



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
West Rogers  
Sale FG-341-2024-W00947-02

District: Forest Grove

Date: June 27, 2023

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**Cost Summary**

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$3,095,619.58	\$10,634.58	\$3,106,254.16
		Project Work:	(\$184,000.00)
		Advertised Value:	\$2,922,254.16



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**Timber Description**

Location:

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	20	0	98
Western Hemlock / Fir	15	0	98
Alder (Red)	15	0	95

Volume by Grade	2S	3S & 4S 6"-11"	Camprun	Total
Douglas - Fir	4,677	2,119	0	6,796
Western Hemlock / Fir	42	55	0	97
Alder (Red)	0	0	123	123
Total	4,719	2,174	123	7,016

**Comments:** LOCAL POND VALUES, APRIL 2023

WESTERN REDCEDAR AND OTHER CEDARS:  
STUMPAGE PRICE = POND VALUE - DOUG-FIR LOGGING COST  
 $\$842.93 = \$1,167.00 - \$324.07$

BIGLEAF MAPLE AND OTHER HARDWOODS:  
STUMPAGE PRICE = POND VALUE - DOUG-FIR LOGGING COST  
 $\$17.93 = \$342.00 - \$324.07$

NOBLE FIR AND OTHER CONIFERS:  
STUMPAGE PRICE = POND VALUE - DOUG-FIR LOGGING COST  
 $\$231.93 = \$556.00 - \$324.07$

BRANDING AND PAINTING ALLOWANCE = \$2.00/MBF

FUEL COST ALLOWANCE = \$5.00/GAL

HAULING COST ALLOWANCE = \$1,250/DAY

OTHER COSTS (WITH PROFIT & RISK ADDED):  
None

OTHER COSTS (NO PROFIT & RISK ADDED):

EQUIPMENT CLEANING: 3 PIECES @ \$1,000/PIECE = \$3,000

MACHINE TIME TO BLOCK/WATERBAR ROADS AND SKID TRAILS:  
20 HOURS X \$150/HOUR = \$3,000

MACHINE TIME TO PILE LANDING SLASH:  
10 HOURS X \$150/HOUR = \$1,500

TOTAL OTHER COSTS (NO P&R) = \$7,500

SLASH TREATMENT: 9 ACRES X \$250/ACRE = \$2,250

ROAD MAINTENANCE (INCLUDES SPOT ROCKING, GRADING, & ROLLING):  
MOVE IN: \$1,752.74

GENERAL ROAD MAINT: 9.41 miles X \$2,054.95 = \$19,337.07

TOTAL ROAD MAINTENANCE: \$21,089.81 / 7,016 MBF = \$3.00 /MBF



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**Logging Conditions**

**Combination#: 1**                      Douglas - Fir                      93.17%  
   Western Hemlock / Fir                      90.99%  
   Alder (Red)                      92.20%

**Logging System:** Cable: Medium Tower >40 - <70                      **Process:** Harvester Head Delimbing  
**yarding distance:** Medium (800 ft)                      **downhill yarding:** No  
**tree size:** Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF  
**loads / day:** 12                      **bd. ft / load:** 4600  
**cost / mbf:** \$144.53  
**machines:** Log Loader (A)  
Forwarder  
Harvester  
Tower Yarder (Medium)

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**Combination#: 2**                      Douglas - Fir                      6.83%  
   Western Hemlock / Fir                      9.01%  
   Alder (Red)                      7.80%

**Logging System:** Shovel                      **Process:** Manual Falling/Delimbing  
**yarding distance:** Short (400 ft)                      **downhill yarding:** No  
**tree size:** Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF  
**loads / day:** 21                      **bd. ft / load:** 4600  
**cost / mbf:** \$103.52  
**machines:** Shovel Logger

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"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
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### Logging Costs

Operating Seasons: 2.00	Profit Risk: 15%
Project Costs: \$184,000.00	Other Costs (P/R): \$0.00
Slash Disposal: \$2,250.00	Other Costs: \$7,500.00

Miles of Road

Road Maintenance: \$3.00

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	4.8
Western Hemlock / Fir	\$0.00	2.0	3.8
Alder (Red)	\$0.00	2.0	3.0



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal West Rogers Sale FG-341-2024-W00947-02

District: Forest Grove

Date: June 27, 2023

## Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
<b>Douglas - Fir</b>									
\$141.73	\$3.06	\$1.25	\$132.81	\$0.00	\$41.83	\$0.32	\$2.00	\$1.07	\$324.07
<b>Western Hemlock / Fir</b>									
\$140.83	\$3.06	\$1.25	\$167.76	\$0.00	\$46.94	\$0.32	\$2.00	\$1.07	\$363.23
<b>Alder (Red)</b>									
\$141.33	\$3.15	\$1.25	\$218.75	\$0.00	\$54.67	\$0.32	\$2.00	\$1.07	\$422.54

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$776.80	\$452.73	\$0.00
Western Hemlock / Fir	\$0.00	\$557.73	\$194.50	\$0.00
Alder (Red)	\$0.00	\$509.00	\$86.46	\$0.00



Timber Sale Appraisal  
West Rogers  
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### Summary

#### Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00
Alder (Red)	0	\$0.00	\$0.00

#### Unamortized

Specie	MBF	Value	Total
Douglas - Fir	6,796	\$452.73	\$3,076,753.08
Western Hemlock / Fir	97	\$194.50	\$18,866.50
Alder (Red)	123	\$86.46	\$10,634.58

