



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Cedar Cabin Thinning Sale 341-03-02

District: Astoria

Date: 1/21/03

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,323,048.92	\$1,769.22	\$1,324,818.14
		Project Work	(\$60,525.00)
		Advertised Value	\$1,264,293.14



Timber Sale Appraisal Timber Description Cedar Cabin Thinning Sale 341-03-02

"STEWARDSHIP IN FORESTRY"

District: Astoria

Location: Portions of Sections 27, 34, and 35 of T5N, R7W, Section 2, T4N, R7W, W.M., Clatsop County, Oregon

Date: 1/21/03

Stand Stocking: 80%

Species	Avg. DBH	Amortized %	Recovery %
Douglas - Fir	17	0	97
Western Hemlock / Fir	18	0	96
Noble Fir	25	0	96
Sitka Spruce	27	0	98
Red Cedar	17	0	98
Alder (Red)	14	0	98

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Noble Fir	Sitka Spruce	Red Cedar	Alder (Red)	Total
2S	1,524	479	1	1	0	0	2,005
3S	1,794	369	0	0	1	4	2,168
4S	409	47	0	0	0	2	458
Total	3,727	895	1	1	1	6	4,631

Comments: Pond Values Used: 4th Quarter 2002

Log Markets: Mist, Claskanine, Tillamook

Additional Costs with P&R:

100% branding and painting: $\$1/\text{MBF} \times 4,631\text{MBF} = \$4,631$

Additional cutting costs for thinning (bucking tops, topping/girdling tail lift trees, etc.):

$\$5/\text{MBF} \times 4,631\text{MBF} = \$23,155$

Additional costs for cable corridor layout: $\$3/\text{MBF} \times 4,631\text{MBF} = \$13,893$

Total Cost w/P&R = $\$41,679$

Costs without P&R: $\$0$



Timber Sale Appraisal Logging Conditions Cedar Cabin Thinning Sale 341-03-02

"STEWARDSHIP IN FORESTRY"

Combination#: 1
Douglas - Fir 35.00%
Western Hemlock / Fir 35.00%
Noble Fir 35.00%
Sitka Spruce 35.00%
Red Cedar 35.00%
Alder (Red) 35.00%

Yarding Distance: Medium (800 ft) **Downhill Yarding:** No
Logging System: Cable: Medium Tower >40 - <70 **Process:** Manual Delimiting
Tree Size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
Loads/Day: 6 **Bd. Ft./Load:** 4,000
Cost/MBF: \$138.19

Machines:

Log Loader (A)
Tower Yarder (Medium)

Combination#: 2
Douglas - Fir 64.00%
Western Hemlock / Fir 64.00%
Noble Fir 64.00%
Sitka Spruce 64.00%
Red Cedar 64.00%
Alder (Red) 64.00%

Yarding Distance: Short (400 ft) **Downhill Yarding:** Yes
Logging System: Track Skidder **Process:** Manual Falling/Delimiting
Tree Size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
Loads/Day: 8 **Bd. Ft./Load:** 4,000
Cost/MBF: \$102.05

Machines:

Log Loader (B)
Track Skidder

Combination#: 3
Douglas - Fir 1.00%
Western Hemlock / Fir 1.00%
Noble Fir 1.00%
Sitka Spruce 1.00%
Red Cedar 1.00%
Alder (Red) 1.00%

Yarding Distance: Short (400 ft)

Downhill Yarding: Yes

Logging System: Shovel

Process: Manual Delimiting

Tree Size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

Loads/Day: 9

Bd. Ft./Load: 4,500

Cost/MBF: \$57.32

Machines:

Shovel Logger



Timber Sale Appraisal Logging Costs Cedar Cabin Thinning Sale 341-03-02

"STEWARDSHIP IN FORESTRY"

Date: 1/21/03

Operating Seasons: 2.0

Profit & Risk: 14%

Project Costs: \$60,525

Other Costs (P/R): \$41,679

Slash Disposal: \$0

Other Costs: \$0

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Road Maintenance: \$4.60

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	3.0	4.0
Western Hemlock / Fir	\$0.00	3.0	4.0
Noble Fir	\$0.00	3.0	4.0
Sitka Spruce	\$0.00	3.0	4.0
Red Cedar	\$0.00	3.0	4.0
Alder (Red)	\$0.00	3.0	3.5



Timber Sale Appraisal Logging Costs Breakdown Cedar Cabin Thinning Sale 341-03-02

"STEWARDSHIP IN FORESTRY"

Costs	Douglas - Fir	Western Hemlock / Fir	Noble Fir	Sitka Spruce	Red Cedar	Alder (Red)
Logging	114.25	114.25	114.25	114.25	114.25	114.25
Road Maintenance	4.74	4.79	4.79	4.69	4.69	4.69
Fire Protection	1.17	1.17	1.17	1.17	1.17	1.17
Hauling	39.54	39.95	39.95	39.13	39.13	44.69
Other (P/R appl.)	9.00	9.00	9.00	9.00	9.00	9.00
Profit & Risk	23.62	23.68	23.68	23.55	23.55	24.33
Slash Disposal	0.00	0.00	0.00	0.00	0.00	0.00
Scaling	2.00	2.00	2.00	2.00	2.00	2.00
Other	0.00	0.00	0.00	0.00	0.00	0.00
Total	194.32	194.84	194.84	193.79	193.79	200.13

Amortization	0.00	0.00	0.00	0.00	0.00	0.00
Pond Value	516.59	329.83	350.00	340.00	1,025.00	495.00
Stumpage	322.27	134.99	155.16	146.21	831.21	294.87
Amortized	0.00	0.00	0.00	0.00	0.00	0.00

Cedar Cabin Thinning

Project No. 2 Road Vacating

Location/Description	C325	Truck	Labor			Straw Mulch & Seed	Total
V1 to V2 STA.0+75 Culvert Removal	1 hr	1 hr	2 hr			125 bales/ Seed	
STA. 4+75 Culvert Removal	1 hr	1 hr	1 hr				
STA. 9+00 Fill/CulvertRemoval develop 8' stream channel	8 hr	8 hr	3 hr				
15+00 Culvert Removal	1 hr		2 hr				
21+00 Culvert Removal	1 hr		2 hr				
27+00 Culvert Removal	1 hr		1 hr				
W1 Waste Area Straw Mulch Spreading Labor			5 hr				
Haul away old culverts to disposal site off STATE land		6 hr					
Labor to pick up straw bales and grass seed.			8 hr				
Total	13 hr	16 hr	24 hr			bales/ 125 Seed	
Rate	\$115 /hr	\$50 /hr	\$25 /hr			\$5.50	
Cost	\$1,495	\$800	\$600	\$0	\$0	\$687.50	\$3,583

*Cost for bales/seed includes bales of straw and grass seed @ 100 lbs/ac.
(Approximately 25,000 square feet to be mulched)

**Road Maintenance Cost Summary
at Completion of Project Work**

Sale: Cedar Cabin Thinning
Date: 4-Dec-02
By: L. Freeman

5.6 miles of road, Klines Creek 2.9 miles, Buster Creek 2.2 miles, Soak Alley .5 miles, from Buster Creek Quarry Stockpile Sites.

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost
	Grader			40	\$80	\$3,200
	Dump Truck			24	\$57	\$1,368
	FE Loader			24	\$75	\$1,800
	Vibratory Roller			40	\$75	\$3,000
	Water Truck 2,500 gallon			40	\$67	\$2,680
Total						\$12,048

**TIMBER CRUISE REPORT
CEDAR CABIN THINNING
FY 2003**

1. **Sale Area Location:** Areas 1 and 2 are located in portions of Sections 27 and 34 of T5N, R7W, Area 3 is located in portions of Section 35 of T5N, R7W and portions of Section 2 of T4N, R7W, W.M., Clatsop County, Oregon.
2. **Fund Distribution:** BOF 100%
Tax Code = 8-01 - 216 acres (79%), 8-02 - 57 acres (21%)
3. **Sale Acreage by Area:**

Area	Treatment	Gross Acres	Existing R/W	New R/W	Stream Buffer	Net Acres	Survey Method	Closure
1	SDI 27 Thinning	118.9	4.5	.5	1.4	112.5	GIS	N/A
2	SDI 27 Thinning	60.4	2.0	1.5	0.4	56.5	GIS	N/A
3	SDI 35 Thinning	111.8	5.0	1.5	4.8	100.5	GIS	N/A
4 R/W	New Roads					3.5	L X W	N/A
TOTALS		291.1	11.5	3.5	6.6	273.0		

4. **Cruisers and Cruise Dates:** Areas 1 – 4 R/W were cruised by Ty Williams, Diana Ison, Alan Kelso, Lanny Freeman, and Jon Long in August, 2002.

5. **Cruise Method and Computation:** AREAS 1 and 2 are "auto-mark" thinning units (SDI 27) and were variable plot cruised using a 33.61 BAF. These plots are located on a 10 chain by 4 chain grid. A total of 43 plots were sampled, with 15 plots measured and graded, and 27 count plots, with one blank plot. All "take" and "leave" trees were measured and graded with the "biggest and best" left to meet a target residual basal area of 120 ft.²/ acre, not including hardwoods.

AREA 3 is an "auto-mark" thinning unit (SDI 35), and were variable plot cruised using a 33.61 BAF. These plots are located on a 10 chain by 4 chain grid. A total of 34 plots were sampled, with 10 plots measured and graded, and 23 count plots, with one blank plot. All "take" and "leave" trees were measured and graded with the "biggest and best" left to meet a target residual basal area of 140 ft.²/ acre, including hardwoods.

AREA 4 R/W, in-sale Right-of Way, volume was calculated by multiplying R/W acreage and the total volume per acre from the plots in Areas 1 – 3.

All cruises used Corvallis MicroTechnology (CMT) data collectors, and were downloaded to the Atterbury Super A.C.E. program in District for computing. See the attached Cruise Design for more details on the cruise method. The cruise calculations were processed in the Astoria district office.

<u>AREA</u>	<u>CRUISE</u>	<u>CRUISE TYPE</u>
1 & 2	SDI 27 Auto-mark Thinning	5N7WSEC34TYPE:A1&2 TAKE
3	SDI 35 Auto-mark Thinning	5N7WSEC34TYPE:AREA 3 TAKE
4 R/W	In-Sale Right-of-way	5N7WSEC34TYPE:A 1&2 R/W and AREA 3 R/W

6. **Timber Description:** Areas 1 and 2 are "auto-mark" thinning units, about 50 to 60 years old, consisting of Douglas-fir dominated mixed conifer stands with small isolated clumps of hardwoods. These stands will be harvested to an SDI of 27, removing approximately 93 trees per acre and 18.7 MBF/acre. The average "take" tree size is 15.8" DBH and 67 feet to a merchantable top (6" d.i.b.).

Area 3 is an "auto-mark" thinning unit, about 50 to 60 years old, consisting of a Douglas-fir and western hemlock mixed conifer stands with small isolated clumps of hardwoods. These stands will be harvested to an SDI of 35, removing approximately 75 trees per acre and 13.5 MBF/acre. The average "take" tree size is 17.5" DBH and 58 feet to a merchantable top (6" d.i.b.).

Area 4 R/W (In-sale R/W) is a Douglas-fir dominated mixed conifer stand which contains a small amount of cedar, true fir, and hardwoods. This stand averages 17.0 inches in DBH, with an average merchantable height of 58 feet to a merchantable top. The average volume (net) is 32 MBF/acre.

7. **Statistical Analysis and Stand Summary:** (See "Statistics" - Type Reports, attached)

Area	Target CV	Target SE%	Actual CV	Actual SE%
1, 2, and 3	60%	10%	45.2%	8.36%

The results have been mathematically combined.

8. **Volumes by Species and Log Grade:** (See "Species, Sort, Grade, Length%" - Type and Project Reports, attached, of individual sale areas and combined areas and three cruise types)

Volumes by Species and Grade for All Sale Areas: (MBF) Volumes do not include "in-growth."

