



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Wooden Road Sale 341-02-35

District: Astoria

Date: 1/3/02

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$319,015.48	\$199,882.65	\$518,898.13
		Project Work	(\$32,760.00)
		Advertised Value	\$486,138.13



Timber Sale Appraisal Timber Description Wooden Road Sale 341-02-35

"STEWARDSHIP IN FORESTRY"

District: Astoria

Location: Portions of Sections 31 & 32, T6N, R7W W.M., Clatsop County, Oregon

Date: 1/3/02

Stand Stocking: 60%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	16	0	97
Western Hemlock / Fir	15	0	96
Sitka Spruce	14	0	97
Alder (Red)	14	0	95

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce	Alder (Red)	Total
2S	385	574	0	0	959
3S	89	506	0	518	1,113
4S	16	45	23	241	325
Total	490	1,125	23	759	2,397

Comments: Pond Values Used: 4th Quarter 2001

Log Markets: Mist, Claskanine, Tillamook
Clearcut Areas 1, 2, 3, and 4(R/W) are Area 1 in appraisal.

Additional costs for Areas 1 - 4 -

Costs with P & R:

100% branding and painting: $\$1/\text{MBF} \times 2,397 = \$2,397$

Total Cost w/P & R = \$2,397

Costs without P & R:

Pile slash in Areas 1 - 3 cable landings @ \$130/landing x 4 landings = \$520

Excavator move-in/move out = \$500

Site-prep slash piling for Areas 1 - 3, 106 hours @ \$95/hour = \$10,070

1,150' of excavator fire trail in Area 3 = \$1,350

Traffic control for portion of Area 1 harvesting, 4 days @ \$200/day = \$800

Flush-cut stumps within 25' of State Highway 202 in Area 1, 8 hours @ \$30/hour = \$240

Payment for alder logs to Mirl Hale = \$430

Total Non-P & R Costs = \$13,910



Timber Sale Appraisal

Logging Conditions

Wooden Road

Sale 341-02-35

"STEWARDSHIP IN FORESTRY"

Combination#: 1	Douglas - Fir	19.00%	
	Western Hemlock / Fir	19.00%	
	Sitka Spruce	19.00%	
	Alder (Red)	19.00%	
Yarding Distance:	Short (400 ft)		Downhill Yarding No
Logging System:	Cable: Medium Tower >40 - <70		Process: Stroke Delimber
Tree Size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
Loads/Day:	9		Bd. Ft./Load: 3,700
Cost/MBF:	\$98.58		
Machines:			
	Log Loader (A)		
	Stroke Delimber (A)		
	Tower Yarder (Medium)		
Combination#: 2	Douglas - Fir	40.00%	
	Western Hemlock / Fir	40.00%	
	Sitka Spruce	40.00%	
	Alder (Red)	40.00%	
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:	10		Bd. Ft./Load: 3,700
Cost/MBF:	\$88.26		
Machines:			
	Log Loader (B)		
	Track Skidder		
Combination#: 3	Douglas - Fir	41.00%	
	Western Hemlock / Fir	41.00%	
	Sitka Spruce	41.00%	
	Alder (Red)	41.00%	
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		



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal

Logging Costs

Wooden Road

Sale 341-02-35

Date: 1/3/02

Operating Seasons: 2.0

Profit & Risk: 18%

Project Costs: \$32,760

Other Costs (P/R): \$2,397

Slash Disposal: \$0

Other Costs: \$13,910

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

Road Maintenance: \$3.32

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	3.0	4.0
Western Hemlock / Fir	\$0.00	2.0	3.5
Sitka Spruce	\$0.00	3.0	4.0
Alder (Red)	\$0.00	3.0	3.5

Local Pond Values

Date	Species	Grade	Value
1/3/02	Douglas - Fir	2S	\$530.00
1/3/02	Douglas - Fir	3S	\$495.00
1/3/02	Douglas - Fir	4S	\$430.00
1/3/02	Western Hemlock / Fir	2S	\$360.00
1/3/02	Western Hemlock / Fir	3S	\$330.00
1/3/02	Western Hemlock / Fir	4S	\$295.00
1/3/02	Sitka Spruce	4S	\$305.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown Wooden Road Sale 341-02-35