#### Gross Timber Sale Value

Recovery: \$3,106,254.16

Prepared By: Adrian Torres

Phone: 503-359-7460

**TIMBER SALE SUMMARY**  
**West Rogers**  
**#FG-341-2024-W00947-02**

1. **Location:** Portions of Sections 7, 17, and 18, T1N, R6W; Portions of Sections 12 and 13, T1N, R7W, W.M., Tillamook County, Oregon.
2. **Type of Sale:** This timber sale is 190 net acres of Modified Clearcut. The timber will be sold on a recovery basis at a sealed bid auction.
3. **Revenue Distribution:** 100% BOF; 100% Tillamook County, Tax Code; 902.
4. **Sale Acreage:** Acres are net of stream buffers, road prisms, and green tree retention areas. Acreage was determined using ESRI ArcGIS Pro software.
5. **Cruise:** The timber sale was cruised by ODF Cruisers in June of 2023. For more information, see Cruise Report.
6. **Timber Description:** The Timber Sale Area consists of a well-stocked, 69-year-old stand of Douglas-fir with minor components of western hemlock and red alder. These timber stands have an average of 197 ft<sup>2</sup> of basal area, an average Douglas-fir DBH of 20 inches. The estimated average net Douglas-fir volume is approximately 35.8 MBF per acre.
7. **Topography and Logging Method:** Slopes within the Timber Sale Area range from 5% to 80% with a mainly northern aspect in Unit 1 and eastern aspect in Unit 2. Unit 1 is 10% ground-based yarding and 90% cable-based yarding. Unit 2 is 4% ground-based yarding and 96% cable-based yarding. The average cable corridor length is approximately 700 feet and the maximum is approximately 1,600 feet. The average horizontal skid trail length is approximately 50 feet and the maximum is approximately 200 feet.
8. **Access:** All access to the Timber Sale Area is on surfaced all-weather roads. From Forest Grove travel west on Highway 8 to its intersection with Highway 6. Proceed west onto Highway 6 for approximately 14.3 miles to the South Fork Wilson River Road. Turn left and continue south 2.8 miles to the C-Line Road. Turn right and continue approximately 1.5 miles to Lyda Road to arrive at the northeastern portion of Unit 1. Turn right on Lyda Road, proceed for approximately 0.9 miles to arrive at the southeastern portion of Unit 2.
9. **Projects:**

Project No. 1: Rocked Road Construction	\$35,445.33
Project No. 2: Road Improvement	\$148,554.67
Total Credit for all Projects	\$184,000.00



PROJECT COST SUMMARY SHEET

Timber Sale: West Rogers  
Sale Number: FG-341-2024-W00947-02

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

	Road Segment	Length	Cost
	D to E	12+80	\$26,942.78
	L to M	1+25	\$4,060.94
		14+05 stations 0.27 miles	
Total Rock =	1,208 cy	4" - 0	
		Move-in =	\$1,219.31
		TOTAL PROJECT COST =	\$32,223.03
		10% FUEL ADJUSTMENT =	\$35,445.33

PROJECT NO. 2: ROAD IMPROVEMENT

	Road Segment	Length	Cost
	A to B	143+95	\$10,792.88
	B to C	27+50	\$26,030.90
	F to G	30+60	\$38,962.67
	H to I	4+60	\$6,167.76
	J to K	79+25	\$21,813.62
	K to L	19+70	\$20,096.40
	N to O	3+85	\$6,075.25
		309+45 stations 5.86 miles	
Total Rock =	1,983 cy 4,576 cy	1½" - 0 4" - 0	
		Move-in =	\$5,110.22
		TOTAL PROJECT COST =	\$135,049.70
		10% FUEL ADJUSTMENT =	\$148,554.67

TOTAL CREDITS = \$167,272.73  
TOTAL CREDITS WITH 10% FUEL ADJUSTMENT = \$184,000.00

# SUMMARY OF CONSTRUCTION COST

Timber Sale: West Rogers  
Road Segment: A to B

Sale Number: FG-341-2024-W00947-02  
Improvement: 143+95 stations  
2.73 miles

## PROJECT NO. 2: ROAD IMPROVEMENT

### IMPROVEMENT

Clearing & grubbing (scatter)	1.66	ac @	\$1,078.00	per acre =	\$1,789.48
Clean culvert inlet & outlet, scatter waste	5	ea @	\$25.00	per ea =	\$125.00
Grade, ditch, & roll	143.95	sta @	\$36.00	per sta =	\$5,182.20

**TOTAL IMPROVEMENT COSTS = \$7,096.68**

### CULVERTS

Culverts and Bands					
18" Diameter	80	lf @	\$20.00	per lf =	\$1,600.00
Markers & Stakes					
Culvert markers	11	ea @	\$10.00	per ea =	\$110.00
Additional Installation Cost					
Repair culvert inlet at: 5+40	0.5	hrs @	\$175.00	per hr =	\$87.50

**TOTAL CULVERT COSTS = \$1,797.50**

### ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
<b>Subgrade rock</b>						
Bedding and backfill	1½" - 0	\$1.28	\$1.62	\$0.50	48	\$163.20
Subtotal =					48	\$163.20
<b>Surfacing rock</b>						
Spot rock	1½" - 0	\$1.28	\$1.62	\$1.22	167	\$688.04
Surfacing rock	1½" - 0	\$1.28	\$1.62	\$1.22	83	\$341.96
Subtotal =					250	\$1,030.00

Totals	All Rock =	298
	1½" - 0	298

**TOTAL ROCK COSTS = \$1,193.20**

### EROSION CONTROL

Grass seed & fertilizer	1.66	ac @	\$425.00	per ac =	\$705.50
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**TOTAL EROSION CONTROL COSTS = \$705.50**

**TOTAL PROJECT COST = \$10,792.88**

# SUMMARY OF CONSTRUCTION COST

Timber Sale: West Rogers  
Road Segment: B to C

Sale Number: FG-341-2024-W00947-02  
Improvement: 27+50 stations  
0.52 miles

## PROJECT NO. 2: ROAD IMPROVEMENT

### IMPROVEMENT

Clearing & grubbing (scatter)	0.32	ac @	\$1,078.00	per acre =	\$344.96
Clean culvert inlet & outlet, scatter waste	1	ea @	\$25.00	per ea =	\$25.00
Improve turnout	1	ea @	\$33.00	per ea =	\$33.00
Approach to landing	1.75	sta @	\$690.00	per sta =	\$1,207.50
Improve landing	1	ea @	\$157.00	per ea =	\$157.00
Grade, ditch, & roll	27.50	sta @	\$36.00	per sta =	\$990.00

**TOTAL IMPROVEMENT COSTS = \$2,757.46**

### ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
<b>Surfacing rock</b>						
Surfacing rock	4" - 0	\$14.50	\$0.62	\$1.22	1,155	\$18,872.70
Junction	4" - 0	\$14.50	\$0.62	\$1.22	48	\$784.32
Turnout	4" - 0	\$14.50	\$0.62	\$1.22	19	\$310.46
Approach to landing	4" - 0	\$14.50	\$0.62	\$1.22	74	\$1,209.16
Landing	4" - 0	\$14.50	\$0.62	\$1.22	120	\$1,960.80
Subtotal =					1,416	\$23,137.44