Species	DBH	Net Vol.	2 Saw	3Saw	4 Saw	D & B	% Sale
Douglas-fir	17"	3,727	1,524	1,794	409	61	80
Alder	14"	6	---	4	2	<1	<1
Hemlock	18"	895	479	369	47	<1	19
Noble fir	25"	1	1	---	---	<1	<1
Spruce	27"	1	1	---	---	<1	<1
Cedar	17"	1	---	1	---	<1	<1
TOTALS		4,631	2,005	2,168	458	62	

9. **Approvals:**

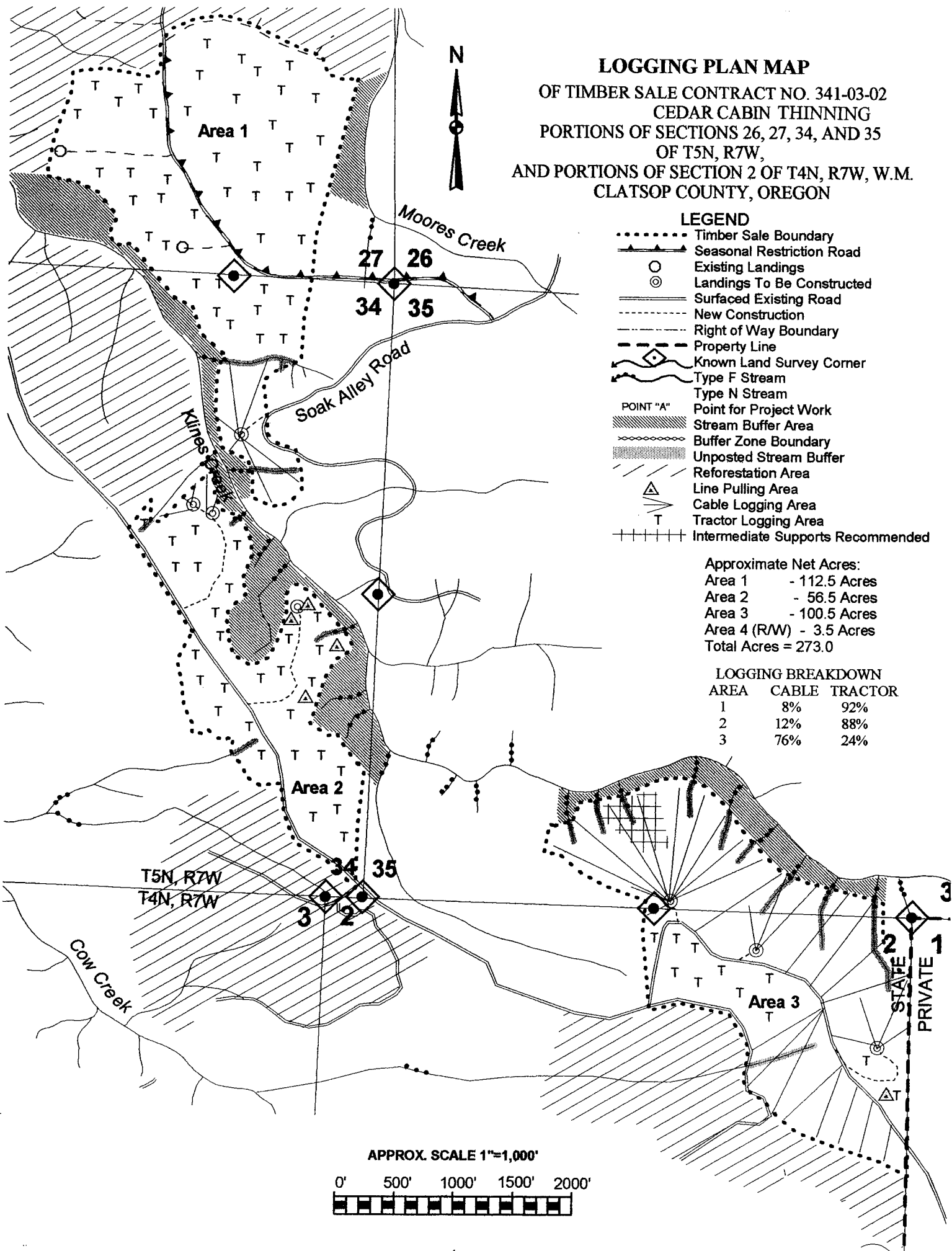
Prepared by: Ty Williams Date: October 30, 2002

Reviewed by: *Dave Gandy* Date: 11/13/02

10. **Attachments:**

- Cruise Design
- Cruise Map
- Volume Reports - 4 pages
- Statistics Reports - 8 pages
- Stand Tables - 2 pages
- Log Stock Tables - 6 pages

LOGGING PLAN MAP
 OF TIMBER SALE CONTRACT NO. 341-03-02
 CEDAR CABIN THINNING
 PORTIONS OF SECTIONS 26, 27, 34, AND 35
 OF T5N, R7W,
 AND PORTIONS OF SECTION 2 OF T4N, R7W, W.M.
 CLATSOP COUNTY, OREGON



LEGEND

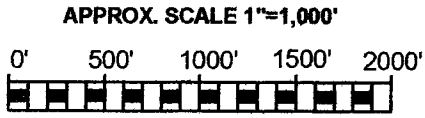
- Timber Sale Boundary
- ▲—— Seasonal Restriction Road
- Existing Landings
- ⊙ Landings To Be Constructed
- Surfaced Existing Road
- New Construction
- Right of Way Boundary
- Property Line
- ◆ Known Land Survey Corner
- ~ Type F Stream
- ~ Type N Stream
- POINT "A"
- ▴ Point for Project Work
- ▨ Stream Buffer Area
- ▤ Buffer Zone Boundary
- ▧ Unposted Stream Buffer
- ▩ Reforestation Area
- ▴ Line Pulling Area
- ▴ Cable Logging Area
- ▴ Tractor Logging Area
- ++++ Intermediate Supports Recommended

Approximate Net Acres:

Area 1	- 112.5 Acres
Area 2	- 56.5 Acres
Area 3	- 100.5 Acres
Area 4 (R/W)	- 3.5 Acres
Total Acres	= 273.0

LOGGING BREAKDOWN

AREA	CABLE	TRACTOR
1	8%	92%
2	12%	88%
3	76%	24%



CRUISE DESIGN

Sale Name Cedar Cabin Thinning Area(s) 1, 2, & 3

1. Cruise Method:

- A. X Variable Plot: BAF 33.61 Full or Half Point _____
Sighting point (BH or 16') 4'
- B. ___ Fixed Radius Plot: Plot Size (Acres) _____ Plot Radius _____ feet
- C. ___ Strip Cruise: Strip Width _____ feet Strip Spacing _____ feet
Strip factor _____ Strip (plot) length _____ feet
- D. ___ ITS Cruise: Measure/grade to Count ratio by Species:
D-fir ___; Hemlock ___; Spruce ___; Cedar ___; Hdwd ___; Other _____
- E. ___ 100% Cruise: Grade all trees ___; Grade 1 in ___ trees by Species:
D-fir ___; Hemlock ___; Spruce ___; Cedar ___; Hdwd ___; Other _____
- F. ___ Clearcut; or ___ Partial Cut: Indicate Take (T) and Leave (L) trees.

2. Plot Spacing: Lines are 10 feet, chains apart (circle correct one)
Plots are 4 feet, chains apart
Cruise line direction is east and west for Areas 1 and 2.
Cruise line direction is north and south for Area 3.

3. Detailed Cruising Directions: (Include cruise objectives, such as estimated stand CV, target SE% for board foot volume, target number of conifer grade trees, estimated volume per acre, expected defect and breakage factors, grade/measure/count ratios, etc.)

Estimated CV 60%, Target SE 10% for all areas. The leave tree basal area for Areas 1 and 2 is 120 sq. ft. and the target SDI is 34. Select 3-4 leave trees per plot. Reserve hardwoods, Spruce, True Fir, and Cedar (but cruise & grade). Hardwoods do not count in basal area. For Area 3, the leave tree basal area is 140 sq. ft. and a target SDI of 35. Select 4-5 leave trees per plot. All species count towards the basal area, but only D-fir & Hemlock are to be harvested. For all areas: Grade 1 plot and count 2 as marked on exhibit. On all grade plots mark all leave trees with a "L". Do not take plots within 25 ft. of streams that are unposted buffers. Grade plots are circled on exhibit. The target number of grade trees is 100. Estimated take volume per acre for Areas 1 and 2 is 16mbf/acre and 12mbf/acre for Area 3.

4. Form Factors (FF): Measure or estimate a 16' form factor for every conifer tree graded. For "old growth" D-fir (>48" dbh), measure form factors at 32'.

5. Top Cruise Diameter (D): Minimum top outside bark is 7" , and/or 40 % of d.o.b. at 16'. (Generally, for large timber, use 6" and 0.4 (40%); for thinning size timber, use 4 or 5" TCD. For "old growth", use 0.5 (50%) of d.o.b. at 16'.)

6. Diameter Recording: Minimum dbh to cruise is 8" for conifers and 10" for hardwoods. Record dbh (measured) to nearest 0.5" for trees <12" dbh, to nearest 1" for trees 12 to 20" dbh, and to nearest 2" for trees >20" dbh. If tree diameters are estimated, then record to closest estimate.

7. Bole Length (Merch. tree height): Record bole length to TCD to nearest foot. Do not record total tree height, except in certain special cases (such as inventory plots).

Sale Name Cedar Cabin Thinning **Area(s)** 1, 2, & 3

8. Tree Segments: Record log segments to maximize grade within scaling standards and within practicality. Minimum segment length is 12 feet (except cull segments). Maximum segment length is 40 feet. One foot of trim is assumed for each merch. segment. Do not use the "double dash" (--) feature on the data recorder except for the top segment of the tree.

9. Species, Sort, and Grade Codes:

A. Species: D-fir = D; Hemlock = H; Sitka Spruce = S; Red Cedar = C; Silver fir = SF; Grand fir = GF; Noble fir = NF; Red Alder = A; Bifleaf Maple = M.

B. Sorts: Domestic = 1; Leave tree = L; Take tree = T.

C. Grades: #1 Peeler = A; #2 Peeler = B; #3 Peeler = C; Special Mill = D; #2 Sawmill = 2; #3 Sawmill = 3; #4 Sawmill = 4; Pulp = P; Camp Run = R; Cull = 0

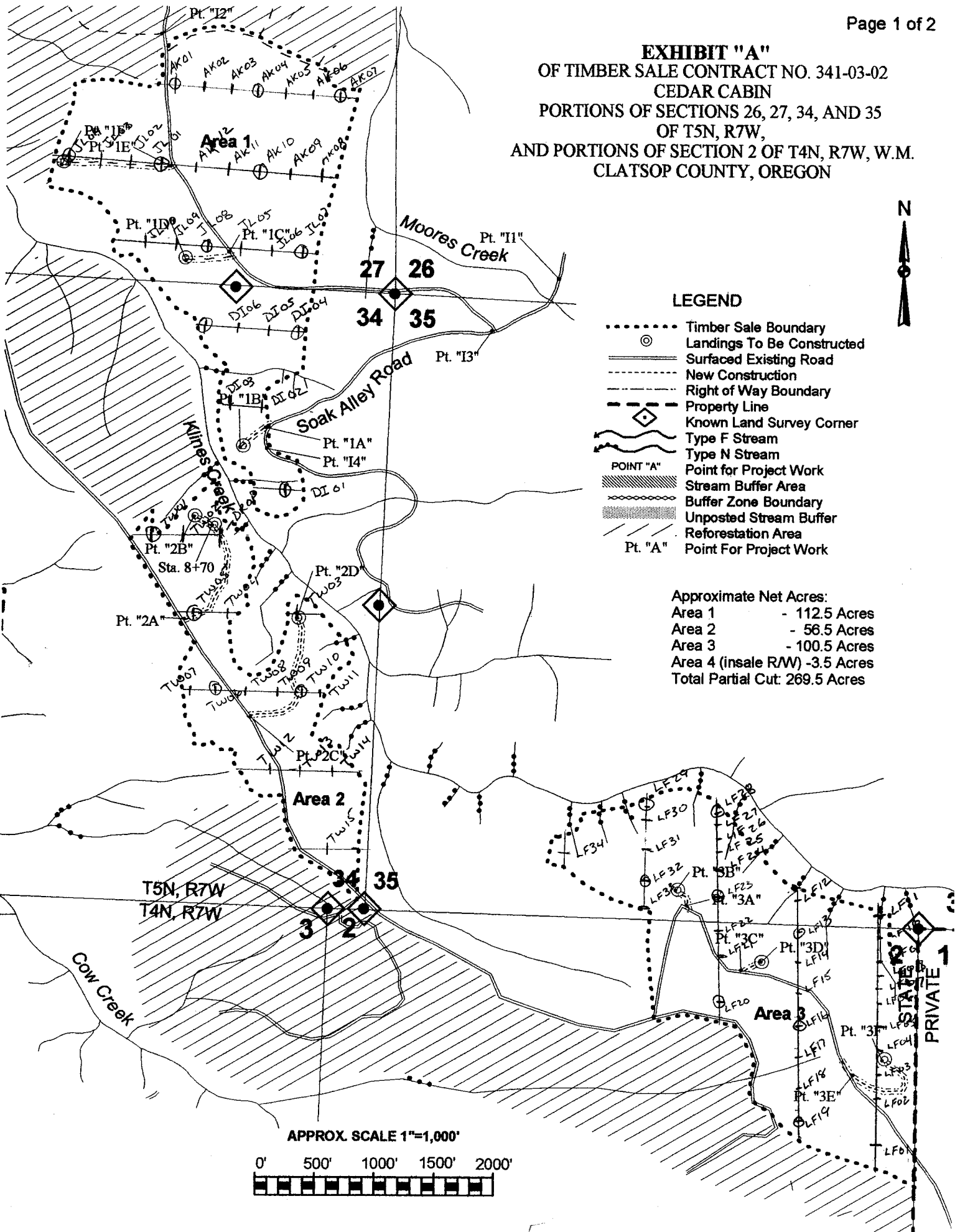
10. Standard Field Procedures: Cruise line ends are to be marked with blue and yellow ribbon, with cruise line number, cruising direction, cruiser's initials, and cruise date. At plot, sink a sturdy stake into the ground, marked with a yellow ribbon, labeled with cruise plot number. Hang another labeled yellow ribbon above eye height near the plot center. Label plot ribbons with cruiser's initials and plot number (eg. "TS01") and mark the location of the plot on the cruise map. Between plots, hang blue ribbons at visible intervals along the cruise line. Mark the first tree on each plot with yellow paint. A tree number or tree dbh may be used as a marking. The first tree should be the first "in" tree to the right (clockwise) of the cruise line direction. If half plots are used, mark "wing points" carefully about 20 feet either side of the plot center, using yellow ribbon. (These procedures apply to "plot" type cruises.) On "strip" cruises, the strip center should be plainly marked with yellow ribbon, and line ends should be marked with blue and yellow ribbon.

