⊗ Bridge: New, Out
  - ⊕ Quarry
  - ⊗ Designated Crossing
  - ⊙ Spoil Site
  - ⊕ Swamp
  - 🌲 Wildlife Tree

- Roads & Trails**
- ▬ Highway / FSR
  - ▬▬▬ Road, existing
  - ▬▬▬ Road, engineered
  - ▬▬▬ Road, to be re-activated
  - ▬▬▬ Road, overgrown
  - ▬▬▬ >10% Adverse Grade
  - ▬▬▬ >18% Favourable Grade
  - Old Grade
  - Hiking Trail
  - ▬▬▬ Rock Bluff
  - Hydro Line

Falling Type	Ha	Volume	HARVEST METHODS		VOLUME BY TIMBERMARK				SPECIES %	PROFESSIONAL SEAL AND SIGNATURE		
			System	Ha	Volume	Timbermark	Type	Ha				Vol
Handfelling	0	0	RW	0.0	0	K2D 007	CROWN	7.6	3276	Ba	3	I certify that I have reviewed this document, and while I did not personally supervise the work described, I have determined that this work has been done to the standard expected of a member of the Association of British Columbia Forest Professionals.  AVCF CORP: _____ DATE _____ AVCF CORP: _____ DATE _____ CONTRACTOR _____ DATE _____
Mechanical	7.6	3276	Snorkel	0.0	0					Hw	2	
<b>TOTAL</b>	<b>7.6</b>	<b>3276</b>	Hoe Chuck	7.6	3276					Ced	15	
<b>CRUISE VOL/HA (m3)</b>	431		Grapple	0.0	0					Cy		
<b>ENG VOL/HA (m3)</b>	431		High Lead	0.0	0	<b>TOTAL</b>		<b>7.6</b>	<b>3276</b>	Fd	78	
<b>HAUL DISTANCE</b>			Helicopter	0.0	0	<b>Field Work:</b>	K2 Forestry			Dr	2	
			<b>Harvest Area</b>	<b>7.6</b>	<b>3276</b>	<b>Checked By:</b>	G.Knoll, RPF			Pw		
			RW Removed	0.5		AVCF CORP:				OG		
			WTRA	1.2						SG	100%	
			TLA	0.0						CONTRACTOR		
			<b>Gross Area</b>	<b>9.3</b>	<b>3276</b>							

**Harvesting Feature**

- ▭ TAUP
- ▭ Block
- ▭ HC Hoechuck, Clear Cut
- ▭ HC Hoechuck, Select
- Yarding Direction
- ▭ Slope > 35% in Ground Skidding Areas
- ▭ Sensitive Soils Area

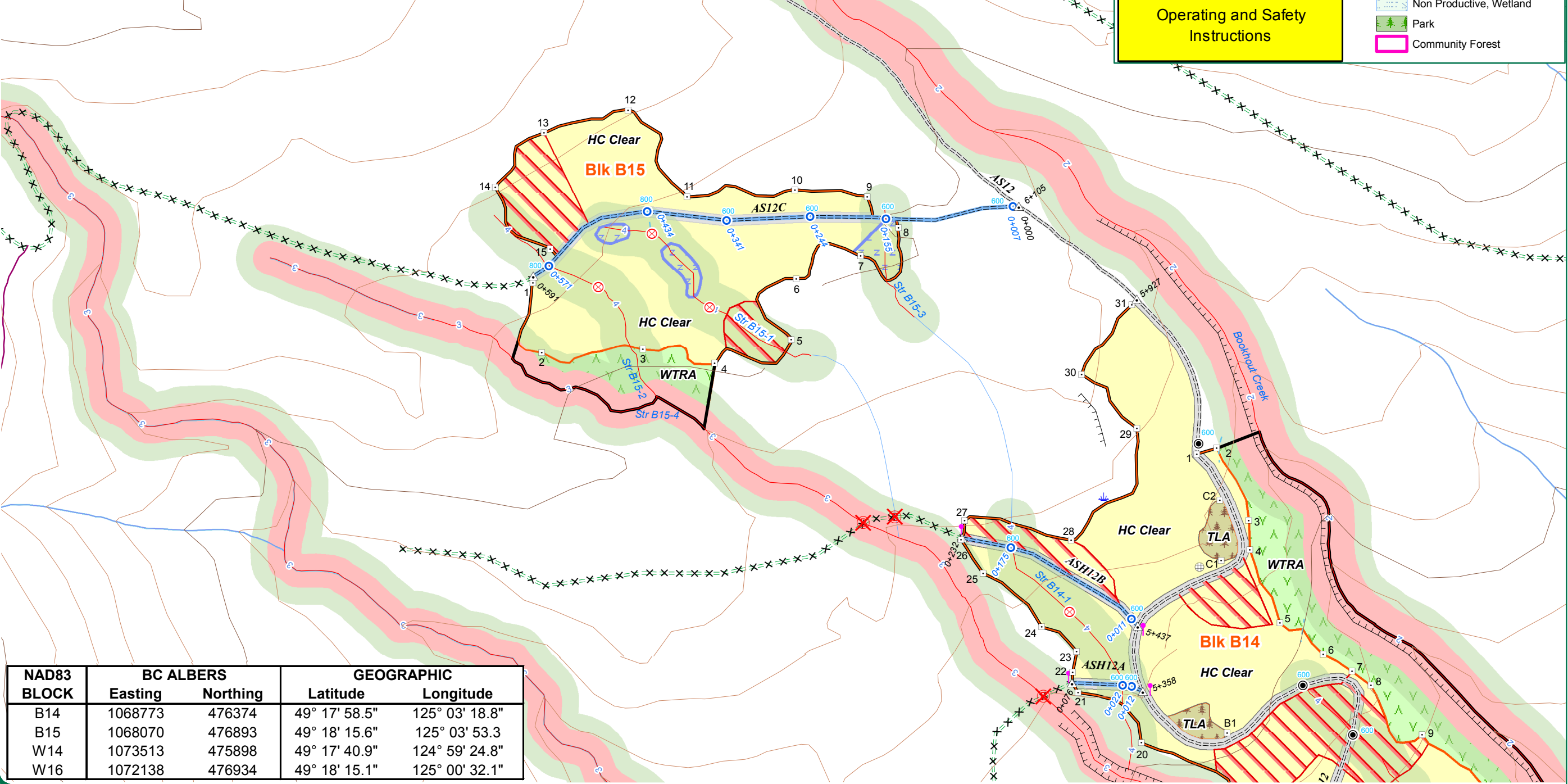
**Attention!**  
Refer to Back for Detailed Operating and Safety Instructions