Costs	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce	Alder (Red)
Logging	95.87	95.87	95.87	95.87
Road Maintenance	3.42	3.46	3.42	3.49
Fire Protection	3.31	3.31	3.31	0.00
Hauling	39.54	68.44	39.54	46.11
Other (P/R appl.)	1.46	1.46	1.46	0.00
Profit & Risk	25.85	31.06	25.85	26.18
Slash Disposal	0.00	0.00	0.00	0.00
Scaling	0.00	0.00	0.00	0.00
Other	8.49	8.49	8.49	0.00
Total	177.94	212.09	177.94	171.65

Amortization	0.00	0.00	0.00	0.00
Pond Value	520.38	343.91	305.00	435.00
Stumpage	342.44	131.82	127.06	263.35
Amortized	0.00	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

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Amortized

	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce	Alder (Red)
MBF	0.00	0.00	0.00	0.00
Value	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00

Unamortized

	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce	Alder (Red)
MBF	490.00	1,125.00	23.00	759.00
Value	342.44	131.82	127.06	263.35
Total	167,795.60	148,297.50	2,922.38	199,882.65

Gross Timber Sale Value

Cash \$518,898.13

Prepared by: Ty Williams

Date: 1/3/02

District: Astoria

Phone: (503) 325-5451

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Wooden Road

NEW CONSTRUCTION: PROJECT NO. 1

<u>Road segment</u>	<u>Length/Sta</u>	<u>Cost</u>
1A-1B, 2A-2B	25	\$13,084
3A-3B, 3C-3D	39.5	\$11,264
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
TOTALS	64.5	\$24,348

_____	_____	_____
_____	_____	_____
TOTALS		

SPECIAL PROJECTS:

	<u>Description</u>	<u>Cost</u>
Project No. 2	Fill / Road Vacating (0.75 miles)	\$4,198
TOTALS		\$4,198

MOVE IN:

	<u>Equipment</u>	<u>Cost</u>
D-7 Cat *		\$560
Grader		\$520
Skidder		\$520
Front End Loader		\$540
Dump Truck		\$114
Excavator * x 2		\$1,800
* Secondary Move in Costs		\$160
(Lowboy, 2 hrs. @ \$80.00/hr.)		
TOTAL		\$4,214

GRAND TOTAL \$32,760

Compiled By: L. Freeman/ J. Long

Date: 6/26/01

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TIMBER CRUISE REPORT
Wooden Road - FY 2001

1. Sale Area Location: Areas 1, 2, 3, and 4 (In-sale R/W) - Portions of Sections 31 and 32, T6N,R7W; W.M., Clatsop County, Oregon.

2. Fund Distribution:

Fund: BOF – 100%
Tax Code: 100% 8-01.

3. Sale Acreage by Area:

Area	Treatment	Gross Acres	Existing Roads	New R/W	Stream Buffers	GTRA's	Net Acres	Acreage Comp. Method
1	Regeneration Harvest	47.8	-1.3	-1.3	-7.1	-7.4	30.7	GIS
2	Regeneration Harvest	31.8	-0.2	-1.9	-3.7	---	24.8	GIS
3	Regeneration Harvest	61.9	-0.7	---	-9.3	-2.9	49.0	GIS
4 R/W	In sale R/W (Areas 1&2 only)	0	---	---	---	---	3.2	Lumber-jack
Total		141.5	2.2	3.2	20.1	10.3	107.7	

4. Cruisers and Cruise Dates: Ty Williams, Dave Wolfgram, Jon Long, Kraig Kirkpatrick, Diane Logan, Ed Holloran, Dan Goody, Ron Zilli, John Tillotson, Alan Kelso, Chuck Day, and Dave Beck. Cruised in February 2001.