11. Cruising Equipment: Relaskop, rangefinder, diameter tape or rewind tape, biltmore stick, compass, increment borer, tatum and cruise cards or CMT data recorder, yellow and blue ribbon, permanent marker, Scaling and Grading Rules book, and Cruise Design and Map.

12. Attachment:

Cruise Map showing unit boundaries, major roads and streams, north arrow, legal description, approximate acreage, numbered cruise lines and approximate number of plots on each line, plot spacing, cruise line directions, BAF, measure/grade/count ratio, if applicable.

EXHIBIT "A"
OF TIMBER SALE CONTRACT NO. 341-03-02
CEDAR CABIN
PORTIONS OF SECTIONS 26, 27, 34, AND 35
OF T5N, R7W,
AND PORTIONS OF SECTION 2 OF T4N, R7W, W.M.
CLATSOP COUNTY, OREGON



LEGEND

- Timber Sale Boundary
- ⊙ Landings To Be Constructed
- ==== Surfaced Existing Road
- New Construction
- Right of Way Boundary
- - - - Property Line
- ◆ Known Land Survey Corner
- ~ Type F Stream
- ~ Type N Stream
- POINT "A"
- ▨ Stream Buffer Area
- ▨ Buffer Zone Boundary
- ▨ Unposted Stream Buffer
- ▨ Reforestation Area
- Pt. "A" Point For Project Work

Approximate Net Acres:

Area 1	- 112.5 Acres
Area 2	- 56.5 Acres
Area 3	- 100.5 Acres
Area 4 (insale R/W)	- 3.5 Acres
Total Partial Cut:	269.5 Acres

APPROX. SCALE 1"=1,000'



Species, Sort Grade - Board Foot Volumes (Type)

Project: CCAB

T5N R7W S34 TTAKE

T5N R7W S34 TTAKE

Twp Rge Sec Tract Type Acre Plots Sample Trees
 5N 7W 34 AREA3 TAKE 100.50 24 7

Spp	So	Gr	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
				Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
D	DO	2S	32	14.3	2,808	2,407	242				100				100	40	600	4.05	4.0
D	DO	3S	63		4,801	4,801	483	9	91					88	12	33	107	0.98	45.0
D	DO	4S	5		365	365	37		100			100				16	20	0.44	18.3
D	Totals		56	5.0	7,975	7,573	761	6	62	32		5	56	39		29	113	1.15	67.3
H	DO	CU														10		0.00	9.1
H	DO	2S	42		2,525	2,525	254		100				43	57		30	168	1.44	15.1
H	DO	3S	58		3,441	3,441	346		100				26	74		29	67	0.74	51.2
H	Totals		44		5,966	5,966	600		58	42			34	42	24	27	79	0.86	75.4
Type	Totals			2.9	13,940	13,539	1,361	3	60	19	18	3	15	50	33	28	95	1.01	142.7

Species, Sort Grade - Board Foot Volumes (Project)

T5N R7W S34 TyR/W 2.00
T5N R7W S34 TyR/W 1.50

Project: CCAB
Acres 3.50

Page 1
Date 10/30/2002
Time 12:57:22PM

Spp	So Gr	T rt ad	% Net BdFt	Bd. Ft. per Acre		Total Net MBF	Percent of Net Board Foot Volume								Average Log			Logs Per /Acre		
							Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/Lf			
							4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99						
H	DOCU														10		0.00	5.7		
H	DO2S		11		3,577	3,577	13			58	42		21	21	57	32	246	1.75	14.5	
H	DO3S		5		1,647	1,647	6		96	4			25	73	2	30	63	0.73	26.2	
H	DO4S		1		398	398	1		100				64	36		20	29	0.41	13.9	
H Totals			18		5,622	5,622	20		35	38	26		5	23	35	37	26	93	0.95	60.3
D	DOCU															5		0.00	6.4	
D	DO2S		48	.6	15,538	15,446	54	0	2	60	37		5	4	42	49	33	261	1.86	59.2
D	DO3S		22	1.0	6,951	6,879	24	2	83	8	7		3	12	45	39	33	86	0.75	79.9
D	DO4S		4		1,426	1,426	5	1	99				38	45	6	11	21	31	0.44	46.1
D Totals			74	.7	23,915	23,750	83	1	31	42	26		7	9	41	44	29	124	1.07	191.6
A	DOCU																7		0.00	1.8
A	DO3S		4	.9	1,194	1,183	4	1	72	15	13		13	44	27	16	30	82	0.86	14.4
A	DO4S		2		510	510	2		93	7			16	64	5	15	25	41	0.57	12.5
A Totals			5	.6	1,704	1,693	6	1	78	12	9		14	50	21	15	26	59	0.73	28.7
S	DO2S		1		409	409	1				100						16	260	2.97	1.6
S	DO3S		0		55	55	0		100					100			27	70	1.19	.8
S Totals			1		464	464	2		12		88		88	12			20	197	2.15	2.4
NF	DO2S		1		263	263	1				100				100		40	530	2.65	.5
NF	DO3S		0		75	75	0		100					100			40	150	1.25	.5
NF Totals			1		338	338	1		22		78				100		40	340	1.95	1.0
C	DOCU																3		0.00	.2
C	DO2S		0		58	58	0				100		100				18	310	3.11	.2
C	DO3S		0		59	59	0		40	60			10	30	60		23	61	0.93	1.0
C Totals			0		117	117	0		20	30	50		54	15	30		20	87	1.19	1.3
Totals				0.5	32,159	31,984	112	1	34	38	27		8	13	38	41	28	112	1.03	285.2

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES
5N	7W	34	A1&2	MAST	169.00	43	102

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	43	295	6.9		
CRUISE REFOREST COUNT	15	102	6.8	23,492	4
BLANKS	27	193	7.1		
100 %	1				

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUGLEAV	46	39.0	21.8	89		100.8	19,090	19,031	4,544	4,534
DOUG FIR	36	64.4	15.5	66		84.4	12,387	12,299	3,210	3,210
ALDRLEAV	11	20.4	14.3	47		22.7	2,349	2,330	693	693
HEMLEAV	6	11.0	13.0	35		10.2	1,237	1,237	309	309
WHEMLOCK	2	2.8	21.3	80		7.0	1,173	1,173	302	302
SPRUCELV	1	1.4	27.0	62		5.5	812	812	175	175
TOTAL	102	139.0	17.4	68		230.6	37,048	36,881	9,232	9,223

SD:	COEFF VAR.	S.E.%	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.
1			LOW	AVG	HIGH	5	7	12
DOUGLEAV	127.0	12.6	231	265	298			
DOUG FIR	185.6	18.4	78	96	114			
ALDRLEAV	426.2	42.2	9	16	23			
HEMLEAV	550.4	54.5	9	20	30			
WHEMLOCK	710.7	70.4	2	8	14			
SPRUCELV	1010.0	100.0		6	12			
TOTAL	68.3	6.8	383	410	438	187	95	32

SD:	COEFF VAR.	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.
1			LOW	AVG	HIGH	5	7	12
DOUGLEAV	50.6	7.7	36	39	42			
DOUG FIR	102.3	15.6	54	64	74			
ALDRLEAV	193.0	29.4	14	20	26			
HEMLEAV	209.8	32.0	8	11	15			
WHEMLOCK	287.0	43.8	2	3	4			
SPRUCELV	326.4	49.8	1	1	2			
TOTAL	50.2	7.7	128	139	150	101	52	18

SD:	COEFF VAR.	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.
1			LOW	AVG	HIGH	5	7	12
DOUGLEAV	48.2	7.4	93	101	108			
DOUG FIR	96.1	14.7	72	84	97			
ALDRLEAV	187.9	28.7	16	23	29			
HEMLEAV	222.9	34.0	7	10	14			
WHEMLOCK	286.6	43.7	4	7	10			
SPRUCELV	326.4	49.8	3	5	8			
TOTAL	46.7	7.1	214	231	247	87	45	15

SD:	COEFF VAR.	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
1			LOW	AVG	HIGH	5	7	12
DOUGLEAV	49.4	7.5	17,598	19,031	20,464			
DOUG FIR	94.7	14.4	10,523	12,299	14,076			
ALDRLEAV	189.5	28.9	1,656	2,330	3,003			
HEMLEAV	274.8	41.9	718	1,237	1,755			
WHEMLOCK	286.9	43.8	660	1,173	1,686			
SPRUCELV	326.4	49.8	408	812	1,216			
TOTAL	48.1	7.3	34,176	36,881	39,587	93	47	16

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	CCAB		DATE	10/30/200		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES			
5N	7W	34	A1&2	LEAV	169.00	42	64			
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		42	178	4.2						
CRUISE		15	64	4.3	12,421	.5				
REFOREST										
COUNT		27	114	4.2						
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUGLEAV	46	39.9	21.8	89		103.2	19,544	19,484	4,652	4,642
ALDRLEAV	11	20.8	14.3	47		23.2	2,405	2,385	710	710
HEMLEAV	6	11.3	13.0	35		10.4	1,266	1,266	316	316
SPRUCELV	1	1.4	27.0	62		5.6	831	831	179	179
TOTAL	64	73.5	18.9	68		142.4	24,046	23,967	5,857	5,847
	COEFF VAR.	S.E.%	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	80.0	10.0	380	422	464					
ALDRLEAV	333.0	41.6	15	26	37					
HEMLEAV	432.9	54.1	14	31	48					
SPRUCELV	800.0	100.0		9	18					
TOTAL	59.8	7.5	452	488	525	143	73	25		
	COEFF VAR.	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	47.5	7.3	37	40	43					
ALDRLEAV	190.2	29.3	15	21	27					
HEMLEAV	206.8	31.9	8	11	15					
SPRUCELV	322.3	49.7	1	1	2					
TOTAL	56.2	8.7	67	73	80	126	64	22		
	COEFF VAR.	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	45.1	7.0	96	103	110					
ALDRLEAV	185.1	28.6	17	23	30					
HEMLEAV	219.8	33.9	7	10	14					
SPRUCELV	322.3	49.7	3	6	8					
TOTAL	31.6	4.9	135	142	149	40	20	7		
	COEFF VAR.	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	46.3	7.1	18,092	19,484	20,877					
ALDRLEAV	186.7	28.8	1,698	2,385	3,072					
HEMLEAV	271.2	41.8	736	1,266	1,796					
SPRUCELV	322.3	49.7	418	831	1,245					
TOTAL	30.5	4.7	22,838	23,967	25,095	37	19	6		

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES
5N	7W	34	A1&2	TAKE	169.00	31	38

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	31	117	3.8		
CRUISE REFOREST COUNT	9	38	4.2	15,758	.2
BLANKS	1	79	3.8		
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	36	89.3	15.5	66		117.1	17,183	17,060	4,453	4,453
WHEMLOCK	2	3.9	21.3	80		9.8	1,627	1,627	419	419
TOTAL	38	93.2	15.8	67		126.9	18,810	18,687	4,871	4,871

SD:	COEFF		SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.
	VAR.	S.E.%	LOW	AVG	HIGH	5	7	
DOUG FIR	81.3	13.2	223	257	291			
WHEMLOCK	430.0	69.8	7	22	37			
TOTAL	72.5	11.8	246	279	312	210	107	37

SD:	COEFF		TREES/ACRE			# OF PLOTS REQ.		INF. POP.
	VAR.	S.E.%	LOW	AVG	HIGH	5	7	
DOUG FIR	68.8	12.4	78	89	100			
WHEMLOCK	238.9	42.9	2	4	6			
TOTAL	65.8	11.8	82	93	104	173	88	30

SD:	COEFF		BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.
	VAR.	S.E.%	LOW	AVG	HIGH	5	7	
DOUG FIR	61.9	11.1	104	117	130			
WHEMLOCK	238.5	42.8	6	10	14			
TOTAL	59.1	10.6	113	127	140	140	71	24

SD:	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
	VAR.	S.E.%	LOW	AVG	HIGH	5	7	
DOUG FIR	60.4	10.8	15,210	17,060	18,910			
WHEMLOCK	238.8	42.9	929	1,627	2,325			
TOTAL	57.4	10.3	16,760	18,687	20,614	132	67	23