**Stream Classification**

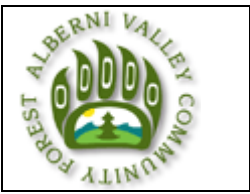
- S1-S4 Stream
- S5-S6 Stream
- - - NCD
- Stream, Non Classified

**Other Feature**

- ▭ Riparian Management Zone
- ▭ Riparian Reserve Zone
- ▭ Wildlife Tree Retention Area
- ▭ Timber Leave Area
- ▭ Non Productive, Rock
- ▭ Non Productive, Wetland
- ▭ Park
- ▭ Community Forest



NAD83 BLOCK	BC ALBERS		GEOGRAPHIC	
	Easting	Northing	Latitude	Longitude
B14	1068773	476374	49° 17' 58.5"	125° 03' 18.8"
B15	1068070	476893	49° 18' 15.6"	125° 03' 53.3"
W14	1073513	475898	49° 17' 40.9"	124° 59' 24.8"
W16	1072138	476934	49° 18' 15.1"	125° 00' 32.1"



## HARVESTING INSTRUCTIONS – OPENING # B15

**ACCESS ROAD: AS12**

**CUTTING PERMIT: NO. 7**

**TIMBERMARK: K2D 007**

**EMPLOYEE REQUIREMENTS**

- 1) All employees, supervisors and contractors associated with these Harvesting Instructions shall be fully advised of its contents and requirements.
- 2) All litter including cable, oil buckets, grease tubes, newspapers and lunch garbage is to be removed from the site and disposed of appropriately.

**WATER QUALITY**

- 1) The overall objective of this cutblock is timber harvesting without impacting water quality.
- 2) All ditches and culverts **must** remain as free flowing as possible through all phases of harvesting.
- 3) Cutblock B 15 lies within the Sproat Lake Community Watershed, sedimentation into streams is to be minimized to the fullest extent possible.
- 4) Cutblock B 15 is within a Rainfall Shutdown Area with the following shutdown/start-up Criteria:  
**Shutdown Criteria:** Activities must shut down if: The total rainfall reaches **75mm in 24 hours**. Onsite rain gauges should be used and monitored daily.  
**Start-Up Criteria:** Activities may start-up when: The total rainfall is equal to or less than 30mm in 24 hours, or the water balance falls below 75mm. Soil drainage rate is 40mm in 24hrs. Refer to the Return to work guide in the tender document for more information.

**FORESTRY**

- 1) Invasive Plants: Broom occurs along sections of the high way on route to the setting. Follow FSP measures for invasive plants. Cut and remove plants in association with road reactivation, clean machinery as required. Monitor and treat broom and other invasive species during early establishment. Grass seed exposed soil on or adjacent to roads, trails, and landing sites as soon as possible following harvest.

**FIRST NATIONS**

- 1) This cutblock is in the Hupacusath traditional territory. If any additional potential culturally modified tree (CMT) (whether live or dead and standing or fallen) or any other cultural feature is encountered within the opening during any harvesting phase, operations will cease in the immediate vicinity of the CMT or cultural feature. Hupacusath First Nations is to be notified immediately upon discovery of any potential CMT or cultural feature.

**FALLING of SNAGS and DANGER TREES**

- 1) In accordance with WSBC Regulations, snags and danger trees within the cutblock and outside the cutblock boundaries for a distance of not more than 50 meters that endanger workers are approved for falling under the logging plan for this cutblock. Danger trees and snags outside this 50 meter hazard area that are required to be felled should be recorded on a map for future reference. Sanitation falling will proceed if the occasional stem is required to be removed along the cutblock boundary. The Ministry of Forests will be notified if danger trees and/or snags are identified in groups and removal will result in the cutblock boundary being substantially impacted. Snags and danger trees meeting utilization specifications will be recovered.
- 2) If a bear den or raptor nest is encountered during falling operations, the tree will be reserved from falling along with a protection patch of timber surrounding it. AVCF is to be notified immediately. If the bear den tree is partially cut operations will proceed in conformance with WSBC regulations.
- 3) Wildlife Tree Patches or Wildlife Tree Retention Areas have been established, and are marked on the 1:5000 map. Any danger trees felled within the WTP or WTRA will be left as Coarse Woody Debris.

**CUTBLOCK BOUNDARY TREATMENTS**

- 1) All marked boundary trees except snags and danger trees must remain standing during and after the completion of harvesting. Trees adjacent to edges that cannot be felled into the setting will require approval from AVCF prior to falling. AVCF is to be notified immediately.
- 2) Leave trees may be substituted if, for safety reasons, a faller feels it is necessary to do so, but alternate leave trees must be retained and should be well rooted and of the same species and diameter

**YARDING and LOADING PRESCRIPTIONS**

- 1) No roadside landing of logs within 3 meters of any streambank along all roadsides. All drainage structures will be maintained and remain functional.
- 2) Avoid excessive ground lead gouging due to surface erosion potential. If soil disturbance occurs, then grass seeding will be required.
- 3) During the bark peeling stage of growth, the tree bole is highly susceptible to damage. Contact with retention trees during harvesting operation should be avoided between April 1 st and June 15 th.
- 4) Leave trees may be substituted if, for safety reasons, a faller feels it is necessary to do so, but alternative trees must be retained and should be well rooted and of the same species, diameter and vigor.
- 5) No more than 10% of the retention trees in the aggregate or dispersed retention areas or single retention trees in this cutblock may have significant damage. Significant damage to Hw, Fd, and Cw is defined as a tree with:  
 One or more wounds (i.e. exposed cambium) that girdle more than 1/3 the circumference of the stem.  
 Any wounds on a supporting root within one metre of the stem. A gouge – a wound that penetrates (splintered) into the sapwood or deeper.  
 Additionally, for Hw and Cw only: A wound >400cm<sup>2</sup> on the stem.

**SAFETY**

Road and in-block safety hazards associated with block B15 have been identified on the harvest and road instruction maps. In the event additional in-block safety hazards (temporary or permanent) are encountered or develop during road construction or harvesting phases, a plan must be developed to address the hazard. Any identified permanent hazards must be reported back to AVCF (using Hazard/Issue Report Form).

**STEEP GRADES**

Road segments with gradients > 18% have been identified on the Overview Map. Prior to commencing log hauling operations the contractor must perform a risk assessment of the current conditions and adjust hauling activities to suit the traction conditions. Hauling for B15 is not permitted when ice and or snow is on the logging roads leading to or in the given setting (very low traction level). This has been determined using FERRIC steep grade decent guidelines. The Ministry of Transportation guidelines are to be followed when hauling on the highway.