5. Cruise Method and Computation: Areas 1, 2, 3, and 4 were combined and cruised using a 40 B.A.F, and plot spacing of 1.75 chains by 4 chains. 136 plots were cruised on a 3 to 1 count to grade ratio. 39 plots were measured and graded. All cruisers used Corvallis MicroTechnology (CMT) data collectors, which were down loaded to the Atterbury Super A.C.E. program in the Astoria District office for computing. See the attached Cruise Design for more details on the cruise method. The cruise calculations were processed in the Astoria district office as follows:

AREA	CRUISE	CRUISE TYPE
1, 2, 3, 4	WOODRD	6N7WSEC32 TYPE: 0001

Current downed wood amounts in decay classes one and two was determined using 1/25 acre plots at each cruise plot. This information indicated that there is currently 307.5 CuFt/Acre in decay class one and two. Approximately 164 CuFt/Acre of cull material was cruised and will add to the downed wood amounts in class one and two. To meet the target of 650 CuFt/Acre of downed wood in decay class one and

TIMBER CRUISE REPORT
Wooden Road - FY 2001

5. **(Continued):** two, a contribution of 178.5 CuFt/Acre is required. Board foot volume to be subtracted from the cruise was determined by converting the cubic foot need using a factor of five board feet per cubic foot. It was determined that leaving 890 BF/Acre would meet the downed wood requirement. 890 BF/Acre was subtracted from the 4Saw volume for conifer species. The wildlife trees that were cruised were also subtracted from the cruise volume.
6. **Timber Description:** The timber in Areas 1, 2, and 4 is approximately 55 year old mixed conifer and hardwoods. Area 1 is more heavily stocked with red alder. The average tree size in Areas 1 and 2 is 17" dbh, and 56 feet to a merchantable top (6" d.i.b.), and approximately 26MBF/acre will be harvested. The timber in Area 3 is approximately 45 year old mixed conifer and hardwoods. The predominant species in Area 3 is western hemlock. The average tree size in Area 3 is 13" dbh, and 47 feet to a merchantable top (6" d.i.b.). Approximately 18MBF/acre will be harvested in Area 3.

7. Statistical Analysis and Stand Summary: NET BF/ACRE

Area	Target CV%	Target SE%	Actual CV%	Actual SE%
Areas 1, 2, 3, 4	50	6	61.4	5.3

8. Cruised Timber Volumes and Grades (Total MBF of all sale areas)

Species	Avg. DBH	Net MBF	2 Saw	3 Saw	4 Saw	D&B MBF	DWD Leave MBF	Species %
Douglas-fir	16	490	385	89	16	5	14	20
Hemlock	15	1,125	574	506	45	14	72	47
Spruce	14	23	---	---	23	5	10	1
Hardwood	14	759	---	518	241	11	---	32
Totals		2,397	959	1,113	325	35	96	100