Totals	All Rock =	1,416
	4" - 0	1,416

**TOTAL ROCK COSTS = \$23,137.44**

### EROSION CONTROL

Grass seed & fertilizer	0.32	ac @	\$425.00	per ac =	\$136.00
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**TOTAL EROSION CONTROL COSTS = \$136.00**

**TOTAL PROJECT COST = \$26,030.90**

# SUMMARY OF CONSTRUCTION COST

Timber Sale: West Rogers  
Road Segment: D to E

Sale Number: FG-341-2024-W00947-02  
Construction: 12+80 stations  
0.24 miles

## PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

### CONSTRUCTION

Clearing & grubbing (scatter)	1.46	ac @	\$1,078.00 per ac =	\$1,573.88
Balanced road construction	3.35	sta @	\$110.00 per sta =	\$368.50
Remove existing culvert	1	ea @	\$150.00 per ea =	\$150.00
Full Bench Road Re-alignment (0+00 to 6+90)				
Excavate & load	959	cy @	\$1.64 per cy =	\$1,572.76
Haul	1,247	cy @	\$1.24 per cy =	\$1,546.28
Shape and compact waste material	1,247	cy @	\$0.30 per cy =	\$374.10
Full Bench Road Re-alignment (7+50 to 10+05)				
Excavate & load	355	cy @	\$1.64 per cy =	\$582.20
Haul	462	cy @	\$1.24 per cy =	\$572.88
Shape and compact waste material	462	cy @	\$0.30 per cy =	\$138.60
Turnaround	1	ea @	\$82.50 per ea =	\$82.50
Landing	1	ea @	\$314.00 per ea =	\$314.00
Grade, ditch, & roll	12.80	sta @	\$36.00 per sta =	\$460.80

TOTAL CONSTRUCTION COSTS = \$7,736.50

### CULVERTS

Culverts and Bands				
18" Diameter	100	lf @	\$20.00 per lf =	\$2,000.00
Markers & Stakes				
Culvert markers	3	ea @	\$10.00 per ea =	\$30.00

TOTAL CULVERT COSTS = \$2,030.00

### ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
<b>Surfacing rock</b>						
Base rock	4" - 0	\$14.50	\$0.57	\$1.22	832	\$13,553.28
Turnaround	4" - 0	\$14.50	\$0.57	\$1.22	20	\$325.80
Landing	4" - 0	\$14.50	\$0.57	\$1.22	180	\$2,932.20
Subtotal =					1,032	\$16,811.28

Totals	All Rock =	1,032
	4" - 0	1,032

TOTAL ROCK COSTS = \$16,811.28

### EROSION CONTROL

Grass seed & fertilizer	0.73	ac @	\$500.00 per ac =	\$365.00
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TOTAL EROSION CONTROL COSTS = \$365.00

**TOTAL PROJECT COST = \$26,942.78**

# SUMMARY OF CONSTRUCTION COST

Timber Sale: West Rogers  
Road Segment: F to G

Sale Number: FG-341-2024-W00947-02  
Improvement: 30+60 stations  
0.58 miles

## PROJECT NO. 2: ROAD IMPROVEMENT

### IMPROVEMENT

Clearing & grubbing (scatter)	0.36	ac @	\$1,078.00	per acre =	\$388.08
Roadside brushing	0.27	mi @	\$1,550.00	per mi =	\$418.50
Clean culvert inlet & outlet, scatter waste	1	ea @	\$25.00	per ea =	\$25.00
Cutslope layback (5+20 to 9+60)					
Excavate & load	815	cy @	\$1.64	per cy =	\$1,336.60
Haul	1,060	cy @	\$1.78	per cy =	\$1,886.80
Shape and compact waste material	1,060	cy @	\$0.30	per cy =	\$318.00
Construct settling pond	6	ea @	\$25.00	per ea =	\$150.00
Cutslope layback (21+00 to 30+00)					
Excavate & load	1,250	cy @	\$1.64	per cy =	\$2,050.00
Haul	1,625	cy @	\$1.78	per cy =	\$2,892.50
Shape and compact waste material	1,625	cy @	\$0.30	per cy =	\$487.50
Improve turnaround	1	ea @	\$41.25	per ea =	\$41.25
Improve roadside landing	1	ea @	\$82.50	per ea =	\$82.50
Improve landing	1	ea @	\$110.00	per ea =	\$110.00
Grade & roll (inslope)	2.95	sta @	\$32.20	per sta =	\$94.99
Grade, ditch, & roll	27.65	sta @	\$36.00	per sta =	\$995.40

**TOTAL IMPROVEMENT COSTS = \$11,277.12**

### CULVERTS

Culverts and Bands					
18" Diameter	60	lf @	\$20.00	per lf =	\$1,200.00
Markers & Stakes					
Culvert markers	5	ea @	\$10.00	per ea =	\$50.00

**TOTAL CULVERT COSTS = \$1,250.00**

### ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
<b>Subgrade rock</b>						
Bedding and backfill	1½" - 0	\$1.28	\$1.66	\$0.50	48	\$165.12
Subtotal =					48	\$165.12
<b>Surfacing rock</b>						
Surfacing rock	4" - 0	\$14.50	\$1.29	\$1.22	1,285	\$21,857.85
Junction	4" - 0	\$14.50	\$1.29	\$1.22	36	\$612.36
Turnout	4" - 0	\$14.50	\$1.29	\$1.22	38	\$646.38
Turnaround	4" - 0	\$14.50	\$1.29	\$1.22	14	\$238.14
Traction rock	1½" - 0	\$1.28	\$1.51	\$1.22	150	\$601.50
Roadside landing	4" - 0	\$14.50	\$1.29	\$1.22	60	\$1,020.60
Landing	4" - 0	\$14.50	\$1.29	\$1.22	60	\$1,020.60
Subtotal =					1,643	\$25,997.43

Totals

All Rock =	1,691
1½" - 0	198
4" - 0	1,493

**TOTAL ROCK COSTS = \$26,162.55**

### EROSION CONTROL

Grass seed & fertilizer	0.36	ac @	\$425.00	per ac =	\$153.00
Straw mulch bale	12	ea @	\$10.00	per ea =	\$120.00