TC TSTATS				STATISTICS				PAGE 1		
				PROJECT CCAB		DATE 10/30/200				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES			
5N	7W	34	AREA3	MAST	100.50	34	48			
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		34	232	6.8						
CRUISE		10	48	4.8	15,037	.3				
REFOREST										
COUNT		23	184	8.0						
BLANKS		1								
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUGLEAV	22	38.4	17.9	50		67.2	8,010	7,938	2,157	2,150
DOUG FIR	3	23.8	19.1	60		47.4	5,629	5,346	1,582	1,582
HEMLEAV	5	36.5	14.8	41		43.5	5,766	5,766	1,466	1,466
WHEMLOCK	4	28.9	16.0	56		40.5	4,211	4,211	1,241	1,241
ALDRLEAV	11	19.1	14.8	29		22.7	844	844	349	349
NFIRLEAV	1	1.2	25.0	89	1	4.0	708	708	171	171
CEDLEAV	2	1.8	17.3	35		3.0	272	272	73	73
TOTAL	48	149.6	16.7	48		228.4	25,440	25,085	7,038	7,031
		COEFF VAR.	S.E.%	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.	
SD: 1				LOW	AVG	HIGH	5	7	12	
DOUGLEAV	169.1	24.4		140	185	230				
DOUG FIR	501.4	72.4		6	22	38				
HEMLEAV	370.9	53.5		15	33	51				
WHEMLOCK	368.6	53.2		7	14	22				
ALDRLEAV	234.8	33.9		8	12	16				
NFIRLEAV	692.8	100.0			13	25				
CEDLEAV	656.0	94.7		1	12	23				
TOTAL	105.1	15.2		246	290	334	441	225	77	
		COEFF VAR.	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.	
SD: 1				LOW	AVG	HIGH	5	7	12	
DOUGLEAV	87.9	15.1		33	38	44				
DOUG FIR	125.2	21.5		19	24	29				
HEMLEAV	103.2	17.7		30	37	43				
WHEMLOCK	160.8	27.6		21	29	37				
ALDRLEAV	176.7	30.3		13	19	25				
NFIRLEAV	278.0	47.7		1	1	2				
CEDLEAV	429.3	73.6		0	2	3				
TOTAL	56.0	9.6		135	150	164	125	64	22	
		COEFF VAR.	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.	
SD: 1				LOW	AVG	HIGH	5	7	12	
DOUGLEAV	69.6	11.9		59	67	75				
DOUG FIR	124.7	21.4		37	47	58				
HEMLEAV	99.8	17.1		36	43	51				
WHEMLOCK	160.5	27.5		29	41	52				
ALDRLEAV	173.5	29.7		16	23	30				
NFIRLEAV	278.0	47.7		2	4	6				
CEDLEAV	429.3	73.6		1	3	5				
TOTAL	52.6	9.0		208	228	249	111	56	19	
		COEFF VAR.	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.	
SD: 1				LOW	AVG	HIGH	5	7	12	
DOUGLEAV	72.5	12.4		6,951	7,938	8,925				
DOUG FIR	124.7	21.4		4,203	5,346	6,489				
HEMLEAV	100.4	17.2		4,773	5,766	6,759				

TC TSTATS				STATISTICS				PAGE 2	
				PROJECT CCAB		DATE 10/30/2000			
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES		
5N	7W	34	AREA3	MAST	100.50	34	48		
SD:	1	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
		VAR.	S.E.%	LOW	AVG	HIGH	5	7	12
		160.5	27.5	3,052	4,211	5,371			
		172.9	29.6	594	844	1,095			
		278.0	47.7	370	708	1,045			
		429.3	73.6	72	272	473			
		60.7	10.4	22,474	25,085	27,697	147	75	26

TC TSTATS				STATISTICS				PAGE 1		
				PROJECT CCAB		DATE 12/31/200				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES			
5N	7W	34	AREA3	LEAV	100.50	33	39			
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		33	141	4.3						
CRUISE		10	39	3.9	7,778	.5				
REFOREST										
COUNT		23	102	4.4						
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUGLEAV	21	33.4	19.3	57		68.2	8,371	8,295	2,257	2,250
HEMLEAV	4	21.2	19.5	66		43.8	6,762	6,762	1,697	1,697
ALDRLEAV	11	19.7	14.8	29		23.4	870	870	359	359
NFIRLEAV	1	1.2	25.0	89	1	4.1	729	729	176	176
CEDLEAV	2	1.9	17.3	35		3.1	280	280	75	75
TOTAL	39	77.4	18.4	53		142.6	17,012	16,936	4,564	4,557
SD: 1	COEFF VAR.	S.E.%	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.		
			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	146.8	23.5	174	227	280					
HEMLEAV	336.8	53.9	19	40	62					
ALDRLEAV	207.6	33.2	10	15	19					
NFIRLEAV	624.5	100.0	0	16	31					
CEDLEAV	591.1	94.7	1	14	28					
TOTAL	102.7	16.4	261	312	363	422	215	73		
SD: 1	COEFF VAR.	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.		
			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	75.8	13.2	29	33	38					
HEMLEAV	101.2	17.6	17	21	25					
ALDRLEAV	173.3	30.2	14	20	26					
NFIRLEAV	273.4	47.6	1	1	2					
CEDLEAV	422.8	73.6	0	2	3					
TOTAL	34.0	5.9	73	77	82	46	24	8		
SD: 1	COEFF VAR.	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	65.7	11.4	60	68	76					
HEMLEAV	100.6	17.5	36	44	51					
ALDRLEAV	170.1	29.6	16	23	30					
NFIRLEAV	273.4	47.6	2	4	6					
CEDLEAV	422.8	73.6	1	3	5					
TOTAL	26.4	4.6	136	143	149	28	14	5		
SD: 1	COEFF VAR.	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	69.5	12.1	7,292	8,295	9,298					
HEMLEAV	100.6	17.5	5,577	6,762	7,946					
ALDRLEAV	169.5	29.5	613	870	1,127					
NFIRLEAV	273.4	47.6	382	729	1,076					
CEDLEAV	422.8	73.6	74	280	487					
TOTAL	39.5	6.9	15,773	16,936	18,099	62	32	11		

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	CCAB			DATE	10/30/2001	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES			
5N	7W	34	AREA3	TAKE	100.50	24	7			
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		24	89	3.7						
CRUISE		5	7	1.4	7,495	.1				
REFOREST										
COUNT		18	82	4.6						
BLANKS		1								
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	3	33.7	19.1	60		67.2	7,975	7,573	2,241	2,241
WHEMLOCK	4	40.9	16.0	56		57.4	5,966	5,966	1,758	1,758
TOTAL	7	74.6	17.5	58		124.6	13,940	13,539	3,998	3,998
	COEFF		SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.		
SD: 1	VAR.	S.E.%	LOW	AVG	HIGH	5	7			12
DOUG FIR	178.6	67.5	49	151	254					
WHEMLOCK	112.6	42.5	56	97	138					
TOTAL	90.7	34.3	163	249	334	329	168			57
	COEFF		TREES/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1	VAR.	S.E.%	LOW	AVG	HIGH	5	7			12
DOUG FIR	90.2	18.4	27	34	40					
WHEMLOCK	124.1	25.3	31	41	51					
TOTAL	74.0	15.1	63	75	86	219	112			38
	COEFF		BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1	VAR.	S.E.%	LOW	AVG	HIGH	5	7			12
DOUG FIR	89.7	18.3	55	67	80					
WHEMLOCK	123.8	25.3	43	57	72					
TOTAL	69.5	14.2	107	125	142	193	99			34
	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1	VAR.	S.E.%	LOW	AVG	HIGH	5	7			12
DOUG FIR	89.7	18.3	6,186	7,573	8,961					
WHEMLOCK	123.9	25.3	4,457	5,966	7,475					
TOTAL	69.0	14.1	11,634	13,539	15,445	190	97			33

PROJECT STATISTICS
PROJECT CCAB

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES
5N	7W	34	A1&2	R/W	3.50	77	150
5N	7W	34	AREA3	R/W			

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	77	527	6.8		
CRUISE	25	150	6.0	508	29.5
REFOREST					
COUNT	50	377	7.5		
BLANKS	2				
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	107	86.1	18.2	68		155.0	23,915	23,750	6,027	6,017
WHEMLOCK	17	37.2	15.0	45		45.8	5,622	5,622	1,494	1,494
R ALDER	22	19.8	14.5	39		22.7	1,704	1,693	545	545
S SPRUCE	1	.8	27.0	62		3.1	464	464	100	100
NOB FIR	1	.5	25.0	89	0	1.7	338	338	78	78
WR CEDAR	2	.8	17.3	35		1.3	117	117	31	31
TOTAL	150	145.1	17.0	58		229.6	32,159	31,984	8,275	8,265

SD:	1	COEFF VAR.	S.E.%	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.
				LOW	AVG	HIGH	5	7	12
DOUG FIR		101.8	8.3	286	311	337			
WHEMLOCK		364.2	29.7	24	34	44			
R ALDER		399.0	32.6	10	15	20			
S SPRUCE		1224.7	100.0		4	8			
NOB FIR		1224.7	100.0		5	9			
WR CEDAR		1160.5	94.8	0	4	7			
TOTAL		78.8	6.4	349	372	396	248	127	43

SD:	1	COEFF VAR.	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.
				LOW	AVG	HIGH	5	7	12
DOUG FIR		79.7	9.1	78	86	94			
WHEMLOCK		164.9	18.8	30	37	44			
R ALDER		185.4	21.1	16	20	24			
S SPRUCE		443.7	50.6	0	1	1			
NOB FIR		430.0	49.0	0	0	1			
WR CEDAR		650.6	74.1	0	1	1			
TOTAL		52.4	6.0	136	145	154	110	56	19

SD:	1	COEFF VAR.	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.
				LOW	AVG	HIGH	5	7	12
DOUG FIR		72.9	8.3	142	155	168			
WHEMLOCK		167.2	19.1	37	46	55			
R ALDER		180.5	20.6	18	23	27			
S SPRUCE		443.7	50.6	2	3	5			
NOB FIR		430.0	49.0	1	2	3			
WR CEDAR		650.6	74.1	0	1	2			
TOTAL		49.0	5.6	217	230	242	96	49	17

SD:	1	COEFF VAR.	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
				LOW	AVG	HIGH	5	7	12
DOUG FIR		79.1	9.0	21,631	23,750	25,870			
WHEMLOCK		166.3	19.0	4,537	5,622	6,706			
R ALDER		209.1	23.8	1,294	1,693	2,092			
S SPRUCE		443.7	50.6	235	464	693			
NOB FIR		430.0	49.0	167	338	509			
WR CEDAR		650.6	74.1	28	117	206			
TOTAL		56.6	6.5	29,930	31,984	34,038	128	65	22

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES
5N	7W	34	A1&2	MAST	169.00	43	102

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	43	295	6.9		
CRUISE	15	102	6.8	23,492	.4
REFOREST					
COUNT	27	193	7.1		
BLANKS	1				
100 %					

STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUGLEAV	46	39.0	21.8	89		100.8	19,090	19,031	4,544	4,534
DOUG FIR	36	64.4	15.5	66		84.4	12,387	12,299	3,210	3,210
ALDRLEAV	11	20.4	14.3	47		22.7	2,349	2,330	693	693
HEMLEAV	6	11.0	13.0	35		10.2	1,237	1,237	309	309
WHEMLOCK	2	2.8	21.3	80		7.0	1,173	1,173	302	302
SPRUCELV	1	1.4	27.0	62		5.5	812	812	175	175
TOTAL	102	139.0	17.4	68		230.6	37,048	36,881	9,232	9,223

SD:	COEFF VAR.	S.E.%	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.
1			LOW	AVG	HIGH	5	7	12
DOUGLEAV	127.0	12.6	231	265	298			
DOUG FIR	185.6	18.4	78	96	114			
ALDRLEAV	426.2	42.2	9	16	23			
HEMLEAV	550.4	54.5	9	20	30			
WHEMLOCK	710.7	70.4	2	8	14			
SPRUCELV	1010.0	100.0		6	12			
TOTAL	68.3	6.8	383	410	438	187	95	32

SD:	COEFF VAR.	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.
1			LOW	AVG	HIGH	5	7	12
DOUGLEAV	50.6	7.7	36	39	42			
DOUG FIR	102.3	15.6	54	64	74			
ALDRLEAV	193.0	29.4	14	20	26			
HEMLEAV	209.8	32.0	8	11	15			
WHEMLOCK	287.0	43.8	2	3	4			
SPRUCELV	326.4	49.8	1	1	2			
TOTAL	50.2	7.7	128	139	150	101	52	18

SD:	COEFF VAR.	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.
1			LOW	AVG	HIGH	5	7	12
DOUGLEAV	48.2	7.4	93	101	108			
DOUG FIR	96.1	14.7	72	84	97			
ALDRLEAV	187.9	28.7	16	23	29			
HEMLEAV	222.9	34.0	7	10	14			
WHEMLOCK	286.6	43.7	4	7	10			
SPRUCELV	326.4	49.8	3	5	8			
TOTAL	46.7	7.1	214	231	247	87	45	15

SD:	COEFF VAR.	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
1			LOW	AVG	HIGH	5	7	12
DOUGLEAV	49.4	7.5	17,598	19,031	20,464			
DOUG FIR	94.7	14.4	10,523	12,299	14,076			
ALDRLEAV	189.5	28.9	1,656	2,330	3,003			
HEMLEAV	274.8	41.9	718	1,237	1,755			
WHEMLOCK	286.9	43.8	660	1,173	1,686			
SPRUCELV	326.4	49.8	408	812	1,216			
TOTAL	48.1	7.3	34,176	36,881	39,587	93	47	16