**SPECIFIC BLOCK COMMENTS**

**MACHINE OPERATORS WILL MONITOR SOILS FOR COMPACTION DURING RAIN EVENTS, AND MOVE TO DRIER AREAS WITHIN THE CUTBLOCK SHOULD COMPACTION AND/OR RUTTING OCCUR. NOTE THE SENSITIVE SOILS AREAS HIGHLIGHTED ON THE HARVEST PLAN MAP.**

**HARVESTING ISSUES**

**MACHINE OPERATORS SHOULD BE AWARE OF STEEP HOE CHUCK AREAS WITHIN THE CUTBLOCK FALLING BOUNDARY. THESE AREAS ARE IDENTIFIED ON THE HARVESTING MAP.**

**RIPARIAN MANAGEMENT STRATEGIES**

Creek I.D.	CLASS	MANAGEMENT STRATEGIES FOR RIPARIAN MANAGEMENT ZONES (RMZ) INCLUDING PROTECTING STREAM
	NCD	- NCD(s) within the harvest area will be FX and YX. No RMZ is required. - Note all streams lie within the Sproat Lake Community Watershed, minimize sedimentation at all costs.
<b>STREAM REACH AND RMA IS OUTSIDE OF THE HARVEST AREA</b>		
<b>STREAM REACH OUTSIDE HARVEST AREA, PORTIONS OF THE RMA WITHIN THE HARVEST AREA</b>		
B15-4	S3	FA YA NC
<b>PORTIONS OF STREAM REACH AND RMA ARE WITHIN THE HARVEST AREA</b>		
B15-1	S4	FA YA, YX at designated machine crossings only. NC
B15-2	S4	FA YA, YX at designated machine crossings only. NC
B15-3	S4	FX YX NC
<b>PRESCRIPTION DEFINITIONS</b>		
	YX	Yard across Acceptable
	FX	Fall Across Acceptable
	FA/BL	Fall Away. Timber is to be felled away. Leaners and hazard trees that cannot be safely felled away shall be felled and left bridging the stream.
	FA	Fall Away. Timber is to be felled away.
	YA	Yard Away. Timber is to be yarded away. In order to improve deflection, cables are allowed to be suspended above the stream. <b>Non-fish streams:</b> merchantable leaners and danger trees that have been felled across the stream will, by necessity, be yarded across the stream. <b>Fish streams:</b> Leaners and danger trees which have been felled across the stream will be left unless detrimental to the stream.
	HH	100% harvested (no retention of saplings)
	RS	Retain saplings on the streambanks (non-merchantable)
	FE	Feathered edge.
	BPT	Blue painted trees (selected for removal). Faller's choice of alternate tree if unable to fall painted tree safely.
	NHZ	No harvest zone. Trees are to be felled away from the zone. Safe trees that cannot be felled away are to be left as part of the NHZ. Danger trees <b>must</b> be felled and will be left for future LWD or be removed if detrimental to the stream.
	MFZ	Machine free zone.
	MC	Machine Clean transportable introduced large woody debris (LWD) and accumulations concurrent with yarding.
	HC	Hand Clean introduced transportable debris.
	NC	No cleaning required. Keep channel free on introduced debris concurrent with yarding.

125°4'30"W 1,067,400 125°4'15"W 1,067,600 125°4'0"W 1,067,800 125°3'45"W 1,068,000 125°3'30"W 1,068,200 125°3'15"W 1,068,400 125°3'0"W 1,068,600 1,068,800 1,069,000 1,069,200

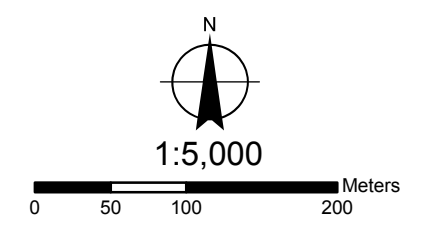
MAP 1 of 1

Licensee: Alberni Valley Community Forest Corporation  
 Forest Region: Coast  
 Forest District: South Island  
 Reference Map: 92F024, 025, 026  
 F035, 036  
 Datum: NAD 83  
 Projection: BC Albers, Geographic  
 TSA: 38 Arrowsmith  
 TSB: A  
 FIZ: B  
 P.S.Y.U.: 471  
 Inv. Reg.: 5  
 Comp.: 4B (Sproat), 4C (Taylor)  
 Drafted: Feb 20, 2015

# Alberni Valley Community Forest K2D Sproat FDU

## Road Reactivation & Road Construction

### Block B15



Timbermark K2D-0R1

BLOCK	Easting	Northing	Latitude	Longitude
B14	1068773	476374	49° 17' 58.5"	125° 03' 18.8"
B15	1068070	476893	49° 18' 15.6"	125° 03' 53.3"
W14	1073513	475898	49° 17' 40.9"	124° 59' 24.8"
W16	1072138	476934	49° 18' 15.1"	125° 00' 32.1"