**TOTAL EROSION CONTROL COSTS = \$273.00**

**TOTAL PROJECT COST = \$38,962.67**

# SUMMARY OF CONSTRUCTION COST

Timber Sale: West Rogers  
Road Segment: H to I

Sale Number: FG-341-2024-W00947-02  
Improvement: 4+60 stations  
0.09 miles

## PROJECT NO. 2: ROAD IMPROVEMENT

### IMPROVEMENT

Clearing & grubbing (scatter)	0.06	ac @	\$1,078.00	per acre =	\$64.68
Roadside brushing	0.09	mi @	\$850.00	per mi =	\$76.50
Clean ditch & scatter waste material	4.60	sta @	\$60.00	per sta =	\$276.00
Cutslope layback (1+00 to 2+70)					
Excavate & load	142	cy @	\$1.64	per cy =	\$232.88
Haul	185	cy @	\$1.54	per cy =	\$284.90
Shape and compact waste material	185	cy @	\$0.30	per cy =	\$55.50
Construct turnaround	1	ea @	\$82.50	per ea =	\$82.50
Improve landing	1	ea @	\$110.00	per ea =	\$110.00
Grade, ditch, & roll	4.60	sta @	\$36.00	per sta =	\$165.60

**TOTAL IMPROVEMENT COSTS = \$1,348.56**

### ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
<b>Surfacing rock</b>						
Surfacing rock	4" - 0	\$14.50	\$1.10	\$1.22	193	\$3,246.26
Junction	4" - 0	\$14.50	\$1.10	\$1.22	12	\$201.84
Turnaround	4" - 0	\$14.50	\$1.10	\$1.22	20	\$336.40
Landing	4" - 0	\$14.50	\$1.10	\$1.22	60	\$1,009.20
Subtotal =					285	\$4,793.70

Totals

All Rock =	285
4" - 0	285

**TOTAL ROCK COSTS = \$4,793.70**

### EROSION CONTROL

Grass seed & fertilizer	0.06	ac @	\$425.00	per ac =	\$25.50
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**TOTAL EROSION CONTROL COSTS = \$25.50**

**TOTAL PROJECT COST = \$6,167.76**

# SUMMARY OF CONSTRUCTION COST

Timber Sale: West Rogers  
Road Segment: J to K

Sale Number: FG-341-2024-W00947-02  
Improvement: 79+25 stations  
1.50 miles

## PROJECT NO. 2: ROAD IMPROVEMENT

### IMPROVEMENT

Clearing & grubbing (scatter)	0.91	ac @	\$1,078.00	per acre =	\$980.98
Clean culvert inlet & outlet, scatter waste	5	ea @	\$25.00	per ea =	\$125.00
Construct roadside landing	1	ea @	\$165.00	per ea =	\$165.00
Excavate, place and & compact fill	250	cy @	\$4.54	per cy =	\$1,135.00
Improve turnout	10	ea @	\$33.00	per ea =	\$330.00
Grade, ditch, & roll	79.25	sta @	\$36.00	per sta =	\$2,853.00

**TOTAL IMPROVEMENT COSTS = \$5,588.98**

### CULVERTS

Culverts and Bands					
18" Diameter	70	lf @	\$20.00	per lf =	\$1,400.00
30" Diameter	60	lf @	\$39.00	per lf =	\$2,340.00
36" Diameter	40	lf @	\$50.00	per lf =	\$2,000.00
Markers & Stakes					
Culvert markers	14	ea @	\$10.00	per ea =	\$140.00
Additional Installation Cost					
Repair culvert inlet at: 26+55, 28+80, 34+80	1.5	hrs @	\$175.00	per hr =	\$262.50

**TOTAL CULVERT COSTS = \$6,142.50**

### ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
<b>Subgrade rock</b>						
Bedding and backfill	1½" - 0	\$1.28	\$2.87	\$0.50	120	\$558.00
				Subtotal =	120	\$558.00
<b>Surfacing rock</b>						
Surfacing rock	1½" - 0	\$1.28	\$2.87	\$1.22	1,189	\$6,384.93
Junction	1½" - 0	\$1.28	\$2.87	\$1.22	108	\$579.96
Turnout	1½" - 0	\$1.28	\$2.87	\$1.22	70	\$375.90
Roadside landing	4" - 0	\$14.50	\$2.56	\$1.22	95	\$1,736.60
				Subtotal =	1,462	\$9,077.39

Totals	All Rock =	1,582
	1½" - 0	1,487
	4" - 0	95

**TOTAL ROCK COSTS = \$9,635.39**

### EROSION CONTROL

Grass seed & fertilizer	0.91	ac @	\$425.00	per ac =	\$386.75
Straw mulch bale	6	ea @	\$10.00	per ea =	\$60.00

**TOTAL EROSION CONTROL COSTS = \$446.75**

**TOTAL PROJECT COST = \$21,813.62**

# SUMMARY OF CONSTRUCTION COST

Timber Sale: West Rogers  
Road Segment: K to L

Sale Number: FG-341-2024-W00947-02  
Improvement: 19+70 stations  
0.37 miles

## PROJECT NO. 2: ROAD IMPROVEMENT

### IMPROVEMENT

Clearing & grubbing (scatter)	0.23	ac @	\$1,078.00	per acre =	\$247.94
Clean culvert inlet & outlet, scatter waste	1	ea @	\$25.00	per ea =	\$25.00
Improve turnout	2	ea @	\$33.00	per ea =	\$66.00
Improve landing	1	ea @	\$157.00	per ea =	\$157.00
Grade, ditch, & roll	19.70	sta @	\$36.00	per sta =	\$709.20

**TOTAL IMPROVEMENT COSTS = \$1,205.14**

### CULVERTS

Markers & Stakes  
Culvert markers 2 ea @ \$10.00 per ea = \$20.00

**TOTAL CULVERT COSTS = \$20.00**

### ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
<b>Surfacing rock</b>						
Surfacing rock	4" - 0	\$14.50	\$3.11	\$1.22	827	\$15,572.41
Junction	4" - 0	\$14.50	\$3.11	\$1.22	12	\$225.96
Turnout	4" - 0	\$14.50	\$3.11	\$1.22	38	\$715.54
Landing	4" - 0	\$14.50	\$3.11	\$1.22	120	\$2,259.60
Subtotal =					997	\$18,773.51