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	CCAB		DATE	10/30/200		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES			
5N	7W	34	A1&2	LEAV	169.00	42	64			
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		42	178	4.2						
CRUISE		15	64	4.3	12,421	.5				
REFOREST										
COUNT		27	114	4.2						
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUGLEAV	46	39.9	21.8	89		103.2	19,544	19,484	4,652	4,642
ALDRLEAV	11	20.8	14.3	47		23.2	2,405	2,385	710	710
HEMLEAV	6	11.3	13.0	35		10.4	1,266	1,266	316	316
SPRUCELV	1	1.4	27.0	62		5.6	831	831	179	179
TOTAL	64	73.5	18.9	68		142.4	24,046	23,967	5,857	5,847
	COEFF VAR.	S.E.%	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	80.0	10.0	380	422	464					
ALDRLEAV	333.0	41.6	15	26	37					
HEMLEAV	432.9	54.1	14	31	48					
SPRUCELV	800.0	100.0		9	18					
TOTAL	59.8	7.5	452	488	525	143	73	25		
	COEFF VAR.	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	47.5	7.3	37	40	43					
ALDRLEAV	190.2	29.3	15	21	27					
HEMLEAV	206.8	31.9	8	11	15					
SPRUCELV	322.3	49.7	1	1	2					
TOTAL	56.2	8.7	67	73	80	126	64	22		
	COEFF VAR.	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	45.1	7.0	96	103	110					
ALDRLEAV	185.1	28.6	17	23	30					
HEMLEAV	219.8	33.9	7	10	14					
SPRUCELV	322.3	49.7	3	6	8					
TOTAL	31.6	4.9	135	142	149	40	20	7		
	COEFF VAR.	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	46.3	7.1	18,092	19,484	20,877					
ALDRLEAV	186.7	28.8	1,698	2,385	3,072					
HEMLEAV	271.2	41.8	736	1,266	1,796					
SPRUCELV	322.3	49.7	418	831	1,245					
TOTAL	30.5	4.7	22,838	23,967	25,095	37	19	6		

TC TSTATS				STATISTICS				PAGE	1		
				PROJECT	CCAB		DATE 10/30/200				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES				
5N	7W	34	A1&2	TAKE	169.00	31	38				
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES					
TOTAL		31	117	3.8							
CRUISE REFOREST COUNT		9	38	4.2	15,758	.2					
BLANKS		21	79	3.8							
100 %		1									
STAND SUMMARY											
		SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR		36	89.3	15.5	66		117.1	17,183	17,060	4,453	4,453
WHEMLOCK		2	3.9	21.3	80		9.8	1,627	1,627	419	419
TOTAL		38	93.2	15.8	67		126.9	18,810	18,687	4,871	4,871
		COEFF	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.			
SD:	1	VAR.	S.E.%	LOW	AVG	HIGH	5	7	12		
DOUG FIR		81.3	13.2	223	257	291					
WHEMLOCK		430.0	69.8	7	22	37					
TOTAL		72.5	11.8	246	279	312	210	107	37		
		COEFF	TREES/ACRE			# OF PLOTS REQ.		INF. POP.			
SD:	1	VAR.	S.E.%	LOW	AVG	HIGH	5	7	12		
DOUG FIR		68.8	12.4	78	89	100					
WHEMLOCK		238.9	42.9	2	4	6					
TOTAL		65.8	11.8	82	93	104	173	88	30		
		COEFF	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.			
SD:	1	VAR.	S.E.%	LOW	AVG	HIGH	5	7	12		
DOUG FIR		61.9	11.1	104	117	130					
WHEMLOCK		238.5	42.8	6	10	14					
TOTAL		59.1	10.6	113	127	140	140	71	24		
		COEFF	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.			
SD:	1	VAR.	S.E.%	LOW	AVG	HIGH	5	7	12		
DOUG FIR		60.4	10.8	15,210	17,060	18,910					
WHEMLOCK		238.8	42.9	929	1,627	2,325					
TOTAL		57.4	10.3	16,760	18,687	20,614	132	67	23		

TC TSTATS				STATISTICS				PAGE 1		
				PROJECT CCAB		DATE 10/30/2001				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES			
5N	7W	34	AREA3	MAST	100.50	34	48			
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		34	232	6.8						
CRUISE		10	48	4.8	15,037	.3				
REFOREST										
COUNT		23	184	8.0						
BLANKS		1								
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUGLEAV	22	38.4	17.9	50		67.2	8,010	7,938	2,157	2,150
DOUG FIR	3	23.8	19.1	60		47.4	5,629	5,346	1,582	1,582
HEMLEAV	5	36.5	14.8	41		43.5	5,766	5,766	1,466	1,466
WHEMLOCK	4	28.9	16.0	56		40.5	4,211	4,211	1,241	1,241
ALDRLEAV	11	19.1	14.8	29		22.7	844	844	349	349
NFIRLEAV	1	1.2	25.0	89	1	4.0	708	708	171	171
CEDLEAV	2	1.8	17.3	35		3.0	272	272	73	73
TOTAL	48	149.6	16.7	48		228.4	25,440	25,085	7,038	7,031
SD: 1		COEFF VAR.	S.E.%	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.	
				LOW	AVG	HIGH	5	7	12	
DOUGLEAV		169.1	24.4	140	185	230				
DOUG FIR		501.4	72.4	6	22	38				
HEMLEAV		370.9	53.5	15	33	51				
WHEMLOCK		368.6	53.2	7	14	22				
ALDRLEAV		234.8	33.9	8	12	16				
NFIRLEAV		692.8	100.0		13	25				
CEDLEAV		656.0	94.7	1	12	23				
TOTAL		105.1	15.2	246	290	334	441	225	77	
SD: 1		COEFF VAR.	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.	
				LOW	AVG	HIGH	5	7	12	
DOUGLEAV		87.9	15.1	33	38	44				
DOUG FIR		125.2	21.5	19	24	29				
HEMLEAV		103.2	17.7	30	37	43				
WHEMLOCK		160.8	27.6	21	29	37				
ALDRLEAV		176.7	30.3	13	19	25				
NFIRLEAV		278.0	47.7	1	1	2				
CEDLEAV		429.3	73.6	0	2	3				
TOTAL		56.0	9.6	135	150	164	125	64	22	
SD: 1		COEFF VAR.	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.	
				LOW	AVG	HIGH	5	7	12	
DOUGLEAV		69.6	11.9	59	67	75				
DOUG FIR		124.7	21.4	37	47	58				
HEMLEAV		99.8	17.1	36	43	51				
WHEMLOCK		160.5	27.5	29	41	52				
ALDRLEAV		173.5	29.7	16	23	30				
NFIRLEAV		278.0	47.7	2	4	6				
CEDLEAV		429.3	73.6	1	3	5				
TOTAL		52.6	9.0	208	228	249	111	56	19	
SD: 1		COEFF VAR.	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.	
				LOW	AVG	HIGH	5	7	12	
DOUGLEAV		72.5	12.4	6,951	7,938	8,925				
DOUG FIR		124.7	21.4	4,203	5,346	6,489				
HEMLEAV		100.4	17.2	4,773	5,766	6,759				

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	CCAB	DATE 10/30/2001				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES			
5N	7W	34	AREA3	LEAV	100.50	33	41			
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		33	143	4.3						
CRUISE REFOREST COUNT		10	41	4.1	10,042	4				
BLANKS 100 %		23	102	4.4						
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUGLEAV	22	39.5	17.9	50		69.3	8,252	8,179	2,222	2,215
HEMLEAV	5	37.7	14.8	41		44.8	5,941	5,941	1,511	1,511
ALDRLEAV	11	19.7	14.8	29		23.4	870	870	359	359
NFIRLEAV	1	1.2	25.0	89	1	4.1	729	729	176	176
CEDLEAV	2	1.9	17.3	35		3.1	280	280	75	75
TOTAL	41	99.9	16.3	43		144.6	16,073	15,999	4,343	4,336
	COEFF VAR.	S.E.%	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	151.7	23.7	165	216	268					
HEMLEAV	341.3	53.3	18	39	59					
ALDRLEAV	213.9	33.4	9	14	19					
NFIRLEAV	640.3	100.0		15	30					
CEDLEAV	606.1	94.7	1	14	27					
TOTAL	107.0	16.7	248	298	347	458	234	80		
	COEFF VAR.	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	84.8	14.8	34	40	45					
HEMLEAV	100.2	17.4	31	38	44					
ALDRLEAV	173.3	30.2	14	20	26					
NFIRLEAV	273.4	47.6	1	1	2					
CEDLEAV	422.8	73.6	0	2	3					
TOTAL	37.4	6.5	93	100	106	56	29	10		
	COEFF VAR.	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	66.4	11.6	61	69	77					
HEMLEAV	96.8	16.9	37	45	52					
ALDRLEAV	170.1	29.6	16	23	30					
NFIRLEAV	273.4	47.6	2	4	6					
CEDLEAV	422.8	73.6	1	3	5					
TOTAL	25.0	4.3	138	145	151	25	13	4		
	COEFF VAR.	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	7	12		
DOUGLEAV	69.3	12.1	7,192	8,179	9,166					
HEMLEAV	97.4	17.0	4,934	5,941	6,948					
ALDRLEAV	169.5	29.5	613	870	1,127					
NFIRLEAV	273.4	47.6	382	729	1,076					
CEDLEAV	422.8	73.6	74	280	487					
TOTAL	36.8	6.4	14,973	15,999	17,025	54	28	9		

TC TSTATS				STATISTICS				PAGE 1		
				PROJECT CCAB		DATE 10/30/200				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES			
5N	7W	34	AREA3	TAKE	100.50	24	7			
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		24	89	3.7						
CRUISE		5	7	1.4	7,495	.1				
REFOREST COUNT		18	82	4.6						
BLANKS		1								
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	3	33.7	19.1	60		67.2	7,975	7,573	2,241	2,241
WHEMLOCK	4	40.9	16.0	56		57.4	5,966	5,966	1,758	1,758
TOTAL	7	74.6	17.5	58		124.6	13,940	13,539	3,998	3,998
	COEFF		SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.		
SD: 1	VAR.	S.E.%	LOW	AVG	HIGH	5	7	12		
DOUG FIR	178.6	67.5	49	151	254					
WHEMLOCK	112.6	42.5	56	97	138					
TOTAL	90.7	34.3	163	249	334	329	168	57		
	COEFF		TREES/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1	VAR.	S.E.%	LOW	AVG	HIGH	5	7	12		
DOUG FIR	90.2	18.4	27	34	40					
WHEMLOCK	124.1	25.3	31	41	51					
TOTAL	74.0	15.1	63	75	86	219	112	38		
	COEFF		BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1	VAR.	S.E.%	LOW	AVG	HIGH	5	7	12		
DOUG FIR	89.7	18.3	55	67	80					
WHEMLOCK	123.8	25.3	43	57	72					
TOTAL	69.5	14.2	107	125	142	193	99	34		
	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1	VAR.	S.E.%	LOW	AVG	HIGH	5	7	12		
DOUG FIR	89.7	18.3	6,186	7,573	8,961					
WHEMLOCK	123.9	25.3	4,457	5,966	7,475					
TOTAL	69.0	14.1	11,634	13,539	15,445	190	97	33		

PROJECT STATISTICS
PROJECT CCAB

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES
5N	7W	34	A1&2	R/W	3.50	77	150
5N	7W	34	AREA3	R/W			

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	77	527	6.8		
CRUISE REFOREST COUNT	25	150	6.0	508	29.5
BLANKS	50	377	7.5		
100%	2				

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	107	86.1	18.2	68		155.0	23,915	23,750	6,027	6,017
WHEMLOCK	17	37.2	15.0	45		45.8	5,622	5,622	1,494	1,494
R ALDER	22	19.8	14.5	39		22.7	1,704	1,693	545	545
S SPRUCE	1	.8	27.0	62		3.1	464	464	100	100
NOB FIR	1	.5	25.0	89	0	1.7	338	338	78	78
WR CEDAR	2	.8	17.3	35		1.3	117	117	31	31
TOTAL	150	145.1	17.0	58		229.6	32,159	31,984	8,275	8,265

SD:	COEFF VAR.	S.E.%	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.
1			LOW	AVG	HIGH	5	7	12
DOUG FIR	101.8	8.3	286	311	337			
WHEMLOCK	364.2	29.7	24	34	44			
R ALDER	399.0	32.6	10	15	20			
S SPRUCE	1224.7	100.0		4	8			
NOB FIR	1224.7	100.0		5	9			
WR CEDAR	1160.5	94.8	0	4	7			
TOTAL	78.8	6.4	349	372	396	248	127	43

SD:	COEFF VAR.	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.
1			LOW	AVG	HIGH	5	7	12
DOUG FIR	79.7	9.1	78	86	94			
WHEMLOCK	164.9	18.8	30	37	44			
R ALDER	185.4	21.1	16	20	24			
S SPRUCE	443.7	50.6	0	1	1			
NOB FIR	430.0	49.0	0	0	1			
WR CEDAR	650.6	74.1	0	1	1			
TOTAL	52.4	6.0	136	145	154	110	56	19

SD:	COEFF VAR.	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.
1			LOW	AVG	HIGH	5	7	12
DOUG FIR	72.9	8.3	142	155	168			
WHEMLOCK	167.2	19.1	37	46	55			
R ALDER	180.5	20.6	18	23	27			
S SPRUCE	443.7	50.6	2	3	5			
NOB FIR	430.0	49.0	1	2	3			
WR CEDAR	650.6	74.1	0	1	2			
TOTAL	49.0	5.6	217	230	242	96	49	17