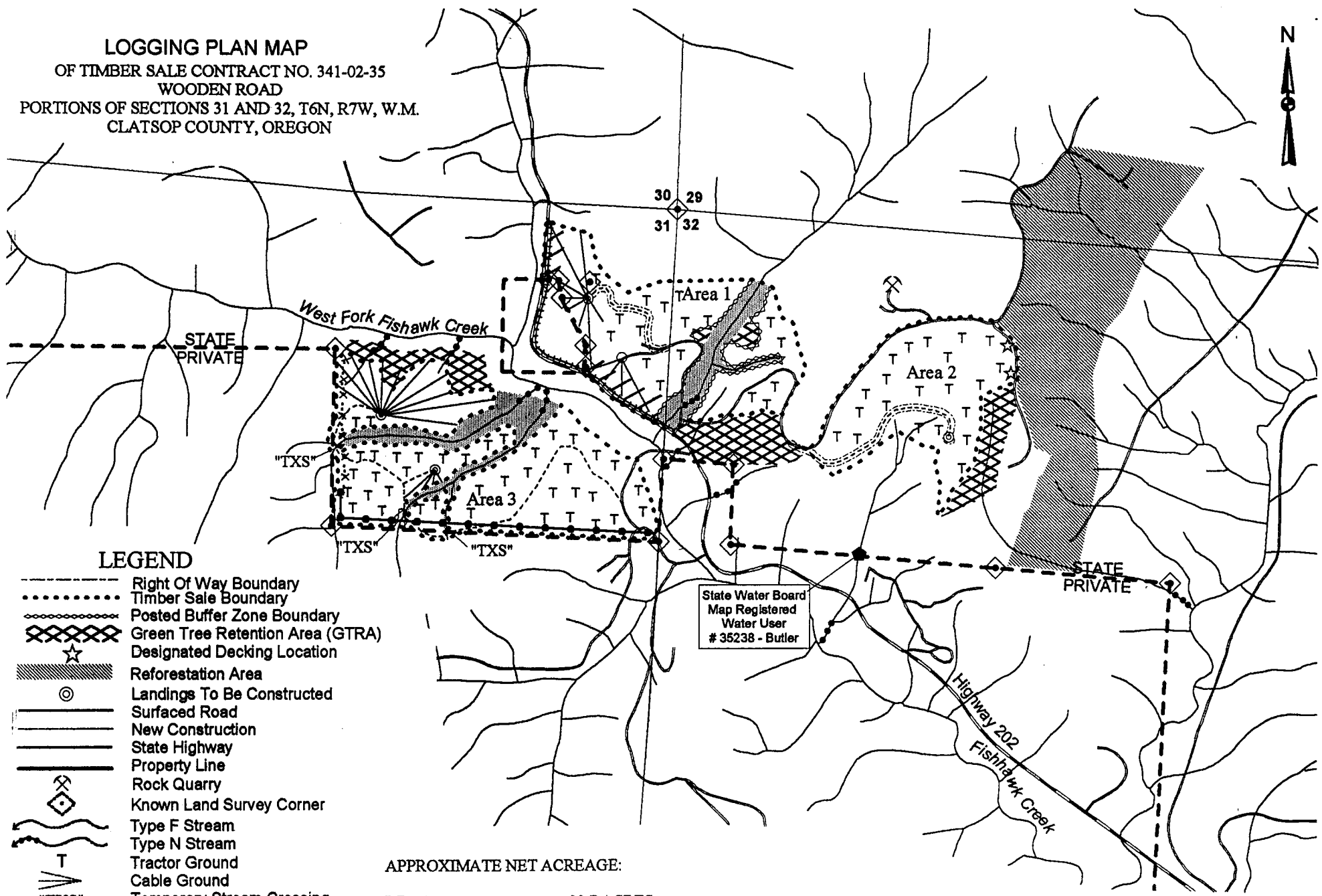
9. Approvals:

Prepared by: *[Signature]* Date: 6/26/01
 Approved by: *[Signature]* Date: 6/26/01
 Unit Forester

- Attachments: A) Cruise design and maps (3 pages)**
B) Volume & Grade Reports (1 pages)
C) Statistics Report (1 page)

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LOGGING PLAN MAP
 OF TIMBER SALE CONTRACT NO. 341-02-35
 WOODEN ROAD
 PORTIONS OF SECTIONS 31 AND 32, T6N, R7W, W.M.
 CLATSOP COUNTY, OREGON



LEGEND

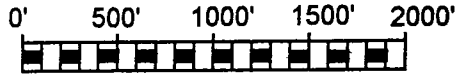
- Right Of Way Boundary
- Timber Sale Boundary
- Posted Buffer Zone Boundary
- Green Tree Retention Area (GTRA)
- Designated Decking Location
- Reforestation Area
- Landings To Be Constructed
- Surfaced Road
- New Construction
- State Highway
- Property Line
- Rock Quarry
- Known Land Survey Corner
- Type F Stream
- Type N Stream
- Tractor Ground
- Cable Ground
- Temporary Stream Crossing
- Existing Landings
- Underground Utilities
- Fire Trails to Construct
- Slash Pullback
- Controlled Felling Area
- Stream Buffer Area