Totals	All Rock =	997
	4" - 0	997

**TOTAL ROCK COSTS = \$18,773.51**

### EROSION CONTROL

Grass seed & fertilizer 0.23 ac @ \$425.00 per ac = \$97.75

**TOTAL EROSION CONTROL COSTS = \$97.75**

**TOTAL PROJECT COST = \$20,096.40**



# SUMMARY OF CONSTRUCTION COST

Timber Sale: West Rogers  
Road Segment: L to M

Sale Number: FG-341-2024-W00947-02  
Construction: 1+25 stations  
0.02 miles

## PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

### CONSTRUCTION

Clearing & grubbing (scatter)	0.14	ac @	\$1,078.00	per ac =	\$150.92
Balanced road construction	0.75	sta @	\$110.00	per sta =	\$82.50
Drift	0.50	sta @	\$360.00	per sta =	\$180.00
Landing	1	ea @	\$220.00	per ea =	\$220.00
Grade, ditch, & roll	1.25	sta @	\$36.00	per sta =	\$45.00

**TOTAL CONSTRUCTION COSTS = \$678.42**

### ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
<b>Surfacing rock</b>						
Base rock	4" - 0	\$14.50	\$3.30	\$1.22	81	\$1,540.62
Landing	4" - 0	\$14.50	\$3.30	\$1.22	95	\$1,806.90
Subtotal =					176	\$3,347.52

Totals	All Rock =	176
	4" - 0	176

**TOTAL ROCK COSTS = \$3,347.52**

### EROSION CONTROL

Grass seed & fertilizer	0.07	ac @	\$500.00	per ac =	\$35.00
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**TOTAL EROSION CONTROL COSTS = \$35.00**

**TOTAL PROJECT COST = \$4,060.94**

# SUMMARY OF CONSTRUCTION COST

Timber Sale: West Rogers  
Road Segment: N to O

Sale Number: FG-341-2024-W00947-02  
Improvement: 3+85 stations  
0.07 miles

## PROJECT NO. 2: ROAD IMPROVEMENT

### IMPROVEMENT

Clearing & grubbing (scatter)	0.07	ac @	\$1,401.40	per acre =	\$98.10
Clean ditch & scatter waste material	3.85	sta @	\$60.00	per sta =	\$231.00
Construct turnaround	1	ea @	\$82.50	per ea =	\$82.50
Improve landing	1	ea @	\$110.00	per ea =	\$110.00
Grade, ditch, & roll	3.85	sta @	\$36.00	per sta =	\$138.60

**TOTAL IMPROVEMENT COSTS = \$660.20**

### ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
<b>Surfacing rock</b>						
Surfacing rock	4" - 0	\$14.50	\$2.85	\$1.22	162	\$3,008.34
Junction	4" - 0	\$14.50	\$2.85	\$1.22	48	\$891.36
Turnaround	4" - 0	\$14.50	\$2.85	\$1.22	20	\$371.40
Landing	4" - 0	\$14.50	\$2.85	\$1.22	60	\$1,114.20
Subtotal =					290	\$5,385.30

Totals	All Rock =	290
	4" - 0	290

**TOTAL ROCK COSTS = \$5,385.30**

### EROSION CONTROL

Grass seed & fertilizer	0.07	ac @	\$425.00	per ac =	\$29.75
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**TOTAL EROSION CONTROL COSTS = \$29.75**

**TOTAL PROJECT COST = \$6,075.25**

SUMMARY OF CONSTRUCTION COST

Timber Sale: West Rogers

Sale Number: FG-341-2024-W00947-02

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**PROJECT No. 1 & 2 MOVE-IN, WITHIN AREA MOVE, & CLEANING COSTS**

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<u>Equipment</u>	<u>Total</u>
Brush Cutter	\$568.13
Grader	\$940.71
Roller (smooth/grid) & Compactor	\$568.13
Excavator (Large) - Equipment Cleaning	\$1,940.71
Dozer (Large) - Equipment Cleaning	\$1,985.29
Dump Truck (10cy +)	\$163.89
Water Truck (2,500 Gal)	\$162.67
<b><u>TOTAL MOVE-IN COSTS =</u></b>	<b><u>\$6,329.53</u></b>

QUARRY DEVELOPMENT & CRUSHING COST SUMMARY

Timber Sale: West Rogers  
Sale Number: FG-341-2024-W00947-02  
Stockpile Name: West C-Line Stockpile

1 1/2" - 0: 1,983 cy (truck measure)  
Total truck yardage: 1,983 cy

<u>Move-in</u>					
Move in loader					\$831.39
Move in Dump Trucks					<u>\$112.69</u>
				Subtotal =	<u>\$944.08</u>
				Per CY =	<u>\$0.48/cy</u>
<u>1 1/2"-0 Base Cost</u>					
Load dump truck	<u>\$0.80</u>	/ cy x	<u>1,983</u>	cy =	<u>\$1,586.40</u>
				Subtotal =	<u>\$1,586.40</u>
				Per CY =	<u>\$0.80</u>
1 1/2"-0 Cost = <u>\$1.28/cy</u>					

## QUARRY DEVELOPMENT & CRUSHING COST SUMMARY

Timber Sale: West Rogers  
Sale Number: FG-341-2024-W00947-02  
Quarry Name: West C-Line

4" - 0: 5,784 cy (truck measure)  
Total truck yardage: 5,784 cy  
Total in place yardage: 5,234 cy

Swell: 130%  
Compaction: 116%  
Oversize - Pile: 15%

### Move-in & Other Base Cost

Quarry development & overburden removal					\$842.75
Equipment cleaning & move in excavator					\$2,044.92
Equipment cleaning & move in dozer					\$2,005.50
Move in & setup drill					\$620.10
Move in loader					\$903.65
Move in & setup crusher					\$1,005.50
Move in Dump Trucks					\$468.00
Gradation tests	\$71.50 /2,000cy x	3	tests =		\$214.50
Clean up quarry					\$500.00
				Subtotal =	\$8,604.92
				Per CY =	\$1.49/cy