SD:	COEFF VAR.	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
1			LOW	AVG	HIGH	5	7	12
DOUG FIR	79.1	9.0	21,631	23,750	25,870			
WHEMLOCK	166.3	19.0	4,537	5,622	6,706			
R ALDER	209.1	23.8	1,294	1,693	2,092			
S SPRUCE	443.7	50.6	235	464	693			
NOB FIR	430.0	49.0	167	338	509			
WR CEDAR	650.6	74.1	28	117	206			
TOTAL	56.6	6.5	29,930	31,984	34,038	128	65	22

TC TSTNDSUM													Stand Table Summary		
Project CCAB															
T5N R7W S34 TLEAV										T5N R7W S34 TLEAV					
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page: 1							
5N	7W	34	A1&2	LEAV	169.00	42	64	Date: 10/30/02							
								Time: 10:20:32AM							
Spc	T	DBH	Sample Trees	Av FF 16'	Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
									Net Cu.Ft.	Net Bd.Ft.			Tons	Cunits	MBF
DL		11	1	82	59	3.400	2.24	3.40	13.0	40.0	44	136	75	23	
DL		15	1	94	125	1.829	2.24	5.49	20.3	86.7	112	475	189	80	
DL		17	1	89	127	1.424	2.24	4.27	26.3	103.3	112	441	190	75	
DL		18	5	87	120	6.350	11.22	17.78	28.3	110.7	503	1,968	850	333	
DL		19	3	87	118	3.419	6.73	11.40	27.0	107.0	308	1,220	520	206	
DL		20	2	88	116	2.057	4.49	5.14	40.0	158.0	206	813	348	137	
DL		22	4	89	125	3.400	8.98	11.05	39.1	171.5	432	1,896	730	320	
DL		23	4	89	127	3.111	8.98	9.33	47.3	206.7	442	1,929	747	326	
DL		24	7	86	116	5.000	15.71	15.00	45.8	194.3	686	2,914	1,160	493	
DL		25	3	87	115	1.975	6.73	5.27	55.0	236.2	290	1,244	490	210	
DL		26	5	86	119	3.043	11.22	8.52	59.3	254.3	505	2,167	854	366	
DL		27	3	85	124	1.693	6.73	5.08	61.9	251.1	314	1,276	531	216	
DL		28	3	84	130	1.574	6.73	4.72	68.9	284.4	325	1,344	550	227	
DL		30	1	92	121	.457	2.24	1.37	74.3	403.3	102	553	172	93	
DL		31	1	83	140	.428	2.24	1.28	88.3	383.3	113	492	192	83	
DL		32	1	83	124	.402	2.24	1.21	85.7	366.7	103	442	175	75	
DL		33	1	78	103	.378	2.24	.76	58.5	230.0	44	174	75	29	
DL	Totals		46	87	116	39.942	103.23	111.07	41.8	175.4	4,642	19,484	7,845	3,293	
AL		11	1	87	62	3.197	2.11	3.20	16.0	50.0	51	160	86	27	
AL		12	1	86	69	2.686	2.11	5.37	10.5	35.0	56	188	95	32	
AL		13	1	87	52	2.289	2.11	2.29	22.0	60.0	50	137	85	23	
AL		14	3	86	71	5.921	6.33	9.87	20.4	68.0	201	671	340	113	
AL		15	2	87	72	3.438	4.22	6.88	20.0	70.0	138	481	232	81	
AL		16	1	86	51	1.511	2.11	1.51	30.0	60.0	45	91	77	15	
AL		19	1	87	60	1.071	2.11	2.14	29.0	95.0	62	204	105	34	
AL		23	1	86	117	.731	2.11	2.19	48.0	206.7	105	453	178	77	
AL	Totals		11	86	67	20.844	23.21	33.45	21.2	71.3	710	2,385	1,199	403	
HL		9	1	80	17	3.925	1.73								
HL		10	1	86	46	3.179	1.73	3.18	10.0	30.0	32	95	54	16	
HL		11	1	85	91	2.627	1.73	5.25	11.0	40.0	58	210	98	36	
HL		22	1	89	109	.657	1.73	1.97	41.3	176.7	81	348	138	59	
HL		25	1	86	102	.509	1.73	1.53	46.7	210.0	71	320	120	54	
HL		28	1	85	101	.405	1.73	.81	91.0	360.0	74	292	125	49	
HL	Totals		6	84	55	11.302	10.40	12.74	24.8	99.4	316	1,266	534	214	
SL		27	1	82	74	1.409	5.60	4.23	42.3	196.7	179	831	302	140	
SL	Totals		1	82	74	1.409	5.60	4.23	42.3	196.7	179	831	302	140	
Totals			64	86	92	73.497	142.44	161.49	36.2	148.4	5847	23,967	9,881	4,050	

TC TSTNDSUM													Stand Table Summary			
Project CCAB																
T5N R7W S34 TLEAV										T5N R7W S34 TLEAV						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	1							
5N	7W	34	AREA3	LEAV	100.50	33	41	Date:	10/30/02							
								Time:	10:20:32AM							
S Spc	T	Sample		Av	Trees/ BA/		Average Log		Net		Net		Totals			
		DBH	Trees	FF	Ht	Trees/	BA/	Logs	Net	Net	Tons/	Cu.Ft.	Bd.Ft	Tons	Cunits	MBF
				16'	Tot	Acres	Acres	Acres	Cu.Ft.	Bd.Ft.	Acres	Acres	Acres			
DL		9	1	82	21	7.126	3.15	7.13	5.0	20.0		36	143		36	14
DL		10	1	78	21	5.772	3.15	5.77	6.0	20.0		35	115		35	12
DL		14	1	87	57	2.945	3.15	2.94	24.0	60.0		71	177		71	18
DL		15	1	83	49	2.565	3.15	2.57	24.0	60.0		62	154		62	15
DL		16	1	91	65	2.255	3.15	4.51	19.5	70.0		88	316		88	32
DL		17	1	84	85	1.997	3.15	3.99	26.5	90.0		106	359		106	36
DL		18	2	84	82	3.563	6.30	7.13	28.8	95.0		205	677		206	68
DL		19	2	86	90	3.198	6.30	6.40	35.7	122.5		229	783		230	79
DL		21	2	82	86	2.618	6.30	5.24	42.2	135.0		221	707		222	71
DL		23	1	85	100	1.091	3.15	2.18	56.5	210.0		123	458		124	46
DL		24	2	89	109	2.004	6.30	5.01	52.8	216.0		265	1,082		266	109
DL		26	1	81	112	.854	3.15	1.71	73.5	240.0		126	410		126	41
DL		28	1	64	116	.736	3.15	1.47	43.5	150.0		64	221		64	22
DL		29	1	88	121	.686	3.15	2.06	70.3	333.3		145	686		146	69
DL		30	1	83	121	.641	3.15	1.92	50.0	240.0		96	462		97	46
DL		32	1	81	89	.564	3.15	1.13	91.5	300.0		103	338		104	34
DL		35	1	82	113	.471	3.15	1.41	92.3	393.3		131	556		131	56
DL		36	1	82	113	.445	3.15	1.34	84.0	400.0		112	534		113	54
DL		Totals	22	83	63	39.531	69.26	63.90	34.7	128.0		2,215	8,179		2,226	822
HL		9	1	87	28	20.287	8.96	20.29	6.0	20.0		122	406		122	41
HL		16	1	91	84	6.419	8.96	12.84	26.5	105.0		340	1,348		342	135
HL		17	1	87	75	5.686	8.96	11.37	27.5	100.0		313	1,137		314	114
HL		25	2	91	90	5.258	17.93	10.52	70.0	290.0		736	3,050		740	307
HL		Totals	5	88	53	37.651	44.81	55.01	27.5	108.0		1,511	5,941		1,518	597
AL		12	3	86	40	8.134	6.39	8.13	15.0	40.0		122	325		123	33
AL		14	2	86	39	3.984	4.26	3.98	18.0	40.0		72	159		72	16
AL		15	2	87	28	3.471	4.26	3.47	17.0	40.0		59	139		59	14
AL		16	1	87	34	1.525	2.13	1.53	22.0	50.0		34	76		34	8
AL		18	1	86	33	1.205	2.13	1.21	27.0	50.0		33	60		33	6
AL		22	1	64	47	.807	2.13	.81	21.0	30.0		17	24		17	2
AL		27	1	87	17	.536	2.13	.54	44.0	160.0		24	86		24	9
AL		Totals	11	85	36	19.662	23.43	19.66	18.3	44.2		359	870		361	87
NFL		25	1	89	108	1.195	4.07	2.39	73.5	305.0		176	729		177	73
NFL		Totals	1	89	108	1.195	4.07	2.39	73.5	305.0		176	729		177	73
CL		14	1	84	29	1.429	1.53	1.43	15.0	30.0		21	43		22	4
CL		25	1	86	99	.448	1.53	1.34	40.0	176.7		54	238		54	24
CL		Totals	2	84	46	1.877	3.06	2.77	27.1	101.1		75	280		76	28
Totals			41	86	54	99.916	144.62	143.74	30.2	111.3		4336	15,999		4,358	1,608

Log Stock Table - Percent Board Feet
Project: CCAB

T5N R7W S34 TTAKE

T5N R7W S34 TTAKE

Twp Rge Sec Tract
 5N 7W 34 A1&2

Type Acres Plots Sample Trees
 TAKE 169.00 31 38

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 Date 10/30/02
 Time 10:10:37AM

S Spp	So T	Log rt Grd Len	Gross MBF	% Def	Net MBF	% Spc	Percent Net Volume by Scaling Diameter in Inches										
							2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39
D	DO	2S 12	86		86	3.0								63.1	36.9		
D	DO	2S 16	31		31	1.1					100.0						
D	DO	2S 20	93		93	3.2				39.3	60.7						
D	DO	2S 24	94		94	3.3					100.0						
D	DO	2S 29	8		8	.3			100.0								
D	DO	2S 32	480		477	16.6					44.2	47.8	8.0				
D	DO	2S 34	39		39	1.3					100.0						
D	DO	2S 40	399		399	13.8					32.7	46.3		21.0			
D	DO	3S 24	28		28	1.0				100.0							
D	DO	3S 30	8		8	.3			100.0								
D	DO	3S 32	552		542	18.8			14.8	50.3	15.2	11.6		8.2			
D	DO	3S 33	33		33	1.1			68.2	31.8							
D	DO	3S 36	31		31	1.1			100.0								
D	DO	3S 38	12		12	.4			100.0								
D	DO	3S 39	50		50	1.7			100.0								
D	DO	3S 40	571		564	19.5			23.7	41.5	34.8						
D	DO	3S 41	20		20	.7			100.0								
D	DO	4S 15	7		7	.2			100.0								
D	DO	4S 16	44		44	1.5			100.0								
D	DO	4S 18	26		26	.9			100.0								
D	DO	4S 19	3		3	.1			100.0								
D	DO	4S 20	30		30	1.1				100.0							
D	DO	4S 21	9		9	.3			100.0								
D	DO	4S 22	65		65	2.2			100.0								
D	DO	4S 23	31		31	1.1			24.4	75.6							
D	DO	4S 24	9		9	.3			100.0								
D	DO	4S 28	7		7	.2			100.0								
D	DO	4S 29	29		29	1.0			100.0								
D	DO	4S 34	38		38	1.3			100.0								
D	DO	4S 40	67		67	2.3			10.2	89.8							
D		Totals	2,904		2,883	91.3			.9	22.3	20.1	11.9	21.7	14.3	4.7	4.0	
H	DO	2S 40	212		212	77.3							100.0				
H	DO	3S 31	17		17	6.2			100.0								
H	DO	4S 21	11		11	4.1			100.0								
H	DO	4S 22	34		34	12.4				100.0							
H		Totals	275		275	8.7			4.1	6.2	12.4		77.3				
Total	All Species		3,179		3,158	100.0			.8	20.8	18.9	11.9	19.8	19.8	4.3	3.7	

TC TLOGSTBF

Log Stock Table - Percent Board Feet

Project: CCAB

T5N R7W S34 TTAKE

T5N R7W S34 TTAKE

Twp Rge Sec Tract
5N 7W 34 AREA3

Type Acres Plots Sample Trees
TAKE 100.50 24 7

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Date 10/30/02
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S Spp	So T	Log rt Grd Len	Gross MBF	% Def	Net MBF	% Spc	Percent Net Volume by Scaling Diameter in Inches									
							2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29
D	DO	2S 40	282		242	31.8								100.0		
D	DO	3S 32	380		380	50.0				100.0						
D	DO	3S 34	46		46	6.0		100.0								
D	DO	3S 38	56		56	7.4				100.0						
D	DO	4S 16	37		37	4.8			100.0							
D	Totals		801	5.0	761	55.9		6.0	4.8	57.4				31.8		
H	DO	2S 24	110		110	18.3					100.0					
H	DO	2S 40	144		144	24.0					100.0					
H	DO	3S 23	24		24	4.0			100.0							
H	DO	3S 24	31		31	5.2			100.0							
H	DO	3S 30	37		37	6.1			100.0							
H	DO	3S 32	254		254	42.4				43.1	56.9					
H	Totals		600		600	44.1			15.3	18.3	24.1	42.3				
Total	All Species		1,401	2.9	1,361	100.0		3.4	9.4	8.1	42.7	18.6		17.8		