**Attention!**  
 Refer to Back for Detailed Operating and Safety Instructions

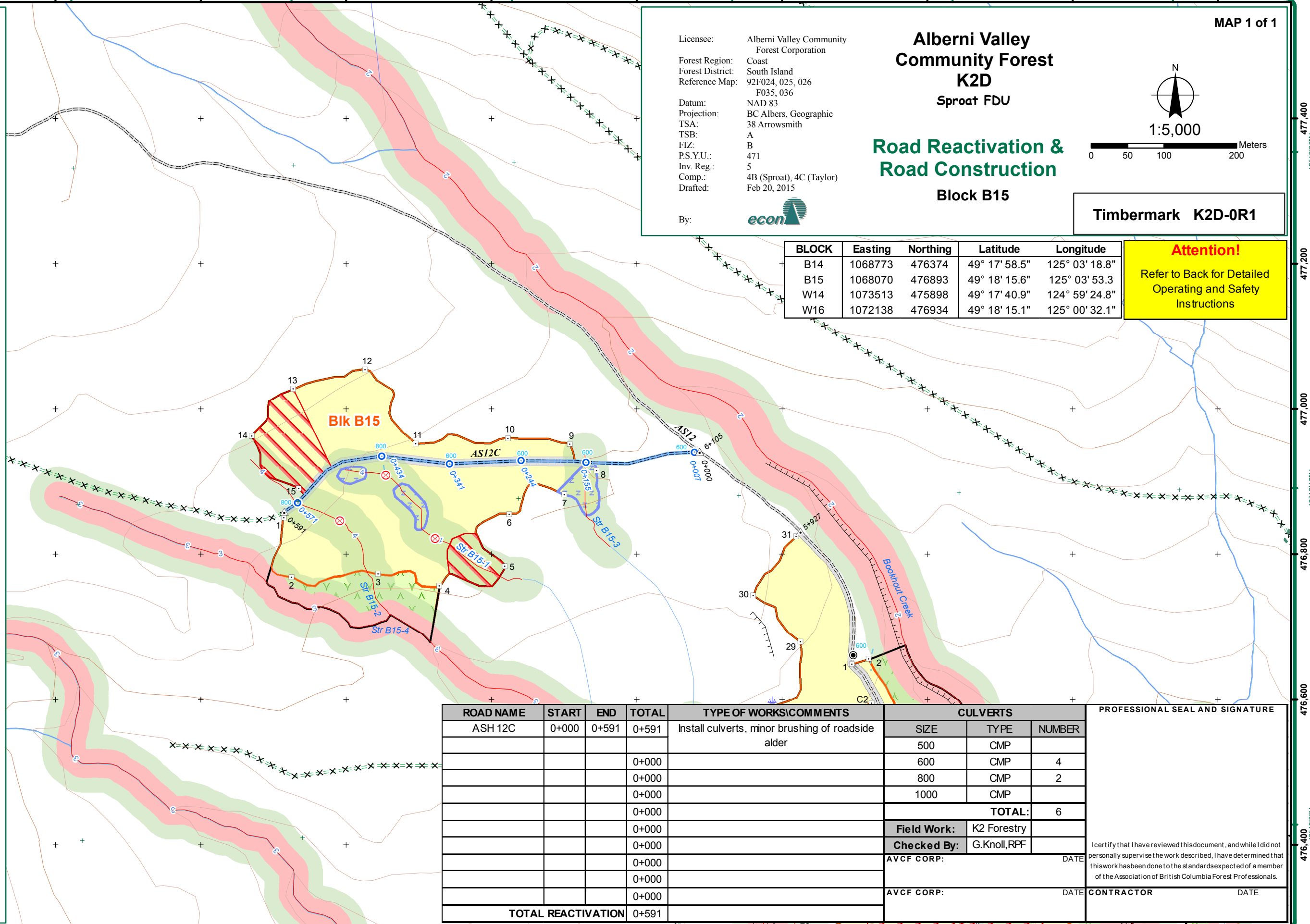
- Falling Corner
- ⊙ Landing, Perm., Temp.
- △ Station
- ● Culvert: New, Existing
- ⊗ Bridge: New, Out
- ⊕ Quarry
- ⊗ Designated Crossing
- ⊙ Spoil Site
- ⊕ Swamp
- 🌲 Wildlife Tree

- Ditch Cleaning
- End Haul
- >10% Adverse Grade
- >18% Favourable Grade
- Road, to be constructed
- Road, to be re-activated
- ▨ Steep Areas, >35% in Ground Based Areas
- ⊕ Sensitive Soils Area

- #### Road Feature
- Highway
  - Road, existing
  - Road, temporary
  - Trail, existing
  - Trail, temp
  - Old Grade
  - Recreation Trail

- #### Water Feature
- S1-S4 Stream
  - S5-S6 Stream
  - NCD Non Classified Drainage
  - Unclassified Creek
  - ⊕ Wetland
  - ⊕ Lake

- #### Other Feature
- Block, new
  - Block, existing
  - ▨ Riparian Management Zone
  - ▨ Riparian Reserve Zone
  - ▨ Wildlife Tree Retention Area
  - ▨ Timber Leave Area
  - ▨ Park
  - ▨ Community Forest



ROAD NAME	START	END	TOTAL	TYPE OF WORKS/COMMENTS	CULVERTS		
ASH 12C	0+000	0+591	0+591	Install culverts, minor brushing of roadside alder	SIZE	TYPE	NUMBER
			0+000		500	CMP	
			0+000		600	CMP	4
			0+000		800	CMP	2
			0+000		1000	CMP	
					<b>TOTAL:</b>		6
					<b>Field Work:</b>	K2 Forestry	
					<b>Checked By:</b>	G.Knoll, RPF	
					AVCF CORP:		DATE
					AVCF CORP:		DATE
<b>TOTAL REACTIVATION</b>			0+591				

PROFESSIONAL SEAL AND SIGNATURE

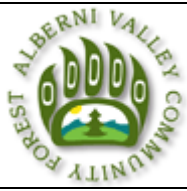
I certify that I have reviewed this document, and while I did not personally supervise the work described, I have determined that this work has been done to the standard expected of a member of the Association of British Columbia Forest Professionals.

CONTRACTOR \_\_\_\_\_ DATE \_\_\_\_\_

49°18'00"N 476,400

125°4'30"W 1,067,400 125°4'15"W 1,067,600 125°4'0"W 1,067,800 125°3'45"W 1,068,000 125°3'30"W 1,068,200 125°3'15"W 1,068,400 125°3'0"W 1,068,600 1,068,800 1,069,000 1,069,200





# ROAD INSTRUCTIONS – OPENING # B15

**ACCESS ROAD: AS12**

**ROAD PERMIT: R18553**

**TIMBERMARK: K2D 0R1**

### ROAD CONSTRUCTION SUMMARY

Road Name	Start Station	End Station	Type of Works/Comments
AS 12C	0+000	0+591	Re-construction. Install culverts, minor brushing of roadside alder.

### STREAM CROSSINGS and CULVERT INSTALLATIONS

Road Name	Station	Riparian ID	Riparian Class	Debris Transport Potential	Culvert/Bridge Size	Designed Peak Flow	Special instructions for operations within or adjacent to RMA
AS 12C	0+007	-	-	-	600	X-Drain	OPENING B15 LIES WITHIN THE SPROAT LAKE COMMUNITY WATERSHED. ALL STREAM CROSSINGS ARE TO BE ARMORED WITH COARSE ROCK MATERIAL TO MINIMIZE THE TRANSPORT OF FINES DOWN STREAM.
AS 12C	0+155	-	-	-	600	X-Drain	
AS 12C	0+244	-	-	-	600	X-Drain	
AS 12C	0+341	-	-	-	600	X-Drain	
AS 12C	0+434	NCD	NCD	Low	800	Q100	
AS 12C	0+571	B15-2	S4	Low	800	Q100	

### EMPLOYEE REQUIREMENTS

- 1) All employees, supervisors and contractors associated with these Road Instructions shall be fully advised of its contents and requirements.
- 2) All litter including cable, oil buckets, grease tubes, newspapers and lunch garbage is to be removed from the site and disposed of appropriately.