APPROXIMATE NET ACREAGE:

AREA 1	- 30.7 ACRES
AREA 2	- 24.8 ACRES
AREA 3	- 49.0 ACRES
AREA 4 (INSALE R/W)	- 3.2 ACRES
TOTAL	- 107.7 ACRES

LOGGING BREAKDOWN

AREA	TRACTOR	CABLE
1	76%	24%
2	100%	0%
3	76%	24%
4 (R/W)	100%	0%



APPROXIMATE SCALE = 1"=1,000'

FOREST PRACTICES ACT "WRITTEN PLAN"
Temporary Stream Crossings For Wooden Road 341-02-35

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

Protected Resources:

- 1) An unnamed tributary, designated as a small Type N stream, which flows north for approximately 1,500' before entering Fishhawk Creek, a Type F stream. The temporary stream crossing will be located at Station 18+80 on sale access spur 3A-3B in Section 31, T6N, R7W, W.M., Clatsop County, Oregon.
- 2) An unnamed tributary, designated as a small Type N stream, which flows north for approximately 500' before entering Fishhawk Creek, a Type F stream. The temporary stream crossing will be located at Station 23+10 on sale access spur 3A-3B in Section 31, T6N, R7W, W.M., Clatsop County, Oregon.

Specific Site Characteristics:

Both streams are approximately 3 to 5 feet in width, with steep incised slopes. Streamside vegetation is dominated by salmonberry with a mix of alder and conifer trees located above the flood plain.

Tree and Vegetation Retention:

All trees not cut for safe vehicle travel will be retained.

Practices:

The intent of this practice is to make safe and viable temporary stream crossings for log hauling purposes while minimizing any disturbance to soils and waters of the State. To create minimal amount of disturbance the existing legacy road prism and fills are to be left intact to allow them to be reused. Relief culverts are to be installed below road grade at stations 18+80 and 23+10 and rip rap rock will be used to create energy dissipaters at both locations. Upon completion of logging, the fills and culverts are to be removed and the road vacated prior to September 30 of the year that the sale area is harvested. Old fill material will be placed in stable locations, seeded and mulched with hay at the completion of vacating. Temporary stream crossing work, road vacating, and logging will all be done between May 1 and September 30 only.