### 4"-0 Base Cost

Drill & shoot	\$2.80	/ cy x	5,234	cy =	\$14,655.00
Push rock	\$1.60	/ cy x	6,805	cy =	\$10,888.00
Load crusher	\$0.80	/ cy x	6,805	cy =	\$5,444.00
Screen rock	\$2.90	/ cy x	6,805	cy =	\$19,734.50
Waste reject	\$0.80	/ cy x	1,021	cy =	\$816.80
Crush (4" - 0)	\$3.30	/ cy x	5,784	cy =	\$19,087.20
Load dump truck	\$0.80	/ cy x	5,784	cy =	\$4,627.20
				Subtotal =	\$75,252.70
				Per CY =	\$13.01/cy

4"-0 Base Cost = \$14.50/cy

**CRUISE REPORT**  
**West Rogers**  
**#FG-341-2024-W00947-02**

**1. LOCATION:**

Portions of Sections 7, 17, and 18, T1N, R6W; Sections 12 and 13, T1N, R7W, W.M., Tillamook County, Oregon.

**2. CRUISE DESIGN:**

The timber cruise was designed using an estimated coefficient of variation (CV) of 50%, average stand diameter of 18 inches, sampling error (SE) of 10% and a minimum of 100 grade trees.

**3. SAMPLING METHOD:**

The Timber Sale Area was cruised in June of 2023 with 46 variable radius grade plots using a 40 BAF prism. Unit 1 had 25 plots and Unit 2 had 21 plots. Plots were laid out on a 6 chain x 5 chain grid for Unit 1 and Unit 2. Plots falling on or near existing roads or no-harvest areas were offset 1 chain.

**4. CRUISE RESULTS:**

225 trees were measured and graded producing a cumulative sampling error of 6.7% on the Douglas-fir Basal Area and 5.9% on the Douglas-fir Net Board Foot Volume.

**5. TREE MEASUREMENT AND GRADING:**

All sample trees were measured and graded following the Official Log Scaling and Grading Rules as adopted by the NW Log Rules Advisory Group. Forty-foot segments were favored.

- a) **Height Standards:** Total tree heights were measured to the nearest foot. Bole heights were calculated to a six-inch top.
- b) **Diameter Standards:** Diameters were measured outside bark at breast height to the nearest inch.
- c) **Form Factors:** Measured for each grade tree using a form point of 16 feet.

**6. DATA PROCESSING:**

- a) **Volumes and Statistics:** Cruise estimates and sampling statistics were derived from SuperAce 2008 cruise software.
- b) **Deductions:** The following percent volume deductions are by species to account for the hidden defect and breakage. For conifers two percent was deducted. For hardwoods five percent was deducted.

**7. CRUISERS:**

The sale was cruised by ODF cruisers Adrian Torres, Mark Savage, Kenton Burns, Shamus Smith, and Colton Turner.

Prepared by: Adrian Torres 06-29-2023

Reviewed by: Mark Savage 06-29-2023  
Date

TC PLOGSTVB		Log Stock Table - MBF																		
TT2N RR5W S07 Ty00MC 99.00						Project: WROGERS Acres 99.00										Page 1 Date 6/27/2023 Time 9:21:19AM				
Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	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+
DF		2M	20		11		11	.3						11						
DF		2M	40		2,450		2,440	74.6					482	611	864	483				
DF		3M	26		1		1	.0				1								
DF		3M	27		3		3	.1				3								
DF		3M	28		3		3	.1			2	1								
DF		3M	30		2		2	.0			2									
DF		3M	32		18		18	.5			18									
DF		3M	33		5		5	.1			3	2								
DF		3M	34		4		4	.1			2	2								
DF		3M	35		7		7	.2			7									
DF		3M	36		11		11	.3			11									
DF		3M	38		3		3	.1			3									
DF		3M	39		12		12	.4			12									
DF		3M	40		653		653	20.0			77	245	331							
DF			4M	12		2		2	.1			2								
DF			4M	13		1		1	.0			1								
DF			4M	14		6		6	.2			6								
DF			4M	16		3		3	.1			3								
DF			4M	17		4		4	.1			4								
DF			4M	18		2		2	.1			2								
DF			4M	19		5		5	.1			5								
DF			4M	20		2		2	.1			2								
DF	4M		21		7		7	.2			7									
DF	4M		22		10		10	.3			10									
DF	4M		24		3		3	.1			3									
DF	4M		25		8		8	.2			8									
DF	4M		26		14		14	.4			14									
DF	4M		27		4		4	.1			4									
DF	4M		28		3		3	.1			3									
DF	4M		29		13		13	.4			13									
DF	4M	30		7		7	.2			7										
DF	4M	32		3		3	.1			3										
DF		Totals			3,279		3,269	95.2			232	254	331	482	623	864	483			
WH		2M	40		46	5.9	43	51.5					15		28					
WH		3M	40		35		35	41.9			6		29							
WH		4M	18		1		1	1.1			1									

TC		PLOGSTVB		Log Stock Table - MBF															
<div>TT2N RR5W S07 Ty00MC</div> <div>99.00</div>				Project:		WROGERS										Page		2	
				Acres		99.00										Date		6/27/2023	
																Time		9:21:19AM	
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	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+
WH		4M	30	5		5	5.4			5									
WH		Totals		86	3.1	84	2.4			12		29	15		28				
RA		CR	40	82		82	100.0			64		17							
RA		Totals		82		82	2.4			64		17							
Total		All Species		3,447		3,434	100.0			244	319	360	515	623	892	483			