### WATER QUALITY

- 1) The overall objective of this cutblock is timber harvesting without impacting water quality.
- 2) Cutblock B 15 lies within the Sproat Lake Community Watershed, sedimentation into streams is to be minimized to the fullest extent possible, follow the listed SOP's below:
  - a. **Ditch Cleaning:** where needed, ditches are to be cleaned when conditions are dry. Ditchspoil is not to be windrowed along the road shoulder. On moderate slopes, the ditchspoil could be thinly spread on the slope below the road, but not heaped or piled against trees. Where the road is on steep slopes, the ditchspoil should be endhauled to a suitable spoil site.
  - b. **Culvert replacement:** Where required culvert replacements are to be done during dry weather (except for emergency repairs or replacements). The inlet and outlet areas on new culverts, and the adjacent fill slopes, are to be armoured to prevent erosion or sloughing into the creek.
  - c. **Rock Ballasting of road surface:** For new road construction, where the road is close to a stream channel, the road surface is to be ballasted with clean rock. The road surface is also to be rock ballasted for 30 metres either side of stream culverts.
  - d. **Road grading practices:** grading is to be avoided during heavy rain. e. **Shutdown or harvest completion:** In preparation for a shutdown for a period longer than 30 days or at a harvest completion, the following measures will be taken:
    - i. No excavated or endhauled material will be left piled in such a way as to become unstable during the shutdown period. Spoil sites, piles and fills will be sloped uniformly to prevent instability.
    - ii. Ditches and culverts will be left clear and functional, with adequate inlet basins to minimize the potential for plugging.
    - iii. On sections of steep grades, cross ditches and back-up swales will be constructed where needed to minimize ditch erosion.
    - iv. If road construction has reached a drainage course but a drainage structure has not been installed prior to shutdown, the drainage course will be left open and unimpeded.
    - v. Where exposed silty soils could erode and enter surface streams or ditches connected to streams, silt fences, hay bales or erosion blankets will be applied as needed for temporary protection.
- 4) Cutblock B 15 is within a Rainfall Shutdown Area with the following shutdown/start-up Criteria:
 

**Shutdown Criteria:** Activities must shut down if: The total rainfall reaches **75mm in 24 hours**. Onsite rain gages should be used and monitored daily.

**Start-Up Criteria:** Activities may start-up when: The total rainfall is equal to or less than 30mm in 24 hours, or the water balance falls below 75mm. Soil drainage rate is 40mm in 24hrs. Refer to the Return to work guide in the tender document for more information.

### FORESTRY

- 1) Invasive Plants: Broom occurs along sections of the high way on route to the setting. Follow FSP measures for invasive plants. Cut and remove plants in association with road reactivation, clean machinery as required. Monitor and treat broom and other invasive species during early establishment. Grass seed exposed soil on or adjacent to roads, trails, and landing sites as soon as possible following harvest.

### FIRST NATIONS

- 1) This cutblock is in the Hupacusath traditional territory. If any additional potential culturally modified tree (CMT) (whether live or dead and standing or fallen) or any other cultural feature is encountered within the opening during any harvesting phase, operations will cease in the immediate vicinity of the CMT or cultural feature. Hupacusath First Nations is to be notified immediately upon discovery of any potential CMT or cultural feature.

### FALLING of SNAGS and DANGER TREES

- 1) In accordance with the WCB Regulations, snags and danger trees within the cutblock and outside the cutblock boundaries for a distance of not more than 50 meters that endanger workers are approved for falling under the logging plan for this cutblock. Danger trees and snags outside this 50 meter hazard area that are required to be felled should be recorded on a map for future reference. Sanitation falling will proceed if the occasional stem is required to be removed along the cutblock boundary. The Ministry of Forests will be notified if danger trees and/or snags are identified in groups and removal will result in the cutblock boundary being substantially impacted. Snags and danger trees meeting utilization specifications will be recovered.
- 2) If a bear den or raptor nest is encountered during falling operations, the tree will be reserved from falling along with a protection patch of timber surrounding it. AVCF is to be notified immediately. If the bear den tree is partially cut operations will proceed in conformance with WCB regulations.
- 3) Wildlife Tree Patches or Wildlife Tree Retention Areas have been established, and are marked on the 1:5000 map. Any danger trees felled within the WTP or WTRA will be left as Coarse Woody Debris.

### CUTBLOCK BOUNDARY TREATMENTS

- 1) All marked boundary trees except snags and danger trees must remain standing during and after the completion of harvesting. Trees adjacent to edges that cannot be felled into the setting will require approval from AVCF prior to falling. AVCF is to be notified immediately.
- 2) Leave trees may be substituted if, for safety reasons, a faller feels it is necessary to do so, but alternate leave trees must be retained and should be well rooted and of the same species and diameter

### ROAD CONSTRUCTION PRESCRIPTIONS

- 1) R/W clearing widths to be 20 meters unless a larger width is required for safety or otherwise prescribed.
- 2) Prior approval must be obtained from AVCF if falling beyond right-of-way clearing is required for spoil sites or quarries.
- 3) Proposed cross-drain culvert locations are approximate. Site specific installation to within ±25m is acceptable. Installation beyond this distance constitutes a 'change of plan' and requires prior approval from AVCF.
- 4) Equipment must not be fuelled or serviced within the riparian management area (RMA) of a stream, lake or wetland. Do not park any equipment within an RMA overnight.
- 5) **Ensure that licensed water works are notified of road activities 48 hours prior to activity.**
- 6) **RMA distances:** STREAMS: S1 - 70 meters, S2 - 50 meters, S3 - 40 meters, S4 - 30 meters, S5 - 30 meters, S6 - 20 meters, LAKES: L1 - 10 meters, L3 - 30 meters, WETLANDS: W1, W5 - 50meters, W3 - 30 meters.
- 7) Avoid quarry locations within the RMA of any stream; where avoidance is not practical, quarries may be located within the RMA of a S6 stream if no impacts (i.e. increased sedimentation) will occur to the stream. All other streams (i.e. S1 to S5) require prior approval from AVCF before a quarry may be located within its RMA. Do not deck or process wood within RMA's.

### SAFETY

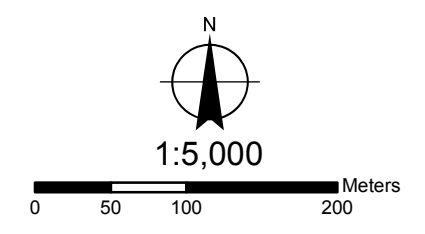
Road and in-block safety hazards associated with block B15 have been identified on the harvest and road instruction maps. In the event additional in-block safety hazards (temporary or permanent) are encountered or develop during road construction or harvesting phases, a plan must be developed to address the hazard. Any identified permanent hazards must be reported back to AVCF (using Hazard/Issue Report Form).