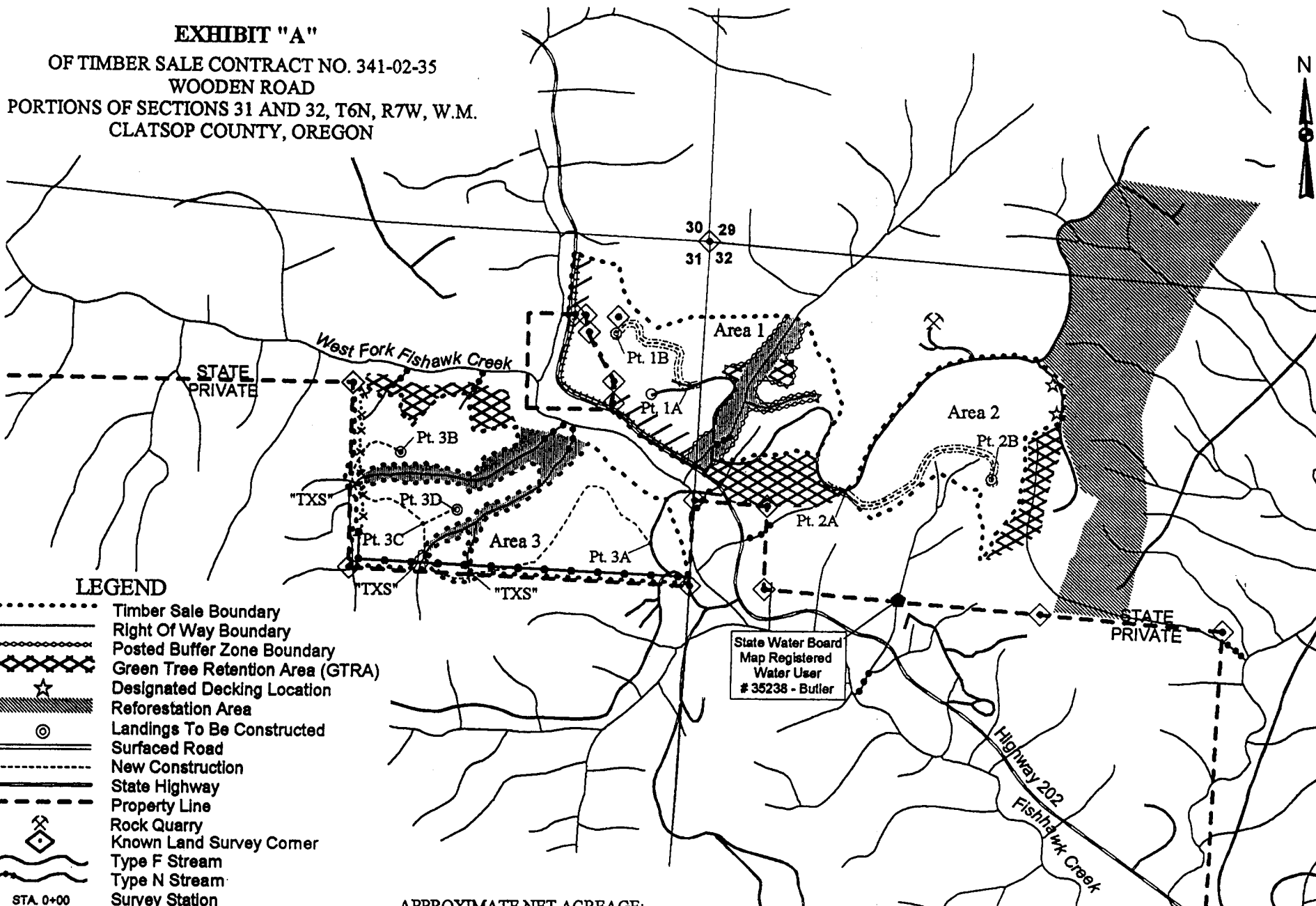
Attachments: Exhibit A

Submitted: _____ Date: _____
Purchaser/Operator Contract Representative

Approved: _____ Date: _____
State Lands Forester

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

EXHIBIT "A"
OF TIMBER SALE CONTRACT NO. 341-02-35
WOODEN ROAD
PORTIONS OF SECTIONS 31 AND 32, T6N, R7W, W.M.
CLATSOP COUNTY, OREGON



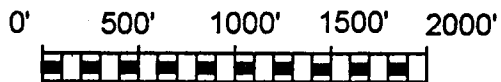
LEGEND

- Timber Sale Boundary
- Right Of Way Boundary
- Posted Buffer Zone Boundary
- Green Tree Retention Area (GTRA)
- Designated Decking Location
- Reforestation Area
- Landings To Be Constructed
- Surfaced Road
- New Construction
- State Highway
- Property Line
- Rock Quarry
- Known Land Survey Corner
- Type F Stream
- Type N Stream
- Survey Station
- Point for Project Work
- Temporary Stream Crossing
- Existing Landings
- Underground Utilities
- Fire Trails to Construct
- Slash Pullback
- Controlled Felling Area
- Stream Buffer Area

STA. 0+00
 POINT "A"
 "TXS"

APPROXIMATE NET ACREAGE:

AREA 1	- 30.7 ACRES
AREA 2	- 24.8 ACRES
AREA 3	- 49.0 ACRES
AREA 4 (INSALE R/W)	- 3.2 ACRES
TOTAL	- 107.7 ACRES



APPROXIMATE SCALE = 1"=1,000'

FOREST PRACTICES ACT "WRITTEN PLAN"
For Harvest of Wooden Road Timber Sale 341-02-35

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

Protected Resources:

- 1) Fishhawk Creek, which is designated as a large Type F stream, and is located along the western boundary of Area 1 and eastern boundary of Area 3, in portions of Sections 31, T6N, R7W, W.M., Clatsop County, Oregon. Length of the affected stream requiring protection is approximately 3500 feet.
- 2) West Fork of Fishhawk Creek, which is designated as a medium Type F stream is located along the northern boundary of Area 3, in portions of Section 31, T6N, R7W, W.M., Clatsop County, OR. Length of the affected stream requiring protection is approximately 1400 feet.
- 3) A unnamed tributary of Fishhawk Creek, a small Type F stream, northeast of Highway, is located within the southwestern boundary of Area 1, in Sections 31 and 32, T6N, R7W, W.M., Clatsop County, Oregon. Length of the affected stream requiring protection is approximately 165 feet.

Specific Site Characteristics:

- 1) Fishhawk Creek: The streambed is approximately 12 feet wide, with moderate streambank slopes. Streamside vegetation is dominated by mature alder, with a significant component of conifer trees, which are located within the flood plain. Portions of the 100 foot RMA for Fishhawk Creek are located on the upland side of Highway 202 and are dominated by leaning hardwoods and conifer that pose a threat to public safety.
- 2) West Fork of Fishhawk Creek: The streambed is approximately 10 feet wide, with moderate stream bank slopes. Streamside vegetation is dominated by mature alder, with a significant component of conifer trees, which are located within the flood plain.
- 3) Unnamed tributary of Fishhawk Creek: The streambed is approximately 8 feet wide, with moderate stream bank slopes. Streamside vegetation is dominated by mature alder and scattered conifer trees.

Tree and Vegetation Retention:

- 1) Fishhawk Creek: The FPA defines the RMA width of a large, Type F stream at 100 feet. The timber sale boundary for Area 1 is along the north side of Hwy 202. Fishhawk Creek is adjacent to the south side of Hwy 202. Approximately 600 feet of the Area 1 timber sale boundary is posted within 100 feet of Fishhawk Creek. However, these trees are located on the upland side of Hwy 202, and leaning over the highway. These trees contribute little benefit to the stream and will be felled and removed for public safety. The timber sale boundary for area 3 is posted at least 100 feet from Fishhawk Creek.
- 2) The West Fork of Fishhawk Creek: The FPA defines the RMA width of a medium Type F stream is 70 feet. The timber sale boundary is posted approximately 200 feet from the stream. This buffer was expanded beyond FPA requirements as a designated GTRA for Area 3.

FOREST PRACTICES ACT "WRITTEN PLAN"
For Harvest of Wooden Road Timber Sale 341-02-35

Tree and Vegetation Retention (Con't.):

- 3) The unnamed tributary of Fishhawk Creek: The FPA defines the RMA width of a small Type F stream as 50 feet. This stream has a posted buffer of at least 50 feet.

Resource Protection Measures:

Trees adjacent to the posted stream buffer (RMA) will be felled away from or parallel to the streams to prevent trees from entering the aquatic area. No ground based logging equipment will be permitted inside the posted RMA. Cable corridors may be strung through the RMA and will be located no closer than 100' feet apart. Cable lines will not be lowered into the RMA during yarding.