TC		PLOGSTVB		Log Stock Table - MBF																	
TT2N RR5W S07 Ty00MC		99.00		Project:		WROGERS												Page		1	
TT2N RR5W S07 Ty00MC		91.00		Acres		190.00												Date		6/27/2023	
																		Time		9:25:32AM	
S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	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+			
DF	2M	20	11		11	.2							11								
DF	2M	40	4,783		4,761	68.7					1023		1325	1664	749						
DF	3M	20	11		11	.2					11										
DF	3M	25	3		3	.0				3											
DF	3M	26	1		1	.0				1											
DF	3M	27	3		3	.0				3											
DF	3M	28	8		8	.1			7	1											
DF	3M	30	2		2	.0			2												
DF	3M	32	29		29	.4			29												
DF	3M	33	14		14	.2			12	2											
DF	3M	34	6		6	.1			4	2											
DF	3M	35	46		46	.7			46												
DF	3M	36	17		17	.3			17												
DF	3M	37	2		2	.0			2												
DF	3M	38	25		25	.4			25												
DF	3M	39	25		25	.4			25												
DF	3M	40	1,698		1,695	24.4			224	576	884	10									
DF	4M	12	4		4	.1			4												
DF	4M	13	9		9	.1			9												
DF	4M	14	9		9	.1			9												
DF	4M	15	9		9	.1			9												
DF	4M	16	11		11	.2			11												
DF	4M	17	5		5	.1			5												
DF	4M	18	6		6	.1			6												
DF	4M	19	6		6	.1			6												
DF	4M	20	5		5	.1			5												
DF	4M	21	24		24	.4			24												
DF	4M	22	12		12	.2			12												
DF	4M	23	2		2	.0			2												
DF	4M	24	11		11	.2			11												
DF	4M	25	21		21	.3			21												
DF	4M	26	18		18	.3			18												
DF	4M	27	9		9	.1			9												
DF	4M	28	17		17	.2			17												
DF	4M	29	25		25	.4			25												
DF	4M	30	23		23	.3			23												
DF	4M	31	10		10	.1			10												

TC		PLOGSTVB		Log Stock Table - MBF															
TT2N RR5W S07 Ty00MC		99.00		Project:		WROGERS										Page		2	
TT2N RR5W S07 Ty00MC		91.00		Acres		190.00										Date		6/27/2023	
																Time		9:25:32AM	
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	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+
DF		4M	32	3		3	.0			3									
DF		4M	35	3		3	.0			3									
DF		4M	36	24		24	.3			24									
DF		4M	39	10		10	.1			10									
DF		Totals		6,959		6,934	96.8			667	588	896	1033	1337	1664	749			
WH		2M	40	46	5.9	43	43.4					15		28					
WH		3M	40	51		51	51.1			22		29							
WH		4M	18	1		1	.9			1									
WH		4M	30	5		5	4.6			5									
WH		Totals		102	2.6	99	1.4			28		29	15	28					
RA		CR	40	129		129	100.0			21	64		44						
RA		Totals		129		129	1.8			21	64		44						
Total		All Species		7,190		7,162	100.0			716	653	924	1092	1337	1692	749			

TC		PLOGSTVB		Log Stock Table - MBF															
TT2N RR5W S07 Ty00MC				91.00		Project:		WROGERS						Page		1			
						Acres		91.00						Date		6/27/2023			
														Time		9:23:58AM			
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	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+
DF		2M	40	2,333		2,321	63.3					540		714	800	267			
DF		3M	20	11		11	.3					11							
DF		3M	25	3		3	.1				3								
DF		3M	28	5		5	.1			5									
DF		3M	32	11		11	.3			11									
DF		3M	33	9		9	.3			9									
DF		3M	34	2		2	.1			2									
DF		3M	35	39		39	1.1			39									
DF		3M	36	6		6	.2			6									
DF		3M	37	2		2	.1			2									
DF		3M	38	22		22	.6			22									
DF		3M	39	13		13	.3			13									
DF		3M	40	1,045		1,042	28.4			148	331	553	10						
DF		4M	12	2		2	.1			2									
DF		4M	13	8		8	.2			8									
DF		4M	14	3		3	.1			3									
DF		4M	15	9		9	.2			9									
DF		4M	16	8		8	.2			8									
DF		4M	17	1		1	.0			1									
DF		4M	18	4		4	.1			4									
DF		4M	19	1		1	.0			1									
DF		4M	20	3		3	.1			3									
DF		4M	21	17		17	.5			17									
DF		4M	22	2		2	.1			2									
DF		4M	23	2		2	.1			2									
DF		4M	24	8		8	.2			8									
DF		4M	25	13		13	.4			13									
DF		4M	26	3		3	.1			3									
DF		4M	27	5		5	.1			5									
DF		4M	28	14		14	.4			14									
DF		4M	29	11		11	.3			11									
DF		4M	30	16		16	.4			16									
DF		4M	31	10		10	.3			10									
DF		4M	35	3		3	.1			3									
DF		4M	36	24		24	.6			24									
DF		4M	39	10		10	.3			10									
DF		Totals		3,680		3,665	98.3			435	334	564	551	714	800	267			

TC		PLOGSTVB		Log Stock Table - MBF															
<div>TT2N RR5W S07 Ty00MC91.00</div>				Project:		WROGERS										Page		2	
				Acres		91.00										Date		6/27/2023	
																Time		9:23:58AM	
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	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+
RA		CR	40	47		47	100.0			21		26							
RA		Totals		47		47	1.3			21		26							
WH		3M	40	16		16	100.0			16									
WH		Totals		16		16	.4			16									
Total		All Species		3,743		3,728	100.0			472	334	564	577	714	800	267			