Log Stock Table - Percent Board Feet

Project: CCAB

T5N R7W S34 TR/W

T5N R7W S34 TR/W

Twp Rge Sec Tract Type Acres Plots Sample Trees
5N 7W 34 A1&2 R/W 43 102

Page 1
Date 10/30/02
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S	So	Log	Gross	% Net	% Spc	Percent Net Volume by Scaling Diameter in Inches												
						MBF	Def	MBF	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29
D	DO	2S	12	1	1										63.1	36.9		
D	DO	2S	16	1	1							46.2			53.8			
D	DO	2S	20	1	1						20.5	31.6	21.0	26.9				
D	DO	2S	24	1	1							72.7		27.3				
D	DO	2S	26	0	0			100.0										
D	DO	2S	28	0	0				100.0									
D	DO	2S	29	0	0				100.0									
D	DO	2S	30	0	0					100.0								
D	DO	2S	32	18	18					1.5	40.6	19.7	34.4		3.8			
D	DO	2S	34	0	0						100.0							
D	DO	2S	40	18	18						25.1	13.0	51.3		10.6			
D	DO	3S	15	0	0					100.0								
D	DO	3S	24	0	0				25.0		75.0							
D	DO	3S	25	0	0					35.5		64.5						
D	DO	3S	27	0	0				100.0									
D	DO	3S	28	1	1				15.4	12.4		30.1			42.1			
D	DO	3S	29	0	0					100.0								
D	DO	3S	30	0	0				100.0									
D	DO	3S	32	7	7				14.5	44.9	23.7	11.8		5.1				
D	DO	3S	33	0	0				68.2	31.8								
D	DO	3S	34	0	0				20.6		79.4							
D	DO	3S	35	0	0				100.0									
D	DO	3S	36	0	0				100.0									
D	DO	3S	37	0	0				100.0									
D	DO	3S	38	0	0				100.0									
D	DO	3S	39	0	0				100.0									
D	DO	3S	40	6	6				21.6	50.0	28.5							
D	DO	3S	41	0	0			100.0										
D	DO	4S	12	0	0					100.0								
D	DO	4S	13	0	0				100.0									
D	DO	4S	14	0	0				65.2	34.8								
D	DO	4S	15	0	0				100.0									
D	DO	4S	16	0	0				100.0									
D	DO	4S	18	0	0				100.0									
D	DO	4S	19	0	0				100.0									
D	DO	4S	20	0	0					100.0								
D	DO	4S	21	0	0				43.8	56.2								
D	DO	4S	22	1	1				93.4	6.6								
D	DO	4S	23	1	1				53.0	47.0								
D	DO	4S	24	0	0				100.0									
D	DO	4S	25	0	0					100.0								
D	DO	4S	26	0	0				100.0									
D	DO	4S	27	0	0					100.0								
D	DO	4S	28	0	0				100.0									
D	DO	4S	29	0	0				100.0									
D	DO	4S	30	0	0				100.0									
D	DO	4S	34	0	0				100.0									
D	DO	4S	40	1	1			10.2	89.8									
D		Totals		63	63			5	11.9	11.9	7.3	25.3	10.0	27.7	5.5			
A	DO	3S	20	1	1					49.4	50.6							
A	DO	3S	30	1	1					100.0								
A	DO	3S	32	1	1						53.4		46.6					

TC TLOGSTBF

Log Stock Table - Percent Board Feet
Project: CCAB

T5N R7W S34 TR/W

T5N R7W S34 TR/W

Twp Rge Sec Tract
5N 7W 34 A1&2

Type Acres Plots Sample Trees
R/W 43 102

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Date 10/30/02
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S Spp	So T	Log rt Grd Len	Gross MBF	% Def	Net MBF	% Spc	Percent Net Volume by Scaling Diameter in Inches											
							2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
A	DO	3S 40	0		0				100.0									
A	DO	4S 16	0		0				100.0									
A	DO	4S 17	0		0				100.0									
A	DO	4S 22	0		0				100.0									
A	DO	4S 23	0		0				100.0									
A	DO	4S 28	0		0				100.0									
A	DO	4S 30	0		0				100.0									
A	DO	4S 32	0		0				100.0									
A	DO	4S 37	0		0				100.0									
A	Totals		5		5				37.5	5.6	32.5	13.0		11.3				
H	DO	2S 28	0		0						100.0							
H	DO	2S 32	1		1								100.0					
H	DO	2S 40	2		2								64.7	35.3				
H	DO	3S 22	0		0								100.0					
H	DO	3S 25	0		0				100.0									
H	DO	3S 26	0		0				100.0									
H	DO	3S 31	0		0					100.0								
H	DO	3S 40	0		0					100.0								
H	DO	4S 20	0		0					100.0								
H	DO	4S 21	0		0				100.0									
H	DO	4S 22	0		0					100.0								
H	DO	4S 29	0		0				100.0									
H	Totals		5		5				14.7	10.3	3.9	6.1	28.6	36.4				
S	DO	2S 12	1		1											100.0		
S	DO	2S 20	1		1									100.0				
S	DO	3S 27	0		0					100.0								
S	Totals		2		2					11.9				45.8		42.4		
Total	All Species		74		74				4	13.4	11.4	8.5	22.7	10.3	27.6	5.6		

Log Stock Table - Percent Board Feet
Project: CCAB

T5N R7W S34 TR/W

T5N R7W S34 TR/W

Twp 5N **Rge** 7W **Sec** 34 **Tract** AREA3 **Type** R/W **Acres** 1.50 **Plots** 34 **Sample Trees** 48

Page 1
Date 10/30/02
Time 10:10:37AM

Spp	S	So	Log	Gross MBF	% Def	Net MBF	% Spc	Percent Net Volume by Scaling Diameter in Inches										
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39
D	DO	2S	32	4		4	21.4					12.6	48.5	6.7	11.1	21.2		
D	DO	2S	40	8		8	40.5						13.3	30.3	36.8	19.6		
D	DO	3S	14	0		0	2.3										100.0	
D	DO	3S	16	0		0	1.2		100.0									
D	DO	3S	18	0		0	.3			100.0								
D	DO	3S	22	0		0	.6		100.0									
D	DO	3S	26	0		0	1.1					100.0						
D	DO	3S	28	0		0	.4		100.0									
D	DO	3S	29	0		0	1.1				47.3	52.7						
D	DO	3S	30	0		0	.4				100.0							
D	DO	3S	32	2		2	10.2			5.7	9.4		84.9					
D	DO	3S	33	0		0	.9				100.0							
D	DO	3S	34	0		0	2.4		28.8	71.2								
D	DO	3S	35	0		0	.7			100.0								
D	DO	3S	36	0		0	1.7			100.0								
D	DO	3S	38	0		0	1.6				47.1	52.9						
D	DO	3S	40	2		2	10.0				24.0	11.1	32.5		32.4			
D	DO	4S	13	0		0	.2				100.0							
D	DO	4S	15	0		0	.3					100.0						
D	DO	4S	16	1		1	2.6			100.0								
D		Totals		20	1.4	20	52.9		1.3	14.0	2.6	16.4	16.9	13.7	20.5	12.5	2.3	
H	DO	2S	24	2		2	15.9					100.0						
H	DO	2S	32	2		2	10.6					100.0						
H	DO	2S	40	5		5	36.2					25.6		74.4				
H	DO	3S	23	0		0	1.5			100.0								
H	DO	3S	24	0		0	2.0			100.0								
H	DO	3S	30	0		0	2.4			100.0								
H	DO	3S	31	0		0	1.9				100.0							
H	DO	3S	32	3		3	19.7				16.9	35.8	47.3					
H	DO	3S	33	0		0	2.7					100.0						
H	DO	3S	34	0		0	2.9				100.0							
H	DO	4S	18	1		1	4.2			100.0								
H		Totals		15		15	39.6			16.3	11.7	9.3	35.8		26.9			
A	DO	3S	28	0		0	25.0			100.0								
A	DO	3S	30	0		0	21.1		13.2	86.8								
A	DO	3S	36	0		0	18.7			100.0								
A	DO	4S	16	0		0	9.9							100.0				
A	DO	4S	22	0		0	17.3			100.0								
A	DO	4S	24	0		0	8.0			100.0								
A		Totals		1		1	3.3		2.8	87.4				9.9				
NF	DO	2S	40	1		1	77.9							100.0				
NF	DO	3S	40	0		0	22.1				100.0							
NF		Totals		1		1	3.1				22.1			77.9				
C	DO	2S	18	0		0	49.5									100.0		
C	DO	3S	18	0		0	4.8				100.0							
C	DO	3S	22	0		0	15.3				100.0							
C	DO	3S	32	0		0	30.4						100.0					

TC TLOGSTBF

Log Stock Table - Percent Board Feet
Project: CCAB

T5N R7W S34 TR/W

T5N R7W S34 TR/W

Twp Rge Sec Tract Type Acres Plots Sample Trees
5N 7W 34 AREA3 R/W 1.50 34 48

Page 2
Date 10/30/02
Time 10:10:37AM

S Spp	So T	Log rt Grd Len	Gross MBF	% Def	Net MBF	% Spc	Percent Net Volume by Scaling Diameter in Inches										
							2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39
C		Totals	0		0	1.1			15.3	4.8		30.4			49.5		
Total		All Species	38		38	100.0		.8	16.9	6.0		13.0	23.4	7.2	24.2	7.1	1.2

**FPA "Written Plan" For Road Vacating Project
Cedar Cabin Thinning Timber Sale
Portions of Sections 26 and 27, T5N, R7W, W.M.**

Landowner: Oregon Department of Forestry
92219 Hwy 202
Astoria, OR 97103
(503) 325-5451

Protected Resources:

Moore's Creek, which is designated as Medium Type F stream, is located within 100 feet of the road vacating project in portions of Sections 26 and 27 T5N, R7W, W.M., Clatsop County, Oregon. Length of the affected stream requiring protection is approximately 2,750 feet.

Situation:

An old legacy road off the Soak Alley Road System has five cross drain culverts and one Type F stream crossing that are in a deteriorated condition. Reconnaissance of this area has shown that a more favorable road system can be located along an adjacent ridge top. This project will vacate the current road, Type F stream crossing and cross drain culverts. The culvert/fill will be removed and the slopes laid back to a 1 ½:1 to help stabilize this location. The stream channel will be restored and all waste material from the fill removal will be hauled to a stable area away from the stream. Five other cross drain culverts will also be removed. Further detailed work specifications for this project are included as Project No. 2 of the Cedar Cabin Thinning Timber Sale Contract shown/described in Exhibit E.

Specific Site Characteristics:

The Moore's Creek streambed ranges from approximately 6 feet wide to 8 feet wide, with moderate to steep streambank slopes. Streamside vegetation is dominated by mature alder, with a minor component of conifer trees which are located within the flood plain

Resource Protection Measures:

- 1) Work will be performed only during dry weather periods, low water stream flows, and between July 1 and August 31, annually. The RMA consists mostly of alder, some conifer and various brush species.
- 2) Machine activity in stream channels will be minimized. All excavation and removed fill placement will be performed using a minimum 1 ½ cubic-yard track-mounted excavator.
- 3) Trees needing removal to provide safe operating distances are to be felled away from or parallel to the RMA and left in stable locations.
- 4) Excavated waste materials will be placed in approved waste areas and left in a stable condition.
- 5) All bare soils, including the waste area, shall be grass seeded and/or mulched with a straw mulch approved by STATE. Applied mulch shall be a minimum of 3 inches deep and provide a uniform cover.