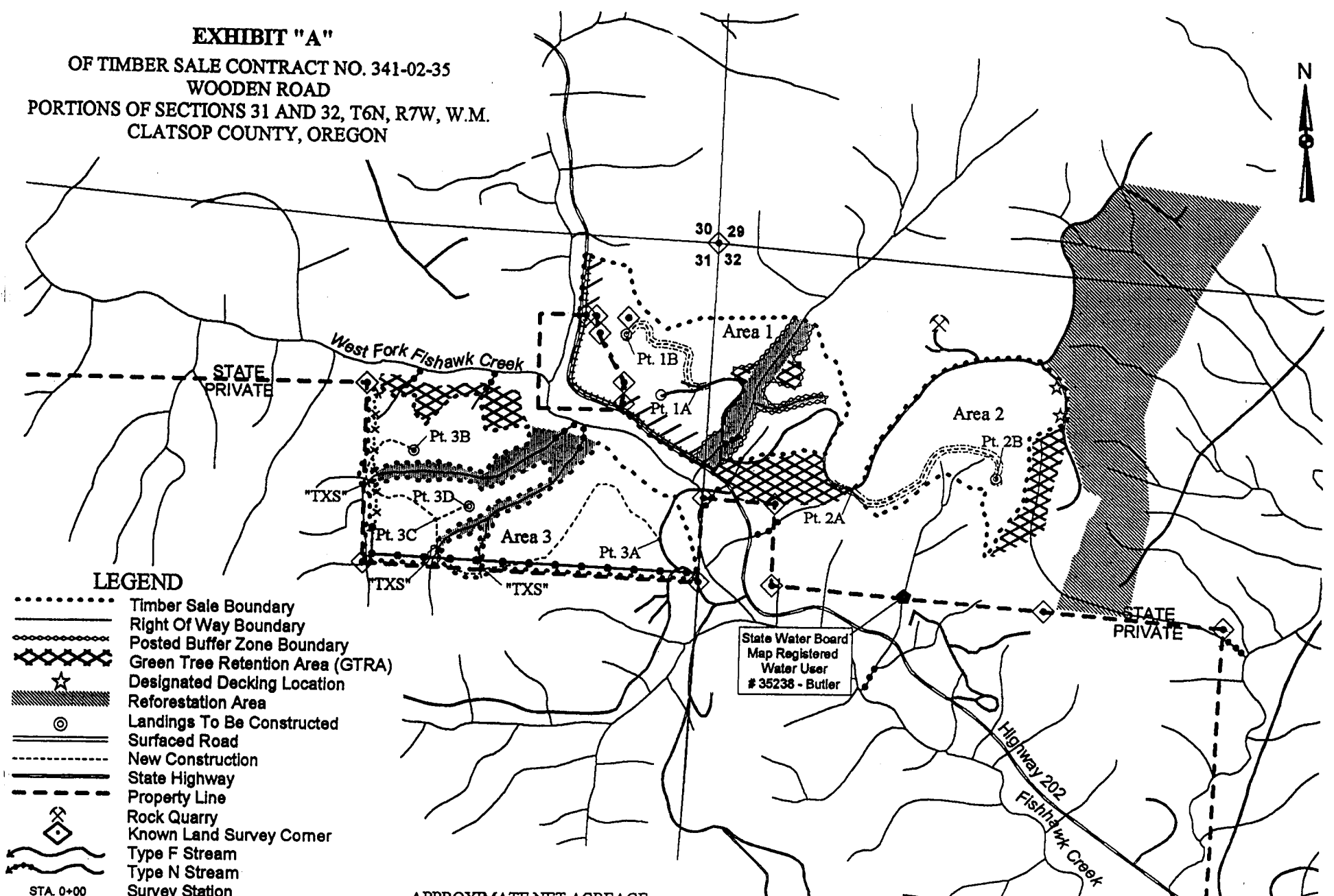
Attachments: Exhibit A

Submitted: _____ Date: _____
Purchaser/Operator Contract Representative

Approved: _____ Date: _____
State Lands Forester

Approved: JW _____ Date: _____
Forest Practices Forester

EXHIBIT "A"
OF TIMBER SALE CONTRACT NO. 341-02-35
WOODEN ROAD
PORTIONS OF SECTIONS 31 AND 32, T6N, R7W, W.M.
CLATSOP COUNTY, OREGON



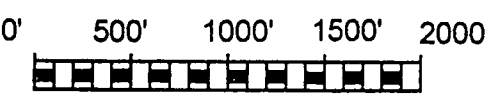
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TOTAL	- 107.7 ACRES

State Water Board
 Map Registered
 Water User
 # 35238 - Butler



APPROXIMATE SCALE = 1"=1,000'