**VOLUME SUMMARY**  
(Shown in MBF)  
**West Rogers**  
**FG-341-2024-W00947-02**  
**June 2023**

**UNIT 1: Modified Clearcut (99 ACRES)**

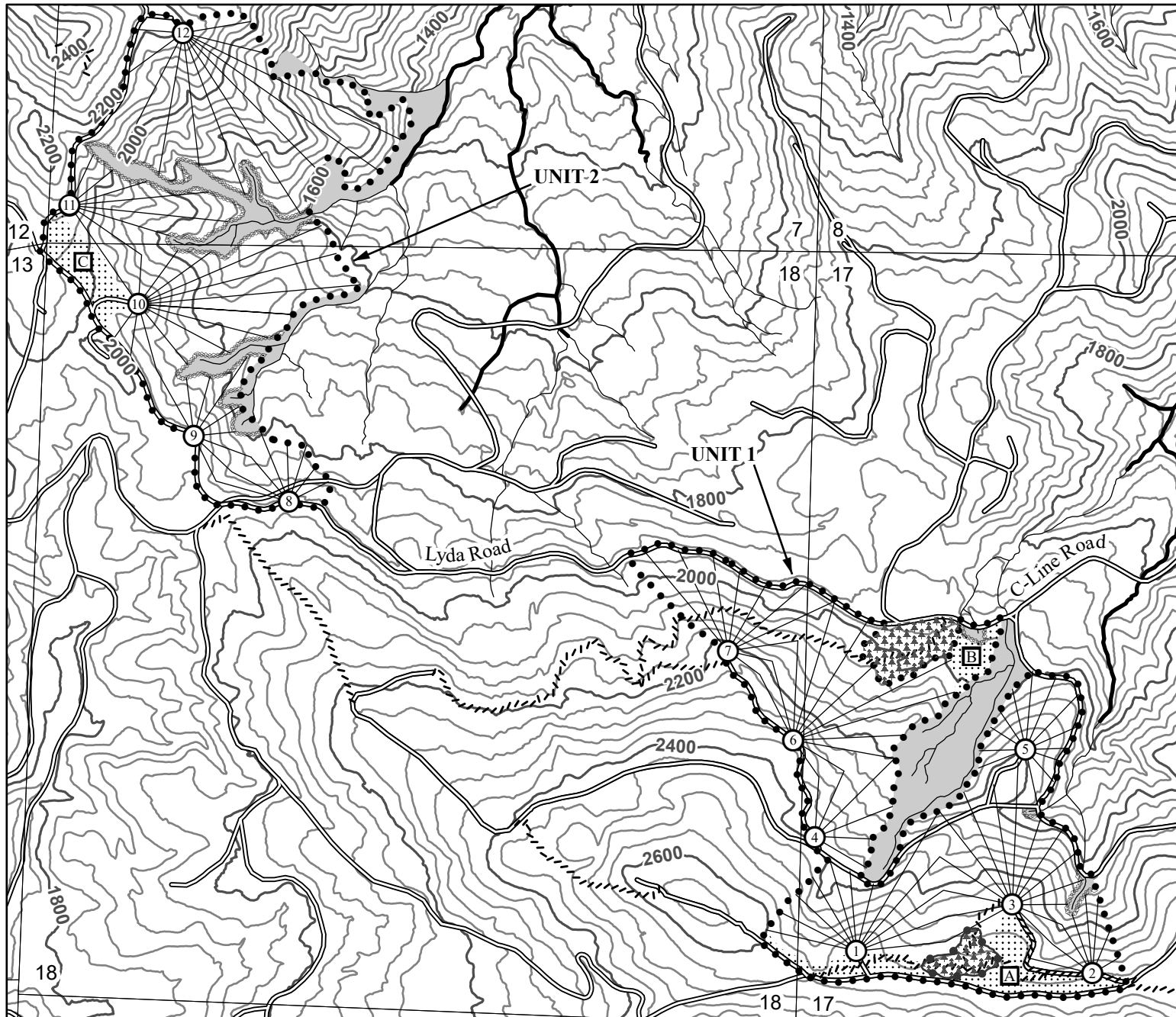
SPECIES		2 SAW	3 SAW	4 SAW	Camp Run	TOTAL
Douglas-fir	Cruise Volume	2,451	721	97	0	3,269
	Hidden D&B (2%)	(49)	(14)	(2)	(0)	(65)
	<b>NET TOTAL</b>	2,402	707	95	0	3,204
	% of Total	75	22	3	0	
Western hemlock	Cruise Volume	43	35	5	0	83
	Hidden D&B (2%)	(1)	(1)	(0)	(0)	(2)
	<b>NET TOTAL</b>	42	34	5	0	81
	% of Total	52	42	6	0	
Red alder	Cruise Volume	0	0	0	82	82
	Hidden D&B (5%)	(0)	(0)	(0)	(4)	(4)
	<b>NET TOTAL</b>	0	0	0	78	78
	% of Total	0	0	0	100	

**UNIT 2: Modified Clearcut (91 ACRES)**

SPECIES		2 SAW	3 SAW	4 SAW	Camp Run	TOTAL
Douglas-fir	Cruise Volume	2,321	1,166	178	0	3,665
	Hidden D&B (2%)	(46)	(23)	(4)	(0)	(73)
	<b>NET TOTAL</b>	2,275	1,143	174	0	3,592
	% of Total	63	32	5	0	
Western hemlock	Cruise Volume	0	16	0	0	16
	Hidden D&B (2%)	(0)	(0)	(0)	(0)	(0)
	<b>NET TOTAL</b>	0	16	0	0	16
	% of Total	0	100	0	0	
Red alder	Cruise Volume	0	0	0	47	47
	Hidden D&B (5%)	(0)	(0)	(0)	(2)	(2)
	<b>NET TOTAL</b>	0	0	0	45	45
	% of Total	0	0	0	100	

**SALE TOTAL**

SPECIES	2 SAW	3 SAW	4 SAW	Camp Run	TOTAL
Douglas-fir	4,677	1,850	269	0	6,796
Western hemlock	42	50	5	0	97
Red alder	0	0	0	123	123
Total	4,719	1,900	274	123	<b>7,016</b>



## Legend

- • Timber Sale Boundary
- Stream Buffer Boundary
- Posted Reserve Tree Area Boundary
- Surfaced Road
- - New Road Construction
- /// Recreational Trail
- Type-F Stream
- Type-N Stream
- Stream Buffer
- ▲ Cable Yarding Area
- Tractor Yarding Area
- Cable Landing
- Tractor Landing
- ▲▲▲ Green Tree Retention Area
- Section Line
- 40 Foot Contour Band
- 200 Foot Contour Band

## LOGGING PLAN

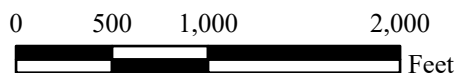
FOR TIMBER SALE CONTRACT #FG-341-2024-W00947-02  
 WEST ROGERS  
 PORTIONS OF SECTIONS 7, 17 & 18, T1N, R6W,  
 PORTIONS OF SECTIONS 12 & 13, T1N, R7W, W.M.  
 TILLAMOOK COUNTY, OREGON

Forest Grove District GIS  
 June, 2023

This product is for informational use and may not be  
 suitable for legal, engineering, or surveying purposes.

1:12,000

1 inch = 1,000 feet



APROXIMATE NET ACRES  
 TRACTOR CABLE

	TRACTOR	CABLE
UNIT 1	10	89
UNIT 2	4	87
TOTAL	14	176