Licensee: Alberni Valley Community Forest Corporation  
 Forest Region: Coast  
 Forest District: South Island  
 Reference Map: 92F024, 025, 026  
 F035, 036  
 Datum: NAD 83  
 Projection: BC Albers, Geographic  
 TSA: 38 Arrowsmith  
 TSB: A  
 FIZ: B  
 P.S.Y.U.: 471  
 Inv. Reg.: 5  
 Comp.: 4B (Sproat), 4C (Taylor)  
 Drafted: Feb 20, 2015

# Alberni Valley Community Forest K2D Sproat FDU

## Road Reactivation & Road Construction

### Block W14



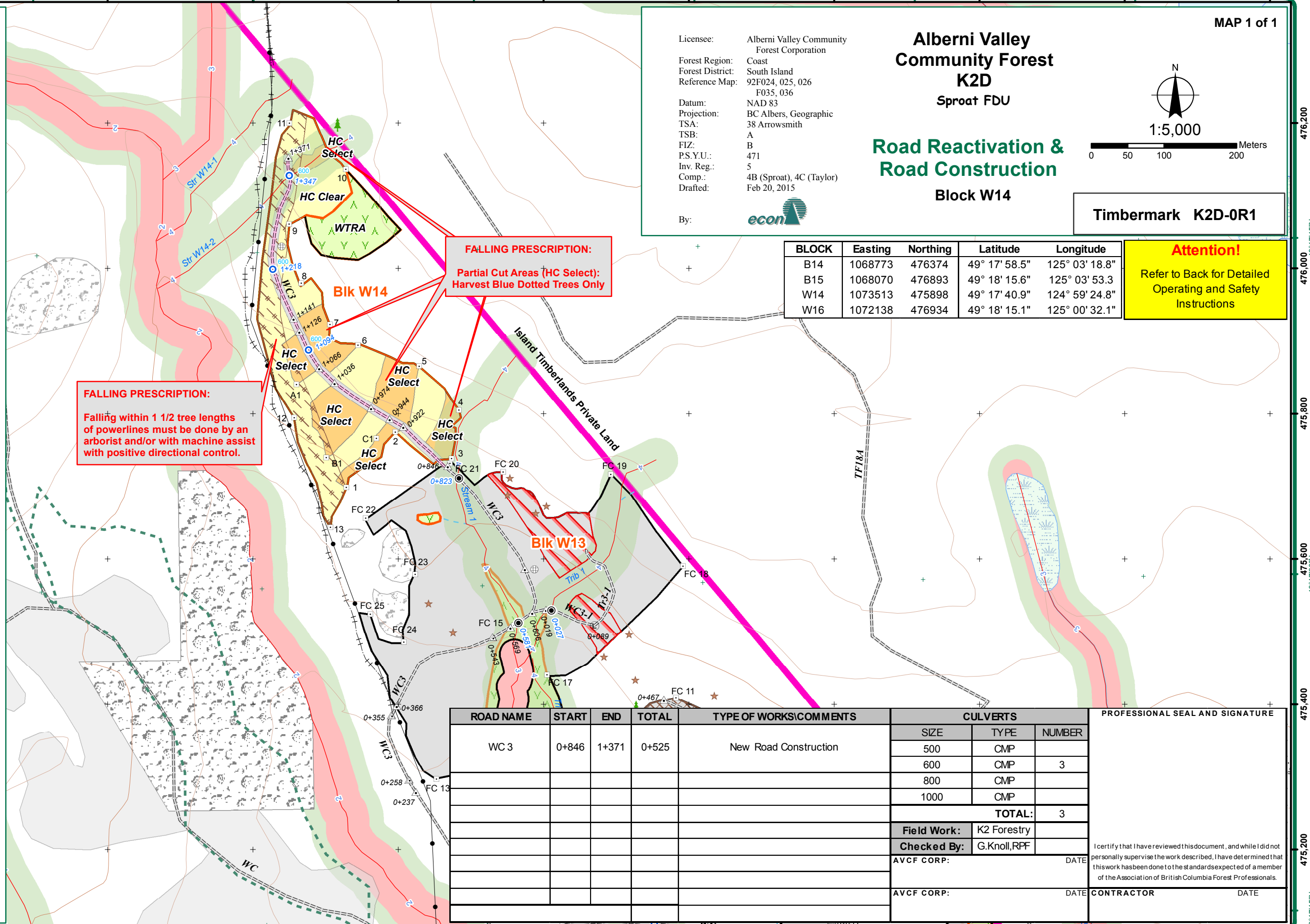
Timbermark K2D-0R1

By:

BLOCK	Easting	Northing	Latitude	Longitude
B14	1068773	476374	49° 17' 58.5"	125° 03' 18.8"
B15	1068070	476893	49° 18' 15.6"	125° 03' 53.3"
W14	1073513	475898	49° 17' 40.9"	124° 59' 24.8"
W16	1072138	476934	49° 18' 15.1"	125° 00' 32.1"

**Attention!**  
 Refer to Back for Detailed Operating and Safety Instructions

- Falling Corner
  - Landing, Perm., Temp.
  - Station
  - Culvert: New, Existing
  - Bridge: New, Out
  - Quarry
  - Designated Crossing
  - Spoil Site
  - Swamp
  - Wildlife Tree
  - Ditch Cleaning
  - End Haul
  - >10% Adverse Grade
  - >18% Favourable Grade
  - Road, to be constructed
  - Road, to be re-activated
  - Steep Areas, >35% in Ground Based Areas
  - Sensitive Soils Area
- Road Feature**
- Highway
  - Road, existing
  - Road, temporary
  - Trail, existing
  - Trail, temp
  - Old Grade
  - Recreation Trail
- Water Feature**
- S1-S4 Stream
  - S5-S6 Stream
  - NCD Non Classified Drainage
  - Unclassified Creek
  - Wetland
  - Lake
- Other Feature**
- Block, new
  - Block, existing
  - Riparian Management Zone
  - Riparian Reserve Zone
  - Wildlife Tree Retention Area
  - Timber Leave Area
  - Park
  - Community Forest



**FALLING PRESCRIPTION:**  
 Partial Cut Areas (HC Select): Harvest Blue Dotted Trees Only

**FALLING PRESCRIPTION:**  
 Falling within 1 1/2 tree lengths of powerlines must be done by an arborist and/or with machine assist with positive directional control.

ROAD NAME	START	END	TOTAL	TYPE OF WORKS/COMMENTS	CULVERTS			
					SIZE	TYPE	NUMBER	
WC 3	0+846	1+371	0+525	New Road Construction	500	CMP		
					600	CMP	3	
					800	CMP		
					1000	CMP		
						<b>TOTAL:</b>		3
					Field Work:	K2 Forestry		
					Checked By:	G.Knoll,RPF		
					AVCF CORP:	DATE		
					AVCF CORP:	DATE		

PROFESSIONAL SEAL AND SIGNATURE

I certify that I have reviewed this document, and while I did not personally supervise the work described, I have determined that this work has been done to the standard expected of a member of the Association of British Columbia Forest Professionals.