I, the undersigned, submit this written plan in compliance with the requirements in the Forest Practices Act regarding the operations conducted within 100 feet of Type F streams. I agree to the protection measures listed on this plan:

Submitted: _____
Purchaser/Operator Contract Representative

Date: _____

Approved: _____
State Lands Forester

Date: _____

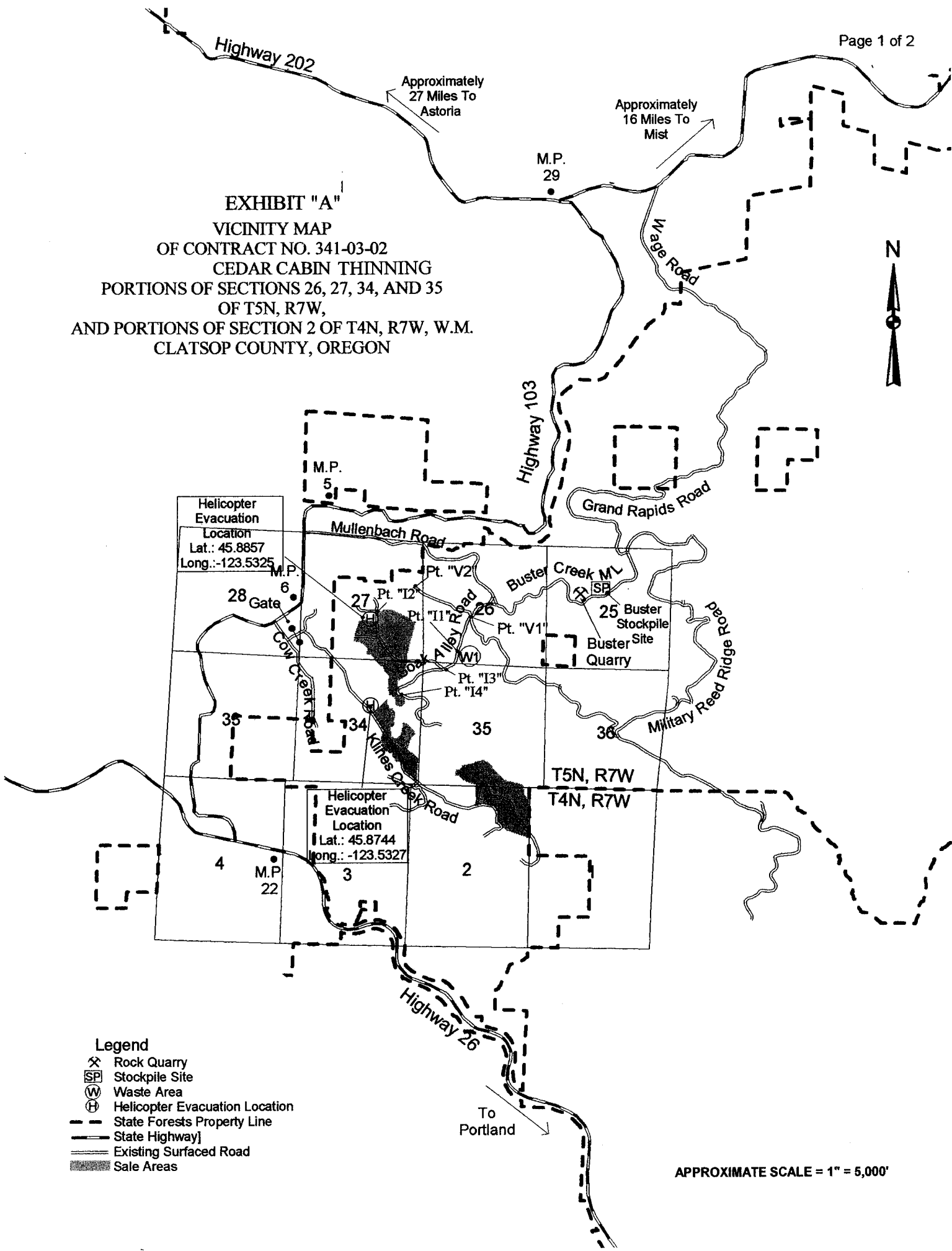
Approved: AMM _____
Forest Practices Forester

Date: _____

Attachments: Vicinity Map, Exhibit E

CC: Operator, Purchaser, District File, Salem, Engineering Unit, Jewell Unit

EXHIBIT "A"
VICINITY MAP
OF CONTRACT NO. 341-03-02
CEDAR CABIN THINNING
PORTIONS OF SECTIONS 26, 27, 34, AND 35
OF T5N, R7W,
AND PORTIONS OF SECTION 2 OF T4N, R7W, W.M.
CLATSOP COUNTY, OREGON



- Legend**
- ⊗ Rock Quarry
 - ⊠ Stockpile Site
 - ⊙ Waste Area
 - ⊕ Helicopter Evacuation Location
 - - - State Forests Property Line
 - State Highway
 - Existing Surfaced Road
 - ▨ Sale Areas

APPROXIMATE SCALE = 1" = 5,000'

EXHIBIT "E"

ROAD VACATING AND FILL REMOVAL SPECIFICATIONS

GENERAL SPECIFICATIONS

- (1) Tree Removal. Cut or remove all trees necessary to access the project area and to facilitate vacating operations, as directed by STATE. Timber shall be removed as designated timber.
- (2) Culvert Removal. Remove all drainage structures and culverts. Removed culverts shall be hauled to an approved refuse site off of STATE Land.
- (3) Fill Removal and Stream Channel Development. Remove fill to the natural stream course level. Stream channel shall be excavated/developed to specified minimum width of 8 feet. Developed stream bank shall be sloped at natural contours or no steeper than 1½:1, as directed by STATE.
- (4) Use of Excavated Materials.
 - (a) Fill Excavation. Some excavated materials shall be placed on the interior (cut) side of the road, and utilized to restore the cutslope to natural contours or to a minimum 10% outsloped surface for drainage, as indicated in the specific instructions. Other excavated fill materials will be hauled to the approved waste area located at Point W1, or utilized for a road block at Point V1.
 - (b) Woody Debris. Woody debris and cut trees shall be hauled to the waste area at Point W1 and placed on the surface of compacted embankment material.
- (5) Construct Waterbars a maximum of 100-foot intervals, and as directed by STATE. Construct waterbars according to the specifications in Exhibit F.
- (6) Block Roads. Use excavated material to block road from vehicle access at Point V1, as directed by STATE.
- (7) Erosion Control. Erosion control efforts utilizing grass seed and mulch application shall be completed in a progressive manner.
 - (a) Grass Seeding. Grass seeding shall be performed only from March 1 through June 15 and August 15 through October 31.
 - (b) Fill Removals. All exposed excavation areas shall be mulched with a straw mulch approved by STATE, immediately upon completion of the fill removal. Applied mulch shall be a minimum of 2 inches deep and provide a uniform cover.
- (8) Equipment. Minimum 1½ cubic-yard, track mounted excavator shall be used for all excavation, fill removal, culvert removal, streambed preparation, road blocking, and waterbarring, unless otherwise approved in writing by STATE. All work shall be performed during dry conditions acceptable to STATE.

FPA Written Plan. STATE has prepared the required FPA Written Plan for this work and the Plan is on file at the Astoria District, Oregon Department of Forestry. Fill removal, stream channel development, and/or in-stream work shall be conducted between July 1 and August 31, annually.

EXHIBIT "E"

ROAD VACATING INSTRUCTIONS

Specific Road Vacating Instructions

<u>Segment</u>	<u>Station</u>	<u>Work Description</u>
V1 to V2	0+00	Point V1. Culvert removal.
	0+75	Culvert removal.
	4+75	Culvert removal
	9+00	Culvert/fill removal. Align stream channel to the natural stream bed at a channel width of 8 feet. Back slope excavation at 1½:1.
	15+00	Culvert removal.
	21+00	Culvert removal. Place waste materials into roadside embankment, slope to contour of existing embankment.
	27+00	Culvert removal. Place waste materials into roadside embankment, slope to contour of existing embankment.
	27+50	Point V2.

FOREST PRACTICES ACT "WRITTEN PLAN"
For Harvest of Cedar Cabin Thinning

Landowner: Oregon Department of Forestry
92219 Hwy 202
Astoria, OR 97103
(503) 325-5451

Protected Resources:

Klines Creek, which is designated as a large Type F stream, is located along the western boundary of Area 1 for approximately 2,800 feet in Sections 27 and 34 of T5N, R7W, the northeast boundary of Area 2 for approximately 2,400 feet in Section 34, T5N, R7W, and flows along the northern boundary of Area 3 for approximately 3,200 feet in Section 35, T5N, R7W, W.M., Clatsop County, Oregon. Total length of the affected stream requiring protection is approximately 8,400 feet.

Specific Site Characteristics:

The streambed is approximately 10 to 25 feet wide, with moderate to steep streambank slopes. Streamside vegetation is dominated by mature alder and brush, with a partial component of conifer trees, which are mostly located above the flood plain.

Tree and Vegetation Retention:

All sale areas are prescribed for thinning. The FPA defines the RMA width of a large Type F stream at 100 feet. The timber sale boundary for Areas 1, 2, and 3 are posted an average of 100 feet from the stream.

Practices:

Along the above mentioned stream, the following practices are required, under the timber sale contract, to protect the streams and streamside areas:

- No trees will be felled within stream buffers (RMA's).
- Trees adjacent to the stream buffers (RMA's) will be felled away from or parallel to the streams to prevent trees from entering the aquatic areas.

When cable logging is conducted near the RMA's, logging lines may cross, but will not be lowered into the RMA's during yarding, except during rigging. During rigging, the lines must be pulled out of the RMA's when changing corridors.

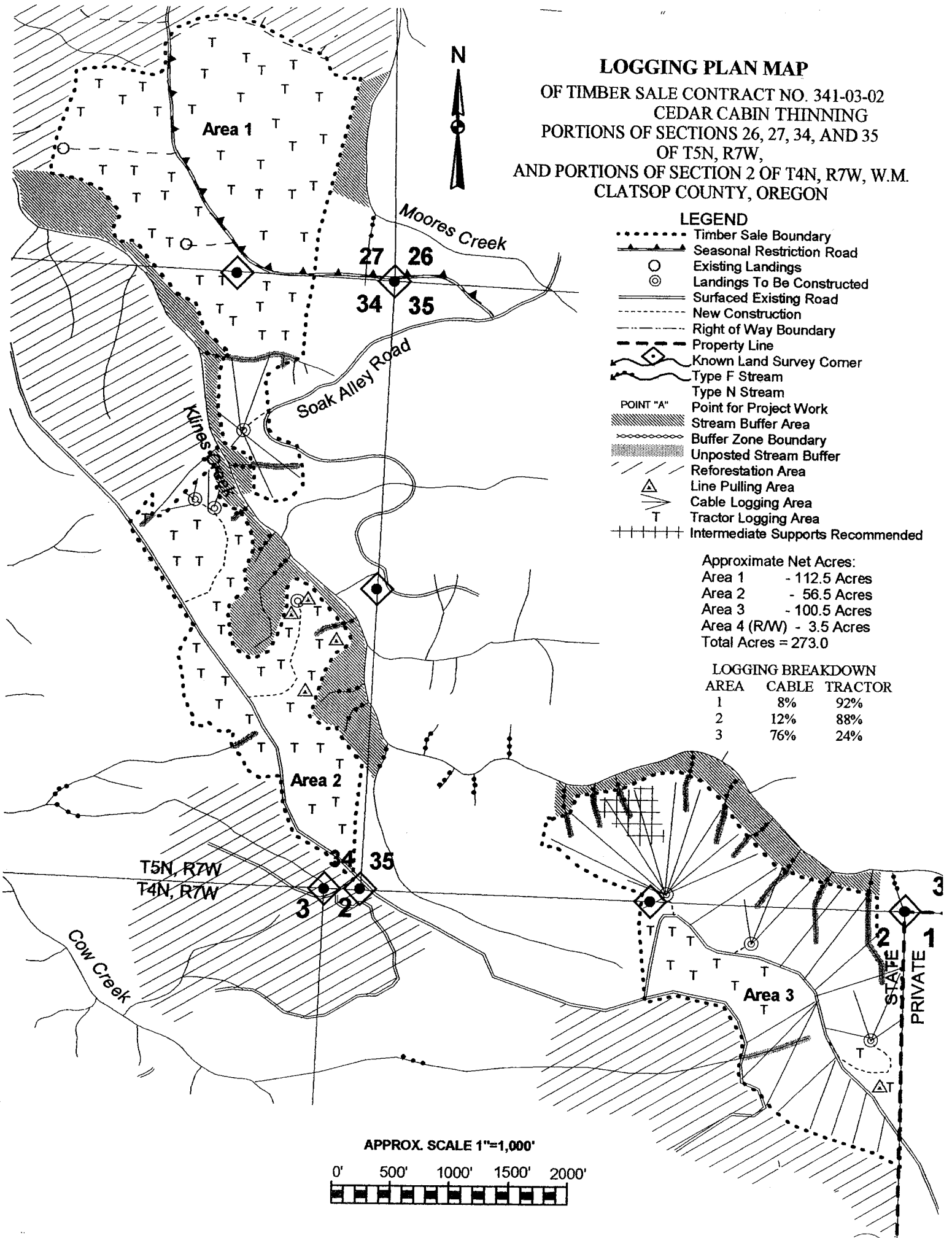
Attachments: Logging Plan Map

Submitted: _____ Date: _____
Purchaser/Operator Contract Representative

Approved: _____ Date: _____
State Lands Forester

Approved: *Am* _____ Date: _____
Forest Practices Forester

LOGGING PLAN MAP
 OF TIMBER SALE CONTRACT NO. 341-03-02
 CEDAR CABIN THINNING
 PORTIONS OF SECTIONS 26, 27, 34, AND 35
 OF T5N, R7W,
 AND PORTIONS OF SECTION 2 OF T4N, R7W, W.M.
 CLATSOP COUNTY, OREGON



LEGEND

- Timber Sale Boundary
- ▲—— Seasonal Restriction Road
- Existing Landings
- ⊙ Landings To Be Constructed
- Surfac'd Existing Road
- New Construction
- Right of Way Boundary
- - - - - Property Line
- ◆ Known Land Survey Corner
- ~ Type F Stream
- ~ Type N Stream
- POINT "A"
- ▨ Stream Buffer Area
- ▨ Buffer Zone Boundary
- ▨ Unposted Stream Buffer
- ▨ Reforestation Area
- △ Line Pulling Area
- ▶ Cable Logging Area
- T Tractor Logging Area
- ++++ Intermediate Supports Recommended

Approximate Net Acres:

Area 1	- 112.5 Acres
Area 2	- 56.5 Acres
Area 3	- 100.5 Acres
Area 4 (R/W)	- 3.5 Acres
Total Acres	= 273.0

LOGGING BREAKDOWN

AREA	CABLE	TRACTOR
1	8%	92%
2	12%	88%
3	76%	24%

APPROX. SCALE 1"=1,000'