CONTRACTOR \_\_\_\_\_ DATE \_\_\_\_\_



## ROAD INSTRUCTIONS – OPENING # W14

**ACCESS ROAD: WC 3****ROAD PERMIT: R18553****TIMBERMARK: K2D 0R1**

**ROAD CONSTRUCTION SUMMARY**

Road Name	Start Station	End Station	Type of Works/Comments
WC 3	0+846	1+371	New Construction

**STREAM CROSSINGS and CULVERT INSTALLATIONS**

Road Name	Station	Riparian ID	Riparian Class	Debris Transport Potential	Culvert/Bridge Size	Designed Peak Flow	Special instructions for operations within or adjacent to RMA
WC 3	1+094	-	-	-	600	X-Drain	OPENING W14 LIES WITHIN THE SPROAT LAKE COMMUNITY WATERSHED. ALL STREAM CROSSINGS ARE TO BE ARMORED WITH COARSE ROCK MATERIAL TO MINIMIZE THE TRANSPORT OF FINES DOWN STREAM.
WC 3	1+218	-	-	-	600	X-Drain	
WC 3	1+347	W14-2	S4	Low	600	X-Drain	

**EMPLOYEE REQUIREMENTS**

- 1) All employees, supervisors and contractors associated with these Road Instructions shall be fully advised of its contents and requirements.
- 2) All litter including cable, oil buckets, grease tubes, newspapers and lunch garbage is to be removed from the site and disposed of appropriately.

**WATER QUALITY**

- 1) The overall objective of this cutblock is timber harvesting without impacting water quality.
- 2) Cutblock W14 lies within the Sproat Lake Community Watershed, sedimentation into streams is to be minimized to the fullest extent possible, follow the listed SOP's below:
  - a. Ditch Cleaning:** where needed, ditches are to be cleaned when conditions are dry. Ditchspoil is not to be windrowed along the road shoulder. On moderate slopes, the ditchspoil could be thinly spread on the slope below the road, but not heaped or piled against trees. Where the road is on steep slopes, the ditchspoil should be endhauled to a suitable spoil site.
  - b. Culvert replacement:** Where required culvert replacements are to be done during dry weather (except for emergency repairs or replacements). The inlet and outlet areas on new culverts, and the adjacent fill slopes, are to be armoured to prevent erosion or sloughing into the creek.
  - c. Rock Ballasting of road surface:** For new road construction, where the road is close to a stream channel, the road surface is to be ballasted with clean rock. The road surface is also to be rock ballasted for 30 metres either side of stream culverts.
  - d. Road grading practices:** grading is to be avoided during heavy rain. e. Shutdown or harvest completion: In preparation for a shutdown for a period longer than 30 days or at a harvest completion, the following measures will be taken:
    - i. No excavated or endhauled material will be left piled in such a way as to become unstable during the shutdown period. Spoil sites, piles and fills will be sloped uniformly to prevent instability.
    - ii. Ditches and culverts will be left clear and functional, with adequate inlet basins to minimize the potential for plugging.
    - iii. On sections of steep grades, cross ditches and back-up swales will be constructed where needed to minimize ditch erosion.
    - iv. If road construction has reached a drainage course but a drainage structure has not been installed prior to shutdown, the drainage course will be left open and unimpeded.
    - v. Where exposed silty soils could erode and enter surface streams or ditches connected to streams, silt fences, hay bales or erosion blankets will be applied as needed for temporary protection.
- 4) Cutblock W14 is within a Rainfall Shutdown Area with the following shutdown/start-up Criteria:
  - Shutdown Criteria:** Activities must shut down if: The total rainfall reaches **75mm in 24 hours**. Onsite rain gages should be used and monitored daily.
  - Start-Up Criteria:** Activities may start-up when: The total rainfall is equal to or less than 30mm in 24 hours, or the water balance falls below 75mm. Soil drainage rate is 40mm in 24hrs. Refer to the Return to work guide in the tender document for more information.

**FORESTRY**

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**FIRST NATIONS**

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**FALLING of SNAGS and DANGER TREES**

- 1) In accordance with WSBC Regulations, snags and danger trees within the cutblock and outside the cutblock boundaries for a distance of not more than 50 meters that endanger workers are approved for falling under the logging plan for this cutblock. **EXCEPT FOR AREAS ADJACENT TO ITLP PROPERTY FROM FC 10 TO 11.** Danger trees and snags outside this 50 meter hazard area that are required to be felled should be recorded on a map for future reference. Sanitation falling will proceed if the occasional stem is required to be removed along the cutblock boundary. The Ministry of Forests will be notified if danger trees and/or snags are identified in groups and removal will result in the cutblock boundary being substantially impacted. Snags and danger trees meeting utilization specifications will be recovered.
- 2) If a bear den or raptor nest is encountered during falling operations, the tree will be reserved from falling along with a protection patch of timber surrounding it. AVCF is to be notified immediately. If the bear den tree is partially cut operations will proceed in conformance with WSBC regulations.
- 3) Wildlife Tree Patches or Wildlife Tree Retention Areas have been established, and are marked on the 1:5000 map. Any danger trees felled within the WTP or WTRA will be left as Coarse Woody Debris.

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**ROAD CONSTRUCTION PRESCRIPTIONS**

- 1) R/W clearing widths to be 20 meters unless a larger width is required for safety or otherwise prescribed.
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- 3) Proposed cross-drain culvert locations are approximate. Site specific installation to within  $\pm 25m$  is acceptable. Installation beyond this distance constitutes a 'change of plan' and requires prior approval from AVCF.
- 4) Equipment must not be fuelled or serviced within the riparian management area (RMA) of a stream, lake or wetland. Do not park any equipment within an RMA overnight.
- 5) **Ensure that licensed water works are notified of road activities 48 hours prior to activity.**
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**SAFETY**

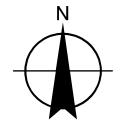
Road and in-block safety hazards associated with block W14 have been identified on the harvest and road instruction maps. In the event additional in-block safety hazards (temporary or permanent) are encountered or develop during road construction or harvesting phases, a plan must be developed to address the hazard. Any identified permanent hazards must be reported back to AVCF (using Hazard/Issue Report Form).

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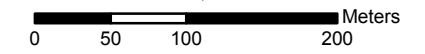
MAP 1 of 1

Licensee: Alberni Valley Community Forest Corporation  
 Forest Region: Coast  
 Forest District: South Island  
 Reference Map: 92F024, 025, 026  
 F035, 036  
 Datum: NAD 83  
 Projection: BC Albers, Geographic  
 TSA: 38 Arrowsmith  
 TSB: A  
 FIZ: B  
 P.S.Y.U.: 471  
 Inv. Reg.: 5  
 Comp.: 4B (Sproat), 4C (Taylor)  
 Drafted: Feb 20, 2015

**Alberni Valley  
 Community Forest  
 K2D  
 Sproat FDU**



1:5,000



**Road Reactivation &  
 Road Construction**

**Block W16**

**Timbermark K2D-0R1**

By: econ

BLOCK	Easting	Northing	Latitude	Longitude
B14	1068773	476374	49° 17' 58.5"	125° 03' 18.8"
B15	1068070	476893	49° 18' 15.6"	125° 03' 53.3"
W14	1073513	475898	49° 17' 40.9"	124° 59' 24.8"
W16	1072138	476934	49° 18' 15.1"	125° 00' 32.1"

**Attention!**  
 Refer to Back for Detailed  
 Operating and Safety  
 Instructions

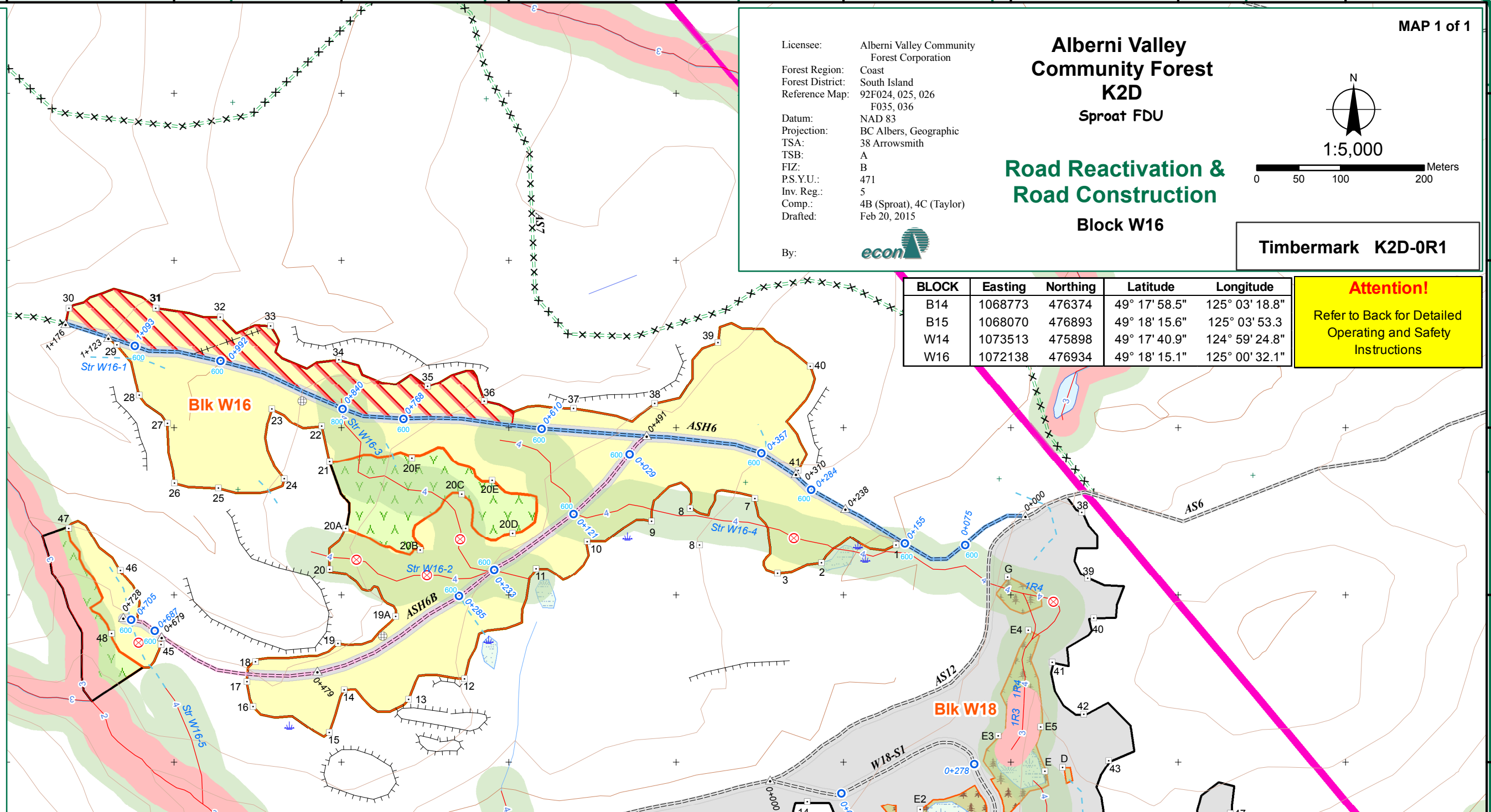
- Falling Corner
- Landing, Perm., Temp.
- Station
- Culvert: New, Existing
- Bridge: New, Out
- Quarry
- Designated Crossing
- Spoil Site
- Swamp
- Wildlife Tree

- Ditch Cleaning
- End Haul
- >10% Adverse Grade symbol"/> >10% Adverse Grade
- >18% Favourable Grade symbol"/> >18% Favourable Grade
- Road, to be constructed
- Road, to be re-activated
- Steep Areas, >35% in Ground Based Areas
- Sensitive Soils Area

- Road Feature**
- Highway
  - Road, existing
  - Road, temporary
  - Trail, existing
  - Trail, temp
  - Old Grade
  - Recreation Trail

- Water Feature**
- S1-S4 Stream
  - S5-S6 Stream
  - NCD Non Classified Drainage
  - Unclassified Creek
  - Wetland
  - Lake

- Other Feature**
- Block, new
  - Block, existing
  - Riparian Management Zone
  - Riparian Reserve Zone
  - Wildlife Tree Retention Area
  - Timber Leave Area
  - Park
  - Community Forest



ROAD NAME	START	END	TOTAL	TYPE OF WORKS/COMMENTS	CULVERTS		
					SIZE	TYPE	NUMBER
ASH 6	0+000	1+176	1+176	Re-Construction - Install culverts, minor brushing of roadside alder, re-surfacing required	500	CMP	
ASH 6B	0+000	0+728	0+728	New Construction of old road grade	600	CMP	14
					1000	CMP	1
						<b>TOTAL:</b>	15
						<b>Field Work:</b>	K2 Forestry
						<b>Checked By:</b>	G.Knoll,RPF
						AVCF CORP:	DATE
						AVCF CORP:	DATE

**PROFESSIONAL SEAL AND SIGNATURE**

I certify that I have reviewed this document, and while I did not personally supervise the work described, I have determined that this work has been done to the standard expected of a member of the Association of British Columbia Forest Professionals.

DATE \_\_\_\_\_

DATE \_\_\_\_\_

CONTRACTOR \_\_\_\_\_

1,071,400 1,071,600 1,071,800 1,072,000 1,072,200 1,072,400 1,072,600 1,072,800 1,073,000 1,073,200

